STATE OF MICHIGAN
ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **31**
to
Contract Number **MA071B1300109C**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	DTMB
822 Centennial Way, Suite 100			517-241-7044	
Lansing MI 48917			WagnerM2@michigan.gov	
Michelle McAllister		Contract Administrator	Shannon Romein	DTMB
517-275-9809			517-898-8102	
michelle_mcallister@optum.com			RomeinS@michigan.gov	
CV0000961				

CONTRACT SUMMARY

Data Warehouse Implementation and Services

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 2-Year	September 30, 2027

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ Direct Voucher (PRC)	☐ Other	☒ Yes	☐ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$66,295,989.85	$0.00	$66,295,989.85

DESCRIPTION

Effective 5/24/2024, this is an administrative change to correct Change Notice 29. The Extended Purchasing box was inadvertently checked "no" when the Extended Purchasing language was incorporated into the Contact. This Change Notice hereby corrects the cover page to check the "yes" box for Extended Purchasing.

All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB Central Procurement approval.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **30**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
			517-241-7044	
822 Centennial Way, Suite 100			WagnerM2@michigan.gov	
Lansing, MI 48917		Contract Administrator	Shannon Romein	DTMB
Michelle McAllister			(517) 898-8102	
(517) 275-9809			romeins@michigan.gov	
michelle_mcallister@optum.com				
CV0000961				

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2027
PAYMENT TERMS		DELIVERY TIMEFRAME	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
$66,295,989.85	$0.00	$66,295,989.85		

DESCRIPTION
Effective 2/8/2024, the Contractor's Contract Administrator has been changed to Michelle McAllister.   All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement approval.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget

320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **29**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
12125 Technology Drive			517-241-7044	
Eden Prarie, MN 55344			WagnerM2@michigan.gov	
Jeanne McNeil		Contract Administrator	Shannon Romein	DTMB
(517) 993-0929			(517) 898-8102	
jeanne.mcneil@optum.com			romeins@michigan.gov	
CV0000961				

CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☒	1 year	☒	2 years	September 30, 2027

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$48,187,509.85	$18,108,480.00	$66,295,989.85

DESCRIPTION

Effective 10/25/2023, the final remaining option year is executed and a 2 year Chapter 5 Useful Life extension is added. The new Contract expiration date is 9/30/2027. This Contract is increased by $18,108,480.00 to cover additional costs through 9/30/2027, including transitioning the Data Warehouse to the Cloud enviroment. $4,548,490.00 is remaining in existing funding from Change Notice 24 Cost Table 4b.The following amendment is hereby incorporated into the Contract to amend the original/base agreement and all previous Change Notices 1 – 28 to it, in their entirety, by superseding and replacing the Terms, Conditions and Pricing in such documents.

All other terms, conditions, specifications, and pricing remain the same per contractor, agency, DTMB Central Procurement approval and State Administrative Board approval on 10/24/2023.

SOFTWARE CONTRACT TERMS AND CONDITIONS

These Software Contract Terms and Conditions, together with all Schedules (including the Statement(s) of Work), Exhibits, including, Schedules, Exhibits, and Attachments (collectively, this "Contract") are agreed to between the State of Michigan (the "**State**") and Optum Government Solutions, Inc. ("**Contractor**"), a Delaware Corporation. This Contract is effective on October 25, 2023 ("**Effective Date**") and unless terminated, will expire on 09/30/2027 (the "**Term**").

1. **Definitions**. For the purposes of this Contract, the following terms have the following meanings:

    "**Acceptance**" has the meaning set forth in **Section 9**.

    "**Acceptance Tests**" means such tests as may be conducted in accordance with **Section 9.1** and a Statement of Work to determine whether the Software meets the requirements of this Contract and the Documentation.

    "**Affiliate**" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. For purposes of this definition, the term "control" (including the terms "controlled by" and "under common control with") means the direct or indirect ownership of more than fifty percent (50%) of the voting securities of a Person.

    "**Allegedly Infringing Materials**" has the meaning set forth in **Section 17.2(b)**.

    "**Approved Third Party Components**" means all third party components, including Open-Source Components, that are included in or used in connection with the Software and are specifically identified by Contractor in the Contractor's Bid Response or as part of the State's Security Accreditation Process defined in Schedule E – Data Security Requirements.

    "**Authorized Users**" means all Persons authorized by the State to access and use the Software under this Contract, subject to the maximum number of users specified in the applicable Statement of Work.

    "**Background Technology**" means all Software, data, know-how, ideas, methodologies, specifications, and other technology in which Contractor owns such Intellectual Property Rights or in which Contractor has secured the necessary rights from the owner, in each case as are necessary for Contractor to grant the rights and licenses set forth in Schedule Q, and for the State (including its licensees, successors and assigns) to exercise such rights and licenses, without violating any right of any Third Party or any Law or incurring any payment obligation to any Third Party. Background Technology must: (a) be identified as Background Technology in the Statement of Work; and (b) have been developed or otherwise acquired by Contractor prior to the date of the Statement of Work, or have been developed by Contractor outside of its performance under the Statement of Work. Background Technology will also include any general consulting tool or methodology created by Contractor, which will not be required to be identified in the Statement of Work. Background Technology does not include State Data.

    "**Business Day**" means a day other than a Saturday, Sunday or other day on which the State is authorized or required by law to be closed for business.

    "**Business Requirements Specification**" means the initial specification setting forth the State's business requirements regarding the features and functionality of the Software, as set forth in a Statement of Work.

    "**Change**" has the meaning set forth in **Section 2.2.**

    "**Change Notice**" has the meaning set forth in **Section 2.2(b).**

"**Change Proposal**" has the meaning set forth in **Section 2.2(a).**

"**Change Request**" has the meaning set forth in **Section 2.2.**

"**Confidential Information**" has the meaning set forth in **Section 22.1.**

"**Configuration**" means State-specific changes made to the Software without Source Code or structural data model changes occurring.

"**Contract**" has the meaning set forth in the preamble.

"**Contract Administrator**" is the individual appointed by each party to (a) administer the terms of this Contract, and (b) approve any Change Notices under this Contract. Each party's Contract Administrator will be identified in Schedule A or subsequent Change Notices.

"**Contractor**" has the meaning set forth in the preamble.

"**Contractor's Bid Response**" means the Contractor's proposal submitted in response to the RFP and/or Change Request, as applicable.

"**Contractor Hosted**" means the Hosted Services are provided by Contractor or one or more of its Permitted Subcontractors.

"**Contractor Personnel**" means all employees of Contractor or any subcontractors or Permitted Subcontractors involved in the performance of Services hereunder.

"**Contractor Project Manager**" means the individual appointed by Contractor and identified in Schedule A or subsequent Change Notices to serve as the primary contact with regard to services, to monitor and coordinate the day-to-day activities of this Contract, and to perform other duties as may be further defined in this Contract, including an applicable Statement of Work.

"**Customization**" means State-specific changes to the Software's underlying Source Code or structural data model changes.

"**Deliverables**" means the Software, and all other documents and other materials that Contractor is required to or otherwise does provide to the State under this Contract and otherwise in connection with any Services, including all items specifically identified as Deliverables in a Statement of Work and all Work Product.

"**Disaster Recovery Plan**" refers to the set(s) of documents, instructions, and procedures which enable the Contractor to respond to accidents, disasters, emergencies, or threats without any stoppage or hindrance in its key operations and to the actions the Contractor takes to meet the Recovery Point and Recovery Time Objectives

"**Documentation**" means all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of the Software.

"**DTMB**" means the Michigan Department of Technology, Management and Budget.

"**Effective Date**" has the meaning set forth in the preamble.

"**Fees**" means the fees set forth in the Pricing **Schedule B**

"**Financial Audit Period**" has the meaning set forth in **Section 23.1**.

"**Harmful Code**" means any software, hardware or other technologies, devices or means, the purpose or effect of which is to: (a) permit unauthorized access to, or to destroy, disrupt, disable, encrypt, modify, copy, or otherwise harm or impede in any manner, any (i) computer, software, firmware, data, hardware, system or network, or (ii) any application or function of any of the foregoing or the integrity, use or operation of any data Processed thereby; or (b) prevent the State or any Authorized User from accessing or using the Services as intended by this Contract, and includes any virus, bug, trojan horse, worm, backdoor or other malicious computer code and any time bomb or drop dead device.

"**HIPAA**" has the meaning set forth in **Section 21.1**.

"**Hosted Services**" means the hosting, management and operation of the Operating Environment, Software, other services (including support and subcontracted services), and related resources for remote electronic access and use by the State and its Authorized Users, including any services and facilities related to disaster recovery obligations.

"**Implementation Plan**" means the schedule included in a Statement of Work setting forth the sequence of events for the performance of Services under a Statement of Work, including the Milestones and Milestone Dates.

"**Integration Testing**" has the meaning set forth in **Section 9.2(a)**.

"**Intellectual Property Rights**" means all or any of the following: (a) patents, patent disclosures, and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names, and domain names, together with all of the associated goodwill; (c) copyrights and copyrightable works (including computer programs), mask works and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable law in any jurisdiction throughout the world.

"**Key Personnel**" means any Contractor Personnel identified as key personnel in the Contract.

"**Loss or Losses**" means all losses, including but not limited to, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys' fees and the costs of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers.

"**Maintenance Release**" means any update, upgrade, release or other adaptation or modification of the Software, including any updated Documentation, that Contractor may generally provide to its licensees from time to time during the Term, which may contain, among other things, error corrections, enhancements, improvements or other changes to the user interface, functionality, compatibility, capabilities, performance, efficiency or quality of the Software.

"**Milestone**" means an event or task described in the Implementation Plan under a Statement of Work that must be completed by the corresponding Milestone Date.

"**Milestone Date**" means the date by which a particular Milestone must be completed as set forth in the Implementation Plan under a Statement of Work.

"**New Version**" means any new version of the Software, including any updated Documentation, that the Contractor may from time to time introduce and market generally as a distinct licensed product, as may be indicated by Contractor's designation of a new version number.

"**Nonconformity**" or "**Nonconformities**" means any failure or failures of the Software to conform to the requirements of this Contract, including any applicable Documentation.

"**Open-Source Components**" means any software component that is subject to any open-source copyright license agreement, including any GNU General Public License or GNU Library or Lesser Public License, or other obligation, restriction or license agreement that substantially conforms to the Open Source Definition as prescribed by the Open Source Initiative or otherwise may require disclosure or licensing to any third party of any source code with which such software component is used or compiled.

"**Operating Environment**" means, collectively, the platform, environment and conditions on, in or under which the Software is intended to be installed and operate, as set forth in a Statement of Work, including such structural, functional and other features, conditions and components as hardware, operating software, system architecture, configuration, computing hardware, ancillary equipment, networking, software, firmware, databases, data, and electronic systems (including database management systems).

"**PAT**" means a document or product accessibility template, including any Information Technology Industry Council Voluntary Product Accessibility Template or VPAT®, that specifies how information and software products, such as websites, applications, software and associated content, conform to WCAG 2.0 Level AA.

"**Permitted Subcontractor**" means any third party hired by Contractor to perform Services for the State under this Contract or have access to State Data.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"**Pricing Schedule**" means the schedule attached as **Schedule B.**

"**Process**" means to perform any operation or set of operations on any data, information, material, work, expression or other content, including to (a) collect, receive, input, upload, download, record, reproduce, store, organize, combine, log, catalog, cross-reference, manage, maintain, copy, adapt, alter, translate or make other improvements or derivative works, (b) process, retrieve, output, consult, use, disseminate, transmit, submit, post, transfer, disclose or otherwise provide or make available, or (c) block, erase or destroy. "**Processing**" and "**Processed**" have correlative meanings.

"**Representatives**" means a party's employees, officers, directors, partners, shareholders, agents, attorneys, successors and permitted assigns.

"**RFP**" means the State's request for proposal designed to solicit responses for Services under this Contract.

"**Services**" means any of the services, including but not limited to, Hosted Services, Contractor is required to or otherwise does provide under this Contract.

"**Service Level Agreement**" means the schedule attached as **Schedule D**, setting forth the Support Services Contractor will provide to the State, and the parties' additional rights and obligations with respect thereto.

"**Site**" means the physical location designated by the State in, or in accordance with, this Contract or a Statement of Work for delivery and installation of the Software.

"**Software**" means Contractor's software as set forth in a Statement of Work, and any Maintenance Releases or New Versions provided to the State and any Customizations or Configurations made by or for the State pursuant to this Contract, and all copies of the foregoing permitted under this Contract.

"**Source Code**" means the human readable source code of the Software to which it relates, in the programming language in which the Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, the Software.

"**Specifications**" means, for the Software, the specifications collectively set forth in the Business Requirements Specification, Technical Specification, Documentation, Statement of Work or Contractor's Bid Response, if any, for such Software, or elsewhere in a Statement of Work.

"**State**" means the State of Michigan.

"**State Data**" has the meaning set forth in **Section 21.1**.

"**State Hosted**" means the Hosted Services are not provided by Contractor or one or more of its Permitted Subcontractors.

"**State Materials**" means all materials and information, including but not limited to documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State in connection with this Contract.

"**State Program Managers**" are the individuals appointed by the State, or their designees, to (a) monitor and coordinate the day-to-day activities of this Contract; (b) co-sign off on Acceptance of the Software and other Deliverables; and (c) perform other duties as may be specified in a Statement of Work Program Managers will be identified in Schedule A or subsequent Change Notices.

"**State Systems**" means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

"**Statement of Work**" means any statement of work entered into by the parties and incorporated into this Contract. The initial Statement of Work is attached as **Schedule A**.

"**Stop Work Order**" has the meaning set forth in **Section 15**.

"**Support Services**" means the software maintenance and support services Contractor is required to or otherwise does provide to the State under the Service Level Agreement.

"**Technical Specification**" means, with respect to any Software, the document setting forth the technical specifications for such Software and included in a Statement of Work.

"**Term**" has the meaning set forth in the preamble.

"**Testing Period**" has the meaning set forth in **Section 9.1(b)**.

"**Transition Period**" has the meaning set forth in **Section 16.3**.

"**Transition Responsibilities**" has the meaning set forth in **Section 16.3**.

"**Unauthorized Removal**" has the meaning set forth in **Section 2.5(b)**.

"**Unauthorized Removal Credit**" has the meaning set forth in **Section 2.5(c)**.

"**User Data**" means all data, information and other content of any type and in any format, medium or form, whether audio, visual, digital, screen, GUI or other, that is input, uploaded to, placed into or collected, stored, Processed, generated or output by any device, system or network by or on behalf of the State, including any and all works, inventions, data, analyses and other information and materials resulting from any use of the Software by or on behalf of the State under this Contract, except that User Data does not include the Software or data, information or content, including any GUI, audio, visual or digital or other display or output, that is generated automatically upon executing the Software without additional user input without the inclusion of user derived Information or additional user input.

"**Warranty Period**" means the ninety (90) calendar-day period commencing on the date of the State's Acceptance of the Software and for which Support Services are provided free of charge.

"**WCAG 2.0 Level AA**" means level AA of the World Wide Web Consortium Web Content Accessibility Guidelines version 2.0.

"**Work Product**" means all State-specific deliverables that Contractor is required to, or otherwise does, provide to the State under this Contract including but not limited to Customizations, application programming interfaces, computer scripts, macros, user interfaces, reports, project management documents, forms, templates, and other State-specific documents and related materials together with all ideas, concepts, processes, and methodologies developed in connection with this Contract whether or not embodied in this Contract. Work Product does not include Background Technology.

2. Duties of Contractor. Contractor will provide Services and Deliverables pursuant to Statement(s) of Work entered into under this Contract. Contractor will provide all Services and Deliverables in a timely, professional manner and in accordance with the terms, conditions, and Specifications set forth in this Contract and the Statement(s) of Work. If this Contract requires State to provide any Implementation resources, and State fails to provide the requisite quality or quantity of such resources or fails to provide such resources in a timely manner for a period that does not exceed 15 Business Days, Contractor's sole remedy is an extension of the applicable delivery dates corresponding to the delay. Contractor's right to delay applicable delivery dates may be exercised only if Contractor provides State with reasonable notice of State's failure and Contractor uses commercially reasonable efforts to perform notwithstanding State's failure to perform.

2.1   Statement of Work Requirements. No Statement of Work will be effective unless signed by each party's Contract Administrator. The term of each Statement of Work will commence on the parties' full execution of a Statement of Work and terminate when the parties have fully performed their obligations. The terms and conditions of this Contract will apply at all times to any Statements of Work entered into by the parties and incorporated into this Contract. The State will have the right to terminate such Statement of Work as set forth in **Section 16.** Contractor acknowledges that time is of the essence with respect to Contractor's obligations under each Statement of Work . Contractor agrees that prompt and timely performance of all such obligations in accordance with this Contract and the Statements of Work (including the Implementation Plan and all Milestone Dates) is strictly required.

2.2   Change Control Process. The State may at any time request in writing (each, a "**Change Request**") changes to a Statement of Work, including changes to the Services and Implementation Plan (each, a "**Change**"). Upon the State's submission of a Change Request, the parties will evaluate and implement all Changes in accordance with this **Section 2.2**.

(a)   As soon as reasonably practicable, and in any case within 20 Business Days following receipt of a Change Request, Contractor will provide the State with a written proposal for implementing the requested Change ("**Change Proposal**"), setting forth:

(i)   a written description of the proposed Changes to any Services or Deliverables;

(ii)   an amended Implementation Plan reflecting: (A) the schedule for commencing and completing any additional or modified Services or Deliverables; and (B) the effect of such Changes, if any, on completing any other Services under a Statement of Work;

(iii)   any additional State Resources Contractor deems necessary to carry out such Changes; and

(iv)   any increase or decrease in Fees resulting from the proposed Changes, which increase or decrease will reflect only the increase or decrease in time and expenses Contractor requires to carry out the Change.

(b)   Within 30 Business Days following the State's receipt of a Change Proposal, the State will by written notice to Contractor, approve, reject, or propose modifications to such Change Proposal. If the State proposes modifications, Contractor must modify and re-deliver the Change Proposal reflecting such modifications, or notify the State of any disagreement, in which event the parties will negotiate in good faith to resolve their disagreement. Upon the State's approval of the Change Proposal or the parties' agreement on all proposed modifications, as the case may be, the parties will execute a written agreement to the Change Proposal ("**Change Notice**"), which Change Notice will be signed by the State's Contract Administrator and will constitute an amendment to a Statement of Work to which it relates; and

(c)   If the parties fail to enter into a Change Notice within 15 Business Days following the State's response to a Change Proposal, the State may, in its discretion:

(i)   require Contractor to perform the Services under a Statement of Work without the Change;

(ii)   require Contractor to continue to negotiate a Change Notice;

(iii)   initiate a Dispute Resolution Procedure; or

(iv)   notwithstanding any provision to the contrary in a Statement of Work, terminate this Contract under **Section 16.1**.

(d)   No Change will be effective until the parties have executed a Change Notice. Except as the State may request in its Change Request or otherwise in writing, Contractor must continue to perform its obligations in accordance with a Statement of Work pending negotiation and execution of a Change Notice. Contractor will use its best efforts to limit any delays or Fee increases from any Change to those necessary to perform the Change in accordance with the applicable Change Notice. Each party is responsible for its own costs and expenses of preparing, evaluating, negotiating, and otherwise processing any Change Request, Change Proposal, and Change Notice.

(e)   The performance of any functions, activities, tasks, obligations, roles and responsibilities comprising the Services as described in this Contract are considered part of the Services and, thus, will not be considered a Change. This includes the delivery of all Deliverables in accordance with their respective Specifications, and the diagnosis and correction of Non-Conformities discovered in Deliverables prior to their Acceptance by the State or, subsequent to their Acceptance by the State, as necessary for Contractor to fulfill its associated warranty requirements and its Support Services under this Contract.

(f)   Contractor may, on its own initiative and at its own expense, prepare and submit its own Change Request to the State. However, the State will be under no obligation to approve or otherwise respond to a Change Request initiated by Contractor.

2.3   <u>Contractor Personnel</u>.

(a)   Contractor is solely responsible for all Contractor Personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social

security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.

     (b)   Prior to any Contractor Personnel performing any Services, Contractor will:

        (i)   ensure that such Contractor Personnel have the legal right to work in the United States;

        (ii)   upon request, require such Contractor Personnel to execute written agreements, in form and substance acceptable to the State, that bind such Contractor Personnel to confidentiality provisions that are at least as protective of the State's information (including all Confidential Information) as those contained in this Contract; and

        (iii)   upon request, or as otherwise specified in a Statement of Work, perform background checks on all Contractor Personnel prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks. Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018.

     (c)   Contractor and all Contractor Personnel will comply with all rules, regulations, and policies of the State that are communicated to Contractor in writing, including security procedures concerning systems and data and remote access, building security procedures, including the restriction of access by the State to certain areas of its premises or systems, and general health and safety practices and procedures.

     (d)   The State reserves the right to require the removal of any Contractor Personnel found, in the judgment of the State, to be unacceptable. The State's request must be written with reasonable detail outlining the reasons for the removal request. Replacement personnel for the removed person must be fully qualified for the position. If the State exercises this right, and Contractor cannot immediately replace the removed personnel, the State agrees to negotiate an equitable adjustment in schedule or other terms that may be affected by the State's required removal.

    2.4   <u>Contractor Project Manager</u>. Throughout the Term of this Contract, Contractor must maintain a Contractor employee acceptable to the State to serve as Contractor Project Manager, who will be considered Key Personnel of Contractor.

     (a)   Contractor Project Manager must:

        (i)   have the requisite authority, and necessary skill, experience, and qualifications, to perform in such capacity;

        (ii)   be responsible for overall management and supervision of Contractor's performance under this Contract; and

        (iii)   be the State's primary point of contact for communications with respect to this Contract, including with respect to giving and receiving all day-to-day approvals and consents.

(b)   Contractor Project Manager must attend all regularly scheduled meetings as set forth in the Implementation Plan and will otherwise be available as set forth in a Statement of Work.

(c)   Contractor will maintain the same Contractor Project Manager throughout the Term of this Contract, unless:

(i)   the State requests in writing the removal of Contractor Project Manager;

(ii)   the State consents in writing to any removal requested by Contractor in writing;

(iii)   Contractor Project Manager ceases to be employed by Contractor, whether by resignation, involuntary termination or otherwise.

(d)   Contractor will promptly replace its Contractor Project Manager on the occurrence of any event set forth in **Section 2.4(c)**. Such replacement will be subject to the State's prior written approval.

2.5   Contractor's Key Personnel.

(a)   The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State Program Managers or their designees, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.

(b)   Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("**Unauthorized Removal**"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under **Section 16.1**.

(c)   It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to determine and remedy the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 16**, Contractor will issue to the State an amount equal to $25,000 per individual (each, an "**Unauthorized Removal Credit**").

(d)   Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed under **Subsection 2.5(c)** above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any Fees or other charges payable to Contractor under this Contract.

2.6   Subcontractors. Contractor must obtain prior written approval of the State, which consent may be given or withheld in the State's sole discretion, before engaging any Permitted Subcontractor to provide Services to the State under this Contract. Third parties otherwise retained by Contractor to provide Contractor or other clients of contractor with services are not Permitted Subcontractors, and therefore do not require prior approval by the State. Engagement of any subcontractor or Permitted Subcontractor by Contractor does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will:

(a)   be responsible and liable for the acts and omissions of each such subcontractor (including such Permitted Subcontractor and Permitted Subcontractor's employees who, to the extent providing Services or Deliverables, will be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees;

(b)   name the State a third-party beneficiary under Contractor's Contract with each Permitted Subcontractor with respect to the Services;

(c)   be responsible for all fees and expenses payable to, by or on behalf of each Permitted Subcontractor in connection with this Contract, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits; and

(d)   notify the State of the location of the Permitted Subcontractor and indicate if it is located within the continental United States.

3.   Notices. All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
Shannon Romein 528 West Allegan Street Lansing, Michigan 48909 RomeinS@michigan.gov 517-898-8102	Jeanne McNeil 822 Centennial Way, Suite 100 Lansing, Michigan 48917 Jeanne.mcneil@optum.com 517-993-0913 With a copy to the following Optum Government Solutions, Inc. 11000 Optum Circe Eden Prairie, MN 55344 Attn Optum Government Deputy General Counsel 952-205-6254

4.   Insurance. Contractor must maintain the minimum insurances identified in the Insurance Schedule attached as **Schedule C**.

5.   Software License. See Schedule Q

5.1   **Certification**. To the extent that a License granted to the State is not unlimited, Contractor may request written certification from the State regarding use of the Software for the sole purpose of verifying compliance with this **Section 5.** Such written certification may occur no more than once in any 24 month period during the Term of the Contract. The State will respond to any such request within 45 calendar days of receipt. If the State's use is greater than contracted, Contractor may invoice the State for any unlicensed use (and related support) pursuant to the terms of this Contract at the rates set forth in **Schedule B**, and the unpaid license and support fees shall be payable in accordance with the terms of the Contract. Payment under this provision shall be Contractor's sole and exclusive remedy to cure these issues.

5.2   **State License Grant to Contractor**. The State hereby grants to Contractor a limited, non-exclusive, non-transferable license (i) to use the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos, solely in accordance with the State's specifications, and (ii) to display, reproduce, distribute and transmit in digital form the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos in connection with promotion of the Services as communicated to Contractor by the State. Use of the

State's (or individual agency's, department's or division's) name, trademarks, service marks or logos will be specified in the applicable Statement of Work. Contractor is provided a limited license to State Materials for the sole and exclusive purpose of providing the Services.

6. Third Party Components. At least 30 days prior to adding new Third Party Components, Contractor will provide the State with notification information identifying and describing the addition. Throughout the Term, on an annual basis, Contractor will provide updated information identifying and describing any Approved Third Party Components included in the Software.

7. Intellectual Property Rights

    7.1   Ownership Rights in Software

        (a)   For purposes of this **Section 7** only, the term "Software" does not include Customizations.

        (b)   Subject to the rights and licenses granted by Contractor in this Contract and the provisions of **Section 7.1(c)**:

            (i)   Contractor reserves and retains its entire right, title and interest in and to all Intellectual Property Rights arising out of or relating to the Software; and

            (ii)   none of the State or Authorized Users acquire any ownership of Intellectual Property Rights in or to the Software or Documentation as a result of this Contract.

        (c)   As between the State, on the one hand, and Contractor, on the other hand, the State has, reserves and retains, sole and exclusive ownership of all right, title and interest in and to State Materials, User Data, including all Intellectual Property Rights arising therefrom or relating thereto.

    7.2   The State is and will be the sole and exclusive owner of all right, title, and interest in and to all Work Product developed exclusively for the State under this Contract, including all Intellectual Property Rights. In furtherance of the foregoing:

        (a)   Contractor will create all Work Product as work made for hire as defined in Section 101 of the Copyright Act of 1976; and

        (b)   to the extent any Work Product, or Intellectual Property Rights do not qualify as, or otherwise fails to be, work made for hire, Contractor hereby:

            (i)   assigns, transfers, and otherwise conveys to the State, irrevocably and in perpetuity, throughout the universe, all right, title, and interest in and to such Work Product, including all Intellectual Property Rights; and

            (ii)   irrevocably waives any and all claims Contractor may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of *droit moral* with respect to the Work Product.

8. Software Implementation.

    8.1   Implementation. Contractor will as applicable; deliver, install, configure, integrate, and otherwise provide and make fully operational the Software on or prior to the applicable Milestone Date in accordance with the criteria set forth in a Statement of Work and the Implementation Plan

8.2   Site Preparation. Unless otherwise set forth in a Statement of Work, Contractor is responsible for ensuring the relevant Operating Environment is set up and in working order to allow Contractor to deliver and install the Software on or prior to the applicable Milestone Date. Contractor will provide the State with such notice as is specified in a Statement of Work, prior to delivery of the Software to give the State sufficient time to prepare for Contractor's delivery and installation of the Software. If the State is responsible for Site preparation, Contractor will provide such assistance as the State requests to complete such preparation on a timely basis.

9.   **Software Acceptance Testing**.

9.1   Acceptance Testing.

(a)   Unless otherwise specified in a Statement of Work, upon installation of the Software, or in the case of Contractor Hosted Software, when Contractor notifies the State in writing that the Hosted Services are ready for use in a production environment, Acceptance Tests will be conducted as set forth in this **Section 9** to ensure the Software conforms to the requirements of this Contract, including the applicable Specifications and Documentation.

(b)   All Acceptance Tests will take place at the designated Site(s) in the Operating Environment described in a Statement of Work, commence on the Business Day following installation of the Software, or the receipt by the State of the notification in **Section 9.1(a)**, and be conducted diligently for up to 30 Business Days, or such other period as may be set forth in a Statement of Work (the "**Testing Period**"). Acceptance Tests will be conducted by the party responsible as set forth in a Statement of Work or, if a Statement of Work does not specify, the State, provided that:

(i)   for Acceptance Tests conducted by the State, if requested by the State, Contractor will make suitable Contractor Personnel available to observe or participate in such Acceptance Tests; and

(ii)   for Acceptance Tests conducted by Contractor, the State has the right to observe or participate in all or any part of such Acceptance Tests.

9.2   Contractor is solely responsible for all costs and expenses related to Contractor's performance of, participation in, and observation of Acceptance Testing.

(a)   Upon delivery and installation of any application programming interfaces, Configuration or Customizations, or any other applicable Work Product, to the Software under a Statement of Work, additional Acceptance Tests will be performed on the modified Software as a whole to ensure full operability, integration, and compatibility among all elements of the Software ("**Integration Testing**"). Integration Testing is subject to all procedural and other terms and conditions set forth in this Section 9

(b)   The State may suspend Acceptance Tests and the corresponding Testing Period by written notice to Contractor if the State discovers a material Non-Conformity in the tested Software or part or feature of the Software. In such event, Contractor will immediately, and in any case within 10 Business Days, correct such Non-Conformity, whereupon the Acceptance Tests and Testing Period will resume for the balance of the Testing Period.

9.3   Notices of Completion, Non-Conformities, and Acceptance. Within 15 Business Days following the completion of any Acceptance Tests, including any Integration Testing, the party responsible for conducting the tests will prepare and provide to the other party written notice of the completion of the tests. Such notice must include a report describing in reasonable detail the tests conducted and the results of such tests, including any uncorrected Non-Conformity in the tested Software.

(a)   If such notice is provided by either party and identifies any Non-Conformities, the parties' rights, remedies, and obligations will be as set forth in **Section 9.4** and **Section 9.5**.

(b)   If such notice is provided by the State, is signed by the State Program Managers or their designees, and identifies no Non-Conformities, such notice constitutes the State's Acceptance of such Software.

(c)   If such notice is provided by Contractor and identifies no Non-Conformities, the State will have 30 Business Days to use the Software in the Operating Environment and determine, in the exercise of its sole discretion, whether it is satisfied that the Software contains no Non-Conformities, on the completion of which the State will, as appropriate:

        (i)   notify Contractor in writing of Non-Conformities the State has observed in the Software and of the State's non-acceptance thereof, whereupon the parties' rights, remedies and obligations will be as set forth in **Section 9.4** and **Section 9.5**; or

        (ii)   provide Contractor with a written notice of its Acceptance of such Software, which must be signed by the State Program Managers or their designees.

9.4   <u>Failure of Acceptance Tests</u>. If Acceptance Tests identify any Non-Conformities, Contractor, at Contractor's sole cost and expense, will remedy all such Non-Conformities and re-deliver the Software, in accordance with the requirements set forth in the Contract. Redelivery will occur as promptly as commercially possible and, in any case, within 30 Business Days following, as applicable, Contractor's:

(a)   completion of such Acceptance Tests, in the case of Acceptance Tests conducted by Contractor; or

(b)   receipt of the State's notice under **Section 9.1(a)** or **Section 9.3(c)(i)**, identifying any Non-Conformities.

9.5   <u>Repeated Failure of Acceptance Tests</u>. If Acceptance Tests identify any Non-Conformity in the Software after a second or subsequent delivery of the Software, or Contractor fails to re-deliver the Software on a timely basis, the State may, in its sole discretion, by written notice to Contractor:

(a)   continue the process set forth in this **Section 9**;

(b)   accept the Software as a nonconforming deliverable, in which case the Fees for such Software will be reduced equitably to reflect the value of the Software as received relative to the value of the Software had it conformed; or

(c)   deem the failure to be a non-curable material breach of this Contract and a Statement of Work and terminate this Contract for cause in accordance with **Section 16.1**.

9.6   <u>Acceptance</u>. Acceptance ("**Acceptance**") of the Software (subject, where applicable, to the State's right to Integration Testing) will occur on the date that is the earliest of the State's delivery of a notice accepting the Software under **Section 9.3(b)**, or **Section 9.3(c)(ii)**.

10. Non-Software Acceptance.

10.1   All other non-Software Services and Deliverables are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("State Review Period"), unless otherwise provided in the Statement of Work. If the non-Software Services and Deliverables are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the non-Software Services and Deliverables are accepted but noted deficiencies must be corrected; or (b) the non-Software Services and Deliverables are rejected. If the State finds material deficiencies, it may: (i) reject the non-Software Services and Deliverables without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with **Section 16.1**, Termination for Cause.

10.2   Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any non-Software Services and Deliverables, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable non-Software Services and Deliverables to the State. If acceptance with deficiencies or rejection of the non-Software Services and Deliverables impacts the content or delivery of other non-completed non-Software Services and Deliverables, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

10.3   If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may provide the non-Software Services and Deliverables and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

11. Assignment. Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.

12. Change of Control. Contractor will notify the State, within 30 days of any public announcement or otherwise once legally permitted to do so, of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following:

        (a)   a sale of more than 50% of Contractor's stock;

        (b)   a sale of substantially all of Contractor's assets;

        (c)   a change in a majority of Contractor's board members;

        (d)   consummation of a merger or consolidation of Contractor with any other entity;

        (e)   a change in ownership through a transaction or series of transactions;

        (f)   or the board (or the stockholders) approves a plan of complete liquidation.

A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes. In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

13. Invoices and Payment.

13.1   Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Services and Deliverables provided as specified in Statement(s) of Work. Invoices must include an itemized statement of all charges.

13.2   The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Services and Deliverables. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

13.3   The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at http://www.michigan.gov/SIGMAVSS to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment.

13.4   Right of Setoff. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

13.5   Taxes. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services or Deliverables purchased under this Contract are for the State's exclusive use. Notwithstanding the foregoing, all Fees are exclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

13.6   Pricing/Fee Changes. All Pricing set forth in this Contract will not be increased, except as otherwise expressly provided in this Section.

(a)   The Fees will not be increased at any time except for the addition of additional licenses, the fees for which licenses will also remain firm in accordance with the Pricing set forth in the Pricing Schedule

(b)   Excluding federal government charges and terms. Contractor warrants and agrees that each of the Fees, economic or product terms or warranties granted pursuant to this Contract are comparable to or better than the equivalent fees, economic or product term or warranty being offered to any commercial or government customer (including any public educational institution within the State of Michigan) of Contractor under similar terms and conditions. If Contractor enters into any arrangements with another customer of Contractor to provide the products or services, available under this Contract, under more favorable prices based on similar terms and conditions, as the prices may be indicated on Contractor's current U.S. and International price list or comparable document, then this Contract will be deemed amended as of the date of such other arrangements to incorporate those more favorable prices, and Contractor will immediately notify the State of such Fee and formally memorialize the new pricing in a Change Notice.

14. Liquidated Damages.

14.1   The parties understand and agree that any liquidated damages (which includes but is not limited to applicable credits) set forth in this Contract are reasonable estimates of the State's damages in accordance with applicable law.

14.2   The parties acknowledge and agree that Contractor could incur liquidated damages for more than one event.

14.3   The assessment of liquidated damages will not constitute a waiver or release of any other remedy the State may have under this Contract for Contractor's breach of this Contract, including without limitation, the State's right to terminate this Contract for cause under **Section 16.1** and the State will be entitled in its discretion to recover actual damages caused by Contractor's failure to perform its obligations under this Contract. However, the State will reduce such actual damages by the amounts of liquidated damages received for the same events causing the actual damages.

14.4   Amounts due the State as liquidated damages may be set off against any Fees payable to Contractor under this Contract, or the State may bill Contractor as a separate item and Contractor will promptly make payments on such bills.

15. Stop Work Order. The State may suspend any or all activities under the Contract at any time, other than for subscription or annual maintenance based Services as defined in the Statement of Work, including for the

Production, DevDR and Test Environments. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either:

      (a)   issue a notice authorizing Contractor to resume work, or

      (b)   terminate the Contract or delivery order. The State will not pay for activities that have been suspended, Contractor's lost profits, or any additional compensation during a stop work period.

16. Termination, Expiration, Transition. The State may terminate this Contract, the Support Services, or any Statement of Work, in accordance with the following:

   16.1 <u>Termination for Cause</u>. In addition to any right of termination set forth elsewhere in this Contract:

      (a)   The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State:

         (i)   endangers the value, integrity, or security of State Systems, State Data, or the State's facilities or personnel;

         (ii)   becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; or

         (iii) breaches any of its material duties or obligations under this Contract and Contractor fails to cure those breaches within thirty (30) days of written notice from the State for those breaches of material duties or obligations that the State deems are curable. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

      (b)   If the State terminates this Contract under this **Section 16.1**, the State will issue a termination notice specifying whether Contractor must:

         (i)   cease performance immediately. Contractor must submit all invoices for Services accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due to Contractor for Services accepted by the State under this Contract, or

         (ii)   continue to perform for a specified period. If it is later determined that Contractor was not in breach of this Contract, the termination will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 16.2**.

      (c)   The State will only pay for amounts due to Contractor for Services accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination, including any prepaid Fees. Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Services from other sources.

   16.2 <u>Termination for Convenience</u>. The State may immediately terminate this Contract in whole or in part, without penalty and for any reason or no reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must:

(a)   cease performance immediately. Contractor must submit all invoices for Services accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due to Contractor for Services accepted by the State under this Contract, or

(b)   continue to perform in accordance with **Section 16.3**. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities to the extent the funds are available.

16.3   Transition Responsibilities.

(a)   Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days; the "**Transition Period**"), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract to continue without interruption or adverse effect, and to facilitate the orderly transfer of the Services to the State or its designees. Such transition assistance may include but is not limited to:

(i)   continuing to perform the Services at the established Contract rates;

(ii)   taking all reasonable and necessary measures to transition performance of the work, including all applicable Services to the State or the State's designee;

(iii)   taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, and comply with **Section 22.5** regarding the return or destruction of State Data at the conclusion of the Transition Period; and

(iv)   preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, the "**Transition Responsibilities**"). The Term of this Contract is automatically extended through the end of the Transition Period.

(b)   Contractor will follow the transition plan attached as **Schedule G** as it pertains to both transition in and transition out activities.

17. Indemnification

17.1   General Indemnification. Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to:

(a)   any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract;

(b)   any infringement, misappropriation, or other violation of any Intellectual Property Right or other right of any third party; and

(c)   any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable.

Contractor's indemnification in Section 17.1(b) does not apply to the extent that the alleged infringement is caused by use of a Hosted Service or other products or services provided by Contractor to the State in connection with goods, computer code, or services not furnished by Contractor , or Contractor's compliance with State-specific designs or specifications if Contractor notified the State that such designs or specifications could be infringing..

17.2   Indemnification Procedure. The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor

must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations. The State is entitled to:

(a)   regular updates on proceeding status;

(b)   participate in the defense of the proceeding;

(c)   employ its own counsel; and to

(d)   retain control of the defense, at its own cost and expense, if the State deems necessary. Contractor will not, without the State's prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. Any litigation activity on behalf of the State or any of its subdivisions, under this **Section 17**, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

17.3   The State is constitutionally prohibited from indemnifying Contractor or any third parties.

18. Infringement Remedies.

18.1   The remedies set forth in this Section are in addition to, and not in lieu of, all other remedies that may be available to the State under this Contract or otherwise, including the State's right to be indemnified for such actions.

18.2   If any Software or any component thereof, other than State Materials, is found to be infringing or if any use of any Software or any component thereof is enjoined, threatened to be enjoined or otherwise the subject of an infringement claim, Contractor must, at Contractor's sole cost and expense:

(a)   procure for the State the right to continue to use such Software or component thereof to the full extent contemplated by this Contract; or

(b)   modify or replace the materials that infringe or are alleged to infringe ("**Allegedly Infringing Materials**") to make the Software and all of its components non-infringing while providing fully equivalent features and functionality.

18.3   If neither of the foregoing is possible notwithstanding Contractor's best efforts, then Contractor may direct the State to cease any use of any materials that have been enjoined or finally adjudicated as infringing, provided that Contractor will:

(a)   refund to the State all amounts paid by the State in respect of such Allegedly Infringing Materials and any other aspects of the Software provided under a Statement of Work for the Allegedly Infringing Materials that the State cannot reasonably use as intended under this Contract; and

(b)   in any case, at its sole cost and expense, secure the right for the State to continue using the Allegedly Infringing Materials for a transition period of up to 6 months to allow the State to replace the affected features of the Software without disruption.

18.4   If Contractor directs the State to cease using any Software under **Section 18.3,** the State may terminate this Contract for cause under **Section 16.1**.Unless the claim arose against the Software independently of any of the actions specified below, Contractor will have no liability for any claim of infringement arising solely from:

(a)   Contractor's compliance with any designs, specifications, or instructions of the State; or

(b)   modification of the Software by the State without the prior knowledge and approval of Contractor.

19. Disclaimer of Damages and Limitation of Liability.

19.1   The Parties' Disclaimer of Damages. NEITHER PARTY WILL BE LIABLE TO THE OTHER, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES.

19.2   The State's Limitation of Liability. IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER CHANGE NOTICE 29 AND ANY FUTURE CHANGE NOTICES.

19.3   The Contractor's Limitation of Liability**.** Except as provided herein, Contractor's liability for damages to the State is limited to two times the value of the Contract or $500,000 whichever is higher. The foregoing limitation of liability does not apply to (i) Contractor's obligation to indemnify under this Contract; (ii) Contractor's obligations under this Contract pertaining to Loss or Compromise of State Data, (iii) any loss or claim to the extent the loss or claim is covered by a policy of insurance maintained, or required by this Contract to be maintained, by Contractor; and (iv) damages arising from Contractor's recklessness, bad faith, or intentional misconduct.

20. Disclosure of Litigation, or Other Proceeding. Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a Permitted Subcontractor, or an officer or director of Contractor or Permitted Subcontractor, that arises during the term of the Contract, including:

      (a)   a criminal Proceeding;

      (b)   a parole or probation Proceeding;

      (c)   a Proceeding under the Sarbanes-Oxley Act;

      (d)   a civil Proceeding involving:

          (i)   a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or

          (ii)   a governmental or public entity's claim or written allegation of fraud; or

      (e)   a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.

21. State Data.

21.1 <u>Ownership</u>. The State's data ("**State Data**"), which will be treated by Contractor as Confidential Information, includes:

(a) User Data; and

(b) any other data collected, used, Processed, stored, or generated in connection with the Services, including but not limited to:

(i) personally identifiable information ("**PII**") collected, used, Processed, stored, or generated as the result of the Services, including, without limitation, any information that identifies an individual, such as an individual's social security number or other government-issued identification number, date of birth, address, telephone number, biometric data, mother's maiden name, email address, credit card information, or an individual's name in combination with any other of the elements here listed; and

(ii) protected health information ("**PHI**") collected, used, Processed, stored, or generated as the result of the Services, which is defined under the Health Insurance Portability and Accountability Act ("**HIPAA**") and its related rules and regulations.

State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State.

21.2 <u>Contractor Use of State Data</u>. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, any Statement of Work, and applicable law; (c) keep and maintain State Data in the continental United States and (d) not use, sell, rent, transfer, mine, distribute, commercially exploit, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. Contractor's misuse of State Data may violate state or federal laws, including but not limited to MCL 752.795.

21.3 <u>Discovery</u>. Contractor shall immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State's use of the Software and Hosted Services. Contractor shall notify the State Project Manager by the fastest means available and also in writing. In no event shall Contractor provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to subpoenas, service of process, Freedom of Information Act (FOIA) requests, and other legal requests related to the State without first notifying the State and obtaining the State's prior approval of Contractor's proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.

21.4 <u>Loss or Compromise of Data</u>. In the event of any act, error or omission, negligence, misconduct, or breach on the part of Contractor that compromises or is suspected to compromise the security, confidentiality, integrity, or availability of State Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable:

(a) notify the State as soon as practicable but no later than 24 hours of becoming aware of such occurrence;

(b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State;

(c) in the case of PII or PHI, at the State's sole election:

(i) with approval and assistance from the State, notify the affected individuals who comprise the PII or PHI as soon as practicable but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within 5 calendar days of the occurrence; or

(ii) reimburse the State for any costs in notifying the affected individuals;

(d) in the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no less than 24 months following the date of notification to such individuals;

(e) perform or take any other actions required to comply with applicable law as a result of the occurrence;

(f) pay for any costs associated with the occurrence, including but not limited to any costs incurred by the State in investigating and resolving the occurrence, including reasonable attorney's fees associated with such investigation and resolution;

(g) without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence;

(h) be responsible for recreating lost State Data in the manner and on the schedule set by the State without charge to the State; and

(i) provide to the State a detailed plan within 10 calendar days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence. Notification to affected individuals, as described above, must comply with applicable law, be written in plain language, not be tangentially used for any solicitation purposes, and contain, at a minimum: name and contact information of Contractor's representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual; what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor. The State will have the option to review and approve any notification sent to affected individuals prior to its delivery. Notification to any other party, including but not limited to public media outlets, must be reviewed and approved by the State in writing prior to its dissemination.

21.5 The parties agree that any damages relating to a breach of this **Section 21** are to be considered direct damages and not consequential damages.

22. Non-Disclosure of Confidential Information. The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties.

22.1   Meaning of Confidential Information. The term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; or, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was or is: (a) in the possession of the State and subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure). Notwithstanding the above, in all cases and for all matters, State Data is deemed to be Confidential Information.

22.2   Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to the Contractor's subcontractor is permissible where: (a) the subcontractor is a Permitted Subcontractor; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Permitted Subcontractor's responsibilities; and (c) Contractor obligates the Permitted Subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any of the Contractor's and Permitted Subcontractor's Representatives may be required to execute a separate agreement to be bound by the provisions of this **Section 22.2**.

22.3   Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract. Each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

22.4   Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be

available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.

22.5   Surrender of Confidential Information upon Termination. Upon termination or expiration of this Contract or a Statement of Work, in whole or in part, each party must, within 5 Business Days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control. Upon confirmation from the State, of receipt of all data, Contractor must permanently sanitize or destroy the State's Confidential Information, including State Data, from all media including backups using National Security Agency ("NSA") and/or National Institute of Standards and Technology ("NIST") (NIST Guide for Media Sanitization 800-88) data sanitization methods or as otherwise instructed by the State. If the State determines that the return of any Confidential Information is not feasible or necessary, Contractor must destroy the Confidential Information as specified above. The Contractor must certify the destruction of Confidential Information (including State Data) in writing within 5 Business Days from the date of confirmation from the State.

23. **Records Maintenance, Inspection, Examination, and Audit**.

23.1   Right of Audit. Pursuant to MCL 18.1470, the State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to this Contract through the Term of this Contract and for 3 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Financial Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Financial Audit Period, Contractor must retain the records until all issues are resolved.

23.2   Right of Inspection. Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Services are being performed or associated contract records are kept, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of this Contract must be paid or refunded within 45 calendar days.

23.3   Application. This **Section 23** applies to Contractor, any Affiliate, and any Permitted Subcontractor that performs Services in connection with this Contract.

24. Support Services. Contractor will provide the State with the Support Services described in the Service Level Agreement attached as Schedule **D** to this Contract. Such Support Services will be provided:

25. Data Security Requirements. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State's Confidential Information that comply with the requirements of the State's data security policies as set forth in **Schedule E** to this Contract.

26. Training. Contractor will provide, at no additional charge, training on all uses of the Software permitted hereunder in accordance with the times, locations and other terms set forth in a Statement of Work. Upon the State's request, Contractor will timely provide training for additional Authorized Users or other additional training on all uses of the Software for which the State requests such training, at such reasonable times and locations and pursuant to such rates and other terms as are set forth in the Pricing Schedule.

27. Maintenance Releases; New Versions

a. Maintenance Releases. Provided that the State is current on its Fees, during the Term, Contractor will provide the State, at no additional charge, with all Maintenance Releases each of which will constitute Software and be subject to the terms and conditions of this Contract.

b. New Versions. Provided that the State is current on its Fees, during the Term, Contractor will provide the State, at no additional charge, with all New Versions, each of which will constitute Software and be subject to the terms and conditions of this Contract.

c. Installation. The State has no obligation to install any Maintenance Release or New Versions in so far as such Maintenance Release or New Version shall be installed by Contractor or other authorized party as set forth in a Statement of Work. Contractor will provide the State, at no additional charge, adequate Documentation for installation of the Maintenance Release or New Version, which has been developed and tested by Contractor and Acceptance Tested by the State. The State's decision not to install or implement a Maintenance Release or New Version of the Software will not affect its right to receive Support Services throughout the Term of this Contract.

28. Source Code Escrow – Not applicable

29. Contractor Representations and Warranties.

29.1 Authority. Contractor represents and warrants to the State that:

i. it is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

ii. it has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;

iii. the execution of this Contract by its Representative has been duly authorized by all necessary organizational action;

iv. when executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms; and

v. Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606.

29.2 Bid Response. Contractor represents and warrants to the State that:

(a) The prices proposed by Contractor were arrived at independently, without consultation, communication, or agreement with any other Bidder for the purpose of restricting competition; the prices quoted were not knowingly disclosed by Contractor to any other Bidder to the RFP; and no attempt was made by Contractor to induce any other Person to submit or not submit a proposal for the purpose of restricting competition;

(b) All written information furnished to the State by or for Contractor in connection with this Contract, including Contractor's Bid Response, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make the information not misleading;

(c) Contractor is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its departments that was terminated by the State within the previous five (5) years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract; and

(d) If any of the certifications, representations, or disclosures made in Contractor's Bid Response change after contract award, the Contractor is required to report those changes immediately to the Contract Administrator.

29.3   Software Representations and Warranties. Contractor, including its subcontractors, further represents and warrants to the State that:

(a)   the legal and beneficial owners of the entire right, title and interest in and to the Software, including all Intellectual Property Rights relating thereto;

(b)   it has, and throughout the license term, will retain the right, power and authority to grant and perform the license hereunder;

(c) it has, and throughout the Term and any additional periods during which Contractor does or is required to perform the Services will have, the unconditional and irrevocable right, power and authority, including all permits and licenses required, to provide the Services and grant and perform all rights and licenses granted or required to be granted by it under this Contract;

(d) the Software, and the State's use thereof, is and throughout the license term will be free and clear of all encumbrances, liens and security interests of any kind;
(e) neither its grant of the license, nor its performance under this Contract does or to its knowledge will at any time:

(i) conflict with or violate any applicable law;

(ii) require the consent, approval or authorization of any governmental or regulatory authority or other third party; or

(iii) require the provision of any payment or other consideration to any third party;

(f) when used by the State or any Authorized User in accordance with this Contract and the Documentation, the Software, the Hosted Services, if applicable, or Documentation as delivered or installed by Contractor does not or will not:

(i) infringe, misappropriate, or otherwise violate any Intellectual Property Right or other right of any third party; or

(ii) fail to comply with any applicable law;

(g) as provided by Contractor, the Software and Services do not and will not at any time during the Term contain any:

(i) Harmful Code; or

(ii) Third party or Open-Source Components that operate in such a way that it is developed or compiled with or linked to any third party or Open-Source Components, other than Approved Third Party Components specifically described in a Statement of Work.

(h) all Documentation is and will be complete and accurate in all material respects when provided to the State such that at no time during the license term will the Software have any material undocumented feature; and

(i) it will perform all Services in a timely, skillful, professional and workmanlike manner in accordance with commercially reasonable industry standards and practices for similar services, using personnel with the

requisite skill, experience and qualifications, and will devote adequate resources to meet its obligations under this Contract;

(j) when used in the Operating Environment (or any successor thereto) in accordance with the Documentation, all Software as provided by Contractor, will be fully operable, meet all applicable specifications, and function in all respects, in conformity with this Contract and the Documentation;

(k) Contractor acknowledges that the State cannot indemnify any third parties, including but not limited to any third-party software providers that provide software that will be incorporated in or otherwise used in conjunction with the Services, and that notwithstanding anything to the contrary contained in any third-party software license agreement or end user license agreement, the State will not indemnify any third party software provider for any reason whatsoever;

(l) no Maintenance Release or New Version, when properly installed in accordance with this Contract, will have a material adverse effect on the functionality or operability of the Software.

(m) all Configurations or Customizations made during the Term will be forward-compatible with future Maintenance Releases or New Versions and be fully supported without additional costs.

(n) If Contractor Hosted:
    (i) Contractor will not advertise through the Hosted Services (whether with adware, banners, buttons or other forms of online advertising) or link to external web sites that are not approved in writing by the State;

    (ii) the Software and Services will in all material respects conform to and perform in accordance with the Specifications and all requirements of this Contract, including the Availability and Availability Requirement provisions set forth in the Service Level Agreement; and

(0) there is no settled, pending or, to Contractor's knowledge as of the Effective Date, threatened Action, and it has not received any written, oral or other notice of any Action (including in the form of any offer to obtain a license): (i) alleging that any access to or use of the Services or Software System does or would infringe, misappropriate or otherwise violate any Intellectual Property Right of any third party; (ii) challenging Contractor's ownership of, or right to use or license, any software or other materials used or required to be used in connection with the performance or receipt of the Services, or alleging any adverse right, title or interest with respect thereto; or (iii) that, if decided unfavorably to Contractor, would reasonably be expected to have an actual or potential adverse effect on its ability to perform the Services or its other obligations under this Contract, and it has no knowledge after reasonable investigation of any factual, legal or other reasonable basis for any such litigation, claim or proceeding

29.4   <u>DISCLAIMER</u>. EXCEPT FOR THE EXPRESS WARRANTIES IN THIS CONTRACT, CONTRACTOR HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE UNDER OR IN CONNECTION WITH THIS CONTRACT

29.5 **Offers of Employment**. During the first 12 months of the Contract, should Contractor hire an employee of the State, without prior written consent of the State, who has substantially worked on any project covered by this Contract, the Contractor will be billed for 50% of the employee's annual salary in effect at the time of separation.

30. **Conflicts and Ethics**. Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any Permitted Subcontractor that provides Services and Deliverables in connection with this Contract.

31.   Compliance with Laws. Contractor, its subcontractors, including Permitted Subcontractors, and their respective Representatives must comply with all laws in connection with this Contract.

32.   Nondiscrimination. Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq*., the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq*.. Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this covenant is a material breach of the Contract.

33.   Unfair Labor Practice. Under MCL 423.324, the State may void any Contract with a Contractor or Permitted Subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.

34.   Governing Law. This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in the Michigan Court of Claims. Complaints against the State must be initiated in Ingham County, Michigan. Contractor waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint an agent in Michigan to receive service of process.

35.   Non-Exclusivity. Nothing contained in this Contract is intended nor is to be construed as creating any requirements contract with Contractor, nor does it provide Contractor with a right of first refusal for any future work. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Services from other sources.

36.   Force Majeure

36.1 Force Majeure Events. Neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached the Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of the Contract, national or regional emergency, shutdown by Hosting Provider of environment for purposes not caused by or related to Contractor or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a "**Force Majeure Event**"), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

36.2 State Performance; Termination. In the event of a Force Majeure Event affecting Contractor's performance under the Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate the Contract by written notice to Contractor if a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of 5 Business Days or more. Unless the State terminates the Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under the Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

36.3 Exclusions; Non-suspended Obligations. Notwithstanding the foregoing or any other provisions of the Contract or this Schedule:

(a) in no event will any of the following be considered a Force Majeure Event:

i.   shutdowns, disruptions or malfunctions of Hosted Services or any of Contractor's telecommunication or internet services other than as a result of general and widespread internet or telecommunications failures that are not limited to the Hosted Services; or

ii.   the delay or failure of any Contractor Personnel to perform any obligation of Contractor hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event.

(b) no Force Majeure Event modifies or excuses Contractor's obligations under **Sections 21** (State Data), **22** (Non-Disclosure of Confidential Information), or **17** (Indemnification) of the Contract, Disaster Recovery and Backup requirements set forth in the Service Level Agreement, Availability Requirement (if Contractor Hosted) defined in the Service Level Agreement, or any data retention or security requirements under the Contract.

37.   Dispute Resolution. The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance. Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

38.   Media Releases. News releases (including promotional literature and commercial advertisements) pertaining to this Contract or project to which it relates must not be made without the prior written approval of the State, and then only in accordance with the explicit written instructions of the State.

39.   Severability. If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.

40.   Waiver. Failure to enforce any provision of this Contract will not constitute a waiver.

41.   Survival. Any right, obligation, or condition that, by its express terms or nature and context is intended to survive, will survive the termination or expiration of this Contract; such rights, obligations, or conditions include, but are not limited to, those related to transition responsibilities; indemnification; disclaimer of damages and limitations of liability; State Data; non-disclosure of Confidential Information; representations and warranties; insurance and bankruptcy.

43. Administrative Fee and Reporting Contractor must pay an administrative fee of 1% on all payments made to Contractor under the Contract including transactions with MiDEAL members, and other states (including governmental subdivisions and authorized entities). Administrative fee payments must be made online by check or credit card at: https://www.thepayplace.com/mi/dtmb/adminfee

Contractor must submit an itemized purchasing activity report, which includes at a minimum, the name of the purchasing entity and the total dollar volume in sales. Reports should be mailed to MiDeal@michigan.gov.

The administrative fee and purchasing activity report are due within 30 calendar days from the last day of each calendar quarter.

44. Extended Purchasing Program. This contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at www.michigan.gov/mideal.

Upon written agreement between the State and Contractor, this contract may also be extended to: (a) other states (including governmental subdivisions and authorized entities) and (b) State of Michigan employees.

If extended, Contractor must supply all Contract Activities at the established Contract prices and terms. The State reserves the right to impose an administrative fee and negotiate additional discounts based on any increased volume generated by such extensions.

Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis.

45. Contract Modification. This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**"). Notwithstanding the foregoing, no subsequent Statement of Work or Contract Change Notice executed after the Effective Date will be construed to amend this Contract unless it specifically states its intent to do so and cites the section or sections amended.

46. HIPAA Compliance. The State and Contractor must comply with all obligations under HIPAA and its accompanying regulations, including but not limited to entering into a business associate agreement, if reasonably necessary to keep the State and Contractor in compliance with HIPAA.

47. Accessibility Requirements.

47.1 All Software provided by Contractor under this Contract for use by the State or someone authorized by the State ("Software Subject to Accessibility"), including associated content **and** documentation, must conform to WCAG 2.0 Level AA. Contractor must provide a description of conformance with WCAG 2.0 Level AA specifications by providing a completed PAT for each product provided under the Contract. At a minimum, Contractor must comply with the WCAG 2.0 Level AA conformance claims it made to the State, including the level of conformance provided in any PAT. Throughout the Term of the Contract, Contractor must:

(a) maintain compliance with WCAG 2.0 Level AA **and** meet or exceed the level of conformance provided in its written materials, including the level of conformance provided in each PAT;

(b) comply with plans and timelines approved by the State to achieve conformance in the event of any deficiencies;

(c) ensure that no Maintenance Release, New Version, update or patch, when properly installed in accordance with this Contract, will have any adverse effect on the conformance of Contractor's Software Subject to Accessibility to WCAG 2.0 Level AA;

(d) promptly respond to and resolve any complaint the State receives regarding accessibility of Contractor's Software Subject to Accessibility ;

(e) upon the State's written request, provide evidence of compliance with this Section by delivering to the State Contractor's most current PAT for each product provided under the Contract; and

(f) participate in the State of Michigan Digital Standards Review described below.

47.2 State of Michigan Digital Standards Review. Contractor must assist the State, at no additional cost, with development, completion, and on-going maintenance of an accessibility plan, which requires Contractor, upon request from the State, to submit evidence to the State to validate Contractor's accessibility and compliance with WCAG 2.0 Level AA. Prior to the solution going-live and thereafter on an annual basis, or as otherwise required by the State, re-assessment of accessibility may be required. At no additional cost, Contractor must remediate all issues identified from any assessment of accessibility pursuant to plans and timelines that are approved in writing by the State.

47.3 Warranty. Contractor warrants that all WCAG 2.0 Level AA conformance claims made by Contractor pursuant to this Contract, including all information provided in any PAT Contractor provides to the State, are true and correct. If the State determines such conformance claims provided by the Contractor represent a higher level of conformance than what is actually provided to the State, Contractor will, at its sole cost and expense, promptly remediate its Software Subject to Accessibility to align with Contractor's stated WCAG 2.0 Level AA conformance claims in accordance with plans and timelines that are approved in writing by the State. If Contractor is unable to resolve such issues in a manner acceptable to the State, in addition to all other remedies available to the State, the State may terminate this Contract for cause under **Section 16.1**.

47.4 Contractor must, without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State arising out of its failure to comply with the foregoing accessibility standards.

47.5 Failure to comply with the requirements in this **Section 47** shall constitute a material breach of this Contract.

48. Further Assurances. Each party will, upon the reasonable request of the other party, execute such documents and perform such acts as may be necessary to give full effect to the terms of this Contract.

49. Relationship of the Parties. The relationship between the parties is that of independent contractors. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor. Neither party has authority to contract for nor bind the other party in any manner whatsoever.

50. Headings. The headings in this Contract are for reference only and do not affect the interpretation of this Contract.

51. No Third-party Beneficiaries. This Contract is for the sole benefit of the parties and their respective successors and permitted assigns. Nothing herein, express or implied, is intended to or will confer on any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Contract.

52. Equitable Relief. Each party to this Contract acknowledges and agrees that (a) a breach or threatened breach by such party of any of its obligations under this Contract may give rise to irreparable harm to the other party for which monetary damages would not be an adequate remedy and (b) in the event of a breach or a threatened breach by such party of any such obligations, the other party hereto is, in addition to any and all other rights and remedies that may be available to such party at law, at equity or otherwise in respect of such breach, entitled to seek equitable relief, including a temporary restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction, without any requirement to post a bond or other security, and without any requirement to prove actual damages or that monetary damages will not afford an adequate remedy. Each party to this Contract agrees that such party will not oppose or otherwise challenge the appropriateness of equitable relief or the entry by a court of competent jurisdiction of an order granting equitable relief, in either case, consistent with the terms of this Section.

53. Effect of Contractor Bankruptcy. All rights and licenses granted by Contractor under this Contract are and will be deemed to be rights and licenses to "intellectual property," and all Software and Deliverables are and will be deemed to be "embodiments" of "intellectual property," for purposes of, and as such terms are used in and interpreted under, Section 365(n) of the United States Bankruptcy Code (the "**Code**"). If Contractor or its estate becomes subject to any bankruptcy or similar proceeding, the State retains and has the right to fully exercise all rights, licenses, elections, and protections under this Contract, the Code and all other applicable bankruptcy, insolvency, and similar

laws with respect to all Software and other Deliverables. Without limiting the generality of the foregoing, Contractor acknowledges and agrees that, if Contractor or its estate will become subject to any bankruptcy or similar proceeding:

(a)   all rights and licenses granted to the State under this Contract will continue subject to the terms and conditions of this Contract, and will not be affected, even by Contractor's rejection of this Contract; and

(b)   the State will be entitled to a complete duplicate of (or complete access to, as appropriate) all such intellectual property and embodiments of intellectual property comprising or relating to any Software or other Deliverables, and the same, if not already in the State's possession, will be promptly delivered to the State, unless Contractor elects to and does in fact continue to perform all of its obligations under this Contract.

54. Schedules. All Schedules that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work
Schedule B	Pricing Schedule
Schedule C	Insurance Requirements
Schedule D	Service Level Agreement
Schedule E	Data Security Requirements
Schedule F	Reserved
Schedule G	Transition In and Out
Schedule H	Federal Provisions Addendum
Schedule I	New System Configuration
Schedule J	Security Responsibilities for the Cloud Refresh of Teradata Systems
Schedule K	High-Level Architecture Diagram for the New Systems
Schedule L	DSU Optimization Services
Schedule M	Teradata Cloud Advisory Services
Schedule N	Decommission Services
Schedule O	Temporarily Expand and Contract the New DevDR System
Schedule P	VM Redeployment Services
Schedule Q	Other
Schedule R	Project Plan

55. Counterparts. This Contract may be executed in counterparts, each of which will be deemed an original, but all of which together are deemed to be one and the same agreement and will become effective and binding upon the parties as of the Effective Date at such time as all the signatories hereto have signed a counterpart of this Contract. A signed copy of this Contract delivered by facsimile, e-mail or other means of electronic transmission (to which a signed copy is attached) is deemed to have the same legal effect as delivery of an original signed copy of this Contract.

56.   Entire Agreement. These Terms and Conditions, including all Statements of Work and other Schedules and Exhibits (again collectively the "Contract") constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, representations and warranties, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements made in the Terms and Conditions, the Schedules, Exhibits, and a Statement of Work, the following order of precedence governs: (a) first, these Terms and Conditions and (b) second, Schedule E – Data Security Requirements and (c) third, each Statement of Work; and (d) fourth, the remaining Exhibits and Schedules to this Contract. NO TERMS ON CONTRACTOR'S INVOICES, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, OR DOCUMENTATION HEREUNDER, EVEN IF ATTACHED TO STATE'S DELIVERY OR PURCHASE ORDER, WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY

THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

SCHEDULE A – STATEMENT OF WORK

1. DEFINITIONS

The following terms have the meanings set forth below. All initial capitalized terms that are not defined in this Schedule shall have the respective meanings given to them in Section 1 of the Contract Terms and Conditions.

Term	Definition
EDW	Enterprise Data Warehouse

2. BACKGROUND

The Current Production System (Teradata 6800H) was allocated to 100% CPU capacity in August 2020 and to 100% disk capacity in December 2021, and State Enterprise Data Warehouse (EDW) usage continues to grow each month, which has been challenging for the State's EDW PDSS-PS Team to manage, i.e., growth within limited capacity. The cloud refresh seeks to resolve this issue as well as the less immediate hardware end-date of September 30, 2024.

3. PURPOSE

The State is seeking a *Contractor Hosted* Software Solution and applicable Services

The Contractor's cloud solution will:

- Resolves the more immediate capacity and expected growth issues being faced with the current on- premises environment
- Resolves the less immediate hardware end-date of September 30, 2024
- Includes greatly enhanced EDW systems (e.g., expands nodes, cores, customer data space, memory, parsing engines, etc.)
- Allows for additional months of testing

- Includes additional support services: DSU Optimization to speed-up data migration; cloud advisory services for ETL/BI servers and TASM, decommissioning retired systems; and expanding DevDR annually for DR testing

Project Overview

FY2023 Licenses as set forth in Schedule B, all of which have been fully paid by the State, will carry over uninterrupted post-Project Implementation.

Optum will supply the State a Teradata-provisioned and State-managed solution in the Azure Government Cloud ("Azure GovCloud"). This offering was successfully implemented recently for the State's Teradata Test System in the Azure GovCloud ("Cloud Phase 1" or "Phase 1").The Contractor End-to-End Cloud Service Offering includes Teradata Vantage software installed on Azure GovCloud infrastructure within the Azure Tenant that was established in Cloud Phase 1, and Teradata's support services, as defined in Schedule D, Section 3, for the software / infrastructure combination. To implement Cloud Phase 2 ("Implementation"), Optum Contractor will provision the infrastructure and software components ("New Production and DevDR Systems" or "New Systems" or "New Cloud Systems"),and establish initial security and set-up service connect for standard monitoring alerts. Contractor then will perform a handover of Azure Portal Administration to the State to manage after the Implementation period and provide support to the State during their networking and migration work ("Transition"). Contractor will have no access to the State's servers or data after handover. After handover, the New Systems receive Teradata support , and decommissioning services are provided for the current Teradata Production System and current Teradata DevDR System (i.e., the "Retired Systems") during this period ("Steady-State").

Contractor shall also provide:

- Support, including Software Implementation Services and patches, updates and minor upgrades, and up to one Major upgrade per year on each server, without exceeding two VM redeployments over the 5-year period, one of which must be Year 3 in order for DevDR to allow proper future expansion. (Note that redeployment services can be required for multiple reasons, including O/S upgrades and some node expansion scenarios.)
- One-time upfront services (Cloud Provisioning Services, IRS SLES SCSEM hardening, DSU Optimization, Cloud Advisory Services and Decommission Services)

- Temporarily expanding and contracting the New DevDR System for up to one-week annually to facilitate customer DR Testing or to address an actual disaster

The New Production System consists of the infrastructure described in Schedule I Section A, which is summarized here as 12+2 E64-32sV4 virtual machines (VMs) with 504 GB RAM each, 71 TCore Teradata Vantage subscription licenses (Enterprise with SQL Engine only), 74 TB Customer Data Space (CDS), 10 TB BLOB storage for Native Object Storage (NOS), 400 TBs of backup BLOB storage, and associated multi-system Viewpoint, DSC/DSU VM and Server Management VM.

The New DevDR System consists of the infrastructure described in Schedule I Section B, which is summarized here as 6+1 E64-32sV4 VMs with 504 GB RAM each, 36 TCore Teradata Vantage subscription licenses (Enterprise with SQL Engine only), 62 TB Customer Data Space (CDS), 10 TB BLOB storage for NOS, 200 TBs backup BLOB storage, and associated multi-system Viewpoint, DSC/DSU VM and Server Management VM. The New DevDR System will be increased in size during Disaster Recovery (DR) Testing and actual disasters. This DR approach of leveraging the existing DevDR System and scaling it up during a disaster helps the State recover quickly, especially given that other customers during a Virginia disaster will be simultaneously seeking Azure resources in Texas.

Both new systems will be connected to the State's network, similar to how the Cloud Phase 1 Test System connects, i.e., via VNet Peering and across the State's circuit/network (e.g., NetBond + Azure Express Route). PrivateLinks will be used for the four data migrations during transition to the Azure GovCloud and for future NOS transfers. Backups and restores in the Azure GovCloud will be performed over the Azure backend circuit. System storage includes multi-region storage, which means Production backups for DR will be directly accessible by the DevDR System for DR purposes.

The New Production System includes two hot-standby nodes, and the New DevDR System includes one hot- standby node. The Teradata Database uses hot-standby nodes to improve availability and maintain performance levels in the event of a node failure. When a node fails, all AMPS and all LAN-attached parsing engines on the failed node migrate to a hot-standby node.

During Steady-State, the Optum Team will provide services, which includes software patches, version upgrades and support ticket resolution.

When the State desires hands-on help from the Optum Team during

Steady-State, the State's standard processes will be followed similarly to how O/S patches and O/S hardening have been handled in the past, e.g., this may mean the State chooses to temporarily give specific Optum Team members specific Server Admin and/or Azure Portal rights to perform specific work under a State-approved change record and overseen by a State System Admin during a specific change window.

The New Production and DevDR Systems will replace the State's 6800H-based on-premises Teradata systems ("Current Production and DevDR Systems" or "Current Systems" or "Current 6800H Systems").

I. Description of the Scope

Contractor Responsibilities:

Contractor will provide the Services and Deliverables set forth in any other Schedule, each of which is incorporated to this Statement of Work. As part of the Implementation Plan

Contractor will provide the following one-time Implementation services ("Implementation Services"):

- Establish the New Production and DevDR Systems as described below (Schedule R, Milestone 1B):

- For the New Production and DevDR Systems described in Schedule I Sections A & B, perform Cloud Provisioning Services as described in Schedule Q, Attachment 4, Exhibit 1 in the Azure GovCloud Virginia and Texas Regions, including providing access for up to 10 authorized State professionals to the New Systems (i.e., the Milestone 1B Deliverable). These services include (i) provisioning/configuring infrastructure and software; (ii) establishing State- allocated IPs on the newly provisioned devices; (iii) performing initial patching/updating of O/S and software/DBMS, if needed; and (iv) connecting the Azure GovCloud based Teradata Data Stream Utility (DSU) Virtual Machines (VM) to Azure BLOB storage for Backup and Restore (BAR) purposes.

- Provide IRS SCSEM operating system hardening services ("O/S Hardening") of the New Production and DevDR System VMs as described in Schedule Q, Attachment 4, Exhibit 2.

In Transition:

Establish meetings to hand-over responsibility to the State for all activities not performed by the Contractor, as described above, for the New Production and DevDR Systems

Work closely with the State to perform DSU Optimization Services for the New Production System, as described in Schedule L, to help the State streamline

data migration processes

Work closely with the State to perform <u>Cloud Advisory Services for Existing Production ETL/BI Servers Future</u> <u>Placement</u>, as described in Schedule M.

In Steady-State:

Contractor's End-to-End Cloud Service Offering for the items listed in Schedule I Sections A & B. This consists of Azure GovCloud hardware infrastructure as a service, Teradata Vantage subscription-based license, Teradata Vantage software subscription, BAR and Teradata support, where the latter includes SWI.

Perform Decommission Services for the retired Current Production and DevDR Systems after successful cutover, as described in Schedule N ("Milestone 3")

Perform Teradata Cloud Advisory Services for Production Workload after cutover, as described in Schedule M

Temporarily Expand and Contract the New DevDR System for use during a disaster and for up to one DR Test annually, as described in Schedule O

Perform up to two <u>VM Redeployment Services</u> over the 5-year period for each system (Production, DevDR and Test Systems), as needed and as described in Schedule P, one of which must be Year 3 for DevDR to allow proper future expansion. Note that Redeployment Services can be required for multiple reasons, including O/S upgrades and some node expansion scenarios.

See the Teradata Software License Agreement (Schedule Q, Attachment 4, Exhibit 3, which will carry-over for New Production and DevDR Systems), Security Responsibilities (Schedule J) and High-Level Architecture Diagram (Schedule K) for additional details.

<u>State Team Responsibilities</u>:

- Provide/maintain the Wide Area Network (WAN) circuits between State / Switch data centers and the Azure GovCloud Virginia and Texas Regions where the New Systems will reside (e.g., NetBond and Azure Express Route circuits). This includes any required circuit redundancy and/or sizing expansions, and responsibility for all circuit/bandwidth/egress required for the solution, including all costs/charges. Optum recommends the State create/expand each end-to-end circuit to 10 Gbps to have enough bandwidth for the New Production and DevDR Systems (this should also be of benefit to the State for other/future cloud applications).(Schedule R, Milestone 1A)

- Establish/complete the required circuits and network connections to the New Systems (e.g., VNet Peering, Express Routes, associated FW rules and routing). This includes implementing PrivateLinks that are to be used for the four upfront data migrations during transition to the Azure GovCloud and for future NOS transfers. This also includes implementing a VPN for the New DevDR System, and/or routing Texas traffic via Virginia Express Routes (if

possible), to be used in the interim until the State's circuit to Texas is fully functional. Although these interim approaches have throughput/latency limits, they do allow the State to make progress in functional testing of the New DevDR System during the interim period. However, performance testing of DevDR standard workloads will need to wait until the State's circuit to Texas is fully functional, providing minimum latency and maximum throughput. Also, it is recommended that the first DR Test occurs after cutover to the New Systems.

- Administering who will have access and operate for its use the designated Microsoft Azure Government Cloud instance upon Contractor's installation of the Teradata Software and provisioning of system administrator level accounts and passwords to the State or ensuring that Service Connect remains available to Contractor for providing Support.

- Create/test/maintain all Data Stream Architecture (DSA) / Data Stream Utility (DSU) jobs/scripts, target groups, schedules and processes for Backup and Restore (BAR) of the New Production and DevDR Systems (e.g., full, incremental, archive) that match the Current Systems.

- Perform all data migration and testing activities for the New Production and DevDR Systems (i.e., similar to how Cloud Phase 1 was handled for the New Test System). Migrations may follow this pattern: (1) PDSS-PS Team performs an initial "Seed" migration of data from the Current Production and DevDR Systems to the New Production and DevDR Systems in the Azure GovCloud; (2) PDSS- PS Team performs initial testing activities on the New Systems (e.g., communications, users, access, data, tools, etc.); (3) Agency Teams perform functional acceptance testing (e.g., ETL, apps, queries, reports, interfaces, tools, etc.); (4) Agency Teams, with help from the PDSS-PS Team, perform performance acceptance testing; (5) PDSS-PS Team performs a final migration of all data, similar to the seed migration process, and PDSS-PS and Agency Teams perform final acceptance and cutover to the New Systems within the same change window as the final migration ("Milestone 2").

- Perform all Disaster Recovery and Business Continuity (DR/BC) Planning and implementation, and can choose to have the Contractor temporarily expand and contract the New DevDR System for use during a disaster and for up to one week-long DR Test annually.

- Any other activities not explicitly assigned to the Contractor, e.g., the State will continue to perform roles for physical DBAs; system administrators; network security/monitoring; user administration; security monitoring and log collection; managing/implementing all solution security except Azure GovCloud data center security established as part of the tenant; and driving incident, problem and change (IPC) management processes. In Steady-State, the State will also perform Azure Portal management, including managing all Azure services and users, and operating/maintaining BAR schedules, jobs and scripts, as well as all backups, restores and data moves.

- All solution components (e.g., infrastructure, software, CPU, storage, services, bandwidth / egress, etc.) not explicitly specified here as provided by the Contractor and required during Implementation, Transition and Steady-State, including growth beyond what is described in Schedule I Sections A & B will be the responsibility of the State. The State may choose to use the allocated Platform Pool funds described in the Section II cost table to cover such items.

Other

- All dates and schedules related to delivery, migration, testing and acceptance of the New Systems shall be captured in the project schedule and are subject to mutual agreement between the State and Optum. Schedule R is a Draft Project Schedule.

- State users, developers and DBAs will continue to use their existing desktop environments (e.g., Teradata Tools and Utilities) and will have access to data from the New Production and DevDR Systems

By accepting this Statement of Work, the State (1) understands that their Azure GovCloud WAN latencies will be added for round trip access to the New Production System in Virginia, and similarly for the New DevDR System in Texas; (2) accepts these add-on latencies over and above the on-premise Current Production and DevDR Systems approaches and general performance targets; and (3) understands that tweaks or redesign may be needed by the State for some functions, to help maximize performance (e.g., ETL, reports, jobs, applications).

Processes that surround the data warehouse (e.g., ETL/BI) are staying in the State's data centers and, depending on data volume, data gravity, bandwidth, user scenarios and other information, the State may find that it makes sense to move some of these processes to the Azure GovCloud in the future for performance and cost reasons. Similarly, for processes that pull a lot of data from the warehouse, then do their work, and then send a lot of data back to the warehouse, the State may find that it makes sense to move some of these processes to the Azure GovCloud in the future and/or tweak/redesign their approach (possibly including performing more in-database operations).

PrivateLinks are sized only for use during the upfront four transition data migrations to the Azure GovCloud and for limited future NOS transfers. Additional uses of PrivateLinks and/or use beyond 240 TBs of total Ingress/Egress each year are out of scope. Separately, backups and restores in the Azure GovCloud will be performed over the Azure backend circuit.

Note that the New Production System will include multi-system Viewpoint that will include use for the Test System, so the single-server Test Server Viewpoint will be removed after cutover.

Consistent with recent years, all future TDWI instructor-led training will be delivered virtually, not onsite. Beginning 01/01/2026, the maximum number of TDWI class attendees will be expanded to 20.

Platform Pool funds are allocated in the cost table for future add-ons. The following are currently out of scope: growth to Production and DevDR beyond Schedule I Sections A & B scope (e.g., HW/SW/CPU/storage); additional items/services if found to be required during Implementation/Transition/Steady-State; Test System growth of any kind; Express Routes/bandwidth/egress sizing or costs; IntelliSphere, QueryGrid and Machine Learning and Graph engines software/servers/services; more than two redeployments within the 5-year period; continued maintenance of 6800H systems beyond September 2023; and Teradata Application Center/Analyst servers and services. In some cases, business process improvements (e.g., data retention policy, in-database processing, best practices, etc.) can alternatively be used in place of add-ons (e.g., growth, capacity).

Software Implementation Services

Contractor will provide remote upgrade/update of Teradata Database, Teradata Managed Application (e.g., Viewpoint), and OS software releases as covered by a relevant order for which the State has a valid license. The installation shall take place during the Hours of Coverage that apply to Severity 1 incidents. All implementations shall follow Contractor's then-current change control management and implementation process and are subject to any remote connectivity requirements. At Contractor's discretion, any operating system, firmware updates, or other software upgrades required to enable the implementation of a Database software change may be performed as part of the Upgrade Service.

Software Implementation service only applies to maintenance releases and patches/fixes.

The State must provide Contractor at least 28 days advance notice of a change to allow Contractor to develop and approve the appropriate change control plan.

The State is responsible for identifying the specific target software release to be implemented.

BAR Software Implementation Services

The New Test Systems and the New Production Systems includes this service. Contractor will provide remote implementation of BAR software releases covered by the relevant Order and for which the Customer has a valid license. BAR SWI does not include identifying a specific target software release to be implemented. The installation shall take place during the Hours of Coverage that apply to Severity 1 incidents. All such implementations shall follow Contractor's then-current change control management and implementation process and are subject to any remote connectivity requirements. Any operating system, firmware updates or other software upgrades are outside of the scope of BAR SWI. Customer must provide Contractor at least 28 days advance notice of a change for Contractor to develop and approve the change control plan.

Change Control Management

With the State's assistance and approval, Contractor will develop and document a written change control plan, following Contractor's then-current implementation management and processes outlining the implementation plan, test plan, back- out and recovery plan, and Contractor-installed Database and Operating System Software

releases consisting of fixes and patches (n), maintenance release updates, (Z), minor release updates (Y) and major release updates (X). During such implementations, Contractor will provide Remote Support throughout the implementation of the change control plan.

All Change Control development is subject to the 28-day notification requirement and must be requested via the Teradata Access portal.

Critical Patch Review

On a weekly basis, for each certified release of a Teradata database, Contractor will review the technical alert and any corresponding patch information to determine its applicability to Customer's environment. If Contractor determines that the patch should be applied to Customer's system, Contractor will notify Customer that the patch is available and provide a recommendation as to when it should be installed.

Customer Support Plan

Contractor will document the detailed support processes through which on-going support will be delivered to Customer including both Customer's and Contractor's roles and responsibilities in those processes. The support plan will be reviewed with Customer annually and updated as necessary by Contractor.

Additional Services

Assigned Service Management

Contractor will identify technical resources that will be specifically assigned to provide these services to the State.

The State Support Plan will identify the individual by name, identify the specific roles and accountability in delivering Services, and provide direct contact information.

Performance Data Collection Reporting (PDCR) Configuration

PDCR (Performance Data Collection and Reporting) is a data collection application which provides data to support the understanding of database performance characteristics and workload utilization.

If requested by the State, Contractor will enable and configure the PDCR database and tool so that historic database and query performance can be captured allowing Customer to make optimal future workload, platform management, and consumption decisions.

Contractor will review and update PDCR on an annual basis. These services will be performed remotely by onshore resources. and may be performed offshore.

Notes:

This service does not apply to Customer "altered" PDCR tools. Customer will be subject to additional fees if PDCR tools have been altered.

Requires remote connectivity. At Contractor's discretion, this service may not be delivered due to certain remote and/or restricted access requirements by Customer that preclude delivery of the service.

Software Release Management Review

On a monthly basis, Contractor will review new certified Teradata maintenance release updates (Z) and fixes and patches (n), and if applicable to deployment, Contractor will recommend patches and releases that should be applied proactively to avoid possible failures.

For supported non-Teradata branded Software covered by an order for support, Contractor will review applicable security patches on a monthly basis. Contractor will not make recommendations to customers for Microsoft Hotfixes or Service Packs until certified by Teradata Engineering.

State of Health Reporting

On a bi-weekly basis, Contractor will remotely run and review a "Platform Health Check" to identify potential errors. On a monthly basis, Contractor will send a summary of the findings to the State. Platform Health Check findings and recommendations will also be reviewed during Operational reviews described below. This service does not apply to BAR software products.

Support Performance Reporting

Contractor will make available to the State, monthly via Teradata Access, a service performance report that identifies the response and resolution time for each incident submitted to a Teradata Service Center. The reports will provide statistics for all Teradata incidents opened and closed during the reporting period, including the number of incidents open at the start of the reporting period, the number opened during the reporting period, the number closed during the reporting period, and the number still open at the end of the reporting period.

Additionally, a summary disposition will be provided for each incident closed during the reporting period, including the severity status of the call, average problem resolution times, and the percentage of incident calls closed within the guidelines. Additional statistics will be included at Contractor's discretion.

If the State does not have access to Teradata Access, a service performance report will be provided monthly.

Service Reviews

For each contract year, Contractor will provide Customer the following support Reviews: one Operational review per quarter and one Executive review per year.

Operational reviews will, at a minimum, cover current service performance, review summary results from any "Platform Health Checks", review critical technical alerts, and discuss potential future changes to the Customer's environment.

The Executive review will, at a minimum, include a review of service performance statistics. The specific agenda, discussion points and the identity of participants from both Contractor and Customer will be as mutually agreed upon. These reviews will be conducted remotely, via telephone unless an on-site meeting is mutually agreeable.

4. IT ENVIRONMENT RESPONSIBILITIES

Included in **SCHEDULE E – Data Security Requirements;** the Contractor will be required to meet all State PSP's, public and non-public applicable to this Contract. **Contractor Hosted Solution:**

Definitions:

Facilities – Physical buildings containing Infrastructure and supporting services, including physical access security, power connectivity and generators, HVAC systems, communications connectivity access and safety systems such as fire suppression.

Infrastructure – Hardware, firmware, software, and networks, provided to develop, test, deliver, monitor, manage, and support IT services which are not included under Platform and Application.

Platform – Computing server software components including operating system (OS), middleware (e.g., Java runtime, .NET runtime, integration, etc.), database and other services to host applications.

Application – Software programs which provide functionality for end user and Contractor services.

Storage – Physical data storage devices, usually implemented using virtual partitioning, which store software and data for IT system operations.

Backup – Storage and services that provide online and offline redundant copies of software and data.

Development - Process of creating, testing and maintaining software components.

Component Matrix	Identify contract components with contractor and/or subcontractor name(s), if applicable
Facilities	Teradata through Microsoft
Infrastructure	Teradata through Microsoft
Platform	Teradata through Microsoft
Application	Teradata
Storage	Teradata through Microsoft
Backup	Teradata through Microsoft
Development	Teradata

5. ADA COMPLIANCE

The State is required to comply with the Americans with Disabilities Act of 1990 (ADA) and has adopted standards and procedures regarding accessibility requirements for websites and software applications. All websites, applications, software, and associated content and documentation provided by the Contractor as part of the Solution must comply with Level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0.

6. USER TYPE AND CAPACITY

Type of User	Access Type	Number of Users	Number of Concurrent Users
State Employee	Varies by role	10,000	200

Contractor Solution must meet the expected number of concurrent Users.

7. ACCESS CONTROL AND AUTHENTICATION

The Contractor's solution must be able to be integrated with the State's IT Identity and Access Management (IAM) environment as described in the State of Michigan Digital Strategy (1340.00.020.08 Enterprise Identity and Access Management Services Standard (michigan.gov) ,which consist of:

7.1 MILogin/Michigan Identity, Credential, and Access Management (MICAM). An enterprise single sign-on and identity management solution based on IBM's Identity and Access Management products including, IBM Security Identity Manager (ISIM), IBM Security Access Manager for Web (ISAM), IBM Tivoli Federated Identity Manager (TFIM), IBM Security Access Manager for Mobile (ISAMM), and IBM DataPower, which enables the State to establish, manage, and authenticate user identities for the State's Information Technology (IT) systems.

7.2 MILogin Identity Federation. Allows federated single sign-on (SSO) for business partners, as well as citizen-based applications.

7.3 MILogin Multi Factor Authentication (MFA, based on system data classification requirements). Required for those applications where data classification is Confidential and Restricted as defined by the 1340.00 Michigan Information Technology Information Security Policy (i.e. the proposed solution must comply with PHI, PCI, CJIS, IRS, and other standards).

7.4 MILogin Identity Proofing Services (based on system data classification requirements). A system that verifies individual's identities before the State allows access to its IT system. This service is based on "life history" or transaction information aggregated from public and proprietary data sources. A leading credit bureau provides this service.

To integrate with the SOM MILogin solution, the Contractor's solution must support SAML, or OAuth or OpenID interfaces for the SSO purposes.

8. DATA RETENTION AND REMOVAL

The State will need to retain all data for the entire length of the Contract unless otherwise direct by the State.

The State will need the ability to delete data, even data that may be stored off-line or in backups.

The State will need to retrieve data, even data that may be stored off-line or in backups.

9. END USER AND IT OPERATING ENVIRONMENT

The SOM IT environment includes X86 VMware, IBM Power VM, MS Azure/Hyper-V and Oracle VM, with supporting platforms, enterprise storage, monitoring, and management running in house and in cloud hosting provides.

Contractor must accommodate the latest browser versions (including mobile browsers) as well as some pre-existing browsers. To ensure that users with older browsers are still able to access online services, applications must, at a minimum, display and function correctly in standards-compliant browsers and the state standard browser without the use of special plugins or extensions. The rules used to base the minimum browser requirements include:

• Over 2% of desktop and mobile & tablet site traffic, measured using Michigan.gov sessions statistics and
• The current browser identified and approved as the State of Michigan standard

This information can be found at https://www.michigan.gov/browserstats. Please use the most recent calendar quarter to determine browser statistics. Support is required for those desktop and mobile & tablet browsers identified as having over 2% of site traffic.

Contractor must support the current and future State standard environment at no additional cost to the State.

10. SOFTWARE

Contractor must provide a list of any third party components, and open source component included with or used in connection with the deliverables defined within this Contract. This information must be provided to the State on a quarterly basis and/or if a new third party or open source component is used in the performance of this Contract.

Look and Feel Standards
All software items provided by the Contractor must adhere to the State of Michigan Application/Site standards which can be found at https://www.michigan.gov/standards.

Mobile Responsiveness
If the software will be used on a mobile device as define in Schedule A – Table 1, Business Specification Worksheet, the Software must utilize responsive design practices to ensure the application is accessible via a mobile device.

SOM IT Environment Access
Contractor must access State environments using one or more of the following methods:

- State provided VDI (Virtual Desktop Infrastructure) where compliant.
- State provided and managed workstation device.
- Contractor owned and managed workstation maintained to all State policies and standards.
- Contractor required interface with State systems which must be maintained in compliance with State policies and standards as set forth in **Schedule E – Data Security Requirements**.
- From locations within the United States and jurisdiction territories.

11. INTEGRATION

Contractor must integrate their solution to the following technologies:

Current Technology	Teradata Vantage accessible via port 1025
Volume of Data	Every day, the data warehouse supports thousands of decision support queries, report requests, ad hoc requests and utility loads. The daily data warehouse workload consists of: 1,000-1,500 End user requests for excel reports 1,000-1,200 End user requests for BI Query reports 5,000-6,000 End user requests for MS Access reports 19,000-21,000 requests for data to populate Business Objects reports 1,000-2,000 end user requests from ad hoc query tools 70,000-80,000 requests to support Michigan Care Immunization Registry (MCIR) 60,000-70,000 requests to support the Bridges Consolidated Inquiry 90,000-110,000 web application requests 3,000-4,000 utility loads comprised of 2.8 – 3.3 billion rows totaling 550-650 GB of data
Format of the input & export files	Varies by system. With the solution, the current interfaces that support Excel, Microsoft Access, the report tools, decision support applications, the ad hoc query tools, the ETL processes, and the export processes will not require changes.

12. MIGRATION

The solution addresses the data migration from the on-prem data warehouse systems to the cloud data warehouse systems. Data conversions and object conversions are not required.

Current Technology	Teradata Vantage
Data Format relative to the database technology used.	Standard Teradata data formats; the SOM has not created any User-Defined Data Types (UDTs)
Number of data fields to give Contractor awareness of the size of the schema.	Number of Fields: this is less relevant to the data warehouse sizing than the following information: Number of Databases: 840 Number of Tables: 37,000 Number of Table Columns: 718,000 Number of Views: 21,500 Number of View Columns: 450,000 Macros: 2,500 Stored Procs: 4,100 SOM User-Defined Functions: 125
Volume of Data	Prod: ~37 TB Dev: ~34 TB
Database current size.	Prod: ~37 TB Dev: ~34 TB

The database may be increased at the time of transition, if required by the State.

13. TRAINING SERVICES

The Contractor must provide administration and end-user training for implementation, go-live support, and transition to customer self-sufficiency. Please see Schedule Q Attachment 6 and 7.

14. TRANSITION RESPONSIBILITIES

See Schedule G – Transition In and Out Plan

15. DOCUMENTATION

Contractor must provide all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of the Software.

Contractor must develop and submit for State approval complete, accurate, and timely Solution documentation to support all users, and will update any discrepancies, or errors through the life of the contract.

The Contractor's user documentation must provide detailed information about all software features and functionality, enabling the State to resolve common questions and issues prior to initiating formal support requests.

16. RESERVED

17. CONTRACTOR PERSONNEL

Contractor Contract Administrator. Contractor resource who is responsible to(a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

Contractor
Jeanne McNeil
822 Centennial Way, Suite 100,
Lansing, MI 48917
517-993-0929
jeanne.mcneil@optum.com

Contractor Security Officer. Contractor resource who is responsible to respond to State inquiries regarding the security of the Contractor's Solution. This person must have sufficient knowledge of the security of the Contractor Solution and the authority to act on behalf of Contractor in matters pertaining thereto. Contractor must inform the State of any change to this resource.

Contractor
Mike Durham
17095 Via del Campo

> San Diego CA 92127
> 618-541-5628
> mike.durham@teradata.com

18. CONTRACTOR KEY PERSONNEL

Contractor Project Manager. Contractor resource who is responsible to serve as the primary contact with regard to services who will have the authority to act on behalf of the Contractor in matters pertaining to the implementation services, matters pertaining to the receipt and processing of Support Requests and the Support Services.

Contractor
Steve Schon
822 Centennial Way, Suite 100,
Lansing, MI 48917
517-993-0931
stephen.schon@optum.com

19. CONTRACTOR PERSONNEL REQUIREMENTS

Background Checks. Contractor must present certifications evidencing satisfactory ICHAT and drug test results for all staff identified for assignment to this project to the State of Michigan Program Manager designated for this Contract. In addition, proposed Contractor personnel will be required to complete a Michigan State Police background check and/or submit an RI-8 Fingerprint Card for the National Crime Information Center (NCIC) Finger Prints, if required by project.

Annually, Contractor must perform an ICHAT for all staff identified for assignment to this project. Annual background check results will be reported to the State of Michigan Program Manager designated for this Contract.

Contractor, while employed with DTMB, will disclose to the State of Michigan Program Manager for this Contract, in writing at or before the beginning of the next scheduled duty shift:
   a. A felony or misdemeanor court conviction, whether by guilty plea, no contest plea or trial.
   b. A felony arraignment.
   c. Restriction, suspension, or loss of driving privileges for any reason, if they employee's current position requires possession of a valid driver's license.

Contractor will pay for all costs associated with ensuring its staff meet all requirements.

Offshore Resources. Offshore Resources will not be allowed under this Contract.

Disclosure of Subcontractors. If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:

- The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; and information concerning subcontractor's ability to provide the Contract Activities.
- The relationship of the subcontractor to the Contractor.
- Whether the Contractor has a previous working experience with the subcontractor. If yes, provide details of that previous relationship.
- A complete description of the Contract Activities that will be performed or provided by the subcontractor.

Teradata Government Systems, LLC

Bidder must provide detailed information as requested in the above requirement(s).	
The legal business name, address, telephone number of the subcontractor(s).	Teradata Government Systems, LLC 17095 Via Del Campo San Diego, CA 92127 1-866-837-2328
A description of subcontractor's organization and the services it will provide and information concerning subcontractor's ability to provide the Contract Activities.	Teradata is a multi-cloud, multi-platform provider of hardware and software used and deployed by commercial and government clients throughout the U.S. and in other parts of the world. It provides not only the underlying IT infrastructure but related professional services, maintenance services and disaster recovery services consistent with the scope of work in this Contract
The relationship of the subcontractor to the Bidder.	Teradata is an unaffiliated subcontractor to Optum, the contracting entity.
Whether the Bidder has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.	Optum has used Teradata for over 20 years as a subcontractor and supplier of both on premise and cloud based solutions for which Teradata is the manufacturer across multiple state government engagements, including the Michigan engagement spanning multiple contracts.
A complete description of the Contract Activities that will be	Teradata will provide Cloud Provisioning Services, related professional services and maintenance and

Bidder must provide detailed information as requested in the above requirement(s).	
performed or provided by the subcontractor.	support services for the State's New Production and DevDR Systems, much as it has done when the State's Test System was migrated from the State's data center to the Azure Commercial Cloud.
Of the total bid, the price of the subcontractor's work.	83.3%

1105 Media, Inc., d/b/a The Data Warehousing Institute

Contractor must provide detailed information as requested in the above requirement (s)	
The legal business name, address, telephone number of the subcontractor(s).	1105 Media, Inc., d/b/a The Data Warehouse Institute 6300 Canoga Avenue, Suite 1150 Woodland Hills, CA 91367 425-277-9184
A description of subcontractor's organization and the services it will provide and information concerning subcontractor's ability to provide the Contract Activities.	TDWI provides a comprehensive portfolio of business and technical education and research to commercial and government customers for a variety of data driven subjects through on site and remote based learning. TDWI's services include remote based learning for State users regarding a variety of potential data based topics that the State has the right to select, where such subjects include data architecture, business intelligence (BI) and business analytics and data governance that is part of this Contract.
The relationship of the subcontractor to the Bidder.	TDWI is an unaffiliated subcontractor to Optum, the contracting entity.
Whether the Bidder has a previous working experience with the subcontractor. **If yes, provide the details of that previous relationship.**	Optum has used TDWI to provide on site and remote based training for a variety of data driven topics of relevance to Michigan users used since 2015.

A complete description of the Contract Activities that will be performed or provided by the subcontractor.	TDWI will provide remote, instructor led training whose course content shall be selected by the State and could include subjects such as data architecture, BI and business analytics and data governance.
Of the total bid, the price of the subcontractor's work.	1.9%

OpenText Inc.

Contractor must provide detailed information as requested in the above requirement (s)	
The legal business name, address, telephone number of the subcontractor(s).	OpenText Inc. 275 Frank Tompa Drive Waterloo, ON, N2L 0A1, Canada 1-519-888-7111
A description of subcontractor's organization and the services it will provide and information concerning subcontractor's ability to provide the Contract Activities.	OpenText is a global market leader for Information Management for customers in 180 countries. OpenText's product, BI Query, is utilized by hundreds of State of Michigan staff to do their jobs daily, while performing operations related to the Enterprise Data Warehouse (EDW). BI Query software standard maintenance is required by State users every year as part of this Contract.
The relationship of the subcontractor to the Bidder.	OpenText is an unaffiliated supplier to Optum, the contracting entity.
Whether the Bidder has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.	Optum has used OpenText for many years on many contracts as a supplier of BI Query licenses and software standard maintenance.
A complete description of the Contract Activities that will be performed or provided by the subcontractor.	OpenText will provide annual BI Query software standard maintenance for 800+ State users from MDHHS, Treasury and DTMB.

Of the total bid, the price of the subcontractor's work.	5.0%

20. STATE RESOURCES/RESPONSIBILITIES

The State will provide the following resources as part of the implementation and ongoing support of the Solution.

State Contract Administrator. The State Contract Administrator is the individual appointed by the State to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

State Contract Administrator
Name: Shannon Romein Phone: 517-898-8102 Email: RomeinS@michigan.gov

Program Managers. The DTMB and Agency Program Managers (or designee) will jointly approve all Deliverables and day to day activities.

Program Manager
Mark Wagner (517) 898-4084 wagnerm2@michigan.gov

21. MEETINGS

At start of the engagement, the Contractor Project Manager must facilitate a project kick off meeting with the support from the State's Project Manager and the identified State resources to review the approach to accomplishing the project, schedule tasks and identify related timing, and identify any risks or issues related to the planned approach. From project kick-off until final acceptance and go-live, Contractor Project Manager must facilitate weekly meetings (or more if determined necessary by the parties) to provide updates on implementation progress. Following go-live, Contractor must facilitate monthly meetings (or more or less if determined necessary by the parties) to ensure ongoing support success.

22. PROJECT CONTROL & REPORTS

Once the Project Kick-Off meeting has occurred, the Contractor Project Manager will monitor project implementation progress and report on a weekly basis to the State's Project Manager the following:

- Progress to complete milestones, comparing forecasted completion dates to planned and actual completion dates
- Accomplishments during the reporting period, what was worked on and what was completed during the current reporting period
- Tasks planned for the next reporting period
- Identify any existing issues which are impacting the project and the steps being taken to address those issues
- Identify any new risks and describe progress in mitigating high impact/high probability risks previously identified
- Indicate the amount of funds expended during the current reporting period, and the cumulative total to date for the project.

23. PROJECT MANAGEMENT

The Contractor Project Manager will be responsible for maintaining a project schedule (or approved alternative) identifying tasks, durations, forecasted dates and resources – both Contractor and State - required to meet the timeframes as agreed to by both parties.

Changes to scope, schedule or cost must be addressed through a formal change request process with the State and the Contractor to ensure understanding, agreement and approval of authorized parties to the change and clearly identify the impact to the overall project.

SUITE Documentation
In managing its obligation to meet the above milestones and deliverables, the Contractor is required to utilize the applicable State Unified Information Technology Environment (SUITE) methodologies, or an equivalent methodology proposed by the Contractor.

Event	Target End Date
1. Project Start Date	November 7, 2023
2. The State will expand its Azure Circuits. **Milestone 1A.**	April 2, 2024
3. Optum, via its subcontractor Teradata, will establish the New Production System in Azure GovCloud Virginia, with help from the State. **Milestone 1B(i).** Note: Handover to the State will occur in the first week of December.	December 1, 2023
4. Optum, via its subcontractor Teradata, will establish the New DevDR System in Azure GovCloud Texas, with help from the State. **Milestone 1B(ii).** Note: Handover to the State will occur in the first week of April.	March 31, 2024
5. The State will perform Production migration and acceptance, going live in the Azure GovCloud. **Milestone 2A.**	August 31, 2024
6. The State will perform DevDR migration and acceptance, going live in the Azure GovCloud. **Milestone 2B.**	September 30, 2024
7. Optum, via its subcontractor Teradata, will decommission the retired 6800H Production System, with help from the State. **Milestone 3A.**	October 31, 2024
8. Optum, via its subcontractor Teradata, will decommission the retired 6800H DevDR System, with help from the State. **Milestone 3B.**	October 31, 2024

For more detail a Work Breakdown Structure can be found in Schedule R.

24. ADDITIONAL INFORMATION

The State reserves the right to purchase any additional services or products from the Contractor during the duration of the Contract.

SCHEDULE B - PRICING

The system cloud subscription for each New System consists of: Azure Infrastructure as a Service, BAR, Teradata Software Subscription (including Teradata Vantage Enterprise SQLE licensing), Workload Management (TASM) and TTU

See the Cost Table 4b below with highlights showing the FY24 items that are new or have changed. FY25 – FY27 are new. The Cost Table 4c for BI Query is also provided below.

Once the New Production System is in place in Azure GovCloud Virginia, defined as the completion of Milestone 1B(i), Optum will invoice the State the difference in charges for the New Production System over the Current Production System for FY24, i.e., the FY24 "Teradata Production System cloud subscription" amount of $1,471,000 in the Cost Table 4b. Similarly, once the New DevDR System is in place in Azure GovCloud Texas, defined as the completion of Milestone 1B(ii), Optum will invoice the State the difference in charges for the New DevDR System over the Current DevDR System for FY24, i.e., the FY24 "Teradata DevDR System cloud subscription" amount of $559,900.

After migration, acceptance and cutover to each New System (Milestone 2), the State will receive a credit from Optum for each full month of paid 6800H System Annual Maintenance (including COD) remaining in FY24, based on the Cost Table 4b. For example, if the State completes Production cutover on August 27, 2024, then the State will receive a credit for September of 2024, i.e., ($852,600 + $306,000) * 1/12 = $96,550. On the other hand, if cutover occurs after September 2024 for any reason, then the State will owe additional month(s) for 6800H System maintenance. For example, if the State completes DevDR cutover in October, then the State will owe an additional ($692,800 + $66,600) * 1/12 = $63,283 for October from the Platform Pool fund, which covers FY25 DevDR 6800H maintenance that is not showing in the FY25 column of the Cost Table 4b.

Summary of charges:

Item Description	Price
Change Notice 24, Cost Table 4b – Total (36 months for FY22 - FY24)	$13,752,380
FY22 – FY23 Columns removed for 24 months, no longer relevant – Minus	-9,203,890
FY24 Teradata Production System cloud subscription – Add	1,471,000
FY24 Teradata DevDR System cloud subscription – Add	559,900
FY25 – FY27 Software and Services (36 months) – Add	16,077,580
Revised Cost Table 4b – Total (48 months for FY24 – FY27)	$22,656,970

Total Estimated Change to Cost Table 4b for Pricing (48 months):   **$18,108,480.00**

This $18,108,480 is the difference between (i) the new Cost Table 4b total ($22,656,970); and (ii) the FY24 balance remaining from Change Notice 24 Cost Table 4b (13,752,380 – 9,203,890 for FY22-3 = $4,548,490).

Cost Table 4b

	FY24 10/1/2023 - 09/30/2024 12 Months	FY25 10/1/2024 - 09/30/2025 12 Months	FY26 10/1/2026 - 09/30/2026 12 Months	FY27 10/1/2026 - 09/30/2027 12 Months	TOTAL 10/1/2023 - 09/30/2027 48 Months
Subscription and Capacity on Demand (COD)					
Production Software Subscription	370,100				370,100
COD Production Subscription for FY17 thru Aug 2020 COD	223,000				223,000
Dev/DR Software Subscription	254,200				254,200
COD DevDR Subscription for FY19 thru Aug 2020 COD	43,000				43,000
Teradata Production System cloud subscription [1, 2, 3, 4]	1,471,000	1,997,400	2,291,600	2,639,100	8,399,100
Teradata DevDR System cloud subscription [1, 2, 3, 4]	559,900	1,150,600	1,335,600	1,591,200	4,637,300
Teradata Test System cloud subscription [1, 3, 4]	366,900	402,400	429,400	446,000	1,644,700
Subscription and COD Totals	**$3,288,100**	**$3,550,400**	**$4,056,600**	**$4,676,300**	**$15,571,400**
Services					
System Hardening Services	46,900	84,500	97,000	107,600	336,000
Platform Pool [4, 5, 6]	264,400				264,400
Education - TEN+ and TEN+ Webcast (15 Named Staff)	38,800	39,500	40,200	40,900	159,400
Education On-Going Training [5]	95,300	97,200	99,200	101,100	392,800
TDWI Training Services [5]	108,600	114,030	119,732	125,718	468,080
BI Query Software Maintenance and Support (includes CR22 and CR27 Adds for Treasury) [7]	266,890	293,550	320,210	355,040	1,235,690
Symmetry Software License and Support [8]	552,400	569,000	586,100	603,700	2,311,200
Maintenance					
On-Going Annual Maintenance - Production System	852,600				852,600
On-Going Annual Maintenance - COD Production for FY17 thru Aug 2020 COD	306,000				306,000
On-Going Annual Maintenance - Dev/DR System	692,800				692,800
On-Going Annual Maintenance - COD DevDR for FY19 thru Aug 2020 COD	66,600				66,600
Services Sub-Total	**$3,291,290**	**$1,197,780**	**$1,262,442**	**$1,334,058**	**$7,085,570**
Total	**$6,579,390**	**$4,748,180**	**$5,319,042**	**$6,010,358**	**$22,656,970**

Notes: [1] This is for the Teradata End-to-End Service offering in Azure GovCloud for the items listed in Exhibit 1 Sections A & B. The annual charge for the New Systems consists of:

-- Azure Infrastructure as a Service, BAR, Teradata Software Subscription (including Teradata Vantage Enterprise SQLE licensing), Workload Management (TASM) and TTU

-- Support, including Software Implementation Services and patches, updates and minor upgrades, and up to one Major upgrade per year on each server, without exceeding two VM redeployments over the 5-year period, one of which is scheduled to be Year 3 in order for DevDR to allow proper future expansion. (Note that redeployment services can be required for multiple reasons, including O/S upgrades and some node expansion scenarios)

-- One-time upfront services for New Systems (Cloud Provisioning Services, IRS SLES SCSEM hardening, DSU Optimization, Cloud Advisory Services and Decommission Services)

-- Temporarily expanding and contracting the New DevDR System for up to one-week annually to facilitate customer DR Testing or to address an actual disaster

[2] The new FY24 cloud subscription amounts are *in addition to* existing Production and DevDR subscription and maintenance amounts

[3] When expanding/redeploying, items listed in Schedule I may no longer be available, or better options may exist, so like alternatives may be provided by Contractor by mutual agreement without reduction in terabytes and for TCore within 5% of the targetted add-on amount

[4] Platform Pool funds are for future add-ons. The following are currently out of scope: growth to Production and DevDR beyond Schedule I Sections A & B scope (e.g., HW/SW/CPU/storage); additional items/services if found to be needed during Implementation/Transition/Steady-State; Test System growth of any kind; ExpressRoutes/bandwidth/egress sizing or costs; IntelliSphere, QueryGrid and Machine Learning and Graph engines software/servers/services; more than two redeployments within the above 5-year period; continued maintenance of 6800H systems beyond Sept 2024; and Teradata Application Center/Analyst servers and services. In some cases business process improvements (e.g., data retention policy, in-database processing, best practices, etc.) can alternatively be used in place of add-ons (e.g., growth, capacity).

[5] Unused funds carry-over to next fiscal year. In some cases future funds may also need to be added to meet the State's needs; this will be done through a Change Notice to the Contract.

[6] Platform Pool funds carried-over from FY23 and earlier can be used in future years, so no new Platform Pool funds are projected for FY25-27 above. If needed, State can allocate more in the future.

[7] The 3 separate BI Query lines in Change Notice 24 were combined into one line above. BI Query agency details are provided in the Cost Table 4c.

[8] The additional Symmetry Software License and Support charge per year for each 100,000 covered lives above 2,535,750 shall be $6,100.00.

Cost Table 4c – BI Query Cost Details

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2024	DCH	BI Query Admin Existing Support	850.00	1	850.00
		BI Query User Support for Original 545	310.00	545	168,950.00
		BI Query User Support for Additional 120	370.00	120	44,400.00
				FY 2024 DCH Total	**$214,200.00**
	Treasury	BI Query Admin Existing Support	850.00	3	2,550.00
		BI Query User Support for Original 77	310.00	77	23,870.00
		BI Query User Support for Additional 39	370.00	39	14,430.00
		BI Query User Support for Additional 30 (CR027)	370.00	30	11,100.00
				FY 2024 Treasury Total	**$51,950.00**
	DTMB	BI Query User Existing Support	370.00	2	740.00
				FY 2024 DTMB Total	**$740.00**
				FY 2024 Total	**$266,890.00**
FY2025	DCH	BI Query Admin Existing Support	940.00	1	940.00
		BI Query User Support for Original 545	340.00	545	185,300.00
		BI Query User Support for Additional 120	410.00	120	49,200.00
				FY 2025 DCH Total	**$235,440.00**
	Treasury	BI Query Admin Existing Support	940.00	3	2,820.00
		BI Query User Support for Original 77	340.00	77	26,180.00
		BI Query User Support for Additional 39	410.00	39	15,990.00
		BI Query User Support for Additional 30 (CR027)	410.00	30	12,300.00
				FY 2025 Treasury Total	**$57,290.00**
	DTMB	BI Query User Existing Support	410.00	2	820.00
				FY 2025 DTMB Total	**$820.00**
				FY 2025 Total	**$293,550.00**
FY2026	DCH	BI Query Admin Existing Support	1,030.00	1	1,030.00
		BI Query User Support for Original 545	370.00	545	201,650.00
		BI Query User Support for Additional 120	450.00	120	54,000.00
				FY 2026 DCH Total	**$256,680.00**
	Treasury	BI Query Admin Existing Support	1,030.00	3	3,090.00
		BI Query User Support for Original 77	370.00	77	28,490.00
		BI Query User Support for Additional 39	450.00	39	17,550.00
		BI Query User Support for Additional 30 (CR027)	450.00	30	13,500.00
				FY 2026 Treasury Total	**$62,630.00**
	DTMB	BI Query User Existing Support	450.00	2	900.00
				FY 2025 DTMB Total	**$900.00**
				FY 2026 Total	**$320,210.00**
FY2027	DCH	BI Query Admin Existing Support	1,130.00	1	1,130.00
		BI Query User Support for Original 545	410.00	545	223,450.00
		BI Query User Support for Additional 120	500.00	120	60,000.00
				FY 2027 DCH Total	**$284,580.00**
	Treasury	BI Query Admin Existing Support	1,130.00	3	3,390.00
		BI Query User Support for Original 77	410.00	77	31,570.00
		BI Query User Support for Additional 39	500.00	39	19,500.00
		BI Query User Support for Additional 30 (CR027)	500.00	30	15,000.00
				FY 2027 Treasury Total	**$69,460.00**
	DTMB	BI Query User Existing Support	500.00	2	1,000.00
				FY 2027 DTMB Total	**$1,000.00**
				FY 2027 Total	**$355,040.00**

Travel and Expenses

The State does not pay for overtime or travel expenses.

SCHEDULE C – INSURANCE REQUIREMENTS

Data Warehouse Implementation and Services

1. General Requirements. Contractor, at its sole expense, must maintain the insurance coverage as specified herein for the duration of the Term. Minimum limits may be satisfied by any combination of primary liability, umbrella or excess liability, and self-insurance coverage. To the extent damages are covered by any required insurance, Contractor waives all rights against the State for such damages. Failure to maintain required insurance does not limit this waiver.

2. Qualification of Insurers. Except for self-insured coverage, all policies must be written by an insurer with an A.M. Best rating of A- VII or higher unless otherwise approved by DTMB Enterprise Risk Management.

3. Primary and Non-Contributory Coverage. All policies for which the State of Michigan is required to be named as an additional insured must be on a primary and non-contributory basis.

4. Claims-Made Coverage. If any required policies provide claims-made coverage, Contractor must:

a. Maintain coverage and provide evidence of coverage for at least 3 years after the later of the expiration or termination of the Contract or the completion of all its duties under the Contract;

b. Purchase extended reporting coverage for a minimum of 3 years after completion of work if coverage is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Contract.

5. Proof of Insurance.

a. Insurance certificates showing evidence of coverage as required herein must be submitted to DTMB-RiskManagement@michigan.gov within 10 days of the contract execution date.

b. Renewal insurance certificates must be provided on annual basis or as otherwise commensurate with the effective dates of coverage for any insurance required herein.

c. Insurance certificates must be in the form of a standard ACORD Insurance Certificate unless otherwise approved by DTMB Enterprise Risk Management.

d. All insurance certificates must clearly identify the Contract Number (e.g., notated under the Description of Operations on an ACORD form).

e. The State may require additional proof of insurance or solvency, consisting of policy endorsements for policies where the State is required to be listed as an additional insured and, if required by the State, the most recent audited and consolidated financial statements of UnitedHealth Group, Incorporated ("United") where such statements include the financial results of the Contractor.

f. In the event any required coverage is cancelled or not renewed, Contractor must provide written notice to DTMB Enterprise Risk Management no later than 5 business days following such cancellation or nonrenewal.

6. Subcontractors. Contractor is responsible for ensuring its subcontractors carry and maintain insurance coverage.

7. Limits of Coverage & Specific Endorsements.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimum Limits: $1,000,000 Each Occurrence $1,000,000 Personal & Advertising Injury $2,000,000 Products/Completed Operations $2,000,000 General Aggregate	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.
Automobile Liability Insurance	
If a motor vehicle is used in relation to the Contractor's performance, the Contractor must have vehicle liability insurance on the motor vehicle for bodily injury and property damage as required by law.	
Workers' Compensation Insurance	
Minimum Limits: **Coverage according to applicable laws governing work activities.**	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimum Limits: $500,000 Each Accident $500,000 Each Employee by Disease $500,000 Aggregate Disease	
Privacy and Security Liability (Cyber Liability) Insurance	
Minimum Limits: $1,000,000 Each Claim $1,000,000 Annual Aggregate	Contractor must have their policy cover information security and privacy liability, privacy notification costs, regulatory defense and penalties, and website media content liability.
Professional Liability (Errors and Omissions) Insurance	
Minimum Limits: $3,000,000 Each Claim $3,000,000 Annual Aggregate	

8. Non-Waiver. This Schedule C is not intended to and is not to be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract, including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State.

SCHEDULE D – SERVICE LEVEL AGREEMENT

CONTRACTOR HOSTED:

1. For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract Terms and Conditions. "**Actual Uptime**" means the total minutes in the Service Period that the Hosted Services are Available.

"**Availability**" has the meaning set forth in **Section 2.1.**

"**Availability Requirement**" has the meaning set forth in **Section 2.1.**

"**Available**" has the meaning set forth in **Section 2.1.**

"**Contact List**" means a current list of Contractor contacts and telephone numbers set forth in the attached **Schedule D – Attachment 1** to this Schedule to enable the State to escalate its Support Requests, including: (a) the first person to contact; and (b) the persons in successively more qualified or experienced positions to provide the support sought.

"**Corrective Action Plan**" has the meaning set forth in **Section 3.9.**

"**Critical Service Error**" has the meaning set forth in **Section 3.5.**

"**Exceptions**" has the meaning set forth in **Section 2.2.**

"**High Service Error**" has the meaning set forth in **Section 3.5.**

"**Low Service Error**" has the meaning set forth in **Section 3.5.**

"**Medium Service Error**" has the meaning set forth in **Section 3.5.**

"**Resolve**" has the meaning set forth in **Section 3.6.**

"**RPO**" or "**Recovery Point Objective**" means the maximum amount of potential data loss in the event of a disaster.

"**RTO**" or "**Recovery Time Objective**" means the maximum period of time to fully restore the Hosted Services in the case of a disaster.

"**Scheduled Downtime**" has the meaning set forth in **Section 2.3.**

"**Scheduled Uptime**" means the total minutes in the Service Period.

"**Service Availability Credits**" has the meaning set forth in **Section 2.6(a).**

"**Service Error**" means any failure of any Hosted Service to be Available or otherwise perform in accordance with this Schedule.

"**Service Level Credits**" has the meaning set forth in **Section 3.8.**

"**Service Level Failure**" means a failure to perform the Software Support Services fully in compliance with the Support Service Level Requirements.

"**Service Period**" has the meaning set forth in **Section 2.1.**

"**Software Support Services**" has the meaning set forth in **Section 3.**

"**State Systems**" means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

"**Support Hours**" means 7 days per week, 24 hours a day.

"**Support Request**" has the meaning set forth in **Section 3.5.**

"**Support Service Level Requirements**" has the meaning set forth in **Section 3.4.**

2. Service Availability and Service Availably Credits.

2.1 Availability Requirement. Contractor will make the Hosted Services and Software Available, as measured over the course of each calendar month during the Term and any additional periods during which Contractor does or is required to perform any Hosted Services (each such calendar month, a "**Service Period**"), at least 99.9% of the time for the New Production System and DevDR System, excluding only the time the Hosted Services are not Available solely as a result of one or more Exceptions (the "**Availability Requirement**"). "**Available**" means the Hosted Services and Software are available and operable for access and use by the State and its Authorized Users in material conformity with the Contract. "**Availability**" has a correlative meaning. The Hosted Services and Software are not considered Available in the event of a material performance degradation or inoperability of the Hosted Services and Software, in whole or in part. The Availability Requirement will be calculated for the Service Period as follows: (Actual Uptime – Total Minutes in Service Period Hosted Services or Software are not Available Due to an Exception) ÷ (Scheduled Uptime – Total Minutes in

Service Period Hosted Services or Software are not Available Due to an Exception) x 100 = Availability.

2.2 Exceptions. No period of Hosted Services degradation or inoperability will be included in calculating Availability to the extent that such downtime or degradation is due to any of the following ("**Exceptions**"):

    (a)   Failures of the State's or its Authorized Users' internet connectivity;

    (b)   Scheduled Downtime as set forth in **Section 2.3;**

    (c)   Actions by the State that causes an outage of the New Production System or the New DevDR System; and

    (d)   To the extent Contractor access is necessary for the Resolution, the State has not granted Contractor access to the applicable System for Resolution

2.3 Scheduled Downtime. Contractor must notify the State at least twenty-four (24) hours in advance of all scheduled outages of the Hosted Services or Software in whole or in part ("**Scheduled Downtime**"). All such scheduled outages will: (a) last no longer than eight (8) hours; (b) be scheduled Sundays between the hours of 4:00 p.m. and 12:00 a.m., Eastern Time; and (c) occur no more frequently than once per week; provided that Contractor may request the State to approve extensions of Scheduled Downtime above eight (8) hours, and such approval by the State may not be unreasonably withheld or delayed.

2.4 Software Response Time. If the State deems software response time unacceptable, Contractor will work with the State to investigate and provide any necessary services or support to improve Software response time, subject to the change control process if there is a material cost to improve the Software response time.

2.5 Service Availability Reports. Within thirty (30) days after the end of each Service Period, Contractor will provide to the State a report describing the Availability and other performance of the Hosted Services and Software during that calendar month as compared to the Availability Requirement. The report must be in electronic or such other form as the State may approve in writing and shall include, at a minimum: (a) the actual performance of the Hosted Services and Software relative to the Availability Requirement; and (b) if Hosted Service performance has failed in any respect to meet or exceed the Availability Requirement during the reporting period, a description in sufficient detail to

inform the State of the cause of such failure and the corrective actions the Contractor has taken and will take to ensure that the Availability Requirement are fully met.

2.6 Remedies for Service Availability Failures.

(a) If the actual Availability of the Hosted Services and Software is less than the Availability Requirement for any Service Period, such failure will constitute a Service Error for which the State may request that the Contractor issue to the State the following credits on the fees payable for Hosted Services and Software provided during the Service Period ("**Service Availability Credits**"):

Availability	Credit of Fees
≥99.9%	None
<99.9% but ≥99.0%	15%
<99.0% but ≥95.0%	50%
<95.0%	100%

(b) Any Service Availability Credits due under this **Section 2.6** will be applied in accordance with payment terms of the Contract.

(c) If the actual Availability of the Hosted Services and Software is less than the Availability Requirement in any three (3) of six (6) consecutive Service Periods, then, in addition to all other remedies available to the State, the State may terminate the Contract on written notice to Contractor with no liability, obligation or penalty to the State by reason of such termination.

(d) Notwithstanding the foregoing, the total amount of Service Availability Credits for the New Production System and the total amount of Service Availability Credits for the New Dev/DR System that may be assessed during a State Fiscal Year cannot exceed ten percent (10%) of the then applicable annual amount for cloud subscription for the New Production System and New Dev/DR System, respectively.

3. Support and Maintenance Services. Contractor will provide IT Environment Service and Software maintenance and support services (collectively, "**Software Support Services**") in accordance with the provisions of this **Section 3.** The Software Support Services are included in the Services, and Contractor may not assess any additional fees, costs or charges for such Software Support Services.

> 3.1 Support Service Responsibilities. Contractor will:
>
> (a) correct all Service Errors in accordance with the Support Service Level Requirements defined in Section 3.6, including by providing defect repair, programming corrections and remedial programming;
>
> (b) provide unlimited telephone support, 7 days per week, 24 hours a day for Critical Service Errors and High Service Errors and provide telephone support Monday through Friday, 8:00 a.m. to 5:00 p.m. Eastern Standard Time, excluding locally observed holidays, for Medium Service Errors and Low Service Errors.
>
> (c) provide unlimited online support 24 hours a day, seven days a week;
>
> (d) provide online access to technical support bulletins and other user support information and forums, to the full extent Contractor makes such resources available to its other customers; and
>
> (e) respond to and Resolve Support Requests as specified in this **Section 3.**

3.2 Service Monitoring and Management. Contractor will continuously monitor and manage the Hosted Services and Software to optimize Availability that meets or exceeds the Availability Requirement and provide the State this capability. Such monitoring and management includes:

(a) proactively monitoring on a twenty-four (24) hour by seven (7) day basis all Hosted Service functions, servers, firewall and other components of Hosted Service security;

(b) if such monitoring identifies, or Contractor otherwise becomes aware of, any circumstance that is reasonably likely to threaten the Availability of the Hosted Service, taking all necessary and reasonable remedial measures to promptly eliminate such threat and provide full Availability; and

(c) if Contractor receives knowledge that the Hosted Service or any Hosted Service function or component is not Available (including by written notice from the State pursuant to the procedures set forth herein):

(i) confirming (or disconfirming) the outage by a direct check of the associated facility or facilities

(ii) If Contractor's facility check in accordance with clause (i) above confirms a Hosted Service outage in whole or in part: (A) notifying the State in writing pursuant to the procedures set forth herein that an outage has occurred, providing such details as may be available, including a Contractor trouble ticket number, if appropriate, and time of outage; and (B) working all problems causing and caused by the outage until they are Resolved as Critical Service Errors in accordance with the Support Request Classification set forth in **Section 3.5 and 3.6**, or, if determined to be an internet provider problem, open a trouble ticket with the internet provider; and

(iii) Notifying the State that Contractor has fully corrected the outage and any related problems, along with any pertinent findings or action taken to close the trouble ticket.

3.3 Service Maintenance. Contractor will continuously maintain the Hosted Services and Software to optimize Availability that meets or exceeds the Availability Requirement. Such maintenance services include providing to the State and its Authorized Users:

(a) all updates, bug fixes, enhancements, Maintenance Releases, New Versions and other improvements to the Hosted Services and Software, including the Software, that Contractor provides at no additional charge to its other similarly situated customers; provided that Contractor shall consult with the State and is required to receive State approval prior to modifying or upgrading Hosted Services and Software, including Maintenance Releases and New Versions of Software; and

(b) all such services and repairs as are required to maintain the Hosted Services and Software or are ancillary, necessary or otherwise related to the State's or its Authorized Users' access to or use of the Hosted Services and Software, so that the Hosted Services and Software operate properly in accordance with the Contract and this Schedule.

3.4 <u>Support Service Level Requirements.</u> Contractor will correct all Service Errors and respond to and Resolve all Support Requests in accordance with the required times and other terms and conditions set forth in this **Section 3** ("**Support Service Level Requirements**"), and the Contract.

3.5 <u>Support Requests.</u> The State will classify its requests for Service Error corrections in accordance with the descriptions set forth in the chart below (each a "**Support Request**"). The State will notify Contractor of Support Requests by email, telephone or such other means as the parties may hereafter agree to in writing.

Support Request Classification	Description: Any Service Error Comprising or Causing any of the Following Events or Effects
Critical Service Error (Severity 1)	• Issue affecting entire system or single critical production function; • System down or operating in materially degraded state; • Data integrity at risk; • Declared a Critical Support Request by the State; or • Widespread access interruptions.
High Service Error (Severity 2)	• Primary component failure that materially impairs its performance; or • Data entry or access is materially impaired on a limited basis.
Medium Service Error (Severity 3)	• IT Environment Services and Software is operating with minor issues that can be addressed with an acceptable (as determined by the State) temporary work around.
Low Service Error (Severity 4)	• Request for assistance, information, or services that are routine in nature.

3.6 Response and Resolution Time Service Levels. Response and Resolution times will be measured from the time Contractor receives a Support Request until the respective times Contractor has (i) responded to, in the case of response time and (ii) Resolved such Support Request, in the case of Resolution time. "**Resolve**" (including "**Resolved**", "**Resolution**" and correlative capitalized terms) means that, as to any Service Error, Contractor has provided the State the corresponding Service Error correction and the State has confirmed such correction and its acceptance thereof, whereupon the Service Error will be Resolved retroactively to the delivery of the Resolution to the State. To the extent a proposed Resolution is not accepted by the State, the time period will be recalculated based on the time and date of rejection by the State. Contractor will respond to and Resolve all Service Errors within the following times based on the severity of the Service Error:

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
Critical Service Error	One (1) hour	Twenty-four (24) hours	Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	If the critical service error is not resolved within 24 hours, then the State may impose a penalty of Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for each additional 24 hour period that the corresponding Service Error is not resolved, not to exceed 100% of the total Fees for the month.

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
High Service Error	One (1) hour	Forty-eight (48) hours	Three percent (3%) of the Fees for the month in which the initial Service Level Failure begins and three percent (3%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	If the high service error is not resolved within 48 hours, then the State may impose a penalty of Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for each additional 24 hour period that the corresponding Service Error is not resolved, not to exceed 100% of the total Fees for the month.
Medium Service Error	Three (3) hours	Contractor shall use reasonable efforts to Resolve in based on the escalation time frames in Section 3.7 for a Medium Service Error	N/A	N/A

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
Low Service Error	Three (3) hours	Contractor shall use reasonable efforts to Resolve in based on the escalation time frames in Section 3.7 for a Low Service Error	N/A	N/A

3.6.1 Software Problem Resolution

Software problem resolution activities may consist of: 1) guidance in locating solutions to known problems, information to resolve procedural problems and answers to frequently asked questions, 2) recommendations to upgrade if solution is available in a later software release, 3) providing a temporary workaround procedure to circumvent a problem until an e-fix/ code-level change is provided, or 4) providing an e- fix/code-level change that resolves the reported problem. E-fix/code-level changes will only be provided for supported releases of Database, Tools and Utilities/Client Software. Software problem Resolution is not Resolved unless the State accepts such Resolution.

3.7 Escalation. With respect to any Critical Service Error Support Request, until such Support Request is Resolved, Contractor will escalate that Support Request within sixty (60) minutes of the receipt of such Support Request by the appropriate Contractor support personnel, including, as applicable, the Contractor Project Manager and Contractor's management or engineering personnel, as appropriate.

Contractor shall provide Customer with hourly updates, arrange for bridge calls, where appropriate, immediately escalate to level 3 resources where appropriate and provide closed loop corrective actions.

Contractor shall follow the following escalation process with respect to High Service Level Error Support Requests (Severity 2), Medium Service Level Error Support Requests (Severity 3) and Low Service Support Requests (Severity 4) in a manner consistent with the table in Section 3.6.

3.8 Support Service Level Credits. Failure to achieve any of the Support Service Level Requirements for responding to or resolving Critical and High Service Errors will constitute a Service Level Failure for which Contractor will issue to the State the corresponding service credits set forth in **Section 3.6** ("**Service Level Credits**") in accordance with payment terms set forth in the Contract. To the extent one event may result in a both Availability and Service Level Credits, the State is entitled to the higher of the two Credit amounts but not both.

3.9 Corrective Action Plan. If two or more Critical Service Errors occur in any thirty (30) day period during (a) the Term or (b) any additional periods during which Contractor does or is required to perform any Hosted Services, Contractor will promptly investigate the root causes of these Service Errors and provide to the State within five (5) Business Days of its receipt of notice of the second such Support Request an analysis of such root causes and a proposed written corrective action plan for the State's review, comment and approval, which, subject to and upon the State's written approval, shall be a part of, and by this reference is incorporated in, the Contract as the parties' corrective action plan (the "**Corrective Action Plan**"). The Corrective Action Plan must include, at a minimum: (a) Contractor's commitment to the State to devote the appropriate time, skilled personnel, systems support and equipment and other resources necessary to Resolve and prevent any further occurrences of the Service Errors giving rise to such Support Requests; (b) a strategy for developing any programming, software updates, fixes, patches, etc. necessary to remedy, and prevent any further occurrences of, such Service Errors; and (c) time frames for implementing the Corrective Action Plan. There will be no additional charge for Contractor's preparation or implementation of the Corrective Action Plan in the time frames and manner set forth therein.

3.10 Support Lifecycle

3.10.1 Operating System

Contractor considers the operating system (OS) to be a part of the hardware platform. Therefore, Contractor will install any Teradata <u>certified</u> OS <u>patches or fixes </u>(including Microsoft or Linux) on <u>any</u> hardware platform (e.g., Database Nodes, TMS, SWS/AWS, stand-alone server), not to exceed a quarterly calendar cadence. Note: Certain Teradata Software Products contain a virtualized OS that is considered part of Teradata Software (e.g., TD VMware) and not the hardware platform.

Contractor will <u>not install</u> any <u>non-Teradata certified OS patches or fixes</u> on any hardware platform. If the State wants any non-Teradata certified OS software installed on any platform, they must perform this themselves. However, non-Teradata certified OS software and problems resulting from non-Teradata certified OS software are not covered under any maintenance contract. Any associated incidents resulting from the non-Teradata certified release will be considered out- of-scope and subject to Additional Service Rates.

Installation of non-mandatory Teradata certified OS fixes or patches will be performed during business hours (9x5) and follows the then current change control notification practice (currently 28 days notification).

Major/minor OS upgrades or Service Pack (SP) changes will be performed during the State's Severity 1 hours of coverage.

OS conversions (e.g., Windows to Linux) are performed under a custom OS Conversion service. Any OS updates required/performed as part of a database change by Contractor are included with the appropriate Software Implementation service as long as the OS is under Contractor maintenance <u>and</u> the change is not a minor/major OS upgrade or Service Pack upgrade. These changes are installed during the customer's Severity 1 hours of coverage.

3.10.2 Teradata Database Software Support Lifecycle

Contractor will provide Database software maintenance & support for 3 years from the General Customer Availability (GCA) date of the minor or major release, until the End- of-Maintenance (EOM) date. During the maintenance & support period for Teradata database products, Contractor will provide new major and minor releases that are subject to GCA, software problem resolution services, which include code level maintenance, and any activity that provides existing corrections or work-arounds to correct reported software problems for no less than 36 months from its GCA date, all at no additional cost.

Contractor is committed to providing crash dump analysis while a Teradata Database software release is within the maintenance and support period plus a period of three months past the End of Maintenance (EOM) date published by Teradata.

3.10.3 Teradata Tools & Utilities Software Support Lifecycle

For Teradata Tools & Utilities software, Contractor will provide software problem resolution services, which include code level maintenance, and any activity that provides existing corrections or work-arounds to correct reported software problems for no less than 36 months from its General Customer Availability (GCA) date.

3.10.4   Supported Software Releases

Most Teradata software products are characterized by four different types of software releases. These releases are differentiated by release number X.Y.Z.n

- X number refers to a major software release upgrade

- Y number refers to a minor software release upgrade

- Z number refers to a maintenance release update

- n number refers to fixes or patches

"Service Pack" and "Hotfix" are the third-party names for software fixes. Following Teradata standards, a "ServicePack" is a maintenance release (Z), and a "Hotfix" is a patch (n).

4. Data Storage, Backup, Restoration and Disaster Recovery. Contractor must maintain or cause to be maintained backup redundancy and disaster avoidance in order for the State to perform the actual recovery procedures designed to safeguard State Data and the State's other Confidential Information, Contractor's Processing capability and the availability of the IT Environment Services and Software, in each case throughout the Term and at all times in connection with its actual or required performance of the Services hereunder. This Section shall be consistent with the responsibilities set forth in Schedules J and O. All backed up State Data shall be located in the continental United States. The force majeure provisions of this Contract do not limit Contractor's obligations under this section**.**

4.1 Data Storage. Contractor will provide sufficient storage capacity to meet the needs of the State at no additional cost.

Contractor must provide the capability and access for the State to do the following at no additional cost to the State:

4.2 <u>Data Backups as the State deems necessary</u>

4.3 <u>Data Restoration as the State deems necessary</u>

4.4 <u>Disaster Recovery</u> Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will allow the State to maintain and operate a backup and disaster recovery plan to achieve a maximum Recovery Point Objective (RPO) of 7 days, and a Recovery Time Objective (RTO) of 6 hours for critical data resources and up to 72 hours for all other data.

5. Azure Hosted Service

5.1 <u>Provision of Azure Hosted Service</u>**.** Contractor shall provide the State exclusive and full control of and access to the instance of the Azure Government Cloud provisioned by Contractor and the associated infrastructure services from Azure (collectively, the "Azure Hosted Service") as set forth below. Contractor grants to the State an exclusive, nontransferable worldwide right to exclusive and full control of and access to the Azure Hosted Service solely for the State's authorized purposes either by the State or by a third party authorized to act and acting on behalf of the State during the term of this Contract. The State will not license, sublicense, sell, resell, rent, lease, transfer, assign, distribute, time share or otherwise commercially exploit or make the Azure Hosted Service available to any third party the exception of State Contractors authorized to access the Hosted Service. Other than as expressly set forth in this Contract, no license or other rights in or to the Azure Hosted Service or Teradata intellectual property rights are granted to the State, and all such licenses and rights are hereby expressly reserved.

5.2 <u>Restrictions</u>**.** The Azure Hosted Service will be limited (e.g., available data space, processing power, number of concurrent users) as set out in Schedule A. The State shall not (i) modify, copy or create derivative works based on the Azure Hosted Service or Teradata intellectual property, (ii) exceed the limitations agreed to in Schedule A unless otherwise agreed to by the parties in writing, or (iii) disassemble, reverse engineer, or decompile the Azure Hosted Service, or access it with the intent to build a competitive product or service, or copy or

substantially copy any ideas, features, functions or graphics of the Azure Hosted Service.

5.3 <u>Modifications</u>. Contractor may modify the description for the Azure Hosted Service from time to time and will make the most current version thereof available through the Azure Hosted Service portal (the "Azure Hosted Service Description"). Contractor will make any modified version available at least 30 days prior to its effective date. If a modification made solely for the purpose of complying with legal, regulatory, or security requirements to the Azure Hosted Service Description materially degrades the features or functions of the Azure Hosted Service on a general basis, then Contractor will allow the State to cancel the relevant portion of the Azure Hosted Services and receive a pro-rated refund of the fees for the Azure Hosted Service covered by this Schedule. Material degradation of the features or functions of the Azure Hosted Service made for any reason other than legal, regulatory or security purposes will be considered by the State a material breach of Contract. Contractor may make modifications to the Azure Hosted Service Description immediately if a modification is required by applicable law, or to improve security or reliability of the Azure Hosted Service.

SCHEDULE E – DATA SECURITY REQUIREMENTS

1. Definitions. For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract.

"**Contractor Security Officer**" has the meaning set forth in **Section 2** of this Schedule.

"**FedRAMP**" means the Federal Risk and Authorization Management Program, which is a federally approved risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services.

"**FISMA**" means The Federal Information Security Modernization Act of 2014 (Pub.L. No. 113-283 (Dec. 18, 2014.).

"**Hosting Provider**" means any Permitted Subcontractor that is providing any or all of the Hosted Services under this Contract.

"**NIST**" means the National Institute of Standards and Technology.

"**PCI**" means the Payment Card Industry.

"**PSP**" or **"PSPs"** means the State's IT Policies, Standards and Procedures.

"**SSAE**" means Statement on Standards for Attestation Engagements.

"**Security Accreditation Process**" has the meaning set forth in **Section 6** of this Schedule

2. Security Officer. Contractor will appoint a Contractor resource to respond to the State's inquiries regarding the security of the Hosted Services who has sufficient knowledge of the security of the Hosted Services and the authority to act on behalf of Contractor in matters pertaining thereto ("**Contractor Security Officer**").

3. Contractor Responsibilities.

Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to:

      (a) ensure the security and confidentiality of the State Data;

(b) protect against any anticipated threats or hazards to the security or integrity of the State Data;

(c) protect against unauthorized disclosure, access to, or use of the State Data;

(d) ensure the proper disposal of any State Data in Contractor's or its subcontractor's possession; and

(e) ensure that all Contractor Personnel comply with the foregoing.

The State has established Information Technology (IT) PSPs to protect IT resources under the authority outlined in the overarching State 1305.00 Enterprise IT Policy. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable public and non-public State IT policies and standards, of which the publicly available ones are at https://www.michigan.gov/dtmb/policies/it-policies.

This responsibility also extends to all service providers and subcontractors with access to State Data or an ability to impact the contracted solution. Contractor responsibilities are determined from the PSPs based on the services being provided to the State, the type of IT solution, and the applicable laws and regulations.

4. Acceptable Use Standard. To the extent that Contractor has access to the State's IT environment, Contractor must comply with the State's Acceptable Use Standard, see https://www.michigan.gov/dtmb/-/media/Project/Websites/dtmb/Law-and-Policies/IT-Policy/13400013002-Acceptable-Use-of-Information-Technology-Standard.pdf. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Standard before accessing State systems or Data. The State reserves the right to terminate Contractor's and/or subcontractor(s) or any Contractor Personnel's access to State systems if the State determines a violation has occurred.

5. Protection of State's Information. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

5.1 If Hosted Services are provided by a Hosting Provider, ensure a Hosting Provider that maintains FedRAMP authorization for all Hosted Services environments throughout the Term, and in the event a Hosting Provider is unable to maintain FedRAMP authorization, the State, at its sole discretion, may immediately terminate those services under this Contract, or any portion thereof for termination

for the public interest and such termination will be without cost to the State, including the waiver of any early termination fees.

5.2 for Hosted Services provided by the Contractor, maintain either a FedRAMP authorization or an annual SSAE 18 SOC 2 Type II audit based on State required NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs. In the event Contractor is unable to maintain the authorization of this Section 5.2, the State, at its sole discretion, may immediately terminate those services under this Contract, or any portion therefore, for termination for the public interest and such termination will be without cost to the State, including the waiver of any early termination fees.

5.3 ensure that the Software and State Data is securely stored, hosted, supported, administered, accessed, and backed up in the continental United States, and the data center(s) in which State Data resides minimally meets Uptime Institute Tier 3 standards (https://www.uptimeinstitute.com/), or its equivalent;

5.4 maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State Data that provides at least the same level of protection as evidenced by its FedRAMP or federal agency System Security Plan ("SSP") ATOs (or its equivalent, as mutually agreed upon) and complies with the requirements of the State's data security policies as set forth in this Contract, and must, at a minimum, remain compliant with FISMA and NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs;

5.5 Throughout the Term, Contractor must not provide Hardware or Services from the list of excluded parties in the System for Award Management (SAM) for entities excluded from receiving federal government awards for "covered telecommunications equipment or services.

5.6 provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, encryption, transfer, commingling or processing of such information that provide a level of security appropriate to the risks presented by the processing of State Data and the nature of such State Data, consistent with best industry practice and the Contractor's product specific and/or service specific documentation and applicable standards (including, but not limited to, compliance with FISMA, NIST, CMS, IRS, FBI, SSA, HIPAA, FERPA and PCI requirements as applicable);

5.7 take all reasonable measures to:

(a) secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "malicious actors" and others who may seek, without authorization, to destroy, disrupt, damage, encrypt, modify, copy, access or otherwise use Hosted Services or the information found therein; and

(b) prevent (i) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (ii) State Data from being commingled with or contaminated by the data of other customers or their users of the Services; and (iii) unauthorized access to any of the State Data;

5.8 ensure that State Data is encrypted in transit and at rest using FIPS validated AES encryption modules and a key size of 128 bits or higher;

5.9 ensure the Hosted Services support Identity Federation/Single Sign-on (SSO) capabilities using Security Assertion Markup Language (SAML), Open Authentication (OAuth) or comparable State approved mechanisms;

5.10 ensure the Hosted Services implements NIST compliant multi-factor authentication for privileged/administrative and other identified access.

5.11 Contractor must permanently sanitize or destroy the State's information, including State Data, from all media both digital and nondigital including backups using National Security Agency ("NSA") and/or National Institute of Standards and Technology ("NIST") (NIST Guide for Media Sanitization 800-88) data sanitization methods or otherwise in accordance with the Contractor's product specific and/or service specific documentation, including timeframes. Contractor must sanitize information system media, both digital and non-digital, prior to disposal, release out of its control, or release for reuse as specified above.

6. Security Accreditation Process. Throughout the Term, Contractor will assist the State, at no additional cost, with its **Security Accreditation Process**, which includes the development, completion and on-going maintenance of a system security plan (SSP) using the State's automated governance, risk and compliance (GRC) platform, which requires Contractor to submit evidence, upon request from the State, in order to validate Contractor's security controls within two weeks of the State's request. On an annual basis, or as otherwise required by the State such as for significant changes, re-

assessment of the system's controls will be required to receive and maintain authority to operate (ATO). All identified risks from the SSP will be remediated through a Plan of Action and Milestones (POAM) process with remediation time frames and required evidence based on the risk level of the identified risk. For all findings associated with the Contractor's solution, at no additional cost, Contractor will be required to create or assist with the creation of State approved POAMs, perform related remediation activities, and provide evidence of compliance. The State will make any decisions on acceptable risk, Contractor may request risk acceptance, supported by compensating controls, however only the State may formally accept risk. Failure to comply with this section will be deemed a material breach of the Contract.

7. Unauthorized Access. Contractor may not access, and must not permit any access to, State systems, in whole or in part, whether through the Hosted Services or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State systems must be solely in accordance with the Contract and this Schedule, and in no case exceed the scope of the State's authorization pursuant to this Section. All State-authorized connectivity or attempted connectivity to State systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in the Contract as the same may be supplemented or amended by the State and provided to Contractor from time to time.

8. Security Audits.

8.1 During the Term, Contractor will maintain complete and accurate records of its data protection practices, IT security controls, and the security logs relating to State Data, including but not limited to any backup, disaster recovery or other policies, practices or procedures relating to the State Data and any other information relevant to its compliance with this Contract.

8.2 Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program relating to Contractor's data privacy and security obligations set forth in this Contract prior to the commencement of Services and from time to time during the term of this Contract. The State, at its own expense, is entitled to perform, or to have performed, an audit of Contractor's data privacy and information security program. If the State chooses to perform an audit, Contractor will, make all such records, appropriate personnel and relevant materials available to the State from Microsoft during normal business hours for inspection and audit by the State or an

independent data security expert that is reasonably acceptable to Contractor, provided that the State: (i) gives Contractor at least five (5) Business Days prior notice of any such audit; (ii) undertakes such audit no more than once per calendar year, except for good cause shown; and (iii) conducts or causes to be conducted such audit in a manner designed to minimize disruption of Contractor's normal business operations and that complies with the terms and conditions of all data confidentiality, ownership, privacy, security and restricted use provisions of the Contract. The State may, but is not obligated to, perform such security audits, which shall, at the State's option and request, include penetration and security tests, of the State's instance of any and all Hosted Services and their housing facilities and operating environments to the extent permitted by Contractor through Microsoft.

8.3 During the Term, Contractor will, when requested by the State, provide a copy of Contractor's and Hosting Provider's FedRAMP System Security Plan(s) or SOC 2 Type 2 report(s) to the State within two weeks of the State's request. The System Security Plan and SSAE audit reports will be recognized as Contractor's Confidential Information.

8.4 With respect to State Data, Contractor must implement any required safeguards as identified by the State or by any audit of Contractor's data privacy and information security program.

8.5 The State reserves the right, at its sole election, to immediately terminate this Contract or a Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this **Section 8.**

9. Application Scanning

During the Term, Contractor must, at its sole cost and expense, scan all Contractor provided, applications, and must analyze, remediate and validate all vulnerabilities identified by the scans with a (CVSS) score equal to or higher than 4.0..

Contractor's application scanning and remediation must include each of the following types of scans and activities:

9.1 Dynamic Application Security Testing (DAST) – Scanning interactive application for vulnerabilities, analysis, remediation, and validation (may include Interactive Application Security Testing (IAST).

.(a) Contractor must either a) grant the State the right to dynamically scan a deployed version of the Software; or b) in lieu of the State performing the scan, Contractor must dynamically scan a deployed version of the Software using a State approved application scanning tool, and provide the State with a vulnerabilities assessment after Contractor has completed such scan. These scans and assessments i) must be completed and provided to the State annually (dates to be provided by the State) and for each major release and upon the State's request Contractor shall provide the most recent assessment; and ii) scans must be completed in a non-production environment with verifiable matching source code and supporting infrastructure configurations or the actual production environment.

9.2 Static Application Security Testing (SAST) - Scanning source code for vulnerabilities, analysis, remediation, and validation.

(a) For Contractor provided applications, Contractor, at its sole expense, must provide resources to complete static application source code scanning, including the analysis, remediation and validation of vulnerabilities identified by application source code scans. These scans must be completed for all source code initially, for all updated source code, and for all source code for each major release and Contractor must provide the State with a vulnerability assessment after Contractor has completed the required scans.

9.3 Software Composition Analysis (SCA) – Third Party and/or Open Source Scanning for vulnerabilities, analysis, remediation, and validation.

(a) For Software that includes third party and open source software, all included third party and open source software must be documented and the source supplier must be monitored by the Contractor for notification of identified vulnerabilities and remediation. SCA scans may be included as part of SAST and DAST scanning or employ the use of an SCA tool to meet the scanning requirements. These scans must be completed for all third party and open source software initially, for all updated third party and open source software, and for all third party and open source software in each major release and Contractor must provide the State with a vulnerability assessment after Contractor has completed the required scans if not provided as part of SAST and/or DAST reporting.

9.4 In addition, application scanning and remediation may include the following types of scans and activities if required by regulatory or industry requirements, data classification or otherwise identified by the State.

(a) If provided as part of the solution, all native mobile application software must meet these scanning requirements including any interaction with an application programing interface (API).

(b) Penetration Testing – Simulated attack on the application and infrastructure to identify security weaknesses.

10. Infrastructure Scanning.

10.1 Consistent with the scope of responsibilities in Schedule J:

For Hosted Services, Contractor must ensure the infrastructure and applications provided or supported by Contractor are scanned using an approved scanning tool (Qualys, Tenable, or other PCI Approved Vulnerability Scanning Tool) at least monthly and make available to the State verification of the scans and appropriate vulnerability remediation time frames.

11. Nonexclusive Remedy for Security Breach.

11.1 Any failure of the Services to meet the requirements of this Schedule with respect to the security of any State Data or other Confidential Information of the State, including any related backup, disaster recovery or other policies, practices or procedures, is a material breach of the Contract for which the State, at its option, may terminate the Contract immediately upon written notice to Contractor without any notice or cure period, and Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

SCHEDULE E, ATTACHMENT 1 – TAX REGULATION,

IRS Publication 1075 - Exhibit 7 Safeguarding Contract Language

   I.   PERFORMANCE

In performance of this contract, the Contractor agrees to comply with and assume responsibility for compliance by officers or employees with the following requirements:

(1) All work will be performed under the supervision of the contractor.

(2) The contractor and contractor's officers or employees to be authorized access to FTI must meet background check requirements defined in IRS Publication 1075. The contractor will maintain a list of officers or employees authorized access to FTI. Such list will be provided to the agency and, upon request, to the IRS.

(3) FTI in hardcopy or electronic format shall be used only for the purpose of carrying out the provisions of this contract. FTI in any format shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Inspection or disclosure of FTI to anyone other than the contractor or the contractor's officers or employees authorized is prohibited.

(4) FTI will be accounted for upon receipt and properly stored before, during, and after processing. In addition, any related output and products require the same level of protection as required for the source material.

(5) The contractor will certify that FTI processed during the performance of this contract will be completely purged from all physical and electronic data storage with no output to be retained by the contractor at the time the work is completed. If immediate purging of physical and electronic data storage is not possible, the contractor will certify that any FTI in physical or electronic storage will remain safeguarded to prevent unauthorized disclosures.

(6)   Any spoilage or any intermediate hard copy printout that may result during the processing of FTI will be given to the agency. When this is not possible, the contractor will be responsible for the destruction of the spoilage or any intermediate hard copy printouts and will provide the agency with a statement containing the date of destruction, description of material destroyed, and the destruction method.

(7) All computer systems receiving, processing, storing, or transmitting FTI must meet the requirements in IRS Publication 1075. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to FTI.

(8) No work involving FTI furnished under this contract will be subcontracted without the prior written approval of the IRS.

(9) Contractor will ensure that the terms of FTI safeguards described herein are included, without modification, in any approved subcontract for work involving FTI.

(10) To the extent the terms, provisions, duties, requirements, and obligations of this contract apply to performing services with FTI, the contractor shall assume toward the subcontractor all obligations,

duties and responsibilities that the agency under this contract assumes toward the contractor, and the subcontractor shall assume toward the contractor all the same obligations, duties and responsibilities which the contractor assumes toward the agency under this contract.

(11) In addition to the subcontractor's obligations and duties under an approved subcontract, the terms and conditions of this contract apply to the subcontractor, and the subcontractor is bound and obligated to the contractor hereunder by the same terms and conditions by which the contractor is bound and obligated to the agency under this contract.

(12) For purposes of this contract, the term "contractor" includes any officer or employee of the contractor with access to or who uses FTI, and the term "subcontractor" includes any officer or employee of the subcontractor with access to or who uses FTI.

(13) The agency will have the right to void the contract if the contractor fails to meet the terms of FTI safeguards described herein.

II. CRIMINAL/CIVIL SANCTIONS

(1) Each officer or employee of a contractor to whom FTI is or may be disclosed shall be notified in writing that FTI disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any FTI for a purpose not authorized herein constitutes a felony punishable upon conviction by a fine of as much as $5,000 or imprisonment for as long as 5 years, or both, together with the costs of prosecution.

(2) Each officer or employee of a contractor to whom FTI is or may be accessible shall be notified in writing that FTI accessible to such officer or employee may be accessed only for a purpose and to the extent authorized herein, and that access/inspection of FTI without an official need-to-know for a purpose not authorized herein constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as $1,000 or imprisonment for as long as 1 year, or both, together with the costs of prosecution.

(3) Each officer or employee of a contractor to whom FTI is or may be disclosed shall be notified in writing that any such unauthorized access, inspection or disclosure of FTI may also result in an award of civil damages against the officer or employee in an amount equal to the sum of the greater of $1,000 for each unauthorized access, inspection, or disclosure, or the sum of actual damages sustained as a result of such unauthorized access, inspection, or disclosure, plus in the case of a willful unauthorized access, inspection, or disclosure or an unauthorized access/inspection or disclosure which is the result of gross negligence, punitive damages, plus the cost of the action. These penalties are prescribed by IRC sections 7213, 7213A and 7431 and set forth at 26 CFR 301.6103(n)-1.

(3) Additionally, it is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is so prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

(4) Granting a contractor access to FTI must be preceded by certifying that each officer or employee understands the agency's security policy and procedures for safeguarding FTI. A contractor and each officer or employee must maintain their authorization to access FTI through annual recertification of their understanding of the agency's security policy and procedures for safeguarding FTI. The initial

certification and recertifications must be documented and placed in the agency's files for review. As part of the certification and at least annually afterwards, a contractor and each officer or employee must be advised of the provisions of IRC sections 7213, 7213A, and 7431 (see Exhibit 4, *Sanctions for Unauthorized Disclosure,* and Exhibit 5, *Civil Damages for Unauthorized Disclosure).* The training on the agency's security policy and procedures provided before the initial certification and annually thereafter must also cover the incident response policy and procedure for reporting unauthorized disclosures and data breaches. (See Section 10) For the initial certification and the annual recertifications, the contractor and each officer or employee must sign, either with ink or electronic signature, a confidentiality statement certifying their understanding of the security requirements.

III.   INSPECTION

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the contractor to inspect facilities and operations performing any work with FTI under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual and/or automated scanning tools to perform compliance and vulnerability assessments of information technology (IT) assets that access, store, process or transmit FTI. Based on the inspection, corrective actions may be required in cases where the contractor is found to be noncompliant with FTI safeguard requirements.

SCHEDULE F – RESERVED

SCHEDULE G – TRANSITION IN AND OUT

Contractor's Transition In Plan shall be the Implementation Services described in Schedule A, Section I, based on the Project Schedule set forth in Schedule R.

The following sets forth Contractor's Transition Out plan at the end of the Contract to either the State or a successor contractor. Contractor will cooperate in the orderly transition of services and State Data to the State and/or successor contractor. Contractor will work toward a prompt and timely Transition Out, proceeding according to the State's directions.

During the Transition Out effort, the Contractor will work closely with the State and/or successor contractor on effective knowledge transfer through a combination of meetings, and reporting. This is the Transition Out Plan:
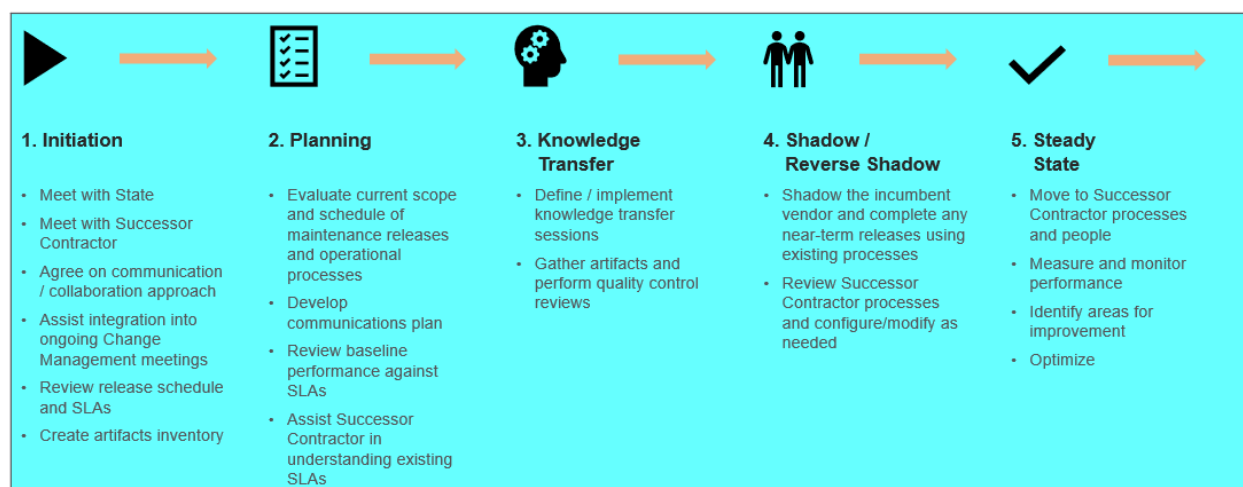
This plan includes development of a communications management process that is based on input from the State and other stakeholders and establishes a culture of collaboration through regular and appropriate communications in an open-door environment. Key activities during the Transition Out phase include agreeing on the inventory of artifacts that must transfer, as well as maintain and update the Transition Out Plan to address new components and advancing methodologies related to knowledge transfer and data extraction.

After receiving notification from the State to begin formal transition integration activities, Contractor will assign a Transition Out Lead to manage and coordinate Transition Out activities. He/she will work closely with the State stakeholders and/or successor contractor to create a more detailed plan that includes a transition schedule and responsibility matrix, integrates with the State's larger planning process, and provides a

transition for State stakeholders. This includes agreeing on the format, frequency, content, and participants necessary to support enhanced communications during this phase.

During this effort, Contractor will determine how to maintain the current contractually required Services. All parties will jointly control risk by incorporating realism into all phases of the transition process, rather than assuming the best possible outcome will always occur.

Contractor's overall strategy for the Transition Out effort is to remain fully engaged, completing it with minimal impact to State users and stakeholders. Contractor understands the importance of a smooth transition of the system support services and the need for an effective and orderly transition via a continuous and phased process. Contractor's Transition Out strategy focuses on:

Providing ongoing operational staffing, transparency and reporting to demonstrate Contractor's continued commitment to meeting performance requirements and SLAs.

Providing sufficient personnel with knowledge of the system to work with the appropriate State and/or successor contractor staff and perform Transition Out tasks.

Proactively collaborating with the State and/or successor contractor to transfer knowledge and documentation.

Easing risk to the State by working collaboratively with the State and/or successor contractor to transfer operations to the State or successor contractor's system.

When Contractor receives the State's approval, Contractor will then begin executing the Transition Out activities according to plan. During transition execution, Contractor will conduct ongoing knowledge transfer, shadowing, operations and other Transition Out activities.

SCHEDULE H – FEDERAL PROVISIONS ADDENDUM

This addendum applies to purchases that will be paid for in whole or in part with funds obtained from the federal government. The provisions below are required and the language is not negotiable. If any provision below conflicts with the State's terms and conditions, including any attachments, schedules, or exhibits to the State's Contract, the provisions below take priority to the extent a provision is required by federal law; otherwise, the order of precedence set forth in the Contract applies. Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

1. Equal Employment Opportunity

If this Contract is a "**federally assisted construction contract**" as defined in 41 CFR Part 60-1.3, and except as otherwise may be provided under 41 CFR Part 60, then during performance of this Contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals

who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided,* that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

2. Davis-Bacon Act (Prevailing Wage)

If this Contract is a **prime construction contracts** in excess of $2,000, the Contractor (and its Subcontractors) must comply with the Davis-Bacon Act (40 USC 3141-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"), and during performance of this Contract the Contractor agrees as follows:

(1) All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable. The contractor shall

comply with 40 U.S.C. 3141-3144, and 3146-3148 and the requirements of 29 C.F.R. pt. 5 as applicable.

(2) Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.

(3) Additionally, contractors are required to pay wages not less than once a week.

3. Copeland "Anti-Kickback" Act

If this Contract is a contract for construction or repair work in excess of $2,000 where the Davis-Bacon Act applies, the Contractor must comply with the Copeland "Anti-Kickback" Act (40 USC 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"), which prohibits the Contractor and subrecipients from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled, and during performance of this Contract the Contractor agrees as follows:
   (1) Contractor. The Contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

   (2) Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA or the applicable federal awarding agency may by appropriate instructions require, and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
   (3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and Subcontractor as provided in 29 C.F.R. § 5.12.

4. Contract Work Hours and Safety Standards Act

If the Contract is **in excess of $100,000** and **involves the employment of mechanics or laborers**, the Contractor must comply with 40 USC 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5), as applicable, and during performance of this Contract the Contractor agrees as follows:

(1) Overtime requirements. No Contractor or Subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The State shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or Subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

5. Rights to Inventions Made Under a Contract or Agreement

If the Contract is funded by a federal "funding agreement" as defined under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

6. Clean Air Act and the Federal Water Pollution Control Act

If this Contract is **in excess of $150,000,** the Contractor must comply with all applicable standards, orders, and regulations issued under the Clean Air Act (42 USC 7401-7671q) and the Federal Water Pollution Control Act (33 USC 1251-1387), and during performance of this Contract the Contractor agrees as follows:

Clean Air Act

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

2. The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
3. The Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

Federal Water Pollution Control Act

(1) The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
(2) The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
(3) The Contractor agrees to include these requirements in each

subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

7. Debarment and Suspension

A "contract award" (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (51 FR 6370; February 21, 1986) and 12689 (54 FR 34131; August 18, 1989), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

> (1) This Contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Contractor is required to verify that none of the Contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

> (2) The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

> (3) This certification is a material representation of fact relied upon by the State. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

> (3) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

8. Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of **$100,000 or more** shall file the required certification in Exhibit 1 – Byrd Anti-Lobbying Certification below. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any

person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

9. Procurement of Recovered Materials

Under 2 CFR 200.322, Contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

> (1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—
>
> > a. Competitively within a timeframe providing for compliance with the contract performance schedule;
> >
> > b. Meeting contract performance requirements; or
> >
> > c. At a reasonable price.
>
> (2) Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive- procurement-guideline-cpg-program.
>
> (3) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

10. Additional FEMA Contract Provisions.

The following provisions apply to purchases that will be paid for in whole or in part with funds obtained from the Federal Emergency Management Agency (FEMA):

(1) Access to Records. The following access to records requirements apply to this contract:
> a. The Contractor agrees to provide the State, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

b. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

c. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

d. In compliance with the Disaster Recovery Act of 2018, the State and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

(2) Changes.
    See the provisions regarding modifications or change notice in the Contract Terms.

(3) DHS Seal, Logo, And Flags.
    The Contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

(4) Compliance with Federal Law, Regulations, and Executive Orders.
    This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The Contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

(5) No Obligation by Federal Government.
    The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the State, Contractor, or any other party pertaining to any matter resulting from the Contract."

(6) Program Fraud and False or Fraudulent Statements or Related Acts.
    The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

SCHEDULE H – ATTACHMENT 1- BYRD ANTI LOBBYING CERTIFICATION

Contractor must complete this certification if the purchase will be paid for in whole or in part with funds obtained from the federal government and the purchase is greater than $100,000.

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, Optum Government Solutions, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____
Signature of Contractor's Authorized Official

_____
Name and Title of Contractor's Authorized Official

_____
Date

SCHEDULE I: NEW SYSTEM CONFIGURATION

A. **New Production System Configuration (Azure Region: US Gov Virginia) [1]**

Service Type	Usage Type	Description	Unit	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Software Subscription	Vantage License	TCore Teradata Public Cloud - Enterprise Tier - per TCore - TD SUBSCRIPTION-BASED --- Multi System Viewpoint, DSU, SWS, TTU, Workload Management, Temporal and Columnar	TCore	71	71	83	95	107
Virtual Machines	SQL Engine	12 E64-32s v4 + 2 (HSN) (32 vCPUs, 504 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P20; Inter Region transfer type, 5 GB outbound data transfer from US Gov Virginia to Other Government Regions	Nodes	14	14	16	18	20
Storage Accounts	SQL Engine Data Disks	Managed Disks, Premium SSD, LRS Redundancy, P30 (1 TB) Disk Type 32 Disks	TBs	96	96	108	120	132
Virtual Machines	Viewpoint	1 DS5 v2 (16 vCPUs, 56 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P15; Inter Region transfer type, 5 GB outbound data transfer from US Gov Virginia to Other Government Regions	VM	1	1	1	1	1
Storage Accounts	Viewpoint Data Disk	Managed Disks, Premium SSD, LRS Redundancy, P15 (256GB) Disk Type 1 Disk	256GB Disks	1	1	1	1	1
Virtual Machines	DSC	1 DS4 v2 (8 vCPUs, 28 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P10; Inter Region transfer type, 5 GB outbound data transfer from US Gov Virginia to Other Government Regions	VM	1	1	1	1	1
Storage Accounts	DSC Data Disk	Managed Disks, Premium SSD, LRS Redundancy, P10 (128GB) Disk Type 1 Disks	128GB Disks	1	1	1	1	1
Virtual Machines	Server Management	1 DS3 v2 (4 vCPUs, 14 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P4; Inter Region transfer type, 5 GB outbound data transfer from US Gov Virginia to Other Government Regions	VM	1	1	1	1	1
Ingress / egress	Private Endpoints	Private Endpoints are active 730 hours per month and 20 TB Ingress and Egress	Endpoints	1	1	1	1	1
Storage Accounts	NOS Storage	Block Blob Storage, General Purpose V2, GRS Redundancy. Hot Access Tier, 10 x 1 TB Capacity - 10 x 10,000 Write operations, 10 x 10,000 List and Create Container Operations, 10 x 10,000 Read operations, 100,000 Archive High Priority Read, 1 x 10,000 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write, 1000 GB Geo-replication data transfer	1TB Increments	10	10	10	10	10
Storage Accounts	Backup Storage (DSC-based)	Block Blob Storage, General Purpose V2, GRS Redundancy. Cool Access Tier, 0 x 1 PB, 1 x 100 TB Capacity - 10 x 10,000 Write operations, 10 x 10,000 List and Create Container Operations, 10 x 10,000 Read operations, 100,000 Archive High Priority Read, 1 x 10,000 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write, 1000 GB Geo-replication data transfer	100TBs Increments	4	4	4	4	4
Azure Defender		VM nodes x 730 Hours, 0 App Service nodes x 730 Hours, 0 SQL Database servers x 730 Hours, 1000000 Storage transactions, 0 IoT Devices, 0 IoT Message transactions, 0 Kubernetes vCores x 730 Hours, 0 Azure Container Registry images, 0 Key Vault transactions	Max VMs	20	20	20	20	20
Azure Network Watcher		100 GB Network Logs Collected, 0 Checks for Network Diagnostics, 2 Connection Metrics, 1 DNS or App Gateway Servers x 0 GB logs ingested, 101 GB logs collected for Traffic Analytics	Each	1	1	1	1	1
Load Balancer		Standard Tier: 5 Rules, 1TB Data Processed	1TB Processed	10	10	10	10	10

[1] The above table is also referred to as the Bill of Materials (BOM) for the New Production System

B. New DevDR System Configuration (Azure Region: US Gov Texas) [1]

Service Type	Usage Type	Description	Unit	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Software Subscription	Vantage License	TCore Teradata Public Cloud - Enterprise Tier - per TCore - TD SUBSCRIPTION-BASED --- Multi System Viewpoint, DSU, SWS, TTU, Workload Management, Temporal and Columnar	TCore	36	36	48	59	71
Virtual Machines	SQL Engine	6 E64-32s v4 + 1 (HSN) (32 vCPUs, 504 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P20; Inter Region transfer type, 5 GB outbound data transfer from US Gov Texas to Other Government Regions	Nodes	7	7	9	11	13
Storage Accounts	SQL Engine Data Disks	Managed Disks, Premium SSD, LRS Redundancy, P30 (1 TB) Disk Type 32 Disks	TBs	80	80	88	96	108
Virtual Machines	Viewpoint	1 DS5 v2 (16 vCPUs, 56 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P15; Inter Region transfer type, 5 GB outbound data transfer from US Gov Texas to Other Government Regions	VM	1	1	1	1	1
Storage Accounts	Viewpoint Data Disk	Managed Disks, Premium SSD, LRS Redundancy, P15 (256GB) Disk Type 1 Disk	256GB Disks	1	1	1	1	1
Virtual Machines	DSC	1 DS4 v2 (8 vCPUs, 28 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P10; Inter Region transfer type, 5 GB outbound data transfer from US Gov Texas to Other Government Regions	VM	1	1	1	1	1
Storage Accounts	DSC Data Disk	Managed Disks, Premium SSD, LRS Redundancy, P10 (128GB) Disk Type 1 Disks	128GB Disks	1	1	1	1	1
Virtual Machines	Server Management	1 DS3 v2 (4 vCPUs, 14 GB RAM), Linux, SUSE Linux Enterprise; 1 managed disk – P4; Inter Region transfer type, 5 GB outbound data transfer from US Gov Texas to Other Government Regions	VM	1	1	1	1	1
Ingress / egress	Private Endpoints	Private Endpoints are active 730 hours per month and 20 TB Ingress and Egress	Endpoints	1	1	1	1	1
Storage Accounts	NOS Storage	Block Blob Storage, General Purpose V2, GRS Redundancy. Hot Access Tier, 0 x 1 PB, 1 x 1 TB Capacity - 10 x 10,000 Write operations, 10 x 10,000 List and Create Container Operations, 10 x 10,000 Read operations, 100,000 Archive High Priority Read, 1 x 10,000 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write, 1000 GB Geo-replication data transfer	1TB Increments	10	10	10	10	10
Storage Accounts	Backup Storage (DSC-based)	Block Blob Storage, General Purpose V2, GRS Redundancy. Cool Access Tier, 0 x 1 PB, 1 x 100 TB Capacity - 10 x 10,000 Write operations, 10 x 10,000 List and Create Container Operations, 10 x 10,000 Read operations, 100,000 Archive High Priority Read, 1 x 10,000 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write, 1000 GB Geo-replication data transfer	100TBs Increments	2	2	2	2	2
VPN Gateway	VPN Connection to Texas Region	ExpressRoute Gateways, Standard tier, 730 gateway hour(s), 10 S2S tunnels, 128 P2S tunnels, 200 GB, VPN gateway type	Each	1	1	1	1	1
Azure Defender		VM nodes x 730 Hours, 0 App Service nodes x 730 Hours, 0 SQL Database servers x 730 Hours, 1000000 Storage transactions, 0 IoT Devices, 0 IoT Message transactions, 0 Kubernetes vCores x 730 Hours, 0 Azure Container Registry images, 0 Key Vault transactions	Max VMs	14	14	14	14	14
Azure Network Watcher		100 GB Network Logs Collected, 0 Checks for Network Diagnostics, 2 Connection Metrics, 1 DNS or App Gateway Servers x 0 GB logs ingested, 101 GB logs collected for Traffic Analytics	Each	1	1	1	1	1
Load Balancer		Standard Tier: 5 Rules, 1TB Data Processed	1TB Processed	10	10	10	10	10

[1] The above table is also referred to as the Bill of Materials (BOM) for the New DevDR System

C. Sizing Estimates and Typical VM Expansion Options

PRODUCTION

Features	On-Premises 6800	Year 1 Azure 12N E64-32s v4	Year 2 Azure 12N E64-32s v4	Year 3 Azure 14N E64-32s v4	Year 4 * Azure 16N E64-32s v4	Year 5 * Azure 18N E64-32s v4
IOPS	8,755	14,400	14,400	16,800	19,200	21,600
Active Physical Cores	56	192	192	224	256	288
Active Nodes	2	12	12	14	16	18
Memory (GBs)	512	6,048	6,048	7,056	8,064	9,072
AMPS	84	576	576	672	768	864
Parsing Engines (PE's)	4	24	24	28	32	36
TCore	54	71	71	83	95	107
Total Data Storage (TBs)	64	96	96	108	120	132
Customer Data Space (TBs)	44	74	74	84	93	102
Tcore change %				17%	14%	13%
CDS Change %				13%	11%	10%

DEV/DR

Features	On-Premises 6800	Year 1 Azure 6N E64-32s v4	Year 2 Azure 6N E64-32s v4	Year 3 Azure 8N E64-32s v4	Year 4 * Azure 10N E64-32s v4	Year 5 * Azure 12N E64-32s v4
IOPS	4,377	7,200	7,200	9,600	12,000	14,400
Active Physical Cores	56	96	96	128	160	192
Active Nodes	2	6	6	8	10	12
Memory (GBs)	512	3,024	3,024	4,032	5,040	6,048
AMPS	84	288	288	384	480	576
Parsing Engines (PE's)	4	12	12	16	20	24
TCore	27	36	36	48	59	71
Total Data Storage (TBs)	61	80	80	88	96	108
Customer Data Space (TBs)	41	62	62	68	74	84
Tcore change %				33%	23%	20%
CDS Change %				10%	9%	14%
Node Expansion Total during DR		12	12	13	16	16

Based on the State's needs and having a like or better system, Teradata Engineering has sized the above system options
* Year 4 and 5 configuration is an estimate as Azure v5 will be the only option at that time

CLOUD VM EXPANSION OPTIONS

Number of Nodes in Baseline system	Scale out Increments/Options			
2	3	4	6	8
3	4	5	6	8
4	5	6	7	8
5	6	7	8	10
6	7	8	10	12
7	8	10	12	14
8	10	11	13	16
9	11	12	15	18
10	12	14	16	20
11	13	15	18	22
12	14	16	20	24
13	15	18	21	26
14	16	19	23	28
15	18	20	24	30
16	19	22	26	32
17	20	23	28	34
18	21	24	29	36

As background for the above table, all node Virtual Machines (VMs) must be the same type within a system configuration and the nodes for the New Production System and the New DevDR System are VM type E64-32s v4. The table above summarizes Azure-allowed VM scale-out expansion options typically available without having to redeploy.

SCHEDULE J – SECURITY RESPONSIBILITIES FOR THE CLOUD REFRESH OF TERADATA SYSTEMS

Subject to Schedule E, the following "RACI" matrix sets forth who is responsible, accountable, consulted and informed regarding security related roles and responsibilities associated with the provisioning and operation of the State's New Systems in Azure GovCloud.

Responsibilities [1]	Contractor	State
Provide temporary access to the existing environment to allow implementation. This means temporarily provide a small number of authorized and named Teradata cloud professionals full access to the existing Azure Government Cloud Tenant where the Teradata New Test System resides. This temporary access will allow implementation of the New Systems and will be removed at the end of the Implementation period.	C	R

During Implementation and Transition, establish and handover the New Production and DevDR Systems [2]. This includes:
 	
• As part of Cloud Provisioning, leveraging the master Azure Government account/tenant; provisioning infrastructure; and providing an Environment Details Document that includes implementation details, user access details and services deployed
 	
• Establishing initial security for the New Systems and handing back the Azure Portal Administration and tenant to the State and only retaining read-only access to the tenant (which allows Contractor to monitor the amounts and types of infrastructure that are deployed, as opposed to the logs of activities). Contractor will have no access to the State's servers or data. Specifically, the following will be handed over to the State:
 	
    All provisioned items (e.g., VMs, SQL Engine, Server Manager, DSC/DSU, Viewpoint)
 	
    All SLES operating systems fully hardened to IRS-SCSEM standards
    Encryption turned on for data at rest (i.e., disk/storage encryption)
    No public endpoints for any Azure resource
    Contractor will not maintain any privileged user rights on the Azure Tenant/Subscription
	R	C

During Steady-State, provide basic security support services as listed below [2]:
 	
    Azure GovCloud Virginia and Texas Regions data center security established as part of the tenant
 	
    Access upon request to associated standard Microsoft Azure compliance offerings (e.g., audits, compliance reports) that are provided as a result of tenant creation and provisioning of the infrastructure (see https://aka.ms/AzureCompliance)
 	
    Teradata support and Software Subscription
 	
    Appoint a Security Officer to support and respond to the State's security questions, including for audits regarding the data warehouse solution
 	
    Respond to State requests for help with O/S patching and hardening
 	
    Incident, Problem and Change (IPC) Management processes, including Security Incident management [3]
	R	I

Steady-State end-to-end security, including Azure Portal, O/S and Data Warehouse (DW) Security – This includes:		
Review/finalize all initial security settings after handover and manage/implement all aspects of cloud security beyond the Contractor responsibilities described above, for the duration of its existence (includes security planning, controls, configurations, monitoring, capturing/reviewing security logs, etc.); security logs include system logs, database logs, change activity logs tied to each active Azure service, security center logs, network watcher logs, etc. [4]		
Establish/complete the required circuits and network connections to the New Systems (e.g., VNet Peering, Express Routes, associated FW rules and routing) and ensure traffic is encrypted to and from the network. This includes implementing PrivateLinks that are to be used for the upfront four data migrations during transition to the cloud and for future NOS transfers. This also includes implementing a VPN for the New DevDR System, and/or routing Texas traffic via Virginia Express Routes (if possible), to be used in the interim until the State's circuit to Texas is fully functional.	I	
Creating and managing all Azure Portal, O/S and DW user IDs, including access control and identity/access management (including active directory management as needed) [5]		
If/when the State desires hands-on help from Contractor during steady-state, this will be handled similarly to how O/S patches and O/S hardening have been handled in the past, e.g., this may mean the State chooses to temporarily give Contractor specific Azure Portal and/or Server Admin rights to perform specific work under a State-approved change record, overseen by a State System Admin, etc.		R
DW security hardening		
DW data, applications and related processes		
Data classification and controls		
Application-level controls and protection		
Secure coding (e.g., practices, tools, procedures, guides, source code repositories, environments, threat modeling, threat/vulnerability analysis and legal/contractual considerations)		
Review/monitoring of user and database logs		
Backups, restores and testing of backups		
Disaster recovery and business continuity (DR/BC) planning		
Incident, Problem and Change (IPC) Management processes, including Security Incident management [3]		

Security of the SOM WAN circuits between State/Switch data centers and Azure Government Cloud Virginia and Texas Regions, including the associated WAN infrastructure (e.g., circuits, firewalls, routing, software, logs), data in transit and monitoring/support	I	R

Legend: R – Responsible and accountable   C – Consulted   I - Informed

Notes:

[1] Optum will be kept informed by both Teradata and the State regarding all security related roles and responsibilities

[2] As described in the Cloud Provisioning (Schedule Q, Attachment 4, Exhibit 1) and Support (Schedule D)) service descriptions, and Teradata Software License Agreement (Schedule Q, Attachment 4, Exhibit 3)

[3] The State's PDSS-PS EDW DBA Team will continue to drive IPC processes; State and Teradata IPC processes will continue to integrate; and Teradata's IPC processes will continue to integrate with those of Azure

[4] Azure's Defender, Network Watcher and Notification Hubs are available, in case the State chooses to use them

[5] User authentication is expected to use the State's active directory and IDs for database authentication using the LDAP protocol

SCHEDULE K – HIGH-LEVEL ARCHITECTURE DIAGRAM FOR THE NEW SYSTEMS

As illustrated below, the New Systems will connect via VNET Peering to the State's Virginia and Texas Azure Government ExpressRoute End Points.
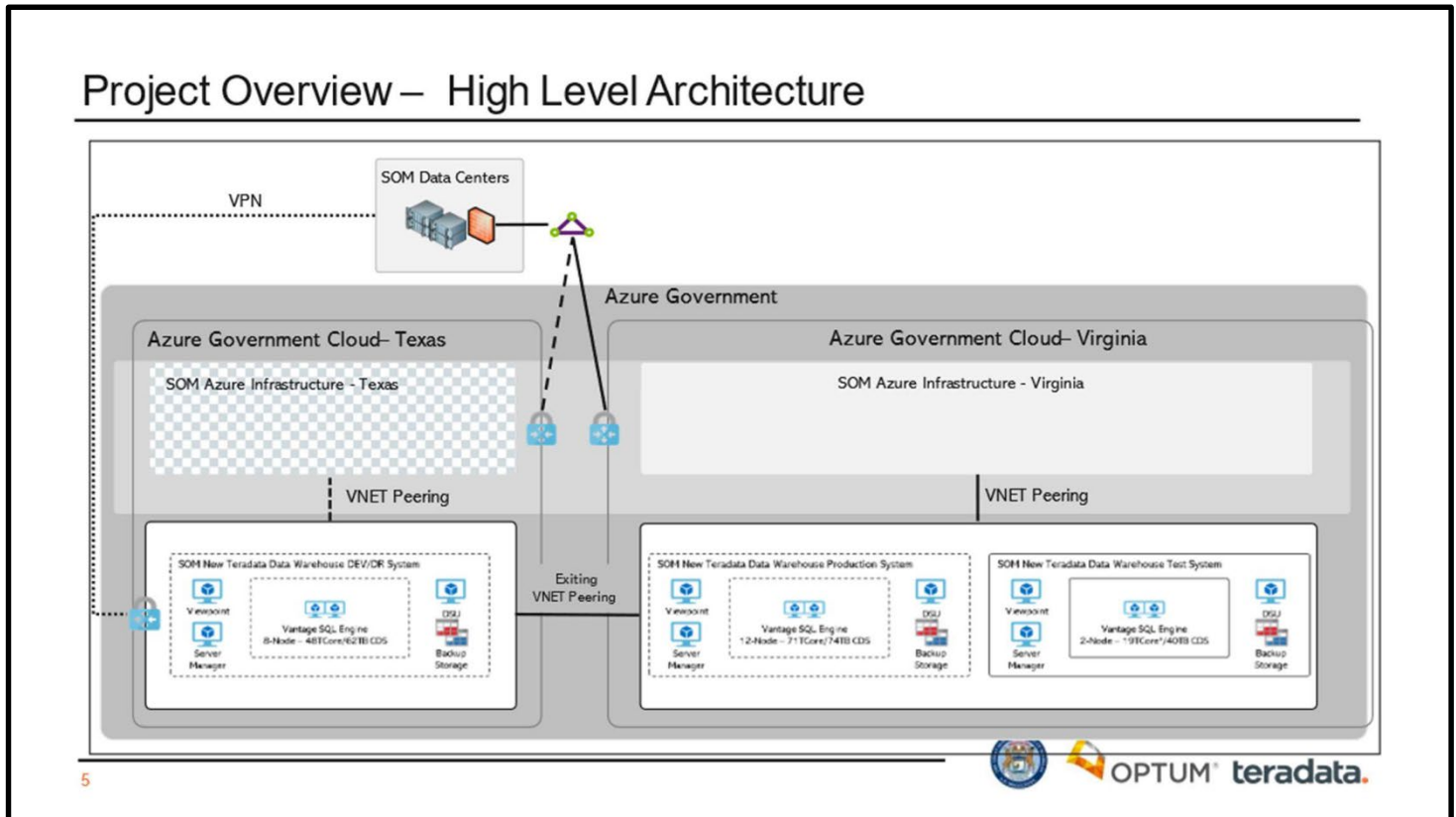
In the interim period until the Texas circuit is fully functional, DevDR will be accessed via a VPN, and/or via VNET peering from Virginia.

SCHEDULE L: DSU OPTIMIZATION SERVICES

1.   **Nature of the Project**

The general nature of this work is to optimize the back-up, transfer and restore of on-premises instances to the cloud instances.

2. **Services**

The following services will be provided:

   A. **BAR Specialist** – Contractor will assign a BAR expert to work with the State to identify required inputs.

   B. **Consulting Sessions**

   - Analysis of databases (size / usage)

   - Recommendation of database groups / partitions for transfers

   - Optimize client handler properties to maximize data transfer time

   - Optimize DSU Infrastructure configuration

   - Consult on timelines on transfers

   C. **Reporting**

   Support DTMB's Data Transfer Project Plan

3. Key Work Products

The Key Work Product for these Services is:

1.	DSU Optimization/Migration Report – brief list of recommended optimization changes

SCHEDULE M: TERADATA CLOUD ADVISORY SERVICES

1. Nature of the Project

Teradata Cloud Advisory Service Engagements will advise the State. These engagements are provided via remote services and do not include any travel.

2. Services

Each Cloud Advisory Service Engagement is designed to advise the State regarding a specific activity owned by the State. Each Cloud Advisory Service follows this process:

Readiness Assessment – Kickoff the engagement, clarify key players, clarify scope, identify/gather required inputs, clarify engagement plan and review completion criteria.

Working Sessions – Continue the process of identifying/gathering required information primarily via small group work sessions

Reporting – Prepare and present Recommendation Report to the Customer

Mentoring State EDW PDSS-PS Staff – By working side-by-side with Contractor consultants, State EDW PDSS- PS Staff will be informally and naturally mentored during Steps A – C above.

Two specific Cloud Advisory Service Engagements are included for the State:

Existing Production EDW ETL/BI Servers Future Placement – In the first five months of the transition project, Contractor will work with the State to review data volume, data gravity, latency, bandwidth, performance, costs and user scenarios to document recommendations on the best future placement location for existing Production EDW ET/BI Servers, i.e., leave each server where it is or consider moving it to the Azure GovCloud.

Production Workload – After Production final migration and cutover occurs, Contractor will work with the State to review the Production operational data that has accumulated in the new Azure GovCloud environment to: (1) assess Teradata Active System Management (TASM/workload) features/settings; (2) document workload management recommendations for Production; and (3) monitor and adjust Production TASM settings for recommendations accepted by the State, to help the State leverage any beneficial new/additional TASM features.

3. Key Work Products

The Key Work Products for these Services are:

1.	*Summary Report with Recommendations* for the Production System - Summarizes engagement goals, results and recommendations
2.	*TASM Adjustments* for the Production System (e.g., adjust settings for workload definitions, prioritization, exception processing), if needed (Engagement 2 only)

4. Dependencies and State Responsibilities / Resources

The Contractor's agreement to the above work and its duty to perform in accordance with this Schedule are dependent and conditioned upon these State responsibilities being completed and these key State resources:

Key State resources – Sponsor, Project Manager for State responsibilities, Subject Matter Experts (SMEs) EDW PDSS-PS Physical DBAs

System Connectivity – Teradata system connectivity to State on-premises and cloud IPs and systems; Viewpoint web portal access; associated access rights and credentials; FTP access may be needed to download/upload performance analysis data; change control requirements/approvals.

State performance data collection requirements before engagement can begin

Requested DBQL logging requirements/data and ResUsage information for Teradata

Agreement that Workload Management settings will only be established to solve specific problems per the Consultants recommendations

5. Out of Scope Services; Exclusions

The Services to be provided include only what is expressly described in this Schedule and the Project Plan, once approved by both parties. Services that are outside the scope of this Schedule include, but are not limited to, the following:

- Reengineering of processes

- The solution of any problem originating from the quality of the data

- The design or development of applications to create non-existent data or to modify current data

- The construction of a dictionary of current data used to populate one or more databases

- Mentoring people that are not Client Project Team members

- Full-production operationalization (such as complete automation and error handling for the data loads) optimization, performance tuning, data and operations management, archive/recovery, and formal training and knowledge transfer

- Complex analytical processing that is not included as part of a Contractor-provided solution's functionality

SCHEDULE N: DECOMMISSION SERVICES

Contractor will provide the following services as part of the decommissioning of the Current Production System and Current DevDR System that are installed at the State's locations, and similarly for the Azure GovCloud New Production System, New DevDR System and New Test System when the Contract expires or terminates, or the customer has agreed to infrastructure changes like system upgrades that remove retired cloud components (the "Decommission Services").

1. Nature of the Project

The general nature and scope of the Project is to provide the expertise required to decommission existing Contractor systems and/or their components. If required by the State, Contractor will coordinate with the State to scrub disks and/or deinstall systems and/or remove systems from their locations during normal business hours. The State will reasonably assist in the decommission process.

2. Services

The Services consist of the following functions:

2.1 System Disk Scrubbing

If the State requires it, Contractor will perform the following disk scrubbing activities for on-premises systems:

   a) Gather system information – Run a utility that renders a print-out of all usable drives on the system with their serial number (this print-out will later be attached as one of the key work products).

   b) Prepare/implement disk scrubbing – Prepare the system for complete data erasure, run programs and pearl scripts that will erase all data by writing different data patterns on each disk device on the system up to seven times. This process overwrites all addressable locations with the following passes of bit patterns:

      1. Random but repeated character
      2. Compliment of that random character (bit flip)
      3. Random character stream (filling the disk with randomly generated characters each character)
      4. Random but repeated character
      5. Random but repeated character
      6. Compliment of that random character (bit flip) from pass 5
      7. Random character stream (filling the disk with randomly generated characters each character)

   The process wipes all data from the drives according to the US governments publicly defined explanations of "clearing and sanitization", specifically sanitization of non-top secret information.

   c) Verify data erasure – run a validation script to confirm presence of the newly written characters on all the scrubbed drives.

2.2 Deinstallation and Disposal

If the State requires it, Contractor will perform the following deinstallation and/or disposal activities for on-premises systems:

   a) Perform a shutdown of the system(s)
   b) Disconnect intra-cabinet cabling
   c) Disconnect from the power supply
   d) De-install the Contractor-provided cabinets
   e) Remove Disks Only. No participation in the inventory or ownership of the asset. This is a 'drive pull and drop' in a continuous and uninterrupted fashion only. State provides an onsite professional and/or container, and Contractor pulls the drive and hands it to the customer professional, who immediately puts it in the container, or if the State does not provide the onsite professional then Contractor puts the drive in the customer's container. Given this continuous and uninterrupted 'drive pull and drop' activity, the State retains end-to-end ownership of all disks from their system on the floor into their container.
   f) If the State requires it, prepare for pickup and removal (note that the State must move the equipment from computer facilities to loading docks)
   g) If the State requires it, transfer to a recycling agent.

For decommissioning in the cloud, Contractor deletes the associated Azure Government cloud resources (e.g., VMs, BLOB storage, subscriptions, etc.), which trigger the standard and proven Azure Government resource removal processes used by thousands of organizations and that follow multiple standards (e.g., NIST-SP-800).

3. Key Work Products

The Key Work Products for these Services are:

For Disk Scrubbing for on-premises systems (if required by the State):

1.	Print out of Serial Number of drives in system
2.	Teradata Disk Scrubbing certificate of completion

Note: The certificate of completion does not represent legal documentation of data erasure and does not hold Teradata nor Optum liable for data loss or compromise. It represents only a record of the process for sanitizing magnetic media compliant with the Defense Security Services (for non-top secret data).

For Deinstallation for on-premises systems (if required by the State):

1.	Physical Removal of Drives Only.
2.	Deinstallation of cabinets
3.	Verify 'Ready for Pickup and Removal'

For Disposal for on-premises systems (if required by the State):

1.	Coordinate Pickup Service
2.	Remove cabinets
3.	Transfer to Recycling & Disposal Agent

For Decommissioning for cloud systems (if required by the State):

1.	email Notice that associated resources are deleted

SCHEDULE O: TEMPORARILY EXPAND AND CONTRACT THE NEW DEVDR SYSTEM

Nature of the Project

The general nature and scope of the Project is to temporarily expand and contract the New DevDR System for the State for (1) up to one week annually for Disaster Recovery (DR) testing; and (2) an actual disaster.

Services

The Services consist of the following:

2.1   Perform cloud provisioning

Upon the State's request, Contractor will provision/add Virtual Machines (VMs) to the New DevDR System as specified in Exhibit 1B for (1) up to one week annually for DR testing; and (2) an actual disaster. The new VMs will be built from an existing DevDR VM image and will include settings for security, alerts, monitoring, etc. that have been established on the source DevDR VM, and this includes IRS SLES SCSEM hardening and handover to the State. The State must provide Contractor with temporary Azure Government Administration access to perform this service.

Please note the following:

It is recommended that the first DR Test be conducted after cutover to the New Systems.

In the unlikely event that a disaster occurs in Virginia, many other customers will be simultaneously seeking Azure Texas resources, and thus there are no SLAs or performance guarantees during this process. However, the approach described here has been designed to give the State of Michigan a leg-up in this process and address the State's Recovery Point Objective (RPO) by leveraging the already-existing New DevDR System.

Note that the New DevDR System data space will not expand or contract as part of these services. As background, reducing data space can be a dangerous operation, so best practice is not to do it. Thus, the New DevDR System in the Azure GovCloud, similar to the on-premises solution, has been allocated upfront with more than 80% of the New Production System data space, with the expectation that this will be manageable for temporarily restoring and functioning for DR activities.

In an actual disaster, performance of the New DevDR System will vary based on the number of VMs allocated at a given point in time. Note too that the fully expanded New DevDR System is not an exact match of the New Production System (see Schedule IB for details), but is estimated to be sufficient for DR activities (more VMs could be allocated via a future contract change, if found to be needed).

2.2   Perform cloud contraction

Contractor will remove Virtual Machines (VMs) from the New DevDR System to return the system back to the size it was prior to the expansion described in Section 2.1 above (and in alignment with Schedule IB). For DR Tests, this must be performed within one week of expansion or the State must agree via a separate contract change to pay for the cost of leaving the expanded infrastructure in place for longer than a week. For an actual disaster, this contraction process will occur when the disaster is over and Production is working again in Virginia. The State must provide Contractor with temporary Azure Government Administration access to perform this service.

Key Work Product

The Key Work Product for these Services is:

1.   **The number of active VMs match the applicable Schedule IB DevDR Configuration**

Out of Scope Services; Exclusions

The Services to be provided include only what is expressly described in this Exhibit and the Project Plan, once approved by both parties. Services that are outside the scope of this Exhibit include, but are not limited to, the following:

- The State is responsible for all Disaster Recovery and Business Continuity (DR/BC) Planning and implementation, including step sequence, execution and results, and can choose to request Contractor to temporarily expand and

contract the New DevDR System for use during a disaster and for up to one DR Test annually.

- Other than the services described in Section 2 above, the State is responsible for all DR/BC steps, including verifying load; verifying current space requirements; creating/modifying Media Groups as necessary; creating/modifying standard retention policies; redirecting IP addresses and ETL loads; verifying and managing any encryption, as necessary; initiating the syninit; verifying connectivity and admin user access; verification and execution of data backup and restore operations; and all testing preparation and implementation activities

- Environments other than the New DevDR System and time periods other than the week-long annual DR Test Period and occurrence of an actual disaster

SCHEDULE P: VM REDEPLOYMENT SERVICES

1. **Nature of the Project**

The general nature of this work is to redeploy VMs when required, e.g., during O/S upgrades and during some node expansion scenarios.

Services

The following services will be provided:

Redeployment Readiness Assessment – Contractor will assign a Cloud Architect to work with the customer on clarifying key activities/task, identifying/gathering required inputs, and clarifying roles to accomplish and complete the service.

Working Sessions

- Ensure contributor access is granted to Contractor resource
- Communicate detailed steps and identify task and timelines for each responsible party
- Contractor to deploy new resources in empty resource group
- Coordinate Contractor resources for SCSEM work
- Coordinate DTMB resources for backup of existing system and restore to newly deployed system
- Allow DTMB staff administration access to load DTMB specific software
- Shut down old system
- Contractor to change load balancer IP addresses

Reporting

Prepare and provide a client update architecture diagram listing IP addresses and ports for new system

Azure report of deployed resources (pre and post deployment)

3. Work Products

The Work Products for these Services are:

1.	Architecture report
2.	Azure Report of deployed resources (before deployment and post deployment)

SCHEDULE Q - OTHER

Table of Contents

Schedule Q - Attachment 1 – OpenText BI Query Software Support

During Renewal BI Query Software Support Terms that are defined and priced in Schedule B, Optum, acting through its subcontractor, Open Text Corporation ("OpenText"), shall provide "Standard Maintenance" for the BI Query Software, once the State has provided a corresponding PO, provided such PO is received on or before the applicable October 1 of such twelve (12) month Renewal BI Query Software Support Term. The scope of what constitutes "Standard Maintenance" is set forth in the OpenText Software Maintenance Program Handbook – Prime Protect (https://www.opentext.com/agreements) and further governed by the EULA.

Notwithstanding the foregoing, Optum shall have the right to terminate the BI Query Software Support either (i) at the end of a Renewal BI Query Support Term or (ii) at any point in time during the BI Query Software Support Term effective upon written notice to the State if (x) Optum's subcontractor, OpenText, no longer provides such BI Query Software Support, (y) OpenText provides BI Query Software Support but not through resellers or Optum, or (z) OpenText changes the applicable support charge discount offered to Optum for the BI Query Software Support for a Renewal Term.

In the event that the BI Query Software Support is terminated prior to the end of the Renewal BI Query Software Support Term and if the State has paid Optum a fee that covers a portion of time following the effective date of termination, then Optum shall refund to the State a prorated amount of any prepaid charges or grant the State a credit, at Optum's sole discretion, but only if and to the extent Optum is entitled to a prorated refund of the fee it has paid to OpenText.

Schedule Q- Attachment 2 – Optum Symmetry Software

During each of the Renewal Symmetry Software Terms that are defined and priced in Schedule B., Optum shall provide "Symmetry Software License and Support Services" for the Symmetry Software. The scope of what constitutes "Symmetry Software License and Support Services" is set forth below.

Symmetry Software License:

Optum hereby grants the State a nonexclusive, nontransferable license to use the following Symmetry software (the "Symmetry Software"). The Symmetry Software is included in the definition of "Software" and includes a nonexclusive license to use the Current Procedural Terminology ("CPT") codes embedded therein.

❑ **Symmetry Episode Treatment Groups (ETG)**. The Symmetry ETG Software is an episode building patient classification system methodology that uses inpatient and ambulatory claims, or other like data, to identify treatment episodes.

❑ **Symmetry Episode Risk Groups (ERG)**. The Symmetry ERG Software predicts and assigns potential risk values to individual members of a health care plan, based in part on a derivative of ETG.

❑ **Symmetry EBM Connect**. The Symmetry EBM Connect Software is intended to help the State retrospectively measure and monitor the quality of care provided to its plan members by comparing services captured on medical claims, pharmacy claims and laboratory results data to recognized and established clinical guidelines. The Symmetry EBM Connect software includes only default cases and rules.

A. <u>Rights to Use</u>: The State's right to use the Symmetry Software is limited to the uses stated in this Attachment 2.

1. <u>Grouping Claims</u>. The State may use the Symmetry Software at the sites defined below for the purpose of grouping of claims for which the State is the payer or third party administrator (TPA) (unless otherwise permitted below) and using any Symmetry Software output for the internal business activities of the State or the State's payer or TPA customers, including use of the output for the purposes of medical cost containment and treatment analysis, and provider network analyses and management.

2. <u>Value Added Reports</u>. The State may use the Symmetry Software to create Value Added Reports. "Value Added Reports" means the State's written analysis and interpretation of the results generated by processing any of the State's own claims (if the State is a payer) or any one group's claims through the Symmetry Software. Value Added Reports may be in the form of reports or analysis, paper or electronic, and may include the grouped data and indentifiers generated by the Symmetry Software. The State may deliver Value Added Reports only to the employer group, other group or association, physicians, physician groups, or consumers whose claims were processed for such report.

3. <u>Disclosure</u>. Should the State desire to disclose any Symmetry Software output or Value Added Reports to a third party entity other than as described above, the Stated is required to notify Optum of the entity and scope of the project requiring the disclosure. If Optum agrees the State may make such disclosure, the State will ensure that the receiving entity signs a non-disclosure agreement with the State or with Optum which prohibits further uses or disclosures of the Symmetry Software output and Value Added Reports. The State will pay Optum any additional mutually agreed fees for such disclosure and project.

i. If State desires to share any Symmetry Related Data with a Health Plan, prior to sharing any Symmetry Related Data for the first time with a Health Plan, the State shall provide the Health Plan with the End User License Agreement attached as Exhibit 1 to this Attachment 2 (the "Symmetry Related Data EULA" or "EULA"). Consistent with the terms of the Symmetry Related Data EULA, the State shall be authorized to provide Symmetry Related Data both initially and on a recurring basis only to any Health Plan who either provides the State with written notice of its acceptance or is deemed to accept such EULA by not objecting within the two (2) business day period described therein until the earlier of (1) such time as the Health Plan provides the State with written notice objecting to the EULA or (2) this Contract no longer remains in effect. In the latter event, the provisions set forth in Section ii below shall apply.

The initial Symmetry Related Data that shall be provided by the State to its Health Plans consist of the following:

(a) an initial set of Symmetry Measures:

(1) Pregnancy Management (Report Case ID 201500),

(2) Tobacco Use: Screening and Cessation Intervention (Report Case ID 302800),

          (3) Hepatitis C (Report Case ID 103400)

          (4) Hypertension (Report Case ID 102500); and

    (b)   The Symmetry Rules that are employed for purposes of monitoring and measuring the Health Plans' services.

    ii.   If, after receiving the Symmetry Related Data EULA from the State and either accepting its terms or being deemed to have accepted its terms, the Health Plan notifies the State in writing that it objects or otherwise indicates it is not in agreement with its terms, the State will not share additional Symmetry Related Data with that Health Plan. In addition, the State shall notify the Health Plan in a writing also provided to Optum that instructs the Health Plan to cease further use of the Symmetry Related Data, return to Optum or destroy any Symmetry Related Data in its possession and certify such return or destruction to Optum as set forth in the EULA within thirty (30) days of receipt of the written notice. Should the Health Plan not do so within the thirty (30) day period, Optum shall notify the State, whereupon (a) if permitted to do so per the existing terms of the State's contract with the Health Plan that permits the State to treat the Health Plan's failure to do so as a breach of contractual obligations arising out of its contract with the Health Plan, the State shall take such actions as permitted under its contract with the Health Plan, all in the State's reasonable discretion based on the applicable facts and circumstances and (b) the State shall not object if Optum takes action to enforce the terms of the EULA, including, without limitation, seeking appropriate injunctive relief requiring the Health Plan to abide by such obligations.

B.   <u>Proprietary Rights</u>: The State understands that the Symmetry Software and data derived from the Symmetry Software are protected under copyright laws and are the subject of United States patents. The State agrees to mark all Value Added Reports and other reports generated using the Symmetry ETG Software with the following:

"Portions of the Software are protected under United States Patents #5,835,897; #6,370,511; #7,620,560; #7,725,333; #7,774,216; and #7,979,290. Other U.S. and foreign patents pending. Recipient of this information may not disclose, permit to be disclosed, or otherwise resell or transfer all or any portion of this information to any third party."

C.   <u>Informational Tool</u>: The Symmetry Software is provided to the State for informational purposes only. The State acknowledges that the Symmetry Software is a tool that the State may use in various ways in its internal business. Any reliance upon, interpretation of and/or use of the Symmetry Software by the State is solely and exclusively at the discretion of the State. The State's determination or establishment of an appropriate treatment plan, reimbursement level or fee is solely within the State's discretion, regardless of whether the State uses the Symmetry Software. Optum is not engaged in the practice of medicine and does not determine, on the State's behalf, the appropriate fee or reimbursement levels for the State and its business. The State shall not use the Symmetry Software to perform medical diagnostic functions, set treatment procedures or substitute for the medical judgment of a physician or qualified health care provider.

D.   <u>State of Michigan Obligations:</u> The State agrees to acquire, install, implement and maintain all services, hardware, software, networks, program fixes, program releases, operating system software, database software, and other third-party software, as deemed necessary by Optum for proper execution of the Software. Such items may be at an additional cost for which the State is financially responsible. Optum shall not be responsible for installation or support of third-party components or for circumstances beyond its reasonable control. The State shall not deliver the Symmetry Software to any third party for such third party's use, even if such third party use is on behalf of the State. Under no circumstances does this license allow for the access to or distribution of the Symmetry Software's executable programs, codes, or related documentation to any entities outside of the site(s).

E.   <u>Software Delivery</u>. Optum will make available to the State one (1) master copy of the Symmetry Software. Such copy of the Software shall be in an electronic form and suitable for reproduction by the State in support of the State's permitted uses of the Symmetry Software including installing for purposes of hosting both a test/preview site and a production site. The State may use the Symmetry Software at the following location (the "Primary Site"): <u>State of Michigan Lake Superior Data Center located at 7064 Crowner Drive, Lansing, MI 48821</u>.

F.   <u>Future Sites</u>. Optum and the State agree that future installation sites may be added under this Schedule as mutually agreed upon by both parties in writing and at an additional cost (other sites and the Primary Site are

collectively the "Sites"). For purposes of reporting and calculation of fees due under this Schedule, the Primary Site shall be responsible for coordinating the support needs for all authorized sites and also be responsible for the annual Covered Lives count reporting responsibilities.

G. <u>Covered Lives</u>. As of the Effective Date of this Attachment 2, the State represents and warrants to Optum that the State's total number of Covered Lives is less than **2,535,750**. "Covered Lives" shall mean each subscriber and enrolled dependent eligible for coverage or payment for medical benefits by or through the State. Optum shall be entitled, not more than one time per year, upon reasonable notice and during regular business hours, to audit the State's Covered Lives for the purpose of substantiating the accuracy of reported Covered Lives totals and fee calculations. The State shall be invoiced for any adjustment based upon any difference between its actual Covered Lives and the Covered Lives reported for the fee calculation.

As it relates to Covered Lives above, the State of Michigan is calculating its total Covered Lives as its beneficaries in the following programs: Traditional Medicaid, Healthy Michigan Plan (HMP), Children's Special Health Care Services (CSHCS), MiChild, Pre-paid Inpatient Health Plan (PIHP), and Maternity Outpatient Medical Services (MOMS).

H. <u>License Charge</u>. The State agrees to pay Optum the Symmetry License and Support Charge identified in Schedule B for use of the Software during the applicable one year period corresponding to such charge for up to the number of Covered Lives set forth above provided that the State issues a purchase order for such Symmetry License and Support Charge on or before the start of such one year period. The License Charge also covers the Software Support Services during such one year period.

The additional License Charge adjustment amount per year for each 100,000 covered lives above or below 2,535,7500 shall be $6,100.00.

Symmetry Software Support Services

Optum will perform the following Symmetry Software Support Services for the State, which will be deemed to be "Services" under the Agreement, for the current version of the Symmetry Software and one prior version.

A. <u>Symmetry Software Support Resources</u>. A wide variety of Symmetry Software support resources are available on-line to all of the State's registered users via the Optum and Symmetry websites. Examples of these materials include downloadable product patches, Symmetry Clinical Knowledgebases, Symmetry Suite Product Guides, and Symmetry Software Training Materials including Schedule and Registration instructions.

B. <u>Help Desk Services</u>. Optum will provide the following help desk support via email and telephone during the Term defined below in the following areas:

- Assistance with Symmetry Software installation.
- Assistance with Symmetry Software questions involving general usage, operation, and functionality.
- Error and bug reporting, analysis, isolation and identification.
- Information on current releases, Symmetry Software compatibility, restrictions, enhancements, workarounds, and fixes.

Customer Support Helpdesk	
Customer Support Helpdesk	Technical support Services are available to the State by phone and email. The Customer Support Helpdesk supports functional, operational, software, and Symmetry Software-related issues, questions, and outages if applicable. The helpdesk may not be used for training.
Customer Support Helpdesk Availability	8:30 A.M. – 6:00 P.M. Eastern Time, Monday - Friday with the exception of Optum company holidays or office closings.

C. <u>Generally Available Symmetry Software Updates and Corrections</u>. Optum shall promptly make available to the State all modifications, updates, error corrections, minor releases, major releases and all related documentation for the Symmetry Software that Optum makes available to all of its other licensees of the Symmetry Software. Optum will make minor updates (including error corrections) to the Symmetry Software as Optum determines is appropriate. Migration to new major releases of the Symmetry Software will be coordinated with the the State. The State shall make a good faith effort to migrate to the most current version of the Symmetry Software within a reasonable timeframe from general availability of such current version.

D. Symmetry Software Verison Support. Optum will support the State in maintenance of the then current release as well as prior releases for a limited time period as indicated per the Release Support Schedule in the Symmetry Software documentation.

E. Product Incidents. The State agrees to notify Optum promptly following the discovery of any Error. An "Error" shall mean a failure of the Symmetry Software to perform in accordance with the Documentation provided by Optum for that particular Symmetry Software release. Further, upon discovery of an Error, and at the request of Optum, the State agrees to submit a listing of output and any other data that Optum may require in order to reproduce the Error and/or the operating conditions under which the Error occurred or was discovered. The State will provide, as requested by Optum, copies of databases, Error logs, network performance metrics and Symmetry Software parameters to assist Optum in understanding Errors. The State will provide remote access to the State's network and databases, when requested. The State will provide access to database administrators, network administrators, desktop administrators and Symmetry Software administrators, as requested by Optum, to help facilitate rapid resolution of implementation and support issues.

1. Reporting Errors. When the State provides a written report of a potential Error to Optum, Optum will classify such Error as a Severity One Error, Severity Two Error, Severity Three Error, Severity Four Error or as not an Error, and will respond and begin taking actions to correct such Error, as set forth below.

    (a) Severity One Error (Critical). A "Severity One Error" shall mean an Error occurring (a) after it is first used in production by the State (the "First Commercial Use") that causes the Symmetry Software to fail to install or run and renders the Symmetry Software unusable, or (b) an Error internal to the Symmetry Software that compromises overall Symmetry Software integrity or data integrity when the Symmetry Software is installed or operational (i.e., causing a Symmetry Software crash or loss or corruption of the State's Data. Optum shall make reasonable efforts to respond to calls for a Severity One Error within one (1) business hour.

    (b) Severity Two Error (High). A "Severity Two Error" shall mean an Error occurring (a) after the State's First Commercial Use in which a required program or feature of the Symmetry Software is unusable, or (b) an Error internal to the Symmetry Software causes a major loss of functionality (i.e., major options or features of the Symmetry Software fail to function) for which there is no known workaround. Optum shall make reasonable efforts to respond to calls for a Severity Two Error within two (2) business hours.

    (c) Severity Three Error (Medium). A "Severity Three Error" shall mean an Error occurring (i) after the First Commercial Use in which an optional program or feature of the Symmetry Software is unusable, or (ii) an Error internal to the Symmetry Software causes a minor loss of Symmetry Software functionality (i.e., minor options or features of the Symmetry Software fail to function) for which there may or may not be a known workaround. Optum shall make reasonable efforts to respond to calls for a Severity Three Error within eight (8) business hours.

    (d) Severity Four Error (Low). A "Severity Four Error" shall mean an Error occurring after the First Commercial Use that has only a minor effect on functionality. Optum shall make reasonable efforts to respond to calls for a Severity Four Error within sixteen (16) business hours.

2. Critical Errors. If an Error is classified as a Severity One Error or a Severity Two Error, Optum will initiate work on developing a resolution such as a fix or workaround consisting of sufficient programming and/or operating instructions ("Error Correction") and will use its commercially reasonable efforts to complete the Error Correction promptly after such Error is reported. Any such Error Correction may be provided through a temporary fix or work-around consisting of sufficient programming and/or operating instructions to implement the Error Correction. Written reports shall include reports transmitted to Optum by electronic mail delivery; provided that email will only be utilized by the State to convey an Error report as a follow-up to a phone conversation held between the State and Optum for the purpose of orally reporting such Error. Prior to a written or oral report being submitted to Optum, the State will verify and record via the written report that the State has verified the following:

    (a) The Symmetry Software has been installed in complete accordance with the Optum installation instructions and configuration requirements.
    (b) The State's representative responsible for executing the production is skilled, at a reasonable level, to follow and execute such Optum installation instructions.
    (c) The State has performed reasonable commercial diligence to ensure that the Error being reported is not due to the presence of or the defect of any third party software or components.

3. Cooperation. If the State does not expend commercially reasonable efforts to comply with the provisions set forth in this Section, then the Error shall be handled in accordance with the criteria for a Severity Four Error.

F. Exceptions. Optum is not responsible for making corrections due to the following reasons:

1. Errors resulting from misuse, improper use, or damage of the Symmetry Software, to the extent caused by the State, provided that the State's actions were not directed by Optum or set forth in the Documentation.
2. Problems caused by any modifications made to the Software, other than modifications made by Optum.
3. Errors resulting from software other than the Symmetry Software supplied by Optum, or from failure of the State's equipment or networks, provided, however, this exception shall not apply to problems arising from or in connection with third-party software, hardware or equipment provided or expressly recommended by Optum for use with the Software.
4. Errors resulting from the combination of the Symmetry Software with any other Symmetry software or equipment to the extent such combination has not been certified by Optum pursuant to this Attachment 2, or otherwise approved by Optum.
5. Errors contained in releases other than as provided for in the Release Support Schedule in the Software documentation.

Collected Data

A. Definition of Collected Data. "Collected Data" is defined as the State's health care claims and/or health care encounter data in a format containing identifiers from the Software, including but not limited to the ETG number, ETG subclass identifier; the episode number; the cluster number; the episode type; risk markers, and Software version.

B. Confidentiality of Collected Data. The State agrees not to disclose, permit to be disclosed, or otherwise resell or transfer, with or without consideration, all or any portion of the Collected Data to any third party, except that the State may disclose the Collected Data, at no additional charge to the State, to its consultants or agents for the sole purpose of assisting or advising the State in the conduct of the State's internal business activities. Prior to such disclosure, the State's consultants and agents shall execute a nondisclosure agreement, in a form consistent with the language contained herein, which will prohibit such consultants or agents from using such Collected Data (other than to assist or advise the State), from disclosing such the Collected Data to any third party, and from aggregating the State's Collected Data with data from any other sources. If the State is required to disclose the Collected Data by law or by regulatory agencies or other entities with legal authority to examine the Collected Data, the State shall deliver prompt written notice to Optum of such potential examination, allowing Optum the opportunity to interpose all objections to the proposed disclosure.

Term and Termination

A. Term. This term of the Symmetry Software License and Symmetry Software Support Services shall commence as of the Effective Date and continue for the time period remaining in the first annual period for which there is an annual charge in Schedule B and continues for successive one (1) year periods thereafter based on the receipt of annual purchase orders, unless earlier terminate (the "Term").

B. Effect of Termination. Within thirty (30) days after termination of this Attachment 2, the State shall return to Optum all copies of the Software and documentation supplied by Optum.

Exhibit 1 to Attachment 2
Optum Symmetry Related Data End-User License Agreement (EULA)

Optum Government Solutions, Inc. ("**Optum**") owns certain Symmetry Software that is licensed to the State of Michigan, Department of Information, Technology and Budget, acting on behalf of the Michigan Department of Health and Human Services ("**MDHHS**"). MDHHS uses such Symmetry Software to measure and monitor claims that you, as a MDHHS Health Plan ("**Health Plan**", "**End User**" or "**You**") submit for payment. In order for You to gain a better understanding ofwhat and how Your claims are being measured and monitored and the basis for any reports or other output that MDHHS generates through the use of the Symmetry Software, MDHHS is providing You with the Symmetry measures that are used for measuring and monitoring the Your health plan services (the "**Symmetry Measures**") and some of the underlying Symmetry rules that are used for measuring and monitoring the Your health plan services (the "**Symmetry Rules**"). The Symmetry Measures and the Symmetry Rules (collectively, the "**Symmetry Related Data" or "Data")** are owned and copyrighted by Optum.

Please read this End-User License Agreement ("**EULA**"), which is a binding agreement between you and Optum. You have two (2) business days after receipt of this EULA to either provide MDHHS with written acceptance of this EULA or your objection to the terms of this EULA. If you object to the terms of this EULA prior to receiving any Symmetry Related Data within such two (2) business day period, you will not receive such Symmetry Related Data. If you either provide your written acceptance of this EULA within such two business day period or fail to provide any written objection to MDHHS within such two business day period, you will be deemed to have accepted this EULA. This EULA shall apply to the initial receipt of any Symmetry Related Data and to any additional Symmetry Related Data from MDHHS unless and until you provide MDHHS with written objection to the EULA. Upon MDHHS' receipt of your written objection to the EULA , You shall be required to cease further use of, and return to Optum or destroy, all Symmetry Related Data in your possession and certify such return or destruction to Optum as set forth in Section 5. In such event, MDHHS will refrain from providing You with additional Symmetry Related Data.

1.   **License Grant**. Subject to the terms and conditions of this EULA, Optum grants You a limited, non-exclusive, non- transferable, non-sublicensable license to use the Data or any portion thereof for the following non-commercial purposes:understanding what and how Your claims are being measured and monitored and the basis for the reports or other outputgenerated through the use of the Symmetry Software by MDHHS (collectively, the "Purpose"). For the avoidance of doubt,You will not be allowed to use the Data to: aggregate, generate additional insights, develop any value added analytics or services, support any additional use cases (for example, care management analytics or employer reporting analytics) or leverage such Data or intellectual property in a manner or form other than how it is received from MDHHS or described here in this EULA.

You may view and print reports from the MDHHS dashboards but will not have the ability to export the Data from the reporting solution. For the avoidance of doubt, the use or disclosure of the Data pursuant to this Section 1 shall not be limited by Section 3.

2.   **Ownership**. Except as provided herein, all Data delivered to You by MDHHS from the Symmetry Software shall be and remain Optum's property and all such Data, and copies thereof, shall be destroyed or retained as otherwise set forth in this EULA.

3.   **License Restrictions.** You shall abide by the following restrictions with respect to your use of the Data:

   a.   Except as otherwise set forth herein, You may not cite Optum as the source of the information contained in theData without Optum's prior written consent.

   b.   Except as provided herein, You may not use or disclose any part of the Data for any reason, or as otherwise agreed in writing by Optum. You agree that in regard to the Data, You will not (1) use any part of the Data for anunlawful purpose; (2) quote or reproduce it for advertising, promotional or public

relations purposes; (3) place it in any data retrieval system; (4) publish, display, distribute, disclose, lease, license, sublicense or otherwise transfer the Data; (5) modify or create derivative works of part or all of the Data; (6) use some or all of the Data toprovide outsourcing, data aggregation or other services to any entity; (7) export or re-export it, directly or indirectly, outside the United States of America; or (8) incorporate any part of the Data into any product or service. No reports or documents prepared by You concerning analyses of the Data or the results of such research shall disclose the identity of any patient or, without Optum's prior written permission, disclose Optum asthe source of the Data.

4. **Audits.** During the term of this EULA and for one year thereafter, You agree to permit Optum or its auditors, upon reasonable advance written notice and during regular business hours, to inspect and examine, at Optum's expense, Yourpolicies, procedures, plans, and other records and documentation relating to the Purpose as reasonably necessary for Optum to verify your compliance with this EULA. Such inspection shall be limited to verification of compliance with this EULA and shall be conducted so as not to compromise the confidentiality of any of your confidential information.

5. **Term and Termination.** Your license to use the Data shall continue for as long as MDHHS' contract with Optum underwhich Optum licenses DHHS the use of the Symmetry Software remains in effect. MDHHS shall provide you with writtennotice of the expiration or termination of such contract, whereupon You agree to cease further use of the Data and either return or destroy and certify to Optum the certification of any and all Data in your possession. If you violate any provisionof this EULA, your permission to use the Data may be terminated, upon notice. Optum reserves the right to modify or discontinue the Data at any time (including by limiting or discontinuing certain features of the Data), temporarily or permanently, without notice to you.

6. **Breach.** Any material breach of this EULA by You may cause irreparable harm to Optum and shall entitle Optum to seek injunctive relief and all legal and equitable remedies available to Optum.

7. **Disclaimers**.

OPTUM MAKES NO WARRANTY TO YOU, EXPRESS OR IMPLIED, WITH RESPECT TO DATA, INFORMATION OR MATERIALS DELIVERED PURSUANT TO THIS EULA, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ANY WARRANTY THAT THE DATA WILL BE FREE FROM INFRINGEMENT OF PATENTS, COPYRIGHTS, TRADEMARKS, TRADE SECRETS OR OTHER RIGHTS OF THIRD PARTIES AND ANY WARRANTY AS TO THE ACCURACY QUALITY, RELIABILITY, SUITABILITY,COMPLETENESS, TRUTHFULNESS, USEFULNESS, OR EFFECTIVENESS OF THE DATA.

8. **Limitation of Liability**. OPTUM SHALL HAVE NO LIABILITY TO YOU FOR: (1) ANY DAMAGES RESULTING FROM USE OR INTERPRETATION OF THE DATA, INCLUDING BUT NOT LIMITED TO THE IMPACT, PROVISION OR STANDARD OF MEDICAL CARE; OR (2) ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, IN EACH CASE WHETHER OR NOT OPTUM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE LIABILITY OF OPTUIM SHALL OTHERWISE BE LIMITED TO ACTUAL AND DIRECT DAMAGES, NOT TO EXCEED
$1,000.

YOUR LIABILITY TO OPTUM ARISING UNDER THIS EULA WHETHER IN CONTRACT, TORT, OR OTHERWISE SHALL BE LIMITED TO ACTUAL AND DIRECT DAMAGES. YOU SHALL HAVE NO LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, WHETHER ORNOT YOU HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. ACCORDINGLY, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EACH PROVISION OF THIS EULA THAT PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTIES, OR EXCLUSION OF DAMAGES IS INTENDED TO AND DOES ALLOCATE THE RISKS BETWEEN THEPARTIES UNDER THIS EULA. THIS ALLOCATION IS AN ESSENTIAL ELEMENT OF THE BASIS OF THE BARGAIN BETWEEN THE PARTIES. EACH OF THESE PROVISIONS IS SEVERABLE AND INDEPENDENT OF

ALL OTHER PROVISIONS OF THIS EULA. THE LIMITATIONS IN THIS SECTION WILL APPLY EVEN IF ANY LIMITED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

9. **Disputes**.

- o Governing Law. To the maximum extent permitted under applicable law, this EULA will be governed by the laws of the State of Michigan.

- o Dispute Resolution. Any dispute arising out of or in connection with this EULA, the rights and obligations under this EULA or the breach, termination, formation or validity of this EULA (a "**Dispute**") that cannot be resolved within thirty (30) days may be resolved by one party bringing action in court.

10. **Miscellaneous**.

- o Entire Agreement. This EULA sets forth the entire understanding of the parties relating to your use of the Data andsupersedes all prior agreements and understandings between the parties relating to your use of the Data.

- o Further Assurances. Each party shall, upon the reasonable request of the other party, promptly execute such documents and perform such acts as may be necessary to give full effect to the terms of this EULA.

- o Severability; Waiver. If any part of any provision of this EULA is found to be invalid or unenforceable, the remainderof this EULA shall remain in full force and effect. No failure to enforce any terms of this EULA shall: (i) be effectiveunless expressly set forth in writing; (ii) constitute a waiver of such term in the future; or (iii) in any way affect the other terms hereof.

- o Notice. Any notice required or permitted to be delivered pursuant to this EULA shall be in writing and shall be deemed given upon delivery. All such notices shall be addressed to Optum at the address set forth below, by email, or to such other address as Optum shall notify you in accordance with this Section:
    Optum Government Solutions, Inc.11000 Optum Circle, Eden Prairie, MN 55343
    Attn: Deputy General Counsel, Optum Government

- o Independent Contractor. The relationship among the parties is and will be that of independent contractors. This EULA does not establish or create a partnership, joint venture, or similar relationship among the parties and neitherparty has authority to contract for or bind the other party in any manner whatsoever.

- o Assignment. You shall not assign or delegate this EULA or any of your rights or obligations hereunder without theprior written consent of Optum. Any attempted assignment by you without such consent shall be null and void. Optum may assign this EULA, or any of its rights under this EULA, to any third party with or without your consent.

Schedule Q- Attachment 3 – Optum Symmetry Software and Consortium Measures End-User License Agreement

Optum Government Solutions, Inc.'s is providing EBM Connect ("**Product**") to the State of Michigan, ("**Customer**" or "**you**") and contains Healthcare Effectiveness Data and Information Set (HEDIS®) measures and specifications and survey specifications for the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) (the "**Data**"). The Data is owned and copyrighted by the National Committee for Quality Assurance ("**NCQA**") and has been licensed to Vendor for inclusion in the Product. The HEDIS measures and specifications expressly exclude third-party intellectual property rights in the HEDIS Value Set Directory ("**HEDIS VSD**"), including without limitation code values owned, licensed or otherwise provided by third parties ("**Third-Party Codes**"). Please read this End-User License Agreement ("**EULA**"), which is a binding agreement between you and NCQA, carefully before downloading or using the Data within the Product.

1.   License Grant. Subject to the terms and conditions of this EULA, NCQA grants you a limited, perpetual, worldwide, non-exclusive, non-transferable, non-sublicensable license to use the Data or any portion thereof for the following non- commercial purposes: competitor analysis; benchmark analysis; trended data analysis; quality improvement initiatives; data analysis; cost analysis; analysis of performance from year to year; profiling performance goals and surveillance; population health initiatives; and/or market research.

2.   License Restrictions. You shall:

(i)   use the Data only for population health purposes within an affiliated health plan network (e.g., Accountable Care Organization) and internal, quality improvement purposes (e.g., trend analysis) and not publicly display, disseminateor publish the Data, Adjustments (defined below) thereof or any portion of the same;

(ii)   prominently display NCQA's trademark and copyright notices, including the measure Adjustment and certification notices, as applicable, as provided in this EULA on any output that includes the Data or any portion thereof;

(iii)   only Adjust the Data, or any portion thereof, as explicitly permitted by the Rules for Allowable Adjustments of HEDIS(the "**Rules**"), except that you may apply or adapt the Data to your non-U.S. jurisdiction (including without limitationtranslations; mapping, combining or cross-referencing Data with local third-party code values);

(iv)   report or submit HEDIS measure results ("**Rates**") to external programs only if those Rates have been calculated bya HEDIS-certified vendor (**"HEDIS Certified Vendor"**) and stem from Rates that have been audited and approved by an NCQA-certified HEDIS Compliance Auditor ("**HEDIS Compliance Auditor**"), or as expressly approved in writing by NCQA in advance, provided that You shall not be required to have Rates calculated by a HEDIS-certifiedvendor nor shall You be required to have such Rates be audited and approved by a HEDIS Compliance Auditor where such Rates are submitted directly to Centers for Medicare & Medicaid Services (CMS) pursuant to a CMS program/model;

(v)   not use the Data or any portion thereof for any purpose other than as specifically set forth in this EULA;

(vi)   not use the Third-Party Codes without an authorized license from the copyright owners;

(vii)   only publicly display Rates or conduct pay for performance incentive initiatives from/on Certified, Uncertifiable or Retired Measures;

(viii) not use, or authorize or permit any third party, affiliate, subsidiary or related entity to use the Data or any portion thereof for any purpose other than as specifically set forth in this EULA, including but not limited to copying, selling,renting, leasing, licensing, sublicensing, or distributing the Data or any portion thereof;

(ix)   not reproduce, copy, reverse engineer, decompile or disassemble the Data or modify or prepare derivative]works from the Data or any portion thereof except as expressly authorized by this EULA;

(x)   not alter or remove any copyright notices, patent notices, trademark and service mark notices, or other proprietary notices or disclaimers affixed to the Data;

(xi)   not use the Data in any manner or for any purpose that infringes, misappropriates, or otherwise violates any intellectual property right or other right of any person, or that violates any applicable law; and

(xii)   not use the Data for purposes of: (a) benchmarking or competitive analysis of the Data or (b) developing a product or service that could reasonably be determined as a replacing the Data. NCQA agrees that the foregoing provision does not restrict or prevent you in any manner from offering or developing a product or service that includes (i) measures, risk models or other specification independently developed by you, or (ii) measures, risk models or otherspecifications from a third party that may be or are competitive to any NCQA product or offering.

3. HEDIS VSD. The HEDIS VSD contains Third Party Codes, including without limitation CPT® by American Medical Association, LOINC® by Regenstrief Institute, Inc., SNOMED CT® by the International Health Terminology Standards Development Organization, RxNorm by the U.S. National Library of Medicine, and Uniform Billing Codes by the AmericanHospital Association. All uses of the Third-Party Codes may require a license from the copyright owner.

4. Ownership, **Copyright and Disclosure**.

a. Except for the Third-Party Codes, title to and full ownership of Data and all intellectual property rights therein (including,but not limited to, all copyrights, patent rights and trade secret rights) belong to NCQA, or NCQA has obtained the necessary rights in the Data to grant the rights and licenses set forth herein. This EULA provides only a limited license to use the Data and transfers no ownership or intellectual property interest or title in or to the Data. NCQA's name and logo, and all other names, logos, trademarks and icons identifying NCQA and its programs, products and services areproprietary trademarks of NCQA and any use not expressly provided for in this EULA is strictly prohibited. NCQA holds a copyright in these materials and can rescind or alter these materials at any time. These materials may not be modified by anyone other than NCQA or its designee. Use of the Rules to make permitted adjustment of the materials does not constitute a modification.

b. As between NCQA and you, sole ownership rights to the Data and Adjustments, if applicable, reside with NCQA. "**Adjust**" or "**Adjustments**" as used in this EULA means all customizations, modifications, enhancements or other improvements developed by, on behalf of or implemented by you as permitted herein. You hereby irrevocably waive any and all claimsyou may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of droit moral with respect to theData and Adjustments. NCQA's name and logo, and all other names, logos, icons, trademarks, and/or service marks identifying NCQA and its programs, products and services are proprietary trademarks of NCQA and any use not expressly provided for in this EULA is strictly prohibited.

5. Breach. Any material breach of this EULA by you may cause irreparable harm to NCQA.

6. Disclaimers.

a. THE HEDIS MEASURES AND SPECIFICATIONS WERE DEVELOPED BY AND ARE OWNED BY NCQA. THE HEDIS MEASURES AND SPECIFICATIONS ARE NOT CLINICAL GUIDELINES AND DO NOT ESTABLISH A STANDARD OF MEDICAL CARE.

b. NCQA MAKES NO REPRESENTATIONS, WARRANTIES OR ENDORSEMENT ABOUT THE QUALITY OF ANY ORGANIZATION OR PHYSICIAN THAT USES OR REPORTS PERFORMANCE MEASURES AND NCQA HAS NO LIABILITY TO ANYONE WHO RELIES ON SUCH MEASURES OR SPECIFICATIONS.

c. NCQA MAKES NO WARRANTY TO YOU, EXPRESS OR IMPLIED, WITH RESPECT TO INFORMATION OR MATERIALS DELIVERED PURSUANT TO THIS EULA, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ANY WARRANTY THAT THE DATA WILL BE FREE FROM INFRINGEMENT OF PATENTS, COPYRIGHTS, TRADEMARKS, TRADE SECRETS OR OTHER RIGHTS OF THIRD PARTIES AND ANY WARRANTY AS TO THE ACCURACY QUALITY, RELIABILITY, SUITABILITY, COMPLETENESS, TRUTHFULNESS, USEFULNESS, OR EFFECTIVENESS OF THE DATA.

d. NCQA DOES NOT CERTIFY EVERY PERMUTATION OF THE RULES FOR ALLOWABLE ADJUSTMENT OF HEDIS FOR A MEASURE. AS SUCH, NCQA SHALL NOT BE RESPONSIBLE OR LIABLE IN ANY WAY FOR ANY MEASURE ADJUSTMENT PERFORMED BY THE VENDOR OR YOU. SUCH MEASURE ADJUSTMENTS ARE AT YOUR OWN RISK.

e. NCQA DISCLAIMS ALL LIABILITY FOR USE OR ACCURACY OF ANY THIRD-PARTY CODES.

f. SOME JURISDICTIONS MAY PROHIBIT A DISCLAIMER OF WARRANTIES AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM JURISDICTION TO JURISDICTION.

7. **Indemnity**. Intentionally Omitted.

8. **Limitation of Liability**. NCQA SHALL HAVE NO LIABILITY TO YOU FOR: (1) ANY DAMAGES RESULTING FROM USE OR INTERPRETATION OF THE DATA, INCLUDING BUT NOT LIMITED TO THE IMPACT, PROVISION OR STANDARD OF MEDICAL CARE; OR (2) ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, IN EACH CASE WHETHER OR NOT NCQA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE LIABILITY OF NCQA SHALL OTHERWISE BE LIMITED TO ACTUAL AND DIRECT DAMAGES, NOT TO EXCEED
$10,000.

THE LIABILITY OF THE CUSTOMER TO NCQA ARISING UNDER THIS EULA WHETHER IN CONTRACT, TORT, OR OTHERWISE SHALL BE LIMITED TO ACTUAL AND DIRECT DAMAGES. THE CUSTOMER SHALL HAVE NO LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, WHETHER OR NOT THE CUSTOMER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. ACCORDINGLY, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EACH PROVISION OF THIS EULA THAT PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTIES, OR EXCLUSION OF DAMAGES IS INTENDED TO AND DOES ALLOCATE THE RISKS BETWEEN THEPARTIES UNDER THIS EULA. THIS ALLOCATION IS AN ESSENTIAL ELEMENT OF THE BASIS OF THE BARGAIN BETWEEN THE PARTIES. EACH OF THESE PROVISIONS IS SEVERABLE AND INDEPENDENT OF ALL OTHER PROVISIONS OF THIS EULA. THE LIMITATIONS IN THIS SECTION WILL APPLY EVEN IF ANY LIMITED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

9. **NCQA's Notice of Copyright**.

a. NCQA holds a copyright in the Data and can rescind or alter the Data at any time. The Data may not be modified by anyone other than NCQA.

b. Any commercial use and/or internal or external reproduction, distribution and publication must be approved by NCQAand are subject to a license at the discretion of NCQA. Any use of the materials to identify records or calculate measureresults, for example, requires a custom license and may necessitate certification pursuant to NCQA's Measure Certification Program. Reprinted with permission by NCQA. © [current year] NCQA, all rights reserved.

c. The American Medical Association holds a copyright to the CPT® codes contained in the measure specifications.

d. The American Hospital Association holds a copyright to the Uniform Billing Codes ("UB") contained in the measure specifications. The UB Codes in the HEDIS specifications are included with the permission of the AHA. The UB Codescontained in the HEDIS specifications may be used by health plans and other health care delivery organizations for the purpose of calculating and reporting HEDIS measure results or using HEDIS measure results for their internal quality improvement purposes. All other uses of the UB Codes require a license from the AHA. Anyone desiring to usethe UB Codes in a commercial product to generate HEDIS results, or for any other commercial use, must obtain a commercial use license directly from the AHA. To inquire about licensing, contact ub04@aha.org.

10. **Display of Measure Rates**. Except for output used solely for internal, quality improvement purposes (e.g., trend or gap analysis), you agree to clearly and conspicuously display, along with the HEDIS measure name or acronym,

the **applicable HEDIS measurement year and complete calculated HEDIS measure result ("Rate") name** (e.g., HEDIS MY 2020 Use of Imaging Studies for Low Back Pain - Unaudited Health Plan HEDIS Rate (or) HEDIS MY 2020 LBP – Unaudited Health Plan HEDIS Rate) next to any Rate on all output containing a Rate, including such Rates that may be used for population health purposes within an affiliated health plan network, in accordance with the following:

a. **Unadjusted Certified Measure**s. A Rate that has been certified via a NCQA Measure Certification Program^{TM}, and isbased on unadjusted HEDIS specifications, may not be called a "**Health Plan HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Until such time, applicable Rates shall be designated or referred to as "**Unaudited Health Plan HEDIS Rates**."

b. **Adjusted Certified Measures.** A Rate that has been certified via a NCQA Measure Certification Program, and is based on adjusted HEDIS specifications, may not be called an "**Adjusted HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Until such time, applicable Rates shall be designated or referred to as "**Adjusted, Unaudited HEDIS Rates**."

c. **Unadjusted Uncertified Measures**. *At times, the logic used to produce Rates from the Product will not have been certified by NCQA.* A Rate that has not been certified via a NCQA Measure Certification Program, and is based on unadjusted HEDIS specifications, may not be called a "**Health Plan HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Such Rates are for reference only and are not an indication of measure accuracy. Until such time, such Rates shall be designated or referred to as "**Uncertified, Unaudited Health Plan HEDIS Rates**" and **may only be used for population health purposes within an affiliated health plan network and internal, quality improvement purposes (e.g., trend analysis).**

d. **Adjusted Uncertified Measures.** *At times, the logic used to produce Rates from the Product will not have been certified by NCQA.* A Rate from a HEDIS measure that has not been certified via a NCQA Measure Certification Program, and is based on adjusted HEDIS specifications, may not be called an "**Adjusted HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Such Rates are for reference only and are not anindication of measure accuracy. Until such time, such Rates shall be designated or referred to as " **Adjusted, Uncertified, Unaudited HEDIS Rates**" and **may only be used for population health management purposes withinan affiliated health plan network and internal, quality improvement purposes (e.g., trend analysis).**

e. **Uncertifiable Measures.** Not all HEDIS measure specifications are eligible for NCQA certification. As such, the logicused to produce Rates from those measures have not been certified by NCQA. As such, they shall be designated or referred to as "**Uncertifiable, Unaudited Health Plan HEDIS Rates**" or "**Adjusted, Uncertifiable, Unaudited HEDISRates,**" as applicable. A list of current HEDIS measure specifications ineligible for certification can be found on NCQA's website via ncqa.org. Once audited and designated reportable by an NCQA-Certified HEDIS Compliance Auditor, the"Unaudited" designation may be removed.

f. For the sake of clarity, for each of Section 10 a.-e. above, once the measure rate is audited and designated reportableby an NCQA-Certified HEDIS Compliance Auditor, the "Unaudited" designation may be removed.

11. Termination. If you violate any provision of this EULA, your permission to use the Data may be terminated, upon notice. NCQA reserves the right to modify or discontinue the Data at any time (including by limiting or discontinuing certainfeatures of the Data), temporarily or permanently, without notice to you. Termination of this EULA shall not impair your right to continue to use the Data contained in the Product or Rates contained in reports generated from the Product prior to the termination of this EULA; provided such use is consistent with the limitations and restrictions set forth in this EULA.

12. Disputes.

a. Governing Law. To the maximum extent permitted under applicable law, this EULA will not be subject to the Uniform Computer Information Transactions Act (prepared by the National Conference of Commissioners on Uniform State Laws) as currently enacted or as may be codified or amended from time to time by any jurisdiction.

PURSUANT TO ARTICLE 6 OF THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS ("**U.N. CONVENTION**"), THE PARTIES AGREE THAT THE U.N. CONVENTION SHALL NOT APPLY TO THIS EULA. *For the sake of clarity, you agree to comply with all applicable U.S. and non-U.S. laws, including but not limited to export control laws and regulations and agree to the enforceability of these laws in the U.S. U.S. intellectualproperty and contract laws, including U.S. copyright laws, shall be the governing law with respect to all intellectual property and other proprietary rights in the Data and Adjustments and otherwise arising out of or relating to this EULA.*

b. Vendor Disputes. ANY DISPUTE YOU HAVE WITH VENDOR OR A THIRD PARTY IS DIRECTLY BETWEEN YOU AND VENDOR, AND YOU IRREVOCABLY RELEASE NCQA (AND ITS OFFICERS, DIRECTORS, AGENTS, SUBSIDIARIES, JOINT VENTURES AND EMPLOYEES) FROM CLAIMS, DEMANDS AND DAMAGES (ACTUAL AND CONSEQUENTIAL) OF EVERY KIND AND NATURE, KNOWN AND UNKNOWN, ARISING OUT OF OR IN ANYWAY CONNECTED WITH SUCH DISPUTES.

13. Export Control Laws. You shall abide by the Export Administration Regulations (15 C.F.R. Part 730 et seq.); and (b) the sanctions, embargoes and restrictions administered by the United States Department of the Treasury Office of ForeignAssets Control as set forth in 31 C.F.R. 500-598 and certain executive orders, the European Union, European Union member states, United Nations, World Bank and other relevant government body ("**Export Control Laws**") in use of the Data. The Data may be subject to Export Control Laws. You shall not directly or indirectly, export, re-export, or release theData to, or make the Data accessible from, any country, jurisdiction or person to which export, re-export, or release is prohibited by applicable law. You shall comply with all applicable laws and complete all required undertakings (including obtaining any necessary export license or other governmental approval) prior to exporting, re-exporting, releasing, or otherwise making the Data available outside the U.S.

You represent and warrant you are not a Restricted Party. "Restricted Party" means, collectively, any party that (i) appearson a restricted party list maintained by any relevant government body, including without limitation the Specially DesignatedNationals and Blocked Persons List, Sectoral Sanctions Identification List, Foreign Sanctions Evader List, Denied Persons List, Unverified List, Entity List, and United Nations Security Council Sanctions Lists; (ii) is headquartered in, located in, ororganized under the laws of a country or territory subject to comprehensive territorial sanctions, currently, Cuba, Iran, NorthKorea, Syria, and the Crimea region; or (iii) is owned or controlled by or acting on behalf of any party identified in (i) or (ii)above. You represent and warrant that you or any person acting on your behalf has not taken any action that is reasonablylikely to result in it being designated as a Restricted Party.

14. Additional Terms; Modifications.

a. Additional Terms. Your use of the Data and Rates may be subject to additional terms, policies, rules or guidelines applicable to the Data or Rates that NCQA may post on its website (the "**Additional Terms**"), subject to the section ofthis EULA titled "Modification of this EULA." All Additional Terms are incorporated by this reference into, and made a part of, this EULA. The rights granted under this EULA are limited to the Data and Rates, and nothing herein grants you any rights to the Product.

b. Modification of this EULA. You acknowledge that the EULA may be modified or replaced on a going-forward basis at any time. Please check NCQA's website periodically for changes to this EULA. If a change to this EULA materially modifies your rights or obligations, you will be required to accept the modified EULA in order to continue to use the Data and yet to be calculated Rates. This EULA will be identified by the most recent date of revision and will be effective immediately upon being made available through NCQA's website or otherwise through the Product, except: (i) if any such modification materially alters your rights under this EULA, an attempt to notify you will be made directly through a message sent by NCQA to the email address you have provided to Vendor, if any, or through a pop-up window or other notification when you access or use the Product; (ii) such materially modified EULA will be effective upon the earlier of your use of the Data or calculated Rates therefrom with actual knowledge of the changes or thirty (30) days after the changes are made available to you; and (iii) no modifications to this EULA will apply to any dispute betweenyou and NCQA that arose prior to the date of such modification. What constitutes a material change will be determinedat NCQA's sole reasonable discretion. Your use of the Data or yet to be calculated Rates after modifications to this EULA become effective constitutes your binding acceptance of such changes. If you are dissatisfied with the terms ofthis EULA or any modifications to this EULA, then you

agree that your sole and exclusive remedy is to discontinue anyuse of the Data, including continued calculation of Rates therefrom.

c. Changes to the Data. NCQA reserves the right to modify, suspend or discontinue, temporarily or permanently, the Datawith or without notice and without liability to you.

15. Feedback. If you provide NCQA with any comments, bug reports, feedback, or modifications proposed or suggested by you for the Data ("**Feedback**"), such Feedback is provided on a non-confidential basis (notwithstanding any notice to the contrary you may include in any accompanying communication), and NCQA will have the right to use such Feedback at its discretion, including, but not limited to the incorporation of such suggested changes into the Data. You hereby grant NCQA a perpetual, irrevocable, nonexclusive license under all rights necessary to so incorporate and use for any purposeyour Feedback related to the Data. You acknowledge that you will address all support and Product-related requests and issues to the Vendor, and NCQA is not responsible for such requests or issue solving.

16. Miscellaneous.

a. Entire Agreement. This EULA sets forth the entire understanding of the parties relating to your use of the Data and supersedes all prior agreements and understandings between the parties relating to your use of the Data. This EULAshall control in the event of any conflict between this EULA and any Additional Terms.

b. Further Assurances. Each party shall, upon the reasonable request of the other party, promptly execute such documents and perform such acts as may be necessary to give full effect to the terms of this EULA.

c. Severability; Waiver. If any part of any provision of this EULA is found to be invalid or unenforceable, the remainder ofthis EULA shall remain in full force and effect. No failure to enforce any terms of this EULA shall: (i) be effective unlessexpressly set forth in writing; (ii) constitute a waiver of such term in the future; or (iii) in any way affect the other termshereof.

d. Notice. Any notice required or permitted to be delivered pursuant to this EULA shall be in writing and shall be deemedgiven upon delivery. All such notices shall be addressed to NCQA at the address set forth below, by email, or to suchother address as NCQA shall notify you in accordance with this Section:

AVP, Measure Validation

NCQA

1100 13th Street NW, Third Floor
Washington, DC 20005

Phone: 202-955-3500

e. Independent Contractor. The relationship among the parties is and will be that of independent contractors. This EULA does not establish or create a partnership, joint venture, or similar relationship among the parties and neither party hasauthority to contract for or bind the other party in any manner whatsoever.

f. Assignment. You shall not assign or delegate this EULA or any of your rights or obligations hereunder without the priorwritten consent of NCQA. Any attempted assignment by you without such consent shall be null and void. NCQA may assign this EULA, or any of its rights under this EULA, to any third party with or without your consent.

g. Language. The EULA all other communications under or in connection with the EULA shall be in, the English language. Any translation into any other language shall not be an official version thereof, and in the event of any conflict in interpretation between the English version and such translation, the English version shall control.

Contact Information. If you have any questions about this EULA, please contact NCQA via my.ncqa.org

Schedule Q- Attachment 4

These subsections follow:

Exhibit 1 – Cloud Provisioning Services

1. NATURE OF THE PROJECT

The Cloud Provisioning Service purchased from Optum will deliver a flexible virtual environment on the Azure GovCloudinstance provisioned by Contractor. This service will facilitate the State to run Teradata system workloads on the Azure GovCloud instance.

2. SERVICES

The Services to be provided by Contractor consist of only what is expresslydescribed in this Exhibit. Services may create tangible outputs or have other completion criteria, but only the itemsidentified in Section 3 of this Exhibit are key work products.

2.1 Cloud Provisioning - Customer Cloud Readiness Assessment

This service includes identification of Customer sponsors as well as core team members from Customer and the Contractor. During this service, Contractor will work with the Customer to understand the state of their preparation for operating a cloud system. A kickoff workshop will be conducted with the full team to align stakeholders to a shared vision, objective and timeline. This service will confirm the target scope, approach and outputs and will also provide recommendations to the Customer, where necessary.

2.1.1 Scope
Infrastructure Assessment – Sessions / discussions with the Customer to understand their existing cloudfootprint. Customer will share and disclose details of their current infrastructure and steps they have taken to extend their existing infrastructure footprint to the Cloud. Customer will walk Contractor through the connectivity diagram to cloud environment as well as network connectivity method. Customer will also share and explain physical architecture diagram that will be used as the blueprint for cloud environment instantiation.

2.1.2 Required Inputs – To be provided by the State to the Contractor
- Network connectivity details for cloud environment access
- Agreed upon test plan to validate the cloud environment

2.2 Cloud Provisioning - Cloud Environment Instantiation

This service covers activities involved in instantiating the Azure environment, so it matches the bill of materials andcomplies with the physical architecture diagram.

2.2.1 Scope
- Create / configure the bill of materials components of the Contractor ecosystem using AzureGovernment ARM templates. This includes:
    - Teradata Vantage (SQL only)
    - Teradata Viewpoint
    - Teradata DSC/DSU
    - Teradata Server Management

2.2.2   Required Inputs

- Azure Physical Architecture Diagram (Teradata)

- Environment Test Plan (Teradata / State)

- Access to Express Route from the subnet where Contractor components will be deployed (Teradata /State)

2.2.3   Completion Criteria

- An operational Azure environment that matches the bill of materials and complies with the physicalarchitecture diagram; this includes infrastructure, software and connectivity as described in this Exhibit

- Successful environment tests validating Environment Test Plan requirements

2.3   Cloud Provisioning – Onboarding and Connectivity Activities

Contractor will perform, verify and complete the following onboarding and connectivity activities (note that activities listedbelow include details and integration with Section 2.2 above):

- Create Azure Government Tenant

- Create Azure Tenant Administrator

- Create Subscription Azure Contributor

- Create, verify and test data flow diagram (includes network settings), as a shared responsibility with the State

- Create network configuration

- Create Site ID with any required restrictions

- Create Private Offer (Whitelist subscription)

- Create Teradata Instance (Nodes, Server Mgt, Viewpoint, DSC/DSU)

- Establish rights on service.teradata.com

- Set-up Service Connect (e.g., for Teradata GSO software monitoring / alerts)

- Take instance up to current software levels for the Operating System and Database

- Establish, configure, route and test Express Route Gateway to State's existing Virginia endpoint, as a sharedresponsibility with the State

- Turn over DBC Password

- Restore DBC database as a shared responsibility with the State

- Remove Contractor "Ownership/Contributor" rights for Azure portal and ensure Azure Portal "Read Only" access for needed personnel – Teradata CSR, Billing, etc.; this is a shared responsibility with the State

- Perform initial configuration of Viewpoint

- Provide an Environment Details Document that includes user access details and services deployed

- Provide the State with links to standard Teradata and Azure documentation consistent with the State'slicense/subscription/rights (e.g., user manuals, operating manuals, technical manuals)

2.4   Cloud Provisioning – Handover Activities

Contractor will establish initial security and handover the Azure Portal Administration and tenant to the State and only retain read-only access to the tenant (which allows Contractor to monitor the amounts and types of infrastructure that are deployed, as opposed to the logs of activities). Contractor will have no access to the State's servers or data. Specifically, the following will be handed over to the State:

- All provisioned items (e.g., VMs, SQL Engine, Server Manager, DSC/DSU, Viewpoint)

- All SLES operating systems fully hardened to IRS-SCSEM standards

- Azure Virtual Network Gateway connected to the State's Express Route end point in Virginia, and

encrypting traffic to and from the virtual network

- Encryption turned on for data at rest (i.e., disk/storage encryption)
- Firewall assignment on each virtual network card forcing only needed ports for that operating environment
- Azure Bastion Service – fully managed Platform-as-a-Service (PaaS) service that provides secure and seamlessRDP and SSH access to your virtual machines directly through the Azure Portal
- Multi-Factor Authentication (MFA) for Azure Government Portal Access – process prompting a user during thesign-in process for an additional form of identification, such as to enter a code on their cellphone
- No public endpoints for any Azure resource
- Teradata will not maintain any privileged user rights on the Azure Tenant/Subscription

The handover process will occur over 1 or 2 informal sessions totaling up to 3-hours that will include (1) Contractor providing a basic train-the-trainer session to the State's EOC-DC Physical DBA Team (up to 10 attendees) to review the New Teradata Systems in Azure and walk them through the Environment Details Document; and (2) Contractor and the State working together to complete the shared tasks described above.

3. KEY WORK PRODUCTS

Contractor will provide the following key work products under this Exhibit, provided, however, that such key work products are not Deliverables to be owned by the State but instead constitute pre-existing intellectual property owned by Optum's subcontractor, Teradata:

a. An operational virtual environment that matches the bill of materials and complies with the physical architecture diagram - Test environment only; this includes infrastructure, software and end-to-end connectivity as described in this Exhibit
b. An Environment Details Document that includes user access details and services deployed
c. Azure Portal Administration and tenant handover to the State to manage in Steady-State

Notwithstanding the foregoing, the above key work products do not include security information or State Data, both of which shall be owned by the State.

4. PROJECT-SPECIFIC RESPONSIBILITIES

4.1 Dependencies and responsibilities of Contractor include:

- Assign and customize training for the staff with the necessary skills and experience to provide the servicesand key work products provide the personnel outlined to perform the services described

- Notify Customer in writing of the re-assignment or termination of any Contractor Personnel assigned toprovide Services under this Exhibit

4.2 Customer Personnel required for the project include:

Executive Sponsor	The Executive Sponsor has overall customer responsibility for the effort and provides guidance and leadership to the team and stakeholders.
Project Coordinator/Manager	The Project Coordinator (or project manager) plans, organizes logistics, monitors andensures coordination of project tasks. In addition, this role assists with the schedulingof meetings, working sessions and sponsor reviews. Monitors and reports status.
Client Core Team Members	Designated stakeholders who provide required information / response to queriesduring the Azure Onboarding Process.
Subject Matter Experts	Provide subject matter expertise in specific areas. Actively participate in the projectas needed and provide requested information. For example, client network team members, security team members and other team members as required.

5. SCOPE EXCLUSIONS

The Services and key work products to be provided by Contractor include only what is expressly described in this Exhibit. Specific exclusion items to note are as follows:

- Configuring Viewpoint portlets / roles / users

- Performing any activities requiring physical access to the data center (e.g., media management)

- Creating Azure subscription, resource groups, subnets, CIDR blocks to connect to customer on-premisesenvironment

- Configuring / creating Network connectivity between on-premises and Azure environment client-side applications to connect to Teradata

- Network troubleshooting of on-premises systems and outgoing traffic to the internet

- Tests other than environment tests for the infrastructure, software and connectivity are out of scope for thisservice (e.g., tests incorporating data and applications are out of scope)

- Creation of custom IAM roles / permissions

Exhibit 2 – IRS SLES 15 SCSEM System Hardening Services

1.   NATURE OF THE PROJECT

Contractor will perform the initial IRS SLES 15 SCSEM system hardening services for servers/VMs defined in Section 3.This service will be completed remotely and does not include any travel.

For clarification, IRS refers to the Internal Revenue Service (IRS), SLES refers to SUSE Linux Enterprise Server, andSCSEM refers to the IRS Safeguard Computer Security Evaluation Matrix.

2.   PROJECT START AND END DATES

2.1   The Start Date for Contractor's performance regarding the Project will be mutually agreed by Contractor and, the State, but where the current estimate is during Milestone 1B activities described in Schedule R.

2.2   The estimated End Date for Contractor's performance regarding the Project will be as part of Milestone 1Bcompletion.

3.   SERVICES

3.1   Initial Operating System (OS) Level IRS SLES 15 SCSEM Security Hardening Service

Contractor will harden the servers/VMs identified in this Contract in accordance with the most current IRS SLES 15 SCSEM through configuration changes where possible. When operational changes are required in order to meet the security requirements, Contractor will identify them and provide the information to State resources for implementation. Operational changes may include password policy changes on all platforms, keeping up the platform baseline, having a process to secure the environment where the platforms are located, etc. Configuration changes to meet the IRS SLES 15 SCSEM security requirements will be documented and provided to the State at the completion of the System Hardening Services for each server/VM identified in this Contract.

The following is a list of tasks to be performed by Contractor:

- Review OS system configuration settings, vulnerability scan results if provided and OS level informationsecurity issues with the State. Vulnerability scan must be run prior to system hardening being started. Contractor will review one subsequent scan following the system hardening.

- Disabling unnecessary services and protocols

- Limiting access rights to critical system files and services to only what is required

- Provide completed IRS SCSEM

- Implementation and testing of custom or unique OS level security configurations

The scope of work for the SLES 15 system hardening services is limited to the servers/VM in this Contract andbased on the assumptions listed below.

Assumptions:

- Hardening will be done in accordance with the most current IRS SLES 15 SCSEM requirements

- No other application servers not specifically mentioned in this Contract are included for the System Hardening Services identified below

- Integration with the State's Single Login is not included in the System Hardening Services

- Integration and testing with external Directory Services or Active Directory for user Authentication orAuthorization are not included in the System Hardening Services

- Contractor provides SSL equivalent network traffic encryption between client and server or server to server (BI tool, ETL, BAR, etc.) but does not use the SSL (which was primarily designed for web browser/web server network traffic encryption)

- Integration and testing for User Authentication using RSA Secured tokens is not included in the System Hardening Services

3.2   (Optional) Out Year Service for IRS SLES 15 SCSEM Security Hardening Audit Service

Contractor recommends that regular IRS SLES 15 SCSEM Security Hardening Audits be performed so that theprevious hardening configurations are maintained. Changes to the Hardening configuration can occur during installation of OS patches and/or upgrades, so many of our customers coordinate the Audit Service with their Teradata Maintenance upgrades.

Note that these Out Year Services for the New Systems in the cloud are performed as part of the fiscal year System Hardening efforts and associated pricing in Schedule B.

The following is a list of tasks to be performed for the IRS SLES 15 SCSEM Security Hardening AuditService:

- Contractor will review the report of the State's designated vulnerability scan performed on the Teradata SystemLinux nodes.

- Contractor will recommend which of the items identified by the designated vulnerability scan require remediation

- Contractor may identify certain vulnerability scan report findings as false positives not requiring remediation byfurther operating system hardening procedures. Accordingly, the time specified for performance of this review service is based on the State's agreement with Contractor's recommendation of the items to be remediated byoperating system hardening procedures. If the State nonetheless requires that Contractor remediate the identified false positives, then Contractor will estimate the time necessary to perform such additional work.

4.   RESERVED

5.   DEPENDENCIES & STATE RESPONSIBILITIES/ PERSONNEL

5.1   State Personnel required for the Project include:

Project Manager – A project leader who is available to meet regularly with Contractor personnel on matterspertaining to this project, able to procure and direct company resources as requested by the Contractor Consultants.

Information Systems Representative – A manager who is familiar with the administration and workingsof the State's Information Systems group, and who is versed in the operation and management of the Contractor systems.

6.   OUT OF SCOPE SERVICES; EXCLUSIONS

6.1   The Services to be provided by Contractor include only what is expressly described in this Exhibit. Services thatare outside the scope of this Exhibit include, but are not limited to, the following:

- Reengineering of processes

- The solution of any problem originating from the quality of the data

- The design or development of applications to create non-existent data or to modify current data

- The construction of a dictionary of current data used to populate one or more databases

- Training of people that are not State Project Team members

- Full-production operationalization (such as complete automation and error handling for the data loads)optimization, performance tuning, data and operations management, archive/recovery, and knowledge transfer
- Complex analytical processing that is not included as part of a Contractor-provided solution's functionality
- Security hardening of any other servers not specifically identified in Section 3

Exhibit 3 – Teradata Software License Agreement

1. **License of Software**

Teradata Government Systems, LLC ("Teradata") agrees to license to the State of Michigan (the "State") on a Subscription-Based License basis the Teradata Software set forth for successive twelve (12) month annual recurring periods during the term of the Prime Contract between Optum Government Solutions, Inc. ("Optum") and the State, subject to the payment by the State to Optum of such annual recurring fee as may be established between Optum and the State and the following additional terms and conditions:

1.1. Teradata grants the State a non-exclusive, non-transferable, worldwide license ("Subscription-Based License") forthe longer of (a) the period of time for which the State has paid Optum a monthly fee (during the three month, initialTrial Period), (b) the period of time for which the State has paid Optum an annual recurring fee or (b) expiration ortermination of the Prime Contract ("License Term") to use all of the Teradata software set forth in Exhibit 1 (the "Teradata Software"). Such licenses shall be limited to a license to use the Teradata Software solely for the State's internal business purposes, with no right to modify, create derivative works, decompile or otherwise reverse engineer the Teradata Software.

1.2. At the end of the License Term, the State will promptly destroy the Teradata Software and all copies thereof, and if requested by Teradata, the State will certify such destruction in writing.

1.3. Subscription-Based Licenses have been priced by Optum to include (a) the right to receive Essential Services/Support and (b) Teradata Software Upgrade Licenses. "Teradata Software Upgrade License" means an entitlement to receive copies of new updates and/or upgrades for specified Teradata Software during a paid coverage period as set forth in the Prime Contract. For Teradata Software covered by a Software Upgrade License, the State is permitted to receive, at no additional charge, any major or minor releasesthat Teradata makes generally commercially available for such Teradata Software, if any, provided that the Statehas paid Optum all applicable recurring fees that include a Subscription Based License due at the time such newupdate or upgrade becomes generally commercially available.

1.4. Subscription-Based License(s) will conform to Teradata's standard software warranties during the License Term, where such warranties shall be limited to a warranty that the Teradata Software media will be free from defects inmaterial and workmanship and that Teradata Software will materially conform to Teradata Product Specifications.This warranty extends to and is limited in duration to ninety (90) days from the date that Teradata delivers the Teradata Software to the State. If Teradata fails to conform the Subscription-Based Licenses to their warranties within a reasonable time after receiving the State's warranty claim, the State may return the non-conforming Subscription-Based Licenses to Teradata, and after they are returned to Teradata, the State shall then be entitledto receive a refund of the prepaid fees for the Subscription-Based Licenses pro-rated as of the date the State provided notice of the non-conformity.

2. **Delivery of Teradata Software**

Teradata will deliver the Teradata Software to Optum electronically based on directions provided as part of the initialOrder for the Teradata Software.

3. **Portability**

The Subscription-Based Licenses for the Teradata Software may be used by the State in its sole discretion on any systems supported by Teradata, whether cloud or on premise.

Attachment 5 – Platform Pool Fund and Work Orders

Platform Pool funds and associated work orders will continue to be used to streamline systems and services add-ons in the future for both on-premises and in-the-cloud systems, including for growth and capacity.

Background

In CN18/CR026, a Capacity On Demand (COD) fund and work order process were defined to streamline future requests for increased capacity:

> Upon Optum's receipt of a capacity increase request from the State (a "COD Change Request"), Optum shall formalize its response to such request in a COD Work Order, which will be signed by the Optum Single Point of Contact (SPOC) and an authorized State signer and fulfill the role of a Change Notice, as that term is used in Section 2.2(b) of this Contract for the capacity increase included in the State's COD Change Request. The capacity increase request (as reflected in the COD Change Request from the State), associated details and the fixed-price based on Optum's standard rates will be described in each COD Work Order and when executed between the parties hereto becomes part of the agreement. Upon execution of the COD Work Order, the State will issue a corresponding Purchase Order to Optum based on the COD Work Order pricing.

Also in CN18/CR026, a Platform Support Services (PSS) fund and work order process were defined similarly for quick response for as-needed general platform support services, e.g., Disaster Recover Testing help, TASM services, and BAR services.

In CN23/CR030, the "General COD" and "Platform Support Services" funds were combined into a "Platform Pool" fund to use a similar work order process to streamline future systems and services add-ons in the future for both on-premises and in-the-cloud systems, including for growth and capacity.

Attachment 6 – TDWI Training Services

TDWI Training Services: The State has requested that Optum continue to make TDWI (The Data Warehouse Institute) instructor-led virtual training courses available to the State via the Contract through the extended term of this Contract. Optum intends to provide the TDWI Training Services via our subcontractor 1105 Media, Inc. dba The Data Warehousing Institute ("TDWI") and TDWI will provide the Services to the State.

A total of 10 days of TDWI instructor-led virtual training for a group of 1-12 attendees have been included in Attachment 4c Cost Tables currently found in Schedule B and beginning 01/01/2026, the maximum number of TDWI class attendees will be expanded to 20. The signing of this Contract does not guarantee any minimum volume of TDWI Training Services to be provided by Optum. Instead, as more fully set forth below, the extent of any obligations for State to use Optum's TDWI Training Services shall be defined by the issuance of a TDWI Training Work Order(s) and associated purchase order(s) by the State to Optum for the TDWI Training Services as described further below.

TDWI Training Services Description
The specific courses that are available to be selected by the State for the TDWI Training Services can be found at any time on the TDWI.org website via the TDWI instructor-led virtual education catalogue.

Upon Optum's receipt of a request from the State for TDWI Training Services, Optum shall formalize such request in a TDWI Training Services Work Order ("Work Order") which will be signed by both Optum and the State. The details of the requested TDWI Training Services will be described in each Work Order and when executed between the parties hereto becomes an amendment to this Contract. Each Work Order will define the course content, schedule and total price for the TDWI Training Services based on the Attachment 4c Cost Tables pricing for the given term currently found in Schedule B. The State will issue a Purchase Order to Optum covering each executed TDWI Training Services Work Order.

Course Description/Curriculum. TDWI shall be responsible for the selection of all course instructors subject to the State's right to make non-binding requests for instructors, and provided, further that TDWI shall retain full control over the planning of the content of the course. The State acknowledges that instructors are TDWI-approved and certified to teach the course, but are not necessarily employees of TDWI.

Changes in Course Description /Curriculum, requested by the State and set forth within the Work Order(s), which would affect the time schedule and/or estimated charges will be documented and submitted for Optum and TDWI's approval prior to performing the TDWI Training Services. Optum shall notify the State of the feasibility and all costs associated with any such change in Course or Curriculum. All costs associated with such changes shall be the responsibility of the State. Notwithstanding the right to request changes, the State may be liable for cancellation charges consistent with the cancellation provisions noted below.

Ownership. The State acknowledges that it does not obtain any, title and interest, including, without limitation, the copyright, in and to all course materials, course instructions and presentations and all components thereof in all formats including but not limited to print, CD_ROM, audio, video and/or digital reproduction ("Course Materials"). The copyright and title to all property interests in or to the Course Materials shall remain in TDWI.

Limitations on Usage. The State shall not copy, download, video tape or otherwise reproduce the Course Materials in any medium or in any way, in whole or in part, without the express written consent of Optum and TDWI. Any such permitted reproductions shall remain the sole and exclusive property of TDWI for use solely as permitted by the terms of this agreement or the applicable Work Order(s). In addition, the State shall not alter, modify or adapt the Course Materials including but not limited to downloading, decompiling, disassembling, or creating derivative works; or sell, license or otherwise distribute the Course Materials to third parties, without the express written consent of TDWI.

Promotion or Use of TDWI Logo and Materials. The State hereby agrees that it cannot use any TDWI Logos, course titles, course descriptions or materials for any promotional activity without the pre-approved written consent of TDWI. All text used for external promotion of TDWI Training Services must be reviewed and approved in advance. Information posted on the State's website regarding TDWI Training Services must be reviewed and approved by TDWI prior to appearing on the State's website.

Relationship with TDWI Faculty. The State and its affiliate organizations may not work directly with any TDWI faculty member to arrange training whether it be onsite or publicly offered, including independent promotion of faculty owned training and workshops. All requests for training and workshops must come through Optum and TDWI.

Cancellation. The TDWI Training Services being scheduled by TDWI hereunder may be terminated by the State for

any reason upon written notification to Optum. In the event of termination by the State, the State shall be responsible for any non-refundable payments and expenses (e.g., shipping costs) incurred by TDWI or the assigned TDWI instructor at the time of cancellation. If cancellation occurs less than 14 days prior to the scheduled training, in addition to non-refundable payments and expenses, a 20% cancellation fee will apply.

Rescheduling. The course/teaching being scheduled by TDWI hereunder may be rescheduled by the State for any reason upon written notification to Optum. TDWI will use reasonable efforts to accommodate the State's request to reschedule the course; provided, however that the State shall be responsible for any costs associated with the rescheduling of the course and any expenses previously incurred.

Representations and Warranties. Optum and TDWI represent and warrants that (i) any Course Materials provided by TDWI to the State shall be TDWI's original work product or work product which TDWI has authority to use in connection with the Course Materials and shall not infringe any copyright or other proprietary rights of any third party; and (ii) all work hereunder will be performed in a professional manner by qualified personnel consistent with good professional practices applicable to the work being performed.

Additional Details

- Courses that can be ordered as part of the TDWI Training Services can be found on the TDWI.org website under TDWI instructor-led virtual education catalogue

- Instructor-led TDWI Training Services will be delivered virtually, not onsite

- TDWI Training Services do not require laptops or desktops

- A learning needs assessment will be performed prior to the delivery of TDWI Training Services

- Pre-course discussion with the TDWI-certified instructor will be held so that course content is aligned with the State's training objectives

- Printing and shipping of all course materials, if needed, is included in the daily rate

- Ordering the TDWI Training Services
    - The State will notify Optum when TDWI Training Services are being requested and Optum will subsequently notify TDWI.
    - Optum and TDWI will work with the State to arrange for a mutually acceptable delivery date(s) for the TDWI Training Services that will be based upon:
        - Availability of TDWI Instructors
        - Availability of the State staff receiving the TDWI Training Services
        -
    - The State will sign a Work Order when the details of the TDWI Training Services have been mutually agreed upon by the parties
    - The State will subsequently issue a Purchase Order to Optum for the TDWI Training Services based on the Work Order
    - Optum will in turn issue a Purchase Order to TDWI

- Accepting the TDWI Training Services: The State shall sign a Delivery Acceptance Letter provided by Optum to the Customer upon completion of the Training Services to evidence the Customer's acceptance of such TDWI Training Services

Any terms and conditions found on any Work Order, Contractor Purchase Order, or Delivery Acceptance Letter are not binding on the State.

Attachment 7 – Contractor Training Services

Contractor will provide the following Teradata training services subject to Optum's receipt of a Purchase Order for the applicable Contractor Training Service for each annual period described below:

1. TEN+ and TEN+ Webcast (15 Named Staff) – For renewal terms that are defined and priced in the latest Attachment 4c Cost Tables currently found in Schedule B, Contractor will provide annual memberships to up to 15 Named Staff to the Teradata Education Network Plus (TEN+) and TEN+ Webcast Level in Teradata University. The membership will be provided as a State group Membership and one member of the State team will be provided with Membership authorization and tracking capabilities. Each individual Membership (i.e., one (1) member of the total allotted fifteen (15) members) will be assigned to a named staff member, assigned at the option of the State. Should there be a change in job assignments that requires a subsequent reassignment of a named user's access during the first six (6) months of a term, such changes may be made by the State at no additional cost. Changes in the named user access cannot be made during the last six (6) months of any term.

2. Instructor-Led Customized Classes - For renewal terms that are defined and priced in the latest Attachment 4c Cost Tables currently found in Schedule B, Contractor will provide Teradata instructor-led customized training for up to twelve (12) days per term for up to twelve (12) students per class. The content for each class will be agreed to upfront between Contractor and the State and will be based on the State's needs and the subject areas that Teradata teaches.

3. **Teradata Universe Conference** – In the years when this conference is held, and at the sole discretion of Contractor, Contractor will provide conference passes for up to three (3) State staff to attend the conference. The State will be responsible for all travel and lodging costs associated with the conference. Passes do not carryover, e.g., if the State only uses two passes one year, they are not entitled to an extra pass the next year.

Intellectual Property. All courses and course materials, on any medium, provided as part of the training Services described above are the intellectual property of Teradata and protected under copyright laws. Course materials may not be duplicated or altered without written permission from Teradata Education. No portion of any class may be recorded.

SCHEDULE R- PROJECT PLAN

Michigan DW Contract -- Cloud Phase 2

ID	WBS	Task Name	Status	Duration	Start	Finish	Predecessors	Resource Names
1	1	Change Notice for Cloud Phase 2 Fully Executed		0 days	Fri 10/27/23	Fri 10/27/23		Optum,State
2	2	Michigan EDW Platform Contract -- Cloud Phase 2		239 days	Tue 11/7/23	Thu 10/31/24		
3	2.1	INITIATION and PLANNING		6 days	Tue 11/7/23	Wed 11/15/23		
4	2.1.1	Project start (end Kickoff)		1 day	Tue 11/7/23	Tue 11/7/23	1FS+7 days	Optum,State,TD
5	2.1.2	Update project plan with State input from Kickoff		5 days	Wed 11/8/23	Wed 11/15/23	4	Optum
6	2.2	EXECUTION: Expand State Azure Circuits		90 days	Wed 11/8/23	Tue 4/2/24		State
7	2.2.1	Work with internal teams and Azure Gov't. as needed, to establish the Virginia circuit (Telco + Express Route)		90 days	Wed 11/8/23	Tue 4/2/24	4	State
8	2.2.2	Work with Azure Gov't and others to establish Azure Express Route connection to Texas		90 days	Wed 11/8/23	Tue 4/2/24	4	State
9	2.2.3	Milestone #1A -- Expand State Azure Circuits		0 days	Tue 4/2/24	Tue 4/2/24	7,8	State
10	2.3	EXECUTION: Perform Teradata Implementation Services to establish New Systems		86 days	Wed 11/8/23	Wed 3/27/24		TD
11	2.3.1	Implement New Production System		15 days	Wed 11/8/23	Fri 12/1/23	4	TD
12	2.3.1.1	Perform cloud provisioning services (Schedule Q, Attachment 4, Exhibit 1)		15 days	Wed 11/8/23	Fri 12/1/23		TD
13	2.3.1.1.1	Provision Azure resources (VMs, storage, etc.)		10 days	Wed 11/8/23	Wed 11/22/23		TD
14	2.3.1.1.2	Configure new resources to use State-allocated IPs		10 days	Wed 11/8/23	Wed 11/22/23		TD
15	2.3.1.1.3	Update O/S and software/DBMS versions		10 days	Wed 11/8/23	Wed 11/22/23		TD
16	2.3.1.1.4	Run infrastructure scan and help remediate high-severity issues		5 days	Thu 11/23/23	Fri 12/1/23	15	TD
17	2.3.1.2	Perform IRS SLES SCSEM hardening services (Schedule Q, Attachment 4, Exhibit 2)		10 days	Thu 11/16/23	Fri 12/1/23	15FS-5 days	TD,State
18	2.3.2	Milestone #1B(i) -- New Production System in place with HW, SW and IPs (Teradata Essential Support begins)		0 days	Fri 12/1/23	Fri 12/1/23	17	TD
19	2.3.3	Implement New DevDR System		19 days	Fri 3/1/24	Wed 3/27/24	18FS+52 days	TD
20	2.3.3.1	Perform cloud provisioning services (Schedule Q, Attachment 4, Exhibit 1)		19 days	Fri 3/1/24	Wed 3/27/24		TD
21	2.3.3.1.1	Provision Azure resources (VMs, storage, etc.)		14 days	Fri 3/1/24	Wed 3/20/24		TD
22	2.3.3.1.2	Configure new resources to use State-allocated IPs		14 days	Fri 3/1/24	Wed 3/20/24		TD
23	2.3.3.1.3	Update O/S and software/DBMS versions		14 days	Fri 3/1/24	Wed 3/20/24		TD
24	2.3.3.1.4	Run infrastructure scan and help remediate high-severity issues		5 days	Thu 3/21/24	Wed 3/27/24	23	TD
25	2.3.3.2	Perform IRS SLES SCSEM hardening services (Schedule Q, Attachment 4, Exhibit 2)		10 days	Thu 3/14/24	Wed 3/27/24	23FS-5 days	TD,State
26	2.3.4	Milestones #1B(ii) -- New DevDR System in place with HW, SW and IPs (Teradata Essential Support begins)		0 days	Wed 3/27/24	Wed 3/27/24	25	TD
27	2.4	EXECUTION: Handover New Systems to the State		76 days	Mon 12/4/23	Wed 4/3/24		TD,State
28	2.4.1	Handover the New Production System		5 days	Mon 12/4/23	Fri 12/8/23	18	TD,State
29	2.4.2	Handover the New DevDR System		5 days	Thu 3/28/24	Wed 4/3/24	26	TD,State
30	2.5	EXECUTION: Production -- Prepare for testing and migrating		55 days	Wed 11/8/23	Mon 2/12/24		
31	2.5.1	Prepare for testing		45 days	Wed 11/8/23	Mon 1/29/24	4	State
32	2.5.1.1	Identify/address DBMS migration impacts (e.g., review DBMS control settings, etc.)		45 days	Wed 11/8/23	Mon 1/29/24		State
33	2.5.1.2	Identify user representatives for testing and create all required IDs		45 days	Wed 11/8/23	Mon 1/29/24		State
34	2.5.1.3	Develop system and acceptance test plans (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)		45 days	Wed 11/8/23	Mon 1/29/24		State
35	2.5.1.4	Develop acceptance criteria and testing milestones		45 days	Wed 11/8/23	Mon 1/29/24		State
36	2.5.1.5	Develop detailed plan for loading data onto the New Production System, including Fallback plan		45 days	Wed 11/8/23	Mon 1/29/24		State
37	2.5.2	Prepare State cloud processes and communications		25 days	Mon 12/11/23	Mon 1/29/24	28	State
38	2.5.2.1	Complete State's cloud deployment process and associated documentation		25 days	Mon 12/11/23	Mon 1/29/24		State
39	2.5.2.2	Verify basic connectivity and IP addresses		25 days	Mon 12/11/23	Mon 1/29/24		State
40	2.5.2.3	Create PDSS-PS team IDs, ensure working circuits (Virginia Express Route circuit) and create FW rules		25 days	Mon 12/11/23	Mon 1/29/24		State
41	2.5.2.4	Implement and verify PrivateLinks		25 days	Mon 12/11/23	Mon 1/29/24		State,TD
42	2.5.2.5	PDSS-PS Team turns-over verified PROD IP addresses to State Agencies, who then create associated Firewall Rules		25 days	Mon 12/11/23	Mon 1/29/24		State
43	2.5.3	Prepare for migrating		10 days	Tue 1/30/24	Mon 2/12/24	37	State
44	2.5.3.1	Test TD Utility & Tool access		10 days	Tue 1/30/24	Mon 2/12/24		State
45	2.5.3.2	Identify / implement process to backup on-premises systems to Azure BLOB storage		10 days	Tue 1/30/24	Mon 2/12/24		State
46	2.5.3.3	Perform DSU Optimization work (Schedule L)		10 days	Tue 1/30/24	Mon 2/12/24		State,TD
47	2.5.3.4	Test backup and recovery (BAR) processes		10 days	Tue 1/30/24	Mon 2/12/24		State
48	2.6	EXECUTION: Production -- Migration and Acceptance		140 days	Tue 2/13/24	Fri 8/30/24	43	State
49	2.6.1	Data migration and system test (First Migration)		115 days	Tue 2/13/24	Fri 7/26/24		State
50	2.6.1.1	Perform initial data migration (First Migration)		16 days	Tue 2/13/24	Wed 3/6/24		State
51	2.6.1.2	PDSS-PS: Prepare/Conduct testing as required (e.g., communications, users, access, data, tools, etc.)		8 days	Thu 3/7/24	Mon 3/18/24	50	State
52	2.6.1.3	AGENCIES: Prepare/Conduct detailed testing as required (e.g., ETL, apps, queries, reports, interfaces, tools, perf., e		90 days	Tue 3/19/24	Thu 7/25/24	51	State
53	2.6.1.4	Complete SSP / risk assessment / ATO processes, as needed		91 days	Tue 3/19/24	Fri 7/26/24	51	State
54	2.6.2	Data migration and acceptance test (Final Migration)		36 days	Fri 7/12/24	Fri 8/30/24		State
55	2.6.2.1	Update First Migration detailed plan for loading data and Fallback plan		10 days	Fri 7/12/24	Thu 7/25/24	52FS-10 days	State
56	2.6.2.2	Prepare for Final Migration		9 days	Mon 7/29/24	Thu 8/8/24	53	State
57	2.6.2.3	Perform final data migration (New Prod System now populated), acceptance and cutover		16 days	Fri 8/9/24	Fri 8/30/24	56	State
58	2.6.2.4	Milestone #2A -- Prod Environment migrated and accepted / New Prod System ready to use		0 days	Fri 8/30/24	Fri 8/30/24	57	State
59	2.7	EXECUTION: DevDR -- Prepare for testing and migrating		118 days	Wed 11/8/23	Fri 5/10/24		State
60	2.7.1	Prepare for testing		108 days	Wed 11/8/23	Fri 4/26/24	4	State
61	2.7.1.1	Identify/address DBMS migration impacts (e.g., review DBMS control settings, etc.)		108 days	Wed 11/8/23	Fri 4/26/24		State
62	2.7.1.2	Identify user representatives for testing and create all required IDs		108 days	Wed 11/8/23	Fri 4/26/24		State
63	2.7.1.3	Develop system and acceptance test plans (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)		108 days	Wed 11/8/23	Fri 4/26/24		State
64	2.7.1.4	Develop acceptance criteria and testing milestones		108 days	Wed 11/8/23	Fri 4/26/24		State
65	2.7.1.5	Develop detailed plan for loading data onto the New DevDR, including Fallback plan		108 days	Wed 11/8/23	Fri 4/26/24		State
66	2.7.2	Prepare State cloud processes and communications		17 days	Thu 4/4/24	Fri 4/26/24	29	State

ID	WBS	Task Name	Status	Duration	Start	Finish	Predecessors	Resource Names
67	2.7.2.1	Complete State's cloud deployment process and associated documentation		17 days	Thu 4/4/24	Fri 4/26/24		State
68	2.7.2.2	Verify basic connectivity and IP addresses		17 days	Thu 4/4/24	Fri 4/26/24		State
69	2.7.2.3	Create PDSS-PS team IDs, ensure working circuits (VPN, Texas Express Route circuit) and create FW rules		17 days	Thu 4/4/24	Fri 4/26/24	8FS-27 days	State
70	2.7.2.4	Implement and verify PrivateLinks		17 days	Thu 4/4/24	Fri 4/26/24		State,TD
71	2.7.2.5	PDSS-PS Team turns-over verified DevDR IP addresses to State Agencies, who then create associated Firewall Rule		17 days	Thu 4/4/24	Fri 4/26/24		State
72	2.7.3	Prepare for migrating		10 days	Mon 4/29/24	Fri 5/10/24	66	State
73	2.7.3.1	Test TD Utility& Tool access		10 days	Mon 4/29/24	Fri 5/10/24		State
74	2.7.3.2	Identify / implement process to backup on-premises systems to Azure BLOB storage		10 days	Mon 4/29/24	Fri 5/10/24		State
75	2.7.3.3	Test backup and recovery (BAR) processes		10 days	Mon 4/29/24	Fri 5/10/24		State
76	2.8	EXECUTION: DevDR -- Migration and Acceptance		93 days	Mon 5/13/24	Tue 9/24/24	72	State
77	2.8.1	Data migration and system test (First Migration)		81 days	Mon 5/13/24	Fri 9/6/24		State
78	2.8.1.1	Perform initial data migration (First Migration)		6 days	Mon 5/13/24	Mon 5/20/24		State
79	2.8.1.2	PDSS-PS: Prepare/Conduct testing as required (e.g., communications, users, access, data, tools, etc.)		10 days	Tue 5/21/24	Tue 6/4/24	78	State
80	2.8.1.3	AGENCIES: Prepare/Conduct detailed testing as required (e.g., ETL, apps, queries, reports, interfaces, tools, etc.)		60 days	Wed 6/5/24	Thu 8/29/24	79	State
81	2.8.1.4	Complete SSO / risk assessment / ATO processes, as needed		65 days	Wed 6/5/24	Fri 9/6/24	79	State
82	2.8.2	Conduct first DR Test		38 days	Wed 7/24/24	Mon 9/15/24		
83	2.8.2.1	Prepare for DR Test		31 days	Wed 7/24/24	Thu 9/5/24	58FS-28 days	State
84	2.8.2.2	Temporarily Expand the New DevDR System for DR Testing (Schedule O) MS		1 day	Fri 9/6/24	Fri 9/6/24	83	TD
85	2.8.2.3	Perform DR Test		5 days	Mon 9/9/24	Fri 9/13/24	84	State
86	2.8.2.4	Contract the New DevDR System back to its previous configuration (Schedule O) MS		1 day	Mon 9/16/24	Mon 9/16/24	85	TD
87	2.8.3	Data migration and acceptance test (Final Migration)		21 days	Mon 8/26/24	Tue 9/24/24		State
88	2.8.3.1	Update First Migration detailed plan for loading data and Fallback plan		10 days	Mon 8/26/24	Mon 9/9/24	82FS-15 days	State
89	2.8.3.2	Prepare for Final Migration		5 days	Tue 9/10/24	Mon 9/16/24	82FS-5 days	State
90	2.8.3.3	Perform final data migration (New DevDR System now populated), acceptance and cutover		6 days	Tue 9/17/24	Tue 9/24/24	89	State
91	2.8.4	Milestone #2B -- DevDR Environment migrated and accepted / New DevDR System ready to use		0 days	Tue 9/24/24	Tue 9/24/24	90	State
92	2.9	EXECUTION: Production -- Decommission retired system		42 days	Tue 9/3/24	Wed 10/30/24		TD
93	2.9.1	Two-week wait period after cutover to the new system		10 days	Tue 9/3/24	Mon 9/16/24	58	
94	2.9.2	Scrub disks		26 days	Tue 9/17/24	Tue 10/22/24	93	TD
95	2.9.3	Perform system deinstall		26 days	Tue 9/17/24	Tue 10/22/24	94SS	TD
96	2.9.4	Dispose of system		6 days	Wed 10/23/24	Wed 10/30/24	95	TD
97	2.9.5	Milestone #3A -- Decommissioned retired Production System		0 days	Wed 10/30/24	Wed 10/30/24	96	TD
98	2.10	EXECUTION: DevDR -- Decommission retired system		26 days	Wed 9/25/24	Wed 10/30/24		TD
99	2.10.1	Two-week wait period after cutover to the new system		10 days	Wed 9/25/24	Tue 10/8/24	91	
100	2.10.2	Scrub disks		10 days	Wed 10/9/24	Tue 10/22/24	99	TD
101	2.10.3	Perform system deinstall		10 days	Wed 10/9/24	Tue 10/22/24	100SS	TD
102	2.10.4	Dispose of system		6 days	Wed 10/23/24	Wed 10/30/24	101	TD
103	2.10.5	Milestone #3B -- Decommissioned retired DevDR System		0 days	Wed 10/30/24	Wed 10/30/24	102	TD
104	2.11	EXECUTION: Other Tasks		153 days	Tue 3/26/24	Wed 10/30/24		
105	2.11.1	Cloud Advisory Services -- Future placement of existing Production EDW ETL/BI Servers		19 days	Tue 3/26/24	Fri 4/19/24		TD
106	2.11.1.1	Conduct readiness assessment		5 days	Tue 3/26/24	Mon 4/1/24	51FS+5 days	TD,State
107	2.11.1.2	Conduct working sessions		10 days	Tue 4/2/24	Mon 4/15/24	106	TD,State
108	2.11.1.3	Prepare and present Recommendation Report		4 days	Tue 4/16/24	Fri 4/19/24	107	TD,State
109	2.11.2	Cloud Advisory Services -- Review Production workload management		22 days	Tue 10/1/24	Wed 10/30/24		TD
110	2.11.2.1	Conduct readiness assessment		5 days	Tue 10/1/24	Mon 10/7/24	58SF+25 days	TD,State
111	2.11.2.2	Conduct working sessions		12 days	Tue 10/8/24	Wed 10/23/24	110	TD,State
112	2.11.2.3	Prepare and present Recommendation Report		5 days	Thu 10/24/24	Wed 10/30/24	111	TD,State
113	2.12	MONITORING and CONTROL		238 days	Wed 11/8/23	Thu 10/31/24		
114	2.12.1	Participate in regular meetings and report status		238 days	Wed 11/8/23	Thu 10/31/24	4	Optum,State,TD
115	2.12.2	Support all key activities and work products		238 days	Wed 11/8/23	Thu 10/31/24	114SS	Optum,State,TD
116	2.12.3	Manage / control issues, risks, problems and changes		238 days	Wed 11/8/23	Thu 10/31/24	114SS	Optum,State,TD
117	2.13	CLOSEOUT		3 days	Tue 10/29/24	Thu 10/31/24		
118	2.13.1	Perform project closeout activities		3 days	Tue 10/29/24	Thu 10/31/24	114FF	Optum,State,TD

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **28**

to

Contract Number **071B1300109**

CONTRACTOR	OPTUM GOVERNMENT SOLUTIONS, INC.	**STATE** Program Manager	Mark Wagner	MULTI
	12125 Technology Drive		517-241-7044	
	Eden Prarie, MN 55344		WagnerM2@michigan.gov	
	Jeanne McNeil	Contract Administrator	Shannon Romein	DTMB
	(517) 993-0929		(517) 898-8102	
	jeanne.mcneil@optum.com		romeins@michigan.gov	
	CV0000961			

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE**
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024
PAYMENT TERMS		**DELIVERY TIMEFRAME**	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No
MINIMUM DELIVERY REQUIREMENTS				

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		N/A
CURRENT VALUE	**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**		
$48,187,509.85	$0.00	$48,187,509.85		

DESCRIPTION
Effective February 1, 2023, the following amendment is incorporated into this Contract per attached Change Request 036. No additional funds are needed to support these changes. All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency agreement, and DTMB Central Procurement Services approval.

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0913 | www.optum.com

November 22, 2022

Ms. Shannon Romein
Category Analyst, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

Re: **Change Request Proposal 036 to Share Symmetry Measures and Rules with MDHHS Health Plans
      Under the Data Warehouse Platform Contract No. 071B1300109**

Dear Shannon:

The State of Michigan (the "State" or "Customer") has recently requested the right to share certain Symmetry Measures and Rules with its Health Plans solely for the purpose of permitting such Health Plans to understand what and how their claims are being measured and monitored and the basis for the Value Added Reports or other output generated through the use of the Symmetry Software that Optum Government Solutions, Inc. ("Optum") has licensed to the State under Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract"). In light of these requests, Optum is providing this Change Request proposal ("Change Request Proposal 036") to address the terms and conditions under which the State may engage in such sharing with its Health Plans for the State's consideration and acceptance.

I. Description of the Scope Covered by this Change Request Proposal 036

These are the scope changes:

- Change Request Proposal 020 (CR020) – Attachment 22 – Optum Symmetry Software

  Under Section A(2) of Attachment 22, Optum permitted the State to provide and deliver to the State's Health Plans certain "Value Added Reports". "Value Added Reports" were defined as the State's written analysis and interpretation of the results generated by processing any of the Health Plan's claims through the Symmetry Software, which may include the grouped data and identifiers generated by the Symmetry Software. The State now desires to share more than the Value Added Reports with its Health Plans; namely various Symmetry Measures and Rules employed for purposes of monitoring and measuring the Health Plan's services (collectively, the "Symmetry Related Data").

  The Symmetry Related Data is proprietary and confidential information of Optum, and Optum only permits its disclosure to any third party if such third party has agreed to protect its confidentiality and uses it only for a limited purpose. While the State has shared with Optum an extract of its agreements with its Health Plans related to confidential information, the definition of confidential information is limited to State confidential information and the purpose for which the Health Plan can use such confidential information is not broad enough to cover the permitted purpose under which Optum would permit the State to share the Symmetry Related Data with its Health Plans.

  To address this need, the State and Optum have agreed that the State shall have the right to provide its Health Plans with any and all Symmetry Related Data during the term of the '109 Contract, under the following terms:

      1. If State desires to share any Symmetry Related Data with a Health Plan, prior to sharing any Symmetry Related Data for the first time with a Health Plan, the State shall provide the Health Plan with the End User License Agreement attached as Attachment 24 to this Change Request Proposal 036 (the

"Symmetry Related Data EULA" or "EULA"). Consistent with the terms of the Symmetry Related Data EULA, the State shall be authorized to provide Symmetry Related Data both initially and on a recurring basis only to any Health Plan who either provides the State with written notice of its acceptance or is deemed to accept such EULA by not objecting within the two (2) business day period described therein until the earlier of (1) such time as the Health Plan provides the State with written notice objecting to the EULA or (2) the State's contract with Optum under which Optum licenses to the State the use of the Symmetry Software no longer remains in effect. In the latter event, the provisions set forth in Section 2 below shall apply.

The initial Symmetry Related Data that shall be provided by the State to its Health Plans consist of the following:

(a)   an initial set of Symmetry Measures:

      (1) Pregnancy Management (Report Case ID 201500),

      (2) Tobacco Use: Screening and Cessation Intervention (Report Case ID 302800),

      (3) Hepatitis C (Report Case ID 103400)

      (4) Hypertension (Report Case ID 102500); and

(b)   The Symmetry Rules that are employed for purposes of monitoring and measuring the Health Plans' services.

2.   If, after receiving the Symmetry Related Data EULA from the State and either accepting its terms or being deemed to have accepted its terms, the Health Plan notifies the State in writing that it objects or otherwise indicates it isnot in agreement with its terms, the State will not share additional Symmetry Related Data with that Health Plan. In addition, the State shall notify the Health Plan in a writing also provided to Optum that instructs the Health Plan to cease further use of the Symmetry Related Data, return to Optum or destroy any Symmetry Related Data in its possession and certify such return or destruction to Optum as set forth in the EULA within thirty (30) days of receipt of the written notice. Should the Health Plan not do so within the thirty (30) day period, Optum shall notify the State, whereupon (a) if permitted to do so per the existing terms of the State's contract with the Health Plan that permits the State to treat the Health Plan's failure to do so as a breach of contractual obligations arising out of its contract with the Health Plan, the State shall take such actions as permitted under its contract with the Health Plan, all in the State's reasonable discretion based on the applicable facts and circumstances and (b) the State shall not object if Optum takes action to enforce the terms of the EULA, including, without limitation, seeking appropriate injunctive relief requiring the Health Plan to abide by such obligations.

II. Terms by Which the State May Accept This Change Request Proposal 036

The State can approve this Change Request Proposal 036 by issuing a Change Notice that references this Change Request Proposal 036, which must be received no later than February 20, 2023.

Except as expressly amended by this Change Request 036, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne McNeil

Point of Contact:
    Jeanne McNeil
    Michigan Director of Delivery Operations
    Optum Government Solutions, Inc.

Hue Ngu
Hue Ngu (Nov 22, 2022 15:36 CST)

 Signer:
    Hue Ngu
    Finance Director
    Optum Government Solutions, Inc.

Attachment 24
Optum Symmetry Related Data End-User License Agreement (EULA)

Optum Government Solutions, Inc. ("**Optum**") owns certain Symmetry Software that is licensed to the State of Michigan, Department of Information, Technology and Budget, acting on behalf of the Michigan Department of Health and Human Services ("**MDHHS**"). MDHHS uses such Symmetry Software to measure and monitor claims that you, as a MDHHS Health Plan ("**Health Plan**", "**End User**" or "**You**") submit for payment. In order for You to gain a better understanding of what and how Your claims are being measured and monitored and the basis for any reports or other output that MDHHS generates through the use of the Symmetry Software, MDHHS desires to provide You with the Symmetry measures that are used for measuring and monitoring the Your health plan services (the "**Symmetry Measures**") and some of the underlying Symmetry rules that are used for measuring and monitoring the Your health plan services (the "**Symmetry Rules**"). The Symmetry Measures and the Symmetry Rules (collectively, the "**Symmetry Related Data" or "Data**") are owned and copyrighted by Optum.

Please read this End-User License Agreement ("**EULA**"), which is a binding agreement between you and Optum. You have two (2) business days after receipt of this EULA to either provide MDHHS with written acceptance of this EULA or your objection to the terms of this EULA. If you object to the terms of this EULA prior to receiving any Symmetry Related Data within such two (2) business day period, you will not receive such Symmetry Related Data. If you either provide your written acceptance of this EULA within such two business day period or fail to provide any written objection to MDHHS within such two business day period, you will be deemed to have accepted this EULA. This EULA shall apply to the initial receipt of any Symmetry Related Data and to any additional Symmetry Related Data from MDHHS unless and until you provide MDHHS with written objection to the EULA. Upon MDHHS' receipt of your written objection to the EULA , You shall be required to cease further use of, and return to Optum or destroy, all Symmetry Related Data in your possession and certify such return or destruction to Optum as set forth in Section 5. In such event, MDHHS will refrain from providing You with additional Symmetry Related Data.

1.   License Grant. Subject to the terms and conditions of this EULA, Optum grants You a limited, non-exclusive, non-transferable, non-sublicensable license to use the Data or any portion thereof for the following non-commercial purposes: understanding what and how Your claims are being measured and monitored and the basis for the reports or other output generated through the use of the Symmetry Software by MDHHS (collectively, the "Purpose"). For the avoidance of doubt, You will not be allowed to use the Data to: aggregate, generate additional insights, develop any value added analytics or services, support any additional use cases (for example, care management analytics or employer reporting analytics) or leverage such Data or intellectual property in a manner or form other than how it is received from MDHHS or described here in this EULA.

You may view and print reports from the MDHHS dashboards but will not have the ability to export the Data from the reporting solution. For the avoidance of doubt, the use or disclosure of the Data pursuant to this Section 1 shall not be limited by Section 3.

2.   **Ownership**. Except as provided herein, all Data delivered to You by MDHHS from the Symmetry Software shall be and remain Optum's property and all such Data, and copies thereof, shall be destroyed or retained as otherwise set forth in this EULA.

3.   **License Restrictions.** You shall abide by the following restrictions with respect to your use of the Data:

   a.   Except as otherwise set forth herein, You may not cite Optum as the source of the information contained in the Data without Optum's prior written consent.

   b.   Except as provided herein, You may not use or disclose any part of the Data for any reason, or as otherwise agreed in writing by Optum. You agree that in regard to the Data, You will not (1) use any part of the Data for an unlawful purpose; (2) quote or reproduce it for advertising, promotional or public relations purposes; (3) place it in any data retrieval system; (4) publish, display, distribute, disclose, lease, license, sublicense or otherwise transfer the Data; (5) modify or create derivative works of part or all of the Data; (6) use some or all of the Data to provide outsourcing, data aggregation or other services to any entity; (7) export or re-export it, directly or indirectly, outside the United States of America; or (8) incorporate any part of the Data into any product or service. No reports or documents prepared by You concerning analyses of the Data or the results of such research shall disclose the identity of any patient or, without Optum's prior written permission, disclose Optum as the source of the Data.

4. **Audits.** During the term of this EULA and for one year thereafter, You agree to permit Optum or its auditors, upon reasonable advance written notice and during regular business hours, to inspect and examine, at Optum's expense, Your policies, procedures, plans, and other records and documentation relating to the Purpose as reasonably necessary for Optum to verify your compliance with this EULA. Such inspection shall be limited to verification of compliance with this EULA and shall be conducted so as not to compromise the confidentiality of any of your confidential information.

5. **Term and Termination.** Your license to use the Data shall continue for as long as MDHHS' contract with Optum under which Optum licenses DHHS the use of the Symmetry Software remains in effect. MDHHS shall provide you with written notice of the expiration or termination of such contract, whereupon You agree to cease further use of the Data and either return or destroy and certify to Optum the return or destruction of any and all Data in your possession. If you violate any provisionof this EULA, your permission to use the Data may be terminated, upon notice. Optum reserves the right to modify or discontinue the Data at any time (including by limiting or discontinuing certain features of the Data), temporarily or permanently, without notice to you.

6. **Breach.** Any material breach of this EULA by You may cause irreparable harm to Optum and shall entitle Optum to seek injunctive relief and all legal and equitable remedies available to Optum.

7. **Disclaimers**.

OPTUM MAKES NO WARRANTY TO YOU, EXPRESS OR IMPLIED, WITH RESPECT TO DATA, INFORMATION OR MATERIALS DELIVERED PURSUANT TO THIS EULA, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ANY WARRANTY THAT THE DATA WILL BE FREE FROM INFRINGEMENT OF PATENTS, COPYRIGHTS, TRADEMARKS, TRADE SECRETS OR OTHER RIGHTS OF THIRD PARTIES AND ANY WARRANTY AS TO THE ACCURACY QUALITY, RELIABILITY, SUITABILITY, COMPLETENESS, TRUTHFULNESS, USEFULNESS, OR EFFECTIVENESS OF THE DATA.

8. **Limitation of Liability**. OPTUM SHALL HAVE NO LIABILITY TO YOU FOR: (1) ANY DAMAGES RESULTING FROM USE OR INTERPRETATION OF THE DATA, INCLUDING BUT NOT LIMITED TO THE IMPACT, PROVISION OR STANDARD OF MEDICAL CARE; OR (2) ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, IN EACH CASE WHETHER OR NOT OPTUM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE LIABILITY OF OPTUIM SHALL OTHERWISE BE LIMITED TO ACTUAL AND DIRECT DAMAGES, NOT TO EXCEED $1,000.

YOUR LIABILITY TO OPTUM ARISING UNDER THIS EULA WHETHER IN CONTRACT, TORT, OR OTHERWISE SHALL BE LIMITED TO ACTUAL AND DIRECT DAMAGES. YOU SHALL HAVE NO LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, WHETHER OR NOT YOU HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. ACCORDINGLY, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EACH PROVISION OF THIS EULA THAT PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTIES, OR EXCLUSION OF DAMAGES IS INTENDED TO AND DOES ALLOCATE THE RISKS BETWEEN THE PARTIES UNDER THIS EULA. THIS ALLOCATION IS AN ESSENTIAL ELEMENT OF THE BASIS OF THE BARGAIN BETWEEN THE PARTIES. EACH OF THESE PROVISIONS IS SEVERABLE AND INDEPENDENT OF ALL OTHER PROVISIONS OF THIS EULA. THE LIMITATIONS IN THIS SECTION WILL APPLY EVEN IF ANY LIMITED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

9. **Disputes**.

   o <u>Governing Law</u>. To the maximum extent permitted under applicable law, this EULA will be governed by the laws

of the State of Michigan.

- o Dispute Resolution. Any dispute arising out of or in connection with this EULA, the rights and obligations under this EULA or the breach, termination, formation or validity of this EULA (a "**Dispute**") that cannot be resolved within thirty (30) days may be resolved by one party bringing action in court.

10. **Miscellaneous**.

- o Entire Agreement. This EULA sets forth the entire understanding of the parties relating to your use of the Data and supersedes all prior agreements and understandings between the parties relating to your use of the Data.

- o Further Assurances. Each party shall, upon the reasonable request of the other party, promptly execute such documents and perform such acts as may be necessary to give full effect to the terms of this EULA.

- o Severability; Waiver. If any part of any provision of this EULA is found to be invalid or unenforceable, the remainder of this EULA shall remain in full force and effect. No failure to enforce any terms of this EULA shall: (i) be effective unless expressly set forth in writing; (ii) constitute a waiver of such term in the future; or (iii) in any way affect the other terms hereof.

- o Notice. Any notice required or permitted to be delivered pursuant to this EULA shall be in writing and shall be deemed given upon delivery. All such notices shall be addressed to Optum at the address set forth below, by email, or to such other address as Optum shall notify you in accordance with this Section:

  Optum Government Solutions, Inc.

  11000 Optum Circle

  Eden Prairie, MN 55343

  Attn: Deputy General Counsel, Optum Government

- o Independent Contractor. The relationship among the parties is and will be that of independent contractors. This EULA does not establish or create a partnership, joint venture, or similar relationship among the parties and neither party has authority to contract for nor bind the other party in any manner whatsoever.

- o Assignment. You shall not assign or delegate this EULA or any of your rights or obligations hereunder without the prior written consent of Optum. Any attempted assignment by you without such consent shall be null and void. Optum may assign this EULA, or any of its rights under this EULA, to any third party with or without your consent.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **27**

to

Contract Number **071B1300109**

CONTRACTOR	OPTUM GOVERNMENT SOLUTIONS, INC.	**STATE** Program Manager	Mark Wagner	MULTI
	12125 Technology Drive		517-241-7044	
	Eden Prarie, MN 55344		WagnerM2@michigan.gov	
	Jeanne McNeil	Contract Administrator	Shannon Romein	DTMB
	(517) 993-0929		(517) 898-8102	
	jeanne.mcneil@optum.com		romeins@michigan.gov	
	CV0000961			

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE**
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024
PAYMENT TERMS		**DELIVERY TIMEFRAME**	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No
MINIMUM DELIVERY REQUIREMENTS				

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		N/A
CURRENT VALUE	**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**		
$48,187,509.85	$0.00	$48,187,509.85		

DESCRIPTION
Effective 8/12/2022, the following Change Request 032 is hereby incorporated into the Contract to update recent changes to the Symmetry PQM software and to the Symmetry EBM Connect software as they relate to software, licensing and support.

No additional funds are needed to support these changes.

All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement. |

March 28, 2022

Mr. Matthew Weiss
Category Analyst, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: **REVISED CHANGE REQUEST PROPOSAL 032 TO REFLECT SYMMETRY UPDATES UNDER THE DATA WAREHOUSE PLATFORM CONTRACT NO. 071B1300109**

Dear Matt:

There have been recent changes to the Symmetry PQM software and to the Symmetry EBM Connect software provided by Optum Government Solutions, Inc. ("Optum") to the State of Michigan (the "State" or "Customer") under Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract") as they relate to software, licensing and support. In light of these changes, Optum is providing this Revised Change Request proposal ("Change Request Proposal 032") to address them for the State's consideration and acceptance. This Change Request 032 replaces and supersedes the original Change Request Proposal 032 dated February 15, 2022.

I. Description of the Scope Covered by this Change Request Proposal 032

These are the scope changes:

- Change Request Proposal 026 (CR026) – Attachment 22 – Optum Symmetry Software

    - **The Symmetry Procedure Quality Measures (PQM) component is dropped from the list of software components listed in CR026 Attachment 22** – The reason for this is that support for PQM has been discontinued throughout the U.S. and twenty-five (25) PQM Low Value Care measures were recently transitioned to the Symmetry EBM Connect Version 11 software ("EBM Connect Software") that was released in December 2021, including the *270500 Cesarean Section for Nulliparous Singleton Vertex* measure that is of primary interest to the State. For the State's current Symmetry purposes, this means no functionality is lost, but instead the required functionality has transitioned from PQM to the EBM Connect Software.

- Change Request Proposal 020 (CR020) – Attachment 22 – Optum Symmetry Software

    - **The "Consortium Measures" subsection is dropped from CR020 Attachment 22** – The reason for this deletion is that the National Committee for Quality Assurance (the "NCQA"), as the owner of the Healthcare Effectiveness Data and Information Set (HEDIS®) measures and specifications and survey specifications for the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) (the "Data") embedded within the EBM Connect Software, has conditioned the availability and use of that Data on certain entities agreeing to the terms and conditions set forth in the updated Attachment 23 End User License Agreement (EULA) included herein as part of this Change Request 032. The entities subject to agreeing to such EULA include users like the State who use HEIDS® reports that contain such Data when Optum uses the EBM Connect Software to generate the report.

- Change Request Proposal 020 (CR020) – Attachment 23 – Optum Symmetry Software AMA and Consortium Measures End User Agreement

- **CR020 Attachment 23 is replaced in its entirety by the updated Attachment 23 herein** – The reason for this is that the EULA has been updated to reflect the latest requirements by the NCQA.

II. Terms by Which the State May Accept This Change Request Proposal 032

The State can approve this Change Request Proposal 032 by issuing a Change Notice that references this Change Request Proposal 032, which must be received no later than April 1, 2022.

Except as expressly amended by this Change Request 032, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne McNeil

William Youngman
William Youngman (Mar 30, 2022 09:15 EDT)

Point of Contact:
    Jeanne McNeil
    Michigan Director of Delivery Operations
    Optum Government Solutions, Inc.

Signer:
    William Youngman
    Associate Finance Director
    Optum Government Solutions, Inc.

Optum Symmetry Software and Consortium Measures End-User License Agreement (EULA)

Optum Government Solutions, Inc.'s ("**Vendor**") EBM Connect ("**Product**") being provided to the State of Michigan, Department of Information, Technology and Budget, acting on behalf of the Michigan Department of Health and Human Services ("**Customer**" or "**you**") contains Healthcare Effectiveness Data and Information Set (HEDIS®) measures and specifications and survey specifications for the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) (the "**Data**"). The Data is owned and copyrighted by the National Committee for Quality Assurance ("**NCQA**") and has been licensed to Vendor for inclusion in the Product. The HEDIS measures and specifications expressly exclude third-party intellectual property rights in the HEDIS Value Set Directory ("**HEDIS VSD**"), including without limitation code values owned, licensed or otherwise provided by third parties ("**Third-Party Codes**"). Please read this End-User License Agreement ("**EULA**"), which is a binding agreement between you and NCQA, carefully before downloading or using the Data within the Product.

BY DOWNLOADING OR USING THE DATA WITHIN THE PRODUCT, YOU ARE AGREEING TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS EULA.

IF YOU DO NOT AGREE TO THE TERMS OF THIS EULA, YOU MAY NOT DOWNLOAD OR USE THE DATA.

1. **License Grant**. Subject to the terms and conditions of this EULA, NCQA grants you a limited, perpetual, worldwide, non-exclusive, non-transferable, non-sublicensable license to use the Data or any portion thereof for the following non-commercial purposes: competitor analysis; benchmark analysis; trended data analysis; quality improvement initiatives; data analysis; cost analysis; analysis of performance from year to year; profiling performance goals and surveillance; population health initiatives; and/or market research.

2. **License Restrictions**. You shall:

(i)   use the Data only for population health purposes within an affiliated health plan network (e.g., Accountable Care Organization) and internal, quality improvement purposes (e.g., trend analysis) and not publicly display, disseminate or publish the Data, Adjustments (defined below) thereof or any portion of the same;

(ii)   prominently display NCQA's trademark and copyright notices, including the measure Adjustment and certification notices, as applicable, as provided in this EULA on any output that includes the Data or any portion thereof;

(iii)   only Adjust the Data, or any portion thereof, as explicitly permitted by the Rules for Allowable Adjustments of HEDIS (the "**Rules**"), except that you may apply or adapt the Data to your non-U.S. jurisdiction (including without limitation translations; mapping, combining or cross-referencing Data with local third-party code values);

(iv)   report or submit HEDIS measure results ("**Rates**") to external programs only if those Rates have been calculated by a HEDIS-certified vendor (**"HEDIS Certified Vendor**") and stem from Rates that have been audited and approved by an NCQA-certified HEDIS Compliance Auditor ("**HEDIS Compliance Auditor**"), or as expressly approved in writing by NCQA in advance, provided that You shall not be required to have Rates calculated by a HEDIS-certified vendor nor shall You be required to have such Rates be audited and approved by a HEDIS Compliance Auditor where such Rates are submitted directly to Centers for Medicare & Medicaid Services (CMS) pursuant to a CMS program/model;

(v)   not use the Data or any portion thereof for any purpose other than as specifically set forth in this EULA;

(vi)   not use the Third-Party Codes without an authorized license from the copyright owners;

(vii)   only publicly display Rates or conduct pay for performance incentive initiatives from/on Certified, Uncertifiable or Retired Measures;

(viii) not use, or authorize or permit any third party, affiliate, subsidiary or related entity to use the Data or any portion thereof for any purpose other than as specifically set forth in this EULA, including but not limited to copying, selling, renting, leasing, licensing, sublicensing, or distributing the Data or any portion thereof;

(ix)   not reproduce, copy, reverse engineer, decompile or disassemble the Data or modify or prepare derivative works from the Data or any portion thereof except as expressly authorized by this EULA;

(x)   not alter or remove any copyright notices, patent notices, trademark and service mark notices, or other proprietary notices or disclaimers affixed to the Data;

(xi)   not use the Data in any manner or for any purpose that infringes, misappropriates, or otherwise violates any intellectual property right or other right of any person, or that violates any applicable law; and

(xii) not use the Data for purposes of: (a) benchmarking or competitive analysis of the Data or (b) developing a product or service that could reasonably be determined as a replacing the Data. NCQA agrees that the foregoing provision does not restrict or prevent you in any manner from offering or developing a product or service that includes (i) measures, risk models or other specification independently developed by you, or (ii) measures, risk models or other specifications from a third party that may be or are competitive to any NCQA product or offering.

3.   HEDIS VSD. The HEDIS VSD contains Third Party Codes, including without limitation CPT® by American Medical Association, LOINC® by Regenstrief Institute, Inc., SNOMED CT® by the International Health Terminology Standards Development Organization, RxNorm by the U.S. National Library of Medicine, and Uniform Billing Codes by the American Hospital Association. All uses of the Third-Party Codes may require a license from the copyright owner.

4.   Ownership, **Copyright and Disclosure**.

a.   Except for the Third-Party Codes, title to and full ownership of Data and all intellectual property rights therein (including, but not limited to, all copyrights, patent rights and trade secret rights) belong to NCQA, or NCQA has obtained the necessary rights in the Data to grant the rights and licenses set forth herein. This EULA provides only a limited license to use the Data and transfers no ownership or intellectual property interest or title in or to the Data. NCQA's name and logo, and all other names, logos, trademarks and icons identifying NCQA and its programs, products and services are proprietary trademarks of NCQA and any use not expressly provided for in this EULA is strictly prohibited. NCQA holds a copyright in these materials and can rescind or alter these materials at any time. These materials may not be modified by anyone other than NCQA or its designee. Use of the Rules to make permitted adjustment of the materials does not constitute a modification.

b.   As between NCQA and you, sole ownership rights to the Data and Adjustments, if applicable, reside with NCQA. "**Adjust**" or "**Adjustments**" as used in this EULA means all customizations, modifications, enhancements or other improvements developed by, on behalf of or implemented by you as permitted herein. You hereby irrevocably waive any and all claimsyou may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of droit moral with respect to theData and Adjustments. NCQA's name and logo, and all other names, logos, icons, trademarks, and/or service marks identifying NCQA and its programs, products and services are proprietary trademarks of NCQA and any use not expressly provided for in this EULA is strictly prohibited.

5.   Breach. Any material breach of this EULA by you may cause irreparable harm to NCQA.

6.   Disclaimers.

a.   THE HEDIS MEASURES AND SPECIFICATIONS WERE DEVELOPED BY AND ARE OWNED BY NCQA. THE HEDIS MEASURES AND SPECIFICATIONS ARE NOT CLINICAL GUIDELINES AND DO NOT ESTABLISH A STANDARD OF MEDICAL CARE.

b.   NCQA MAKES NO REPRESENTATIONS, WARRANTIES OR ENDORSEMENT ABOUT THE QUALITY OF ANY ORGANIZATION OR PHYSICIAN THAT USES OR REPORTS PERFORMANCE MEASURES AND NCQA HAS NO LIABILITY TO ANYONE WHO RELIES ON SUCH MEASURES OR SPECIFICATIONS.

c.   NCQA MAKES NO WARRANTY TO YOU, EXPRESS OR IMPLIED, WITH RESPECT TO INFORMATION OR MATERIALS DELIVERED PURSUANT TO THIS EULA, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ANY WARRANTY THAT THE DATA WILL BE FREE FROM INFRINGEMENT OF PATENTS, COPYRIGHTS, TRADEMARKS, TRADE SECRETS OR OTHER RIGHTS OF THIRD PARTIES AND ANY WARRANTY AS TO THE ACCURACY QUALITY, RELIABILITY, SUITABILITY, COMPLETENESS, TRUTHFULNESS, USEFULNESS, OR EFFECTIVENESS OF THE DATA.

d.   NCQA DOES NOT CERTIFY EVERY PERMUTATION OF THE RULES FOR ALLOWABLE ADJUSTMENT OF HEDIS FOR A MEASURE. AS SUCH, NCQA SHALL NOT BE RESPONSIBLE OR LIABLE IN ANY WAY FOR ANY MEASURE ADJUSTMENT PERFORMED BY THE VENDOR OR YOU. SUCH MEASURE ADJUSTMENTS ARE AT YOUR OWN RISK.

e.   NCQA DISCLAIMS ALL LIABILITY FOR USE OR ACCURACY OF ANY THIRD-PARTY CODES.

f. SOME JURISDICTIONS MAY PROHIBIT A DISCLAIMER OF WARRANTIES AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM JURISDICTION TO JURISDICTION.

7. **Indemnity**. Intentionally Omitted.

8. **Limitation of Liability**. NCQA SHALL HAVE NO LIABILITY TO YOU FOR: (1) ANY DAMAGES RESULTING FROM USE OR INTERPRETATION OF THE DATA, INCLUDING BUT NOT LIMITED TO THE IMPACT, PROVISION OR STANDARD OF MEDICAL CARE; OR (2) ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, IN EACH CASE WHETHER OR NOT NCQA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE LIABILITY OF NCQA SHALL OTHERWISE BE LIMITED TO ACTUAL AND DIRECT DAMAGES, NOT TO EXCEED $10,000.

THE LIABILITY OF THE CUSTOMER TO NCQA ARISING UNDER THIS EULA WHETHER IN CONTRACT, TORT, OR OTHERWISE SHALL BE LIMITED TO ACTUAL AND DIRECT DAMAGES. THE CUSTOMER SHALL HAVE NO LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES ARISING UNDER OR RELATED TO THIS EULA, WHETHER OR NOT THE CUSTOMER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. ACCORDINGLY, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EACH PROVISION OF THIS EULA THAT PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTIES, OR EXCLUSION OF DAMAGES IS INTENDED TO AND DOES ALLOCATE THE RISKS BETWEEN THE PARTIES UNDER THIS EULA. THIS ALLOCATION IS AN ESSENTIAL ELEMENT OF THE BASIS OF THE BARGAIN BETWEEN THE PARTIES. EACH OF THESE PROVISIONS IS SEVERABLE AND INDEPENDENT OF ALL OTHER PROVISIONS OF THIS EULA. THE LIMITATIONS IN THIS SECTION WILL APPLY EVEN IF ANY LIMITED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

9. **NCQA's Notice of Copyright**.

a. NCQA holds a copyright in the Data and can rescind or alter the Data at any time. The Data may not be modified by anyone other than NCQA.

b. Any commercial use and/or internal or external reproduction, distribution and publication must be approved by NCQA and are subject to a license at the discretion of NCQA. Any use of the materials to identify records or calculate measure results, for example, requires a custom license and may necessitate certification pursuant to NCQA's Measure Certification Program. Reprinted with permission by NCQA. © [current year] NCQA, all rights reserved.

c. The American Medical Association holds a copyright to the CPT® codes contained in the measure specifications.

d. The American Hospital Association holds a copyright to the Uniform Billing Codes ("UB") contained in the measure specifications. The UB Codes in the HEDIS specifications are included with the permission of the AHA. The UB Codes contained in the HEDIS specifications may be used by health plans and other health care delivery organizations for the purpose of calculating and reporting HEDIS measure results or using HEDIS measure results for their internal quality improvement purposes. All other uses of the UB Codes require a license from the AHA. Anyone desiring to use the UB Codes in a commercial product to generate HEDIS results, or for any other commercial use, must obtain a commercial use license directly from the AHA. To inquire about licensing, contact ub04@aha.org.

10. **Display of Measure Rates**. Except for output used solely for internal, quality improvement purposes (e.g., trend or gap analysis), you agree to clearly and conspicuously display, along with the HEDIS measure name or acronym, the **applicable HEDIS measurement year and complete calculated HEDIS measure result ("Rate") name** (e.g., HEDIS MY 2020 Use of Imaging Studies for Low Back Pain - Unaudited Health Plan HEDIS Rate (or) HEDIS MY 2020 LBP -

Unaudited Health Plan HEDIS Rate) next to any Rate on all output containing a Rate, including such Rates that may be used for population health purposes within an affiliated health plan network, in accordance with the following:

a. **Unadjusted Certified Measure**s. A Rate that has been certified via a NCQA Measure Certification Program*TM*, and is based on unadjusted HEDIS specifications, may not be called a "**Health Plan HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Until such time, applicable Rates shall be designated or referred to as "**Unaudited Health Plan HEDIS Rates**."

b. **Adjusted Certified Measures.** A Rate that has been certified via a NCQA Measure Certification Program, and is based on adjusted HEDIS specifications, may not be called an "**Adjusted HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Until such time, applicable Rates shall be designated or referred to as "**Adjusted, Unaudited HEDIS Rates**."

c. **Unadjusted Uncertified Measures**. *At times, the logic used to produce Rates from the Product will not have been certified by NCQA.* A Rate that has not been certified via a NCQA Measure Certification Program, and is based on unadjusted HEDIS specifications, may not be called a "**Health Plan HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Such Rates are for reference only and are not an indication of measure accuracy. Until such time, such Rates shall be designated or referred to as "**Uncertified, Unaudited Health Plan HEDIS Rates**" and **may only be used for population health purposes within an affiliated health plan network and internal, quality improvement purposes (e.g., trend analysis).**

d. **Adjusted Uncertified Measures.** *At times, the logic used to produce Rates from the Product will not have been certified by NCQA.* A Rate from a HEDIS measure that has not been certified via a NCQA Measure Certification Program, and is based on adjusted HEDIS specifications, may not be called an "**Adjusted HEDIS Rate**" until it is audited and designated reportable by a HEDIS Compliance Auditor. Such Rates are for reference only and are not an indication of measure accuracy. Until such time, such Rates shall be designated or referred to as " **Adjusted, Uncertified, Unaudited HEDIS Rates**" and **may only be used for population health management purposes within an affiliated health plan network and internal, quality improvement purposes (e.g., trend analysis).**

e. **Uncertifiable Measures.** Not all HEDIS measure specifications are eligible for NCQA certification. As such, the logic used to produce Rates from those measures have not been certified by NCQA. As such, they shall be designated or referred to as "**Uncertifiable, Unaudited Health Plan HEDIS Rates**" or "**Adjusted, Uncertifiable, Unaudited HEDIS Rates,**" as applicable. A list of current HEDIS measure specifications ineligible for certification can be found on NCQA's website via ncqa.org. Once audited and designated reportable by an NCQA-Certified HEDIS Compliance Auditor, the "Unaudited" designation may be removed.

f. For the sake of clarity, for each of Section 10 a.-e. above, once the measure rate is audited and designated reportable by an NCQA-Certified HEDIS Compliance Auditor, the "Unaudited" designation may be removed.

11. Termination. If you violate any provision of this EULA, your permission to use the Data may be terminated, upon notice. NCQA reserves the right to modify or discontinue the Data at any time (including by limiting or discontinuing certain features of the Data), temporarily or permanently, without notice to you. Termination of this EULA shall not impair your right to continue to use the Data contained in the Product or Rates contained in reports generated from the Product prior to the termination of this EULA; provided such use is consistent with the limitations and restrictions set forth in this EULA.
12. Disputes.

a. Governing Law. To the maximum extent permitted under applicable law, this EULA will not be subject to the Uniform Computer Information Transactions Act (prepared by the National Conference of Commissioners on Uniform State Laws) as currently enacted or as may be codified or amended from time to time by any jurisdiction. PURSUANT TO ARTICLE 6 OF THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS ("**U.N. CONVENTION**"), THE PARTIES AGREE THAT THE U.N. CONVENTION SHALL NOT APPLY TO THIS EULA. *For the sake of clarity, you agree to comply with all applicable U.S. and non-U.S. laws, including but not limited to export control laws and regulations and agree to the enforceability of these laws in the U.S. U.S. intellectual property and contract laws, including U.S. copyright laws, shall be the governing law with respect to all intellectual property and other proprietary rights in the Data and Adjustments and otherwise arising out of or relating to this EULA.*

b. **b.**   Vendor Disputes. ANY DISPUTE YOU HAVE WITH VENDOR OR A THIRD PARTY IS DIRECTLY BETWEEN YOU AND VENDOR, AND YOU IRREVOCABLY RELEASE NCQA (AND ITS OFFICERS, DIRECTORS, AGENTS, SUBSIDIARIES, JOINT VENTURES AND EMPLOYEES) FROM CLAIMS, DEMANDS AND DAMAGES (ACTUAL AND CONSEQUENTIAL) OF EVERY KIND AND NATURE, KNOWN AND UNKNOWN, ARISING OUT OF OR IN ANYWAY CONNECTED WITH SUCH DISPUTES.

13. Export Control Laws. You shall abide by the Export Administration Regulations (15 C.F.R. Part 730 et seq.); and (b) the sanctions, embargoes and restrictions administered by the United States Department of the Treasury Office of Foreign Assets Control as set forth in 31 C.F.R. 500-598 and certain executive orders, the European Union, European Union member states, United Nations, World Bank and other relevant government body ("**Export Control Laws**") in use of the Data. The Data may be subject to Export Control Laws. You shall not directly or indirectly, export, re-export, or release the Data to, or make the Data accessible from, any country, jurisdiction or person to which export, re-export, or release is prohibited by applicable law. You shall comply with all applicable laws and complete all required undertakings (including obtaining any necessary export license or other governmental approval) prior to exporting, re-exporting, releasing, or otherwise making the Data available outside the U.S.

You represent and warrant you are not a Restricted Party. "Restricted Party" means, collectively, any party that (i) appears on a restricted party list maintained by any relevant government body, including without limitation the Specially Designated Nationals and Blocked Persons List, Sectoral Sanctions Identification List, Foreign Sanctions Evader List, Denied Persons List, Unverified List, Entity List, and United Nations Security Council Sanctions Lists; (ii) is headquartered in, located in, or organized under the laws of a country or territory subject to comprehensive territorial sanctions, currently, Cuba, Iran, North Korea, Syria, and the Crimea region; or (iii) is owned or controlled by or acting on behalf of any party identified in (i) or (ii) above. You represent and warrant that you or any person acting on your behalf has not taken any action that is reasonably likely to result in it being designated as a Restricted Party.

14. Additional Terms; Modifications.

a. Additional Terms. Your use of the Data and Rates may be subject to additional terms, policies, rules or guidelines applicable to the Data or Rates that NCQA may post on its website (the "**Additional Terms**"), subject to the section of this EULA titled "Modification of this EULA." All Additional Terms are incorporated by this reference into, and made a part of, this EULA. The rights granted under this EULA are limited to the Data and Rates, and nothing herein grants you any rights to the Product.

b. Modification of this EULA. You acknowledge that the EULA may be modified or replaced on a going-forward basis at any time. Please check NCQA's website periodically for changes to this EULA. If a change to this EULA materially modifies your rights or obligations, you will be required to accept the modified EULA in order to continue to use the Data and yet to be calculated Rates. This EULA will be identified by the most recent date of revision and will be effective immediately upon being made available through NCQA's website or otherwise through the Product, except: (i) if any such modification materially alters your rights under this EULA, an attempt to notify you will be made directly through a message sent by NCQA to the email address you have provided to Vendor, if any, or through a pop-up window or other notification when you access or use the Product; (ii) such materially modified EULA will be effective upon the earlier of your use of the Data or calculated Rates therefrom with actual knowledge of the changes or thirty (30) days

after the changes are made available to you; and (iii) no modifications to this EULA will apply to any dispute between you and NCQA that arose prior to the date of such modification. What constitutes a material change will be determined at NCQA's sole reasonable discretion. Your use of the Data or yet to be calculated Rates after modifications to this EULA become effective constitutes your binding acceptance of such changes. If you are dissatisfied with the terms of this EULA or any modifications to this EULA, then you agree that your sole and exclusive remedy is to discontinue any use of the Data, including continued calculation of Rates therefrom.

c. Changes to the Data. NCQA reserves the right to modify, suspend or discontinue, temporarily or permanently, the Data with or without notice and without liability to you.

15. Feedback. If you provide NCQA with any comments, bug reports, feedback, or modifications proposed or suggested by you for the Data ("**Feedback**"), such Feedback is provided on a non-confidential basis (notwithstanding any notice to the contrary you may include in any accompanying communication), and NCQA will have the right to use such Feedback

at its discretion, including, but not limited to the incorporation of such suggested changes into the Data. You hereby grant NCQA a perpetual, irrevocable, nonexclusive license under all rights necessary to so incorporate and use for any purpose your Feedback related to the Data. You acknowledge that you will address all support and Product-related requests and issues to the Vendor, and NCQA is not responsible for such requests or issue solving.

16. Miscellaneous.

a. Entire Agreement. This EULA sets forth the entire understanding of the parties relating to your use of the Data and supersedes all prior agreements and understandings between the parties relating to your use of the Data. This EULA shall control in the event of any conflict between this EULA and any Additional Terms.

b. Further Assurances. Each party shall, upon the reasonable request of the other party, promptly execute such documents and perform such acts as may be necessary to give full effect to the terms of this EULA.

c. Severability; Waiver. If any part of any provision of this EULA is found to be invalid or unenforceable, the remainder of this EULA shall remain in full force and effect. No failure to enforce any terms of this EULA shall: (i) be effective unless expressly set forth in writing; (ii) constitute a waiver of such term in the future; or (iii) in any way affect the other terms hereof.

d. Notice. Any notice required or permitted to be delivered pursuant to this EULA shall be in writing and shall be deemed given upon delivery. All such notices shall be addressed to NCQA at the address set forth below, by email, or to such other address as NCQA shall notify you in accordance with this Section:

    AVP, Measure Validation
    NCQA
    1100 13th Street NW, Third Floor
    Washington, DC 20005
    Phone: 202-955-3500

e. Independent Contractor. The relationship among the parties is and will be that of independent contractors. This EULA does not establish or create a partnership, joint venture, or similar relationship among the parties and neither party has authority to contract for or bind the other party in any manner whatsoever.

f. Assignment. You shall not assign or delegate this EULA or any of your rights or obligations hereunder without the prior written consent of NCQA. Any attempted assignment by you without such consent shall be null and void. NCQA may assign this EULA, or any of its rights under this EULA, to any third party with or without your consent.

g. Language. The EULA all other communications under or in connection with the EULA shall be in, the English language. Any translation into any other language shall not be an official version thereof, and in the event of any conflict in interpretation between the English version and such translation, the English version shall control.

Contact Information. If you have any questions about this EULA, please contact NCQA via my.ncqa.org

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget

320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **26**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
			517-241-7044	
12125 Technology Drive			WagnerM2@michigan.gov	
Eden Prarie, MN 55344		Contract Administrator	Shannon Romein	DTMB
Jeanne McNeil			(517) 898-8102	
(517) 993-0929			romeins@michigan.gov	
jeanne.mcneil@optum.com				
CV0000961				

CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$48,187,509.85	$0.00	$48,187,509.85

DESCRIPTION

Effective 6/9/2022, the following Change Request 034 is hereby incorporated into the Contract to update the IRS 1075 Exhibit 7 language incorporated in CN 20.

No additional funds are needed to support these changes.

All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0913 | www.optum.com

April 27, 2022

Ms. Shannon Romein
Category Analyst
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: **CHANGE REQUEST PROPOSAL 034 FOR IRS PUBLICATION 1075 EXHIBIT 7 UNDER CONTRACT NO. 071B1300109**

Dear Shannon:

The State of Michigan (the "State") has made a request for changes ("Change Request 034") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract') asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for IRS Publication 1075 Exhibit 7.

In response to this Change Request 034, Optum is pleased to provide the State with this Change Request Proposal (the "Change Request Proposal 034").

I. Change Request Proposal 034 – Scope and Charges

Optum and the State agree:

- The terms related to IRS Publication 1075 Exhibit 7 that are set forth in the attached Appendix shall be added to the '109 Contract, where references to "Contractor" shall mean Optum.

- The attached Appendix entirely replaces an earlier version of IRS Publication 1075 Exhibit 7 language in Change Notice 20/Change Request 034.

- No additional charges are required for Change Request Proposal 034.

II. Terms by Which the State May Accept This Change Request Proposal 034

In order to accept this Change Request Proposal 034 for IRS Publication 1075 Exhibit 7 consistent with the terms applicable to Change Requests set forth in Sections 2.024 and 1.403 of the '109 Contract, Optum must receive a signed Contract Change Notice to the '109 Contract that references this Change Request Proposal 034 by no later than May 31, 2022.

All other terms and conditions of the '109 Contract remain in full force and effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne McNeil

Point of Contact:
    Jeanne McNeil
    Michigan Director of Delivery Operations
    Optum Government Solutions, Inc.

Hue Ngu

Hue Ngu (May 18, 2022 14:46 CDT)

Authorized Signer:
    Hue Ngu
    Director of Finance
    Optum Government Solutions, Inc.

Appendix: Updates Related to IRS 1075 Exhibit 7

A. IRS Publication 1075 – Exhibit 7 Safeguarding Contract Language

I. PERFORMANCE

In performance of this contract, the Contractor agrees to comply with and assume responsibility for compliance by officers or employees with the following requirements:

(1)   All work will be performed under the supervision of the Contractor.

(2)   The contractor and contractor's officers or employees to be authorized access to FTI must meet background check requirements defined in IRS Publication 1075. The contractor will maintain a list of officers or employees authorized access to FTI. Such list will be provided to the agency and, upon request, to the IRS.

(3)   FTI in hardcopy or electronic format shall be used only for the purpose of carrying out the provisions of this contract. FTI in any format shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Inspection or disclosure of FTI to anyone other than the contractor or the contractor's officers or employees authorized is prohibited.

(4)   FTI will be accounted for upon receipt and properly stored before, during, and after processing. In addition, any related output and products require the same level of protection as required for the source material.

(5)   The contractor will certify that FTI processed during the performance of this contract will be completely purged from all physical and electronic data storage with no output to be retained by the contractor at the time the work is completed. If immediate purging of physical and electronic data storage is not possible, the contractor will certify that any FTI in physical or electronic storage will remain safeguarded to prevent unauthorized disclosures.

(6)   Any spoilage or any intermediate hard copy printout that may result during the processing of FTI will be given to the agency. When this is not possible, the contractor will be responsible for the destruction of the spoilage or any intermediate hard copy printouts and will provide the agency with a statement containing the date of destruction, description of material destroyed, and the destruction method.

(7)   All computer systems receiving, processing, storing, or transmitting FTI must meet the requirements in IRS Publication 1075. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to FTI.

(8)   No work involving FTI furnished under this contract will be subcontracted without the prior written approval of the IRS.

(9)   Contractor will ensure that the terms of FTI safeguards described herein are included, without modification, in any approved subcontract for work involving FTI.

(10)   To the extent the terms, provisions, duties, requirements, and obligations of this contract apply to performing services with FTI, the contractor shall assume toward the subcontractor all obligations, duties and responsibilities that the agency under this contract assumes toward the contractor, and the subcontractor shall assume toward the contractor all the same obligations, duties and responsibilities which the contractor assumes toward the agency under this contract.

(11)   In addition to the subcontractor's obligations and duties under an approved subcontract, the terms and conditions of this contract apply to the subcontractor, and the subcontractor is bound and obligated to the contractor hereunder by the same terms and conditions by which the contractor is bound and obligated to the agency under this contract.

(12)   For purposes of this contract, the term "contractor" includes any officer or employee of the contractor with access to or who uses FTI, and the term "subcontractor" includes any officer or employee of the subcontractor with access to or who uses FTI.

(13)   The agency will have the right to void the contract if the contractor fails to meet the terms of FTI safeguards described herein.

II. CRIMINAL/CIVIL SANCTIONS

(1)   Each officer or employee of a contractor to whom FTI is or may be disclosed shall be notified in writing that FTI disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any FTI for a purpose not authorized herein constitutes a felony punishable upon conviction by a fine of as much as $5,000 or imprisonment for as long as 5 years, or both, together with the costs of prosecution.

(2)   Each officer or employee of a contractor to whom FTI is or may be accessible shall be notified in writing that FTI accessible to such officer or employee may be accessed only for a purpose and to the extent authorized herein, and that access/inspection of FTI without an official need-to-know for a purpose not authorized herein constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as $1,000 or imprisonment for as long as 1 year, or both, together with the costs of prosecution.

(3)   Each officer or employee of a contractor to whom FTI is or may be disclosed shall be notified in writing that any such unauthorized access, inspection or disclosure of FTI may also result in an award of civil damages against the officer or employee in an amount equal to the sum of the greater of $1,000 for each unauthorized access, inspection, or disclosure, or the sum of actual damages sustained as a result of such unauthorized access, inspection, or disclosure, plus in the case of a willful unauthorized access, inspection, or disclosure or an unauthorized access/inspection or disclosure which is the result of gross negligence, punitive damages, plus the cost of the action. These penalties are prescribed by IRC sections 7213, 7213A and 7431 and set forth at 26 CFR 301.6103(n)-1.

(4)   Additionally, it is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is so prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

(5)   Granting a contractor access to FTI must be preceded by certifying that each officer or employee understands the agency's security policy and procedures for safeguarding FTI. A contractor and each officer or employee must maintain their authorization to access FTI through annual recertification of their understanding of the agency's security policy and procedures for safeguarding FTI. The initial certification and recertifications must be documented and placed in the agency's files for review. As part of the certification and at least annually afterwards, a contractor and each officer or employee must be advised of the provisions of IRC sections 7213, 7213A, and 7431 (see Exhibit 4, *Sanctions for Unauthorized Disclosure*, and Exhibit 5, *Civil Damages for Unauthorized Disclosure*). The training on the agency's security policy and procedures provided before the initial certification and annually thereafter must also cover the incident response policy and procedure for reporting unauthorized disclosures and data breaches. (See Section 10) For the initial certification and the annual recertifications, the contractor and each officer or employee must sign, either with ink or electronic signature, a confidentiality statement certifying their understanding of the security requirements.

III.   INSPECTION

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the contractor to inspect facilities and operations performing any work with FTI under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual and/or automated scanning tools to perform compliance and vulnerability assessments of information technology (IT) assets that access, store, process or transmit FTI. Based on the inspection, corrective actions may be required in cases where the contractor is found to be noncompliant with FTI safeguard requirements.

B. Performance-Related Clarifications

The State and Contractor hereby agree to the following clarifications regarding Section A-I above on Performance (1-13):

(1)   Contractor shall only be obligated to comply with Sections A-I(1-13) above with respect to its obligations under the Contract to provide hardware, software and services.

(2)   The State shall be responsible for taking all steps reasonably necessary so that no federal tax information ("FTI") is transmitted to Contractor or to Contractor's previously approved subcontractors, or to any person who is not an Authorized FTI Recipient (the "Non-Authorized FTI Recipients"), in connection with the provision of any of the products or services under this Contract, where such steps shall include, but not be limited to, the de-identification and/or removal of any FTI prior to sending any data available to Contractor or Teradata or to any Non-Authorized FTI Recipient. For purposes of this Section B, the term "Authorized FTI Recipient" shall mean any person described in Section A-I(2) above and any employee of an approved subcontractor, provided that for either type of person, the State has authorized access to federal tax data information; additionally, the Contractor will maintain a list of subcontractor personnel for which the State has authorized access to federal tax data information (the "Authorized FTI Recipients"). Also see Section A-I(2).

(3)   If the State fails to fulfill the responsibility in Section B(2), then Contractor shall notify the State in writing and destroy the FTI that has been received to fulfill its obligations under this contract. If Contractor fails to notify and destroy, then and only then shall the obligations set forth in Section I-A(13) shall apply.

(4)   Upon discovery by Contractor of a disclosure of federal tax information by Contractor or any other person (other than the State) to any Non-Authorized FTI Recipient, Contractor shall perform the following: (1) Notify the Contract Compliance Inspector within twelve (12) hours of awareness; (2) Document the specifics of the incident known at the time into a Data Incident Report, Treasury Form 4000; (3) Email the data incident report to the Treas_Security@michigan.gov mailbox and Contract Compliance Inspector (reports must be sent electronically and encrypted via State approved encryption techniques. Contractor must use the term "Data Incident Report" in the subject line of the email).

(5)   With respect to Section A-I(2) above, the State will notify Contractor when the State has granted FTI access to any employee of Contractor or of an approved subcontractor so that Contractor is able to maintain and provide the list specified.

(6)   With respect to Section A-I(2) above, the State agrees that personnel of Contractor and Contractor's previously approved subcontractors who have access to FTI shall be deemed to have met the "local criminal check" requirement under IRS Publication 1075 and the "FBI fingerprinting (FD-258)" requirement under IRS Publication 1075 if such personnel undergo the State's security and background check process (which may include Michigan State Police Background checks (ICHAT) and RI-8 Fingerprint Cards for the National Crime Information Center (NCIC) Finger Prints), as initiated and administered and paid for by the State as described in Section 2.091 of Contract 071B1300109. It is the State's responsibility to ensure this process meets these background check requirements defined in IRS Publication 1075. Contractor agrees that Contractor shall have the responsibility and cost associated with having personnel of Contractor and Contractor's previously approved subcontractors who have access to FTI, meet the citizenship and residency requirements of IRS Publication 1075.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **25**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
			(517) 898-4084	
12125 Technology Drive			WagnerM2@michigan.gov	
Eden Prarie, MN 55344		Contract Administrator	Shannon Romein	DTMB
Jeanne McNeil			(517) 898-8102	
(517) 993-0929			romeins@michigan.gov	
jeanne.mcneil@optum.com				
CV0000961				

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
$48,187,509.85	$0.00	$48,187,509.85		

DESCRIPTION
Effective 3/23/22, the following amendment "Change Request Proposal 033" is hereby incorporated into the Contract to extend the Cloud Trial Period incorporated in CN 23 to 4/30/2022 and adjust the configuration of the Cloud environment Please note, the State's Contract Administrator has been changed to Shannon Romein. No additional funding is needed at this time; existing funds are adequate to support this change. All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

![OPTUM logo]

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0913 | www.optum.com

March 17, 2022

Mr. Matthew Weiss
Category Manager, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: **CHANGE REQUEST PROPOSAL 033 TO EXTEND TRIAL AND ADJUST CONFIGURATION FOR CLOUD PHASE 1 UNDER THE DATA WAREHOUSE PLATFORM CONTRACT NO. 071B1300109**

Dear Matt:

The State of Michigan (the "State" or "Customer") has made a request for certain changes ("Change Request 033") to Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal to (a) extend by one month the Teradata Test System cloud refresh (Phase 1) Trial Period described originally in Change Request 030 dated April 6, 2021 (the "CR030") that was accepted by the State as part of Change Notice 23 to the '109 Contract, and in Change Request 031 dated November 18, 2021 (the "CR031") that was accepted by the State as part of Change Notice 24 to the '109 Contract; and (b) adjust the configuration of the New Test System, (collectively the "Cloud Phase 1 Extend Trial").

I. Description of the Scope Covered by this Change Request Proposal 033

This Change Request Proposal 033:

a) Extends the State's 3-month Trial Period of the New Test System in the Azure GovCloud Virginia instance by one (1) month, making the new end date of the Trial Period April 30, 2022.

b) Adjusts the New Test System Configuration for the extended Trial Period as described below, i.e., Teradata will work with the State to make these adjustments to the State's infrastructure environment in the Azure GovCloud Virginia instance:

Adjustment	Service Type	Custom Name	Region	Description
ADD	Virtual Machines	SQL Engine	US Gov Virginia	4 E64-32s v4 (32 vCPUs, 504 GB RAM) SUSE Linux; 2 managed OS disks –E20, Inter Region transfer type, 5 GB outbound data transfer
SUBTRACT	Virtual Machines	SQL Engine	US Gov Virginia	2 E64s v4 (64 vCPUs, 504 GB RAM) SUSE Linux; 2 managed OS disks –E20, Inter Region transfer type, 5 GB outbound data transfer
ADD	K999-E300-Y000	Vantage License	Public Cloud	5 TCore Teradata Public Cloud - Enterprise Tier - per TCore - Annual Price - TD SUBSCRIPTION-BASED --- Single System Viewpoint, DSU, SWS, TTU, Workload Management, Temporal and Columnar

This is a no-cost change to the contract and prior cost tables remain in effect.

At the end of the Trial Period, the Optum Team will work with the State to reverse the above-listed adjustments that were put in place for free on a temporary basis, unless the State decides to keep them long-term via a future contract change that includes annual cost information.

If the New Test System meets the Trial Period Acceptance Criteria, then the Cloud based licenses and associated services for the New Test System shall continue in FY22 and through FY24 and Optum will similarly invoice the State for the remaining FY22 "Teradata Test System Cloud Subscription" amount ($49,950) at the end of the 4-month Trial Period to cover the rest of FY22.

If the State is able to demonstrate that the Trial Period Acceptance Criteria have not been met, the State may issue Optum a Termination Letter for Change Requests 030/031/033 on or before the end of the 4-month Trial Period, i.e., by April 30, 2022. Upon receipt of such a termination letter, the parties shall revert to their contractual position set forth in Change Request 029. In this situation, the Optum Team will work with the State to decommission the New Test System in the Azure GovCloud Virginia instance at no cost to the State. No credits will be due to the State for the FY22 "Teradata Test System Cloud Subscription" amount the State paid for the Trial Period.

IV. Terms by Which the State May Accept This Change Request Proposal 033

The State can approve this Change Request Proposal 033 by issuing a Change Notice that references this Change Request Proposal 033, which must be received no later than March 31, 2022.

Except as expressly amended by this Change Request 033, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne McNeil

Point of Contact:
> Jeanne McNeil
> Michigan Director of Delivery Operations
> Optum Government Solutions, Inc.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **24**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
			517-241-7044	
12125 Technology Drive			WagnerM2@michigan.gov	
Eden Prarie, MN 55344		Contract Administrator	Matt Weiss	DTMB
Jeanne McNeil			(517) 256-9895	
(517) 993-0929			weissm4@michigan.gov	
jeanne.mcneil@optum.com				
CV0000961				

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No
MINIMUM DELIVERY REQUIREMENTS				

DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE		ESTIMATED AGGREGATE CONTRACT VALUE	
$48,187,509.85	$0.00		$48,187,509.85	

DESCRIPTION
Effective 11/22/2021, the following amendment is hereby incorporated into the Contract to updates dates and pricing for the Cloud refresh in accordance with Change Notice 23. No additional funding is needed at this time; existing funds are adequate to support this change. All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0913 | www.optum.com

October 25, 2021

Mr. Matthew Weiss
Category Analyst, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: **CHANGE REQUEST PROPOSAL 031 TO UPDATE DATES AND PRICING FOR THE CLOUD REFRESH OF THE TERADATA TEST SYSTEM UNDER THE DATA WAREHOUSE PLATFORM CONTRACT No. 071B1300109**

Dear Matt:

As you know, the State of Michigan (the "State" or "Customer") has made a request for certain changes ("Change Request 031") to Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal to update dates and pricing for the Teradata Test System cloud refresh described originally in Change Request 030 dated April 6, 2021 (the "CR030") that was accepted by the State as part of Change Notice 23 to the '109 Contract (the "Test Cloud Dates and Pricing").

Specifically, in Schedule A of the Hosting Services Trial Limited Contract Terms that forms part of Change Notice 23 to the '109 Contract that accepted CR030, the State and Optum agreed that "a brief CR030 amendment will be developed to (1) set forth an agreed upon start date for the Trial Period and (2) adjust pricing to match the new start date (pricing will not increase for the given scope)." Thus, the purpose of this new Change Request 031 is to set forth new dates for the Trial Period, including a new start date and new pricing based on such new start dates. Capitalized terms not defined in this Change Request 031 shall have the meanings ascribed to them in CR030.

I. Description of the Scope Covered by this Change Request Proposal 031

This Change Request Proposal 031 replaces Section II, Charges of CR030 and Attachment 4b Cost Table, Attachment 4c Cost Tables as well as Exhibit 10 Draft Project Schedule that were provided in CR030 and accepted as part of Change Notice 23.

"II. Charges

Below are target milestones for moving forward (see Exhibit 10 for a more detailed Draft Project Schedule):

Event	Target End Date
1. The Project Start Date	November 22, 2021
2. The State will expand its Azure ExpressRoute from 100 Mbps to at least 1 Gbps. **Milestone 1a.**	December 15, 2021
3. Optum, via its subcontractor Teradata, will establish the New Test System in Azure GovCloud Virginia, with help from the State. This includes infrastructure, software and connectivity. **Milestone 1b.** Note: Handoff to the State will be done in the first week of January when the State returns after holidays.	December 31, 2021
4. The State will perform Test Environment migration and acceptance, going live with the New Test System in the cloud. **Milestone 2.**	February 28, 2022
5. Trial Period ends	March 31, 2022

The approach described in this Change Request Proposal 031 adds the following value:
- The Phase 1 New Test System in the cloud replaces the Teradata 2800-based Current Test System
- The State's desire for a proof-of-concept (POC) trial is realized during Phase 1, prior to the State electing whether to proceed with a future Phase 2 cloud effort for the Production and DevDR Systems

Optum and Teradata were able to significantly reduce the cost of the New Test System compared to our July 2020 proposal, by leveraging the Teradata End-to-End Cloud Service Offering, absorbing some initial Azure costs, absorbing costs associated with having two active systems up in parallel (i.e., old and new systems) and leveraging existing State resources (State circuits and State DBAs). Through FY24 the approach outlined in this Change Request Proposal 031 results in ~15% savings for the New Test System versus our July 2020 proposal.

Once the New Test System is in place in Azure GovCloud Virginia, defined as the completion of Milestone 1b, Optum will invoice the State the difference in charges for the New Test System over the Current Test System for the 3-month Trial Period (estimated January 1 – March 31), i.e., $139,925 of the FY22 "Teradata Test System Cloud Subscription" amount. This is for a replacement test system in the cloud at a fraction of the cost of a regular Capacity-On-Demand (COD) increase for Production/DevDR. This amount will be invoiced against existing General COD / Platform Pool funds in PO 220000000061, line item 1, i.e., for capacity additions. If, however, the New Test System meets the Trial Period Acceptance Criteria, then the Cloud based licenses and associated services for the New Test System shall continue in FY22 and through FY24 and Optum will similarly invoice the State for the remaining FY22 "Teradata Test System Cloud Subscription" amount ($49,950) at the end of the 3-month Trial Period to cover the rest of FY22. New Test System costs for FY22 - FY24 are covered through existing contract funds, so the net change to the Contract is $0.

If the State is able to demonstrate that the Trial Period Acceptance Criteria have not been met, the State may issue Optum a Termination Letter for Change Requests 030/031 on or before the end of the 3-month Trial Period. Upon receipt of such a termination letter, the parties shall revert to their contractual position set forth in Change Request 029. The Optum Team will work with the State to decommission the New Test System in the cloud at no cost to the State and issue the State a pro-rated credit for the FY22 "Teradata Test System Cloud Subscription" amount the State paid for those Trial Period full-months remaining, if any.

See the Attachment 4b Cost Table below with highlights showing the items that have changed and with a net change of $0 to the contract. The Attachment 4c Cost Table for BI Query is also provided below.

Also reflected in Attachment 4b below, the "General COD" and "Platform Support Services" funds are combined into a "Platform Pool" fund that can be used for all future add-ons for both on-premise and in-the-cloud systems, including growth and capacity.

Summary of charges:

Item Description	Price
CR 029 - Attachment 4b - Cost Table – Total (36 months for FY22 - FY24)	13,752,380
FY23 - FY24 Test Software Subscription (old 2800 System) – Minus	-85,000
FY23 - FY24 Ongoing Annual Maintenance – Test System (old 2800 System) - Minus	-476,200
FY22 - FY24 General COD – Minus	-1,400,000
FY22 - FY24 Platform Support Services – Minus	-140,000
FY22 - FY24 Platform Pool – Add	+1,177,525
FY22 - FY24 Teradata Test System Cloud Subscription – Add	+923,675
CR 030 – Revised Attachment 4b – Cost Table – Total (36 months for FY22 – FY24)	13,752,380

Total Estimated Change to Attachment 4b for CR 031 Pricing (36 months): $0"

III. **Attachment 4b, Attachment 4c and Exhibit 10 that were part of CR30 shall be superseded and replaced with the corresponding Attachments and Exhibits attached to this Change Request Proposal 31.**

IV. **Terms by Which the State May Accept This Change Request Proposal 031**

The State can approve this Change Request Proposal 031 by issuing a Change Notice that references this Change Request Proposal 031, which must be received no later than November 10, 2021.

Except as expressly amended by this Change Request 031, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne E McNeil

Point of Contact:
      Jeanne McNeil
      Michigan Director of Delivery Operations
      Optum Government Solutions, Inc.

Dnn Vn

Signer:
      Dennis Vaughan
      President
      Optum Government Solutions, Inc.

Attachment 4b - Cost Table

	FY22 10/1/2021 - 9/30/2022	FY23 10/1/2022 - 9/30/2023	FY24 10/1/2023 - 09/30/2024	TOTAL 10/1/2020 - 09/30/2024
	12 Months	12 Months	12 Months	36 Months
Subscription and Capacity on Demand (COD)				
Production Software Subscription	370,100	370,100	370,100	1,110,300
COD Production Subscription for FY17 thru Aug 2020 COD [1]	223,000	223,000	223,000	669,000
Dev/DR Software Subscription	254,200	254,200	254,200	762,600
COD DevDR Subscription for FY19 thru Aug 2020 COD [1]	43,000	43,000	43,000	129,000
Test Software Subscription	42,500	0	0	42,500
Teradata Test System cloud subscription [7, 8, 9, 10]	189,875	366,900	366,900	923,675
General COD [2, 3]	0	0	0	0
Subscription and COD Totals	**$1,122,675**	**$1,257,200**	**$1,257,200**	**$3,637,075**
Services				
System Hardening Services	44,200	45,500	46,900	136,600
Platform Support Services [2]	0	0	0	0
Platform Pool [2, 6]	357,125	556,000	264,400	1,177,525
Education - TEN+ and TEN+ Webcast (15 Named Staff) [4]	37,500	38,100	38,800	114,400
Education On-Going Training [2]	91,600	93,400	95,300	280,300
TDWI Training Services [2]	98,500	103,400	108,600	310,500
BI Query Software Maintenance and Support	198,210	221,010	243,840	663,060
BI Query License, Maintenance and Support (CR22 - Add for Treasury)	10,000	10,970	11,950	32,920
BI Query Software Maintenance and Support (CR27 - Add for Treasury)	9,300	10,200	11,100	30,600
Symmetry Software License and Support [5]	520,700	536,300	552,400	1,609,400
Maintenance				
On-Going Annual Maintenance - Production System	788,300	819,800	852,600	2,460,700
On-Going Annual Maintenance - COD Production for FY17 thru Aug 2020 COD [1]	282,900	294,200	306,000	883,100
On-Going Annual Maintenance - Dev/DR System	640,600	666,200	692,800	1,999,600
On-Going Annual Maintenance - COD DevDR for FY19 thru Aug 2020 COD [1]	61,500	64,000	66,600	192,100
On-Going Annual Maintenance - Test System	224,500	0	0	224,500
Services Sub-Total	**$3,364,935**	**$3,459,080**	**$3,291,290**	**$10,115,305**
Total	**$4,487,610**	**$4,716,280**	**$4,548,490**	**$13,752,380**

Notes: [1] These totals reflect CR27 FY17-FY18 COD (for production), plus COD Work Orders 181002MW, 191113MW, 200110MW and 200114MW

[2] Unused funds carry-over to next fiscal year. In some cases future funds may also need to be pulled forward to meet State's needs.

[3] The FY19 thru Aug 2020 COD additions that were put in place via previous COD Work Orders are covered elsewhere (see Note [1] above)

[4] This is for the upcoming calendar year

[5] The additional License Charge per year for each 100,000 covered lives above 2,535,750 shall be $6,100.00.

[6] These funds combine the previous "General COD" and "Platform Support Services" funds and can be used for all future add-ons (on-premise and in-the-cloud), including growth and capacity. In some cases, business process improvements (e.g., data retention policy, in-database processing, best practices, etc.) can alternatively be used to offset growth rate/expense.

[7] This is for the Teradata End-to-End Service offering in Azure GovCloud for the items listed in Exhibit 1. The annual recurring charge for the new Test System consists of Hardware as a Service, Teradata Subscription Based License, Teradata Software Subscription, BAR and Essential Support, where the latter includes Software Implementation Services

[8] The FY22 amount represents those charges due *in addition to* those already paid by the State for Test System subscription and maintenance; this includes the 3-month Trial Period

[9] Patches, updates and minor upgrades are generally included with Essential Support. Upgrades that require a redeployment of VM's are considered Major upgrades and are not covered under Essential Support, i.e., they require additional funding via Platform Pool work order specification.

[10] The following are NOT included: growth (e.g., HW/SW/CPU/storage); ExpressRoutes/bandwidth/egress sizing or costs; IntelliSphere, QueryGrid, or Machine Learning or Graph engine software/servers/services; or Teradata Application Center/Analyst servers or services. The Platform Pool fund may be used for addons.

Attachment 4c - Cost Tables – BI Query Cost Details

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2022	DCH	BI Query Admin Existing Support	$700.00	1	$700.00
		BI Query User Support for Original 545	$250.00	545	$136,250.00
		BI Query User Support for Additional 120	$310.00	120	$37,200.00
				FY 2022 DCH Total	$174,150.00
	Treasury	BI Query Admin Existing Support	$700.00	3	$2,100.00
		BI Query User Support for Original 77	$250.00	77	$19,250.00
		BI Query User Support for Additional 39	$310.00	39	$12,090.00
		BI Query User Support for Additional 30 (CR027)	$310.00	30	$9,300.00
				FY 2022 Treasury Total	$42,740.00
	DTMB	BI Query User Existing Support	$310.00	2	$620.00
				FY 2022 DTMB Total	$620.00
				FY 2022 Total	$217,510.00
FY2023	DCH	BI Query Admin Existing Support	$770.00	1	$770.00
		BI Query User Support for Original 545	$280.00	545	$152,600.00
		BI Query User Support for Additional 120	$340.00	120	$40,800.00
				FY 2023 DCH Total	$194,170.00
	Treasury	BI Query Admin Existing Support	$770.00	3	$2,310.00
		BI Query User Support for Original 77	$280.00	77	$21,560.00
		BI Query User Support for Additional 39	$340.00	39	$13,260.00
		BI Query User Support for Additional 30 (CR027)	$340.00	30	$10,200.00
				FY 2023 Treasury Total	$47,330.00
	DTMB	BI Query User Existing Support	$340.00	2	$680.00
				FY 2023 DTMB Total	$680.00
				FY 2023 Total	$242,180.00
FY2024	DCH	BI Query Admin Existing Support	$850.00	1	$850.00
		BI Query User Support for Original 545	$310.00	545	$168,950.00
		BI Query User Support for Additional 120	$370.00	120	$44,400.00
				FY 2024 DCH Total	$214,200.00
	Treasury	BI Query Admin Existing Support	$850.00	3	$2,550.00
		BI Query User Support for Original 77	$310.00	77	$23,870.00
		BI Query User Support for Additional 39	$370.00	39	$14,430.00
		BI Query User Support for Additional 30 (CR027)	$370.00	30	$11,100.00
				FY 2024 Treasury Total	$51,950.00
	DTMB	BI Query User Existing Support	$370.00	2	$740.00
				FY 2024 DTMB Total	$740.00
				FY 2024 Total	$266,890.00

Exhibit 10 - Draft Project Schedule

Michigan EDW Platform Contract - Cloud Refresh of the Teradata Test System

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	1	Change Notice for CR031 (Test Cloud Dates and Pricing) Fully Executed	0 days	Mon 11/15/21	Mon 11/15/21		Optum,State
2	2	Michigan EDW Platform Contract - Cloud Refresh of the Teradata Test System	87 days	Mon 11/22/2	Thu 3/31/22		
3	2.1	INITIATION and PLANNING	5 days	Mon 11/22/2	Wed 12/1/21		
4	2.1.1	Project start	0 days	Mon 11/22/21	Mon 11/22/21	1FS+6 days	
5	2.1.2	Update project plan with State input	5 days	Tue 11/23/21	Wed 12/1/21	1FS+6 days	Optum
6	2.2	EXECUTION: Expand Azure Express Route to 1 Gbps	15 days	Tue 11/23/21	Wed 12/15/21		
7	2.2.1	Work with internal teams and Azure, as needed, to expand the Azure Express Routes to 1 Gbps	15 days	Tue 11/23/21	Wed 12/15/21	4	State
8	2.2.2	Milestone #1a - Azure Express Route expanded to 1 Gbps	0 days	Wed 12/15/21	Wed 12/15/21	7	
9	2.3	EXECUTION: Perform Teradata Implementation Services to establish New Test System	22 days	Tue 11/23/21	Tue 12/28/21		
10	2.3.1	Perform cloud provisioning services (Exhibit 2)	12 days	Tue 11/23/21	Fri 12/10/21		
11	2.3.1.1	Perform customer cloud readiness assessment	4 days	Tue 11/23/21	Tue 11/30/21	4	TD,State,Optum
12	2.3.1.2	Perform cloud environment instantiation, onboarding and connectivity activities	11 days	Wed 11/24/21	Fri 12/10/21		
13	2.3.1.2.1	Provision Azure resources (VMs, storage, firewall, etc.)	3 days	Wed 11/24/21	Tue 11/30/21	11SS+1 day	TD
14	2.3.1.2.2	Configure Azure network	2 days	Wed 12/1/21	Thu 12/2/21	13	TD
15	2.3.1.2.3	Confirm O/S and software/DBMS running	3 days	Fri 12/3/21	Tue 12/7/21	14	TD
16	2.3.1.2.4	Connect to the State's existing ExpressRoute end point in Azure GovCloud Virginia	6 days	Fri 12/3/21	Fri 12/10/21	14	TD,State
17	2.3.1.2.5	Configure State's circuit routing for roundtrip traffic from Michigan data center to the New Test System in Virginia	6 days	Fri 12/3/21	Fri 12/10/21	14	State
18	2.3.1.2.6	Test and troubleshoot roundtrip connectivity between State's Michigan data center and the New Test System in Vir	6 days	Fri 12/3/21	Fri 12/10/21	14	TD,State
19	2.3.1.2.7	Run infrastructure scan and help remediate high-severity issues	6 days	Fri 12/3/21	Fri 12/10/21	14	
20	2.3.2	Perform IRS SLES 11/12 SCSEM hardening services (Exhibit 3)	5 days	Wed 12/8/21	Tue 12/14/21	15	TD,State
21	2.3.3	Perform Azure BAR script setup services (Exhibit 4)	16 days	Fri 12/3/21	Tue 12/28/21	14	TD,State
22	2.3.3.1	Review existing infrastructure, list of BAR jobs/policies/target groups & BAR scripts/strategy/functionality	4 days	Fri 12/3/21	Wed 12/8/21	4	TD,State
23	2.3.3.2	Obtain some data for Teradata's testing of the BAR jobs (e.g., a prior backup)	4 days	Fri 12/3/21	Wed 12/8/21	4	
24	2.3.3.3	Create DSU jobs, policies and target groups (full backup/restore, archive jobs, transfer data between platforms)	8 days	Thu 12/9/21	Mon 12/20/21	22	TD
25	2.3.3.4	Create brief BAR write-up	4 days	Tue 12/21/21	Tue 12/28/21	24	TD
26	2.3.4	Milestone #1b - New Test System in place with HW, SW and connectivity (begins 3-month trial period)	0 days	Tue 12/28/21	Tue 12/28/21	25	
27	2.4	EXECUTION: Handover the New Test System to the State	4 days	Tue 1/4/22	Fri 1/7/22		
28	2.4.1	Handover the New Test System (includes BAR jobs/policies/target groups) and BAR Write-up to the State	4 days	Tue 1/4/22	Fri 1/7/22	26FS+2 days	TD,State
29	2.5	EXECUTION: Prepare for testing and migrating	29 days	Tue 11/23/21	Mon 1/10/22		
30	2.5.1	Identify/address DBMS migration impacts (reserved words, etc.)	28 days	Tue 11/23/21	Fri 1/7/22	4	State
31	2.5.2	Identify user representatives for testing and create all required IDs	28 days	Tue 11/23/21	Fri 1/7/22	4	State
32	2.5.3	Develop system and acceptance test plans (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)	28 days	Tue 11/23/21	Fri 1/7/22	4	State
33	2.5.4	Develop acceptance criteria and testing milestones	28 days	Tue 11/23/21	Fri 1/7/22	4	State
34	2.5.5	Develop detailed plan for loading data onto the New Test System, including Fallback plan	28 days	Tue 11/23/21	Fri 1/7/22	4	State
35	2.5.6	Verify all connectivity, IP addresses and DNS names are correctly mapped	3 days	Thu 1/6/22	Mon 1/10/22	28FS-2 days	State
36	2.5.7	Test TD Utility & Tool access to New Test System	3 days	Thu 1/6/22	Mon 1/10/22	28FS-2 days	State
37	2.5.8	Test backup and recovery (BAR) processes for the New Test System	19 days	Thu 12/9/21	Mon 1/10/22		
38	2.5.8.1	Develop detailed plan for BAR testing (with input from Teradata)	16 days	Thu 12/9/21	Wed 1/5/22	22	State
39	2.5.8.2	Test BAR processes	3 days	Thu 1/6/22	Mon 1/10/22	38	State
40	2.6	EXECUTION: Teradata begins providing Essential Support for the New Test System	1 day	Mon 1/3/22	Mon 1/3/22	26FS+1 day	
41	2.7	EXECUTION: Test Environment migration and acceptance	59 days	Mon 1/10/22	Thu 3/31/22		
42	2.7.1	Data migration and system test (First Migration)	30 days	Mon 1/10/22	Fri 2/18/22		
43	2.7.1.1	Perform initial data migration (First Migration)	2 days	Mon 1/10/22	Tue 1/11/22	28	State
44	2.7.1.2	Conduct detailed testing as required (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)	28 days	Wed 1/12/22	Fri 2/18/22	43	State
45	2.7.2	Data migration and acceptance test (Final Migration)	29 days	Mon 2/21/22	Thu 3/31/22		
46	2.7.2.1	Update First Migration detailed plan for loading data and Fallback plan	2 days	Mon 2/21/22	Tue 2/22/22	44	State
47	2.7.2.2	Perform final data migration (New Test System now populated)	2 days	Wed 2/23/22	Thu 2/24/22	46	State
48	2.7.2.3	Perform final acceptance testing	2 days	Fri 2/25/22	Mon 2/28/22	47	State
49	2.7.2.4	Milestone #2 - Test Environment migrated and accepted / New Test System ready to use	0 days	Mon 2/28/22	Mon 2/28/22	48	
50	2.7.2.5	Trial Period Ends	1 day	Thu 3/31/22	Thu 3/31/22		
51	2.8	MONITORING and CONTROL	87 days	Tue 11/23/21	Thu 3/31/22		
52	2.8.1	Participate in regular meetings and report status	64 days	Tue 11/23/21	Mon 2/28/22	4	Optum,State,TD
53	2.8.2	Provide up to four 3-hour informal train-the-trainer cloud mentoring sessions for EOC-DC Physical DBA Team	63 days	Tue 1/4/22	Thu 3/31/22	26FS+2 days	TD
54	2.8.3	Manage / control issues, risks, problems and changes	64 days	Tue 11/23/21	Mon 2/28/22	52SS	Optum,State,TD
55	2.9	CLOSEOUT	3 days	Thu 2/24/22	Mon 2/28/22		
56	2.9.1	Perform project closeout activities	3 days	Thu 2/24/22	Mon 2/28/22	52FF	Optum,State,TD
57	3	Post project activities	22 days	Tue 3/1/22	Wed 3/30/22		
58	3.1	Deinstall / scrub / dispose retired Teradata 2800 Test System	22 days	Tue 3/1/22	Wed 3/30/22	49	State

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **23**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
OPTUM GOVERNMENT SOLUTIONS, INC.		Program Manager	Mark Wagner	MULTI
12125 Technology Drive			517-241-7044	
Eden Prarie, MN 55344			WagnerM2@michigan.gov	
Jeanne McNeil		Contract Administrator	Matt Weiss	DTMB
(517) 993-0929			(517) 256-9895	
jeanne.mcneil@optum.com			weissm4@michigan.gov	
CV0000961				

CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		NA

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$48,187,509.85	$0.00	$48,187,509.85

DESCRIPTION

Effective 10/5/2021, the following amendment, "Change Request Proposal 030", and corresponding terms are incorporated into the Contract for the State of Michigan's Optum Cloud Trial. There is no cost to the State for this trial.

All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

STATE OF MICHIGAN

Hosting Services Trial
Limited Contract Terms

Applicability of these terms are limited to the State's use of Contractor's hosting environment as set for in the appended Contract Change Notice. If the State elects to complete a move to Contractor's hosting environment, then more comprehensive terms governing that relationship will be established at a later date. These additional terms are of limited applicability and in no way replace existing contract terms, and those existing contract terms continue to retain full force and effect. Terms not defined below may be defined elsewhere in the Contract, including any associated schedules or Statements of Work. Nothing in these Terms or the appended Change Notice, including all schedules, attachments, or exhibits, creates any rights, duties, or obligations on the State to any third party.

Optum, as Contractor, is proposing the Teradata End-to-End Cloud Service Offering as described in Change Request Proposal 030. As such, most Contractor operational responsibilities described below and in Exhibits B and C will be carried-out by Contractor's subcontractor, Teradata, however, in so far as the State shall be able to look to Contractor for any failure of Teradata to fulfill those operational responsibilities, those responsibilities are referenced as being performed by Contractor.

1. **Definitions.**

    "**Action**" has the meaning set forth in **Section 10.1**.

    "**Business Day**" means a day other than a Saturday, Sunday or State Holiday.

    "**Confidential Information**" has the meaning set forth in **Section 8.1**.

    "**Contractor Personnel**" means all employees and agents of Contractor, all Subcontractors and all employees and agents of any Subcontractor, involved in the performance of Services.

    "**Contractor SPOC**" has the meaning set forth in **Section 2.4**.

    "**Hosted Services**" means the hosting, management and operation of the Software, including but not limited to the computing hardware, ancillary equipment, firmware, data, and related resources.

    "**Intellectual Property Rights**" means any and all rights comprising or relating to: (a) patents, patent disclosures and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names and domain names, together with all of the goodwill associated therewith; (c) authorship rights, copyrights and copyrightable works (including computer programs) and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable Law in any jurisdiction throughout the world.

    "**Loss**" means all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys' fees and the costs of

enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers. "Losses" has a correlative meaning.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"**Process**" means to perform any operation or set of operations on any data, information, material, work, expression or other content, including to (a) collect, receive, input, upload, download, record, reproduce, store, organize, combine, log, catalog, cross-reference, manage, maintain, copy, adapt, alter, translate or make other improvements or derivative works, (b) process, retrieve, output, consult, use, disseminate, transmit, submit, post, transfer, disclose or otherwise provide or make available, or (c) block, erase or destroy. "**Processing**" and "**Processed**" have correlative meanings.

"**Representatives**" means a party's employees, officers, directors, consultants, legal advisors and, with respect to Contractor, Contractor's Subcontractors.

"**Services**" has the meaning set forth in **Section 2.1**.

"**Software**" means any software, and all new versions, updates, revisions, improvements and modifications of the foregoing, that Contractor provides remote access to and use of as part of the Services.

"**State**" has the meaning set forth in the preamble.

"**State Data**" has the meaning set forth in **Section 7.1**.

"**State SPOC**" has the meaning set forth in **Section 2.6**.

"**State Systems**" means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

"**Statement of Work**" means the Change Request Proposal 30 (CR030) attached to this Contract.

"**Subcontractor**" means any entity that performs any Services under this Contract and otherwise has the meaning set forth in **Section 2.3(a)**, including Teradata Government Systems, LLC.

"**Work Product**" means all State-specific deliverables that Contractor is required to, or otherwise does, provide to the State under this Contract including reports, project management documents, forms, templates, and other State-specific documents and related materials.

2. **Services.**

2.1 <u>Services</u>. Throughout the term of the trial and at all times in connection with its actual or required performance under these limited Contract Terms, Contractor will, in accordance with all terms and conditions set forth in these limited Contract Terms and the applicable Statement of Work, provide to the State the following services ("**Services**"):

(a)   the hosting, management and operation of the Hosted Services as described in the Statement of Work;

(b)   the implementing and maintaining of the security requirements set forth in **Schedule C** to this Contract; and

(c)   such other services as may be specified in the Statement of Work.

The State's use of the Hosted Services shall be further subject to the additional Cloud Terms set forth in **Schedule B** to this Contract.

2.2   <u>Compliance with Laws</u>. Contractor must comply with all applicable laws, including by securing and maintaining all required and appropriate visas, work permits, business licenses and other documentation and clearances necessary for performance of the Services.

2.3   <u>Subcontracting</u>. Contractor will not itself, and will not permit any Person to, subcontract any Services, in whole or in part, without the State's prior written consent, which consent may be given or withheld in the State's sole discretion. Without limiting the foregoing:

2.4   Contractor must ensure each Contractor subcontractor (including any subcontractor of a Contractor subcontractor, each, a "**Subcontractor**") complies with all relevant terms of this Contract, including all provisions relating to State Data or other Confidential Information of the State;

2.5   the State's consent to any such Subcontractor does not relieve Contractor of its representations, warranties or obligations under these limited Contract Terms;

2.6   Contractor will remain responsible and liable for any and all: (i) performance required hereunder, including the proper supervision, coordination and performance of the Services; and (ii) acts and omissions of each Subcontractor (including, such Subcontractor's employees and agents, who, to the extent they are involved in providing any Services, are deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor;

2.7   any noncompliance by any Subcontractor or its employees or agents with the provisions of this Contract or any Statement of Work will constitute a breach by Contractor;

2.8   prior to the provision of Services by any Subcontractor, Contractor must obtain from each such proposed Subcontractor:

2.9   the identity of such Subcontractor and the location of all its data centers, if any, that will be used in Processing any State Data, which information Contractor shall promptly disclose to the State in writing; and

2.10   a written confidentiality and restricted use agreement, giving the State rights at least equal to those set forth in **Section 7** (State Data), **Section 8** (Confidentiality), **Section 9** (Security) and containing the Subcontractor's acknowledgment of, and agreement to, the provisions of **Section 2.4** (Contractor Personnel), a fully-executed copy of which agreement Contractor will promptly provide to the State upon the State's request.

2.11   Contractor SPOC. Contractor will appoint a Contractor employee to serve as a single point of contact with respect to the Services (the "**Contractor SPOC**");

2.12   Management and Payment of Contractor Personnel.

(a)   Contractor is solely responsible for the payment of Contractor Personnel, including all fees, expenses and compensation to, by or on behalf of any Contractor Personnel and, if applicable, the withholding of income taxes and payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.

(b)   Contractor will ensure that no Person who has been convicted of a felony or any misdemeanor involving, in any way, theft, fraud, or bribery provides any Services or has access to any State Data, State Systems or State facilities. On a case-by-case basis, upon request, or as otherwise specified in a Statement of Work, perform background checks on all Contractor Personnel prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks on Contractor Personnel. Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018.

2.13   State SPOC. The State will appoint and, in its reasonable discretion, replace, a State employee to serve as the single point of contact with respect to the Services (the "**State SPOC**").

3.   ADA Compliance. The State is required to comply with the Americans with Disabilities Act of 1990 (ADA), and has adopted a formal policy regarding accessibility requirements for websites and software applications. Contractor's Service Software delivers sensible and effective approaches to promote accessibility, where relevant, as defined by the government sanctioned Section 508 of the Rehabilitation Act. Contractor's Service Software aims to meet the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0. The State may require that Bidder complete a Voluntary Product Accessibility Template for WCAG 2.0 (WCAG 2.0 VPAT) or other comparable document for the proposed Teradata New Test System. http://www.michigan.gov/documents/dmb/1650.00_209567_7.pdf?20151026134621

4.   Look and Feel Standard. Applicable web software items provided by the Contractor must adhere to the State of Michigan Application/Site standards which can be found at www.michigan.gov/standards.

5.   Ownership of Work Product. The State is and will be the sole and exclusive owner of all right, title, and interest in and to all Work Product developed exclusively for the State under these limited Contract Terms, including all Intellectual Property Rights. In furtherance of the foregoing:

5.1   Contractor will create all Work Product as work made for hire as defined in Section 101 of the Copyright Act of 1976; and

5.2   to the extent any Work Product, or Intellectual Property Rights do not qualify as, or otherwise fails to be, work made for hire, Contractor hereby:

(a)   assigns, transfers, and otherwise conveys to the State, irrevocably and in perpetuity, throughout the universe, all right, title, and interest in and to such Work Product, including all Intellectual Property Rights; and

(b)   irrevocably waives any and all claims Contractor may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of droit moral with respect to the Work Product.

6.   **Termination**.

6.1   Termination. Either party may terminate the trial of Contractor's Hosted Services, in whole or in part, for any or no reason, by giving the other party thirty (30) days prior written notice if it is provided on or before the end of the 3-month Trial Period.

6.2   Effect of Termination. Upon and after the termination or expiration of the State's trial of Contractor's Hosted Services, Contractor will (i) return to the State all State Data, including all documents and tangible materials (and any copies) containing, reflecting, incorporating, or based on the State's Confidential Information; (ii) permanently erase the State's Confidential Information from its computer systems; and (iii) certify in writing to the State that it has complied with the requirements of this **Section 6.2.** If the State elects to establish a long term Hosted Services agreement with Contractor, Contractor will continue to provide services pursuant to the terms set forth in Change Request Proposal 030 for the duration set forth therein**;**

6.3   Survival. The rights, obligations and conditions set forth in Section 1 (Definitions), Section 6.2 (Effect of Termination), Section 7 (State Data), Section 8 (Confidentiality), Section 9 (Security), Section 10.1 (Indemnification), Section 11 (Limitations of Liability), Section 12 (Representations and Warranties), Section 13 (Insurance) and Section 15 (General Provisions), and any right, obligation or condition that, by its express terms or nature and context is intended to survive the termination or expiration of these limited Contract Terms, survives any such termination or expiration hereof.

7.   **State Data**.

7.1   Ownership. The State's data ("**State Data**," which will be treated by Contractor as Confidential Information) includes the State's data Processed, collected, used, stored, or generated in connection with the Services. State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State. This **Section 7.1** survives termination or expiration of this Contract.

7.2   Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services and with the right to grant an equivalent license to Contractor's Subcontractor. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with these Limited Contract Terms, any Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or

otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This **Section 7.2** survives termination or expiration of the trial of Contractor's Hosted Services.

7.3   Discovery. Contractor shall immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State's use of the Hosted Services. Contractor shall notify the State Project Manager by the fastest means available and also in writing. In no event shall Contractor provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to subpoenas, service of process, Freedom of Information Act (FOIA) requests, and other legal requests related to the State without first notifying the State and obtaining the State's prior approval of Contractor's proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.

7.4   Loss or Compromise of Data. In the event of any act, error or omission, negligence, misconduct, or breach on the part of Contractor that compromises or is suspected to compromise the security, confidentiality, or integrity of State Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable: (a) notify the State as soon as practicable but no later than twenty-four (24) hours of becoming aware of such occurrence; (b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State; (c) perform or take any other actions required to comply with applicable law as a result of the occurrence; (d) pay for any costs associated with the occurrence, including but not limited to any costs incurred by the State in investigating and resolving the occurrence, including reasonable attorney's fees associated with such investigation and resolution; and (e) without limiting Contractor's obligations of indemnification as further described in the Contract, indemnify, defend, and hold harmless the State for any and all third-party claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence. The parties agree that any damages relating to a breach of **Section 7.4** are to be considered direct damages and not consequential damages. This **Section 7.4** survives termination or expiration of the Contract. The State will not seek relief under this **Section 7.4** for a Loss or Compromise of Data that occurs due to circumstances outside of Contractor's (including Subcontractor's) control.

8.   **Confidentiality**.

8.1   Meaning of Confidential Information. The term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; or, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was or is: (a) in the possession of the State and subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on

behalf of, the receiving party). Notwithstanding the above, in all cases and for all matters, State Data is deemed to be Confidential Information.

8.2   Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to the Contractor's subcontractor is permissible where: (a) the subcontractor is a Permitted Subcontractor; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Permitted Subcontractor's responsibilities; and (c) Contractor obligates the Permitted Subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any of the Contractor's Representatives may be required to execute a separate agreement to be bound by the provisions of this **Section 8.2**.

8.3   Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract. Each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

8.4   Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.

8.5   Surrender of Confidential Information upon Termination. Upon termination or expiration of this Contract or a Statement of Work, in whole or in part, each party must, within five (5) calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control. If Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and certify the same in writing within five (5) calendar days from the date of termination to the other party.

9.   Security. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State's Confidential Information that comply with the requirements of the State's data security policies as set forth in **Schedule C**.

10. Indemnification.

10.1   General Indemnification. Contractor must defend, indemnify and hold harmless the State, and the State's agencies, departments, officers, directors, employees, agents, and contractors from and against all Losses arising out of or resulting from any third party claim, suit, action or proceeding (each, an "**Action**") that does or is alleged to arise out of or result from (a) Contractor's negligence or more culpable act or omission (including recklessness or willful misconduct) in connection with the performance or nonperformance of any Services or other activity actually or required to be performed by or on behalf of Contractor (including, in the case of Contractor, any Contractor Personnel); or (b) any infringement, misappropriation, or other violation of any Intellectual Property Right or other right of any Third Party.

In handling any claim relating to infringement of intellectual property, Contractor may obtain, at no additional charge to the State, the right for the State to continue using the Hosted Service at issue or replace or modify it so that it becomes non-infringing. If Contractor is unable to reasonably secure those remedies, and if the State must discontinue use of an infringing Hosted Service then, in addition to providing the defense and indemnification set forth above, Contractor shall refund to the State any unused prepaid fees for the infringing Hosted Services.

Contractor's indemnification in Section 10.1(b) does not apply to the extent that the alleged infringement is caused by: use of a Hosted Service in connection with goods, computer code, or services not furnished as part of, the Hosted Service; or Contractor's compliance with State-specific designs or specifications. Section 10.1 represents Contractor's exclusive liability and the State's sole remedy for third party claims related to infringement of intellectual property rights by the Hosted Service.

10.2   Indemnification Procedure. The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations. The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense, at its own expense, if the State deems necessary. Contractor will not, without the State's prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. Any litigation activity on behalf of the State or any of its subdivisions, under this **Section 10**, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

11. Limitations of Liability and Disclaimer of Damages.

11.1   Disclaimer of Damages. THE STATE AND OPTUM WILL NOT BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES.

11.2   The State's Limitation of Liability. IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM

RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES SPECIFIED IN THE STATEMENT OF WORK.

12. Contractor Representations and Warranties.

12.1 <u>Authority</u>. Contractor represents and warrants to the State that:

(a) it is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

(b) it has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;

(c) the execution of this Contract by its Representative has been duly authorized by all necessary organizational action;

(d) when executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms;

(e) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606; and

(f) Contractor is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its departments that was terminated by the State within the previous five (5) years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract.

12.2 <u>Software and Service Warranties</u>. Contractor further represents and warrants to the State that:

(a) Contractor has, and throughout the Term and any additional periods during which Contractor does or is required to perform the Services will have, the unconditional and irrevocable right, power and authority, including all permits and licenses required, to provide the Services and grant and perform all rights and licenses granted or required to be granted by it under this Contract;

(b) there is no settled, pending or, to Contractor's knowledge as of the Effective Date, threatened Action, and it has not received any written, oral or other notice of any Action (including in the form of any offer to obtain a license): (i) alleging that any access to or use of the Services or Software System does or would infringe, misappropriate or otherwise violate any Intellectual Property Right of any third party; (ii) challenging Contractor's ownership of, or right to use or license, any software or other materials used or required to be used in connection with the performance or receipt of the Services, or alleging any adverse right, title or interest with respect thereto; or (iii) that, if decided unfavorably to Contractor, would reasonably be expected to have an actual or potential adverse effect on its ability to perform the Services or its other obligations under this Contract, and it has no knowledge after reasonable investigation of any factual, legal or other reasonable basis for any such litigation, claim or proceeding;

12.3   DISCLAIMER. EXCEPT FOR THE EXPRESS WARRANTIES IN THIS CONTRACT, CONTRACTOR HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE UNDER OR IN CONNECTION WITH THIS CONTRACT OR ANY SUBJECT MATTER HEREOF,

13. Insurance.

13.1   Required Coverage. Contractor is responsible for maintaining insurance coverage as detailed in Section **2.130 Insurance** of the existing Contract.

13.2   Non-waiver. This **Section 13** is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

13.3   No Third Party rights. Nothing contained herein, or in any Schedules, Exhibits or attachments to this Change Notice creates any rights, duties, or obligations on the State to any third parties, including Contractor's Subcontractor(s).

13.4   Schedules   All Schedules and Exhibits that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work– See Change Request Proposal 030
Schedule B	Cloud Terms
Schedule C	Data Security Requirements

13.5   Entire Agreement. These limited Contract Terms, including all Statements of Work and other Schedules and Exhibits, constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. In the event of any conflict between these limited Contract Terms and those of the remainder of the Contract, including any Schedule, Exhibit or other document, the following order of precedence governs: (a) first, these limited Contract terms, excluding its Exhibits and Schedules; and (b) second, the remainder of the Contract, including any Exhibits and Schedules. NO TERMS ON CONTRACTORS INVOICES, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, OR DOCUMENTATION HEREUNDER WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR THESE LIMITED CONTRACT TERMS OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

SCHEDULE A - STATEMENT OF WORK

See Change Request Proposal 030

The parties agree that the Change Request Proposal 030 shall be the Statement of Work for purposes of both the trial described herein and if the trial is accepted by the State, the Change Request Proposal 030 shall continue to apply for purposes of the Statement of Work, subject to the following changes which have been agreed upon:

(a) CR030 Exhibit 7 ("Cloud Terms) and the page 4, bullet 4 on indemnity are no longer applicable, replaced by this trial terms document.

(b) References in CR030 to Optum and Teradata, or Teradata, will be replaced with the term "Contractor," except when reference to Teradata is required to refer to a product or service that is proprietary only to Teradata.

(c) After the Change Notice is signed, both parties will develop and agree on a project start date that shall take into consideration the time required for the State to expand its ExpressRoute pipe and a brief CR030 amendment will be developed to (1) set forth an agreed upon start date for the Trial Period and (2) adjust pricing to match the new start date (pricing will not increase for the given scope).

(d) If the State accepts such Trial Period as having been successful, the terms and conditions in the amended CR030 described in (c) as applicable during the Trial Period shall continue until the earlier of (1) the parties agree upon different terms, conditions and pricing for a longer term or (2) the parties cease such negotiation (the "Extended Period"). The basis for the terms and conditions for the longer term shall be the State's Standard Software Solicitation document, subject to those changes that are required because of the scope of work described in the CR030 or as may otherwise be mutually agreed upon. Upon completion of such negotiations, the terms, conditions and pricing that have been agreed upon shall apply.

1) HOSTED SERVICE

1.1) *PROVISION OF HOSTED SERVICE*. Contractor shall provide the State access to the Hosted Service, subject to the additional terms and conditions set forth in this Schedule and as described further in the Hosted Service Description. Contractor grants to the State a nonexclusive, nontransferable worldwide right to access the Hosted Service solely for the State's authorized purposes either by the State or by a third party authorized to act and acting on behalf of the State during the Hosted Service Term. The State will not license, sublicense, sell, resell, rent, lease, transfer, assign, distribute, time share or otherwise commercially exploit or make the Hosted Service available to any third party. Other than as expressly set forth in this Schedule or in the Cloud Trial Terms, no license or other rights in or to the Hosted Service or Teradata intellectual property rights are granted to the State, and all such licenses and rights are hereby expressly reserved.

1.2) *RESTRICTIONS*. The Hosted Service will be limited (e.g., available data space, processing power, number of concurrent users) as set out in Schedule A. The State shall not (i) modify, copy or create derivative works based on the Hosted Service or Teradata intellectual property, (ii) exceed the limitations agreed to in Schedule A unless otherwise agreed to by the parties in writing, or (iii) disassemble, reverse engineer, or decompile the Hosted Service, or access it with the intent to build a competitive product or service, or copy or substantially copy any ideas, features, functions or graphics of the Hosted Service.

1.3) *MODIFICATIONS*. Contractor may modify the Hosted Service Description from time to time and will make the most current version thereof available through the Hosted Service portal. Contractor will make any modified version available at least 30 days prior to its effective date. If a modification to the Service Description materially reduces the features or functions of the Hosted Service on a general basis, then Contractor will allow the State to cancel the relevant portion of these Cloud Trial Terms and receive a pro-rated refund of the fees for Hosted Service covered by Cloud Trial Terms. Contractor may make modifications to the Hosted Service Description immediately if a modification is required by applicable law, or to improve security or reliability of the Hosted Service.

2) **STATE RESPONSIBILITIES**. (a) The State is responsible for the activities of and effects caused by anyone who the State allows to use the Hosted Service. The State is also responsible for ensuring that its users comply with this Schedule and the Hosted Service Description with respect to use of the Hosted Service. The State shall provide secure connectivity to access or transfer data to the Hosted Service. Unless otherwise specifically covered in the Hosted Service Description or this Schedule, the State is solely responsible for: determining whether the Hosted Service ordered will meet its business requirements; data integration; providing standard extracted, transformed, cleansed data for loading into the Hosted Service; business intelligence development, support and operations; logical and physical data modeling; application development, support and operations; application performance; data quality; having reasonable security processes, tools and controls for systems and networks interacting with the Hosted Service; making its own elections regarding backup storage and alternative computing capabilities and business processes in the event that the Hosted Service is unavailable; and reporting incidents via The Teradata Service Management Portal.

(b)   The parties acknowledge that the Cloud Environment being provided is a Contractor provisioned instance within Microsoft Azure Government Cloud but is being administered by the State. Accordingly, the parties agree that:

    (1) Upon installation of the Teradata Software in the instance, Contractor shall provide system administrator level accounts and passwords to the State for its use in administering and operating the designated Microsoft Azure Government Cloud instance;

    (2) The State shall change the passwords to the system administrator level accounts from those provided by Contractor for initial log-in;

    (3) After initial activation, either party may request additional persons to have administrative access accounts. Provided that each party approves such request, the State shall create a new administrator account for such person, with any person requested by Contractor to receive "read-only" access to the Azure support contributor role and a read-only role for the Azure subscription unless additional access rights are otherwise requested (1) by the State for specific help from a specific Contractor staff member for a specific number of hours that is all documented in a customer-approved Change Control record and where the specific Contractor work is supervised and managed by the State for the duration (e.g., activation/modification of

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Azure resources) ; or (2) by the Chief Information Security Officer based on a reasonable explanation for the need and nature of the additional access rights, subject to the State's approval, which shall not be unreasonably withheld or delayed;

(4) The State shall permit such number of persons as designated by Contractor to maintain "read-only" administrator accounts for Contractor to conduct environmental monitoring of the provided instance for billing, infrastructure availability and other compliance with the terms of this Schedule as well as for purposes of being able to provide Essential Services/Support as described in Schedule A. Customer shall retain all non-"read-only" administrator accounts and Contractor shall not be authorized to alter, change or modify the provided instance except as described in (3) above;

(5) Contractor shall notify the State in the event that any Contractor or Subcontractor employee or contractor with "read-only" access terminates their employment or contractual relationship with Contractor or Teradata. The State will promptly remove any access privileges for such terminated employee or contractor;

(6) Contractor and the State agree to conduct monthly access reviews with each party certifying that the current list of administrative users are employees or contractors of their respective companies and are to continue the existing access privileges; and

(7) The State agrees that the provided instance will not be utilized to participate in cryptocurrency mining.

3) **USE GUIDELINES**. The State shall use the Hosted Service solely for the State's authorized purposes either by the State or by a third party authorized to act and acting on behalf of the State as contemplated by these Cloud Trial Terms and shall not knowingly: (i) send or store infringing, obscene, threatening, libelous, or otherwise unlawful or tortious material, including spam, material harmful to children or violative of third party privacy rights, (ii) send or store material containing software viruses, worms, Trojan horses or other harmful computer code, files, scripts, agents or programs, (iii) knowingly interfere with or disrupt the integrity or performance of the Hosted Service; or (iv) attempt to gain unauthorized access to the Hosted Service or its related systems or networks. Contractor may remove any material or content that it reasonably believes violates this section upon notice to the State.

4) **SUSPENSION OF SERVICE**. In addition to any other rights or remedies of Contractor, Contractor may, immediately discontinue access to or suspend Hosted Service in order to protect the Hosted Service from hacking or other cyber-attack or other material adverse impact to the Hosted Service or other systems or data. The State may incur reasonable charges to reactivate services that have been suspended due to the State's failure to perform the obligations applicable to the State under these Cloud Trial Terms.

5) **AVAILABILITY REQUIREMENT**.   The public cloud provider, Microsoft Azure, maintains service levels for their services which are described online at https://azure.microsoft.com/en-us/support/legal/sla/. The SLAs from Microsoft Azure applies to the Microsoft Online Services listed on their site but does not apply to separately branded services made available with or connected to the Hosted Services or to any on-premises software that is part of any Hosted Service.

6) **DEFINITIONS**

Service Availability Date: The date that Contractor informs the State that Contractor's Subcontractor, Teradata has completed setup of the Hosted Service for the State and the other aspects of Milestone 1 described in Schedule A have been completed.

Hosted Service Description: Teradata's standard description for the Teradata Cloud Service in effect as of the Service Availability Date or as modified from time to time as set out in Section 1.3.

Hosted Service Term: The period described in this Schedule B during which Contractor's Subcontractor, Teradata will provide access to Hosted Service to the State.

SCHEDULE C – DATA SECURITY REQUIREMENTS

1. **Definitions.** For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract.

"**Contractor Security Officer**" has the meaning set forth in **Section 2** of this Schedule.

"**FedRAMP**" means the Federal Risk and Authorization Management Program, which is a federally approved risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services.

"**FISMA**" means The Federal Information Security Modernization Act of 2014 (Pub.L. No. 113-283 (Dec. 18, 2014.).

"**Hosting Provider**" means any Permitted Subcontractor that is providing any or all of the Hosted Services under this Contract.

"**NIST**" means the National Institute of Standards and Technology.

"**PCI**" means the Payment Card Industry.

"**PSP**" or "**PSPs**" means the State's IT Policies, Standards and Procedures.

"**SSAE**" means Statement on Standards for Attestation Engagements.

"**Security Accreditation Process**" has the meaning set forth in **Section 6** of this Schedule

2. **Security Officer.** Contractor will appoint an employee of the Subcontractor, Teradata, to respond to the State's inquiries regarding the security of the Hosted Services who has sufficient knowledge of the security of the Hosted Services and the authority to act on behalf of Contractor in matters pertaining thereto ("**Contractor Security Officer**").

3. **Contractor Responsibilities.** Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to:

      (a)   ensure the security and confidentiality of the State Data;

      (b)   protect against any anticipated threats or hazards to the security or integrity of the State Data;

      (c)   protect against unauthorized disclosure, access to, or use of the State Data;

      (d)   ensure the proper disposal of any State Data in Contractor's or its subcontractor's possession; and

      (e)   ensure that all Contractor Representatives comply with the foregoing.

The State has established Information Technology (IT) PSPs to protect IT resources under the authority outlined in the overarching State 1305.00 Enterprise IT Policy. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable public and non-public State IT policies and standards, of which the publicly available ones are at https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html but only if and to the extent such PSPs and State IP policies and standards are consistent with ISO/IEC 27001:2013 and NIST SP 800-53, for security and reliability and the FedRAMP High security controls implemented by the Microsoft Azure GovCloud.

This responsibility also extends to all service providers and subcontractors with access to State Data or an ability to impact the contracted solution, however, based upon the scope of work described in the Change Request Proposal

030 as being performed by Contractor and Contractor's Subcontractor, Teradata, the State acknowledges that Contractor and Teradata shall not have access to State systems (exclusive of the Azure portal) after handover to the State or access to or process State Data. Contractor responsibilities are determined from the PSPs based on the services being provided to the State, the type of IT solution, and the applicable laws and regulations.

4.   Acceptable Use Policy. To the extent that Contractor has access to the State's IT environment, Contractor must comply with the State's Acceptable Use Policy, see
https://www.michigan.gov/documents/dtmb/1340.00.01_Acceptable_Use_of_Information_Technology_Standard_458958_7.pdf. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing State systems. The State reserves the right to terminate Contractor's and/or subcontractor(s) or any Contractor Personnel's access to State systems if the State determines a violation has occurred.

5.   Protection of State's Information. Throughout the Term and at all times in connection with its actual or required performance of the Services, as long as the Contractor provided services described in the Change Request Proposal 030 are consistent with what is set forth below, Contractor will:

5.1   If Hosted Services are provided by a Hosting Provider (Microsoft Corporation/Azure), ensure each Hosting Provider maintains FedRAMP authorization for all Hosted Services environments throughout the Term, and in the event a Hosting Provider is unable to maintain FedRAMP authorization, the State, at its sole discretion, may either a) require the Contractor to move the Software and State Data to an alternative Hosting Provider selected and approved by the State, or b) immediately terminate this Contract for cause pursuant to **Section 15.1** of the Contract;

5.2   for Hosted Services provided by the Contractor, maintain either a FedRAMP authorization or an annual SSAE 18 SOC 2 Type II audit based on State required NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs.

5.3   ensure that the Software and State Data is securely hosted, supported, administered, accessed, and backed up in a data center(s) that resides in the continental United States, and minimally meets Uptime Institute Tier 3 standards (www.uptimeinstitute.com), or its equivalent;

5.4   maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State Data that complies with the requirements of the State's data security policies as set forth in this Contract, and must, at a minimum, remain compliant with FISMA and NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs;

5.5   provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, encryption, transfer, commingling or processing of such information that ensure a level of security appropriate to the risks presented by the processing of State Data and the nature of such State Data, consistent with best industry practice and applicable standards (including, but not limited to, compliance with FISMA, NIST, CMS, IRS, FBI, SSA, HIPAA, FERPA and PCI requirements as applicable);

5.6   take all reasonable measures to:

(a)   secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "malicious actors" and others who may seek, without authorization, to destroy, disrupt, damage, encrypt, modify, copy, access or otherwise use Hosted Services or the information found therein; and

(b)   prevent (i) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (ii) State Data from being commingled with or

contaminated by the data of other customers or their users of the Services; and (iii) unauthorized access to any of the State Data;

5.7   ensure that State Data is encrypted in transit and at rest using FIPS validated AES encryption modules and a key size of 128 bits or higher;

5.8   ensure the Hosted Services support Identity Federation/Single Sign-on (SSO) capabilities using Security Assertion Markup Language (SAML), Open Authentication (OAuth) or comparable State approved mechanisms;

5.9   ensure the Hosted Services implements NIST compliant multi-factor authentication for privileged/administrative and other identified access.

6.   Security Accreditation Process. (i) Throughout the Term, and subject to Section 6(ii) below, Contractor will assist the State, at no additional cost, with its **Security Accreditation Process**, which includes the development, completion and on-going maintenance of a system security plan (SSP) using the State's automated governance, risk and compliance (GRC) platform, which requires Contractor to submit evidence, upon request from the State, in order to validate Contractor's security controls within two weeks of the State's request. On an annual basis, or as otherwise required by the State such as for significant changes, re-assessment of the system's controls will be required to receive and maintain authority to operate (ATO). All identified risks from the SSP will be remediated through a Plan of Action and Milestones (POAM) process with remediation time frames based on the risk level of the identified risk. For all findings associated with the Contractor's solution, Contractor will be required to create or assist with the creation of State approved POAMs and perform related remediation activities. The State will make any decisions on acceptable risk, Contractor may request risk acceptance, supported by compensating controls, however only the State may formally accept risk. Failure to comply with this section will be deemed a material breach of the Contract.

(ii) The Contractor's sole obligation under this Section 6 is (a) providing a Security Officer as described in Section 2 above, (b) providing evidence that the Teradata software maintains compliance with the most current version of SUSE IRS SCSEM standards and (c) providing periodic audit reports as may be available from the public cloud provider, Microsoft Azure, of the Azure GovCloud infrastructure that is being used to provide the Hosted Services. As of the date of this Hosting Services Trial, such audits consist of an AICPA Service Organization Controls (SOC 2) review, statement on Standards for Attestation Engagements No. 16 (SSAE16) SOC 1 review, PCI DSS, a HIPAA audit, and an ISO 27001:2013 audit of its Information Security Management System (ISMS), as well as an independent penetration test. Upon the State's request, Contractor, acting through its Subcontractor, Teradata, will request from Microsoft and share the most recent SOC 1 report, SOC 2 Type 2 report, ISO 27001:2013 certification, PCI DSS 3.2 Attestation of Compliance (AOC), and HIPAA Security Assessment reports. Microsoft Azure may change or alter its auditing practices at any time without notice to Contractor. Accordingly, Contractor has no control and undertakes no responsibility for any such changes, including that one or more of the above reports will be available for delivery to the State.

7.   Unauthorized Access. Contractor may not access, and shall not permit any access to, State systems, in whole or in part, whether through the Hosted Services or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State systems must be solely in accordance with the Contract and this Schedule, and in no case exceed the scope of the State's authorization pursuant to this Section. All State-authorized connectivity or attempted connectivity to State systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in the Contract as the same may be supplemented or amended by the State and provided to Contractor from time to time.

8.   Security Audits. Contractor will comply with the following to the extent compliance is both consistent with the scope of Contractor's Hosted Services, as described in the Change Request 030 Proposal and to the extent offered by Microsoft as part of the Azure GovCloud public cloud environment:

8.1   During the Term, Contractor will maintain complete and accurate records of its data protection practices, IT security controls, and any backup, disaster recovery or other policies, practices or procedures relating to the Azure GovCloud environment provisioned by Contractor for the benefit of the State and any other information relevant to its compliance with this Contract.

8.2   Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program prior to the commencement of Services and from time to time during the term of this Contract, as reflected in the audit reports described in 8.3 below or information reasonably requested by the State but only if and to the extent applicable to Contractor's scope of work.

8.3   During the Term, Contractor will, when requested by the State, provide a copy of Contractor's or Hosting Provider's FedRAMP System Security Plan(s) or SOC 2 Type 2 report(s) to the State within two weeks of the State's request. The System Security Plan and SSAE audit reports will be recognized as Contractor's Confidential Information.

8.4   The State reserves the right, at its sole election, to immediately terminate this Contract or a Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this **Section 8.**

9. **Application Scanning with respect to Contractor provided applications.** During the Term, Contractor must, at its sole cost and expense, consider both the integration of services in system architecture and operational context, and the security of the application code across all products throughout the Software Development Life Cycle. Additionally, Static Application Security Testing (SAST), which scans source code, and Dynamic Application Security Testing (DAST), which scans interactive applications, will be completed for new releases as described below. DAST scanning will be completed at least annually as described below.

    Contractor's application scanning includes the following types of scans and activities:

    9.1 BlackDuck's composition analysis tool looks through Vantage's code's open source libraries/dependencies for known (publicly disclosed) security defects. Results are reviewed to ensure open source libraries are up-to-date and bug free.

    9.2 Contrast Assess application security testing tool combines Interactive Application Security Testing (IAST) and source code composition analysis (SCA) to provide accurate and continuous information on security vulnerabilities applications.

    9.3   Coverity's static analysis tool has various code quality functionality, one of which is security focused. It helps reduce risk and lowers software development cost by identifying potential security vulnerabilities early during the development phase.

    9.4 Netsparker is a Dynamic Application Security Testing tool which communicates with a web application through the web front-end in order to identify potential security vulnerabilities in the web application and identifies architectural weaknesses.

    9.5 Tenable Nessus is utilized as a vulnerability management scanner that identifies common vulnerability exposures (CVEs) that malicious hackers could use to gain access to computer operating systems on a network.

    Subcontractor's privacy policy (which is the privacy policy that applies to the Contractor provided applications as it relates to application scanning) may be found at https://assets.teradata.com/pdf/Teradata-Privacy-Policy.pdf. Upon request by the State, Contractor will provide written verification that the security scans were undertaken during the SDLC and any changes with Subcontractor's privacy policy pertinent to product security.

10. **Infrastructure Scanning.**

For Hosted Services, Contractor must ensure the infrastructure is scanned using an approved scanning tool (Qualys, Tenable, or other PCI Approved Vulnerability Scanning Tool) upfront during Implementation and Contractor will help in the remediation of issues identified in the scan according to the remediation time requirements documented in the State's PSPs. Contractor will transition access to allow the State to scan infrastructure and third-party components monthly.

11. Nonexclusive Remedy for Security Breach.

Any failure of the Services to meet the requirements of this Schedule with respect to the security of any State Data or other Confidential Information of the State, including any related backup, disaster recovery or other policies, practices or procedures, that is within the control and scope of Contractor's responsibilities is a material breach of the Contract for which the State, at its option, may terminate the Contract immediately upon written notice to Contractor without any notice or cure period, and Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

OPTUM™

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April 6, 2021

Mr. Matthew Weiss
Category Analyst, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: CHANGE REQUEST PROPOSAL 030 TO PERFORM A CLOUD REFRESH OF THE TERADATA TEST SYSTEM UNDER THE
      DATA WAREHOUSE PLATFORM CONTRACT No. 071B1300109

Dear Matt:

As you know, the State of Michigan (the "State" or "Customer") has made a request for certain changes
("Change Request 030") to Contract 071B1300109 effective November 16, 2010, as amended (the "'109
Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal to perform a cloud refresh
of the Teradata Test System (the "Cloud Refresh of the Teradata Test System" or "Phase 1").

The State views the Cloud Refresh of the Teradata Test System as a "proof of concept trial" for the larger
Enterprise Data Warehouse (EDW) cloud solution and, if successful, intends to have Optum similarly refresh
Production and DevDR Systems in a future contract change ("Phase 2").

Optum is proposing to supply to the State a Teradata-provisioned and State-managed solution that keeps roles
and responsibilities mostly consistent with the current environment ("Teradata End-to-End Cloud Service
Offering"). This successful offering is now available in Azure Government ("Azure GovCloud").

The Teradata End-to-End Cloud Service Offering includes Teradata Vantage software installed on Azure
GovCloud infrastructure and Teradata's Essential Support services for the software/infrastructure
combination, all as one convenient bundle. To implement Phase 1 ("Implementation"), Teradata provisions
the purchased infrastructure and software components ("New Test System"), establishes initial security,
sets-up service connect for standard monitoring alerts and configures backup processing, and then
performs hand over of Azure Portal Administration to the State to manage after the Implementation period
(in "Steady-State"). Teradata will have no access to the State's servers or data after hand over.

The New Test System consists of two 64-core VMs with 504 GB RAM each, 9 TCore Teradata Vantage
subscription licenses (Enterprise with SQL Engine only), 22 TB Customer Data Space (CDS), 10 TB BLOB
storage for Native Object Storage (NOS), 100 TBs BLOB storage for backups, and associated single server
ViewPoint / DSC / Server Management servers.

For the above-described solution, the new Virtual Network Gateway will connect to the State's existing
Azure ExpressRoute endpoint in Azure GovCloud Virginia. By doing so, the State will save costs versus
having Optum procure, through Teradata, an Azure Express Route, since the State can use its existing
circuits between Michigan and the Azure GovCloud Virginia environment.

During Steady-State, Teradata will provide standard Essential Support services for software patches,
version upgrades and support ticket resolution.

The State will perform all activities not provided by Teradata, e.g., the State will continue to perform roles for
physical DBAs; system administrators; network security/monitoring; user administration; security monitoring
and log collection; managing/implementing all solution security except Azure GovCloud data center security
established as part of the tenant; and driving incident, problem and change (IPC) management processes.

When the State desires hands-on help from Teradata during Steady-State, the State's standard processes will be followed similarly to how O/S patches and O/S hardening have been handled in the past, e.g., this may mean the State chooses to temporarily give specific Teradata staff specific Server Admin and/or Azure Portal rights to perform specific work under a State-approved change record and overseen by a State System Admin during a specific change window.

The New Test System will replace the State's 2800-based on-premise Teradata Test System ("Current Test System"). After Implementation of the New Test System, the State will have a 3-month trial period ("Trial Period"). During the Trial Period, the State can choose multiple test cases to determine whether those test cases complete on the New Test System to the same extent as they complete on the Current Test System (the "Trial Period Acceptance Criteria"). If and only if such test cases do not meet the Trial Period Acceptance Criteria can the State decide to terminate the New Test System by providing written notice and details to Optum. In that event, the State can elect to stay with the Current Test System.

If the New Test System meets the Trial Period Acceptance Criteria, as expected, the State may choose in Phase 2 (Production and DevDR) to either (i) continue with the Teradata End-to-End Cloud Service Offering or (ii) expand to a full Teradata-as-a-Service cloud offering, when it becomes officially available in Azure GovCloud (est. 4Q2021). For Teradata-as-a-Service, Teradata takes on additional responsibilities (including tenant management), so that the State team can continue to focus on managing the data warehouse data and applications and on delivering high-impact business outcomes.

This Change Request 030 constitutes "New Work", as that term is defined in the '109 Contract.

In response to your request, Optum is pleased to provide the State with this Change Request Proposal (the "Change Request Proposal 030").

I. Description of the Scope Covered by this Change Request Proposal 030

The products and services offered as part of this Cloud Refresh of the Teradata Test System are consistent with the types of services provided in the past for the '109 Contract but in so far as the activities required for the Cloud Refresh of the Teradata Test System are outside the scope of Optum's current specific responsibilities defined under the '109 Contract, consistent with the provisions of Section 2.024 of the '109 Contract, the following further describes the new Scope covered by this Change Request Proposal 030:

1. Optum Team responsibilities:

- Optum and our subcontractor, Teradata (the "Optum Team") will provide the following one-time Implementation services ("Implementation Services"; completion of these activities is referred to as "Milestone 1"):

    - For the New Test System described in Exhibit 1, perform Cloud Provisioning Services as described in Exhibit 2 in the Azure GovCloud Virginia Region, including handover of the New Test System (i.e., the Milestone 1 Deliverable). This work includes (i) provisioning/configuring infrastructure and software and connecting to the State's existing Azure GovCloud Virginia ExpressRoute end point (with the State's help); and (ii) connecting the Azure GovCloud based Teradata Data Stream Utility (DSU) Virtual Machine (VM) to Azure BLOB storage for Backup and Restore (BAR) purposes.

    - Provide IRS SLES 11/12 SCSEM operating system hardening services ("O/S Hardening") of the New Test System VMs as described in Exhibit 3

    - Perform Azure BAR Script Setup Services as described in Exhibit 4

- In Steady-State:

    - Provide up to four 3-hour informal train-the-trainer cloud mentoring sessions for the State's EOC-DC Physical DBA Team (up to 10 attendees) on mutually agreed topics to be defined and implemented by the Trial Period end

    - Provide Teradata Support and Maintenance Services (Essential Support) as described in Exhibit 5, including Software Implementation Services (SWI)

- Teradata's End-to-End Cloud Service Offering for the items listed in Exhibit 1. This consists of Azure GovCloud hardware infrastructure as a service, Teradata Vantage subscription-based license, Teradata Vantage software subscription, BAR and Teradata Essential Support, where the latter includes SWI.

See Teradata Software License Agreement (Exhibit 6), Cloud Terms (Exhibit 7), Security Responsibilities (Exhibit 8) and High-Level Architecture Diagram (Exhibit 9) for additional details.

2. State responsibilities:

- Provide/maintain the Wide Area Network (WAN) circuits between State / Switch data centers and the Azure GovCloud Virginia Region where the New Test System will reside (e.g., NetBond and ExpressRoute circuits). This includes any required circuit redundancy and/or sizing expansions, and responsibility for all circuit/bandwidth/egress required for the solution, including all costs/charges. Optum recommends the State expand the ExpressRoute size from 100 Mbps to 1 Gbps to have enough bandwidth for the New Test System (e.g., at 100 Mbps it is estimated to take an impractical 5 to 6 days to migrate the 5 TBs of data from the Current Test System).

- Work with the Optum Team to establish/maintain network communications between the State's existing Azure GovCloud Virginia ExpressRoute end point and the new Virtual Network Gateway in the Teradata tenant in Virginia. This includes firewall changes and routing data warehouse traffic between the State/Switch data centers and Virginia.

- Perform all activities not explicitly assigned to Teradata, e.g., the State will continue to perform roles for physical DBAs; system administrators; network security/monitoring; user administration; security monitoring and log collection; managing/implementing all solution security except Azure GovCloud data center security established as part of the tenant; and driving incident, problem and change (IPC) management processes. In Steady-State the State will also perform Azure Portal management, including managing all Azure services and users, and operating/maintaining BAR schedules, jobs and scripts, as well as all backups, restores and data moves.

- Perform all required data migration from the Current Test System to the New Test System in the cloud and perform all required testing, acceptance and cutover activities (completion of these activities is referred to as "Milestone 2")

- State responsibilities as described in attached exhibits (e.g., in Exhibit 2 Cloud Provisioning Services, Exhibit 8 Security Responsibilities and in other exhibits)

- In addition to the Teradata cloud mentoring described above, the State should consider leveraging the following to further train the EOC-DC Team on cloud in a cost-effective manor: (1) mentoring from the State Team that manages the State's existing Azure GovCloud solution; (2) Azure online classes; and (3) time allocated to EOC-DC team members for cloud discovery/analysis.

- Dispose/deinstall the Current Test System after successful cutover to the New Test System

- All solution components not explicitly provided by the Optum Team and required during Implementation or longer-term, including growth (e.g., infrastructure, software, CPU, storage), services, and bandwidth / egress. The State may choose to use Platform Pool funds, as described in Section II, to cover such items.

3. Other

- All dates and schedules related to delivery, migration, testing and acceptance of the New Test System shall be captured in the project schedule and subject to mutual agreement between the State and Optum. Exhibit 10 is a Draft Project Schedule.

- A successful Cloud Refresh of the Teradata Test System is defined as one in which the New Test System meets the Trial Period Acceptance Criteria; i.e., multiple State-chosen test cases that complete on the Current Test System also complete to the same extent on the New Test System

- State users, developers and DBAs will continue to use their existing desktop environments (e.g., Teradata Tools and Utilities) and will have access to data from the New Test System

- By accepting this Change Request Proposal 030, the State (1) understands that their existing Azure GovCloud WAN latencies will be added for round trip access to the New Test System; (2) accepts this add-on latency over and above the on-premise Current Test System approach and general performance targets; and (3) understands that tweaks or redesign may be needed by the State for some functions, to help maximize performance (e.g., ETL, reports, jobs, applications).

- Processes that surround the data warehouse (e.g., ETL) are staying in the State's data centers and, depending on data volume, data gravity, bandwidth, user scenarios and other information, the State may find that it makes sense to move some of these processes to the cloud in the future for performance and cost reasons. Similarly, for processes that pull a lot of data from the warehouse, then do their work, and then send a lot of data back to the warehouse, the State may find that it makes sense to move some of these processes to the cloud in the future and/or tweak/redesign their approach (possibly including performing more in-database operations).

- The following are out-of-scope: Teradata Production and DevDR Systems, Disaster Recovery and Business Continuity (DR/BC)

- The State shall indemnify, defend and hold harmless Optum from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties), accruing or resulting to any person, firm or corporation that may be injured or damaged by the State in the performance of this Change Request Proposal 030 and that are attributable to the acts or omissions of the State, or by anyone else for whose acts any of them may be liable arising out of the State's use of the Services and/or Products described in this Change Request Proposal 030, including, without limitation security and/or privacy breaches hereunder.

- For the scope of the Cloud Refresh of the Teradata Test System, the scope statements, attachments, exhibits, terms and conditions herein prevail over any conflicting sections in the '109 Contract

II. Charges

Below are target milestones for moving forward (see Exhibit 10 for a more detailed Draft Project Schedule):

Event	Date
1. This CR030 will be fully approved by the State through the issuance of a Change Notice signed by the State and Optum that references this Change Request 030.	May 17 2021
2. Teradata will establish the New Test System in Azure GovCloud Virginia, with help from the State. This includes infrastructure, software and connectivity. **Milestone 1.**	June 30 2021
3. The State will perform Test Environment migration and acceptance, going live with the New Test System in the cloud. **Milestone 2.**	July 31 2021
4. Trial Period ends	Sept 30 2021

The approach described in this Change Request Proposal 030 adds the following value:

- The Phase 1 New Test System in the cloud replaces the Teradata 2800-based Current Test System

- The State's desire for a proof-of-concept (POC) trial is realized during Phase 1, prior to the State electing whether to proceed with a future Phase 2 cloud effort for the Production and DevDR Systems

Optum and Teradata were able to significantly reduce the cost of the New Test System compared to our July 2020 proposal, by leveraging the Teradata End-to-End Cloud Service Offering, absorbing some initial Azure costs, absorbing costs associated with having two active systems up in parallel (i.e., old and new systems) and leveraging existing State resources (State circuits and State DBAs). Through FY24 the approach outlined in this Change Request Proposal 030 results in ~15% savings for the New Test System versus our July 2020 proposal.

Once the New Test System is in place in Azure GovCloud Virginia, defined as the completion of Milestone 1, Optum will invoice the State the difference in charges for the New Test System over the Current Test System during the 3-month Trial Period (estimated July 1 - Sep 30), i.e., the FY21 "Teradata Test System Cloud Subscription" amount of $142,100. This is for a replacement test system in the cloud at a fraction of the cost of a regular Capacity-On-Demand (COD) increase for Production/DevDR. This amount will be invoiced against existing "General COD" funds in PO 210000000137 and/or PO 210000001263, line item 1, i.e., for capacity additions. If, however, the New Test System meets the Trial Period Acceptance Criteria, then the Cloud based licenses and associated services for the New Test System commencing at the beginning of FY22 and continuing through FY24 shall continue, where New Test System costs for FY21 - FY24 are covered through existing contract funds, so the net change to the Contract is $0.

If the State is able to demonstrate that the Trial Period Acceptance Criteria have not been met, the State may issue Optum a Termination Letter for Change Request 030 on or before the end of the 3-month Trial Period. Upon receipt of such a termination letter, the parties shall revert to their contractual position set forth in Change Request 029. The Optum Team will work with the State to decommission the New Test System in the cloud at no cost to the State and issue the State a pro-rated credit for the FY21 "Teradata Test System Cloud Subscription" amount for those Trial Period full-months remaining, if any.

See the Attachment 4b Cost Table below with highlights showing the items that have changed and with a net change of $0 to the contract. The Attachment 4c Cost Table for BI Query is also provided below and has not changed.

Also reflected in Attachment 4b below, the "General COD" and "Platform Support Services" funds are combined into a "Platform Pool" fund that can be used for all future add-ons for both on-premise and in-the-cloud systems, including growth and capacity.

Summary of charges:

Item Description	Price
CR 029 - Attachment 4b - Cost Table – Total (48 months)	18,113,930
FY22 - FY24 Test Software Subscription (old 2800 System) – Minus	-127,500
FY22 - FY24 Ongoing Annual Maintenance – Test System (old 2800 System) - Minus	-700,700
FY21 - FY24 General COD – Minus	-1,900,000
FY21 - FY24 Platform Support Services – Minus	-180,000
FY21 - FY24 Platform Pool – Add	+1,665,400
FY21 - FY24 Teradata Test System Cloud Subscription – Add	+1,242,800
CR 030 – Revised Attachment 4b – Cost Table – Total (48 months)	18,113,930

Total Estimated Change to Attachment 4b for CR 030 Pricing (48 months): **$0**
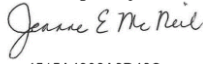
III. Terms by Which the State May Accept This Change Request Proposal 030

The State can approve this Change Request Proposal 030 by issuing a Change Notice that references this Change Request Proposal 030, which must be received no later than May 17, 2021.

Except as expressly amended by this Change Request 030, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

DocuSigned by:

Jeanne E McNeil

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Point of Contact:

Jeanne McNeil
Michigan Director of Delivery Operations
Optum Government Solutions, Inc.

DocuSigned by:

Dennis Vaughan

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Signer:

Dennis Vaughan
President
Optum Government Solutions, Inc.

Attachment 4b - Cost Table

	FY21 10/1/2020 - 9/30/2021 12 Months	FY22 10/1/2021 - 9/30/2022 12 Months	FY23 10/1/2022 - 9/30/2023 12 Months	FY24 10/1/2023 - 09/30/2024 12 Months	TOTAL 10/1/2020 - 09/30/2024 48 Months
Subscription and Capacity on Demand (COD)					
Production Software Subscription	370,100	370,100	370,100	370,100	1,480,400
COD Production Subscription for FY17 thru Aug 2020 COD [1]	223,000	223,000	223,000	223,000	892,000
Dev/DR Software Subscription	254,200	254,200	254,200	254,200	1,016,800
COD DevDR Subscription for FY19 thru Aug 2020 COD [1]	43,000	43,000	43,000	43,000	172,000
Test Software Subscription	42,500	0	0	0	42,500
Teradata Test System cloud subscription [7, 8, 9, 10]	142,100	366,900	366,900	366,900	1,242,800
General COD [2, 3]	0	0	0	0	0
Subscription and COD Totals	**$1,074,900**	**$1,257,200**	**$1,257,200**	**$1,257,200**	**$4,846,500**
Services					
System Hardening Services	42,900	44,200	45,500	46,900	179,500
Platform Support Services [2]	0	0	0	0	0
Platform Pool [2, 6]	397,900	447,100	556,000	264,400	1,665,400
Education - TEN+ and TEN+ Webcast (15 Named Staff) [4]	36,800	37,500	38,100	38,800	151,200
Education On-Going Training [2]	89,800	91,600	93,400	95,300	370,100
TDWI Training Services [2]	93,750	98,500	103,400	108,600	404,250
BI Query Software Maintenance and Support	181,660	198,210	221,010	243,840	844,720
BI Query License, Maintenance and Support (CR22 - Add for Treasury)	9,040	10,000	10,970	11,950	41,960
BI Query Software Maintenance and Support (CR27 - Add for Treasury)	8,400	9,300	10,200	11,100	39,000
Symmetry Software License and Support [5]	505,500	520,700	536,300	552,400	2,114,900
Maintenance					
On-Going Annual Maintenance - Production System	758,000	788,300	819,800	852,600	3,218,700
On-Going Annual Maintenance - COD Production for FY17 thru Aug 2020 COD [1]	272,000	282,900	294,200	306,000	1,155,100
On-Going Annual Maintenance - Dev/DR System	615,900	640,600	666,200	692,800	2,615,500
On-Going Annual Maintenance - COD DevDR for FY19 thru Aug 2020 COD [1]	59,200	61,500	64,000	66,600	251,300
On-Going Annual Maintenance - Test System	215,800	0	0	0	215,800
Services Sub-Total	**$3,286,650**	**$3,230,410**	**$3,459,080**	**$3,291,290**	**$13,267,430**
Total	**$4,361,550**	**$4,487,610**	**$4,716,280**	**$4,548,490**	**$18,113,930**

Notes: [1] These totals reflect CR27 FY17-FY18 COD (for production), plus COD Work Orders 181002MW, 191113MW, 200110MW and 200114MW

[2] Unused funds carry-over to next fiscal year. In some cases future funds may also need to be pulled forward to meet State's needs.

[3] The FY19 thru Aug 2020 COD additions that were put in place via previous COD Work Orders are covered elsewhere (see Note [1] above)

[4] This is for the upcoming calendar year

[5] The additional License Charge per year for each 100,000 covered lives above 2,535,750 shall be $6,100.00.

[6] These funds combine the previous "General COD" and "Platform Support Services" funds and can be used for all future add-ons (on-premise and in-the-cloud), including growth and capacity. In some cases, business process improvements (e.g., data retention policy, in-database processing, best practices, etc.) can alternatively be used to offset growth rate/expense.

[7] This is for the Teradata End-to-End Service offering in Azure GovCloud for the items listed in Exhibit 1. The annual recurring charge for the new Test System consists of Hardware as a Service, Teradata Subscription Based License, Teradata Software Subscription, BAR and Essential Support, where the latter includes Software Implementation Services

[8] The FY21 amount represents those charges due *in addition to* those already paid by the State for Test System subscription and maintenance; this includes the 3-month Trial Period

[9] Patches, updates and minor upgrades are generally included with Essential Support. Upgrades that require a redeployment of VM's are considered Major upgrades and are not covered under Essential Support, i.e., they require additional funding via Platform Pool work order specification.

[10] The following are NOT included: growth (e.g., HW/SW/CPU/storage); ExpressRoutes/bandwidth/egress sizing or costs; IntelliSphere, QueryGrid, or Machine Learning or Graph engine software/servers/services; or Teradata Application Center/Analyst servers or services. The Platform Pool fund may be used for addons.

Attachment 4c - Cost Tables – BI Query Cost Details

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2021	DCH	BI Query Admin Existing Support	$640.00	1	$640.00
		BI Query User Support for Original 545	$230.00	545	$125,350.00
		BI Query User Support for Additional 120	$280.00	120	$33,600.00
				FY 2021 DCH Total	$159,590.00
	Treasury	BI Query Admin Existing Support	$640.00	3	$1,920.00
		BI Query User Support for Original 77	$230.00	77	$17,710.00
		BI Query User Support for Additional 39	$280.00	39	$10,920.00
		BI Query User Support for Additional 30 (CR027)	$280.00	30	$8,400.00
				FY 2021 Treasury Total	$38,950.00
	DTMB	BI Query User Existing Support	$280.00	2	$560.00
				FY 2021 DTMB Total	$560.00
				FY 2021 Total	$199,100.00
FY2022	DCH	BI Query Admin Existing Support	$700.00	1	$700.00
		BI Query User Support for Original 545	$250.00	545	$136,250.00
		BI Query User Support for Additional 120	$310.00	120	$37,200.00
				FY 2022 DCH Total	$174,150.00
	Treasury	BI Query Admin Existing Support	$700.00	3	$2,100.00
		BI Query User Support for Original 77	$250.00	77	$19,250.00
		BI Query User Support for Additional 39	$310.00	39	$12,090.00
		BI Query User Support for Additional 30 (CR027)	$310.00	30	$9,300.00
				FY 2022 Treasury Total	$42,740.00
	DTMB	BI Query User Existing Support	$310.00	2	$620.00
				FY 2022 DTMB Total	$620.00
				FY 2022 Total	$217,510.00
FY2023	DCH	BI Query Admin Existing Support	$770.00	1	$770.00
		BI Query User Support for Original 545	$280.00	545	$152,600.00
		BI Query User Support for Additional 120	$340.00	120	$40,800.00
				FY 2023 DCH Total	$194,170.00
	Treasury	BI Query Admin Existing Support	$770.00	3	$2,310.00
		BI Query User Support for Original 77	$280.00	77	$21,560.00
		BI Query User Support for Additional 39	$340.00	39	$13,260.00
		BI Query User Support for Additional 30 (CR027)	$340.00	30	$10,200.00
				FY 2023 Treasury Total	$47,330.00
	DTMB	BI Query User Existing Support	$340.00	2	$680.00
				FY 2023 DTMB Total	$680.00
				FY 2023 Total	$242,180.00
FY2024	DCH	BI Query Admin Existing Support	$850.00	1	$850.00
		BI Query User Support for Original 545	$310.00	545	$168,950.00
		BI Query User Support for Additional 120	$370.00	120	$44,400.00
				FY 2024 DCH Total	$214,200.00
	Treasury	BI Query Admin Existing Support	$850.00	3	$2,550.00
		BI Query User Support for Original 77	$310.00	77	$23,870.00
		BI Query User Support for Additional 39	$370.00	39	$14,430.00
		BI Query User Support for Additional 30 (CR027)	$370.00	30	$11,100.00
				FY 2024 Treasury Total	$51,950.00
	DTMB	BI Query User Existing Support	$370.00	2	$740.00
				FY 2024 DTMB Total	$740.00
				FY 2024 Total	$266,890.00

Exhibit 1: New Test System Configuration [1]

Service Type	Custom Name	Region	Description
K999-E300-Y000	Vantage License	Public Cloud	9 TCore Teradata Public Cloud - Enterprise Tier - per TCore - Annual Price - TD SUBSCRIPTION-BASED --- Single System Viewpoint, DSU, SWS, TTU, Workload Management, Temporal and Columnar
Virtual Machines	SQL Engine [2]	US Gov Virginia	2 E64s v4 (64 vCPUs, 504 GB RAM) SUSE Linux; 2 managed OS disks – E20, Inter Region transfer type, 5 GB outbound data transfer
Storage Accounts	SQL Engine Storage [3]	US Gov Virginia	Managed Disks, Premium SSD, 16 x P40 (2TB) Disk Type 16 Disks
Virtual Machines	Viewpoint	US Gov Virginia	1 DS5 v2 (16 vCPUs, 56 GB RAM); SUSE Linux; 1 managed OS disk – P20; Inter Region transfer type, 5 GB outbound data transfer
Storage Accounts	Viewpoint Storage	US Gov Virginia	Managed Disks, Premium SSD, P10 (128GB) Disk Type 4 Disks
Virtual Machines	DSC	US Gov Virginia	1 DS4 v2 (8 vCPUs, 28 GB RAM); SUSE Linux; 1 managed OS disk – P20; Inter Region transfer type, 5 GB outbound data transfer
Storage Accounts	DSC Storage	US Gov Virginia	Managed Disks, Premium SSD, P10 (128GB) Disk Type 4 Disks
Storage Accounts	DSC Backup Storage	US Gov Virginia	Block Blob Storage, General Purpose V2, LRS Redundancy, Cool Access Tier, 100 TB Capacity - 100,000 Write operations, 100,000 List and Create Container Operations, 100,000 Read operations, 100,000 Archive High Priority Read, 1 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write
Storage Accounts	BLOB Storage - Native Object Storage (NOS)	US Gov Virginia	Block Blob Storage, General Purpose V2, LRS Redundancy, Hot Access Tier, 10 TB Capacity - 100,000 Write operations, 100,000 List and Create Container Operations, 100,000 Read operations, 100,000 Archive High Priority Read, 1 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write
Virtual Machines	Server Management	US Gov Virginia	1 DS3 v2 (4 vCPUs, 14 GB RAM); SUSE Linux; 1 managed OS disk – P20; Inter Region transfer type, 5 GB outbound data transfer
Notification Hubs		US Gov Virginia	Free tier
Network Watcher		US Gov Virginia	50 GB Network Logs Collected, 0 Checks for Network Diagnostics, 2 Connection Metrics, 1 DNS or App Gateway Servers x 0 GB logs ingested, 100 GB logs collected for Traffic Analytics
Azure Defender		US Gov Virginia	6 VM nodes, 0 App Service nodes, 0 SQL Database servers, 1,000,000 Storage transactions, 0 IoT Devices, 0 IoT Message transactions, 0 Kubernetes vCores, 0 Azure Container Registry images, 0 Key Vault transactions
VPN Gateway		US Gov Virginia	ExpressRoute Gateways, Standard tier (1 Gbps), 730 gateway hour(s), 10 S2S tunnels, 128 P2S tunnels, 200 GB, VPN gateway type

[1] The above table is also referred to as the Bill of Materials for the New Test System

[2] These servers are set to use 16 of 64 cores to provide redundancy while keeping software licensing/subscription costs low, i.e., to 9 TCore

[3] The configured SQL Engine Storage supports 22TB of Customer Data Space (CDS)

Exhibit 2 – Cloud Provisioning Services

1. NATURE OF THE PROJECT

The Cloud Provisioning Service purchased from Optum will deliver a flexible virtual environment on the Azure GovCloud instance provisioned by Teradata. This service will facilitate the State to run Teradata Test System workloads on the Azure GovCloud instance.

2. SERVICES

The Services to be provided by Optum, acting through its subcontractor, Teradata consist of only what is expressly described in this Exhibit. Services may create tangible outputs or have other completion criteria, but only the items identified in Section 3 of this Exhibit are key work products.

2.1 Cloud Provisioning - Customer Cloud Readiness Assessment

This service includes identification of Customer sponsors as well as core team members from Customer and the Optum Teams. During this service, Teradata will work with the Customer to understand the state of their preparation for operating a cloud system. A kickoff workshop will be conducted with the full team to align stakeholders to a shared vision, objective and timeline. This service will confirm the target scope, approach and outputs and will also provide recommendations to the Customer, where necessary.

2.1.1   Scope
Infrastructure Assessment – Sessions / discussions with the Customer to understand their existing cloud footprint. Customer will share and disclose details of their current infrastructure and steps they have taken to extend their existing infrastructure footprint to the Cloud. Customer will walk Teradata through the connectivity diagram to cloud environment as well as network connectivity method. Customer will also share and explain physical architecture diagram that will be used as the blueprint for cloud environment instantiation.

2.1.2   Required Inputs – To be provided by the State to the Optum Team
- Network connectivity details for cloud environment access
- Agreed upon test plan to validate the cloud environment

2.1.3   Completion Criteria
- Kick-off meeting has been conducted
- Recommendations and feedback have been provided by the Optum Team
- Completed Cloud environment physical architecture

2.2 Cloud Provisioning - Cloud Environment Instantiation

This service covers activities involved in instantiating the Azure environment, so it matches the bill of materials and complies with the physical architecture diagram.

2.2.1   Scope
- Create / configure the bill of materials components of the Teradata ecosystem using Azure Government ARM templates. This includes:
  - Teradata Vantage (SQL only)
  - Teradata ViewPoint
  - Teradata DSC/DSU
  - Teradata Server Management

2.2.2   Required Inputs
- Azure Physical Architecture Diagram (Teradata)
- Environment Test Plan (Teradata / State)
- Access to Express Route from the subnet where Teradata components will be deployed (Teradata / State)

2.2.3   Completion Criteria
- An operational Azure environment that matches the bill of materials and complies with the physical architecture diagram; this includes infrastructure, software and connectivity as described in this Exhibit

- Successful environment tests validating Environment Test Plan requirements

2.3   Cloud Provisioning – Onboarding and Connectivity Activities

Teradata will perform, verify and complete the following onboarding and connectivity activities (note that activities listed below include details and integration with Section 2.2 above):

- Create Azure Government Tenant
- Create Azure Tenant Administrator
- Create Subscription Azure Contributor
- Create, verify and test data flow diagram (includes network settings), as a shared responsibility with the State
- Create VNet configuration
- Create Site ID with any required restrictions
- Create Private Offer (White list subscription)
- Create Teradata Instance (Nodes, Server Mgt, Viewpoint, DSC/DSU)
- Establish rights on service.teradata.com
- Set-up Service Connect (e.g., for Teradata GSO software monitoring / alerts)
- Take instance up to current software levels for the Operating System and Database
- Establish, configure, route and test Express Route Gateway to State's existing Virginia endpoint, as a shared responsibility with the State
- Turn over DBC Password
- Restore DBC database as a shared responsibility with the State
- Remove Teradata "Ownership/Contributor" rights for Azure portal and ensure Azure Portal "Read Only" access for needed personnel – Teradata CSR, Billing, etc.; this is a shared responsibility with the State
- Perform initial configuration of Viewpoint
- Provide an Environment Details Document that includes user access details and services deployed
- Provide the State with links to standard Teradata and Azure documentation consistent with the State's license/subscription/rights (e.g., user manuals, operating manuals, technical manuals)

2.4   Cloud Provisioning – Handover Activities

Teradata will establish initial security and handover the Azure Portal Administration and tenant to the State and only retain read-only access to the tenant (which allows Teradata to monitor the amounts and types of infrastructure that are deployed, as opposed to the logs of activities). Teradata will have no access to the State's servers or data. Specifically, the following will be handed over to the State:

- All provisioned items (e.g., VMs, SQL Engine, Server Manager, DSC/DSU, Viewpoint)
- All SLES operating systems fully hardened to IRS-SCSEM standards
- Azure Virtual Network Gateway connected to the State's Express Route end point in Virginia, and encrypting traffic to and from the virtual network
- Encryption turned on for data at rest (i.e., disk/storage encryption)
- Firewall assignment on each virtual network card forcing only needed ports for that operating environment
- Azure Bastion Service – fully managed Platform-as-a-Service (PaaS) service that provides secure and seamless RDP and SSH access to your virtual machines directly through the Azure Portal
- Multi-Factor Authentication (MFA) for Azure Government Portal Access – process prompting a user during the sign-in process for an additional form of identification, such as to enter a code on their cellphone
- No public endpoints for any Azure resource
- Teradata will not maintain any privileged user rights on the Azure Tenant/Subscription

The handover process will occur over 1 or 2 informal sessions totaling up to 3-hours that will include (1) Teradata providing a basic train-the-trainer session to the State's EOC-DC Physical DBA Team (up to 10 attendees) to review the New Test System in Azure and walk them through the Environment Details Document; and (2) Teradata and the State working together to complete the shared tasks described above.

3. KEY WORK PRODUCTS

Teradata will provide the following key work products under this Exhibit, provided, however, that such key work products are not Deliverables to be owned by the State but instead constitute pre-existing intellectual property owned by Optum's subcontractor, Teradata:

a. An operational virtual environment that matches the bill of materials and complies with the physical architecture diagram - Test environment only; this includes infrastructure, software and end-to-end connectivity as described in this Exhibit
b. An Environment Details Document that includes user access details and services deployed
c. Azure Portal Administration and tenant handover to the State to manage in Steady-State

4. PROJECT-SPECIFIC RESPONSIBILITIES

Teradata's agreement to this Exhibit and its duty to perform in accordance with this Exhibit are dependent and conditioned upon the following dependencies being satisfied, upon the State being responsible for and completing the following engagement-specific responsibilities, and upon the State providing the following personnel resources.

4.1 Dependencies and responsibilities of Customer include:

- Customer is responsible for the Section 2 Services activities described as State responsibilities, e.g., in many 2.1 activities, in 2.3 where it indicates "as a shared responsibility with the State" and in 2.4 where the handover activities occur

- Customer will provide the environment testing plan and criteria to satisfy service completion requirements for all outputs and related services prior to start or during readiness assessment phase or as otherwise agreed in the Project Schedule. Any delays or additional work from incomplete requirements or from failure to meet the Dependencies/Entry Criteria may result in a change to the Project Schedule and additional fees. Any conflict between this Exhibit and the Project Requirements or any change to the signed-off Project Requirements will be managed with a Change Order.

- Unless other acceptance criteria are specified in this Exhibit and/or the Change Request 030 of which this Exhibit is a part, key work products are considered accepted upon delivery by Teradata unless; Customer notifies Teradata in writing of any material defects within five (5) business days or as otherwise specified in the Project Schedule, if the key work product (or any part) is used in a production environment, or if Customer makes any modification to the key work product.

- Customer will resolve incidents pertaining to their network and connectivity with the Azure cloud environment

- Customer will identify and interpret any applicable laws, regulations, and statutes that affect Customer's systems or data to which Teradata will have access, and will comply with such requirements

- Customer will select and implement controls on access, use, and security of Customer's data, the transmission of personally identifiable information, appropriate data encryption/masking/obfuscation and configuration management

- Customer will ensure that access and privileges of Teradata in the performance of the services set forth herein are inactivated immediately upon completion of the project.

4.2 Dependencies and responsibilities of Teradata include:

- Assign and customize training for the staff with the necessary skills and experience to provide the services and key work products

- Provide the personnel outlined to perform the services described

- Notify Customer in writing of the re-assignment or termination of any Teradata Personnel assigned to provide Services under this Exhibit

4.3 Customer Personnel required for the project include:

Executive Sponsor	The Executive Sponsor has overall customer responsibility for the effort and provides guidance and leadership to the team and stakeholders.

Project Coordinator/Manager	The Project Coordinator (or project manager) plans, organizes logistics, monitors and ensures coordination of project tasks. In addition, this role assists with the scheduling of meetings, working sessions and sponsor reviews. Monitors and reports status.
Client Core Team Members	Designated stakeholders who provide required information / response to queries during the Azure Onboarding Process.
Subject Matter Experts	Provide subject matter expertise in specific areas. Actively participate in the project as needed and provide requested information. For example, client network team members, security team members and other team members as required.

5. SCOPE EXCLUSIONS

The Services and key work products to be provided by Teradata include only what is expressly described in this Exhibit. Specific exclusion items to note are as follows:

- Configuring Viewpoint portlets / roles / users

- Performing any activities requiring physical access to the data center (e.g., media management)

- Creating Azure subscription, resource groups, subnets, CIDR blocks to connect to customer on-premises environment

- Configuring / creating Network connectivity between on-premises and Azure environment client-side applications to connect to Teradata

- Network troubleshooting of on-premises systems and outgoing traffic to the internet

- Tests other than environment tests for the infrastructure, software and connectivity are out of scope for this service (e.g., tests incorporating data and applications are out of scope)

- Creation of custom IAM roles / permissions

Exhibit 3 – IRS SLES 11/12 SCSEM SYSTEM HARDENING SERVICES

1. NATURE OF THE PROJECT

Teradata will perform the initial IRS SLES 11/12 SCSEM system hardening services for servers/VMs defined in Section 3. This service will be completed remotely and does not include any travel.

For clarification, IRS refers to the Internal Revenue Service (IRS), SLES refers to SUSE Linux Enterprise Server, and SCSEM refers to the IRS Safeguard Computer Security Evaluation Matrix.

2. PROJECT START AND END DATES

2.1   The Start Date for Teradata's performance regarding the Project will be mutually agreed by Optum, the State and Teradata, but where the current estimate is during Milestone 1 activities.

2.2   The estimated End Date for Teradata's performance regarding the Project will be as part of Milestone 1 completion.

3. SERVICES

3.1   Initial Operating System (OS) Level IRS SLES 11/12 SCSEM Security Hardening Service

Teradata will harden the servers/VMs identified in Exhibit 1 in accordance with the most current IRS SLES 11/12 SCSEM through configuration changes where possible. Any code and/or software changes required in order to meet the security requirements are not covered under this Exhibit. When operational changes are required in order to meet the security requirements, Teradata will identify them and provide the information to State resources for implementation. Operational changes may include password policy changes on all platforms, keeping up the platform baseline, having a process to secure the environment where the platforms are located, etc. Configuration changes to meet the IRS SLES 11/12 SCSEM security requirements will be documented and provided to the State at the completion of the System Hardening Services for each server/VM identified in Exhibit 1.

The following is a list of tasks to be performed by the Teradata Security Specialist as proposed.

–   Review OS system configuration settings, vulnerability scan results if provided and OS level information security issues with the State. Vulnerability scan must be run prior to system hardening being started. Teradata will review one subsequent scan following the system hardening.

–   Disabling unnecessary services and protocols

–   Limiting access rights to critical system files and services to only what is required

–   Provide completed IRS SCSEM

–   Implementation and testing of custom or unique OS level security configurations

The scope of work for the SLES 11/12 system hardening services is limited to the servers/VM in Exhibit 1 and based on the assumptions listed below.

Assumptions:

–   Hardening will be done in accordance with the most current IRS SLES 11/12 SCSEM requirements

–   No other application servers not specifically mentioned in Exhibit 1 are included for the System Hardening Services identified below

–   Integration with the State's Single Login is not included in the System Hardening Services

–   Integration and testing with external Directory Services or Active Directory for user Authentication or Authorization are not included in the System Hardening Services

–   Teradata provides SSL equivalent network traffic encryption between client and server or server to server (BI tool, ETL, BAR, etc.) but does not use the SSL (which was primarily designed for web browser/web server network traffic encryption)

–   Integration and testing for User Authentication using RSA Secured tokens is not included in the System Hardening Services

3.2   (Optional) Out Year Service for IRS SLES 11/12 SCSEM Security Hardening Audit Service

Teradata recommends that regular IRS SLES 11/12 SCSEM Security Hardening Audits be performed so that the previous hardening configurations are maintained. Changes to the Hardening configuration can occur during installation of OS patches and/or upgrades, so many of our Customers coordinate the Audit Service with their Teradata Maintenance upgrades.

Note that these Out Year Services for the New Test System in the cloud are performed as part of the fiscal year System Hardening efforts and associated pricing previously incorporated into the contract.

The following is a list of tasks to be performed for the IRS SLES 11/12 SCSEM Security Hardening Audit Service:

– Teradata will review the report of the State's designated vulnerability scan performed on the Teradata System Linux nodes.

– Teradata will recommend which of the items identified by the designated vulnerability scan require remediation

– Teradata may identify certain vulnerability scan report findings as false positives not requiring remediation by further operating system hardening procedures. Accordingly, the time specified for performance of this review service is based on the State's agreement with Teradata's recommendation of the items to be remediated by operating system hardening procedures. If the State nonetheless requires that Teradata remediate the identified false positives, then Teradata will estimate the time necessary to perform such additional work and an appropriate Change Order must be executed by the State and Optum authorizing the additional work.

4.   KEY WORK PRODUCTS

4.1   Teradata will provide the following Key Work Products, but where this Key Work Product is a work made for hire to be owned by the State:

Key Work Product	Services Reference
IRS SCSEM for all Exhibit 1 servers/VMs	Section 3.1 of this Exhibit

5.   DEPENDENCIES & STATE RESPONSIBILITIES/ PERSONNEL

5.1   Optum's agreement to have Teradata perform the above system hardening services and duty to perform in accordance with this are dependent and conditioned upon the following dependencies being satisfied, upon the State being responsible for and completing the following engagement-specific responsibilities, and upon the State providing the following personnel resources:

5.2   Dependencies and responsibilities of the State consist of:

- Granting Teradata access to the Teradata DBC, and the UNIX Root or Windows Administrator

5.3   State Personnel required for the Project include:

Project Manager – A project leader who is available to meet regularly with Teradata personnel on matters pertaining to this project, able to procure and direct company resources as requested by the Teradata Consultants.

Information Systems Representative – A manager who is familiar with the administration and workings of the State's Information Systems group, and who is versed in the operation and management of the Teradata systems.

6.   OUT OF SCOPE SERVICES; EXCLUSIONS

6.1   The Services to be provided by Teradata include only what is expressly described in this Exhibit. Services that are outside the scope of this Exhibit include, but are not limited to, the following:
- Reengineering of processes
- The solution of any problem originating from the quality of the data

- The design or development of applications to create non-existent data or to modify current data
- The construction of a dictionary of current data used to populate one or more databases
- Training of people that are not State Project Team members
- Full-production operationalization (such as complete automation and error handling for the data loads) optimization, performance tuning, data and operations management, archive/recovery, and knowledge transfer
- Complex analytical processing that is not included as part of a Teradata-provided solution's functionality
- Security hardening of any other servers not specifically identified in Section 3

Exhibit 4 – Azure BAR Script Setup Services

1. NATURE OF THE PROJECT

To help meet Backup and Restore (BAR) needs, basic Data Stream Architecture (DSA) jobs will be created for use and modification by the State. Data Stream Utility (DSU) jobs will be created for primary full archive. In addition, a set of skeleton DSU jobs, policies and target groups will be created that the State can modify or alter to move data between platform systems. This will be a one-time setup process with a brief write-up and an informal, single knowledge transfer session following the set-up completion. The informal knowledge transfer session will review the materials in the brief write-up, as described below.

2. PROJECT-SPECIFIC SERVICES

Basic One-time Full Backup Setup:

- Review existing infrastructure to confirm the functionality of the BAR operations

- Consult with the State for confirmation of targeted BAR strategy, if required

- Verify the functionality of the Customer's DSU process

- Create a set of DSU jobs, policies and target groups for the primary full backup and restore processes that match the Current Test System and fit the New Test System cloud environment

- Create a set of initial DSU Jobs and policies with associated target groups that match the Current Test System and that can be used by the Customer to modify and create their own additional archive jobs

- Create a set of DSU jobs, policies and target groups that the customer could use to transfer data between their platform systems, if required

- Create a brief BAR write-up and hold an informal, single train-the-trainer knowledge transfer session (1 to 2 hours) for State EOC-DC physical DBA staff that covers:
  - BAR Diagrams
  - Access to the BAR Server – DSA/DSU
  - Backup Schedule
  - Disk, Policies, Jobs
  - DSU - Backup and Restore Job Management
  - DSU Job Status, History & Logs
  - Maintenance (HUT Locks)
  - Issues, Failures, Restarts
  - Operational Duties
  - BAR Review Question & Answer Session

- Provide support as the State EOC-DC staff performs initial testing of BAR processes

Note: Teradata performs the above-described Basic One-time Full Backup Setup process described above and also provides support for the end-to-end DSC/DSU BAR solution, but the State is responsible for managing backups/restores in Steady-State, including regularly testing/verifying the end-to-end BAR process and changing BAR jobs/scripts/schedules when needed. Teradata/Optum have no liability related to data content or backup content or whether a specific backup or restore operation works on a given day.

3. KEY WORK PRODUCTS

Teradata will provide the following key work products under this Exhibit but where this key work product is a work made for hire to be owned by the State:

- An operational Basic One Time Full Backup Setup for the New Test System, including brief write-up and informal knowledge transfer session

The Services to be provided by Teradata include only what is expressly described in this Exhibit.

Exhibit 5 – Support and Maintenance Services (Essential Support)

1. Overview and Support Services

Teradata offers two tiers of Support and Maintenance Services, Premier and Essential. As part of the recurring annual charge for the State's New Test System, the Essential Support Tier has been included, which also includes all functions of the Premier Support tier. Teradata Business Critical Enterprise System Support (ESS) Services, which is the support tier used by the State for the current three systems, is no longer offered and has been replaced by the Essential Support tier described herein (i.e., close equivalent). Notwithstanding the above, Teradata Business Critical ESS shall continue to apply to the Current Product System and Current Dev/DR System until such systems migrate to the Azure GovCloud. The terms of this Exhibit 5 regarding Essential Support shall apply to the New Test System.

Under the Essential Support tier, the State will be covered for Severity 1 and 2 calls on a 24x7 basis and software upgrades and patches can also be scheduled on a 24x7 basis. Teradata also executes all change controls, monitors patch risks, conducts technical alert analysis and critical patch reviews. In addition, Teradata will install and annually upgrade PDCR - Performance Data Collection and Reporting. PDCR is a data collection application which provides data to support the understanding of database performance characteristics and workload utilization. Teradata will enable and configure the PDCR database and tool so that historic database and query performance can be captured, allowing the State to make optimal future workload, platform management, and consumption decisions.

1.1 Premier Support

Teradata will provide a support card upon start of support that includes details of how to contact Teradata, certain support processes and basic customer responsibilities for obtaining support.

Hours of Coverage and Response Times		
Hours	**Remote Support Coverage**	**Response Times**
24x7 Priority	7 days per week, 24 hours a day for Severity 1 and 2 incidents; 9 standard business hours, 5 business days per week, (the State's local time), excluding locally observed holidays for Severity 3 and 4 incidents	Remote Response: 30 minutes for Severity 1 and 2 incidents; 2 hours for Severity 3 incidents; next business day for Severity 4 incidents

1.2 Premier Cloud Support (included as part of Premier Support)

Only problems originating from a running Teradata subscribed instance(s) are covered under Premier Cloud Support. Problems originating from the cloud provider, hardware or coordination of vendors due to hardware failures will be managed by Teradata Premier Cloud Support as "Remote Support." Support will be provided in English.

For Teradata to provide optimum support services, it is required for the user to enable Assigned Service Management, configure Teradata's ServiceConnect, for remote connectivity, and generate a baseline of system assets – known as System Asset Baseline. At a minimum, the State must allow WebEx or Secure Shell (SSH) type connections as requested by Teradata for support.

Premier Cloud Support is provided via Teradata Access, which provides user assistance via Community Forums, Knowledge Articles, and Incident Submission for all Severity Levels, initiating an incident via phone is only available for Severities 1 & 2.

Cloud Hours of Coverage and Response Times		
Hours	**Remote Support Coverage**	**Response Times**
24x7 Priority	7 days per week, 24 hours a day for Severity 1 and 2 incidents; 9 standard business hours, 5 business days per week, (the State's local time), excluding locally observed holidays for Severity 3 and 4 incidents	Remote Response: 30 minutes for Severity 1 and 2 incidents; 2 hours for Severity 3 incidents; next business day for Severity 4 incidents

On-Premise Premier Support Hours of Coverage and Response Time Options		
Hours	**Remote and On-Site Support Coverage**	**Response Times**
24x7 Priority	7 days per week, 24 hours a day for all Severity 1 and 2 incidents; 7 days per week, 24 hours a day for all Severity 3 Equipment incidents; 9 standard business hours, 5 business days per week, (the State's local time), excluding locally observed holidays for Severity 3 Software and all Severity 4 incidents	Remote Response: 30 minutes for all Severity 1 and 2 incidents; 30 minutes for Severity 3 Equipment incidents; 2 hours for Severity 3 Software incidents; next business day for all Severity 4 incidents On-Site Response: 2 hours for all Severity 1 incidents; 4 hours for all Severity 2 and 3 incidents; next business day for all Severity 4 incidents. Not available on Data Domain BAR products

1.3 Problems & Incidents

A "problem" is defined as failure of a product (hardware or software) to conform to its then current, customer level documentation. Generally, a problem refers to a product not operating within its designed specifications. An "incident" is a request for service. Each incident must have a severity assigned to it.

Incident Severities:

- **Severity 1:** Mission critical system is down, corrupted, or so severely degraded that it is unusable and requires immediate attention to return system to service.

- **Severity 2:** System is up and operational, but problem has a severe, on-going daily impact to business which requires immediate engagement and urgent resolution efforts.

- **Severity 3:** Problem has a medium impact to business; resolution efforts can occur over the next several days.

- **Severity 4:** Problem has low impact to operations; near term resolution is not required; additional research, information, or clarification on documentation is needed to address a question.

When an incident is designated Severity 1 or 2, the State understands it will be necessary to provide Teradata with immediate, secure remote access to the affected product. The State acknowledges that if access is delayed or not provided as requested by Teradata, problem resolution efforts will be impaired and may delay resolution of the problem.

Customers with Internet access agree to report all Severity 3 and 4 incidents through Teradata Access. The State further agrees that support requests classified as a "question" will only be assigned a Severity 4. The State will receive an electronic confirmation of all incidents created via Teradata Access. Teradata will activate its Auto Incident Create diagnostic tool to create incidents based on certain alerts and thresholds.

Implementing a Field Retrofit Order (FRO) - see *Installation of Hardware Engineering Changes or Field Retrofit Orders (FROs). A* resolution to a reported problem, or other remedial maintenance will not alter the Problem Severity.

2. Support Lifecycle

2.1 Hardware Services

2.1.1 Hardware Support Lifecycle

For Teradata hardware platforms, Teradata will provide remedial maintenance services for six (6) years from its Platform Sales Discontinuation Date. Platform Support Discontinuation is the end of support date for a particular Teradata hardware platform. *Some government contracts require seven (7) years of support, from the purchase date of their system. Therefore, these governmental contracts will be honored and supported for seven (7) years after Platform Sales Discontinuation.* Teradata may, at its discretion, support Teradata hardware for longer periods after its Sales Discontinuation Date.

2.1.2 Operating System

Teradata considers the operating system (OS) to be a part of the hardware platform. Therefore, Teradata will install any Teradata certified OS patches or fixes (including Microsoft or Linux) on any hardware platform (e.g. Database Nodes, TMS, SWS/AWS, stand-alone server) under a Teradata maintenance contract, not to exceed a quarterly calendar cadence. Note: Certain Teradata Software Products contain a virtualized OS that is considered part of Teradata Software

(e.g. TD VMware) and not the hardware platform.

Teradata will not install any non-Teradata certified OS patches or fixes on any hardware platform. If the State wants any non-Teradata certified OS software installed on any platform, they must perform this themselves. However, non-Teradata certified OS software and problems resulting from non-Teradata certified OS software are not covered under any maintenance contract. Any associated incidents resulting from the non-Teradata certified release will be considered out-of-scope and subject to Additional Service Rates.

Installation of non-mandatory Teradata certified OS fixes or patches will be performed during business hours (9x5) and follows the then current change control notification practice (currently 28 days notification). Any OS changes considered mandatory by Teradata are installed per the FRO policy. See *Installation of Hardware Engineering Changes or Field Retrofit Orders (FROs)* for the contracted level of service.

Major/minor OS upgrades or Service Pack (SP) changes require an additional Software Implementation (SWI) service or Essential Service or any Teradata Success Services and will be performed during the State's Severity 1 hours of coverage.

OS conversions (e.g. Windows to Linux) are performed under a custom OS Conversion service. Any OS updates required/performed as part of a database change by Teradata are included with the appropriate Software Implementation service as long as the OS is under Teradata maintenance and the change is not a minor/major OS upgrade or Service Pack upgrade. These changes are installed during the customers Severity 1 hours of coverage.

2.1.3 Remedial Maintenance

Teradata will first attempt to fix the problem remotely before dispatching a service representative. When Teradata determines that a problem requires onsite assistance for repair, a service representative will be dispatched to provide on-site remedial maintenance. Remedial maintenance consists of those functions required to restore failed or malfunctioning equipment to an operational state, which is defined as conformance to the manufacturer's then- current customer-level documentation. It does not constitute the return of the equipment to an "as was" condition.

2.1.4 Remote Hardware Diagnostics

Teradata will use remote connectivity and service tools to diagnose problems prior to sending a Customer Service Representative on-site. Remote hardware diagnostics will be performed during the contracted hours of coverage only and determined by severity level.

2.1.5 On-Site Hardware Service

On-site support is the provision of remedial equipment maintenance that may require one or more visits to Customer facility or product location and may also include on-site software maintenance. On-site service will be provided during contracted on-site hours of coverage.

2.2 Software Services

Teradata will provide remote software support for non-discontinued and certified software products during the State's contracted hours of coverage. Teradata will provide services to diagnose and resolve problems for supported operating system, Teradata Software, utilities and supported BAR products. Any on-site software service is provided at Teradata's discretion.

Software support generally consists of: 1) guidance in locating (via Teradata Access) solutions to known problems, information to resolve procedural problems and answers to frequently asked questions, 2) recommendations to upgrade if solution is available in a later software release, 3) providing a temporary workaround procedure to circumvent a problem until an e-fix/code-level change is provided.

Software maintenance includes providing an e-fix/code-level change that resolves the reported problem or providing access to a software maintenance release.

Once remote support for a Severity 1 call begins, Teradata will continue to address the problem uninterrupted only during contracted hours of coverage.

2.2.1 Teradata Database Software Support Lifecycle (*Teradata Database 16.10 and Later Releases)*

Teradata's Database Support Policy for Teradata Database 16.10 and later releases is to provide 3 years of maintenance & support, from the General Customer Availability date of the minor or major release, until the End- of-

Maintenance (EOM) date and a 2-year (at Teradata's discretion) Extended Database Maintenance Period (EDM) (see below) – referred to as a 3+2 support policy. During the maintenance & support period for Teradata database products, Teradata will provide software problem resolution services, which include code level maintenance, and any activity that provides existing corrections or work-arounds to correct reported software problems for no less than 36 months from its General Customer Availability (GCA) date. At the end of the EOM period, the system will default to the Extended Database Maintenance Period (see below) and is subject to additional fees. Following the end of the EDM period, the system will enter the Support Only period (see below) and is subject to additional fees. Teradata may, at its discretion, support additional Teradata releases but will not provide fixes or patches for such versions.

Teradata is committed to providing crash dump analysis while a Teradata Database software release is within the maintenance and support period plus a period of three months past the End of Maintenance (EOM) date published by Teradata.

2.2.2 Teradata Tools & Utilities Software Support Lifecycle

For Teradata Tools & Utilities software, Teradata will provide software problem resolution services, which include code level maintenance, and any activity that provides existing corrections or work-arounds to correct reported software problems for no less than 36 months from its General Customer Availability (GCA) date.

2.2.3 Supported Software Releases

Most Teradata software products are characterized by four different types of software releases. These releases are differentiated by release number X.Y.Z.n

- X number refers to a major software release upgrade

- Y number refers to a minor software release upgrade

- Z number refers to a maintenance release update

- n number refers to fixes or patches

"Service Pack" and "Hotfix" are the third-party names for software fixes. Following Teradata standards, a "Service

Pack" is a maintenance release (Z) and a "Hotfix" is a patch (n).

2.3 Hardware Problem Resolution

Problem resolution for hardware is achieved when the equipment is returned to a ready-to-run state. Implementing a Field Retrofit Order (FRO), a resolution (Fix) to a reported problem or other remedial maintenance will not alter the original Incident Severity.

If the problem resolution or an FRO requires the system to be inoperable, the problem resolution or FRO is governed by the original incident Severity or FRO classification.

Therefore, in certain situations, where the resolution to a Severity 2 or Severity 3 incident or a FRO implementation require system downtime, Customer will experience system unavailability without having a Severity 1 incident. Those outages would only be worked on during business hours (or at an additional cost if requested to be performed out of hours).

2.4 Software Problem Resolution

Software problem resolution consists of: 1) guidance in locating (via Teradata Access) solutions to known problems, information to resolve procedural problems and answers to frequently asked questions, 2) recommendations to upgrade if solution is available in a later software release, 3) providing a temporary workaround procedure to circumvent a problem until an e-fix/ code-level change is provided, or 4) providing an e- fix/code-level change that resolves the reported problem. E-fix/code-level changes will only be provided for supported releases of Database, Tools and Utilities/Client Software at Teradata's discretion.

Teradata software problem resolution does not include: (i) installation, (ii) step-by-step installation consultation, (iii) testing of State installed patches and maintenance releases, or (iv) recovery of the product or system after a failed installation performed by the State.

2.5 Escalation Guidelines

Teradata support processes include escalation, notification and resolution guidelines. These triggers are invoked based upon the severity of the incident and impact to product performance. The guidelines are as follows:

	Severity 1	Severity 2	Severity 3	Severity 4
Definition	Mission critical system is down, corrupted, or so severely degraded that it is unusable and requires immediate attention to return system to service	System is up and operational, but problem has a severe, on-going daily impact to business which requires immediate engagement and urgent resolution efforts	Problem has medium impact to business; resolution efforts can occur over the next several days (or Severity 1 Down Root Cause)	Problem has low impact to operations; additional research or information is needed
Resources	Immediate Levels 1-4 engagement	Immediate Level 2 (or 3) engagement	Level 1 & Level 2 w/in 2 days	Level 1 & Level 2 w/in 5 days
Work Effort	Around-the-Clock	Dedicated and continuous efforts	Managed efforts during Center Hours (aligned to customer work hours)	Practical effort during Center Hours
Customer Updates	Hourly	Every 6 hours or as agreed	Daily or as agreed	Every 5 days or as agreed
Bridge Call	Yes	No, or upon request with Assigned Service Manager	No	No
Escalation to Level 3	Immediate	No later than 12 Hours	No later than 3 Days	No later than 7 days
Closed Loop Corrective Actions	Yes (Teradata Success Services Only)	No	No	No

2.6 On-Site Parts Service – Not Applicable to the New Test System

With On-Site Parts Service, Teradata Customer Support and Services will analyze Customer's specific parts needs, develop a customized plan, and manage onsite spare parts inventory. Teradata will continually adjust the plan to allow for lifecycle parts management (e.g. FROs, parts requiring regular replacement – such as disk drives, batteries, etc.). These on-site spares will be stocked at Customer location. Customer must store parts in a secure area and give Teradata personnel unrestricted access when requested. These parts will be in addition to Teradata's centralized stock of replacement parts. Failure to retain original packaging materials may result in Customer being charged a restocking fee for the part(s) without such packaging. Teradata will periodically review the list of specific parts being stored at Customer's site. At Teradata's sole discretion, Teradata will determine whether to add or remove parts based on their criticality and need.

2.7 Disk Drive Retention – Not Applicable to the New Test System

With Disk Drive Retention Service, any failed disk or solid-state drive(s) (drive types will be specifically identified in the maintenance orders) will not be replaced on an exchange basis. Instead, upon replacement (by either Teradata or Customer) the replaced disk drive will become Customer property.

2.8 Software Implementation

Teradata will provide remote upgrade/update of Teradata Database, Teradata Managed Application (e.g. Viewpoint), and OS software releases as covered by a relevant order for which the State has a valid license. The installation shall take place during the Remote and On-Site Hours of Coverage that apply to Severity 1 incidents. All implementations shall follow Teradata's then-current change control management and implementation process and are subject to any remote connectivity requirements. At Teradata's discretion, any operating system, firmware updates, or other software upgrades required to enable the implementation of a Database software change may be performed as part of the Upgrade Service. This Service does not apply to BAR software products, unless covered under the Essential "Customer-Level" program. For Premier Public Cloud platform products, Software Implementation service only applies to maintenance releases and patches/fixes.

- Not all Teradata software products are eligible for Teradata Upgrade service (e.g. Teradata Analytic Applications, Hadoop).

- The State must provide Teradata at least 28 days advance notice of a change to allow Teradata to develop and approve the appropriate change control plan.

- The State is responsible for identifying the specific target software release to be implemented.

Teradata Vantage Limited Upgrade Service is not available for Public Cloud unless Teradata ServiceConnect remote connectivity solution has been implemented and, in such case, it only applies for Maintenance and Patches/fixes.

The specific Vantage Limited Upgrade annuity service options are identified below:

OnPremises & TD_VMware	All Teradata Database (except Public Cloud), Teradata Managed Application, and OS software major (X) and minor (Y) upgrades, and all maintenance (Z)/patch (n) releases and all necessary fixes (Efix)

2.9 BAR Software Implementation Service (SWI)

The New Test System includes this service. Teradata will provide remote implementation of BAR software releases covered by the relevant Order and for which the Customer has a valid license. BAR SWI does not include identifying a specific target software release to be implemented. The installation shall take place during the Remote and On-Site Hours of Coverage that apply to Severity 1 incidents. All such implementations shall follow Teradata's then-current change control management and implementation process and are subject to any remote connectivity requirements. Any operating system, firmware updates or other software upgrades are outside of the scope of BAR SWI. Customer must provide Teradata at least 28 days advance notice of a change for Teradata to develop and approve the change control plan.

The specific SWI annuity service options are identified below.

BAR	Teradata BAR Extension (Data Stream Architecture (DSA) / Tier Archived Restore Architecture (TARA)) and the enterprise Backup and Recovery suite (NetBackup / NetVault) software and fixes

2.10 Change Control Management

With the State's assistance and approval, Teradata will develop and document a written change control plan, following Teradata's then-current implementation management and processes outlining the implementation plan, test plan, back-out and recovery plan, and the responsibilities of both the State and Teradata in implementing Field Retrofit Orders (FROs) and Teradata-installed Database and Operating System Software releases consisting of fixes and patches (n), maintenance release updates, (Z), minor release updates (Y) and major release updates (X).

During such implementations, Teradata will provide Remote Support (or On-Site Support, at Teradata's discretion) throughout the implementation of the change control plan. This service does not apply to BAR software products, unless covered under the Essential "Customer-Level" program. This service only applies to maintenance and patch/fix releases for Premier Cloud Support platform products.

All Change Control development is subject to the 28-day notification requirement and must be requested via the Teradata Access portal.

2.10.1 Critical Patch Review

On a weekly basis, for each certified release of a Teradata database, Teradata will review the technical alert and any corresponding patch information to determine its applicability to Customer's environment. If Teradata determines that the patch should be applied to Customer's system, Teradata will notify Customer that the patch is available and provide a recommendation as to when it should be installed.

2.10.2 Customer Support Plan

Teradata will document the detailed support processes through which on-going support will be delivered to Customer including both Customer's and Teradata's roles and responsibilities in those processes. The support plan will be reviewed with Customer annually and updated as necessary by Teradata.

3. Teradata Essential (included for State of Michigan)

Teradata Essential Support combines Premier Support described above with the Essential Service features described below and is only available for the Teradata database.

If a valid order for Essential is executed for the "Customer-Level" offering program, which entitles all of the State's Teradata Database Platforms and associated Teradata supported BAR solutions to the Essential Offer, the State must meet the following requirements to maintain eligibility to participate in the program:

1. The State must have at least one Teradata platform on a current Teradata General Customer Availability (GCA) release;

2. The State must have Essential coverage on all of its Teradata database platforms; and

3. After the initial year migration, State-level pricing will only apply to platforms on General Customer Availability (GCA) release at the time of Support renewal.

In so far as neither the Current Production System nor the Current Dev/DR System is at the Essential coverage level, the Teradata Essential coverage described herein shall only apply to the Teradata database portion of the New Test System.

3.1 Assigned Service Management

Teradata will identify technical resources that will be specifically assigned to provide Teradata Essential services to the State.

The State Support Plan will identify the individual by name, identify the specific roles and accountability in delivering Services, and provide direct contact information.

For each Severity 1 problem, a Teradata Representative will conduct a "postmortem" analysis that includes a closed loop corrective action plan. The foregoing is only applicable to Teradata integrated hardware and software solutions provided by Teradata and does not apply to Public Cloud solutions. Teradata will also inform the State of any changes in Product Support Policy permitted by and in accordance with this Exhibit.

3.2 Availability Management Reporting

Teradata will make available to the State, on a monthly basis via Teradata Access, a system availability report that documents the Teradata database systems' planned and unplanned availability and includes statistics for system maintenance, change control, customer induced activities, and unplanned down time affecting availability.

If the State does not have access to Teradata Access, an availability management report will be provided monthly. Downtime, for the purposes of availability reporting, will commence when Teradata is informed by the State either verbally or through automated tools that their system is down and will continue until the Teradata login is restored so that the State may begin the necessary steps to again use the system.

The system availability report does not include time for data restoration and/or validation. Availability reporting is not included when the State elects Monday through Friday, 8 a.m. to 5 p.m. on-site support Hours of Coverage. This report excludes BAR Product(s).

4.3 Performance Data Collection Reporting (PDCR) Configuration

PDCR (Performance Data Collection and Reporting) is a data collection application which provides data to support the understanding of database performance characteristics and workload utilization.

Teradata will enable and configure the PDCR database and tool so that historic database and query performance can be captured allowing Customer to make optimal future workload, platform management, and consumption decisions.

Teradata will review and update PDCR on an annual basis. These services will be performed remotely and may be performed offshore.

Notes:

*   This service does not apply to Customer "altered" PDCR tools. Customer will be subject to additional fees if PDCR tools have been altered.

*   Requires remote connectivity. At Teradata's discretion, this service may not be delivered due to certain remote and/or restricted access requirements by Customer that preclude delivery of the service.

4.4 Software Release Management

On a quarterly basis, Teradata will review new certified Teradata maintenance release updates (Z) and fixes and patches (n), and if applicable to deployment, Teradata will recommend patches and releases that should be applied proactively to avoid possible failures.

For supported non-Teradata branded Software covered by an order for support, Teradata will review applicable security patches on a quarterly basis. Teradata will not make recommendations to customers for Microsoft Hotfixes or Service Packs until certified by Teradata Engineering.

4.5 State of Health Reporting

On a bi-weekly basis, Teradata will remotely run and review a "Platform Health Check" to identify potential errors. On a monthly basis, Teradata will send a summary of the findings to the State. Platform Health Check findings and recommendations will also be reviewed during Operational reviews described below. This service does not apply to BAR software products.

4.6 Support Performance Reporting

Teradata will make available to the State, monthly via Teradata Access, a service performance report that identifies the response and resolution time for each incident submitted to a Teradata Service Center. The reports will provide statistics for all Teradata incidents opened and closed during the reporting period, including the number of incidents open at the start of the reporting period, the number opened during the reporting period, the number closed during the reporting period, and the number still open at the end of the reporting period.

Additionally, a summary disposition will be provided for each incident closed during the reporting period, including the severity status of the call, average problem resolution times, and the percentage of incident calls closed within the guidelines. Additional statistics will be included at Teradata's discretion.

If the State does not have access to Teradata Access, a service performance report will be provided monthly.

4.7 Service Reviews

For each contract year, Teradata will provide Customer the following support Reviews: one Operational review per quarter and one Executive review per year.

Operational reviews will, at a minimum, cover current service performance, review summary results from any "Platform Health Checks", review critical technical alerts, and discuss potential future changes to Customers environment.

The Executive review will, at a minimum, include a review of service performance statistics. The specific agenda, discussion points and the identity of participants from both Teradata and Customer will be as mutually agreed upon. These reviews will be conducted remotely, via telephone unless an on-site meeting is mutually agreeable.

Exhibit 6 – Teradata Software License Agreement

1. License of Software

Teradata Government Systems, LLC ("Teradata") agrees to license to the State of Michigan (the "State") on a Subscription-Based License basis the Teradata Software set forth for successive twelve (12) month annual recurring periods during the term of the Prime Contract between Optum Government Solutions, Inc. ("Optum") and the State, subject to the payment by the State to Optum of such annual recurring fee as may be established between Optum and the State and the following additional terms and conditions:

1.1. Teradata grants the State a non-exclusive, non-transferable, worldwide license ("Subscription-Based License") for the longer of (a) the period of time for which the State has paid Optum a monthly fee (during the three month, initial Trial Period), (b) the period of time for which the State has paid Optum an annual recurring fee or (b) expiration or termination of the Prime Contract ("License Term") to use all of the Teradata software set forth in Exhibit 1 (the "Teradata Software"). Such licenses shall be limited to a license to use the Teradata Software solely for the State's internal business purposes, with no right to modify, create derivative works, decompile or otherwise reverse engineer the Teradata Software.

1.2. At the end of the License Term, the State will promptly destroy the Teradata Software and all copies thereof, and if requested by Teradata, the State will certify such destruction in writing.

1.3. Subscription-Based Licenses have been priced by Optum to include (a) the right to receive Essential Services/Support as described in Exhibit 5 and (b) Teradata Software Upgrade Licenses. "Teradata Software Upgrade License" means an entitlement to receive copies of new updates and/or upgrades for specified Teradata Software during a paid coverage period as set forth in the Prime Contract. For Teradata Software covered by a Software Upgrade License, the State is permitted to receive, at no additional charge, any major or minor releases that Teradata makes generally commercially available for such Teradata Software, if any, provided that the State has paid Optum all applicable recurring fees that include a Subscription Based License due at the time such new update or upgrade becomes generally commercially available.

1.4. Subscription-Based License(s) will conform to Teradata's standard software warranties during the License Term, where such warranties shall be limited to a warranty that the Teradata Software media will be free from defects in material and workmanship and that Teradata Software will materially conform to Teradata Product Specifications. This warranty extends to and is limited in duration to ninety (90) days from the date that Teradata delivers the Teradata Software to the State. If Teradata fails to conform the Subscription-Based Licenses to their warranties within a reasonable time after receiving the State's warranty claim, the State may return the non-conforming Subscription-Based Licenses to Teradata, and after they are returned to Teradata, the State shall then be entitled to receive a refund of the prepaid fees for the Subscription-Based Licenses pro-rated as of the date the State provided notice of the non-conformity.

2. Delivery of Teradata Software

Teradata will deliver the Teradata Software to Optum electronically based on directions provided as part of the initial Order for the Teradata Software.

3. Portability

The Subscription-Based Licenses for the Teradata Software may be used by the State in its sole discretion on any systems supported by Teradata, whether cloud or on premise.

Exhibit 8 – Security Responsibilities for the Cloud Refresh of the Teradata Test System

The following "RACI" matrix sets forth who is responsible, accountable, consulted and informed regarding security related roles and responsibilities associated with the provisioning and operation of the State's New Test System in Azure GovCloud.

Responsibilities [1]	Teradata	State

During Implementation, establish and handover the New Test System [2,3]. This includes:
 	
 • As part of Cloud Provisioning, creating the master Azure Government account/tenant; provisioning infrastructure; and providing an Environment Details Document that includes implementation details, user access details and services deployed
 	
 • Establishing initial security and handing-over the Azure Portal Administration and tenant to the State and only retaining read-only access to the tenant (which allows Teradata to monitor the amounts and types of infrastructure that are deployed, as opposed to the logs of activities). Teradata will have no access to the State's servers or data. Specifically, the following will be handed over to the State:
    • All provisioned items (e.g., VMs, SQL Engine, Server Manager, DSC/DSU, Viewpoint)
    • All SLES operating systems fully hardened to IRS-SCSEM standards
    • Azure Virtual Network Gateway connected to the State's Express Route end point in Virginia, and encrypting traffic to and from the virtual network
    • Encryption turned on for data at rest (i.e., disk/storage encryption)
    • Firewall assignment on each virtual network card forcing only needed ports for that operating environment
    • Azure Bastion Service – fully managed Platform-as-a-Service (PaaS) service that provides secure and seamless RDP and SSH access to your virtual machines directly through the Azure Portal
    • Multi-Factor Authentication (MFA) for Azure Government Portal Access – process prompting a user during the sign-in process for an additional form of identification, such as to enter a code on their cellphone
    • No public endpoints for any Azure resource
    • Teradata will not maintain any privileged user rights on the Azure Tenant/Subscription
	R	C

During Steady-State, provide basic security support services as listed below [2,3]: • Azure GovCloud Virginia Region data center security established as part of the tenant • Access upon request to associated standard Microsoft Azure compliance offerings (e.g., audits, compliance reports) that are provided as a result of tenant creation and provisioning of the infrastructure (see https://aka.ms/AzureCompliance) • Teradata Essential Support and Software Subscription • Appoint a Security Officer to support and respond to the State's security questions, including for audits regarding the data warehouse solution • Respond to State requests for help with O/S patching and hardening • Incident, Problem and Change (IPC) Management processes, including Security Incident management [4]	R	I
Steady-State end-to-end security, including Azure Portal, O/S and Data Warehouse (DW) Security – This includes: • Reviewing/finalizing all initial security settings after handover and managing/implementing all aspects of cloud security beyond the Teradata responsibilities described above, for the duration of its existence (includes security planning, controls, configurations, monitoring, capturing/reviewing security logs, etc.) [5] • Creating and managing all Azure Portal, O/S and DW user IDs, including access control and identity/access management (including active directory management as needed) [6] • If/when the State desires hands-on help from Teradata during steady-state, this will be handled similarly to how O/S patches and O/S hardening have been handled in the past, e.g., this may mean the State chooses to temporarily give Teradata specific Azure Portal and/or Server Admin rights to perform specific work under a State-approved change record, overseen by a State System Admin, etc. • DW security hardening • DW data, applications and related processes • Data classification and controls • Application-level controls and protection • Secure coding (e.g., practices, tools, procedures, guides, source code repositories, environments, threat modeling, threat/vulnerability analysis and legal/contractual considerations) • Review/monitoring of user and database logs	I	R

• Backups, restores and testing of backups • Disaster recovery and business continuity (DR/BC) planning • Incident, Problem and Change (IPC) Management processes, including Security Incident management [4]		
Security of the SOM WAN circuits between State/Switch data centers and Azure Government Cloud Virginia Region, including the associated WAN infrastructure (e.g., circuits, firewalls, routing, software, logs), data in transit and monitoring/support [3]	I	R

Legend: R – Responsible and accountable   C – Consulted   I - Informed

Notes:

[1] Optum will be kept informed by both Teradata and the State regarding all security related roles and responsibilities

[2] As described in the Cloud Provisioning (Exhibit 2) and Essential Support (Exhibit 5) service descriptions, Teradata Software License Agreement (Exhibit 6) and Cloud Terms (Exhibit 7)

[3] Teradata and the State are jointly responsible for implementing the connection between the State's existing Azure ExpressRoute GovCloud Virginia endpoint and the New Test System provided by Teradata

[4] The State's EOC-DC EDW DBA Team will continue to drive IPC processes; State and Teradata IPC processes will continue to integrate; and Teradata's IPC processes will continue to integrate with those of Azure

[5] Azure's Defender, Network Watcher and Notification Hubs are available, in case the State chooses to learn/use them

[6] User authentication is expected to use the State's active directory and IDs for database authentication using the LDAP protocol

If the New Test System meets the Trial Period Acceptance Criteria, as expected, the State may choose in Phase 2 (Production and DevDR) to either (i) continue with the Teradata End-to-End Cloud Service Offering or (ii) expand to a full Teradata-as-a-Service cloud offering, when it becomes officially available in Azure GovCloud (est. 4Q2021). For Teradata-as-a-Service, Teradata takes on additional responsibilities (including tenant management), so that the State team can continue to manage the data warehouse data and applications and focus on delivering high-impact business outcomes and a revised RACI would be put in place for the full Teradata-as-a-Service offering.

Exhibit 9 – High-Level Architecture Diagram for the New Test System

As illustrated below, the New Test System will connect to the State's existing Azure ExpressRoute End Point in the Virginia Region.
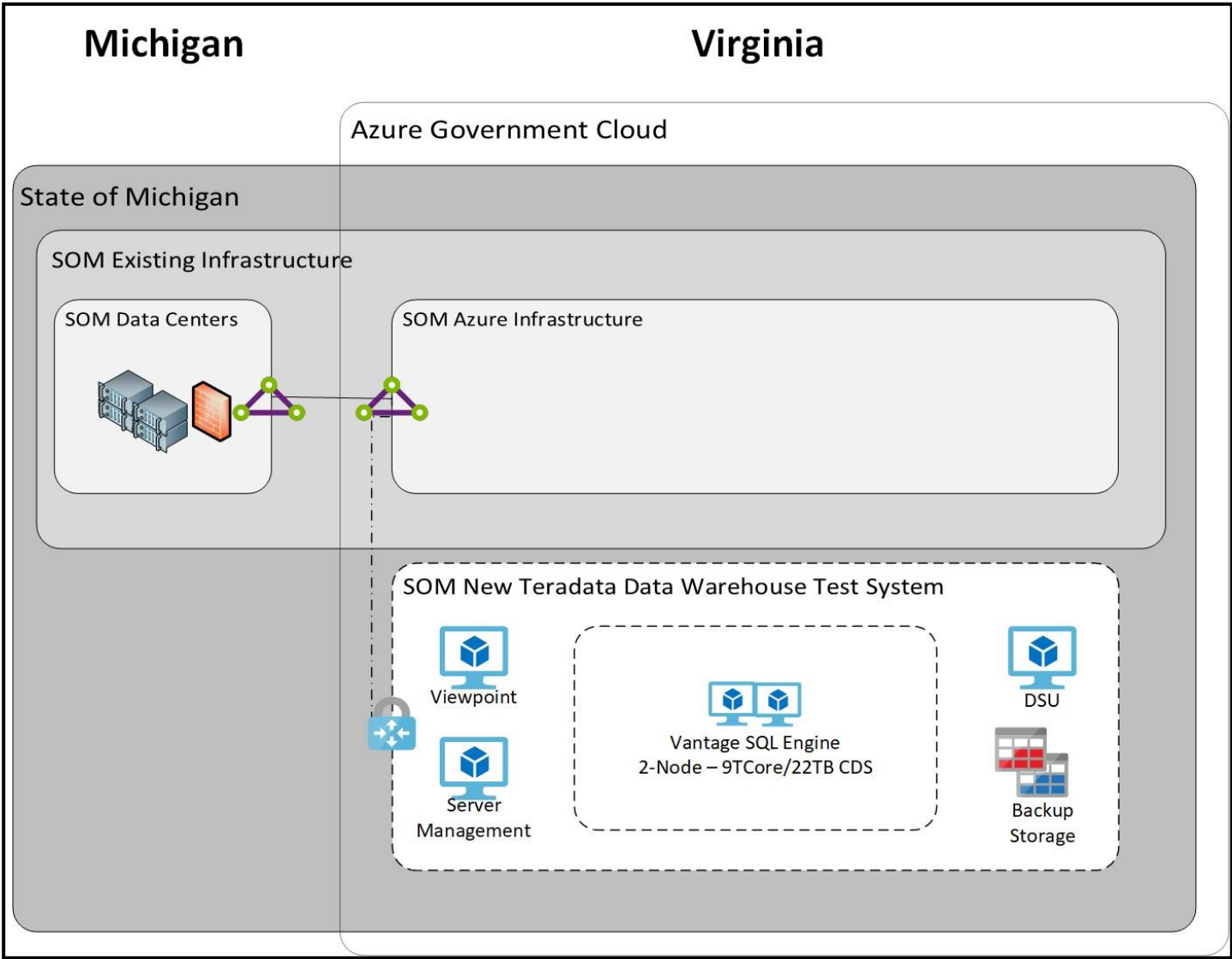
Exhibit 10 - Draft Project Schedule

Michigan EDW Platform Contract - Cloud Refresh of the Teradata Test System

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	1	Change Notice for CR030 (Cloud Refresh of the Teradata Test System) Fully Executed	0 days	Mon 5/17/21	Mon 5/17/21		Optum,State
2	2	Michigan EDW Platform Contract - Cloud Refresh of the Teradata Test System	43 days	Tue 6/1/21	Fri 7/30/21		
3	2.1	INITIATION and PLANNING	5 days	Tue 6/1/21	Mon 6/7/21		
4	2.1.1	Project start	0 days	Tue 6/1/21	Tue 6/1/21	1FS+11 days	
5	2.1.2	Update project plan with State input	5 days	Tue 6/1/21	Mon 6/7/21	1FS+10 days	Optum
6	2.2	EXECUTION: Perform Teradata Implementation Services to establish New Test System	22 days	Tue 6/1/21	Wed 6/30/21		
7	2.2.1	Perform cloud provisioning services (Exhibit 2)	22 days	Tue 6/1/21	Wed 6/30/21		
8	2.2.1.1	Perform customer cloud readiness assessment	4 days	Tue 6/1/21	Fri 6/4/21	5SS	TD,State,Optum
9	2.2.1.2	Perform cloud environment instantiation, onboarding and connectivity activities	19 days	Wed 6/2/21	Mon 6/28/21		
10	2.2.1.2.1	Provision Azure resources (VMs, storage, firewall, etc.)	5 days	Wed 6/2/21	Tue 6/8/21	8SS+1 day	TD
11	2.2.1.2.2	Configure Azure network	2 days	Wed 6/9/21	Thu 6/10/21	10	TD
12	2.2.1.2.3	Confirm O/S and software/DBMS running	3 days	Fri 6/11/21	Tue 6/15/21	11	TD
13	2.2.1.2.4	Connect to the State's existing ExpressRoute end point in Azure GovCloud Virginia	3 days	Wed 6/16/21	Fri 6/18/21	12	TD,State
14	2.2.1.2.5	Configure State's circuit routing for roundtrip traffic from Michigan data center to the New Test System in Virginia	3 days	Mon 6/21/21	Wed 6/23/21	13	State
15	2.2.1.2.6	Test and troubleshoot roundtrip connectivity between State's Michigan data center and the New Test System in Vir	3 days	Thu 6/24/21	Mon 6/28/21	14	TD,State
16	2.2.1.3	Perform handoff activities	2 days	Tue 6/29/21	Wed 6/30/21	15,17,18	TD,State
17	2.2.2	Perform IRS SLES 11/12 SCSEM hardening services (Exhibit 3)	5 days	Wed 6/16/21	Tue 6/22/21	12	TD,State
18	2.2.3	Perform Azure BAR script setup services (Exhibit 4)	8 days	Fri 6/11/21	Tue 6/22/21	11	TD,State
19	2.2.4	*Milestone #1 - New Test System handed-over to State with HW, SW and connectivity (begins 3-month trial period*	0 days	*Wed 6/30/21*	*Wed 6/30/21*	*16*	
20	2.3	EXECUTION: Prepare for testing and migrating	24 days	Wed 6/2/21	Tue 7/6/21		
21	2.3.1	Identify/address DBMS migration impacts (reserved words, etc.)	24 days	Wed 6/2/21	Tue 7/6/21	4	State
22	2.3.2	Identify user representatives for testing and create all required IDs	24 days	Wed 6/2/21	Tue 7/6/21	4	State
23	2.3.3	Develop system and acceptance test plans (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)	24 days	Wed 6/2/21	Tue 7/6/21	4	State
24	2.3.4	Develop acceptance criteria and testing milestones	24 days	Wed 6/2/21	Tue 7/6/21	4	State
25	2.3.5	Develop detailed plan for loading data onto the New Test System, including Fallback plan	24 days	Wed 6/2/21	Tue 7/6/21	4	State
26	2.3.6	Verify all connectivity, IP addresses and DNS names are correctly mapped	3 days	Thu 7/1/21	Tue 7/6/21	19	State
27	2.3.7	Test TD Utility & Tool access to New Test System	3 days	Thu 7/1/21	Tue 7/6/21	19	State
28	2.3.8	Test backup and recovery (BAR) processes for the New Test System	14 days	Wed 6/16/21	Tue 7/6/21		
29	2.3.8.1	Develop detailed plan for BAR testing (with input from Teradata)	11 days	Wed 6/16/21	Wed 6/30/21	18SS+3 days	State
30	2.3.8.2	Test BAR processes	3 days	Thu 7/1/21	Tue 7/6/21	29	State
31	2.4	EXECUTION: Teradata begins providing Essential Support for the New Test System	1 day	Thu 7/1/21	Thu 7/1/21	19	
32	2.5	EXECUTION: Test Environment migration and acceptance	18 days	Wed 7/7/21	Fri 7/30/21		
33	2.5.1	Data migration and system test (First Migration)	12 days	Wed 7/7/21	Thu 7/22/21		
34	2.5.1.1	Perform initial data migration (First Migration)	2 days	Wed 7/7/21	Thu 7/8/21	20	State
35	2.5.1.2	Conduct detailed testing as required (e.g., ETL, applications, scripts, reports, interfaces, tools, queries, etc.)	10 days	Fri 7/9/21	Thu 7/22/21	34	State
36	2.5.2	Data migration and acceptance test (Final Migration)	6 days	Fri 7/23/21	Fri 7/30/21		
37	2.5.2.1	Update First Migration detailed plan for loading data and Fallback plan	2 days	Fri 7/23/21	Mon 7/26/21	35	State
38	2.5.2.2	Perform final data migration (New Test System now populated)	2 days	Tue 7/27/21	Wed 7/28/21	37	State
39	2.5.2.3	Perform final acceptance testing	2 days	Thu 7/29/21	Fri 7/30/21	38	State
40	2.5.2.4	*Milestone #2 - Test Environment migrated and accepted / New Test System ready to use*	0 days	*Fri 7/30/21*	*Fri 7/30/21*	*39*	
41	2.6	MONITORING and CONTROL	42 days	Wed 6/2/21	Fri 7/30/21		
42	2.6.1	Participate in regular meetings and report status	42 days	Wed 6/2/21	Fri 7/30/21	4	Optum,State,TD
43	2.6.2	Manage / control issues, risks, problems and changes	42 days	Wed 6/2/21	Fri 7/30/21	42SS	Optum,State,TD
44	2.7	CLOSEOUT	3 days	Wed 7/28/21	Fri 7/30/21		
45	2.7.1	Perform project closeout activities	3 days	Wed 7/28/21	Fri 7/30/21	42FF	Optum,State,TD
46	3	Post project activities	22 days	Mon 8/2/21	Tue 8/31/21		
47	3.1	Deinstall / scrub / dispose retired Teradata 2800 Test System	22 days	Mon 8/2/21	Tue 8/31/21	40	State

CONTRACT CHANGE NOTICE

Change Notice Number **22**

to

Contract Number **071B1300109**

<table>
<tr><td rowspan="6">CONTRACTOR</td><td colspan="2">OPTUM GOVERNMENT SOLUTIONS, INC.</td><td rowspan="6">STATE</td><td>Program Manager</td><td>Mark Wagner</td><td>MULTI</td></tr>
<tr><td colspan="2">12125 Technology Drive</td><td></td><td colspan="2">517-241-7044</td></tr>
<tr><td colspan="2">Eden Prarie, MN 55344</td><td></td><td colspan="2">WagnerM2@michigan.gov</td></tr>
<tr><td colspan="2">Jeanne McNeil</td><td rowspan="3">Contract Administrator</td><td>Matt Weiss</td><td>DTMB</td></tr>
<tr><td colspan="2">(517) 993-0929</td><td colspan="2">(517) 256-9895</td></tr>
<tr><td colspan="2">jeanne.mcneil@optum.com</td><td colspan="2">weissm4@michigan.gov</td></tr>
<tr><td colspan="2">CV0000961</td></tr>
</table>

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE**
November 16, 2010	November 15, 2015	5 - 2 Year	September 30, 2024
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
ALTERNATE PAYMENT OPTIONS			**EXTENDED PURCHASING**
☐ P-Card ☐ PRC ☐ Other			☐ Yes ☒ No
MINIMUM DELIVERY REQUIREMENTS			

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		NA
CURRENT VALUE	**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**		
$48,187,509.85	$0.00	$48,187,509.85		

DESCRIPTION
"Effective 7/28/2021, the State authorizes the Contractor (Optum) to allow Teradata to subcontract with IBM to handle the Teradata hardware issues for the Data Warehouse environment. Teradata may subcontract the Field Support Services to IBM. All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **21**

to

Contract Number **071B1300109**

CONTRACTOR		STATE		
	OPTUM GOVERNMENT SOLUTIONS, INC.	Program Manager	Mark Wagner	MULTI
			517-241-7044	
	12125 Technology Drive		WagnerM2@michigan.gov	
	Eden Prarie, MN 55344	Contract Administrator	Matt Weiss	DTMB
	Jeanne McNeil		(517) 256-9895	
	(517) 993-0929		weissm4@michigan.gov	
	jeanne.mcneil@optum.com			
	CV0000961			

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE**
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2021

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☒	2 years and 9.5 months	☐		September 30, 2024
CURRENT VALUE	**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**		
$30,073,579.85	$18,113,930.00	$48,187,509.85		

DESCRIPTION
Effective 12/15/2020, this Contract is hereby increased by $18,113,930.00. The following amendment is hereby incorporated into the Contract. Option years are exercised to add 2 years and 9.5 months to the Contract. The revised Contract expiration is 9/30/2024. All other terms, conditions, specifications, and pricing remain the same per contractor, agency, DTMB procurement and State Administrative Board approval on 12/15/2020.

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0913 | www.optum.com

November 24, 2020

Mr. Matthew Weiss
Category Analyst, IT
DTMB Central Procurement Services
528 West Allegan Street
Lansing, MI 48909

RE: **REVISED CHANGE REQUEST PROPOSAL 029 TO EXTEND THE TERM OF THE DATA WAREHOUSE PLATFORM CONTRACT <u>NO. 071B1300109</u> WITH THE SAME SCOPE OF WORK**

Dear Matt:

The State of Michigan (the "State") has made a request for change ("Change Request 029") to Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal to extend the term of the '109 Contract for an additional two (2) year, nine and one half (9.5) month renewal period while providing the same scope of work during such extended renewal period ending September 30, 2024.

This Change Request 029 constitutes "New Work", as that term is defined in the '109 Contract.

In response to your requests, Optum is pleased to provide the State with this Revised Change Request Proposal dated November 24, 2020 (the "Change Request Proposal 029") that replaces in whole the original Change Request Proposal 029 dated June 29, 2020.

I. Description of the Scope Covered by this Change Request Proposal 029

The hardware, software, and services being offered as part of this Change Request Proposal 029 are consistent with the types of services provided during past optional extension periods of the '109 Contract but in so far as the extension and additional changes are outside the scope of Optum's current specific responsibilities defined under the '109 Contract, consistent with the provisions of Section 2.024 of the '109 Contract, the following further describes the new Scope covered by this Change Request Proposal 029.

1. Contract Extension Period: The scope is amended to exercise an additional optional contract extension and extend the Contract from the current Contract Term End Date of November 15, 2021 to September 30, 2024 ("Contract Extension Period"), per Section 2.002 Options to Renew of the '109 Contract. (Note that Teradata, the manufacturer of the Teradata 2800 and 6800H platforms, has indicated that standard Teradata maintenance and support shall end for these platforms on September 30, 2024.)

2. Retroactive Date: As requested by the State, the Effective Date of this Change Request 029 shall be retroactive to October 1, 2020 but such retroactive effective date shall be contingent

upon the State issuing a new or revised purchase order to Optum that covers the amounts described in this Change Request 029 that shall cover the amounts described herein for the period from October 1, 2020 through September 30, 2021, where it is anticipated that such Fiscal Year (FY) 21 purchase order shall be issued within 30 days after the Change Notice referencing this Change Request 029 has been signed by the parties.

3. Changes in Scope and Pricing: The following changes have been made to the scope and pricing during the State's 2021 Fiscal Year and during the remainder of the Contract Extension Period, as reflected in the Revised Attachment 4b Cost Table and in the Revised Attachment 4c Cost Table, in both cases attached to this Change Request Proposal 029 and incorporated by reference herein:

- Pricing has been added for all line items to cover the period from 5/1/22 through 9/30/24

- The CR027 line items for "COD Production" and "COD DevDR" have been expanded to include the COD Work Orders (181002MW, 191113MW, 200110MW, 200114MW)

- General COD funds have been reduced for FY21

- Platform Support Services funds for FY21-FY22 have been distributed over FY21-FY24

- The price of System Hardening Services has been reduced for FY21 and extended at the lower amount plus an annual escalator for the remaining 3 years

- Education Services lines for TEN+ (10 members) and TEN+ Webcast (5 members) have been combined to allow for 15 members to receive TEN+ and TEN+ Webcast such that the scope of such Education Services has changed

- For the Symmetry Software License and Support, the annual charge commencing as of October 1, 2020 is at 2,535,750 Covered Lives, instead of 2,300,000 Covered Lives, as that term is defined in the '109 Contract

- The CR027 Attachment 4b column for the last 5 months of FY20 is not redisplayed in the revised Attachment 4b because the State has already issued the FY20 PO and Optum has already invoiced for these items

While not amounting to a change in scope, Optum draws the State's attention to the fact that pursuant to Section 5.3 of Change Request 020 (approved in Change Notice 13), Solid State Drives that fail in the future and that have reached their "endurance threshold" such that they require replacement will be considered "New Work" and subject to a Change Request Proposal from Optum.

II. **Charges**

Below is a summary of the pricing for this Change Request Proposal 029. This includes changes that are reflected in Revised Attachments 4b and 4c Cost Tables that replace those in CR 027.

This two-year, nine and one half month extension results in an approximate 15% pricing reduction that begins in fiscal year 2021.

Item Description	Price
CR 027 - Attachment 4b - Cost Tables - Extensions Periods – Total (24 months)	9,310,235
FY20 Column for 5 months removed because no longer relevant – Minus	(1,556,675)
FY21 - FY24 Adds/changes that include extension (48 months) – Add	10,360,370
CR 029 – Revised Attachment 4b – Total	$18,113,930

Total Change to Attachment 4b for 2-Year, Nine and One Half (9.5) Month Extension AND Total CR 029 Pricing: **$10,360,370**
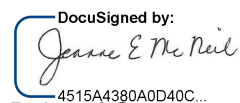
III. Terms by Which the State May Accept This Change Request Proposal 029

The State can approve this Change Request Proposal 029 by issuing a Change Notice that references this Change Request Proposal 029 by no later than December 31, 2020. The State will issue new or revised future Purchase Order(s) to order the products and services, with the first Fiscal Year Purchase Order to be issued within thirty (30) days following the signed Change Notice and subsequent Fiscal Year purchase orders to be issued shortly after the beginning of the applicable Fiscal Year covered by the subsequent purchase order but retroactive to October 1 of the applicable Fiscal Year. Optum will invoice the State for the products and services per the terms of the agreement.

Except as expressly amended by this Change Request 029, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

DocuSigned by:

Jeanne E McNeil

4515A4380A0D40C...

Point of Contact:

      Jeanne McNeil
      Michigan Director of Delivery Operations
      Optum Government Solutions, Inc.

DocuSigned by:

Paul Miller

7520E28BE81148B...

Signer:

      Paul M. Miller
      VP, Finance
      Optum

Revised Attachment 4b - Cost Tables – Extension Years

	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 9/30/2022	FY23 10/1/2022 - 9/30/2023	FY24 10/1/2023 - 09/30/2024	TOTAL 10/1/2020 - 09/30/2024
	12 Months	12 Months	12 Months	12 Months	48 Months
Subscription and Capacity on Demand (COD)					
Production Software Subscription	370,100	370,100	370,100	370,100	1,480,400
COD Production Subscription for FY17 thru Aug 2020 COD [1]	223,000	223,000	223,000	223,000	892,000
Dev/DR Software Subscription	254,200	254,200	254,200	254,200	1,016,800
COD DevDR Subscription for FY19 thru Aug 2020 COD [1]	43,000	43,000	43,000	43,000	172,000
Test Software Subscription	42,500	42,500	42,500	42,500	170,000
General COD [2,3]	500,000	500,000	600,000	300,000	1,900,000
Subscription and COD Totals	**$1,432,800**	**$1,432,800**	**$1,532,800**	**$1,232,800**	**$5,631,200**
Services					
System Hardening Services	42,900	44,200	45,500	46,900	179,500
Platform Support Services [2]	40,000	47,000	47,000	46,000	180,000
Education - TEN+ and TEN+ Webcast (15 Named Staff) [4]	36,800	37,500	38,100	38,800	151,200
Education On-Going Training [2]	89,800	91,600	93,400	95,300	370,100
TDWI Training Services [2]	93,750	98,500	103,400	108,600	404,250
BI Query Software Maintenance and Support	181,660	198,210	221,010	243,840	844,720
BI Query License, Maintenance and Support (CR22 - Add for Treasury)	9,040	10,000	10,970	11,950	41,960
BI Query Software Maintenance and Support (CR27 - Add for Treasury)	8,400	9,300	10,200	11,100	39,000
Symmetry Software License and Support [5]	505,500	520,700	536,300	552,400	2,114,900
Maintenance					
On-Going Annual Maintenance - Production System	758,000	788,300	819,800	852,600	3,218,700
On-Going Annual Maintenance - COD Production for FY17 thru Aug 2020 COD [1]	272,000	282,900	294,200	306,000	1,155,100
On-Going Annual Maintenance - Dev/DR System	615,900	640,600	666,200	692,800	2,615,500
On-Going Annual Maintenance - COD DevDR for FY19 thru Aug 2020 COD [1]	59,200	61,500	64,000	66,600	251,300
On-Going Annual Maintenance - Test System	215,800	224,500	233,400	242,800	916,500
Services Sub-Total	**$2,928,750**	**$3,054,810**	**$3,183,480**	**$3,315,690**	**$12,482,730**
Total	**$4,361,550**	**$4,487,610**	**$4,716,280**	**$4,548,490**	**$18,113,930**

Notes: [1] These totals reflect CR27 FY17-FY18 COD (for production), plus COD Work Orders 181002MW, 191113MW, 200110MW and 200114MW

[2] Unused funds carry-over to next fiscal year. These are estimates, so future funds may also need to be pulled forward to meet State's needs.

[3] The FY19 thru Aug 2020 COD additions that were put in place via previous COD Work Orders are covered elsewhere (see Note [1] above)

[4] This is for the upcoming calendar year

[5] The additional License Charge per year for each 100,000 covered lives above 2,535,750 shall be $6,100.00.

Revised Attachment 4c - Cost Tables – BI Query Cost Details – Extension Years

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2021	DCH	BI Query Admin Existing Support	$640.00	1	$640.00
		BI Query User Support for Original 545	$230.00	545	$125,350.00
		BI Query User Support for Additional 120	$280.00	120	$33,600.00
			FY 2021 DCH Total		$159,590.00
	Treasury	BI Query Admin Existing Support	$640.00	3	$1,920.00
		BI Query User Support for Original 77	$230.00	77	$17,710.00
		BI Query User Support for Additional 39	$280.00	39	$10,920.00
		BI Query User Support for Additional 30 (CR027)	$280.00	30	$8,400.00
			FY 2021 Treasury Total		$38,950.00
	DTMB	BI Query User Existing Support	$280.00	2	$560.00
			FY 2021 DTMB Total		$560.00
			FY 2021 Total		$199,100.00
FY2022	DCH	BI Query Admin Existing Support	$700.00	1	$700.00
		BI Query User Support for Original 545	$250.00	545	$136,250.00
		BI Query User Support for Additional 120	$310.00	120	$37,200.00
			FY 2022 DCH Total		$174,150.00
	Treasury	BI Query Admin Existing Support	$700.00	3	$2,100.00
		BI Query User Support for Original 77	$250.00	77	$19,250.00
		BI Query User Support for Additional 39	$310.00	39	$12,090.00
		BI Query User Support for Additional 30 (CR027)	$310.00	30	$9,300.00
			FY 2022 Treasury Total		$42,740.00
	DTMB	BI Query User Existing Support	$310.00	2	$620.00
			FY 2022 DTMB Total		$620.00
			FY 2022 Total		$217,510.00
FY2023	DCH	BI Query Admin Existing Support	$770.00	1	$770.00
		BI Query User Support for Original 545	$280.00	545	$152,600.00
		BI Query User Support for Additional 120	$340.00	120	$40,800.00
			FY 2023 DCH Total		$194,170.00
	Treasury	BI Query Admin Existing Support	$770.00	3	$2,310.00
		BI Query User Support for Original 77	$280.00	77	$21,560.00
		BI Query User Support for Additional 39	$340.00	39	$13,260.00
		BI Query User Support for Additional 30 (CR027)	$340.00	30	$10,200.00
			FY 2023 Treasury Total		$47,330.00
	DTMB	BI Query User Existing Support	$340.00	2	$680.00
			FY 2023 DTMB Total		$680.00
			FY 2023 Total		$242,180.00
FY2024	DCH	BI Query Admin Existing Support	$850.00	1	$850.00
		BI Query User Support for Original 545	$310.00	545	$168,950.00
		BI Query User Support for Additional 120	$370.00	120	$44,400.00
			FY 2024 DCH Total		$214,200.00
	Treasury	BI Query Admin Existing Support	$850.00	3	$2,550.00
		BI Query User Support for Original 77	$310.00	77	$23,870.00
		BI Query User Support for Additional 39	$370.00	39	$14,430.00
		BI Query User Support for Additional 30 (CR027)	$370.00	30	$11,100.00
			FY 2024 Treasury Total		$51,950.00
	DTMB	BI Query User Existing Support	$370.00	2	$740.00
			FY 2024 DTMB Total		$740.00
			FY 2024 Total		$266,890.00

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **20**

to

Contract Number **071B1300109**

<table>
<tr><td rowspan="7">CONTRACTOR</td><td colspan="2">OPTUM GOVERNMENT SOLUTIONS, INC.</td><td rowspan="8">STATE</td><td rowspan="3">Program Manager</td><td>Mark Wagner</td><td>MULTI</td></tr>
<tr><td colspan="2">12125 Technology Drive</td><td colspan="2">517-241-7044</td></tr>
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CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE**
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2021
PAYMENT TERMS		**DELIVERY TIMEFRAME**	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE	
$30,073,579.85	$0.00	$30,073,579.85	

DESCRIPTION
Effective 8/15/2019, the following Change Request 028 is hereby incorporated adding IRS Publication 1075 Exhibit 7 into the contract. All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

OPTUM™

June 27, 2019

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: **CHANGE REQUEST PROPOSAL 028 FOR IRS PUBLICATION 1075 EXHIBIT 7 UNDER CONTRACT No. 071B1300109**

Dear Mark:

As you know, the State of Michigan (the "State") has made a request for changes ("Change Request 028") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for IRS Publication 1075 Exhibit 7.

In response to this Change Request 028, Optum is pleased to provide the State with this Change Request Proposal (the "Change Request Proposal 028").

I. Change Request Proposal 028 – Scope and Charges

Optum and the State agree:

- The terms of IRS Publication 1075 that are set forth in the attached Exhibit 7 shall be added to the '109 Contract, where references to "Contractor" shall mean Optum.
- The attached Exhibit 7 entirely replaces an earlier version in Change Notice 5/Change Request 9.
- No additional charges are required for Change Request Proposal 028.
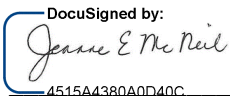
II. Terms by Which the State May Accept This Change Request Proposal 028

In order to accept this Change Request Proposal 028 for IRS Publication Exhibit 7 consistent with the terms applicable to Change Requests set forth in Sections 2.024 and 1.403 of the '109 Contract, Optum must receive a signed Contract Change Notice to the '109 Contract that references this Change Request Proposal 028 by no later than September 1, 2019.

All other terms and conditions of the '109 Contract remain in full force and effect.
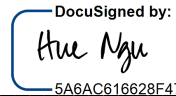
Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

DocuSigned by:
Jeanne E McNeil
4515A4380A0D40C...

Point of Contact:
    Jeanne McNeil
    Michigan Director of Delivery Operations
    Optum Government Solutions

DocuSigned by:
Hue Ngu
5A6AC616628F472...

Authorized Signer:
    Hue Ngu
    Director of Finance
    Optum

IRS Publication 1075 – Exhibit 7

Requirements for Technology Services vendor based on Exhibit 7 of IRS Publication 1075

I.   PERFORMANCE

In performance of this contract, the contractor agrees to comply with and assume responsibility for compliance by his or her employees with the following requirements:

(1)   All work will be done under the supervision of the contractor or the contractor's employees.

(2)   The contractor and the contractor's employees with access to or who use FTI must meet the background check requirements defined in IRS Publication 1075.

(3)   Any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material will be treated as confidential and will not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Disclosure to anyone other than an officer or employee of the contractor will be prohibited.

(4)   All returns and return information will be accounted for upon receipt and properly stored before, during, and after processing. In addition, all related output will be given the same level of protection as required for the source material.

(5)   The contractor certifies that the data processed during the performance of this contract will be completely purged from all data storage components of his or her computer facility, and no output will be retained by the contractor at the time the work is completed. If immediate purging of all data storage components is not possible, the contractor certifies that any IRS data remaining in any storage component will be safeguarded to prevent unauthorized disclosures.

(6)   Any spoilage or any intermediate hard copy printout that may result during the processing of IRS data will be given to the agency or his or her designee. When this is not possible, the contractor will be responsible for the destruction of the spoilage or any intermediate hard copy printouts, and will provide the agency or his or her designee with a statement containing the date of destruction, description of material destroyed, and the method used.

(7)   All computer systems receiving, processing, storing or transmitting FTI must meet the requirements defined in IRS Publication 1075. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to Federal Tax Information.

(8)   No work involving Federal Tax Information furnished under this contract will be subcontracted without prior written approval of the IRS.

(9)   The contractor will maintain a list of employees authorized access. Such list will be provided to the agency and, upon request, to the IRS reviewing office.

(10) The agency will have the right to void the contract if the contractor fails to provide the safeguards described above.

(11) Notwithstanding the foregoing provisions, the State and Contractor hereby agree to the following clarification regarding Section I(1-10) above set forth in (a) below and the following additional safeguards in connection with ensuring compliance with IRS Publication 1075 set forth in (b) through (f) below:

(a) Contractor shall only be obligated to comply with Sections I(1-10) above with respect to its obligations under the Contract to provide hardware, software and services.

(b) The State shall be responsible for taking all steps reasonably necessary so that no federal tax information ("FTI") is transmitted to Contractor or to Contractor's previously approved subcontractor, Teradata Government Systems LLC ("Teradata") or to any person who is not an Authorized FTI Recipient (the "Non-Authorized FTI Recipients"), in connection with the provision of any of the products or services under this Contract, where such steps shall include, but not be limited to, the de-identification and/or removal of any FTI prior to sending any data available to Contractor or Teradata or to any Non-Authorized FTI Recipient. For purposes of this Section I(11), the term "Authorized FTI Recipient" shall mean any person described in Section I(9) and any employee of an approved subcontractor, provided that for either type of person, the State has authorized access to federal tax data information; additionally, the Contractor will maintain a list of subcontractor personnel for which the State has authorized access to federal tax data information (the "Authorized FTI Recipients"). Also see Section I(9)].

(c) If the State fails to fulfill the responsibility in Section I[11(b)], then Contractor shall notify the State in writing and destroy the FTI that has been received to fulfill its obligations under this contract. If Contractor fails to notify and destroy, then and only then shall the obligations set forth in Section I (10) shall apply.

(d) Upon discovery by Contractor of a disclosure of federal tax information by Contractor or any other person (other than the State) to any Non-Authorized FTI Recipient, Contractor shall perform the following:

   (1) Notify the Contract Compliance Inspector within twelve (12) hours of awareness;

   (2) Document the specifics of the incident known at the time into a Data Incident Report, Treasury Form 4000;

   (3) Email the data incident report to the Treas_Security@michigan.gov mailbox and Contract Compliance Inspector (reports must be sent electronically and encrypted via State approved encryption techniques. Contractor must use the term "Data Incident Report" in the subject line of the email).

(e) With respect to I(9) above, the State will notify Contractor when the State has granted FTI access to any employee of Contractor or of an approved subcontractor so that Contractor is able to maintain and provide the list specified.

(f) With respect to I(2) above, the State agrees that personnel of Contractor and Contractor's previously approved subcontractor, Teradata, who have access to FTI shall be deemed to have met the "local criminal check" requirement under IRS Publication 1075 and the "FBI fingerprinting (FD-258)" requirement under IRS Publication 1075 if such personnel undergo the State's security and background check process (which may include Michigan State Police Background checks (ICHAT) and RI-8 Fingerprint Cards for the National Crime Information Center (NCIC) Finger Prints), as initiated and administered and paid for by the State as described in Section 2.091 of the '109 Contract. It is the State's responsibility to ensure this process meets these background check requirements defined in IRS Publication 1075. Contractor agrees that Contractor shall have the responsibility and cost associated with having personnel of Contractor and Contractor's previously approved subcontractor, Teradata, who have access to FTI, meet the citizenship and residency requirements of IRS Publication 1075.

II. CRIMINAL/CIVIL SANCTIONS

(1) Each officer or employee of any person to whom returns or return information is or may be disclosed will be notified in writing by such person that returns or return information disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any such returns or return information for a purpose or to an extent unauthorized herein constitutes a felony punishable upon conviction by a fine of as much as $5,000 or imprisonment for as long as 5 years, or both, together with the costs of prosecution. Such person shall also notify each

such officer and employee that any such unauthorized further disclosure of returns or return information may also result in an award of civil damages against the officer or employee in an amount not less than $1,000 with respect to each instance of unauthorized disclosure. These penalties are prescribed by IRCs 7213 and 7431 and set forth at 26 CFR 301.6103(n)-1.

(2) Each officer or employee of any person to whom returns or return information is or may be disclosed shall be notified in writing by such person that any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of the contract. Inspection by or disclosure to anyone without an official need-to- know constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as $1,000 or imprisonment for as long as 1 year, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized inspection or disclosure of returns or return information may also result in an award of civil damages against the officer or employee [United States for Federal employees] in an amount equal to the sum of the greater of $1,000 for each act of unauthorized inspection or disclosure with respect to which such defendant is found liable or the sum of the actual damages sustained by the plaintiff as a result of such unauthorized inspection or disclosure plus in the case of a willful inspection or disclosure which is the result of gross negligence, punitive damages, plus the costs of the action. These penalties are prescribed by IRC 7213A and 7431 and set forth at 26 CFR 301.6103(n)-1.

(3) Additionally, it is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

(4) Granting a contractor access to FTI must be preceded by certifying that each individual understands the agency's security policy and procedures for safeguarding IRS information. Contractors must maintain their authorization to access FTI through annual recertification. The initial certification and recertification must be documented and placed in the agency's files for review. As part of the certification and at least annually afterwards, contractors must be advised of the provisions of IRCs 7431, 7213, and 7213A (see *Exhibit 4, Sanctions for Unauthorized Disclosure*, and *Exhibit 5, Civil Damages for Unauthorized Disclosure*). The training provided before the initial certification and annually thereafter must also cover the incident response policy and procedure for reporting unauthorized disclosures and data breaches. (See Section 10) For both the initial certification and the annual certification, the contractor must sign, either with ink or electronic signature, a confidentiality statement certifying their understanding of the security requirements.

III. INSPECTION

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the contractor to inspect facilities and operations performing any work with FTI under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual and/or automated scanning tools to perform compliance and vulnerability assessments of information technology (IT) assets that access, store, process or transmit FTI. On the basis of such inspection, corrective actions may be required in cases where the contractor is found to be noncompliant with contract safeguards.

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **19**

to

Contract Number **071B1300109**

CONTRACTOR	OPTUM GOVERNMENT SOLUTIONS, INC.	
	12125 Technology Drive	
	Eden Prarie, MN 55344	
	Jeanne McNeil	
	(517) 993-0913	
	jeanne.mcneil@optum.com	
	CV0000961	

STATE	**Program Manager**	Mark Wagner	MULTI
		517-241-7044	
		WagnerM2@michigan.gov	
	Contract Administrator	Matt Weiss	DTMB
		(517) 256-9895	
		weissm4@michigan.gov	

CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2021

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		N/A

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE	
$30,073,579.85	$0.00	$30,073,579.85	

DESCRIPTION

Effective 6/26/2019, the following amendment, "Change Request Proposal 027…" is hereby incorporated into the contract to update the cost tables for additional BI Software Licenses. Optum agrees to extend Optum Change Request Proposal 027 and its pricing to July 15, 2019.

Please note the Contractor Authorized Agent has been changed to Jeanne McNeil.

All other terms, conditions, specifications, and pricing remain the same. Per contractor, agency and DTMB procurement.

822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0929 | www.optum.com

May 16, 2019

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: **CHANGE REQUEST PROPOSAL 027 FOR ADDITIONAL OPENTEXT BI QUERY SOFTWARE LICENSE AND SUPPORT UNDER CONTRACT NO. 071B1300109**

Dear Mark:

As you know, the State of Michigan (the "State") has made a request for certain changes ("Change Request 027") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for thirty (30) new licenses of the BI Query User Software (the "BI Query Additional Software") and Standard Support over multiple State fiscal years. The new licenses for the BI Query Additional Software (the "BI Query Additional Software Licenses") and BI Query Additional Software Support constitute "New Work", as that term is defined in our Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract").

In response to this Change Request 027, Optum is pleased to provide the State with this Change Request Proposal (the "Change Request Proposal 027").

I.   Description of the Scope Covered by this Change Request Proposal 027

Consistent with the provisions of Section 2.024 of the '109 Contract, the following describes the Change covered by this Change Request Proposal 027:

1.1 BI Query Additional Software License

In exchange for the State's order and payment for the license fee set forth below corresponding to the number and type of new BI Query Additional Software Licenses applicable during the State's fiscal year in which Optum accepts the State's order, Optum, acting through its subcontractor, OpenText Corporation ("OpenText"), shall make the BI Query Additional Software available to the State and the State shall install the software for use on applicable State work stations, under the End User License Agreement terms which were delivered with Change Request Proposal 018 (the "EULA").

1.2 BI Query Additional Software Support

During the BI Query Additional Software Maintenance Term defined below, Optum, acting through its subcontractor, OpenText, shall provide "Standard Maintenance" for the BI Query Additional Software. The scope of what constitutes "Standard Maintenance" is set forth in the OpenText Software Maintenance Program Handbook – Prime Protect (https://www.opentext.com/agreements) and further governed by the EULA.

1.3 <u>BI Query Additional Software Support Term</u>

The term during which Optum shall provide BI Query Additional Software Support (the "BI Query Additional Software Support Term") shall commence June 1, 2019 and continues for an initial term ending sixteen (16) months thereafter (the "Initial BI Query Additional Support Term"), provided that Optum receives a purchase order for the charge set forth in Section II below corresponding to the Initial BI Query Additional Support Term on or before June 1, 2019. As of October 1, 2020, the BI Query Additional Support Term shall renew for a twelve (12), seven (7) or five (5) month renewal term as set forth in the Cost Tables in Change Request 027 Attachments 4a, 4b and 4c (the "Renewal BI Query Additional Support Term(s)"), provided that on or before the beginning of each Renewal BI Query Additional Support Term, Optum has received a purchase order from the State for the charge set forth in Section II below corresponding to the applicable Renewal BI Query Additional Support Term.

Notwithstanding the foregoing, Optum shall have the right to terminate the BI Query Additional Software Support either (i) at the end of the Initial BI Query Additional Support Term or a Renewal BI Query Additional Support Term or (ii) at any point in time during the BI Query Additional Support Term effective upon written notice to the State if (x) Optum's subcontractor, OpenText, no longer provides such BI Query Additional Software Support, (y) OpenText provides BI Query Software Support but not through resellers or Optum, or (z) OpenText changes the applicable support charge discount offered to Optum for the BI Query Additional Software Support for a Renewal BI Query Additional Support Term from that quoted to Optum as of the date of this Change Request Proposal 027 and the State elects not to accept the corresponding change in support charge from Optum within thirty (30) days of Optum's quotation thereof.

II. **Charges**

The charges for the new BI Query Additional Software License and BI Query Additional Software Support described in this Change Request Proposal 027 are set forth below in the Change Request 027 Attachments 4a, 4b, and 4c - Cost Tables setting forth the Fiscal Year based BI Query charges. Following is a summary of the additional charges from this Change Request Proposal 027:

Reference	Change Proposal 027	Price
Revised Attachment 4a - Cost Tables - 4 Year Extension Period	BI Query License, Maintenance and Support (CR 27) through FY 20	30,900
Revised Attachment 4b - Cost Tables - 2 Year Optional Extension Period	BI Query Software Maintenance and Support (CR 27) FY 21 and FY 22	17,700
	Total Change Request Proposal 27	**48,600**

III. **Terms by Which the State May Accept This Change Request Proposal 027 for BI Query Additional Software License and Support**
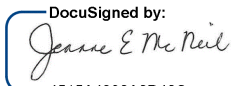
In order to accept this Change Request Proposal 027 for BI Query Additional Licenses and Support consistent with the terms applicable to Change Requests set forth in Sections 2.024 and 1.403 of the '109 Contract, Optum must receive a signed Contract Change Notice to the '109 Contract that references this Change Request Proposal 027 by no later than June 1, 2019 along with a purchase order covering the additional BI Query Licenses and Support through September 30, 2020 in the amount described above.

All other terms and conditions of the '109 Contract remain in full force and effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Jeanne E McNeil

4515A4380A0D40C...

Point of Contact:

      Jeanne McNeil

      Michigan Director of Delivery Operations

      Optum Government Solutions

Hue Ngu

5A6AC616628F472...

Authorized Signer:

      Hue Ngu

      Director of Finance

      Optum

Revised Attachment 4a – Cost Tables – 4 Year Extension Period

	FY16 12/1/2015 - 4/30/2016 Imp	FY16 5/1/2016 - 9/30/2016	FY17 10/1/2016 - 9/30/2017	FY18 10/1/2017 - 9/30/2018	FY19 10/1/2018 - 9/30/2019	FY20 10/1/2019 - 4/30/2020	Total
	5 Months	**5 Months**	**12 Months**	**12 Months**	**12 Months**	**7 Months**	**53 Months**
Hardware and Software							
Production System 2 Node 6800H + 1HSN - Hardware and Software							
Production Hardware	1,556,400						1,556,400
Production Software	775,800						775,800
Dev/DR System 2 Node 6800H + 1HSN - Hardware and Software							
Dev/DR Hardware	1,567,400						1,567,400
Dev/DR Software	447,500						447,500
Test System 2-Node 2800 - Hardware and Software							
Test Hardware	572,300						572,300
Test Software	210,400						210,400
Hardware and Software Sub-Total	**$5,129,800**						**$5,129,800**
Subscription and Capacity on Demand (COD)							
Production COD Software Increments Planned Annually on May 1			318,700	346,000			664,700
Dev/DR COD Software Increments Planned Annually on May 1							
Production Software Subscription		152,900	368,200	370,100	370,100	216,000	1,477,300
Production COD Software Subscription (for FY17-18 COD)			17,900	61,300	86,900	50,700	216,800
Dev/DR Software Subscription		104,700	252,500	254,200	254,200	148,300	1,013,900
Dev/DR COD Software Subscription							
Test Software Subscription		17,200	41,800	42,500	42,500	24,900	168,900
General COD [1]					700,000	910,300	1,610,300
Subscription and COD Totals		**$274,800**	**$999,100**	**$1,074,100**	**$1,453,700**	**$1,350,200**	**$5,151,900**
Services							
Production, Dev/DR Implementation Services	620,100						620,100
Dev/DR Add Disk Drives - 48 300 GB HDDs	27,400						27,400
Test Implementation Services	114,700						114,700
System Hardening Services	176,000			186,800	192,400	198,100	753,300
Platform Support Services [1]					90,000	90,000	180,000
TASM Migration Services	68,000						68,000
Education - TEN+ (10 Named Staff)	28,800		29,400	29,900	31,100	31,700	150,900
Education - TEN Webcast Level (5 Named Staff - CR23)			4,525	4,525	4,525	4,525	18,100
Education - On-Going Training	81,600		83,200	84,800	86,400	88,000	424,000
TDWI Training Services					93,750	46,875	140,625
BI Query Software Maintenance and Support			119,510	134,690	149,900	165,110	569,210
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		28,810		6,780	7,430	8,080	51,100
BI Query License, Maintenance and Support (CR27 - Add for Treasury)					30,900		30,900
Dev/DR Data Center Move - CR24			48,000				48,000
Dev/DR Data Center Move Insurance - CR24			8,000				8,000
Symmetry Software License and Support [2]			449,200	462,600	476,500	490,800	1,879,100
Maintenance							
On-Going Annual Maintenance - Production System		230,300	609,700	689,300	700,800	418,200	2,648,300
On-Going Annual Maintenance - COD Production (for FY17-18 COD)			19,100	67,300	99,300	59,300	245,000
On-Going Annual Maintenance - Dev/DR System		190,000	499,300	560,100	569,500	339,800	2,158,700
On-Going Annual Maintenance - COD Dev/DR							
On-Going Annual Maintenance - Test System		69,300	178,800	196,300	199,600	119,100	763,100
Services Sub-Total	**$1,116,600**	**$518,410**	**$2,048,735**	**$2,423,095**	**$2,732,105**	**$2,059,590**	**$10,898,535**
Total	**$6,246,400**	**$793,210**	**$3,047,835**	**$3,497,195**	**$4,185,805**	**$3,409,790**	**$21,180,235**

Notes: [1] Unused funds carry-over to next fiscal year. These are estimates, so future funds may also need to be pulled forward to meet State's needs.

[2] The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Attachment 4b – Cost Tables – 2 Year Optional Extension Period

	FY20 5/1/2020 - 9/30/2020	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 4/30/2022	Total
	5 Months	12 Months	7 Months	24 Months
Subscription and Capacity on Demand (COD)				
COD Production				
COD Dev/DR				
Production Software Subscription	154,200	370,100	216,000	740,300
COD Production Subscription (for FY17-18 COD)	36,200	86,900	50,700	173,800
Dev/DR Software Subscription	105,900	254,200	148,300	508,400
COD Dev/DR Subscription				
Test Software Subscription	17,800	42,500	24,800	85,100
General COD [1]	500,000	1,456,000	300,000	2,256,000
Subscription and COD Totals	**$814,100**	**$2,209,700**	**$739,800**	**$3,763,600**
Services				
System Hardening Services		204,100		204,100
Platform Support Services [1]		90,000	90,000	180,000
Education - TEN+ (10 Named Staff)		32,300		32,300
Education - TEN Webcast Level (5 Named Staff)		4,525		4,525
Education On-Going Training		89,800		89,800
TDWI Training Services	46,875	93,750	46,875	187,500
BI Query Software Maintenance and Support		181,660	198,210	379,870
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		9,040	10,000	19,040
BI Query Software Maintenance and Support (CR27 - Add for Treasury)		8,400	9,300	17,700
Symmetry Software License and Support [2]		505,500	520,700	1,026,200
Maintenance				
On-Going Annual Maintenance - Production System	310,700	758,000	452,300	1,521,000
On-Going Annual Maintenance - COD Production (for FY17-18 COD)	44,000	107,400	64,100	215,500
On-Going Annual Maintenance - Dev/DR System	252,500	615,900	367,600	1,236,000
On-Going Annual Maintenance - COD Dev/DR				
On-Going Annual Maintenance - Test System	88,500	215,800	128,800	433,100
Services Sub-Total	**$742,575**	**$2,916,175**	**$1,887,885**	**$5,546,635**
Total	**$1,556,675**	**$5,125,875**	**$2,627,685**	**$9,310,235**

Notes: [1] Unused funds carry-over to next fiscal year. These are estimates, so future funds may also need to be pulled forward to meet State's needs.

[2] The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Attachment 4c – Cost Tables – BI Query Cost Details

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2019	Treasury ADD-ON	BI Query User New License (CR027)	$700.00	30	$21,000.00
		BI Query User Support for new licenses (16 months, CR027)	$330.00	30	$9,900.00
		FY 2019 Treasury ADD-ON Total			$30,900.00
FY2020	DCH	BI Query Admin Existing Support	$580.00	1	$580.00
		BI Query User Support for Original 545	$210.00	545	$114,450.00
		BI Query User Support for Additional 120	$250.00	120	$30,000.00
		FY 2020 DCH Total			$145,030.00
	Treasury	BI Query Admin Existing Support	$580.00	3	$1,740.00
		BI Query User Support for Original 77	$210.00	77	$16,170.00
		BI Query User Support for Additional 39	$250.00	39	$9,750.00
		FY 2020 Treasury Total			$27,660.00
	DTMB	BI Query User Existing Support	$250.00	2	$500.00
		FY 2020 DTMB Total			$500.00
		FY 2020 Total			$173,190.00

Revised Attachment 4c – Cost Tables – BI Query Cost Details – Option Years

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2021	DCH	BI Query Admin Existing Support	$640.00	1	$640.00
		BI Query User Support for Original 545	$230.00	545	$125,350.00
		BI Query User Support for Additional 120	$280.00	120	$33,600.00
		FY 2021 DCH Total			$159,590.00
	Treasury	BI Query Admin Existing Support	$640.00	3	$1,920.00
		BI Query User Support for Original 77	$230.00	77	$17,710.00
		BI Query User Support for Additional 39	$280.00	39	$10,920.00
		BI Query User Support for Additional 30 (CR027)	$280.00	30	$8,400.00
		FY 2021 Treasury Total			$38,950.00
	DTMB	BI Query User Existing Support	$280.00	2	$560.00
		FY 2021 DTMB Total			$560.00
		FY 2021 Total			$199,100.00
FY2022	DCH	BI Query Admin Existing Support	$700.00	1	$700.00
		BI Query User Support for Original 545	$250.00	545	$136,250.00
		BI Query User Support for Additional 120	$310.00	120	$37,200.00
		FY 2022 DCH Total			$174,150.00
	Treasury	BI Query Admin Existing Support	$700.00	3	$2,100.00
		BI Query User Support for Original 77	$250.00	77	$19,250.00
		BI Query User Support for Additional 39	$310.00	39	$12,090.00
		BI Query User Support for Additional 30 (CR027)	$310.00	30	$9,300.00
		FY 2022 Treasury Total			$42,740.00
	DTMB	BI Query User Existing Support	$310.00	2	$620.00
		FY 2022 DTMB Total			$620.00
		FY 2022 Total			$217,510.00

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **18**

to

Contract Number **071B1300109**

<table>
<tr>
<td rowspan="7" style="text-align:center">CONTRACTOR</td>
<td colspan="2">OPTUM GOVERNMENT SOLUTIONS, INC.</td>
<td rowspan="7" style="text-align:center">STATE</td>
<td rowspan="3">Program Manager</td>
<td>Mark Wagner</td>
<td>MULTI</td>
</tr>
<tr>
<td colspan="2">12125 Technology Drive</td>
<td>517-241-7044</td>
<td></td>
</tr>
<tr>
<td colspan="2">Eden Prarie, MN 55344</td>
<td colspan="2">WagnerM2@michigan.gov</td>
</tr>
<tr>
<td colspan="2">David Wieber</td>
<td rowspan="3">Contract Administrator</td>
<td>Matt Weiss</td>
<td>DTMB</td>
</tr>
<tr>
<td colspan="2">(517) 993-0929</td>
<td></td>
<td></td>
</tr>
<tr>
<td colspan="2">david.wieber@optum.com</td>
<td colspan="2">weissm4@michigan.gov</td>
</tr>
<tr>
<td colspan="2">CV0000961</td>
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CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2019

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☒ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☒	2 years	☐		November 15, 2021

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$30,073,579.85	$0.00	$30,073,579.85

DESCRIPTION

Effective 1/2/2019, the attached item, "Change Request Proposal 26...", dated November 12, 2018, will go into effect. This will execute the third 2 year option, extending the current contract from 11/15/2019 to 11/15/2021; institute Capacity On Demand (COD) to increase the CPU and disk speed, which will help with overall performance; move unused training and system hardening costs to a single line item called Platform Support Services, which will allow for a quick response by the State when emergency or additional services are needed; and replace the Pharmacy Risk Groups (PRG) component of Symmetry with Procedure Quality Measures (PQM) at no change in cost. No additional funds are needed. The Contract value remains the same. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Procurement approval.

Program Managers
for
Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB-IT	Mark Wagner	517-241-7044	wagnerM2@michigan.gov

OPTUM™

November 12, 2018

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: CHANGE REQUEST PROPOSAL 026 TO EXTEND THE DATA WAREHOUSE PLATFORM CONTRACT UNDER CONTRACT No. 071B1300109

Dear Mark:

The State of Michigan (the "State") has made a request for change ("Change Request 026") to Contract 071B1300109 effective November 16, 2010, as amended (the "'109 Contract") asking Optum Government Solutions, Inc. ("Optum") to:

1. Provide a proposal to extend the '109 Contract via the third renewal period;
2. Provide a proposal to streamline Capacity on Demand requests;
3. Reallocate unused services funding via Platform Support Services funding;
4. Modify the Optum Symmetry Software scope of work; and
5. Modify the Optum '109 Contract contact information

This Change Request 026 constitutes "New Work", as that term is defined in the '109 Contract.

In response to your requests, Optum is pleased to provide the State with this Change Request Proposal (the "Change Request Proposal 026").

I. Description of the Scope Covered by this Change Request Proposal 026

The hardware, software, and services being offered as part of this Change Request Proposal 026 are consistent with the types of services provided during past optional extension periods of the '109 Contract but in so far as the extension and additional changes are outside the scope of Optum's current specific responsibilities defined under the '109 Contract, consistent with the provisions of Section 2.024 of the '109 Contract, the following further describes the new Scope covered by this Change Request Proposal 026.

1. **Execution of the Third Renewal Period:** The State has requested that the '109 Contract be extended by two (2) years by exercising the third two (2) year Optional Extension period per Section 2.002 Options To Renew of the '109 Contract. The current Contract Term End Date of November 15, 2019 will be extended to November 15, 2021 ("Contract Extension Period").

2. **Streamline Capacity On Demand (COD) requests.** This change will address the following needs:
   - For Production, increase disk by 15% and Work Management (WM) TPerf to 84% (i.e., add 53 TPerf)
   - For DevDR, increase disk by 15% and WM TPerf to 45% (i.e., add 17 TPerf)
   - Reallocate unused DevDR COD funds for future use
   - Utilize the State's evolving needs, not projections, to drive actual COD increases
   - Allow future capacity increases to be made more quickly and easily

To address the above needs, the *unused* FY17-22 COD funds will be reallocated for General COD in the future. This totals $3,866,300. Upon Optum's receipt of a capacity increase request from the State (a "COD Change Request"), Optum shall formalize its response to such request in a COD Work Order, which will be signed by the Optum Single Point of Contact (SPOC) and an authorized State signer and fulfill the role of a Change Notice, as that term is used in the '109 Contract for the capacity increase included in the State's COD Change Request. The capacity increase request (as reflected in the COD Change Request from the State), associated details and the fixed-price based on Optum's standard rates will be described in each COD Work Order and when executed between the parties hereto becomes part of the agreement. Upon execution of the COD Work Order, the State will issue a corresponding Purchase Order to Optum based on the COD Work Order pricing.

Below is a *draft* COD Work Order for the FY19 Production and DevDR increases described above. This example COD Work Order will be finalized and signed by both parties as a first-step after this Change Request 026 is approved. When signed, the COD Work Order funding will come from the General COD funds described above.

COD Work Order   EXAMPLE

General Information:

Requestor	Mark Wagner
Date of Request	10/2/2018
Preferred increase date (1st day of month, ideally lead-time is 2 months minimum)	12/1/2018 Note: COD changes may occur anytime in the first-half of the month
Work Order Ref. No. (YYMMDD + Requestor's two initials)	181002MW

Requested Increase:

PROD Qty	DevDR Qty	Short Description	Long Description
15	15	Disk COD % Increase	336 X 300GB 2.5", 10K RPM, SAS HDD
53	17	Tperf COD Increase	Teradata 15.00 6800 SLES11 High Perf Enterprise WH Edition, per Tperf Teradata 15.00 - Virtual Storage for 56px/56xx/67xx, per Tperf

Costs Specific to this Work Order:

Capacity On Demand (COD) increments, subscription and maintenance	End of 4 Year Extension Period			2 Year Extension Period			
	FY19 12/1/2018 - 9/30/2019	FY20 10/1/2019 - 4/30/2020	Total	FY20 5/1/2020 - 9/30/2020	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 4/30/2022	Total
	10 Months	7 Months	17 Months	5 Months	12 Months	7 Months	24 Months
COD Production	385,100		385,100				0
COD DevDR	141,000		141,000				0
COD Production Subscription	40,400	28,300	68,700	20,200	48,500	28,300	97,000
COD DevDR Subscription	13,000	9,100	22,100	8,500	15,600	9,100	31,200
On-Going Annual Maintenance - COD Production	48,600	35,000	83,600	25,300	62,600	37,600	125,700
On-Going Annual Maintenance - COD DevDR	18,600	13,400	32,000	9,700	24,000	14,500	48,200
Total	**$646,700**	**$85,800**	**$732,500**	**$61,700**	**$150,700**	**$89,700**	**$302,100**

Signatures

By counter-signing below and providing a corresponding purchase order for the current fiscal year, the State hereby approves Optum to perform the work described above. Upon work completion, Optum shall be authorized to invoice the State for corresponding charges described above

	Optum Authorized Signer:	State of Michigan Authorized Signer:
Signature	_____	_____
Name (printed)	_____	_____
Title	Single Point Of Contact (SPOC)	_____
Date	_____	_____

3. **Reallocate services funding.** The State can benefit from quick responses for as-needed general platform support services ("Platform Support Services"), e.g., Disaster Recovery Testing help, TASM services, and BAR services. To address these needs, the *unused* FY16-18 TDWI Training Service funds ($225,000) and the *unused* FY17 System Hardening Services funds ($181,300) will be reallocated to Platform Support Services in the future and results in a reduction in total funding of $46,300. In addition, upon Optum's receipt of requests from the State for Platform Support Services in the future (a "Platform Support Services Change Request"), Optum shall formalize its response to such request in a

Platform Support Services Work Order, which will be signed by the Optum Single Point of Contact (SPOC) and an authorized State signer, and fulfill the role of a Change Notice, as that term is used in the '109 Contract for the Platform Support Services included in the State's Platform Support Services Change Request. The details of the requested Platform Support Services (as reflected in the Platform Support Services Request from the State) will be described in each Platform Support Services Work Order and when executed between the parties hereto becomes part of the agreement. Each Platform Support Services Work Order will define the scope, assumptions and fixed-price for the services based on Optum's standard rates for the applicable Platform Support Services and drawn from the then current funding for Platform Support Services set forth in the revised Attachment 4a and when executed between the parties hereto becomes part of the agreement. Upon execution of each Platform Support Services Work Order, the State will issue a corresponding Purchase Order to Optum for the Platform Support Services being ordered.

4. Change Request Proposal 020 – Attachment 22 – Optum Symmetry Software

The Pharmacy Risk Groups (PRG) component of Symmetry is replaced by the Procedure Quality Measures (PQM) at no change in cost. The State's license to use PRG and Optum's support obligation to support PRG terminates upon the installation of PQM, where Optum shall install PQM in accordance with a mutually agreed upon project schedule following the State's issuance of the Change Notice described below. In Attachment 22, the first paragraph under the "Symmetry Software License" section is replaced in whole as follows:

Optum hereby grants the State a nonexclusive, nontransferable license to use the following Symmetry software (the "Symmetry Software"). The Symmetry Software is included in the definition of "Software" used in the '109 Contract, and includes a nonexclusive license to use the Current Procedural Terminology ("CPT") codes embedded therein.

- **Symmetry Episode Treatment Groups (ETG).** The Symmetry ETG Software is an episode building patient classification system methodology that uses inpatient and ambulatory claims, or other like data, to identify treatment episodes.

- **Symmetry Episode Risk Groups (ERG).** The Symmetry ERG Software predicts and assigns potential risk values to individual members of a health care plan, based in part on a derivative of ETG.

- **Symmetry Procedure Quality Measures ("PQM").** The Symmetry PQM Software helps measure quality of care related to surgical and diagnostic procedures. Symmetry PQM analyzes services as represented by claims data to compare those services to clinical best practices relative to outcomes and overuse, including national standard measures and Optum built measures.

- **Symmetry EBM Connect.** The Symmetry EBM Connect Software is intended to help the State retrospectively measure and monitor the quality of care provided to its plan members by comparing services captured on medical claims, pharmacy claims and laboratory results data to recognized and established clinical guidelines. The Symmetry EBM Connect software includes only default cases and rules.

5. **Change Request Proposal 020 – Attachment 2 – Section 1.201A – Data Warehouse Platform Staff Requirements.** Contractor has designated a new Single Point of Contact (SPOC) and new Project Manager for this project, as follows:

- Single Point of Contact:
    Jeanne McNeil
    Director, Michigan Delivery Operations
    Optum Government Solutions
- Project Manager:
    Steve Schon
    Senior Project Manager
    Optum Government Solutions

II. Charges

Following is a summary of the pricing for this Change Request Proposal 026:

Item Description	Price
CR 024 - Attachment 4b - Cost Tables - 2 Year Optional Extension Period – Total	9,338,835
Unallocated / unused – Minus	(46,300)
Total CR 026 Pricing:	**$ 9,292,535**

Following is a summary of the pricing changes that have occurred between CR 024 and this Change Request Proposal 026, which is reflected in the Revised Attachments 4a and 4b – Cost Tables that replace and supersede the Attachment 4a and 4b – Cost Tables set forth in CR 024:

Item Description	Price
CR 024 - Attachment 4a - Cost Tables - 4 Year Extension Period - Total	21,149,335
Unused FY17-20 Capacity On Demand (COD) – Minus	(1,384,000)
Reallocated for FY19-20 General COD – Add	1,610,300
Unused FY16-18 TDWI Training Services – Minus	(225,000)
Unused FY17 System Hardening Services – Minus	(181,300)
Reallocated for FY19-20 Platform Support Services - Add	180,000
CR 026 – Revised Attachment 4a – Total	21,149,335
Total Change to Attachment 4a:	**$ 0**
CR 024 - Attachment 4b - Cost Tables - 2 Year Optional Extension Period - Total	9,338,835
Unused FY20-22 Capacity On Demand (COD) – Minus	(2,482,300)
Reallocated for FY20-22 General COD – Add	2,256,000
Reallocated for FY20-22 Platform Support Services – Add	180,000
CR 026 – Revised Attachment 4b – Total	9,292,535
Total Change to Attachment 4b:	**$ (46,300)**

III. Terms by Which the State May Accept This Change Request Proposal 026

The State can approve this Change Request Proposal 026 by issuing a Change Notice that references this Change Request Proposal 026. The State will issue new or revised future Purchase Order(s) to order the products and services when they are needed. Optum will invoice the State for the products and services per the terms of the agreement.

Except as expressly amended by this Change Request 026, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

DocuSigned by:

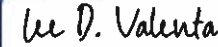*David Wieber*

482CFF357551489

Point of Contact:

David Wieber
Michigan Director of Operations
Optum Government Solutions, Inc.

DocuSigned by:

Lee D. Valenta

CEF6F3E35FA64AB

Signer:

Lee D. Valenta
President
Optum Government Solutions, Inc.

Revised Attachment 4a - Cost Tables – 4 Year Extension Period

	FY16 12/1/2015 - 4/30/2016 Imp (5 Months)	FY16 5/1/2016 - 9/30/2016 (5 Months)	FY17 10/1/2016 - 9/30/2017 (12 Months)	FY18 10/1/2017 - 9/30/2018 (12 Months)	FY19 10/1/2018 - 9/30/2019 (12 Months)	FY20 10/1/2019 - 4/30/2020 (7 Months)	Total (53 Months)
Hardware and Software							
Production System 2 Node 6800H + 1HSN - Hardware and Software							
Production Hardware	1,556,400						1,556,400
Production Software	775,800						775,800
DevDR System 2 Node 6800H + 1HSN - Hardware and Software							
DevDR Hardware	1,567,400						1,567,400
DevDR Software	447,500						447,500
Test System 2-Node 2800 - Hardware and Software							
Test Hardware	572,300						572,300
Test Software	210,400						210,400
Hardware and Software Sub-Total	$5,129,800						$5,129,800
Subscription and Capacity on Demand (COD)							
Production COD Software Increments Planned Annually on May 1			318,700	346,000			664,700
DevDR COD Software Increments Planned Annually on May 1							
Production Software Subscription		152,900	368,200	370,100	370,100	216,000	1,477,300
Production COD Software Subscription (for FY17-18 COD)			17,900	61,300	86,900	50,700	216,800
DevDR Software Subscription		104,700	252,500	254,200	254,200	148,300	1,013,900
DevDR COD Software Subscription							
Test Software Subscription		17,200	41,800	42,500	42,500	24,900	168,900
General COD [1]					700,000	910,300	1,610,300
Subscription and COD Totals		$274,800	$999,100	$1,074,100	$1,453,700	$1,350,200	$5,151,900
Services							
Production, DevDR Implementation Services	620,100						620,100
DevDR Add Disk Drives - 48 300 GB HDDs	27,400						27,400
Test Implementation Services	114,700						114,700
System Hardening Services	176,000			186,800	192,400	198,100	753,300
Platform Support Services [1]					90,000	90,000	180,000
TASM Migration Services	68,000						68,000
Education - TEN+ (10 Named Staff)	28,800		29,400	29,900	31,100	31,700	150,900
Education - TEN Webcast Level (5 Named Staff - CR23)			4,525	4,525	4,525	4,525	18,100
Education - On-Going Training	81,600		83,200	84,800	86,400	88,000	424,000
TDWI Training Services					93,750	46,875	140,625
BI Query Software Maintenance and Support			119,510	134,690	149,900	165,110	569,210
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		28,810		6,780	7,430	8,080	51,100
DevDR Data Center Move - CR24			48,000				48,000
DevDR Data Center Move Insurance - CR24			8,000				8,000
Symmetry Software License and Support [2]			449,200	462,600	476,500	490,800	1,879,100
Maintenance							
On-Going Annual Maintenance - Production System		230,300	609,700	689,300	700,800	418,200	2,648,300
On-Going Annual Maintenance - COD Production (for FY17-18 COD)			19,100	67,300	99,300	59,300	245,000
On-Going Annual Maintenance - DevDR System		190,000	499,300	560,100	569,500	339,800	2,158,700
On-Going Annual Maintenance - COD DevDR							
On-Going Annual Maintenance - Test System		69,300	178,800	198,300	199,600	119,100	763,100
Services Sub-Total	$1,116,600	$518,410	$2,048,735	$2,423,095	$2,701,205	$2,059,590	$10,867,635
Total	$6,246,400	$793,210	$3,047,835	$3,497,195	$4,154,905	$3,409,790	$21,149,335

Notes: [1] Unused funds carry-over to next fiscal year. These are estimates, so future funds may also need to be pulled forward to meet State's needs.

[2] The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Attachment 4b - Cost Tables – 2 Year Optional Extension Period

	FY20 5/1/2020 - 9/30/2020	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 4/30/2022	Total
	5 Months	12 Months	7 Months	24 Months
Subscription and Capacity on Demand (COD)				
COD Production				
COD DevDR				
Production Software Subscription	154,200	370,100	216,000	740,300
COD Production Subscription (for FY17-18 COD)	36,200	86,900	50,700	173,800
DevDR Software Subscription	105,900	254,200	148,300	508,400
COD DevDR Subscription				
Test Software Subscription	17,800	42,500	24,800	85,100
General COD [1]	500,000	1,456,000	300,000	2,256,000
Subscription and COD Totals	**$814,100**	**$2,209,700**	**$739,800**	**$3,763,600**
Services				
System Hardening Services		204,100		204,100
Platform Support Services [1]		90,000	90,000	180,000
Education - TEN+ (10 Named Staff)		32,300		32,300
Education - TEN Webcast Level (5 Named Staff)		4,525		4,525
Education On-Going Training		89,800		89,800
TDW Training Services	46,875	93,750	46,875	187,500
BI Query Software Maintenance and Support		181,660	198,210	379,870
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		9,040	10,000	19,040
Symmetry Software License and Support [2]		505,500	520,700	1,026,200
Maintenance				
On-Going Annual Maintenance - Production System	310,700	758,000	452,300	1,521,000
On-Going Annual Maintenance - COD Production (for FY17-18 COD)	44,000	107,400	64,100	215,500
On-Going Annual Maintenance - DevDR System	252,500	615,900	367,600	1,236,000
On-Going Annual Maintenance - COD DevDR				
On-Going Annual Maintenance - Test System	88,500	215,800	128,800	433,100
Services Sub-Total	**$742,575**	**$2,907,775**	**$1,878,585**	**$5,528,935**
Total	**$1,556,675**	**$6,117,475**	**$2,618,385**	**$9,292,535**

Notes: [1] Unused funds carry-over to next fiscal year. These are estimates, so future funds may also need to be pulled forward to meet State's needs.
[2] The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

STATE OF MICHIGAN
ENTERPRISE PROCUREMENT
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **17**

to

Contract Number **071B1300109**

CONTRACTOR	OPTUM GOVERNMENT SOLUTIONS, INC.	
	12125 Technology Drive	
	Eden Prarie, MN 55344	
	David Wieber	
	(517) 993-0929	
	david.wieber@optum.com	
	*******4101	

STATE	**Program Manager**	Mark Wagner	DTMB-IT
		517-241-7044	
		wagnerM2@michigan.gov	
	Contract Administrator	Malu Natarajan	DTMB
		(517) 284-7030	
		natarajanm@michigan.gov	

CONTRACT SUMMARY			
DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2019
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
		N/A	
ALTERNATE PAYMENT OPTIONS			**EXTENDED PURCHASING**
☐ P-Card	☐ Direct Voucher (DV)	☐ Other	☐ Yes ☒ No
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		November 15, 2019
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$30,073,579.85		$0.00	$30,073,579.85	

DESCRIPTION
Effective August, 24, 2017, the attached item - Contractor Change Request 24, dated Jul, 18,217, for relocating the State of Michigan Development/Disaster Recovery ("Dev/DR") hardware from the current State of Michigan Traverse Bay Data Center to the State's new Colocation Data Center in Grand Rapids, Michigan (the "Relocation Services"). Sufficient funds exist on the contract, thus no money needs to be added to the contract. The Contract value remains the same. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Procurement approval.

STATE OF MICHIGAN
ENTERPRISE PROCUREMENT
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909
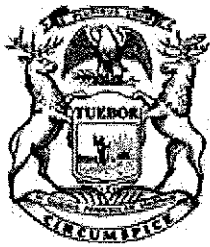
CONTRACT CHANGE NOTICE

Change Notice Number **16**

to

Contract Number **071B1300109**

<table>
<tr><td rowspan="7">CONTRACTOR</td><td>OPTUM GOVERNMENT SOLUTIONS, INC.</td><td rowspan="4">STATE</td><td>Bengel David</td><td>DTMB-IT</td></tr>
<tr><td>12125 Technology Drive</td><td>517-241-2921</td><td></td></tr>
<tr><td>Eden Prarie, MN 55344</td><td>bengeld@michigan.gov</td><td></td></tr>
<tr><td>David Wieber</td><td>Malu Natarajan</td><td>DTMB</td></tr>
<tr><td>(517) 993-0929</td><td>(517) 284-7030</td><td></td></tr>
<tr><td>david.wieber@optum.com</td><td>natarajanm@michigan.gov</td><td></td></tr>
<tr><td>*******4101</td><td></td><td></td></tr>
</table>

CONTRACT SUMMARY

DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
November 16, 2010	November 15, 2015	5 - 2 Year	November 15, 2019

PAYMENT TERMS	DELIVERY TIMEFRAME
	N/A

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ Direct Voucher (DV)	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		November 15, 2019

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$30,073,579.85	$0.00	$30,073,579.85

DESCRIPTION

Effective 12/16/2016, the attached items;
Contractor Change Request 22, dated December 14, 2016, adding additional BI Query Licenses and maintenance, and
Contractor Change Request 23, dated September 12, 2016, adding additional TEN Webcast Level Training Services,
are both incorporated into the contract.

Sufficient funds exist on the contract, thus no money needs to be added to the contract.
The Contract value remains the same.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Procurement approval.

OPTUM™

December 14, 2016

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: **SECOND REVISED CHANGE REQUEST PROPOSAL 022 FOR ADDITIONAL OPENTEXT BI QUERY SOFTWARE LICENSE AND SUPPORT UNDER CONTRACT No. 071B1300109**

Dear David:

As you know, the State of Michigan (the "State") has made a request for certain changes ("Change Request 022") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for one (1) new license of the BI Query Admin Software and thirty (30) new licenses of the BI Query User Software (collectively, the "BI Query Additional Software") and Standard Support over multiple State fiscal years. The new licenses for the BI Query Additional Software (the "BI Query Additional Software Licenses") and BI Query Additional Software Support are consistent with, and similar to, licenses and support currently being provided by Optum under the '109 Contract but are not included within the current Statement of Work. As such, these new licenses and support constitute "Additional Services/Deliverables", as that term is defined in our Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract").

In response to this request for Additional Services/Deliverables that also affects compensation (a "Change"), Optum originally submitted Change Request Proposal 022 dated June 17, 2016 (the "Original Change Request Proposal 022"). Based on subsequent discussions with the State, Optum submitted a Revised Change Request Proposal 022 dated November 28, 2016 (the "Revised Change Request Proposal 022"). Based on additional subsequent discussions with the State, Optum has agreed to make additional changes and is pleased to provide the State with this Second Revised Change Request Proposal (the "Second Revised Change Request Proposal 022") that supersedes and replaces in its entirety the Original and Revised Change Request Proposal 022.

I. Description of the Change Covered by this Second Revised Change Request Proposal 022

Consistent with the provisions of Section 2.024 of the '109 Contract, the following describes the Change covered by this Second Revised Change Request Proposal 022:

1.1 BI Query Additional Software License

In exchange for the State's order and payment for the license fee set forth below corresponding to the number and type of new BI Query Additional Software Licenses applicable during the State's fiscal year in which Optum accepts the State's order, Optum, acting through its subcontractor, OpenText Corporation ("OpenText"), shall make the BI Query Additional Software available to the State and the State shall install the software for use on applicable State work stations, under the End User License Agreement terms which were delivered with Change Request Proposal 018 (the "EULA").

1.2 BI Query Additional Software Support

During the BI Query Additional Software Maintenance Term defined below, Optum, acting through its subcontractor, OpenText, shall provide "Standard Maintenance" for the BI Query Additional Software. The scope of what constitutes "Standard Maintenance" is set forth in the OpenText Software Maintenance Program Handbook and further governed by the EULA.

1.3 BI Query Additional Software Support Term

The term during which Optum shall provide BI Query Additional Software Support (the "BI Query Additional Software Support Term") shall commence August 1, 2016 and continues for an initial term ending fourteen (14) months thereafter (the "Initial BI Query Additional Support Term"), provided that Optum receives a purchase order for the charge set forth in Section II below corresponding to the Initial BI Query Additional Support Term on or before August 1, 2016. As of October 1, 2018, the BI Query Additional Support Term shall renew for a twelve (12), seven (7) or five (5) month renewal term as set forth in the Revised Change Request 020 Attachments 4a, 4b and 4c – Cost Tables (the "Renewal BI Query Additional Support Term(s)"), provided that on or before the beginning of each Renewal BI Query Additional Support Term, Optum has received a purchase order from the State for the charge set forth in Section II below corresponding to the applicable Renewal BI Query Additional Support Term.

Notwithstanding the foregoing, Optum shall have the right to terminate the BI Query Additional Software Support either (i) at the end of the Initial BI Query Additional Support Term or a Renewal BI Query Additional Support Term or (ii) at any point in time during the BI Query Additional Support Term effective upon written notice to the State if (x) Optum's subcontractor, OpenText, no longer provides such BI Query Additional Software Support, (y) OpenText provides BI Query Software Support but not through resellers or Optum, or (z) OpenText changes the applicable support charge discount offered to Optum for the BI Query Additional Software Support for a Renewal BI Query Additional Support Term from that quoted to Optum as of the date of this Second Revised Change Request Proposal 022 and the State elects not to accept the corresponding change in support charge from Optum within thirty (30) days of Optum's quotation thereof.

II. Charges

The charges for the new BI Query Additional Software License and BI Query Additional Software Support described in this Second Revised Change Request Proposal 022 are set forth below in the Revised Change Request 020 Attachments 4a, 4b, and 4c - Cost Tables setting forth the Fiscal Year based BI Query charges. Following is a summary of the additional charges from this Second Revised Change Request Proposal 022:

Reference	Change Proposal 022	Price
Revised Attachment 4a - Base Period Pricing	BI Query Software License and Support (CR 22) through FY 20	$51,100.00
Revised Attachment 4b - Optional Extension Pricing	BI Query Software License and Support (CR 22) FY 21 and FY 22	$19,040.00
	Total Change Request Proposal 22	$70,140.00

III. Terms by Which the State May Accept This Second Revised Change Request Proposal 022 for BI Query Additional Software License and Support

In order to accept this Second Revised Change Request Proposal 022 for BI Query Additional Licenses and Support consistent with the terms applicable to Change Requests set forth in Sections 2.024 and 1.403 of the '109 Contract, Optum must receive a signed Contract Change Notice to the '109 Contract that references this Second Revised Change Request Proposal 022.

All other terms and conditions of the '109 Contract remain in full force and effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.
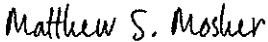
Sincerely,

David Wieber

Point of Contact:
      David Wieber
      Michigan Director of Delivery Operations
      Optum Government Solutions

Matthew S. Mosher

Authorized Signer:
      Matthew S. Mosher
      Senior Vice President, Optum Data Management
      Optum Government Solutions, Inc.

Revised Change Request 020 - Attachment 4a - 4 Year Extension Period

	FY16 12/1/2015 - 4/30/2016 Imp 5 Months	FY16 5/1/2016 - 9/30/2016 5 Months	FY17 10/1/2016 - 9/30/2017 12 Months	FY18 10/1/2017 - 9/30/2018 12 Months	FY19 10/1/2018 - 9/30/2019 12 Months	FY20 10/1/2019 - 4/30/2020 7 Months	Total 53 Months
Hardware and Software							
Production System 2 Node 6800H + 1HSN - Hardware and Software							
Production Hardware	$1,556,400.00						$1,556,400.00
Production Software	$775,800.00						$775,800.00
DevDR System 2 Node 6800H + 1HSN - Hardware and Software							
DevDR Hardware	$1,567,400.00						$1,567,400.00
DevDR Software	$447,500.00						$447,500.00
Test System 2-Node 2800 - Hardware and Software							
Test Hardware	$572,300.00						$572,300.00
Test Software	$210,400.00						$210,400.00
Hardware and Software Sub-Total	$5,129,800.00						$5,129,800.00
Subscription and Capacity on Demand (COD)							
Production COD Software Increments Planned Annually on May 1			$318,700.00	$364,300.00	$407,800.00		$1,090,800.00
DevDR COD Software Increments Planned Annually on May 1			$115,300.00	$203,500.00	$284,800.00		$603,600.00
Production Software Subscription		$155,700.00	$375,100.00	$377,100.00	$377,100.00	$220,100.00	$1,505,100.00
Production COD Software Subscription			$17,900.00	$61,300.00	$107,000.00	$79,000.00	$265,200.00
DevDR Software Subscription		$104,700.00	$252,500.00	$254,200.00	$254,200.00	$148,300.00	$1,013,900.00
DevDR COD Software Subscription			$6,200.00	$26,400.00	$58,400.00	$47,200.00	$138,200.00
Test Software Subscription		$17,200.00	$41,800.00	$42,500.00	$42,500.00	$24,900.00	$168,900.00
Subscription and COD Totals		$277,600.00	$1,127,500.00	$1,329,300.00	$1,531,800.00	$519,500.00	$4,785,700.00
Services							
Production, DevDR Implementation Services	$620,100.00						$620,100.00
DevDR Add Disk Drives - 48 300 GB HDDs	$27,400.00						$27,400.00
Test Implementation Services	$114,700.00						$114,700.00
System Hardening Services	$176,000.00		$181,300.00	$186,800.00	$192,400.00	$198,100.00	$934,600.00
TASM Migration Services	$68,000.00						$68,000.00
Education – TEN+	$28,800.00		$29,400.00	$29,900.00	$31,100.00	$31,700.00	$150,900.00
Education – On-Going Training	$81,600.00		$83,200.00	$84,800.00	$86,400.00	$88,000.00	$424,000.00
TDWI Training Services		$45,000.00	$90,000.00	$90,000.00	$93,750.00	$46,875.00	$365,625.00
BI Query Software Maintenance and Support			$119,510.00	$134,690.00	$149,900.00	$165,110.00	$569,210.00
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		$28,810.00		$6,780.00	$7,430.00	$8,080.00	$51,100.00
Symmetry Software License and Support*			$449,200.00	$462,600.00	$476,500.00	$490,800.00	$1,879,100.00
Maintenance							
On-Going Annual Maintenance - Production System		$230,300.00	$609,700.00	$689,300.00	$700,800.00	$418,200.00	$2,648,300.00
On-Going Annual Maintenance - COD Production			$19,100.00	$67,300.00	$123,500.00	$93,300.00	$303,200.00
On-Going Annual Maintenance - DevDR System		$190,000.00	$499,300.00	$560,100.00	$569,500.00	$339,800.00	$2,158,700.00
On-Going Annual Maintenance - COD DevDR			$6,900.00	$28,700.00	$63,400.00	$51,500.00	$150,500.00
On-Going Annual Maintenance - Test System		$69,300.00	$178,800.00	$196,300.00	$199,600.00	$119,100.00	$763,100.00
Services Sub-Total	$1,116,600.00	$563,410.00	$2,266,410.00	$2,537,270.00	$2,694,280.00	$2,050,565.00	$11,228,535.00
Total	$6,246,400.00	$841,010.00	$3,393,910.00	$3,866,570.00	$4,226,080.00	$2,570,065.00	$21,144,035.00

* The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Change Request 020 - Attachment 4b - 2 Year Optional Extension Period

	FY20 5/1/2020 - 9/30/2020 5 Months	FY21 10/1/2020 - 9/30/2021 12 Months	FY22 10/1/2021 - 4/30/2022 7 Months	Total 24 Months
Subscription and Capacity on Demand (COD)				
COD Production	$496,000.00	$229,300.00		$725,300.00
COD Dev/DR	$294,500.00	$370,700.00		$665,200.00
Production Software Subscription	$157,100.00	$377,100.00	$220,100.00	$754,300.00
COD Production Subscription	$81,500.00	$207,000.00	$130,100.00	$418,600.00
Dev/DR Software Subscription	$105,900.00	$254,200.00	$148,300.00	$508,400.00
COD Dev/DR Subscription	$49,600.00	$137,400.00	$95,200.00	$282,200.00
Test Software Subscription	$17,800.00	$42,500.00	$24,800.00	$85,100.00
Subscription and COD Totals	$1,202,400.00	$1,618,200.00	$618,500.00	$3,439,100.00
Services				
System Hardening Services		$204,100.00		$204,100.00
Education TEN+		$32,300.00		$32,300.00
Education On-Going Training		$89,800.00		$89,800.00
TDWI Training Services	$46,875.00	$93,750.00	$46,875.00	$187,500.00
BI Query Software Maintenance and Support		$181,660.00	$198,210.00	$379,870.00
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		$9,040.00	$10,000.00	$19,040.00
Symmetry Software License and Support *		$505,500.00	$520,700.00	$1,026,200.00
Maintenance				
On-Going Annual Maintenance - Production System	$310,700.00	$758,000.00	$452,300.00	$1,521,000.00
On-Going Annual Maintenance - COD Production	$98,800.00	$254,600.00	$162,800.00	$516,200.00
On-Going Annual Maintenance - Dev/DR System	$252,500.00	$615,900.00	$367,600.00	$1,236,000.00
On-Going Annual Maintenance - COD Dev/DR	$55,700.00	$157,600.00	$111,500.00	$324,800.00
On-Going Annual Maintenance - Test System	$88,500.00	$215,800.00	$128,800.00	$433,100.00
Services Sub-Total	$853,075.00	$3,118,050.00	$1,998,785.00	$5,969,910.00
Total	$2,055,475.00	$4,736,250.00	$2,617,285.00	$9,409,010.00

Notes: * The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Change Request 020 - Attachment 4c - BI Query Cost Details

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2016	Treasury	BI Query Admin New License	$2,200.00	1	$2,200.00
		BI Query User New License	$650.00	30	$19,500.00
		BI Query Admin Support for new Licenses (14 months)	$510.00	1	$510.00
		BI Query User Support for new Licenses (14 months)	$220.00	30	$6,600.00
			FY 2016 Treasury Total		$28,810.00
FY2017	DCH	BI Query Admin Existing Support	$440.00	1	$440.00
		BI Query User Support for Original 545	$150.00	545	$81,750.00
		BI Query User Support for Additional 120	$190.00	120	$22,800.00
			FY 2017 DCH Total		$104,990.00
	Treasury	BI Query Admin Existing Support	$440.00	2	$880.00
		BI Query User Support for Original 77	$150.00	77	$11,550.00
		BI Query User Support for Additional 9	$190.00	9	$1,710.00
			FY 2017 Treasury Total		$14,140.00
	DTMB	BI Query User Existing Support	$190.00	2	$380.00
			FY 2017 DTMB Total		$380.00
			FY 2017 Total		$119,510.00
FY2018	DCH	BI Query Admin Existing Support	$480.00	1	$480.00
		BI Query User Support for Original 545	$170.00	545	$92,650.00
		BI Query User Support for Additional 120	$210.00	120	$25,200.00
			FY 2018 DCH Total		$118,330.00
	Treasury	BI Query Admin Existing Support	$480.00	3	$1,440.00
		BI Query User Support for Original 77	$170.00	77	$13,090.00
		BI Query User Support for Additional 39	$210.00	39	$8,190.00
			FY 2018 Treasury Total		$22,720.00
	DTMB	BI Query User Existing Support	$210.00	2	$420.00
			FY 2018 DTMB Total		$420.00
			FY 2018 Total		$141,470.00
FY2019	DCH	BI Query Admin Existing Support	$530.00	1	$530.00
		BI Query User Support for Original 545	$190.00	545	$103,550.00
		BI Query User Support for Additional 120	$230.00	120	$27,600.00
			FY 2019 DCH Total		$131,680.00
	Treasury	BI Query Admin Existing Support	$530.00	3	$1,590.00
		BI Query User Support for Original 77	$190.00	77	$14,630.00
		BI Query User Support for Additional 39	$230.00	39	$8,970.00
			FY 2019 Treasury Total		$25,190.00
	DTMB	BI Query User Existing Support	$230.00	2	$460.00
			FY 2019 DTMB Total		$460.00
			FY 2019 Total		$157,330.00
FY2020	DCH	BI Query Admin Existing Support	$580.00	1	$580.00
		BI Query User Support for Original 545	$210.00	545	$114,450.00
		BI Query User Support for Additional 120	$250.00	120	$30,000.00
			FY 2020 DCH Total		$145,030.00
	Treasury	BI Query Admin Existing Support	$580.00	3	$1,740.00
		BI Query User Support for Original 77	$210.00	77	$16,170.00
		BI Query User Support for Additional 39	$250.00	39	$9,750.00
			FY 2020 Treasury Total		$27,660.00
	DTMB	BI Query User Existing Support	$250.00	2	$500.00
			FY 2020 DTMB Total		$500.00
			FY 2020 Total		$173,190.00

Revised Change Request 020 - Attachment 4c - BI Query Cost Details – Option Years

Fiscal Year	Agency	Product Description	Unit Price	Quantity	Total Amount
FY2021	DCH	BI Query Admin Existing Support	$640.00	1	$640.00
		BI Query User Support for Original 545	$230.00	545	$125,350.00
		BI Query User Support for Additional 120	$280.00	120	$33,600.00
				FY 2021 DCH Total	$159,590.00
	Treasury	BI Query Admin Existing Support	$640.00	3	$1,920.00
		BI Query User Support for Original 77	$230.00	77	$17,710.00
		BI Query User Support for Additional 39	$280.00	39	$10,920.00
				FY 2021 Treasury Total	$30,550.00
	DTMB	BI Query User Existing Support	$280.00	2	$560.00
				FY 2021 DTMB Total	$560.00
				FY 2021 Total	$190,700.00
FY2022	DCH	BI Query Admin Existing Support	$700.00	1	$700.00
		BI Query User Support for Original 545	$250.00	545	$136,250.00
		BI Query User Support for Additional 120	$310.00	120	$37,200.00
				FY 2022 DCH Total	$174,150.00
	Treasury	BI Query Admin Existing Support	$700.00	3	$2,100.00
		BI Query User Support for Original 77	$250.00	77	$19,250.00
		BI Query User Support for Additional 39	$310.00	39	$12,090.00
				FY 2022 Treasury Total	$33,440.00
	DTMB	BI Query User Existing Support	$310.00	2	$620.00
				FY 2022 DTMB Total	$620.00
				FY 2022 Total	$208,210.00

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822 Centennial Way, Suite 100 | Lansing, MI 48917 | phone: (517) 993-0929 | www.optum.com

September 12, 2016

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: CHANGE REQUEST PROPOSAL 023 FOR ADDITIONAL TEN WEBCAST TRAINING SERVICES UNDER
CONTRACT NO. 071B1300109

Dear Mark:

The State of Michigan (the "State") has made a request for change to Contract No. 071B1300109
("Change Request 023") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal
for additional Teradata Education Network (TEN) Webcast Level Training Services (the "Services")
for five (5) named State staff. The additional training services constitutes "New Work", as that term
is defined in our Contract 071B1300109 effective November 16, 2010, as amended (the '109
Contract").

In response to this Change Request 023, Optum is pleased to provide the State with this Change
Request Proposal for additional TEN Webcast Level Training Services (the "Change Request
Proposal 023").

I. **Description of the Scope Covered by this Change Request Proposal 023**

1. **Additional TEN Webcast Level Training Services**: TEN Webcast level memberships for
    five (5) named State staff members will be provided annually for five (5) years effective as of
    the date Optum received approval from the State on this Change Request Proposal 023.

    Intellectual Property. All courses and course materials, on any medium, provided as part of
    the Services are the intellectual property of Teradata and protected under copyright laws.
    Course materials may not be duplicated or altered without written permission from Teradata
    Education. No portion of any class may be recorded.

    Named Users. The Services include subscription access to the TEN – "Webcast"
    membership level content for the term of the Services. Access is granted to named
    individuals and may not be shared. A complete list of Webcasts is available on the Teradata
    Education Network web site (www.teradata.com/TEN). As new Webcasts are published,
    access will be made available in accordance with the level and terms of the Services.

    If a named user leaves the State's employment within six months of the date that the
    Services is started, the State may reassign the subscription user license of the out-going
    named employee to a current permanent employee. There is no substitution permitted if the
    outgoing employee has had access to the Teradata Education Network for greater than six
    months. Teradata must be notified in writing of all proposed subscription substitutions.

Charges:

Description	Number of Seats	Access Start Date*	Access End Date*	Price per Seat	Extended Total Price
TEN Webcast Level Annual Subscription	5	10-1-2016	9-30-2017	$905	$4,525
TOTAL					$4,525

Notwithstanding these dates, the Subscription term starts on the date of distribution of the user ID(s) and password(s) and ends on the applicable anniversary thereafter.

The total charges added for the 4-Year Extension period as reflected in the Revised Attachment 4a – 4 Year Extension Period is $18,100.00.

III. Terms by Which the State May Accept This Change Request Proposal 023:

The State can approve this Change Request Proposal 023 by issuing a Change Notice that references this Change Request Proposal 023 and then also issuing a Purchase Order or revised Purchase Order for the additional Services as defined above.

Except as expressly amended by this Change Request 023, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

David Wieber

Point of Contact:
    David Wieber
    Michigan Director of Operations
    Optum Government Solutions, Inc.

DocuSigned by:

Matthew S. Mosher
98B4EE7EDAA1439...

Signer:
    Matthew S. Mosher
    Chief Operating Officer, Optum Data Management
    Optum Government Solutions, Inc.

Change Request 023 Revised Attachment 4a - 4 Year Extension Period

	FY16 12/1/2015 - 4/30/2016 Imp 5 Months	FY16 5/1/2016 - 9/30/2016 5 Months	FY17 10/1/2016 - 9/30/2017 12 Months	FY18 10/1/2017 - 9/30/2018 12 Months	FY19 10/1/2018 - 9/30/2019 12 Months	FY20 10/1/2019 - 4/30/2020 7 Months	Total 53 Months
Hardware and Software							
Production System 2 Node 6800H + 1HSN – Hardware and Software							
Production Hardware	$1,556,400.00						$1,556,400.00
Production Software	$775,800.00						$775,800.00
Dev/DR System 2 Node 6800H + 1HSN - Hardware and Software							
Dev/DR Hardware	$1,567,400.00						$1,567,400.00
Dev/DR Software	$447,500.00						$447,500.00
Test System 2-Node 2800 - Hardware and Software							
Test Hardware	$572,300.00						$572,300.00
Test Software	$210,400.00						$210,400.00
Hardware and Software Sub-Total	$5,129,800.00						$5,129,800.00
Subscription and Capacity on Demand (COD)							
Production COD Software Increments Planned Annually on May 1			$318,700.00	$364,300.00	$407,800.00		$1,090,800.00
DevR COD Software Increments Planned Annually on May 1			$115,300.00	$203,500.00	$284,800.00		$603,600.00
Production Software COD Subscription		$155,700.00	$375,100.00	$377,100.00	$377,100.00	$220,100.00	$1,505,100.00
Production COD Software Subscription			$17,900.00	$61,300.00	$107,000.00	$79,000.00	$265,200.00
Dev/DR Software Subscription		$104,700.00	$252,500.00	$254,200.00	$254,200.00	$148,300.00	$1,013,900.00
Dev/DR COD Software Subscription			$6,200.00	$26,400.00	$58,400.00	$47,200.00	$138,200.00
Test Software Subscription		$17,200.00	$41,800.00	$42,500.00	$42,500.00	$24,900.00	$168,900.00
Subscription and COD Totals		$277,600.00	$1,127,500.00	$1,329,300.00	$1,531,800.00	$519,500.00	$4,785,700.00
Services							
Production, Dev/DR Implementation Services	$620,100.00						$620,100.00
Dev/DR Add Disk Drives - 48 300 GB HDDs	$27,400.00						$27,400.00
Test Implementation Services	$114,700.00						$114,700.00
System Hardening Services	$176,000.00		$181,300.00	$186,800.00	$192,400.00	$198,100.00	$934,600.00
TASM Migration Services	$68,000.00						$68,000.00
Education – TEN+ (10 Named Staff)	$28,800.00		$29,400.00	$29,900.00	$31,100.00	$31,700.00	$150,900.00
Education – TEN Webcast Level (5 Named Staff)			$4,525.00	$4,525.00	$4,525.00	$4,525.00	$18,100.00
Education – On-Going Training	$81,600.00		$83,200.00	$84,800.00	$86,400.00	$88,000.00	$424,000.00
TDWI Training Services		$45,000.00	$90,000.00	$90,000.00	$93,750.00	$46,875.00	$365,625.00
BI Query Software Maintenance and Support			$119,510.00	$134,690.00	$149,900.00	$165,110.00	$569,210.00
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		$28,810.00		$6,780.00	$7,430.00	$8,080.00	$51,100.00
Symmetry Software License and Support *			$449,200.00	$462,600.00	$476,500.00	$490,800.00	$1,879,100.00
Maintenance							
On-Going Annual Maintenance - Production System		$230,300.00	$609,700.00	$689,300.00	$700,800.00	$418,200.00	$2,648,300.00
On-Going Annual Maintenance - COD Production			$19,100.00	$67,300.00	$123,500.00	$93,300.00	$303,200.00
On-Going Annual Maintenance - Dev/DR System		$190,000.00	$499,300.00	$560,100.00	$569,500.00	$339,800.00	$2,158,700.00
On-Going Annual Maintenance - COD Dev/DR			$6,900.00	$28,700.00	$63,400.00	$51,500.00	$150,500.00
On-Going Annual Maintenance - Test System		$69,300.00	$178,800.00	$196,300.00	$199,600.00	$119,100.00	$763,100.00
Services Sub-Total	$1,116,600.00	$563,410.00	$2,270,935.00	$2,541,795.00	$2,698,805.00	$2,055,090.00	$11,246,635.00
Total	$6,246,400.00	$841,010.00	$3,398,435.00	$3,871,095.00	$4,230,605.00	$2,574,590.00	$21,162,135.00

* The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Change Request 023 Revised Attachment 4b - 2 Year Optional Extension Period

	FY20 5/1/2020 - 9/30/2020 5 Months	FY21 10/1/2020 - 9/30/2021 12 Months	FY22 10/1/2021 - 4/30/2022 7 Months	Total 24 Months
Subscription and Capacity on Demand (COD)				
COD Production	$496,000.00	$229,300.00		$725,300.00
COD Dev/DR	$294,500.00	$370,700.00		$665,200.00
Production Software Subscription	$157,100.00	$377,100.00	$220,100.00	$754,300.00
COD Production Subscription	$81,500.00	$207,000.00	$130,100.00	$418,600.00
Dev/DR Software Subscription	$105,900.00	$254,200.00	$148,300.00	$508,400.00
COD Dev/DR Subscription	$49,600.00	$137,400.00	$95,200.00	$282,200.00
Test Software Subscription	$17,800.00	$42,500.00	$24,800.00	$85,100.00
Subscription and COD Totals	$1,202,400.00	$1,618,200.00	$618,500.00	$3,439,100.00
Services				
System Hardening Services		$204,100.00		$204,100.00
Education - TEN+ (10 Named Staff)		$32,300.00		$32,300.00
Education - TEN Webcast Level (5 Named Staff)		$4,525.00		$4,525.00
Education On-Going Training		$89,800.00		$89,800.00
TDWI Training Services	$46,875.00	$93,750.00	$46,875.00	$187,500.00
BI Query Software Maintenance and Support		$181,660.00	$198,210.00	$379,870.00
BI Query License, Maintenance and Support (CR22 - Add for Treasury)		$9,040.00	$10,000.00	$19,040.00
Symmetry Software License and Support *		$505,500.00	$520,700.00	$1,026,200.00
Maintenance				
On-Going Annual Maintenance - Production System	$310,700.00	$758,000.00	$452,300.00	$1,521,000.00
On-Going Annual Maintenance - COD Production	$98,800.00	$254,600.00	$162,800.00	$516,200.00
On-Going Annual Maintenance - Dev/DR System	$252,500.00	$615,900.00	$367,600.00	$1,236,000.00
On-Going Annual Maintenance - COD Dev/DR	$55,700.00	$157,600.00	$111,500.00	$324,800.00
On-Going Annual Maintenance - Test System	$88,500.00	$215,800.00	$128,800.00	$433,100.00
Services Sub-Total	$853,075.00	$3,122,575.00	$1,998,785.00	$5,974,435.00
Total	$2,055,475.00	$4,740,775.00	$2,617,285.00	$9,413,535.00

Notes: * The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET
PROCUREMENT

| 525 W. ALLEGAN STREET | P.O. BOX 30026 |
| LANSING, MI 48933 | LANSING, MI 48909 |

CHANGE NOTICE NO. 15
to
CONTRACT NO. 071B1300109
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Optum Government Solutions, Inc.	David Wieber	david.wieber@optum.com
12125 Technology Drive	**PHONE**	**CONTRACTOR'S TAX ID NO. (LAST FOUR DIGITS ONLY)**
Eden Prarie MN, 55344	(517) 993-0929	*******4101

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DTMB	Mark Wagner	517-241-9655	wagnerM2@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	David Hatch	(517) 284-7044	hatchd@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: Data Warehouse Implementation And Services			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
October 21, 2010	November 15, 2015	5 - 2 Year 4 option years taken on CN13	November 15, 2019
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☐ Yes ☒No	
MINIMUM DELIVERY REQUIREMENTS			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$30,073,579.85		$ 0.00	$30,073,579.85	

DESCRIPTION: Effective May 11, 2016 the attached item, Contractor Change Request 21 dated May 4, 2016 with updated timelines and pricing, are incorporated into the contract.

The Contract value remains the same.

All other terms, conditions, specifications, and pricing remain the same. Per vendor and agency agreement and DTMB Procurement approval.

May 4, 2016

Mr. Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: **REVISED CHANGE REQUEST PROPOSAL 021 TO EXTEND THE IMPLEMENTATION PROJECT BY 1 MONTH AND ADD DISK DRIVES UNDER CONTRACT No. 071B1300109**

Dear Mark:

In 2015, the State of Michigan (the "State") made a request for changes to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract') asking Optum Government Solutions, Inc. ("Optum") to provide a proposal to extend the '109 Contract and perform a Teradata hardware refresh/floorsweep (the "Extension and Floorsweep"). The Extension and Floorsweep constitute "New Work", as that term is defined in the '109 Contract. The Extension and Floorsweep proposal ("Second Revised Change Request Proposal 020") was subsequently accepted and approved by the State on November 5, 2015.

The Second Revised Change Request Proposal 020 envisioned a 4-month Implementation project being executed from December 1, 2015 – March 31, 2016 and the subsequent ongoing maintenance services being executed by Optum from April 1, 2016 through March 31, 2020. Due to unforeseen delays with the implementation of the required network components, the State is requesting that the Implementation Project be extended by 1-Month so that all required Disaster Recovery and State Agency testing may be completed as originally planned.

In response to the State's request for additional changes, Optum is pleased to provide the State with this Change Request Proposal dated May 4, 2016 (the "Change Request Proposal 021") which extends the Implementation project by 1-month resulting in a revised Implementation project end date of April 30, 2016 and a revised ongoing maintenance period of May 1, 2016 – April 30, 2020.

The following additional changes are included in this Change Request Proposal 021 with the specific section references and changes set forth below:

1. Disk Scrubbing costs are removed from the Implementation charges.

2. Host Group Configuration services and related costs are removed from the Implementation charges.

3. Performance Data Collection Reporting services and related costs are removed from the Implementation charges.

4. The number of disk drives included with the Dev/DR System is increased to be consistent with the Production System.

5. Teradata Software licensing language is modified to support usage of the New Production System software licensing levels for the New Dev/DR System licensing during an annual Disaster Recovery test.

I. Detailed Changes included as part of this Change Request Proposal 021

1. The Scope of the Contract Extension Period will include a five (5) month Hardware and Software Floorsweep and Implementation Project, from December 1, 2015 through April 30, 2016 along with ongoing maintenance and support for the period of May 1, 2016 through April 30, 2020.

2. The Scope of the Optional Extension Period will include ongoing hardware, software, subscription, and maintenance services for the period of May 1, 2020 through April 30, 2022.

3. In Section 1.100 Scope of Work and Deliverables Modifications, the Current System will now be De-installed and removed during the month of May 2016.

4. In Article 2 – Terms and Conditions Modifications, the original Article 2, Section 2.243 will remain applicable as it applies to the Current System until the Current System is shut down during the month of April 2016.

5. Change Request Proposal 020 Attachment 10 – Host Group Configuration Services is deleted as these services were deemed to not be required.

6. Change Request Proposal 020 Attachment 17 – Performance and Reporting Services is deleted as these services were deemed to not be required.

7. Attachment 2 to the base contract - Teradata Software License Terms and Conditions, paragraph 2.3 is modified and replaced in whole as follows:

   "2.3 The Teradata Licensed Program Materials may only be used on the Designated Equipment, unless the Designated Equipment becomes temporarily inoperative. In which case, Licensee may temporarily use Teradata Licensed Program Materials on back-up equipment while the Designated Equipment is inoperative. Notwithstanding the forgoing, for a period not to exceed two (2) weeks during each calendar year during the term of this agreement, the State shall have the right to activate, without additional cost, its Capacity On Demand ("COD") with respect to the New Dev/DR System to enable the State to perform disaster recovery testing of the New Dev/DR System at a TPerf level equivalent to the New Production System. The State shall provide not less than ten (10) business days' prior written notice to Optum of such testing. Such COD increase shall be reduced back to its original TPerf level immediately upon the completion of the two week testing period."

8. The Performance Period For Maintenance and Subscription Services defined in Change Request Proposal 020 Section 10 applicable to the Existing Systems is increased from a 1 Month Extension to a 2 Month Extension to cover the period of March 1, 2016 through April 30, 2016 given that the New System will not be operational until May 1, 2016.

9. The charges for the 2 Month Extension of the performance period from March 1, 2016 through April 30, 2016 for Maintenance and Subscription Services applicable to the Existing System are included in the revised FY16 amounts set forth in the Revised Attachment 1B below. Optum has previously invoiced the State for 1-month of the 2-month extension and will therefore invoice the State for the remaining 1-Month of the 2-Month extension ($165,926.00) for the existing maintenance upon the State's approval of this Change Request Proposal 021 and issuance of a modification to the FY16 Yearly Maintenance and Subscription Purchase Order – 084N6600315.

10. Optum will invoice for the various Services for which pricing is set forth in Revised Attachment 4a in the column labeled "FY16 12/1/2015 – 4/30/2016 Implementation" (the "Implementation Related Services Amount"), in accordance with their associated deliverable/milestone achievement.

11. Optum will invoice for recurring Subscription, COD, Services, and Maintenance ordered by the State for which pricing is set forth in Revised Attachment 4a for FY16 – FY20 in advance of the period covered by the subscription, COD, services or maintenance fee, provided that the State has issued one or more purchase order(s) for such recurring subscription, COD, services and maintenance prior to November 1, 2015 for the FY'16 charges (the "Recurring Subscription, COD, Services and Maintenance Amount for FY'16") and prior to the start of each succeeding State Fiscal Year for all other recurring services.

12. Change Request Proposal 020 Attachment 1 - Section 1.100 Scope of Work and Deliverables Modifications is modified as set forth below where the paragraphs referenced are replaced in whole:

    a. 1.104.A.1: All dates and schedules related to delivery, installation, migration, testing, acceptance and operations of the Systems shall be captured in the project schedule and subject to mutual agreement between the State and Contractor. The State shall order the System and related services from Contractor that are shown in Attachment 4a Cost Table – 4 year Extension Period for the period from December 1, 2015 through April 30, 2020 no later than November 1, 2015 and if Contractor is able to deliver such products on or before December 31, 2015, the State shall accept such delivery by that date.

    b. 1.104.B.1: Hardware to be provided is a production solution (i.e., New Production System), a separate development/disaster recovery (DR) solution (i.e., New Dev/DR System), and a separate Test solution (i.e., New Test System). The New Dev/DR System must be technically the same architecture as the New Production System.

    c. 1.104.b.11: Specifications for the New System will consist of the following:

Metric Quick Reference			
Component	Production System	Development/DR System	Test System
Model Number	6800-H	6800-H	2800
Configuration	Capacity	Capacity	Capacity
Database Version	Teradata 15.10;	Teradata 15.10	Teradata 15.10
Operating System	SLES 11	SLES 11	SLES 11
Number of Nodes	2	2	2
Number of Hot Standby Nodes	1	1	0
Memory per Node (GB DDR4)	512	512	512
Memory per Platform (GB DDR4)	1024	1024	1024
Configurable Tperf per Node	299	299	NA
Configurable Tperf per Platform	598	598	NA
Configured Tperf per Platform (initial COD)	354	252	NA
Configurable SSD Drives Per Node	8-40	8-40	NA
Configured SSD Drives Per Node	16	16	NA
Configured SSD Drives Per Platform	32	32	NA
Configurable HDD Drives Per Node	72-168	72-168	40
Configured HDD Drives Per Node	168	168	40
Configurable HDD Drives Per Platform	144-336	144-336	80
Configured HDD Drives Per Platform	336	336	80
Disk Size SSD (in GB per SDD)	1600	1600	NA
Available Disk Sizes HDD (in GB)	300,600	300,600	300, 600, 900, or 1,200
Configured Disk Size HDD (in GB per HDD)	300	300	900
Max Perm (in TB) at 50% COD (inc. SSD and HDD)	46.4	46.4	32.9
Max Perm (in TB) at 100% COD (inc. SSD and HDD)	64.7	64.7	32.9
Current Perm Threshold (in TB) at 50% COD	35.7	35.7	24.3
Customer Data Space (in TB) at 50% COD	29.7	29.7	43.8*
Raid Configuration	1	1	1
Configured Amps per Node	42	42	40
Configured Amps per Platform	84	84	80
Configured Parsing Engines per Node	2 (std)	2 (std)	2 (std)
Configured Parsing Engines per Platform	4	4	4
Processor Type	Dual 14 Core Haswell	Dual 14 Core Haswell	Dual 14 Core Haswell
Configurable Processors per Node	2	2	2
Configurable Cores per Processor	14	14	14
Configurable Cores per Node	28	28	28
Configurable Cores per Platform	56	56	56
Configured Cores per Processor	10	8	14
Configured Cores per Node	20	16	28
Configured Cores per Platform	40	32	56

* 66.7% compression with automatic block level compression

13. Change Request Proposal 020 Attachment 3 - Article 2 - Terms and Conditions Modifications Section 2.022 Contract Compliance Inspector is modified as set forth below:

The Director of Purchasing Operations directs the person named below, or his or her designee, to monitor and coordinate the activities for the Contract on a day-to-day basis during its term. **Monitoring Contract activities does not imply the authority to change, modify, clarify, amend, or otherwise alter the prices, terms, conditions and specifications of the Contract. Purchasing Operations is the only State office authorized to change, modify, amend, alter or clarify the prices, specifications, terms and conditions of this Contract.** The Contract Compliance Inspector for this Contract is:

Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917
Email: wagnerm2@michigan.gov
Phone: (517) 241-9655

14. Change Request Proposal 020 Attachment 3 - Article 2 - Terms and Conditions Modifications Section 2.023 Project Manager is modified as set forth below:

The following individual will oversee the project:

Mark Wagner
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917
Email: wagnerm2@michigan.gov
Phone: (517) 241-9655

15. Change Request Proposal 020 Attachment 4a – Cost Tables – 4 Year Extension Period is revised and attached below. The fiscal year start and end dates have been updated to match the revised period of performance and the related charges have been updated to reflect the modifications in scope as summarized below.

16. Change Request Proposal 020 Attachment 4b – Cost Tables – 2 Year Option Extension Period is revised and attached below. The fiscal year start and end dates have been updated to match the revised period of performance.

17. Change Request Proposal 020 Attachment 5 – Option Components Cost Tables is revised and attached below. The fiscal year start and end dates have been updated to match the revised period of performance.

18. Change Request Proposal 020 Attachment 7 - New Development/Disaster Recovery System Configuration is revised and attached below. The number of 300 GB disk drives has been increased from 288 to 366.

19. Change Request Proposal 020 Attachment 30 – Production and Dev/DR Sizing Specifications and COD Increments has been revised and is attached below. Corrections and heading clarifications have been incorporated.

II. Terms by Which the State May Accept This Change Request Proposal 021 for Extension and Floorsweep

The State can approve this Change Request Proposal 021 by issuing:

(1) A Change Notice that references this Change Request Proposal 021 and

(2) Purchase Orders as follows:

  a. A revised PO 084N6600315 for the applicable amount for Maintenance and Subscription Services for the Existing System through April 30, 2016 – must be received no later than March 31, 2016.

  b. A revised PO 084N6601183 for the revised Implementation Services Amount – must be received no later than March 31, 2016.

  c. A new PO must be issued for the Recurring Subscription, COD, Services and Maintenance Amount for the New Systems for FY'16 no later than April 30, 2016.

Following is a summary of the pricing changes that have occurred between the Second Revised Change Request Proposal 020 and this Change Request Proposal 021:

Action	Change Proposal 021	Price
Revised Attachment 1B		
Old	Second Revised Change Proposal 020	$ 855,533.00
Add	1-Month Maintenance for Current Systems	$ 165,926.00
New	Change Proposal 021 Total	$ 1,021,459.00
	Delta	$ 165,926.00
Revised Attachment 4a - Cost Tables – 4 Year Extension Period		
Old	Second Revised Change Proposal 020	$ 21,106,235.00
Less	PDCR Services	$ 17,100.00
Less	Host Group Configuration Services	$ 10,000.00
Less	Disk Scrubbing Services	$ 30,000.00
Add	Add 48 300 GB Disks and Install Services	$ 27,400.00
Add	Add Ongoing Maintenance for 48 Disks	$ 16,400.00
New	Change Proposal 021 Total	$ 21,092,935.00
	Delta	$ (13,300.00)
Revised Attachment 4a - Cost Tables – 2 Year Optional Extension Period		
Old	Second Revised Change Proposal 020	$ 9,372,870.00
Add	Add Disk COD Increase for Year 5 and 6 for 48 Disks	$ 7,700.00
Add	Add Ongoing Maintenance for 48 Disks	$ 9,400.00
New	Change Proposal 021 Total	$ 9,389,970.00
	Delta	$ 17,100.00
	Total Change Proposal Delta	$ 169,726.00

IV. General

Except as expressly amended by this Change Request 021, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

Point of Contact:
       David Wieber
       Michigan Director of Operations
       Optum Government Solutions, Inc.

Authorized Signer:
       Paul Miller
       VP, Finance
       Optum Corporate

Revised Attachment 1B

Payment Milestones - 5 Year growth

Milestone	FY11	FY12	FY13	FY14	FY15	FY16	Total
			State of Michigan Fiscal Year				
Initial Training Subscription Plus Teradata Partners Conference	29,060						$29,060.00
Contract Hardware and Software	9,597,979						$9,597,979.00
Production System Production Migration Completion	$243,311						$243,311.00
5450 Deinstallation	$34,255						$34,255.00
Test System Production Migration Completion	$84,452						$84,452.00
5380 Deinstallation	$34,755						$34,755.00
TASM Services	$45,910						$45,910.00
DA Implementation Services - Architecture Planning and Design		$55,926.00					$55,926.00
DA Implementation Services - Configuration and Setup		$74,568.00					$74,568.00
DA Implementation Services - Detail Design and Implementation		$167,779.00					$167,779.00
Protegrity Services	$50,805						$50,805.00
Ongoing TEN+ Membership plus Teradata Partner Conference		$29,060.00	$29,060.00	$29,060.00	$29,060.00		$116,240.00
Teradata Warehouse Miner Training Course 1	$37,069						$37,069.00
Teradata Warehouse Miner Training Course 2		$37,069.00					$37,069.00
Teradata Warehouse Miner Training Course 3 - CR012				$37,069.00			$37,069.00
10 GbE Network Adapter Change - CR013				$22,900.00			$22,900.00
Protegrity Software Upgrade - CR014					$37,000.00		$37,000.00
Additional Teradata Training during CY 2014 - CR015				$29,700.00	$35,640.00		$65,340.00
TDWI Training - CR015					$90,000.00	$45,000.00	$135,000.00
Teradata Hardening Services - CR016				$90,000.00			$90,000.00
Host Group Configuration Services - CR017					$9,900.00		$9,900.00
On-Going Training	$73,684	$47,504.00	$47,504.00	$47,504.00	$47,504.00		$263,700.00
DataDirect Software Licenses - CR002	$32,000						$32,000.00
DataDirect Software Maintenance - CR002	$6,600	$7,660.00	$8,420.00	$9,260.00	$10,190.00		$42,130.00
Additional ODBC Software and Maintenance Support - CR007		$15,650.00	$3,460.00	$3,810.00	$4,190.00		$27,110.00
Additional ODBC Software - CR008		$3,200.00					$3,200.00
AIX Systems Hw & SW Mnt 4/1/11 - 9/30/11 - CR002	$15,827						$15,827.00
AIX Systems Hw & SW Mnt 10/1/11 - 9/30/16 - CR002		$34,821.00					$34,821.00
BI Query Software License and Maintenance - CR003		$161,799.06	$88,581.96	$97,442.76	$107,185.07		$455,008.85
BI Query Software Maintenance FY16 - CR018						$110,490.00	$110,490.00
Optum Symmetry Software License and Services - CR019					$467,100.00		$467,100.00
Business Objects Software Maintenance - CR004		$37,751.00					$37,751.00
JSURS Support - CR004		$272,908.00	$286,552.00	$300,880.00			$860,340.00
	3/1/11 - 9/30/11	10/1/11 - 9/30/12	10/1/12 - 9/30/13	10/1/13 - 9/30/14	10/1/14 - 9/30/15	10/1/15 - 4/30/16	
Warranty - Production System w/AWS Rack	$267,568	$191,120.00					$458,688.00
Warranty - Test System w/AWS Rack	$198,344	$141,675.00					$340,019.00
Warranty - Teradata Warehouse Miner	$9,051	$6,465.00					$15,516.00
Warranty - Dual Active	$55,319	$39,514.00					$94,833.00
CR020 - Prod Sub for 2 Month (inc. Protegrity, Warehouse Miner)						$ 68,112.00	$68,112.00
CR020 - Dev/DR Sub for 2 Month (inc. Protegrity, Warehouse Miner)						$ 50,092.00	$50,092.00
On-Going Annual Maintenance - Disk Retention Option - CR 009		-	$26,110.00	$31,331.00	$31,331.00	$18,277.00	$107,049.00
On-Going Annual Maintenance - COD Pull Ahead - CR 011			$104,945.17				$104,945.17
On-Going Annual Maintenance - Prod System w/AWS Rack		$267,568.00	$459,560.00	$526,001.00	$614,352.00	$375,595.00	$2,243,076.00
On-Going Annual Maintenance - Test System w/AWS Rack		$198,344.00	$340,733.00	$368,755.00	$435,631.00	$273,794.00	$1,617,257.00
On-Going Annual Maintenance - Teradata Warehouse Miner		$9,051.00	$15,516.00	$15,516.00	$15,516.00	$9,051.00	$64,650.00
On-Going Annual Maintenance - Dual Active		$55,319.00	$95,146.00	$104,032.00	$116,972.00	$71,048.00	$442,517.00
Total	$10,815,989	$1,854,751.06	$1,505,588.13	$1,713,260.76	$2,051,571.07	$1,021,459.00	$18,962,619.01

Ad Board Approved Contract Amount: $19,073,580.00
Amount Remaining not allocated: $110,960.99

Revised Attachment 4a - Cost Tables – 4 Year Extension Period

	FY16 12/1/2015 - 4/30/2016 Implementation	FY16 5/1/2016 - 9/30/2016	FY17 10/1/2016 - 9/30/2017	FY18 10/1/2017 - 9/30/2018	FY19 10/1/2018 - 9/30/2019	FY20 10/1/2019 - 4/30/2020	Total
	5 Months	5 Months	12 Months	12 Months	12 Months	7 Months	53 Months
Hardware and Software							
Production System 2 Node 6800H + 1HSN - Hardware and Software							
Production Hardware	$1,556,400.00						$1,556,400.00
Production Software	$775,800.00						$775,800.00
Dev/DR System 2 Node 6800H + 1HSN - Hardware and Software							
Dev/DR Hardware	$1,567,400.00						$1,567,400.00
Dev/DR Software	$447,500.00						$447,500.00
Test System 2-Node 2800 - Hardware and Software							
Test Hardware	$572,300.00						$572,300.00
Test Software	$210,400.00						$210,400.00
Hardware and Software Sub-Total	$5,129,800.00						$5,129,800.00
Subscription and Capacity on Demand (COD)							
Production COD Software Increments Planned Annually on May 1			$318,700.00	$364,300.00	$407,800.00		$1,090,800.00
Dev/DR COD Software Increments Planned Annually on May 1			$115,300.00	$203,500.00	$284,800.00		$603,600.00
Production Software Subscription		$155,700.00	$375,100.00	$377,100.00	$377,100.00	$220,100.00	$1,505,100.00
Production COD Software Subscription			$17,900.00	$61,300.00	$107,000.00	$79,000.00	$265,200.00
Dev/DR Software Subscription		$104,700.00	$252,500.00	$254,200.00	$254,200.00	$148,300.00	$1,013,900.00
Dev/DR COD Software Subscription			$6,200.00	$26,400.00	$58,400.00	$47,200.00	$138,200.00
Test Software Subscription		$17,200.00	$41,800.00	$42,500.00	$42,500.00	$24,900.00	$168,900.00
Subscription and COD Totals		$277,600.00	$1,127,500.00	$1,329,300.00	$1,531,800.00	$519,500.00	$4,785,700.00
Services							
Production, Dev/DR Implementation Services	$620,100.00						$620,100.00
Dev/DR Add Disk Drives - 48 300 GB HDDs	$27,400.00						$27,400.00
Test Implementation Services	$114,700.00						$114,700.00
System Hardening Services	$176,000.00		$181,300.00	$186,800.00	$192,400.00	$198,100.00	$934,600.00
TASM Migration Services	$68,000.00						$68,000.00
Education - TEN+	$28,800.00		$29,400.00	$29,900.00	$31,100.00	$31,700.00	$150,900.00
Education - On-Going Training	$81,600.00		$83,200.00	$84,800.00	$86,400.00	$88,000.00	$424,000.00
TDWI Training Services		$45,000.00	$90,000.00	$90,000.00	$93,750.00	$46,875.00	$365,625.00
BI Query Software Maintenance and Support			$119,510.00	$134,690.00	$149,900.00	$165,110.00	$569,210.00
Symmetry Software License and Support *			$449,200.00	$462,600.00	$476,500.00	$490,800.00	$1,879,100.00
Maintenance							
On-Going Annual Maintenance - Production System		$230,300.00	$609,700.00	$689,300.00	$700,800.00	$418,200.00	$2,648,300.00
On-Going Annual Maintenance - COD Production			$19,100.00	$67,300.00	$123,500.00	$93,300.00	$303,200.00
On-Going Annual Maintenance - Dev/DR System		$190,000.00	$499,300.00	$560,100.00	$569,500.00	$339,800.00	$2,158,700.00
On-Going Annual Maintenance - COD Dev/DR			$6,900.00	$28,700.00	$63,400.00	$51,500.00	$150,500.00
On-Going Annual Maintenance - Test System		$69,300.00	$178,800.00	$196,300.00	$199,600.00	$119,100.00	$763,100.00
Services Sub-Total	$1,116,600.00	$534,600.00	$2,266,410.00	$2,530,490.00	$2,686,850.00	$2,042,485.00	$11,177,435.00
Total	**$6,246,400.00**	**$812,200.00**	**$3,393,910.00**	**$3,859,790.00**	**$4,218,650.00**	**$2,561,985.00**	**$21,092,935.00**

* The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Attachment 4b - Cost Tables – 2 Year Optional Extension Period

	FY20 5/1/2020 - 9/30/2020	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 4/30/2022	Total
	5 Months	12 Months	7 Months	24 Months
Subscription and Capacity on Demand (COD)				
COD Production	$496,000.00	$229,300.00		$725,300.00
COD Dev/DR	$294,500.00	$370,700.00		$665,200.00
Production Software Subscription	$157,100.00	$377,100.00	$220,100.00	$754,300.00
COD Production Subscription	$81,500.00	$207,000.00	$130,100.00	$418,600.00
Dev/DR Software Subscription	$105,900.00	$254,200.00	$148,300.00	$508,400.00
COD Dev/DR Subscription	$49,600.00	$137,400.00	$95,200.00	$282,200.00
Test Software Subscription	$17,800.00	$42,500.00	$24,800.00	$85,100.00
Subscription and COD Totals	$1,202,400.00	$1,618,200.00	$618,500.00	$3,439,100.00
Services				
System Hardening Services		$204,100.00		$204,100.00
Education TEN+		$32,300.00		$32,300.00
Education On-Going Training		$89,800.00		$89,800.00
TDWI Training Services	$46,875.00	$93,750.00	$46,875.00	$187,500.00
BI Query Software Maintenance and Support		$181,660.00	$198,210.00	$379,870.00
Symmetry Software License and Support *		$505,500.00	$520,700.00	$1,026,200.00
Maintenance				
On-Going Annual Maintenance - Production System	$310,700.00	$758,000.00	$452,300.00	$1,521,000.00
On-Going Annual Maintenance - COD Production	$98,800.00	$254,600.00	$162,800.00	$516,200.00
On-Going Annual Maintenance - Dev/DR System	$252,500.00	$615,900.00	$367,600.00	$1,236,000.00
On-Going Annual Maintenance - COD Dev/DR	$55,700.00	$157,600.00	$111,500.00	$324,800.00
On-Going Annual Maintenance - Test System	$88,500.00	$215,800.00	$128,800.00	$433,100.00
Services Sub-Total	$853,075.00	$3,109,010.00	$1,988,785.00	$5,950,870.00
Total	**$2,055,475.00**	**$4,727,210.00**	**$2,607,285.00**	**$9,389,970.00**

Notes:

* The additional License Charge per year for each 100,000 covered lives above 2,300,000 shall be $6,100.00.

Revised Attachment 5
Optional Components Cost Tables

	Base Period - 4 Years								Optional Extension Period - 2 Years			
	FY16 12/1/2015 - 4/30/2016 Implementation	FY16 5/1/2016 - 9/30/2016	FY17 10/1/2016 - 9/30/2017	FY18 10/1/2017 - 9/30/2018	FY19 10/1/2018 - 9/30/2019	FY20 10/1/2019 - 4/30/2020	Total		FY20 5/1/2020 - 9/30/2020	FY21 10/1/2020 - 9/30/2021	FY22 10/1/2021 - 4/30/2022	Total
	5 Months	5 Months	12 Months	12 Months	12 Months	7 Months	53 Months		5 Months	12 Months	7 Months	24 Months
Protegrity												
Protegrity Software Licensing	$425,100.00						$425,100.00					$0.00
Protegrity Upgrade Services	$57,600.00		$59,400.00	$61,200.00	$63,000.00		$241,200.00		$64,900.00	$68,800.00		$133,700.00
Protegrity Subscription		$61,500.00	$150,500.00	$158,000.00	$165,900.00	$99,600.00	$635,500.00		$74,700.00	$182,900.00	$109,800.00	$367,400.00
Protegrity Sub-Total	$482,700.00	$61,500.00	$209,900.00	$219,200.00	$228,900.00	$99,600.00	$1,301,800.00		$139,600.00	$251,700.00	$109,800.00	$501,100.00
Hadoop												
Hadoop Hardware and Software	$602,500.00						$602,500.00					$0.00
Hadoop Implementation Services	$9,400.00						$9,400.00					$0.00
Hadoop Hardening Services	$184,000.00		$100,300.00	$103,300.00	$106,400.00	$109,600.00	$603,600.00			$112,900.00		$112,900.00
Hadoop Subscription		$6,800.00	$32,700.00	$54,800.00	$56,600.00	$35,800.00	$186,700.00		$26,500.00	$64,200.00	$38,100.00	$128,800.00
Hadoop Maintenance		$73,200.00	$176,100.00	$176,200.00	$178,600.00	$106,600.00	$710,700.00		$79,200.00	$193,200.00	$115,200.00	$387,600.00
Hadoop COD for Unity Server Connection			$9,700.00	$11,800.00	$14,400.00		$35,900.00		$16,300.00	$11,800.00		$28,100.00
Hadoop Related Education		$72,000.00	$77,400.00	$82,700.00	$88,000.00	$93,400.00	$413,500.00			$98,700.00		$98,700.00
Hadoop Sub-Total	$795,900.00	$152,000.00	$396,200.00	$428,800.00	$444,000.00	$345,400.00	$2,562,300.00		$122,000.00	$480,800.00	$153,300.00	$756,100.00
QueryGrid												
QueryGrid Hardware and Software	$209,300.00						$209,300.00					$0.00
QueryGrid COD Increases			$9,700.00	$11,800.00	$14,400.00		$35,900.00		$16,300.00	$11,800.00		$28,100.00
QueryGrid Subscription		$6,800.00	$16,700.00	$18,100.00	$19,800.00	$12,200.00	$73,600.00		$9,700.00	$23,800.00	$14,400.00	$47,900.00
QueryGrid Maintenance		$16,600.00	$43,700.00	$50,700.00	$54,900.00	$33,600.00	$199,500.00		$26,100.00	$64,400.00	$39,200.00	$129,700.00
QueryGrid Sub-Total	$209,300.00	$23,400.00	$70,100.00	$80,600.00	$89,100.00	$45,800.00	$518,300.00		$52,100.00	$100,000.00	$53,600.00	$205,700.00
Total	**$1,487,900.00**	**$236,900.00**	**$676,200.00**	**$728,600.00**	**$762,000.00**	**$490,800.00**	**$4,382,400.00**		**$313,700.00**	**$832,500.00**	**$316,700.00**	**$1,462,900.00**

Revised Attachment 7
New Development/Disaster Recovery System Configuration
Teradata 2-Node 6800H + 1 Hot Standby Node

Qty.	Teradata Part #	Description
Active Node Hardware		
2	1413-C163-0150	Cable, QDR/FDR10 QSFP Optical Cable, 15M
1	9221-2002-8090	6800H 1-node (E31S) 8 core, Base Cabinet, Linux, 512GB
1	9221-F051	30A 3-Ph Delta 4 Cord, Type B, North American, Watertight
1	9221-F102	6800H 1-Node (E31S) 8 core, Linux, 512GB
1	9221-F112	6800H Hot Standby Node (E31S) 8 core, Linux, 512GB
4	9221-F200	Data Encryption, HDDs, (Servers)
6	9221-F250	ADPT-PCIe 10Gb Ethernet, 2 Channel, Fiber Optic
3	9221-F254	Adapter-PCIe, BYNET V5, IB, 2CH, LP - FCAT
12	9221-F256	ADPT-PCIe3, SAS2, 6Gb, 2-Port
1	9221-F300	Cabinet VMS: (Intel R1000 - 1U)
1	9221-F502	Switch, BYNET-V5, 36 Port, IB (2 Switches)
6	9221-F599	Cable Assy, InfiniBand - QSFP+ Copper Cable Assembly, 2.0-meter
2	9221-F921	6800 - Hot Standby Node Enabling - 512GB
1	9221-F925	6800 2+1 Clique - (Staging Reference Feature)
1	9221-F930	6800 Base Cabinet Install Feature
3	9221-F931	1 - Node Install Feature
16	9221-F932	1 - Disk Drive Enclosure Install Feature
3	9221-F985	UDA - STAGING & INTEGRATION (per node)
1	9221-K013	Rack 42U Side Panels (2)
1	9221-K019	9221 System Kit
1	F785-9808-0000	6800 - 8 Core Reference PID
1	2021-K221	Stabilizer Brackets
1	F785-2947-0000	Teradata DBS for Hot Standby Node - SUSE Linux
Storage Hardware		
12	9221-F400	Disk Drive Enclosure - Camden/w ESM (24) 2-1/2 HDD
4	9221-F405	Disk Drive Enclosure - Camden with 12Gb/s HIC (24) 2-1/2 HDD
336	9221-F410	300GB 2.5", 10K RPM, SAS HDD
16	9221-F415	300GB 2.5" 10K RPM, SAS HDD - Global Hot Spare
32	9221-F484	SSD, 1.6TB, 2.5", FDE, PI, Toshiba PM2, SAS, NTAP
24	9221-F494	Cable Assembly, SAS, 2M (one cable)
32	9221-F495	Cable Assembly, SAS, 1M (one cable)
4	9221-F497	DAP Controller Enhancement per Array
4	9221-F498	Data Encryption for Disk Trays - HDDs & SSD's, (Storage)
48	9221-F499	Camden Disk Drive Enclosure - Blank Filler, Black, 2.5" Hard Drive
Dev/DR Location BAR Hardware		
1	9212-1000-8090	Teradata Platform Framework Cabinet (PFC)
1	9212-F050	Power Distribution Unit, 30A, IEC, All Countries
1	9212-F071	Door, Color Insert (Neutral)
1	9212-F233	TMSB Adapter-PCIe 8Gb Fibre Channel, 4 Channel, STD
2	9212-F234	TMSB Adapter-PCIe 10Gb Ethernet, 2 Channel, Fiber, LP
1	9212-F722	TMS (E14S), Viewpoint, Model 819
1	9212-F737	TMS (E14S), BAR DSC Admin/Data, Model 855AD
1	9212-F884	9212 Base Cabinet Install Feature
1	9212-F940	PFC, Front Filler Panel, 1U
16	9212-F941	PFC, Front Filler Panel, 2U

Qty.	Teradata Part #	Description
2	9212-F997	TMS, Staging & Integration, (Reference Feature)
1	9212-K072	Rack 42U, Side Panels (2)
1	9212-K936	Platform Framework Cabinet (PFC) System Accessory Kit
Software		
20	F444-1400-0000	SSD Enabled Capacity - Enabled Disk Space in 5% Increments of full capacity
10	F444-1402-0000	HDD Enabled Capacity - Enabled Disk Space in 5% Increments of full capacity
10	F444-1403-0000	HDD Disk Space COD - Available Disk Space on Demand in 5% of full capacity
75	F444-7500-0000	WM COD Enabled Increment - 1 percent (1%)
25	F444-7510-0000	WM COD Available Increment - 1 percent (1%)
7	F601-8247-0000	SuSE Linux SLES License, per node
1	F601-8248-0000	SUSE Linux SLES License for CMIC
1	F601-8280-0000	Linux SLES 10/11 SP3 BCD0-1553; SW Media Kit 892000328001
1	F601-8290-0000	Linux SLES 11 SP1 BCD0-1388 for CMIC: SW Media Kit 892000328001
2	F601-8295-0000	Linux SLES 11 SP1 BCD0-1842: SW Media Kit 892000328001
1	F601-9555-0000	Sun Java Windows (Embedded)
252	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
14	F853-8855-0000	Teradata 15.00 6800 SLES11 High Capacity Enterprise WH Edition, per TPerf
238	F853-8955-0000	Teradata 15.00 6800 SLES11 High Capacity Enterprise WH Edition - Migration, per TPerf
1	F853-9023-0000	Teradata 15.00 Temporal for Enterprise Bundle (Bundling Reference Only)
1	F853-9024-0000	Teradata 15.00 Columnar for Enterprise Bundle (Bundling Reference Only)
1	F853-9028-0000	Teradata 15.00 QueryGrid: TD DB-to-Teradata for Enterprise Bundle (Bundling Reference Only)
1	F853-9999-0000	Teradata 15.00 Database Reference (No License Value)
4	G460-0370-0000	SYMplicity 10 and TDMP for EDW
1	G460-1070-0000	Media for SYM 10 & Multipathing SW 9.03 - SLES9, SLES10 & SLES11
4	G460-2025-0000	NetApp/LSI: Storage - Full Disk Encryption for 6700C/6750H EDW, per controller (pair)
4	G460-20T1-0000	NetApp Storage - Turbo Performance 1 for 6750
1	F152-9019-0000	Unity Ecosystem Manager 15.00 - Bundling Component - Active
1	F574-9715-0000	Teradata Meta Data Services 15.00 - System License
1	F801-5551-0000	Teradata Viewpoint Appliance Portal, Self Serv & Mgmt Portlets 15.00
1	F863-9001-0000	TTU 15.0 - Teradata Utility Pak (Bundling Component Only)
1	F863-9005-0000	TTU 15.0 - Teradata Analyst Pack (Bundling Component Only)
1	F863-9006-0000	TTU 15.0 - Teradata C Preprocessor2 (Bundling Component Only)
1	F863-9007-0000	TTU 15.0 - Teradata COBOL Preprocessor2 (Bundling Component Only)
1	F863-9008-0000	TTU 15.0 - Teradata FastExport (Bundling Component Only)
1	F863-9009-0000	TTU 15.0 - Teradata PT Export Operator (Bundling Component Only)
1	F863-9010-0000	TTU 15.0 - Teradata FastLoad (Bundling Component Only)
1	F863-9011-0000	TTU 15.0 - Teradata PT Load Operator (Bundling Component Only)
1	F863-9012-0000	TTU 15.0 - Teradata MultiLoad (Bundling Component Only)
1	F863-9013-0000	TTU 15.0 - Teradata PT Update Operator (Bundling Component Only)
1	F863-9014-0000	TTU 15.0 - Teradata TPUMP (Bundling Component Only)
1	F863-9015-0000	TTU 15.0 - Teradata PT Stream Operator (Bundling Component Only)
1	F863-9021-0000	TTU 15.0 - Teradata Active System Management (Bundling Component Only)
252	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Dev/DR Location BAR Software		
1	F904-0003-0000	BAR Solution - Enterprise Fit

Qty.	Teradata Part #	Description
1	F904-0NEW-0000	DSE for NetBackup - New Order (ESDM)
2	F904-2505-0000	Teradata Data Stream Extension 15.00 for NetBackup (ESDM, Enterprise Fit) - per Node
1	F904-ESM3-0000	BAR Solution - Enterprise Fit (Non ESDM)
Year 2 Subscription and COD		
17	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
17	F853-8855-0000	Teradata 15.00 6800 SLES11 High Performance Enterprise WH Edition, per TPerf
17	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
17	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
17	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Year 3 Subscription and COD		
30	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
30	F853-8855-0000	Teradata 15.00 6800 SLES11 High Performance Enterprise WH Edition, per TPerf
30	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
47	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
47	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Year 4 Subscription and COD		
42	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
42	F853-8855-0000	Teradata 15.00 6800 SLES11 High Perf. Enterprise WH Edition, per TPerf
42	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
89	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
89	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Year 5 Subscription and COD		
42	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
42	F853-8855-0000	Teradata 15.00 6800 SLES11 High Perf. Enterprise WH Edition, per TPerf
42	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
3%	9221-F412	600GB 2.5", 10K RPM, SAS HDD
131	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
131	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per Tperf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Year 6 Subscription and COD		
48	F853-4500-0000	Teradata 15.00 - Virtual Storage for 56xx/66xx/67xx, per TPerf
48	F853-8855-0000	Teradata 15.00 6800 SLES11 High Perf. Enterprise WH Edition, per TPerf
48	F863-ENTP-0000	TTU 15.0 - Enterprise Bundle Package, per TPerf
14%	9221-F412	600GB 2.5", 10K RPM, SAS HDD
179	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
179	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per Tperf
252	F787-4500-A000	Teradata Virtual Storage Subs/Initial 55xx/56xx/6xxx (per TPerf)
252	F787-8850-A000	Teradata Subscription - 6800 High Capacity Enterprise WH Edition, per TPerf

Qty.	Teradata Part #	Description
7	F601-8247-A000	Subscription SuSE Linux SLES License, per node
Notes		
1	*NOTE-TERA-0001*	*United States*
1	*NOTE-TERA-0002*	*Largest Clique Size = 2 + 1*
1	*NOTE-TERA-0004*	*Number of Nodes = 3*
1	*NOTE-TERA-0005*	*This order has Capacity On Demand (COD) enabled. Full Capacity is when no throttles are placed on the system. The actual Tperf for software pricing is calculated by multiplying the Full Capacity by the COD % Enabled.*
1	*NOTE-TERA-0006*	*For expansions, the percent of Full Capacity purchased is lower than the percent of Full Capacity delivered by an amount equal to the reduced throughput of previous nodes in the system.*

Revised Attachment 30
Production and Dev/DR Sizing Specifications and COD Increments

Current Production System	Tperf	CurrentPerm (GB) As-of 2015-03-09
3&2 5650 @ 87.5% PM COD =	313	25517

			TPERF COD					DISK COD					
Contract Year	Start Date	End Date	Compound Annual Tperf Growth Target at 12.5%	Tperf COD In-A-Perfect World for 2+1 N-6800 299 Tperf/Node Maximum	Tperf COD Target % with Minimum 128 Tperf/Node	Resulting Tperf with Minimum 128 Tperf/Node	Tperf Year over Year Increase Amount	Compound Annual Growth Target at 12.5% (..GB..)	Minimum CurrentPerm Threshold Previous Column Plus 10% for Minimum CurrentPerm Threshold (..GB..)	Estimated HDD COD Percentage	HDD Year over Year Increase Amount	Estimated CurrentPerm Threshold Maximum (..GB..)	Estimated CurrentPerm Threshold to Spare (..GB..)
1	4/1/2016	3/31/2017	353	59.0%	59.0%	354	41	28,707	31,577	50%	0%	78,793	47,216
2	4/1/2017	3/31/2018	397	66.4%	67.0%	401	47	32,295	35,524	50%	0%	78,793	43,268
3	4/1/2018	3/31/2019	447	74.7%	75.0%	449	48	36,332	39,965	62%	12%	78,793	38,828
4	4/1/2019	3/31/2020	503	84.1%	84.0%	502	53	40,873	44,961	77%	15%	78,793	33,832
5	4/1/2020	3/31/2021	566	94.6%	95.0%	568	66	45,982	50,581	92%	15%	78,793	28,212
6	4/1/2021	3/31/2022	637	**106.5%**	100.0%	598	30	51,730	56,903	100%	8%	78,793	21,890

Current Dev/DR System	Tperf	CurrentPerm (GB) As-of 2015-03-09
2&1 5650 @ 100% PM COD =	238	25517

			TPERF COD					DISK COD					
Contract Year	Start Date	End Date	Target Tperf at 2/3 Prod	Tperf COD In-A-Perfect World for 2+1 N-6800 299 Tperf/Node Maximum	Tperf COD Target % with Minimum 128 Tperf/Node	Resulting Tperf with Minimum 128 Tperf/Node	Tperf Year over Year Increase Amount	Compound Annual Growth Target at 12.5% (..GB..)	Minimum CurrentPerm Threshold Previous Column Plus 10% for Minimum CurrentPerm Threshold (..GB..)	Estimated HDD COD Percentage	HDD Year over Year Increase Amount	Estimated CurrentPerm Threshold Maximum (..GB..)	Estimated CurrentPerm Threshold to Spare (..GB..)
1	4/1/2016	3/31/2017	237	39.6%	42.0%	252	14	19,233	21,157	50%	0%	78,793	57,636
2	4/1/2017	3/31/2018	266	44.5%	45.0%	269	17	21,638	23,801	50%	0%	78,793	54,991
3	4/1/2018	3/31/2019	299	50.0%	50.0%	299	30	24,342	26,777	50%	0%	78,793	52,016
4	4/1/2019	3/31/2020	337	56.4%	57.0%	341	42	27,385	30,124	50%	0%	78,793	48,669
5	4/1/2020	3/31/2021	379	63.4%	64.0%	383	42	30,808	33,889	53%	3%	78,793	44,904
6	4/1/2021	3/31/2022	427	71.4%	72.0%	431	48	34,659	38,125	67%	14%	78,793	40,668

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 14
to
CONTRACT NO. 071B1300109
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Optum Government Solutions, Inc.	David Wieber	David.wieber@optum.com
12125 Technology Drive	**PHONE**	**CONTRACTOR'S TAX ID NO.** (LAST FOUR DIGITS ONLY)
Eden Prairie, MN 55344	517-993-0929	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DTMB	David Bengel	517-241-2921	BengelD@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	David Hatch	517-284-7044	hatchd@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
November 16, 2010	November 15, 2015	5, 2 year	November 15, 2015
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
N/A		N/A	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☐ Yes ☒ No	
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		November 15, 2019
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$30,073,579.85		$0.00	$30,073,579.85	

DESCRIPTION: Effective December 21, 2015 the attached item, Contractor Change Request 18 dated December 7, 2015 with updated terms and conditions language, are incorporated into the contract.

The Contract value remains the same.

All other terms, conditions, specifications, and pricing remain the same. Per vendor and agency agreement and DTMB Procurement approval.

December 7, 2015

Mr. David Bengel
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: REVISED CHANGE REQUEST PROPOSAL 018 FOR OPEN TEXT BI QUERY SOFTWARE MAINTENANCE
UNDER CONTRACT NO. 071B1300109

Dear David:

As you know, the State of Michigan (the "State") has made a request for certain changes ("Change Request 018") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for BI Query Software Maintenance for all existing BI Query Software, as defined in Section 1.2 and Exhibit B (the "BI Query Software Maintenance") to support continued usage of the BI Query Software tool by various State agencies over multiple State fiscal years. The BI Query Software Maintenance constitutes "New Work", as that term is defined in the '109 Contract.

In response to this request for change, Optum initially provided a Change Request Proposal 018 dated June 10, 2015 (the "Prior Change Request Proposal 018"). Subsequently, the State has requested revisions and Optum is pleased to provide the State with this Change Request Proposal that supersedes and replaces the Prior Change Request Proposal 018 (the "Change Request Proposal 019").

I. Description of the Scope Covered by this Change Request Proposal 018

In so far as the BI Query Software Maintenance is outside the scope of Optum's current responsibilities under the '109 Contract, consistent with the provisions of Section 2.024 of the '109 Contract, the following describes the new Scope covered by this Change Request Proposal 018:

1.1 BI Query Software Maintenance

During the BI Query Software Maintenance Term defined in Section 1.3 below, Optum, acting through its subcontractor, OpenText, shall provide "Standard Maintenance" for the BI Query Software. The scope of what constitutes "Standard Maintenance" is set forth in Exhibit B attached hereto and incorporated by reference herein ("Exhibit B") and further governed by the End User License Agreement terms set forth in Exhibit A attached hereto and incorporated by reference herein ("Exhibit A").

1.2 BI Query Software Maintenance Term

The term during which Optum shall provide BI Query Software Maintenance (the "BI Query Software Support Term") shall commence October 1, 2015 and continues for an initial term ending twelve (12) months thereafter (the "BI Query Support Term"), provided that Optum receives a purchase order for the charge set forth in Section II below corresponding to the BI Query Support Term on or before September 30, 2015.

In the event that the BI Query Software Maintenance is terminated prior to the end of the BI Query Support Term and if the State has paid Optum a fee that covers a portion of time following the

effective date of termination, then Optum shall refund to the State a prorated amount of any prepaid charges or grant the State a credit, at Optum's sole discretion, but only if and to the extent Optum is entitled to a prorated refund of the fee it has paid to OpenText.

II. Charges

The charges for the BI Query Software Maintenance described in this Change Request Proposal 018 is set forth below:

FY2016	DCH	BI Query Admin Existing Support	$400.00	1	$400.00
		BI Query User Support for Original 545	$140.00	545	$76,300.00
		BI Query User Support for Additional 120	$170.00	120	$20,400.00
			FY 2016 DCH Total		$97,100.00
	Treasury	BI Query Admin Existing Support	$400.00	2	$800.00
		BI Query User Support for Original 77	$140.00	77	$10,780.00
		BI Query User Support for Additional 9	$170.00	9	$1,530.00
			FY 2016 Treasury Total		$13,110.00
	DTMB	BI Query User Existing Support	$140.00	2	$280.00
			FY 2016 DTMB Total		$280.00
			FY 2016 Total		$110,490.00

III. Terms by Which the State May Accept This Change Request Proposal 018 for BI Query Software Maintenance

A revised Attachment 1B Payment Milestones was included with Change Request Proposal 20 which has already been approved by the State and includes the BI Query Payment Milestone for FY16.

The State can approve this Change Request Proposal 018 by (1) issuing (a) a Change Notice that references this Change Request Proposal 018 and (b) a Purchase Order for $110,490.00 for the additional BI Query Software Maintenance as defined above and (2) signing and returning the End User License Agreement attached as Exhibit A to this Change Request Proposal 018.

Except as expressly amended by this Change Request 018, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

David Wieber

Point of Contact:
    David Wieber
    Michigan Director of Operations
    Optum Government Solutions

Matthew S. Mosher
Matthew S. Mosher (Dec 7, 2015)

Authorized Signer:
    Matthew S. Mosher
    Chief Operating Officer, Optum Data Management
    Optum Government Solutions, Inc.

Exhibit A

END USER LICENSE AGREEMENT

This End User License Agreement ("**EULA**") is between the OpenText entity specified in the signature block below ("**OT**") and the licensee specified in the signature block below ("**Licensee**"), and is effective on the last signature date ("**Effective Date**").

Whereas, Licensee previously licensed certain Business Intelligence software from Hummingbird Ltd.; and

Whereas, OT, as successor in interest to Hummingbird Ltd. has provided maintenance and support services for such licenses; and

Whereas, the parties desire to renew maintenance and support services for such licenses; and

Whereas, the parties desire to clarify the terms and conditions for such licenses and the maintenance and support provided for such licenses; and

Whereas, the parties agree that this EULA shall govern the terms and conditions for software products already licensed to or to be licensed by Licensee and the provision of maintenance and support services by OT to Licensee.

Now, therefore, in exchange for good and valuable consideration, the receipt and sufficiency is hereby acknowledged, OT and Licensee agree as follows:

1.0 Definitions

"**Affiliate**" means any entity controlled by, controlling, or under common control with a party to this EULA. Control exists through ownership, directly or indirectly, of a majority of the outstanding equity capital and of the voting interests of the subject entity. If an entity ceases to meet these criteria, it will cease to be an Affiliate under this EULA.

"**Claim**" means claims, suits, actions or proceedings brought against Licensee in a court of competent jurisdiction in a Covered Country by a third party which allege an infringement of the third party's patent, copyright, or trade secret rights of which OT is aware existing under the laws of the Covered Countries;

"**Covered Countries**" means Canada, the United States, Austria, Belgium, France, Italy, the United Kingdom, Spain, the Netherlands, Sweden, Denmark, Finland, Norway, Switzerland, Germany, Australia, and New Zealand;

"**Documentation**" means user guides, operating manuals, and release notes in effect as of the date of delivery of the applicable Software, made generally available by OT;

"**License Documents**" means this EULA including any addenda, the License Model Schedule, all Transaction Documents (including pricing information), Documentation, the document entitled Third Party Notifications available at www.opentext.com/agreements, and any other documents provided by OT setting out permitted uses of the Software;

"**License Fees**" means the non-refundable fees payable by Licensee to OT with respect to the granting of Software Licenses;

"**License Model**" means the description of the conditions, limitations and restrictions associated with the Software License which govern the use of the Software;

"**License Model Schedule**" for each individual Software License means the schedule entitled "License Model Schedule" posted at http://www.opentext.com/agreements in effect on the date of the applicable Transaction Document. The License Model Schedule is incorporated into this EULA;

"**Physical Media**" means the physical media or hardware containing or enabling Software;

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"**Software**" includes software products, Documentation, and Support Software licensed to Licensee under this EULA, including all copies made by Licensee;

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"**Taxes**" means the sales, use, consumption, goods and services, and value-added taxes imposed by the appropriate governments arising out of granting of licenses and delivery of Software under this EULA, except taxes imposed on OT's income;

"**Third Party Software**" means software products owned and licensed directly by third parties to the end user;

"**Transaction Document**" includes: a) a written order schedule signed by both parties which references this EULA, b) a quotation issued by OT and signed by the Licensee, c) an invoice issued by OT, or d) any other document that references this EULA and is agreed to by OT in writing. If and to the extent of any inconsistency between two or more Transaction Documents, the priority of the Transaction Documents will be interpreted in the order listed above. All Transaction Documents are governed by this EULA.

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5.3   Interfacing and Interactive Software. Licensee may not permit any software products not licensed by OT to interface or interact with the Software, unless accomplished through the use of application program interfaces provided by OT.

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6.1   Direct Orders. If Licensee orders Software directly from OT, the Software must be identified on a Transaction Document acceptable to OT.
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6.3   Risk of Loss and Shipping Terms. The Software is deemed delivered on the earlier of (a) when it is made available by OT for electronic download, or (b) when OT delivers the Software on Physical Media. Title to the Physical Media and all risk of loss for the Physical Media will pass to Licensee when delivered by OT to the shipping dock of the OT shipping facility.
6.4   Invoicing And Payment. OT may invoice Licensee for License Fees and Taxes upon delivery of Software. All License Fees and Taxes due to OT by Licensee are due and payable upon Licensee's receipt of an invoice from OT. License Fees do not include Taxes which are the responsibility of Licensee. If OT is obligated to pay Taxes on behalf of Licensee, Licensee will reimburse OT in full promptly following receipt of OT's invoice. Licensee is responsible for paying the full Licensee Fees to OT regardless of any Taxes Licensee is required to withhold or deduct. All License Fees and Taxes due to OT under this EULA are payable in the currency specified in the Transaction Document. All License Fees and Taxes due to OT which are not paid in full within 30 days following its due date will bear interest at a rate of 1.5% per

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6.5 **Over Usage.** OT may invoice Licensee for fees and Taxes payable by Licensee due to use of or access to the Software in excess of the number or type of Software Licenses granted by OT.

6.6 **Licensee Affiliate Orders.** Licensee's Affiliates that order Software Licenses are bound by the terms and conditions of this EULA as if it were the Licensee. Licensee and its Affiliates are jointly and severally liable to OT for any breach of this EULA.

6.7 **OT Affiliate Orders.** OT Affiliates may fulfill orders pursuant to a Transaction Document in which case the OT Affiliate is bound by all of the terms and conditions of this EULA as if it were OT.

7.0 OT Support and Maintenance.

7.1 **OT Support and Maintenance Program.** All Support Software provided to Licensee under an OT maintenance or support program is governed by this EULA. The provision of maintenance and support services by OT will be governed by the then-current version of the applicable OT software maintenance program handbook (available upon request or at www.opentext.com/agreements).

8.0 Audits and Noncompliance.

8.1 **Audit.** During the term of this EULA and for 24 months after, Licensee will maintain electronic and other records sufficient for OT to confirm that Licensee has complied with this EULA. Licensee will promptly and accurately complete and return (no less than 30 days) any self-audit questionnaires, along with a certification by an authorized representative of Licensee confirming that Licensee's responses to the questionnaire accurately and fully reflect Licensee's usage of the Software. Furthermore, OT may, once every two years, audit Licensee's records and computer systems (including servers, databases, and all other applicable software and hardware) to ensure Licensee has complied with this EULA. Licensee's employees, contractors, or agents may perform such audit; provided the audit is performed in the presence of and under the reasonable direction of OT's audit team. Licensee shall cooperate with OT's audit team and promptly and accurately respond to, database queries, location information, system reports, and other reports requested by OT and provide a certification by an authorized representative of Licensee confirming that information provided by Licensee accurate reflects Licensee's usage of the Software.

8.2 **Conduct.** Audits will be conducted during regular business hours and will not interfere unreasonably with Licensee's business. OT will provide Licensee with 7 days prior notice of each audit. Licensee will allow OT to make copies of relevant Licensee records. OT will comply with all applicable data protection regulations.

8.3 **Noncompliance.** If Licensee is not in compliance with the Software Licenses, Licensee will be deemed to have acquired additional Software Licenses at OT's then-current list price to bring Licensee into compliance, and Licensee must immediately pay: (a) the applicable License Fees, and (b) maintenance and support fees covering (i) the period Licensee was not in compliance with the Software License; and (ii) the first year maintenance and support fees on any additional Software Licenses. Audits shall be at OT's sole cost and expense except in the event that Licensee is determined to be out of compliance of 15% or more above the current number of licenses, in which case Licensee shall be responsible for payment of any third party costs of the audit. Compliance with the License Documents is the sole responsibility of Licensee. It is the parties' intent that the remedies found in this Section 8.3 for (i) over usage by Licensee of the number of licenses granted, or (ii) use by Licensee of the Software for an unlicensed purpose shall not entitle Licensor to seek payment from Licensee on multiple occasions for the same non-compliance facts. The foregoing language does not constitute a waiver by Licensor of any and all other rights to enforce the terms of this Agreement and its intellectual property rights in the Software and Documentation.

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9.4 **Inability to Exclude Warranties.** If a jurisdiction applicable to this EULA restricts the exclusion of certain implied warranties, limitations on how long an implied warranty may last, or the exclusion or limitation of incidental, consequential, or special damages: (a) each warranty which cannot be excluded is limited in time to 60 days from the

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10.0 OT Infringement Indemnity
10.1 Infringement Claims. OT will defend Licensee from any Claim, to the extent the Claim arises solely as a result of Licensee's use of the Software in accordance with the License Documents, and provided the alleged infringement was not caused by: (a) Licensee's failure to incorporate a Software update or upgrade that would have avoided the alleged infringement; (b) the modification of the Software by any party other than OT; or (c) the combination or use of the Software with software, hardware, firmware, data, or technology not licensed to Licensee by OT or approved by OT in writing.

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11.0 Limitation of Liability
11.1 EXCLUSION OF DAMAGES. NOTWITHSTANDING ANY BREACH BY OT (INCLUDING FUNDAMENTAL BREACH) OR TERMINATION OF THIS EULA, OT IS NOT LIABLE TO LICENSEE OR TO ANY OTHER PARTY FOR: (A) ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, AGGRAVATED, EXEMPLARY, OR PUNITIVE DAMAGES; OR (B) ANY LOST SALES, LOST REVENUE, LOST PROFITS, LOST OR CORRUPTED DATA, OR REPROCUREMENT AMOUNT.

11.2 LIMITATION OF LIABILITY. OT'S AGGREGATE LIABILITY TO LICENSEE WILL NOT EXCEED THE TOTAL AMOUNT OF LICENSE FEES PAID TO OT UNDER THE RELEVANT TRANSACTION DOCUMENT. THE PARTIES WOULD NOT HAVE ENTERED INTO THIS EULA WITHOUT THIS SECTION.

11.3 DISCLAIMER. THE LIMITATIONS IN THIS SECTION APPLY: (A) TO LIABILITY FOR NEGLIGENCE; (B) REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, EQUITY, AT LAW, STRICT PRODUCT LIABILITY, OR OTHERWISE; (C) EVEN IF OT IS ADVISED IN ADVANCE OF THE POSSIBILITY OF THE DAMAGES IN QUESTION AND EVEN IF SUCH DAMAGES WERE FORESEEABLE; AND (D) EVEN IF LICENSEE'S REMEDIES FAIL IN THEIR ESSENTIAL PURPOSE. IF THE APPLICATION OF THIS SECTION IS LIMITED BY LAW OT'S LIABILITY WILL BE LIMITED TO THE EXTENT PERMITTED BY LAW.

12.0 Termination
12.1 Termination for Default. Either party may terminate this EULA if the other party: (a) becomes insolvent; and (b) has a receiver or receiver manager appointed with respect to it or any of its assets. Without prejudice to each right or remedy of a non-breaching party, either party may terminate this EULA for material breach by written notice, effective 30 days after notice unless the other party first cures the breach.

12.2 Effect of Termination or Expiration. Upon any termination of this EULA or expiration of a term license: (a) all Software Licenses will immediately terminate; (b) Licensee will immediately cease all use of the Software; and (c) Licensee must either deliver to OT or destroy all copies of Software, Documentation, and OT confidential information in Licensee's possession or control. Within 15 days after termination, an authorized representative of Licensee must certify in writing that all copies have been delivered to OT or destroyed. Any terms in this EULA which by their nature extend beyond termination or expiration of this EULA will remain in effect until fulfilled.

13.0 Miscellaneous Provisions
13.1 Confidentiality. Information exchanged under this EULA will be treated as confidential if identified as such at disclosure or if the circumstances of disclosure would reasonably indicate such treatment. Confidential information may only be used for the purpose of fulfilling obligations or exercising rights under this EULA and may only be shared with employees, agents, or contractors with a need to know such information. Confidential information will be protected using a reasonable degree of care to prevent unauthorized use or disclosure during the period the information remains confidential or a trade secret. These obligations do not cover information that (a) was known or becomes known to the receiving party without obligation of confidentiality; (b) is independently developed by the receiving party or (c) is required to be disclosed by law or a governmental agency.

13.2 Automated Verification. The Software may contain or require a license key to prevent unauthorized installation or to enforce limits of the Software License, and may contain devices or functionality to monitor Licensee's compliance with this EULA.

13.3 Developer Tools. OT is not responsible or liable for Licensee's development or use of additional software code or software products ("Licensee Software") using software developer tools licensed by OT and Licensee will defend and

indemnify OT against any claims, damages, costs, losses or expenses related to the development or use of the Licensee Software.

13.4 **Independent Contractors.** OT and Licensee are independent contractors. Neither party has any authority to bind the other in any manner.

13.5 **Waiver, Amendment, Assignment.** Any amendment of this EULA must be in writing and signed by both parties. Licensee may not assign, transfer, or sublicense any portion of its interests, rights, or obligations under this EULA by written agreement, merger, consolidation, change of control, operation of law, or otherwise, without the prior written consent of OT. Neither party will be deemed to have waived any of its rights under this EULA by lapse of time or by any statement or representation other than by a written waiver by a duly authorized representative. No waiver of a breach of this EULA will constitute a waiver of any prior or subsequent breach of this EULA. An assignment in contravention of this section will be null and void. Except to the extent identified in this subsection, this EULA will be binding upon and inure to the benefit of the respective successors and assigns of the parties.

13.6 **Governing Law.** This EULA is governed by the laws of the State of Michigan excluding (a) its conflicts or choice of law rules, and (b) the United Nations Convention on Contracts for the International Sale of Goods. Except for a request by OT for injunctive or other equitable relief, any dispute arising out of this EULA will be subject to the exclusive jurisdiction of the courts located in the State of Michigan. The prevailing party in any litigation related to this EULA will be entitled to its reasonable attorneys' fees and court costs. The Uniform Computer Information Transactions Act, or any version, adopted by any state, does not apply to this EULA.

13.7 **Force Majeure.** Except for payment and confidentiality obligations, or protection of intellectual property, neither party is responsible for any delay or failure in performance of this EULA to the extent due to causes beyond its reasonable control.

13.8 **Severability.** If any provision of this EULA is deemed contrary to applicable law or unenforceable by a court of competent jurisdiction, the provision will be severed from this EULA and all remaining provisions will continue in full force.

13.9 **Export Laws.** The Software, including Documentation, is subject to U.S. export control laws, including the U.S. Export Administration Act and its associated regulations, and may be subject to export or import regulations in other countries. Licensee will comply strictly with all regulations and has the responsibility to obtain any licenses required to export, re-export, or import Software or Documentation.

13.10 **Press Release.** OT may refer to Licensee's relationship with OT in a public press release or marketing materials.

13.11 **Attribution Notices.** Licensee will not remove, modify, obscure, resize, or relocate any ownership, attribution, or branding notices from the Software.

13.12 **Resale of Third Party Software.** The use of any Third Party Software resold by OT to the Licensee will be governed by a license agreement between the Third Party Software owner and the Licensee. OT does not provide any warranties related to the Third Party Software. OT has no liability or obligation to the Licensee related to the Third Party Software.

13.13 **US Government End Users-Restricted Rights Legend.** If the Software is being licensed directly or indirectly on behalf of the United States government, the following applies. For civilian agencies and departments: the Software was developed at private expense and is "restricted computer software" submitted with restricted rights in accordance with subparagraphs (a) through (d) of the Commercial Computer Software-Restricted Rights clause of FAR 52.227-19 and its successors, and it is unpublished and all rights are reserved under the copyright laws of the United States. For units of the Department of Defense, the Software is "commercial computer software" and "commercial computer software documentation" under the Rights in Computer Software and Computer Software Documentation clause of DFAR 227.7202-3 (a) and its successors, and all use, duplication or disclosure is subject to the license and restrictions set forth in this EULA.

13.14 **Entire License Agreement.** The License Documents set forth the entire agreement between the parties with respect to this subject matter, and supersede and replace all other related oral and written agreements and communications between the parties, including, but not limited to all past software license agreements and all attachments, amendments, and schedules thereto. Neither party has relied upon such other agreements or communications. Any purchase order terms which purport to amend or modify terms of the License Documents, or which conflict with the License Documents are void.

13.15 **Third Party Rights.** This EULA does not confer a benefit on, and is not enforceable by, any person or entity who is not a party to this EULA.

13.16 **Legal Review and Interpretation.** Both parties have had an opportunity for legal review of the License Documents. The parties agree that the License Documents result from negotiation between the parties. The License Documents will not be construed in favor of or against either party by reason of authorship. The headings used in this EULA are for convenience only. The term section refers to all subsections below a section heading (i.e. 3.0) and the term subsection refers to sequentially numbered subsections following a section (i.e. 3.1). Les parties aux présentes confirment leur volonté que cette convention, de même que tous les documents et avis qui s'y rattachent ou qui s'y rattacheront, soient rédigés en langue anglaise The parties confirm that this Agreement and all related documentation is and will be in the English language.

13.17 **Notices.** Any notice under this EULA that must be given by a party in writing is deemed effective when sent either: (a) via certified or registered mail, postage prepaid, or (b) via express mail or nationally recognized courier service to the other party's address specified in this EULA or on the most recent Transaction Document. Notices to OT will also be sent to OT's general counsel at 275 Frank Tompa Drive, Waterloo, Ontario Canada, N2L 0A1.

13.18 **Hardware.** IF HARDWARE IS IDENTIFIED ON A TRANSACTION DOCUMENT, THE SALE AND USE OF THE HARDWARE WILL BE GOVERNED BY TERMS OTHER THAN THIS EULA. OT DISCLAIMS ALL WARRANTIES AND LIABILITY WITH RESPECT TO THE HARDWARE.

Open Text Inc.	Licensee: State of Michigan
Name: Title: Date: Address: 275 Frank Tompa Drive, Waterloo, Ontario, Canada, N2L OA1	Name: Title: Date: Address: 515 Westshire Dr, Lansing, MI 48917

Exhibit B

Software Maintenance Program Handbook

OPENTEXT

OpenText Protect

Software Maintenance Program Handbook

August 2013

OPENTEXT

Contents

OPENTEXT

1. Introduction

Welcome to Open Text Corporation's OT Protect Software Maintenance Program. The OpenText Support team is committed to ensuring your success. This handbook provides you with information on policies and processes that have been implemented with your support needs in mind. Please use this as a guide to help you get the most out of your investment in OT solutions.

1.1 Terms

As used herein, "OTC" refers to Open Text Corporation and its subsidiaries/affiliates offering the maintenance and support services as described in this OT Protect Software Maintenance Program Handbook (formerly offered under the "OT Software Maintenance Program Handbook").

The OT Protect Software Maintenance Program Handbook (the "Handbook") describes the OT Protect Software Maintenance Program services offered for standard, unmodified OTC software licensed from OTC and for which you have purchased the support services described herein. Additionally, we offer fee-based enhanced support programs that allow organizations to extend their support coverage depending on their business needs. Examples of these enhanced support programs are additional coverage for utilities and applications developed by OpenText Professional Services or extension of your hours for support, such as OT Protect Anytime, OT Protect Anywhere, and OT Protect Premier programs which are available to any current subscriber of OT Protect Software Maintenance Program. Please refer to www.opentext.com/welcome to find more information, or contact your local support office for documentation on these additional, value-add programs.

Except as specifically outlined in this Handbook, the terms of Customer's license agreement for the covered software shall apply to OT Protect Software Maintenance Program and any additional optional coverage purchased by Customer.

In the event of any conflict between the terms in this Handbook and the terms of either a negotiated and signed license agreement or a separate maintenance & support agreement between you and OTC, the terms of such negotiated, signed agreement ("Negotiated Agreement") shall govern.

Note: References to "you" or "your" mean the entity which has licensed the covered software from OTC and is purchasing OT Protect Software Maintenance Program services; "we" or "our" refers to OTC.

2. Support Services

"Support Services" covers the following activities: an initiation of a Support Request ("SR"), OTC's response to the Support Request, and a resolution of the Support Request, all of which are described in more detail below.

2.1 General

2.1.1 Hours and OTC Support Services Location Information

Support Services are available Monday through Friday, except for OTC published holidays. Hours, support locations and additional contact information for OT Protect Software Maintenance Program are available at: https://knowledge.opentext.com/go/Customer_Care. Support Services will be delivered from a support location that is local to the installed software or from an alternate support location as determined by OTC.

2.1.2 Point(s) of Contact

Support Services are provided to one or more of your designated employees who will be referred to as a "Point Of Contact" ("POC").Your POCs will then provide direct support to your end users on the covered software.

The POCs must have knowledge of, and the administrator permissions for, the covered software sufficient to provide OTC Support with the information, and undertake actions, required to achieve a resolution of the Support Request as described below. Note that POCs are generally the administrators and other members of your technical staff.

You may designate up to three POCs unless you have licensed over 5,000 end users, in which case OT shall determine the appropriate number of contacts on a case by case basis in accordance with your OTC software installation size. The POCs may only contact OTC Support in the region in which the POC is located.

2.1.3 Supported Versions

OTC uses industry-standard version number protocols to identify the version of the covered software. For example, either by combining a major version number, a minor version number, a point version number and a service pack version number (or build number); or by combining a major version number, a minor point version number, a minor alphabetical version number and service pack version number (collectively referred to as the "version"). Service packs are technically equivalent to a new point version except, with a service pack, it is intended that the installation process (if carried out as directed by OTC) will retain substantially all of the configuration information from the current point release. For the purposes of this Handbook, a version will be considered an instance of the covered software, which is released by OTC with its own unique version number.

You are encouraged to run the most recent version of the covered software. OTC will support each major/minor version (eg. 9.x) of the covered software for a period of thirty-six (36) months after the major/minor version release is generally made available to OTC's customers .

Please note that:

- An additional optional service is available to subscribers who wish to continue Support Services for versions of the covered software beyond the thirty-six (36) month period described above.

- Other benefits, such as access to the Customer Portal, will continue to be available to you regardless of the version of the covered software you are running as long as you are subscribed to the OT Protect Software Maintenance Program.

2.1.4 SDK Support

OT Protect Software Development Kit (SDK) Support will provide assistance with Support Requests relating only to: (a) the installation; (b) the configuration of an OTC developer application (eg. Integrated Development Environment ("IDE")) or related software required to establish a suitable development or programming environment that is consistent with those environments or applications which have been supported; and (c) the analysis of error messages related to the OTC developer application. For avoidance of doubt, SDK support does not cover support for debugging code assistance with writing coding, code reviews, or any general programming assistance.

2.1.5 Language

Communication relating to an SR will be made in English, unless, at OTC's discretion, the support center responsible for processing is able to offer communication in another language as a convenience to the Customer. OTC may not be able to provide any information in a language other than English in the event an SR is transferred to a different support center.

2.2 Initiation of a Support Request

Support Services are provided under the OT Protect Software Maintenance Program to address incidents reported by subscribers associated with performance or usage issues. Performance and usage issues are situations where the covered software is not performing substantially in accordance with the accompanying user documentation. Generally speaking, performance and usage issues may be caused by: 1) software error or defect (related to the design, coding or architecture of the covered software), 2) usage or configuration error (related to usage of the covered software or the installation, configuration or setup of the covered software), or 3) environmental error (related to the subscribers network, hardware and operating systems). Some performance and usage issues will be caused by the covered software, some will be caused by the subscriber, some may be outside the cause or control of either OTC or the subscriber, and some may be related to a combination of causes. Depending on the cause of the performance or usage issue, OTC may or may not be able to provide a successful resolution as described in section 2.4 below.

SRs for Support Services to address any issues should be initiated by a POC using either the Customer Portal located at https://knowledge.opentext.com or the Customer Self-Service App, which is available for iOS, Android and BlackBerry devices and available for download at https://css.opentext.com. These Customer Self-Service tools will automatically create a "Trouble Ticket" for all SR's and send you an associated Trouble Ticket number automatically.

Your obligations are to:

- Provide OTC Support with the information it reasonably needs to Classify and log the SR (see 2.3.2).

- Wherever possible, use the Trouble Ticket number for each communication with OTC Support.

2.3 OTC Response to a Support Request

2.3.1 Support Request Dispatch

Support Requests will be dispatched as follows:

(a)   If the SR involves a standard OTC product or involves a product developed by an OpenText official partner for which OTC provides Support Services, the Trouble Ticket will be forwarded to OTC Support for classification and resolution (described below).

(b)   If the SR involves a product that is developed by a third party, the SR will be referred to that third party. At OTC's option, OTC Support may contact the third party on your behalf or require that you contact the third party directly.

(c)   If the source of the SR is unclear, the Trouble Ticket will be forwarded to OTC Support for further investigation and, once the source of the SR is determined, it will be dispatched as described above in sections 2.3.1. (a) and (b).

(d)   If the source of the SR is your hardware, operating system, database, web server, browser software or other non-OTC application, OTC may, where possible, attempt to provide a Workaround (described below) and/or may, where possible, report the problem to the appropriate vendor for resolution.

2.3.2 Support Request Classification

Each SR will be classified by OTC Support as follows:

(a)   **Critical** - An SR will be classified as Critical if the performance issue reported causes the covered software to be functionally inoperable and prevents the covered software from being used in Production Mode. "Production Mode" means use of the covered software, as contemplated by its

accompanying documentation, by your users for your internal business purposes and not for testing purposes.

(b) **Serious** - An SR will be classified as Serious if the performance issue reported significantly degrades the performance of the covered software or materially restricts your use of the covered software in a Production Mode. The Serious classification does not include questions on end use and configuration of the covered software.

(c) **Normal** - An SR will be classified as Normal if the performance issue reported is a question regarding end use, configuration of the covered software or a minor defect in the covered software which does not materially restrict your use of the covered software in Production Mode.

As a rule, an SR for a non-production system is classified at one level below that of an identical SR for a production system.

OTC will consider, in good faith, your request to re-classify an SR prior to its resolution.

2.3.3 Response Times

The response time for an SR is determined by its classification. Response times are measured from the time the SR is received by OTC until the time when a technically qualified member of OTC Support responds to you for the purpose of commencing the work necessary to attempt to achieve a resolution of the SR, within the hours of operation of the local OTC Support office. Response times are targets and cannot be guaranteed in all circumstances by OTC.

The Response times are:

- For an SR classified as Critical - 1 hour

- For an SR classified as Serious - 2 hours

- For an SR classified as Normal - 4 hours

2.3.4 Management Escalation Process

Unresolved SR's will be escalated to OTC management under the following approximate guidelines (as measured from the time of receipt of the SR by OTC Support):

1. Unresolved SR's classified as Critical or Serious will be escalated to OTC's Manager, Product Support within four hours; to the Senior Director, Customer Support after one day; to the Vice-President, Customer Support after three days; to the Corporate EVP, within five days; and, in certain cases and at your request; to the President and CEO after ten days.

2. Unresolved SR's classified as Normal will be escalated to OTC's Manager, Product Support within seven days; to the Senior Director, Customer Support after twenty one days; to the Vice-President, Customer Support after thirty days; to the Corporate EVP, within sixty days; and, in certain

cases and at your request, to the President and CEO after ninety days.

2.4 Resolution of Support Request

OTC Support shall attempt to address each SR, regardless of classification, through the offering of technical advice, by locating an existing Workaround or by creating a new Workaround using the process described below in this Section 2.4. A "Workaround" means an alternative method of using the covered software which does not substantially reduce the affected functionality of the covered software which could include the use of a substitute software product.

2.4.1 Resolution of Critical SR's

For SR's classified by OTC as Critical which have been caused by defects in the covered software, if the technical advice provided by OTC Support has not resolved the SR, and if no Workaround can be found or created to resolve the SR, OTC Support will use commercially reasonable efforts to develop a Product Patch to address the SR and provide it to you. A "Product Patch" is a software object created to address an SR.

However, if the Product Patch is to be distributed to all OT Protect Software Maintenance Program subscribers, it will first be given to the OTC System Testing Department which will perform a regression test suite on some or all supported platforms with the Product Patch installed. In such cases, distribution of this Product Patch will be carried out through the next scheduled Product Patch release or service pack version release.

2.4.2 Resolution of Serious SR's

For SR's classified by OTC as Serious, OTC may decide to develop a Product Patch. If a Product Patch is created, it will be distributed through the next scheduled Product Patch release or service pack version release.

2.4.3 Resolution of Normal SR's

Product Patches for SR's classified as Normal are generally included in the next version release from OTC.

2.4.4 Onsite Assistance

Onsite support is available on a time and materials basis for OTC products and solutions. This service is delivered by Customer Support and may include, but is not limited to, workarounds or assistance with configuration changes as part of the resolution of an open SR.

2.4.5 Conditions of a Support Request Resolution

OTC will have no obligation to provide a resolution for your SR as described above unless:

- You have installed and implemented all of the most recently available relevant software updates, including the Product Patches, service packs, or any other software updates or you do so at the request of OTC Support. OTC Support will make that request if it reasonably believes that the installation and implementation is necessary to achieve resolution of your SR; AND,

- You are using the covered software on hardware and with third party software approved by OTC or as specified in product release notes; AND,

- The SR has, as determined by OTC, not been caused by (a) you, including, but not limited to your use of a Development Kit; (b) a third party; (c) work performed by OTC Consulting Services; or (d) the operating environment in which the covered software is implemented, including, among other things, the operating system, database, other applications or programs, communication networks, or hardware; AND,

- Your POC is available to actively participate with OTC on diagnosis, testing, and resolution. OTC reserves the right to suspend its obligations under this Handbook during any time(s) in which a competent POC is unavailable for such participation; AND,

- Your POC has received OTC required training within a reasonable amount of time of installation date (fees for such training are not covered by the OT Protect Software Maintenance Program); AND,

- You have provided OTC with all of the information necessary to allow OTC to reproduce the SR; AND,

- If required, you provide remote access to OTC for the system for which the SR has being requested. Such remote access will only be used within the context of troubleshooting.

3. Software Updates

Software updates will be made available to you as part of the OT Protect Software Maintenance Program at no additional charge if and when such software updates are generally released to all OT Protect Software Maintenance Program subscribers. To receive such updates the OT Protect Software Maintenance Program must be subscribed to at time of release and request. Subscribers are notified about new software versions in regular information bulletins and via the Customer Portal. Software updates include new versions of the covered software and product patches.

4. Limitations

The following limitations apply to the OT Protect Software Maintenance Program:

- The OT Protect Software Maintenance Program as described in this Handbook only applies to the covered software and does not apply to any modifications, deliverables, or services provided by OTC's Consulting Services staff or by third parties.

- OTC reserves the right to modify any portion of this Handbook at its sole discretion and without prior notice; however, you will be notified of any such modifications (if such modifications result in a reduction of service) in a timely manner by way of email, written notice or a posting on the Customer Portal.

- Other than the express warranties and representations described in this Handbook, OTC disclaims all statutory or implied warranties to the maximum extent permitted by law. Where law implies warranties or guarantees into this Handbook which cannot be excluded, those warranties or guarantees shall be included in this Handbook and OTC's liability for breach of such warranties or guarantees shall be limited to, at its option, to the re-supply of the OT Protect Software Maintenance services.

- Unless otherwise agreed to in writing in a Negotiated Agreement and to the maximum extent permitted under applicable law, OTC's total liability which relates in any way to the provision of OT Protect Software Maintenance Program services shall be limited to an amount equal to the fees paid by you to OTC with respect to the provision of said services during the year preceding the date when said liability arose.

- OTC's obligation to address SR's and/or performance issues shall be strictly limited to those obligations described in this Handbook.

- All software updates, new versions of covered software, Product Patches and service packs are provided on an "as is" basis, and OTC disclaims any and all expressed, implied and/or statutory warranties with respect to said software updates, new versions of covered software, Product Patches and service packs.

5. Term and Renewal

5.1 Initial Term and Renewal

The initial term for OT Protect Software Maintenance Program is twelve months beginning on the date the covered software is initially shipped from OTC to you. Unless either party provides 90 days written notice prior to the expiration of the current term, the OT Protect Software Maintenance Program will automatically renew for a subsequent 12 month term, commencing on the day following the expiration of the current term (the "Anniversary Date"). Before the commencement of a term, you will be obligated to pay the applicable entire yearly OT Protect Software Maintenance Program fee with

respect to the covered software which you have licensed from OTC, failing which OTC may suspend some or all of the OT Protect Software Maintenance Program services until payment has been received. Such suspension shall not relieve you from your obligation to pay the applicable OT Protect Software Maintenance Program fee. OTC may increase the annual fee for subsequent terms of software maintenance by no more than 10% of the price of the previous term.

5.2 Additions

The initial term of the OT Protect Software Maintenance Program for additional covered software licensed by you between Anniversary Dates shall be for twelve months beginning on the day the additional covered software is shipped from OTC to you. The second term of OT Protect Software Maintenance Program for such additional covered software, and the applicable fees, will be prorated to terminate on the Anniversary Date following the start of the second term of the OT Protect Software Maintenance Program for the additional covered software in order to allow the terms of the OT Protect Software Maintenance Program for all covered software licensed by you to be co-terminus.

5.3 Reductions

All requests to renew OT Protect Software Maintenance Program on a fewer number of licenses or modules for software that is currently covered under maintenance and support must be submitted in writing to OTC no less than 90 days prior to the expiration of the then current term. Acceptance of any requests to align fees for the remaining software is at OTC's sole discretion. If OTC accepts such a request, OTC shall only provide software updates and software support for the number and type of licenses included in your then remaining software being renewed under maintenance and support. The maintenance charges for the remaining software shall be re-priced in accordance with the current list price for OT Protect Software Maintenance which may be in excess of the existing price. In such an event, the fees that would apply to each license may differ from any earlier terms (for example, previously granted fee discounts are not applicable).

5.4 Lapse and Reinstatement

If you decide not to renew a term of the OT Protect Software Maintenance Program for the covered software, you may, upon agreement by OTC, subsequently purchase OT Protect Software Maintenance Program services for said covered software. However, in addition to the fee for the new term, which shall be a minimum of 12 months, you will need to pay the fees that would have been payable had you continued the OT Protect Software Maintenance Program uninterrupted. The fees charged to re-instate the OT Protect Software Maintenance Program are subject to a surcharge for each lapsed month, including the month of reinstatement.

Future reinstatement of software removed as a part of a reduction as described in Section 5.3 is subject to payment of back-maintenance fees and lapsed month surcharges.

OTC will confirm fees for Reinstatement at the time the request is made for reinstatement.

OPENTEXT

Exhibits

- **Exhibit 1** - Customer Portal

- **Exhibit 2** – OpenText Support Lifecycle

Exhibit 1 – Customer Portal

OpenText online support: Using OTC software as the underlying technology, the portal provides a communications forum for OTC, its OT Protect Software Maintenance Program subscribers and its partners. The Customer Portal provides access to:

- **Knowledge Base**: A technical Knowledge Base is available to all subscribers of the OT Protect Software Maintenance Program. This Knowledge Base contains articles describing technical tips, known issues and product bulletins.

- **Customer Self-Service**: Open new trouble tickets, update existing tickets, or review the status of previously opened tickets conveniently, at any time of the day. Using the Customer Portal, view the status of issues under investigation by OpenText Research & Development, including defects and enhancement requests. In addition, review all active and past support contracts with OpenText.

- **Documentation**: All OpenText Product Documentation is indexed and available for searching. This online system helps users quickly find necessary information typically found in printed OTC user manuals.

- **Discussion Forums**: Subscribers have access to various Discussion Groups. Through these discussions, it is possible to communicate with other subscribers and OTC personnel about various products, services and industry ideas.

- **Downloads**: This area allows subscribers to download patches and modules. Some modules will be distributed free of charge and others will be for purchase. The permissions-based structure allows for a convenient accessibility model to the appropriate purchased modules. This area also contains links to third party add-ons, patches and service packs.

- **Communication**: All subscribers to the OT Protect Software Maintenance Program will receive regular updates containing valuable information about support issues and new products or product versions.

- **Enhancement Request Process**: Subscribers to the OT Protect Software Maintenance Program are encouraged to submit suggestions and ideas for enhancing for all OTC products by initiating a service request.

Exhibit 2 – OpenText Support Lifecycle[1]

OpenText will provide patches and bug fixes to each version of covered software for a period of thirty-six (36) months after the version release is generally made available.

What is 'Current Maintenance'?

When a new version of an OpenText product is released, it is considered to be under 'Current Maintenance' for a period of thirty-six (36) months from the version release date. Subject to any limitations described in this Handbook, which shall include Sections 2.4.5 and 4, products under Current Maintenance benefit from assigned R&D resources and offer the following features:

- Unlimited number of support request submissions through the Customer Portal, Customer Self Service App, or traditional channels (i.e. telephone, email).

- Service packs and / or patches.

- The ability to request hot fixes.

- The ability to report product defects.

- The ability to request enhancements or new features.

- Access to documentation online.

- Access to technical articles and discussion forums in the Customer Portal.

- Access to technical webinars and events.

- Access to Global Service offerings (additional charge).

What is 'Sustaining Maintenance'?

After the 36th month of Current Maintenance has expired, the product version enters into the 'Sustaining Maintenance' phase of the product lifecycle. During this stage of the lifecycle, the following support services are still available:

- Unlimited number of support request submissions through the Customer Portal, Customer Self Service App or traditional channels (i.e. telephone, email).

- Access to documentation online.

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[1] Applicable to most, not all, OTC software. Contact your OpenText Support Team to confirm whether your product suite offers this program.

- Access to technical articles and discussion forums in the Customer Portal.

- Access to technical webinars and events.

- Access to Global Service offerings (additional charge).

When a product is considered to be under Sustaining Maintenance, the core development team is redirected to other work and no new services packs and patches are released for general use. Product defects and enhancement requests may still be reported, but work by the core development team on these issues will be discontinued. Migration to a current Maintenance version may be required.

If you are unable to upgrade to a version under Current Maintenance, OpenText offers an OT Protect Superseding Program at an additional cost. Please contact your local support office for more information.

Questions?

For additional information, please contact your regional OpenText Support Team.

About OpenText

OpenText provides Enterprise Information Management software that enables companies of all sizes and industries to manage, secure and leverage their unstructured business information, either in their data center or in the cloud. Over 50,000 companies already use OpenText solutions to unleash the power of their information. To learn more about OpenText (NASDAQ: OTEX; TSX: OTC), please visit www.opentext.com.

www.opentext.com

NORTH AMERICA +800 499 6544 • UNITED STATES +1 847 267 9330 • GERMANY +49 89 4629 0 • UNITED KINGDOM +44 0 1189 848 000 • AUSTRALIA +61 2 9026 3400

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 13
to
CONTRACT NO. 071B1300109
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Optum Government Solutions, Inc.	David Wieber	David.wieber@optum.com
12125 Technology Drive	**PHONE**	**CONTRACTOR'S TAX ID NO.** (LAST FOUR DIGITS ONLY)
Eden Prairie, MN 55344	517-993-0929	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DTMB	David Bengel	517-241-2921	BengelD@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	David Hatch	517-284-7044	hatchd@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: DATA WAREHOUSE IMPLEMENTATION AND SERVICES			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
November 16, 2010	November 15, 2015	5, 2 year	November 15, 2015
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
N/A		N/A	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☐ Yes ☒ No	
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☒	2, 2-year	☐		November 15, 2019
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$19,073,579.85		$11,000,000.00	$30,073,579.85	

DESCRIPTION: Effective November 15, 2015 the contract is extended to November 15, 2019. The contract is fully restated as included in the attached Change Request 20 dated 16 October 2015 to update outdated terms and include new terms for the refresh of the hardware and associated services.

The Contract value is increased by $11,000,000.00 to $30,073,579.85.

All other terms, conditions, specifications, and pricing remain the same. Per vendor and agency agreement and DTMB Procurement approval.

Attachment for Change #13

Saved as Separate Document

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 12
to
CONTRACT NO. 071B1300109
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR		PRIMARY CONTACT	EMAIL
Optum Government Solutions, Inc.		David Wieber	David.wieber@optum.com
12125 Technology Drive		**PHONE**	**CONTRACTOR'S TAX ID NO. (LAST FOUR DIGITS ONLY)**
Eden Prairie, MN 55344		517-993-0929	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DTMB	David Bengel	517-241-2921	BengelD@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	David Hatch	517-284-7044	hatchd@michigan.gov

CONTRACT SUMMARY

DESCRIPTION: DATA WAREHOUSE IMPLEMENTATION AND SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
November 16, 2010	November 15, 2015	5, 2 year	November 15, 2015

PAYMENT TERMS	DELIVERY TIMEFRAME
N/A	N/A

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-card	☐ Direct Voucher (DV)	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

EXERCISE OPTION?	LENGTH OF OPTION	EXERCISE EXTENSION?	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$19,073,579.85	$0.00	$19,073,579.85

DESCRIPTION: Effective November 1, 2015 the attached item (vendor Change Request 19) and pricing schedules are incorporated into the contract.

The Contract value remains the same.

All other terms, conditions, specifications, and pricing remain the same. Per vendor and agency agreement and DTMB Procurement approval.

September 30, 2015

Mr. David Bengel
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: SECOND REVISED CHANGE REQUEST PROPOSAL 019 FOR SYMMETRY SOFTWARE AND SERVICES
     UNDER CONTRACT No. 071B1300109

Dear David:

As you know, the State of Michigan (the "State") has made a request for certain changes ("Change Request 019") to Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract") asking Optum Government Solutions, Inc. ("Optum") to provide Optum Symmetry Software and Services. The Optum Symmetry Software and Services constitutes "New Work", as that term is defined in the '109 Contract.

In response to this request for change, Optum initially provided a Change Request Proposal 019 dated June 24, 2015 and then the State requested revisions and Optum provided a Revised Change Request Proposal 019 on July 13, 2015 (collectively, the "Prior Change Request Proposal 019"). Subsequently, you have requested additional revisions and Optum is pleased to provide the State with this Change Request Proposal that supersedes and replaces the Prior Change Request Proposal 019 (the "Change Request Proposal 019").

Description of the Scope Covered by this Change Request Proposal 019

In so far as the Optum Symmetry Software and Services is outside the scope of Optum's current responsibilities under the '109 Contract and consistent with the provisions of the '109 Contract:

1. Section 1.000 identifies Data Warehouse Data Analysis Software as being a type of product that could be purchased in the future under the '109 Contract; and,

2. Section 2.024 describes the Change Request process,

the following describes the new Scope covered by this Change Request Proposal 019 and the parties agree as follows:

I.   **License of Symmetry Software**

A. <u>Description of Software</u>. Optum hereby grants the State a nonexclusive, nontransferable license to use the following software (the "Software"). The Software is included in the definition of "Software" used in the '109 Contract, and includes a nonexclusive license to use the Current Procedural Terminology ("CPT") codes embedded therein.

□ **Symmetry Episode Treatment Groups (ETG).** The Symmetry ETG Software is an episode building patient classification system methodology that uses inpatient and ambulatory claims, or other like data, to identify treatment episodes.

□ **Symmetry Episode Risk Groups (ERG).** The Symmetry ERG Software predicts and assigns potential risk values to individual members of a health care plan, based in part on a derivative of ETG.

- ❑ **Symmetry Pharmacy Risk Groups (PRG).** The Symmetry PRG Software works in conjunction with Optum's pharmacy mapping drug classifications algorithms for assigning potential risk values to patient populations for prospective analysis based solely on claims.
- ❑ **Symmetry EBM Connect.** The Symmetry EBM Connect Software is intended to help the State retrospectively measure and monitor the quality of care provided to its plan members by comparing services captured on medical claims, pharmacy claims and laboratory results data to recognized and established clinical guidelines. The Symmetry EBM Connect software includes only default cases and rules.

B. Rights to Use. The State's right to use the Software is limited to the uses stated in this Change Request Proposal 019.

1. Grouping Claims. The State may use the Software at the sites defined below for the purpose of grouping of claims for which the State is the payer or third party administrator (TPA) (unless otherwise permitted below) and using any Software output for the internal business activities of the State or the State's payer or TPA customers, including use of the output for the purposes of medical cost containment and treatment analysis, and provider network analyses and management.

2. Value Added Reports. The State may use the Software to create Value Added Reports. "Value Added Reports" means the State's written analysis and interpretation of the results generated by processing any of the State's own claims (if the State is a payer) or any one group's claims through the Software. Value Added Reports may be in the form of reports or analysis, paper or electronic, and may include the grouped data and indentifiers generated by the Software. The State may deliver Value Added Reports only to the employer group, other group or association, physicians, physician groups, or consumers whose claims were processed for such report.

3. Disclosure. Should the State desire to disclose any Software output or Value Added Reports to a third party entity other than as described above, the Stated is required to notify Optum of the entity and scope of the project requiring the disclosure. If Optum agrees the State may make such disclosure, the State will ensure that the receiving entity signs a non-disclosure agreement with the State or with Optum which prohibits further uses or disclosures of the Software output and Value Added Reports. The State will pay Optum any additional mutually agreed fees for such disclosure and project.

C. Proprietary Rights. The State understands that the Software and data derived from the Software are protected under copyright laws and are the subject of United States patents. The State agrees to mark all Value Added Reports and other reports generated using the ETG Software with the following:

"Portions of the Software are protected under United States Patents #5,835,897; #6,370,511; #7,620,560; #7,725,333; #7,774,216; and #7,979,290. Other U.S. and foreign patents pending. Recipient of this information may not disclose, permit to be disclosed, or otherwise resell or transfer all or any portion of this information to any third party."

D. Informational Tool. The Software is provided to the State for informational purposes only. The State acknowledges that the Software is a tool that the State may use in various ways in its internal business. Any reliance upon, interpretation of and/or use of the Software by the State is solely and exclusively at the discretion of the State. The State's determination or establishment of an appropriate treatment plan, reimbursement level or fee is solely within the State's discretion, regardless of whether the State uses the Software. Optum is not engaged in the practice of medicine and does not determine, on the State's behalf, the appropriate fee or reimbursement levels for the State and its business. The State shall not use the Software to perform medical diagnostic functions, set treatment procedures or substitute for the medical judgment of a physician or qualified health care provider.

II. Symmetry Services

Symmetry Implementation Services. Optum will provide implementation services for the Software (the "Services") set forth in the Symmetry Implementation Scope of Services attached to this Change Request Proposal 019 as Attachment 2 (the "ISOS").

III. State of Michigan Obligations

The State agrees to acquire, install, implement and maintain all services, hardware, software, networks, program fixes, program releases, operating system software, database software, and other third-party software, as deemed necessary by Optum for proper execution of the Software. Such items may be at an additional cost for which the State is financially responsible. Optum shall not be responsible for installation or support of third-party components or for circumstances beyond its reasonable control. The State shall not deliver the Software to any third party for such third party's use, even if such third party use is on behalf of the State. Under no circumstances does this license allow for the access to or distribution of the Software's executable programs, codes, or related documentation to any entities outside of the site(s).

A. Software Delivery. Optum will make available to the State one (1) master copy of the Software. Such copy of the Software shall be in an electronic form and suitable for reproduction by the State in support of the State's permitted uses of the Software including installing for purposes of hosting both a test/preview site and a production site. The State may use the Software at the following location (the "Primary Site"): State of Michigan Lake Superior Data Center located at 7064 Crowner Drive, Lansing, MI 48821.

B. Future Sites. Optum and the State agree that future installation sites may be added under this Schedule as mutually agreed upon by both parties in writing and at an additional cost (other sites and the Primary Site are collectively the "Sites"). For purposes of reporting and calculation of fees due under this Schedule, the Primary Site shall be responsible for coordinating the support needs for all authorized sites and also be responsible for the annual Covered Lives count reporting responsibilities.

IV. Software Support Services

Optum will perform the following Software Support Services for the State, which will be deemed to be "Services" under the Agreement, for the current version of the Software and one prior version.

A. Software Support Resources. A wide variety of Software support resources are available on-line to all of the State's registered users via the Optum and Symmetry websites. Examples of these materials include downloadable product patches, Symmetry Clinical Knowledgebases, Symmetry Suite Product Guides, and Software Training Materials including Schedule and Registration instructions.

B. Help Desk Services. Optum will provide the following help desk support via email and telephone during the Term defined in Section VI of this Change Request Proposal 019 in the following areas:

- Assistance with Software installation and Software updates provided under Section IV(C).
- Assistance with Software questions involving general usage, operation, and functionality.
- Error and bug reporting, analysis, isolation and identification.
- Information on current releases, Software compatibility, restrictions, enhancements, workarounds, and fixes.

Customer Support Helpdesk	
Customer Support Helpdesk	Technical support Services are available to the State by phone and email. The Customer Support Helpdesk supports functional, operational, software, and Software-related issues, questions, and outages if applicable. The helpdesk may not be used for training.
Customer Support Helpdesk Availability	8:30 A.M. – 6:00 P.M. Eastern Time, Monday - Friday with the exception of Optum company holidays or office closings.

C. Generally Available Software Updates and Corrections. Optum shall promptly make available to the State all modifications, updates, error corrections, minor releases, major releases and all related documentation for the Software that Optum makes available to all of its other licensees of the Software. Optum will make minor updates (including error corrections) to the Software as Optum determines is appropriate. Migration to new major releases of the Software will be coordinated with the the State. The State shall make a good faith effort to migrate to the most current version of the Software within a reasonable timeframe from general availability of such current version.

D. Software Verison Support. Optum will support the State in maintenance of the then current release as well as prior releases for a limited time period as indicated per the Release Support Schedule in the Software documentation.

E. Product Incidents. The State agrees to notify Optum promptly following the discovery of any Error. An "Error" shall mean a failure of the Software to perform in accordance with the Documentation provided by Optum for that particular Software release. Further, upon discovery of an Error, and at the request of Optum, the State agrees to submit a listing of output and any other data that Optum may require in order to reproduce the Error and/or the operating conditions under which the Error occurred or was discovered. The State will provide, as requested by Optum, copies of databases, Error logs, network performance metrics and Software parameters to assist Optum in understanding Errors. The State will provide remote access to the State's network and databases, when requested. The State will provide access to database administrators, network administrators, desktop administrators and Software administrators, as requested by Optum, to help facilitate rapid resolution of implementation and support issues.

1. Reporting Errors. When the State provides a written report of a potential Error to Optum, Optum will classify such Error as a Severity One Error, Severity Two Error, Severity Three Error, Severity Four Error or as not an Error, and will respond and begin taking actions to correct such Error, as set forth below.

(a) Severity One Error (Critical). A "Severity One Error" shall mean an Error occurring (a) after it is first used in production by the State (the "First Commercial Use") that causes the Software to fail to install or run and renders the Software unusable, or (b) an Error internal to the Software that compromises overall Software integrity or data integrity when the Software is installed or operational (i.e., causing a Software crash or loss or corruption of the State's Data. Optum shall make reasonable efforts to respond to calls for a Severity One Error within one (1) business hour.

(b) Severity Two Error (High). A "Severity Two Error" shall mean an Error occurring (a) after the State's First Commercial Use in which a required program or feature of the Software is unusable, or (b) an Error internal to the Software causes a major loss of functionality (i.e., major options or features of the Software fail to function) for which there is no known workaround. Optum shall make reasonable efforts to respond to calls for a Severity Two Error within two (2) business hours.

(c) Severity Three Error (Medium). A "Severity Three Error" shall mean an Error occurring (i) after the First Commercial Use in which an optional program or feature

of the Software is unusable, or (ii) an Error internal to the Software causes a minor loss of Software functionality (i.e., minor options or features of the Software fail to function) for which there may or may not be a known workaround. Optum shall make reasonable efforts to respond to calls for a Severity Three Error within eight (8) business hours.

(d) Severity Four Error (Low). A "Severity Four Error" shall mean an Error occurring after the First Commercial Use that has only a minor effect on functionality. Optum shall make reasonable efforts to respond to calls for a Severity Four Error within sixteen (16) business hours.

2. Critical Errors. If an Error is classified as a Severity One Error or a Severity Two Error, Optum will initiate work on developing a resolution such as a fix or workaround consisting of sufficient programming and/or operating instructions ("Error Correction") and will use its commercially reasonable efforts to complete the Error Correction promptly after such Error is reported. Any such Error Correction may be provided through a temporary fix or work-around consisting of sufficient programming and/or operating instructions to implement the Error Correction. Written reports shall include reports transmitted to Optum by electronic mail delivery; provided that email will only be utilized by the State to convey an Error report as a follow-up to a phone conversation held between the State and Optum for the purpose of orally reporting such Error. Prior to a written or oral report being submitted to Optum, the State will verify and record via the written report that the State has verified the following:

(a) The Software has been installed in complete accordance with the Optum installation instructions and configuration requirements.

(b) The State's representative responsible for executing the production is skilled, at a reasonable level, to follow and execute such Optum installation instructions.

(c) The State has performed reasonable commercial diligence to ensure that the Error being reported is not due to the presence of or the defect of any third party software or components.

3. Cooperation. If the State does not expend commercially reasonable efforts to comply with the provisions set forth in this Section, then the Error shall be handled in accordance with the criteria for a Severity Four Error.

F. Exceptions. Optum is not responsible for making corrections due to the following reasons:

1. Errors resulting from misuse, improper use, or damage of the Software, to the extent caused by the State, provided that the State's actions were not directed by Optum or set forth in the Documentation.

2. Problems caused by any modifications made to the Software, other than modifications made by Optum.

3. Errors resulting from software other than the Software supplied by Optum, or from failure of the State's equipment or networks, provided, however, this exception shall not apply to problems arising from or in connection with third-party software, hardware or equipment provided or expressly recommended by Optum for use with the Software.

4. Errors resulting from the combination of the Software with any other software or equipment to the extent such combination has not been certified by Optum pursuant to this Schedule, or otherwise approved by Optum.

5. Errors contained in releases other than as provided for in the Release Support Schedule in the Software documentation.

V. Collected Data

A. Definition of Collected Data. "Collected Data" is defined as the State's health care claims and/or health care encounter data in a format containing identifiers from the Software, including but not limited to the ETG number, ETG subclass identifier; the episode number; the cluster number; the episode type; risk markers, and Software version.

B.   <u>Confidentiality of Collected Data</u>. The State agrees not to disclose, permit to be disclosed, or otherwise resell or transfer, with or without consideration, all or any portion of the Collected Data to any third party, except that the State may disclose the Collected Data, at no additional charge to the State, to its consultants or agents for the sole purpose of assisting or advising the State in the conduct of the State's internal business activities. Prior to such disclosure, the State's consultants and agents shall execute a nondisclosure agreement, in a form consistent with the language contained herein, which will prohibit such consultants or agents from using such Collected Data (other than to assist or advise the State), from disclosing such the Collected Data to any third party, and from aggregating the State's Collected Data with data from any other sources. Such nondisclosure agreement must provide that Optum shall be a third party beneficiary of the rights of the State thereunder. If the State is required to disclose the Collected Data by law or by regulatory agencies or other entities with legal authority to examine the Collected Data, the State shall deliver prompt written notice to Optum of such potential examination, allowing Optum the opportunity to interpose all objections to the proposed disclosure.

VI. Fees

A.   <u>Covered Lives</u>. As of the Effective Date of this Change Request Proposal 019, the State represents and warrants to Optum that the State's total number of Covered Lives is less than **2,300,000**. "Covered Lives" shall mean each subscriber and enrolled dependent eligible for coverage or payment for medical benefits by or through the State. Optum shall be entitled, not more than one time per year, upon reasonable notice and during regular business hours, to audit the State's Covered Lives for the purpose of substantiating the accuracy of reported Covered Lives totals and fee calculations. The State shall be invoiced for any adjustment based upon any difference between its actual Covered Lives and the Covered Lives reported for the fee calculation.

As it relates to Covered Lives above, the State of Michigan is calculating its total Covered Lives as its beneficaries in the following programs: Traditional Medicaid, Healthy Michigan Plan (HMP), Children's Special Health Care Services (CSHCS), MiChild, Pre-paid Inpatient Health Plan (PIHP), and Maternity Outpatient Medical Services (MOMS).

B.   <u>License Fee</u>. The State agrees to pay Optum **$436,200.00** for the License Fee for use of the Software for one year from the Effective Date for up to the number of Covered Lives set forth above. The License Fee also covers the Software Support Services during such one year period.

C.   <u>Implementation Services Fee</u>. The State shall pay Optum **$30,900.00** for the Services set forth in the Attachment 2 - ISOS. The State understands that delays caused in scheduling meetings, changes in the objectives or scope of the project, and/or new information acquired during the course of the project may impact Optum's ability to deliver the Services within the fees set forth above. If either the State or Optum becomes aware of circumstances that are likely to lead to a change in the fees for Services, the change order process described in the ISOS will be promptly initiated and the parties will negotiate a mutually acceptable change order modifying the description of the Services and/or the fees. The Implementation Services Fee above assumes no travel is required by Optum to perform the ISOS tasks.

D.   <u>Payment Terms</u>.

    1. <u>License Fee</u>. Optum shall invoice the State for License Fee as of the Effective Date of this Change Request Proposal 019. The State shall pay the invoice amount within forty-five (45) days of the date of the invoice.

    2. <u>Implementation Services Fee</u>. Services to be performed under the ISOS will be billed as of the Effective Date of this Change Request Proposal 019. The State shall pay the invoice amount within forty-five (45) days of the date of the invoice.

VII. Term and Termination

    A. <u>Term</u>. This Change Request Proposal 019 is effective as of the Effective Date, and continues for one (1) year thereafter, unless earlier terminated pursuant to this Change Request Proposal 019 or pursuant to the '109 Contract (the "Term").

    B. <u>Effect of Termination</u>. Within thirty (30) days after termination of this Change Request Proposal 019, the State shall return to Optum all copies of the Software and documentation supplied by Optum. The State acknowledges that Optum may use certain functionality in the Software to de-activate and disable the Software upon termination of this Change Request Proposal 019.

VIII. Change Request Process

Changes in project scope, schedule or timeline for any Services under a scope of services require a change request and may result in a new or revised scope of services and associated fees. All requests to change project scope will use the following procedure. Either Optum or the State may initiate a change of scope request in writing, specifying the description of the proposed change. The impact on costs, staffing, workloads, and schedule will be documented by Optum. Optum may also specify the date before which the State must respond to avoid uncontrolled impacts on the project plan. If the change of scope is approved by both parties, Optum will revise the Scope of Services and budget as needed and schedule the work to commence accordingly. The signatures of the State and Optum on the change of scope request form will confirm approval or rejection of the request. Optum will not commence work on the change request without approval.

IX. Consortium Measures

The EBM Connect software contains measures that are owned by the American Medical Association ("AMA") and/or the Physician Consortium for Performance Improvement (the "Consortium"). "Measure" shall mean the consortium measures and documentation posted on the Consortium's website, which includes the AMA's copyright notice, including Measure definitions, numerator and denominator statements, inclusions/exclusions, clinical and technical specifications and algorithms necessary to construct each Measure from health care data and to report measure results. Measures do not include any computer object, application or any type of programming or relational data tables. The State agrees to the terms of the AMA and Consortium Measures End User Agreement attached to this Schedule.

X. Terms by Which the State May Accept This Change Request Proposal 019 for Symmetry Software

A revised Attachment 1B Payment Milestones is attached to this Change Request Proposal 019 and replaces the prior Attachment 1B Payment Milestones that forms an integral part of the '109 Contract.

The pricing set forth in this Change Request Proposal is valid provided that the State approves this Change Request Proposal on or before October 30, 2015 (the "Validity Date"). The State can approve this Change Request Proposal 019 by issuing (1) a Change Notice that references this Change Request Proposal 019 and (2) a Purchase Order for $467,100.00 for the additional Symmetry Software and Services as defined above, where the date when both (1) and (2) are complete shall be considered the "Effective Date", provided that (1) and (2) occur on or before the Validity Date.

Except as expressly amended by this Change Request 019, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

David Wieber

Point of Contact:
David Wieber
Michigan Director of Operations
Optum Government Solutions

Matthew S. Mosher
Matthew S. Mosher (Oct 6, 2015)

Authorized Signer:
Matthew S. Mosher
Chief Operating Officer, Optum Data Management
Optum Government Solutions, Inc.

Attachment 1B (Revised)

Payment Milestones - 6 Year growth

Milestone	State of Michigan Fiscal Year						
	FY11	FY12	FY13	FY14	FY15	FY16	Total
Initial Training Subscription Plus Teradata Partners Conference	29,060						$29,060.00
Contract Hardware and Software	9,597,979						$9,597,979.00
Production System Production Migration Completion	$243,311						$243,311.00
5450 Deinstallation	$34,255						$34,255.00
Test System Production Migration Completion	$84,452						$84,452.00
5380 Deinstallation	$34,755						$34,755.00
TASM Services	$45,910						$45,910.00
DA Implementation Services - Architecture Planning and Design		$55,926.00					$55,926.00
DA Implementation Services - Configuration and Setup		$74,568.00					$74,568.00
DA Implementation Services - Detail Design and Implementation		$167,779.00					$167,779.00
Protegrity Services	$50,805						$50,805.00
Ongoing TEN+ Membership plus Teradata Partner Conference		$29,060.00	$29,060.00	$29,060.00	$29,060.00		$116,240.00
Teradata Warehouse Miner Training Course 1	$37,069						$37,069.00
Teradata Warehouse Miner Training Course 2		$37,069.00					$37,069.00
Teradata Warehouse Miner Training Course 3 - CR012				$37,069.00			$37,069.00
10 GbE Network Adapter Change - CR013				$22,900.00			$22,900.00
Protegrity Software Upgrade - CR014					$37,000.00		$37,000.00
Additional Teradata Training during CY 2014 - CR015				$29,700.00	$35,640.00		$65,340.00
TDWI Training - CR015					$90,000.00	$45,000.00	$135,000.00
Teradata Hardening Services - CR016				$90,000.00			$90,000.00
Host Group Configuration Services - CR017					$9,900.00		$9,900.00
On-Going Training	$73,684	$47,504.00	$47,504.00	$47,504.00	$47,504.00		$263,700.00
DataDirect Software Licenses - CR002	$32,000						$32,000.00
DataDirect Software Maintenance - CR002	$6,600	$7,660.00	$8,420.00	$9,260.00	$10,190.00		$42,130.00
Additional ODBC Software and Maintenance Support - CR007		$15,650.00	$3,460.00	$3,810.00	$4,190.00		$27,110.00
Additional ODBC Software - CR008		$3,200.00					$3,200.00
AIX Systems Hw & SW Mnt 4/1/11 - 9/30/11 - CR002	$15,827						$15,827.00
AIX Systems Hw & SW Mnt 10/1/11 - 9/30/16 - CR002		$34,821.00					$34,821.00
BI Query Software License and Maintenance - CR003		$161,799.06	$88,581.96	$97,442.76	$107,185.07		$455,008.85
BI Query Software Maintenance FY16 - CR018						$110,490.00	$110,490.00
Optum Symmetry Software License and Services - CR019					$467,100.00		$467,100.00
Business Objects Software Maintenance - CR004		$37,751.00					$37,751.00
JSURS Support - CR004		$272,908.00	$286,552.00	$300,880.00			$860,340.00
	3/1/11 - 9/30/11	10/1/11 - 9/30/12	10/1/12 - 9/30/13	10/1/13 - 9/30/14	10/1/14 - 9/30/15	10/1/15 - 2/29/16	
Warranty - Production System w/AWS Rack	$267,568	$191,120.00					$458,688.00
Warranty - Test System w/AWS Rack	$198,344	$141,675.00					$340,019.00
Warranty - Teradata Warehouse Miner	$9,051	$6,465.00					$15,516.00
Warranty - Dual Active	$55,319	$39,514.00					$94,833.00
On-Going Annual Maintenance - Disk Retention Option - CR 009			-	$26,110.00	$31,331.00	$31,331.00	$13,055.00	$101,827.00
On-Going Annual Maintenance - COD Pull Ahead - CR 011			$104,945.17				$104,945.17
On-Going Annual Maintenance - Prod System w/AWS Rack		$267,568.00	$459,560.00	$526,001.00	$614,352.00	$268,282.00	$2,135,763.00
On-Going Annual Maintenance - Test System w/AWS Rack		$198,344.00	$340,733.00	$368,755.00	$435,631.00	$195,567.00	$1,539,030.00
On-Going Annual Maintenance - Teradata Warehouse Miner		$9,051.00	$15,516.00	$15,516.00	$15,516.00	$6,465.00	$62,064.00
On-Going Annual Maintenance - Dual Active		$55,319.00	$95,146.00	$104,032.00	$116,972.00	$50,748.00	$422,217.00
Total	$10,816,989	$1,854,751.06	$1,606,688.13	$1,713,280.76	$2,051,571.07	$688,807.00	$18,830,767.01

Ad Board Approved Contract Amount: $19,073,580.00

Amount Remaining not allocated: $442,812.99

Attachment 2 – Symmetry Implementation Scope of Services (ISOS)

I. Description of the Services. Optum will perform the following services for the State, which will be deemed to be "Services" under Change Request Proposal 019. Optum will provide training and support Services to assist the State in the implementation of the Software. The implementation of the Software is referred to as the "Project."

   A. Implementation Manager. Optum will assign an Implementation Manager ("IM") to work with the State to provide Project oversight. The IM will be responsible for coordinating Optum resources, providing general guidance and direction to the State, and serving as the main contact for the State throughout the Project as described below.

   B. Phases for Performing Services. The Services will be provided in the following phases:

      1. Project Set Up and Planning Phase

         (a) Services. The Project begins with a kick off conference call where the Project teams review roles and responsibilities and discuss the State's key business goals for deployment.

         (b) Deliverables. This phase includes the following deliverables:
            (i) Product Software and Documentation
            (ii) Project Plan: This document will define phases and detailed activities of the Project.
            (iii) Issues Log: This document will contain a list of issues and resolutions encountered during the entire Project.
            (iv) Weekly Status Meetings: Optum will host regular weekly meetings to review the status of the Project and discuss the issues log and any other topics pertinent to the implementation.
            (v) Business Needs and Recommendations Assessment: Optum will document and deliver an assessment based on interview sessions which will include business needs and goals, key findings, barriers to accomplishing the defined goals, and specific recommendations for the Software implementation approach.

         (c) Assumptions:
            (i) Optum will provide documentation for the Software via the Optum user website.
            (ii) Optum will provide the State with a client login to access the Optum site to download the Software.
            (iii) Optum will provide the State with a license key to activate the Software.
            (iv) The State is responsible for installing the Software on the State's server(s).
            (v) Optum will provide remote support via the phone to support the Software installation process if needed.

         (d) Completion Criteria. This phase shall be considered complete upon:
            (i) Delivery of the Software and documentation.
            (ii) Kick off meeting has been held.
            (iii) Project plan, weekly status meetings and issues log have been initiated.
            (iv) The State has registered on the Optum Learning Management System 72 hours in advance of the initial training session.
            (v) Delivery of Business Needs Assessment document.
            (vi) State Project staff have attended the web-based trainings for the current version of the Software covering concepts, methodology, data preparation, and configuration as outlined in the below table(s):

            ETG:

Title	Description	Duration
General Concepts and Methodology Part A	Provides an introduction to ETG episodes. Discussion is centered on ETG concepts, definitions and ETG-specific methodology.	2 hours
General Concepts and Methodology Part B	Provides further discussion of ETG severity levels and severity scores. In addition the session will provide a detailed look at the processing steps for a sample data set.	2 hours

Data Preparation and Configuration	Covers preparing input data for the ETG grouper. Then it discusses the configuration choices for the grouper and the use of the configuration editor.	2 hours
Output Files and Practical Applications	Provides an introduction to each of the ETG output files, and discussion of how to use data from the different files. Optum will cover configuration options that affect output within each file. Examples of the application for various business scenarios are included.	2 hours

EBM Connect:

Title	Description	Duration
General Concepts and Methodology	Provides an introduction to EBM Connect including concepts, classification structure and definitions unique to EBM Connect and its' processing. Features also discussed include result values, EBM & Compliance flags, eligibility features and physician attribution logics utilized within EBM Connect	2 hours
Data Preparation and Configuration	Covers preparing input data with EBM Connect. Then it discusses the configuration choices for EBM Connect and the use of the configuration editor.	2 hours
Standard Output Files	Provides an introduction to the output files and the standard reports, data elements within each file, and a discussion on how files may be used.	2 hours
Audit Files, Synopses & Algorithms	Provides an introduction of the Audit Files. In addition, the class will concentrate on how to review an Algorithm and Synopsis document for a case, discussion of the logic used within each algorithm and how to use the appropriate reference material applicable for each algorithm.	1.5 hours

ERG:

Title	Description	Duration
General Concepts and Methodology	Provides a general introduction to the grouper with discussion centered on concepts, definitions and ERG-specific methodology	
Data Preparation and Configuration	Covers preparing input data for use with ERG. The configuration choices for the risk engine and the use of the Configuration Editor are also discussed.	2 hours
Output	Provides an introduction to the ERG output files as well as how to use supporting documentation with these files for interpretation.	

2. Product Configuration Specification Phase

   (a) Services. Optum will review the configuration options for the Software with the State and will obtain a high-level understanding of the State's business purposes. The initial discussions are designed to provide the State with an understanding of the Optum configuration options for the Software, including but not limited to processing options, optional data, and output options.

   (b) Deliverables. The Services in this phase include the following deliverables:

(i) Customized Configuration Session: Optum will provide a detailed review of configuration choices and their impact on grouper outputs.
(ii) Recommended Configuration Report: Optum will provide a complete listing of all Symmetry parameters and their values to be used for this Project, based on Customized Configuration Session discussion.
(iii) Touch point meeting with Business Solutions Group so that goals are aligned with those in the Business Needs Assessment

(c) Completion Criteria. This phase shall be considered complete upon:
(i) Customized Configuration Session has been held, and
(ii) Recommended Configuration Report has been delivered.

3. Data Extract Preparation and Submission Phase

(a) Services. Optum will review pertinent data requirements for the Software with the State and obtain a high-level understanding of the State's source data and internal processes via data meetings and discussions. The initial discussions are designed to provide the State with an understanding of the Optum standard data requirements for the Software, including but not limited to required variables, formatting data files and layout specifications. Optum will provide technical support to the State during this process.

(b) Deliverables. The Services include the following deliverables:
(i) Data Specifications Workbook: Optum will provide a listing of each field in each input file, along with its data requirements.
(ii) Example QA Results Workbook: Optum will provide the State with a workbook showing example results from the sorts of quality assurance tests Optum runs on input data.
(iii) Touch point meeting with Business Solutions Group so that goals are aligned with those in the Business Needs Assessment.

(c) Completion Criteria. This phase shall be considered complete upon delivery of the Data Specifications Workbook and the example QA Results Workbook.

4. Optum Data Processing and Output File Creation Phase

(a) Services. The State will provide Optum with a data feed of its input files of State Data. Optum will review these input files for consistency as well as potential issues that may result in a compromised Software run. Upon completion of the initial review, Optum will provide the State with a QA Results Workbook. Optum will review the QA Results Workbook with the State team and determine the appropriate course of action, which may include a second extract of test data with issues corrected by the State. This process continues until Optum determines that input files are suitable for the Software processing, at which point the files will be considered Useable Data. If all source data problems are not resolved by the State after the second input file quality review, the State will pay Optum on a time and materials basis for any subsequent data quality reviews. Upon receipt of Useable Data (input files suitable for Software processing), Optum will process the State's input files through the Software, and provide quality checks on the output. Using insights gained during this phase, Optum will recommend further optimizations to the data, if any.

(b) Deliverables. The Services include the following deliverables:
(i) QA Results Workbook: Optum will provide the State with the workbook showing the results from the quality assurance tests Optum ran on the input data ten (10) business days from data submission.
(ii) Output Benchmarks Comparison Workbook: Optum will provide the State with a comparison between their results and the corresponding Symmetry benchmarks as well as feedback on results ten (10) business days from receipt of Useable Data.
(iii) Processing Engine Output: All output files from the processing will be sent to the State at the same time as the Output Benchmarks Comparison Workbook.

(iv) Touch point meeting with Business Solutions Group so that goals are aligned with those in the Business Needs Assessment.

(c) Assumptions.
(i) The State's Data originates from one data source and shares a common record layout and map tables.
(ii) The unique number of members is under one million (1,000,000), provided, however, that the foregoing assumption only applies to the quality assurance portion of Optum's Services under the Project. The State's license to use the Software and the corresponding pricing for such license permits the State to use the Software for up to 2,300,000 Covered Lives, as set forth in Sections VI(A) and (B) of this Change Request Proposal 019.
(iii) Claims data provided is limited to at most three (3) years.
(iv) Standard (minimum) input is expected with no custom fields or files (e.g. disease registry, user defined trim points, provider key, etc.).
(v) Required fields are provided and do not require imputation (e.g. standard pricing) or extensive ETL customization.
(vi) The State's data can be run as one file and not as subsets in multiple runs (such as per-time-period submissions). There could be separate runs, one per grouper, as there can be small differences in input requirements between the different groupers.

(d) Completion Criteria. This phase shall be considered complete when the State's data feed is processed and Deliverables sent to the State.

5. State Data Processing and Output File Creation Phase

(a) Services. The State will process its data using the Software. The Project will be complete upon successful processing. The Optum Project team will provide the State with information about ongoing support and make an introduction to the account service representative as the Project completes.

(b) Completion Criteria. This phase shall be considered complete when the first State data feed is processed without incident.

II. State Responsibilities. The State will:
A. Assign a Project Manager to work with Optum and serve as the primary Optum point of contact.
B. Provide the personnel, hardware and software resources as required for the Project.
C. Coordinate State resources (technical, analytic, clinical) for source data extract requirements.
D. Ensure appropriate technical infrastructures are in place to support the Software.
E. The State will register in advance on the Optum Learning Management System and attend all web-based trainings for the Software.
F. Prepare and maintain all required input file maps and required input file elements.
G. Review Optum feedback on tests of input files.

III. Out of Scope. The following activities are out of the scope of this ISOS: custom trim points, custom clean periods, custom outliers, customization of output files or integration into reporting systems.

IV. Change Request Process. Changes in project scope, schedule or timeline for any Services under this ISOS require a change request and may result in a new or revised Scope of Services and associated fees. All requests to change Project scope will use the following procedure. Either Optum or the State may initiate a change of scope request in writing, specifying the description of the proposed change. The impact on costs, staffing, workloads, and schedule will be documented by Optum. Optum may also specify the date before which the State must respond to avoid uncontrolled impacts on the Project plan. If the change of scope is approved by both parties, Optum will revise the Scope of Services and budget as needed and schedule the work to commence accordingly. The signatures of the State and Optum on the change of scope request form will confirm approval or rejection of the request. Optum will not commence work on the change request without approval.

Attachment 3 – AMA and Consortium Measures End User Agreement

1. **Grant of Rights and License Restrictions**

   a. The right to use the Measures in the Optum product is non-transferable, non-exclusive, and for the sole purpose of internal use by the State of physician performance measures within the United States and its territories.

   b. For purposes of this end user agreement, physician performance measures shall mean and include only the Consortium measures and related documentation posted on the Web site (www.phvsicianconsortium.orq) ("AMA Web site") that includes the AMA's copyright notice, including measure definitions, numerator and denominator statements, inclusions/exclusions, clinical and technical specifications and algorithms necessary to construct each measure from health care data and to report measure results ("Measures"). Measures as defined and licensed hereunder do not include any computer object, application or any type of programming or relational data tables.

   c. The State shall not modify the Measures except to customize the Measures for use within the State's practice (but in no event will the content of the Measures be altered), removing any copyright, trademark, and attribution notices and disclaimers, creating derivative works (other than to customize the Measures for use within the State's practice), removing copyright, trademark and selling or licensing Measures or otherwise making the Measures or any portion thereof available to any unauthorized party.

   d. Updated versions of the Measures are available at www.phvsicianconsortium.orq, or that Optum will provide updated versions of the Measures in the next release of its Product(s) if commercially feasible.

   e. The State should ensure that anyone who has authorized access to the Product(s) including the Measures complies with the provisions of this agreement and with all applicable laws in the use of the Product(s) and the Measures, including but not limited to the Health Insurance Portability and Accountability Act.

2. **Notices**

   a. The Measures have been developed by the Consortium and copyrighted by the AMA as the convener and member of the Consortium.

   b. Limited proprietary coding is contained in the Measures data specifications for convenience. This license does not grant any rights to these proprietary code sets. The State agrees to obtain all legally necessary licenses for use of such proprietary coding from the owners of these code sets including a separate license from the AMA for use of Current Procedural Terminology (CPT®). CPT contained in the Measures data specifications is copyrighted by the AMA.

3. **Miscellaneous**

   a. THE STATE ACKNOWLEDGES THAT MEASURES DEVELOPED BY THE CONSORTIUM ARE INTENDED TO FACILITATE QUALITY IMPROVEMENT ACTIVITIES BY PHYSICIANS. THESE MEASURES ARE NOT CLINICAL GUIDELINES, DO NOT ESTABLISH A STANDARD OF MEDICAL CARE, AND HAVE NOT BEEN TESTED FOR ALL POTENTIAL APPLICATIONS.

   b. THE AMA, THE CONSORTIUM AND ITS MEMBERS SHALL NOT BE RESPONSIBLE FOR ANY USE OF ANY MEASURES. THE MEASURES ARE LICENSED "AS IS" WITHOUT WARRANTY OF ANY KIND EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE AMA, THE CONSORTIUM AND THE CONSORTIUM'S MEMBERS DISCLAIM LIABILITY FOR ANY CONSEQUENCES ATTRIBUTABLE TO OR RELATED TO ANY USES, NON-USE OR INTERPRETATION OF INFORMATION CONTAINED IN OR NOT CONTAINED IN THE MEASURES, AND FOR USE OR ACCURACY OF ANY CPT OR OTHER CODING CONTAINED IN MEASURES SPECIFICATIONS. THE

DEVELOPMENT AND DISTRIBUTION OF THE MEASURES DOES NOT CONSTITUTE THE PRACTICE OF MEDICINE BY THE AMA, THE CONSORTIUM OR BY ANY OF THE CONSORTIUM'S MEMBERS. IN NO EVENT WILL THE AMA, THE CONSORTIUM OR THE CONSORTIUM'S MEMBERS BE LIABLE TO THE STATE OR TO ANY OTHER PARTY FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH MEASURES EVEN IF THE AMA, THE CONSORTIUM OR THE CONSORTIUM'S MEMBERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

c. THE AMA, THE CONSORTIUM AND THE CONSORTIUM'S MEMBERS DO NOT WARRANT THAT THE MEASURES WILL MEET THE STATE'S REQUIREMENTS OR THAT THE OPERATION OF THE MEASURES WILL BE UNINTERRUPTED OR WITHOUT ERROR. THE STATE ACKNOWLEDGES THAT THE MEASURES HAVE NOT BEEN DEVELOPED ACCORDING TO THE STATE'S SPECIFICATIONS OR ARE OTHERWISE CUSTOM-MADE. THE AMA, THE CONSORTIUM AND EACH OF ITS MEMBER'S ENTIRE LIABILITY AND THE STATE'S EXCLUSIVE REMEDY SHALL BE FOR THE AMA TO PROVIDE THE STATE WITH COMPLETE COPIES OF MEASURES AS ADOPTED BY THE CONSORTIUM VIA THE AMA'S WEB SITE.

d. The State acknowledges that Optum may not provide the State with new or updated Measures in the event of the termination or expiration of the agreement between Optum and the AMA (on behalf of the Consortium). The State may continue to use Measures incorporated into its system prior to such termination or expiration of that agreement and obtain updated Measures from the AMA Web site;

e. In the event a provision is determined to violate any law or is unenforceable, the remainder of this End User agreement shall remain in full force and effect;

f. The AMA is a third party beneficiary for purposes of enforcing its rights under this End User agreement.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 11
to
CONTRACT NO. 071B1300109
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Optum Government Solutions, Inc.	David Wieber	David.Wieber@Optum.com
12125 Technology Drive	**TELEPHONE**	**CONTRACTOR #, MAIL CODE**
Eden Prairie, MN 55344	(517) 993-0929	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR				
BUYER	DTMB	Whitnie Zuker	517-284-7030	zukerw@michigan.gov

CONTRACT SUMMARY:			
DESCRIPTION: **DATA WAREHOUSE IMPLEMENTATION AND SERVICES**			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
November 16, 2010	**November 15, 2015**	**5, 2 Year Options**	**November 15, 2015**
PAYMENT TERMS	**F.O.B**	**SHIPPED**	**SHIPPED FROM**
N/A	**N/A**	**N/A**	**N/A**
ALTERNATE PAYMENT OPTIONS:			**AVAILABLE TO MiDEAL PARTICIPANTS**
☐ P-card ☐ Direct Voucher (DV) ☐ Other			☐ Yes ☒ No
MINIMUM DELIVERY REQUIREMENTS:			
N/A			

DESCRIPTION OF CHANGE NOTICE:				
EXTEND CONTRACT EXPIRATION DATE	**EXERCISE CONTRACT OPTION YEAR(S)**	**EXTENSION BEYOND CONTRACT OPTION YEARS**	**LENGTH OF OPTION/EXTENSION**	**EXPIRATION DATE AFTER CHANGE**
☒ No ☐ Yes	☐	☐		
VALUE/COST OF CHANGE NOTICE:		**ESTIMATED AGGREGATE CONTRACT VALUE REMAINS:**		
$0.00		**$19,073,579.85**		

Effective March 3, 2015 the attached Proposal 017 Host Group Creation Services and revised Attachment 1B Payment Milestones is hereby incorporated into this contract. The revised Attachment 1B shows a net reduction to the total of all payment milestones of $380,591.00.

The Contract value remains the same. The new amount remaining not allocated amount is increased by$380,591.00; new total $1,020,402.99.

All other terms, conditions, specifications, and pricing remain the same. Per vendor and agency agreement and DTMB Procurement approval.

February 23, 2015

Mr. David Bengel
Michigan Department of Technology, Management and Budget
515 Westshire Drive
Lansing, MI 48917

RE: CHANGE REQUEST PROPOSAL 017 FOR HOST GROUP CREATION SERVICES UNDER CONTRACT No. 071B1300109

Dear David:

The State of Michigan (the "State") has made a request for change to Contract No. 071B1300109 ("Change Request 017") asking Optum Government Solutions, Inc. ("Optum") to provide a proposal for providing Host Group Creation Services, as defined below. The Host Group Creation Services constitutes "New Work", as that term is defined in our Contract 071B1300109 effective November 16, 2010, as amended (the '109 Contract").

In response to this Change Request 017, Optum is pleased to provide the State with this Change Request Proposal for Host Group Creation Services (the "Change Request Proposal 017").

I.   Description of the Scope Covered by this Change Request Proposal 017

HOST GROUP CREATION SERVICES

The State has requested that Optum, via our previously approved subcontractor, Teradata Government Systems LLC ("Teradata"), perform services ("Host Group Creation Services") as defined in more detail below:

The State has requested that a second host group be created on its Teradata systems to facilitate encryption of end-user network traffic for the Teradata environment. The State intends that all end-user network traffic will traverse the first host group's related network and will have encryption enforced at the gateway while all backup and restore (BAR) network traffic will traverse the second host group related network and will remain unencrypted. The State is intending to keep the BAR related traffic unencrypted as they have found that encrypting the traffic is currently causing an unacceptable increase in backup elapsed time for the weekly full backups.

Teradata will perform Host Group Configuration Services for the State Production, Development/Disaster Recovery, and Test/Dual Active systems, (TPA nodes only) by adding a new host group to each Teradata system as described in the Teradata Security Administration Manual section: "Restricting Logons By Host Group".

Additional Notes:

- The State has three (3) Teradata systems:
  - ➢ 560 for Dual Active/Test
  - ➢ 2+1 5650H for Development/DR
  - ➢ 3+2 5650H for Production
- The State intends that BAR network traffic is to be unencrypted for all three Teradata systems.
- The State also intends that Non-BAR network traffic is to be encrypted and as part of this project the gateway configuration will be changed by the State to enforce encryption for all Non-BAR network traffic.
- The encryption of network traffic is not included in the scope of this project.

1. PROJECT START AND END DATES

1.1. The estimated Start Date for Teradata's performance regarding the Host Group Creation Services will be mutually agreed by Optum, the State, and Teradata but is expected to be no sooner than March 23, 2015 assuming:

1. The Teradata 14.10 upgrade has been completed in the Production Environment;
2. The State has successfully migrated to its new BAR infrastructure (Media Servers, Switches, and related 10GbE Network Cards); and
3. Optum has received approvals from the State for this Change Request Proposal 017 as defined at the end of this Change Request Proposal 017.

1.2. The estimated End Date for Teradata's performance regarding the Host Group Creation Services will be mutually agreed upon by Optum, the State, and Teradata based on the start date and the related approved change windows for the three (3) Teradata Systems.

2. SERVICES DESCRIPTION

2.1. As part of the Host Group Creation Services, Teradata will:

- Prepare change control requests and obtain proper State approvals.
- Identify interfaces that PUT (Parallel Update Tool) can see and determine which interfaces need to be assigned to which Host Group.
- Verify there are no interfaces that will need to be configured that PUT does not have any knowledge of.
- Identify the number of Gateway processes required per node for the new Host Group.
- Identify the number of PEs (Parsing Engines) per node required to support the new Host Group ID. Teradata Customer Service representative configures the database to define multiple hosts using the Configuration utility ADD HOST command. Each host must include the same vprocs as the corresponding host group in Vconfig.
- Planned Implementation Process:
  - o The 560 Dual Active/Test System will be first
  - o The 2+1 5650 Development/DR System will be second
  - o The 3+2 5650 Production System will be third

3. DELIVERABLES

3.1. Teradata will provide the following Deliverables:

No.	Deliverable Description
1	Host Group configuration for the Dual Active/Test Environment along with a one page document detailing the configuration changes implemented in the Dual Active/Test environment
2	Host Group configuration for the Development/DR Environment along with a one page document detailing the configuration changes implemented in the Development/DR environment
3	Host Group configuration for the Production Environment along with a one page document detailing the configuration changes implemented in the Production environment

4. DEPENDENCIES, OPTUM AND STATE RESPONSIBILITIES, AND PERSONNEL

4.1. Optum's agreement to this Change Request Proposal 017 and its duty to perform in accordance with this Change Request Proposal 017 are dependent and conditioned upon the following dependencies being satisfied.

- The State's network administrator assigns multiple aliases (tdpids) to the Teradata Database system, and maps each tdpid to a set of COP (Communications Processor) names and IP addresses, which corresponds to a configured host group.

- The State's network administrator assigns a Teradata client or group of clients to a single tdpid that corresponds to a host group.

- The State will test after each system implementation before allowing Teradata to proceed to the next system in the order of systems listed above. Teradata will not perform the testing.

- The State will implement enforcement of encryption for the end-users' host group at the gateway. Teradata will not implement encryption or enforcement of encryption at the gateway.

- This solution will segregate the end users' network traffic from the BAR jobs' network traffic but is not a perfect solution in forcing a user to go to the host group that will involve encryption. That is, an end user who learns the IP address for the host group without encryption could try to log in there. Thus, the State may restrict logons to specific hosts for the end users via IP filters.

4.2. Project Manager

The State will provide a manager who is available to meet regularly with Optum and Teradata personnel on matters pertaining to this project, able to procure and direct State resources as requested by the Teradata Consultants. The manager will be familiar with the administration and workings of the State's DTMB group, and who is versed in the operation and management of the Teradata systems.

5. OUT OF SCOPE SERVICES; EXCLUSIONS

5.1. The Services to be provided by Teradata include only what is expressly described in this SOW. Services that are outside the scope of this Change Request Proposal 017 include, but are not limited to, the following:

- Changing O/S tuning parameters to optimize performance
- Changing Teradata tuning parameters to optimize performance
- Changing BAR tuning parameters to optimize performance
- Installation of Application software
- Installation of client software
- Installation of host software (utilities)
- This will not increase the speed of the unencrypted BAR jobs.

II. Fiscal Year 2014 TDWI Training

As part of this Change Request Proposal 017, the State has also requested and Optum is agreeing to move the TDWI Training Services originally planned to be delivered in FY14 that were originally included in the '109 Contract for the period of October 1, 2013 through September 30, 2014 to FY16.

Below is the payment milestone to be moved as part of the revised Attachment 1B Payment Milestones that is attached to this Change Request Proposal 017:

Description	Period Covered	Price to State
TDWI Training - CR015	10/1/13-9/30/14	$45,000.00

III. Protegrity Upgrade Services – CR014

As part of this Change Request Proposal 017, the State has also requested and Optum is agreeing to move the Protegrity Upgrade Services originally being shown in the Payment Milestones in FY14 to FY16. The Protegrity Software Upgrade Services have been proposed as part of Change Request Proposal 014 but have not yet been approved by the State.

Below is the payment milestone to be moved as part of the revised Attachment 1B Payment Milestones that is attached to this Change Request Proposal 017:

Description	Period Covered	Price to State
Protegrity Software Upgrade - CR014	10/1/14-9/30/15	$37,000.00

IV. Dual Active Implementation Services – Additional Mentoring

As part of this Change Request Proposal 017, Optum has requested and the State is agreeing to remove the Dual Active Implementation Services currently shown to be delivered in FY15. If the State wishes to engage Optum for additional Dual Active related services in the future, a new Change Request Proposal will be developed to further and more specifically cover the scope of the intended project.

Below is the payment milestone to be removed as part of the revised Attachment 1B Payment Milestones that is attached to this Change Request Proposal 017:

Description	Period Covered	Price to State
DA Implementation Services - Additional Mentoring	10/1/14-9/30/15	$74,568.00

V. JSURS Support Services – CR004

As part of this Change Request Proposal 017, the State has requested and Optum is agreeing to remove the JSURS Support Services currently shown to be delivered in FY15.

Below is the payment milestone to be removed as part of the revised Attachment 1B Payment Milestones that is attached to this Change Request Proposal 017:

Description	Period Covered	Price to State
JSURS Support – CR004	10/1/14-9/30/15	$315,923.00

VI. Charges:

The Host Group Creation Services and deliverables offered in this Change Request Proposal 017 are firm fixed price.

Upon completion of the applicable Deliverable, including the one page document for that Deliverable, Optum will present the State with a deliverable acceptance letter which will require the State to sign-off. The State will have five (5) business days to review and accept the applicable deliverable, where such acceptance shall not be unreasonably withheld or delayed,

shall be based on whether the deliverable has been completed and shall be evidenced by the State's counter-signature to the applicable deliverable acceptance letter. Optum' shall invoice the State for the Fixed Fee amount listed below upon State's approval of the applicable deliverable acceptance letter.

No.	Deliverable Description	Fixed Fee
1	Host Group configuration implemented and configuration document delivered for the Dual Active/Test Environment.	$3,300.00
2	Host Group configuration implemented and configuration document delivered for the Development/DR Environment.	$3,300.00
3	Host Group configuration implemented and configuration document delivered for the Production Environment.	$3,300.00
	Total	$9,900.00

IV. Terms by Which the State May Accept This Change Request Proposal 017:

A revised Attachment 1B Payment Milestones is attached to this Change Request Proposal 017 and replaces the prior Attachment 1B Payment Milestones that forms an integral part of the '109 Contract. The revised Attachment 1B shows a net reduction to the total of all payment milestones of $380,591.00.

The State can approve this Change Request Proposal 017 by issuing (1) a Change Notice that references this Change Request Proposal 017 and (2) a Purchase Order for the additional Host Group Creation Services as defined above.

Except as expressly amended by this Change Request 017, all other terms and conditions of the '109 Contract remain in effect.

Should you have any questions, please do not hesitate to contact me. Thank you again for the opportunity to work with you and your project team.

Sincerely,

David Wieber

Point of Contact:
David Wieber
Michigan Director of Operations
Optum Government Solutions, Inc.

James Franke
James Franke (Feb 24, 2015)

Signer:
James Franke
Senior Vice President
Optum Government Solutions, Inc.

Attachment 1B (Revised)

Payment Milestones - 5 Year growth

Milestone	State of Michigan Fiscal Year						
	FY11	FY12	FY13	FY14	FY15	FY16	Total
Initial Training Subscription Plus Teradata Partners Conference	29,060						$29,060.00
Contract Hardware and Software	9,597,979						$9,597,979.00
Production System Production Migration Completion	$243,311						$243,311.00
5450 Deinstallation	$34,255						$34,255.00
Test System Production Migration Completion	$84,452						$84,452.00
5380 Deinstallation	$34,755						$34,755.00
TASM Services	$45,910						$45,910.00
DA Implementation Services - Architecture Planning and Design		$55,926.00					$55,926.00
DA Implementation Services - Configuration and Setup		$74,568.00					$74,568.00
DA Implementation Services - Detail Design and Implementation		$167,779.00					$167,779.00
DA Implementation Services - Additional Mentoring					$74,568.00		$74,568.00
Protegrity Services	$50,805						$50,805.00
Ongoing TEN+ Membership plus Teradata Partner Conference		$29,060.00	$29,060.00	$29,060.00	$29,060.00		$116,240.00
Teradata Warehouse Miner Training Course 1	$37,069						$37,069.00
Teradata Warehouse Miner Training Course 2		$37,069.00					$37,069.00
Teradata Warehouse Miner Training Course 3 - CR012				$37,069.00			$37,069.00
10 GbE Network Adapter Change - CR013				$22,900.00			$22,900.00
Protegrity Software Upgrade - CR014				$37,000.00	$37,000.00		$37,000.00
Additional Teradata Training during CY 2014 - CR015				$29,700.00	$35,640.00		$65,340.00
TDM Training - CR015				$45,000.00	$90,000.00	$45,000.00	$135,000.00
Teradata Hardening Services - CR016				$90,000.00			$90,000.00
Host Group Configuration Services - CR017					$9,900.00		$9,900.00
On-Going Training	$73,684	$47,504.00	$47,504.00	$47,504.00	$47,504.00		$263,700.00
DataDirect Software Licenses - CR002	$32,000						$32,000.00
DataDirect Software Maintenance - CR002	$6,600	$7,660.00	$8,420.00	$9,260.00	$10,190.00		$42,130.00
Additional ODBC Software and Maintenance Support - CR007		$15,650.00	$3,460.00	$3,810.00	$4,190.00		$27,110.00
Additional ODBC Software - CR008		$3,200.00					$3,200.00
AIX Systems Hw & SW Mnt 4/1/11 - 9/30/11 - CR002	$15,827						$15,827.00
AIX Systems Hw & SW Mnt 10/1/11 - 9/30/16 - CR002		$34,821.00					$34,821.00
BI Query Software License and Maintenance - CR003		$161,799.06	$88,581.96	$97,442.76	$107,185.07		$455,008.85
Business Objects Software Maintenance - CR004		$37,751.00					$37,751.00
JSURS Support - CR004		$272,908.00	$286,552.00	$300,880.00	$315,923.00		$860,340.00
	3/1/11 - 9/30/11	10/1/11 - 9/30/12	10/1/12 - 9/30/13	10/1/13 - 9/30/14	10/1/14 - 9/30/15	10/1/15 - 2/29/16	
Warranty - Production System w/AWS Rack	$267,568	$191,120.00					$458,688.00
Warranty - Test System w/AWS Rack	$198,344	$141,675.00					$340,019.00
Warranty - Teradata Warehouse Miner	$9,051	$6,465.00					$15,516.00
Warranty - Dual Active	$55,319	$39,514.00					$94,833.00
On-Going Annual Maintenance - Disk Retention Option - CR 009		-	$26,110.00	$31,331.00	$31,331.00	$13,055.00	$101,827.00
On-Going Annual Maintenance - COD Pull Ahead - CR 011			$104,945.17				$104,945.17
On-Going Annual Maintenance - Prod System w/AWS Rack		$267,568.00	$459,560.00	$526,001.00	$614,352.00	$268,282.00	$2,135,763.00
On-Going Annual Maintenance - Test System w/AWS Rack		$198,344.00	$340,733.00	$368,755.00	$435,631.00	$195,567.00	$1,539,030.00
On-Going Annual Maintenance - Teradata Warehouse Miner		$9,051.00	$15,516.00	$15,516.00	$15,516.00	$6,465.00	$62,064.00
On-Going Annual Maintenance - Dual Active		$55,319.00	$95,146.00	$104,032.00	$116,972.00	$50,748.00	$422,217.00
Total	$10,816,889	$1,864,751.06	$1,506,688.13	$1,713,280.76	$1,684,471.07	$679,117.00	$18,063,177.01

Ad Board Approved Contract Amount: $19,073,580.00

Amount Remaining not allocated: $1,020,402.99