

STATE OF MICHIGAN  
DEPARTMENT OF MANAGEMENT AND BUDGET  
PURCHASING OPERATIONS  
P.O. BOX 30026, LANSING, MI 48909  
OR  
530 W. ALLEGAN, LANSING, MI 48933

May 23, 2008

CHANGE NOTICE NO. 1  
TO  
CONTRACT NO. 071B7200045  
between  
THE STATE OF MICHIGAN  
and

NAME & ADDRESS OF VENDOR <b>WINDSOR SOLUTIONS, Inc.</b> <b>4000 Kruse Way Place</b> <b>Building 2, Suite 285</b> <b>Lake Oswego, OR 97035</b> <b>Simon_Watson@windsorsolutions.com</b>	TELEPHONE (503) <b>675-7833</b> <b>Simon Watson</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517)241-7233 <b>Joann Klasko</b>
Contract Compliance Inspector: Peter Devlin <b>MDIT/MDEQ e-Manifest Tracking System Hazardous Waste</b>	
CONTRACT PERIOD From: <b>November 9, 2006</b> To: <b>March 8, 2009</b>	
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	
MISCELLANEOUS INFORMATION:	

**NATURE OF CHANGE(S):**

Effective immediately, this contract is hereby **EXTENDED** to March 8, 2009 to complete the project as this is a 4 state effort.

**AUTHORITY/REASON(S):**

**DEQ/DIT/DMB and vendor concurrence.**

**Estimated Total Contract Value Remains: \$603,623.00**

STATE OF MICHIGAN  
DEPARTMENT OF MANAGEMENT AND BUDGET  
PURCHASING OPERATIONS  
P.O. BOX 30026, LANSING, MI 48909  
OR  
530 W. ALLEGAN, LANSING, MI 48933

December 14, 2006

NOTICE  
OF  
CONTRACT NO. 071B7200045  
between  
THE STATE OF MICHIGAN  
and

NAME & ADDRESS OF VENDOR <b>WINDSOR SOLUTIONS, Inc.</b> <b>4000 Kruse Way Place</b> <b>Building 2, Suite 285</b> <b>Lake Oswego, OR 97035</b> <b>Simon_Watson@windsorsolutions.com</b>		TELEPHONE (503) <b>675-7833</b> <b>Simon Watson</b>		
		VENDOR NUMBER/MAIL CODE		
		BUYER/CA (517)241-7233 <b>Joann Klasko</b>		
Contract Compliance Inspector: Patty Bogard <b>MDIT/MDEQ e-Manifest Tracking System Hazardous Waste</b>				
CONTRACT PERIOD From: <b>November 9, 2006</b> To: <b>November 8, 2008</b>				
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>			
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>			
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>				
MISCELLANEOUS INFORMATION:				

Estimated Total Contract Value: **\$603,623.00**

STATE OF MICHIGAN  
DEPARTMENT OF MANAGEMENT AND BUDGET  
PURCHASING OPERATIONS  
P.O. BOX 30026, LANSING, MI 48909  
OR  
530 W. ALLEGAN, LANSING, MI 48933

CONTRACT NO. 071B7200045  
between  
THE STATE OF MICHIGAN  
and

NAME & ADDRESS OF VENDOR <b>WINDSOR SOLUTIONS, Inc.</b> <b>4000 Kruse Way Place</b> <b>Building 2, Suite 285</b> <b>Lake Oswego, OR 97035</b> <b>Simon_Watson@windsorsolutions.com</b>		TELEPHONE (503) <b>675-7833</b> <b>Simon Watson</b>
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517)241-7233 <b>Joann Klasko</b>
Contract Compliance Inspector: Patty Bogard <b>MDIT/MDEQ e-Manifest Tracking System Hazardous Waste</b>		
CONTRACT PERIOD From: <b>November 9, 2006</b> To: <b>November 8, 2008</b>		
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>	
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>	
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>		
MISCELLANEOUS INFORMATION: <b>The terms and conditions of this Contract are enclosed. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence.</b> <b>Estimated Contract Value: \$603,623.00</b>		

**THIS IS NOT AN ORDER** The terms and conditions of this Contract are enclosed. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence.

**Original contract was awarded on the basis of our inquiry bearing the req No. 084R6200141**

FOR THE VENDOR:

FOR THE STATE:

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Authorized Agent Signature

\_\_\_\_\_  
Authorized Agent (Print or Type)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature  
**Greg Faremouth, Acting Director**

\_\_\_\_\_  
Name  
**Information Technology Division**

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



**STATE OF MICHIGAN**  
**Department of Management and Budget**  
**Purchasing Operations**

Contract No. 071B7200045  
MDIT/MDEQ e-Manifest Tracking System

Buyer Name: Joann Klasko  
Telephone Number: (517) 241-7233  
E-Mail Address: KlaskoJ@michigan.gov



## Table of Contents

3		
	Table of Contents.....	1
	Article 1 – Statement of Work (SOW).....	5
1.0	Project Identification.....	5
1.001	PROJECT REQUEST .....	5
1.002	BACKGROUND .....	5
1.1	Scope of Work and Deliverables.....	9
1.101	IN SCOPE .....	9
1.102	OUT OF SCOPE .....	11
1.103	ENVIRONMENT.....	11
1.104	WORK AND DELIVERABLE .....	11
1.2	Roles and Responsibilities.....	22
1.201	CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES.....	22
1.202	STATE STAFF, ROLES, AND RESPONSIBILITIES.....	25
1.203	OTHER ROLES AND RESPONSIBILITIES.....	27
1.3	Project Plan.....	28
1.301	PROJECT PLAN MANAGEMENT .....	28
1.302	REPORTS.....	28
1.4	Project Management.....	28
1.401	ISSUE MANAGEMENT.....	28
1.402	RISK MANAGEMENT .....	29
1.403	CHANGE MANAGEMENT .....	29
1.5	Acceptance .....	30
1.501	CRITERIA .....	30
1.502	FINAL ACCEPTANCE .....	30
1.6	Compensation and Payment.....	30
1.601	Compensation and Payment.....	30
1.7	Additional Terms and Conditions Specific to this SOW .....	31
1.701	Additional Terms And Conditions Specific To This SOW.....	31
	Article 1, Attachment A.....	32
	Article 1, Attachment B.....	33
	Article 1, Attachment C.....	34
	Article 1, Attachment D - Deliverables/Pricing.....	35
	Article 1, Attachment E – Project Plan.....	44
	Article 1, Attachment F.....	55
	Article 2 – General Terms and Conditions.....	56
2.010	Contract Structure and Administration .....	56
2.011	Definitions .....	56
2.012	Attachments and Exhibits.....	56
2.013	Statements of Work.....	56
2.014	Issuing Office .....	57
2.015	Contract Compliance Inspector.....	57
2.020	Contract Objectives/Scope/Background .....	58
2.021	Background .....	58
2.022	Purpose .....	58
2.023	Objectives and Scope .....	58
2.024	Interpretation .....	58
2.025	Form, Function and Utility .....	58
2.030	Legal Effect and Term.....	58
2.031	Legal Effect .....	58
2.032	Contract Term .....	59
2.040	Contractor Personnel .....	59
2.041	Contractor Personnel .....	59



2.042	Contractor Identification .....	61
2.043	Cooperation with Third Parties .....	61
2.044	Subcontracting by Contractor .....	61
2.045	Contractor Responsibility for Personnel .....	62
2.050	State Standards .....	62
2.051	Existing Technology Standards .....	62
2.052	PM Methodology Standards .....	62
2.054	Acceptable Use Policy .....	62
2.060	Deliverables .....	63
2.061	Ordering .....	63
2.062	Software .....	63
2.063	Hardware .....	63
2.064	Equipment to be New and Prohibited Products .....	63
2.070	Performance .....	63
2.071	Performance, In General .....	63
	PERFORMANCE AND RELIABILITY EVALUATION (PARE) .....	64
2.072	Time of Performance .....	66
2.073	Liquidated Damages .....	66
2.074	Bankruptcy .....	66
2.075	Time is of the Essence .....	66
2.080	Delivery and Acceptance of Deliverables .....	66
2.081	Delivery Responsibilities .....	67
2.082	Delivery of Deliverables .....	67
2.083	Testing .....	67
2.084	Approval of Deliverables, In General .....	67
2.085	Process For Approval of Written Deliverables .....	68
2.086	Process for Approval of Services .....	69
2.087	Process for Approval of Physical Deliverables .....	69
2.088	Final Acceptance .....	69
2.090	Financial .....	69
2.091	Pricing .....	69
2.092	Invoicing and Payment Procedures and Terms .....	70
2.093	State Funding Obligation .....	71
2.094	Holdback .....	71
	RESERVED .....	71
2.095	Electronic Payment Availability .....	71
2.100	Contract Management .....	71
2.101	Contract Management Responsibility .....	71
2.102	Problem and Contract Management Procedures .....	71
2.104	System Changes .....	72
2.105	Reserved .....	72
2.106	Change Requests .....	72
2.110	Records and Inspections .....	74
2.111a	Records and Inspections .....	74
2.111b	Records and Inspections .....	74
2.112	Errors .....	74
2.120	State Responsibilities .....	74
2.121	State Performance Obligations .....	74
2.130	Security .....	75
2.131	Background Checks .....	75
2.140	Reserved .....	75
2.150	Confidentiality .....	75
2.151	Freedom of Information .....	75
2.152	Confidentiality .....	75



2.153	Protection of Confidential Information .....	76
2.154	Exclusions .....	76
2.155	No Implied Rights .....	76
2.156	Remedies .....	76
2.157	Security Breach Notification .....	76
2.158	Survival .....	77
2.159	Destruction of Confidential Information .....	77
2.160	Proprietary Rights .....	77
2.163	Rights in Data.....	78
2.164	Ownership of Materials .....	78
2.165	Standard Software .....	78
2.166	Pre-existing Materials for Custom Software Deliverables .....	78
2.167	General Skills .....	79
2.170	Warranties And Representations .....	79
2.171	Warranties and Representations.....	79
2.175a	DISCLAIMER .....	82
2.175b	Standard Warranties .....	82
2.176	Consequences For Breach .....	82
2.180	Insurance .....	82
2.181	Liability Insurance .....	82
2.190	Indemnification .....	85
2.191	Indemnification .....	85
2.192	Continuation of Indemnification Obligations .....	86
2.193	Indemnification Procedures.....	86
2.200	Limits of Liability and Excusable Failure .....	87
2.201	Limits of Liability.....	87
2.202	Excusable Failure.....	87
2.203	Disaster Recovery .....	88
2.210	Termination/Cancellation by the State .....	88
2.211	Termination for Cause.....	88
2.212	Termination for Convenience .....	89
2.213	Non-Appropriation .....	89
2.214	Criminal Conviction .....	89
2.216	Rights and Obligations Upon Termination .....	90
2.217	Reservation of Rights.....	90
2.218	Contractor Transition Responsibilities.....	90
2.219	State Transition Responsibilities .....	91
2.220	Termination by Contractor.....	91
2.221	Termination by Contractor.....	91
2.230	Stop Work .....	91
2.231	Stop Work Orders .....	91
2.232	Cancellation or Expiration of Stop Work Order .....	91
2.233	Allowance of Contractor Costs .....	92
2.240	Reserved.....	92
2.250	Dispute Resolution .....	92
2.251	In General .....	92
2.252	Informal Dispute Resolution .....	92
2.253	Injunctive Relief.....	93
2.254	Continued Performance .....	93
2.260	Federal and State Contract Requirements.....	93
2.261	Nondiscrimination.....	93
2.262	Unfair Labor Practices.....	93
2.263	Workplace Safety and Discriminatory Harassment.....	93
2.270	Litigation.....	93



2.271	Disclosure of Litigation .....	93
2.272	Governing Law .....	94
2.273	Compliance with Laws .....	94
2.274	Jurisdiction .....	94
2.280	Environmental Provision .....	95
2.281	Environmental Provision .....	95
2.290	General .....	95
2.291	Amendments .....	95
2.292	Assignment .....	95
2.293	Entire Contract; Order of Precedence .....	96
2.294	Headings .....	96
2.295	Relationship of the Parties (Independent Contractor Relationship) .....	96
2.296	Notices .....	96
2.297	Media Releases and Contract Distribution .....	97
2.298	Reformation and Severability .....	97
2.299	Consents and Approvals .....	97
2.300	No Waiver of Default .....	97
2.301	Survival .....	97
2.302	Covenant of Good Faith .....	98
2.303	Permits .....	98
2.304	Website Incorporation .....	98
2.305	Taxes .....	98
2.306	Prevailing Wage .....	98
2.307	Call Center Disclosure .....	99
2.308	Future Bidding Preclusion .....	99
2.310	Reserved .....	99
2.320	Extended Purchasing .....	99
2.321	MiDEAL .....	99
2.330	Federal Grant Requirements .....	99
2.331	Federal Grant Requirements .....	99
	Appendix A – MI, NJ, MA, MN Environments .....	98
	Appendix B – Technical and Business Requirements .....	108
	Appendix C – Functional Requirements .....	115





## **Article 1 – Statement of Work (SOW)**

### **1.0 Project Identification**

#### **1.001 PROJECT REQUEST**

The State of Michigan (State), Michigan Department of Environmental Quality (MDEQ), through the Michigan Department of Information Technology (MDIT), with assistance of the Michigan Department of Management & Budget (MDMB), has issued this contract for the development of a prototype, multi-state electronic manifest tracking system to provide electronic tracking and management capabilities of hazardous waste manifests from the original generation of the identified waste to its ultimate disposal, including all phases of transportation (cradle to grave).

The system may serve as a national model to replace the current manual reporting process to state waste management regulatory agencies. The selected contractor will be required to work with up to four separate state waste management regulatory agencies, the United States Environmental Protection Agency (EPA) and the private sector. The contractors must comply with the state/tribal/EPA's standards, policies and guidelines as specified in the Exchange Network website ([www.exchangenetwork.net](http://www.exchangenetwork.net)). Demonstrated history and technological capabilities with Exchange Network technologies are specified as a grant requirement.

The State seeks to have services begin upon execution of the contract, and release of purchase order with full implementation of the system by June 2008.

The negotiated contract will have a term of two (2) years, with two (2) one-year extensions.

#### **1.002 BACKGROUND**

MDEQ Executive Division, as lead agency, together with the environmental regulatory agencies of the states of Massachusetts, Minnesota, and New Jersey (Project Team), has been awarded an EPA Challenge Grant to develop a pilot e-manifest process that takes advantage of key technologies of the Environmental Information Exchange Network (Exchange Network) with the goal of supplementing or replacing the existing paper-based manifest tracking system.

The U.S. Environmental Protection Agency (EPA) and its state, territorial, and tribal partners developed the nation-wide Exchange Network to collect, share, and use environmental information to protect and enhance human health and the natural environment. The Exchange Network is an Internet- and standards-based, secure information network used to report and share environmental data from many different sources. Most states have developed "nodes" on the Exchange Network that will allow them to exchange data with EPA and other partners, as well as publish their data on the Exchange Network. Additional information may be accessed on the Exchange Network website [www.exchangenetwork.net](http://www.exchangenetwork.net).

Challenge grants support the planning, development, and implementation of collaborative, multi-partner, innovative projects that demonstrate the value of the Exchange Network.

As defined by the EPA, the Hazardous Waste Manifest System is a set of forms, reports, and procedures designed to seamlessly track hazardous waste from the time it leaves the generator facility where it was produced, until it reaches the off-site waste management facility that will store, treat, or dispose of the hazardous waste. The system allows the waste generator to verify that its waste has been properly delivered, and that no waste has been lost or unaccounted for in the process.

The databases will be located in each state. US EPA also has a database of all the individual state's data. The Exchange Network does not have or need a similar database since it can communicate with each state's database (hence the purpose of the Exchange Network).



The key component of this system is the Uniform Hazardous Waste Manifest which is a form prepared by all generators who transport, or offer for transport, hazardous waste for off-site treatment, recycling, storage, or disposal. Currently, the manifest is a paper document containing multiple copies of a single form. When completed, it contains information on the type and quantity of the waste being transported, instructions for handling the waste, and signature lines for all parties involved in the disposal process. The manifest is required by both Department of Transportation and EPA. Each party that handles the waste signs the manifest and retains a copy for themselves. This ensures critical accountability in the transportation and disposal processes. Once the waste reaches its destination, the receiving facility returns a signed copy of the manifest to the generator, confirming that the waste has been received by the designated facility.

The tracking of paper manifests is currently a significant resource burden for State waste management regulators. Michigan, for example, receives approximately 40,000 paper manifest forms per month, or 2,800 per day. This included nearly 184,000 hazardous waste manifests last year (83,194 generator copies and 100,415 disposal facility copies) with the balance from liquid industrial wastes. Each of these manifests must be reviewed by State staff to verify the waste shipment amounts and that shipments have been delivered to treatment, storage, and disposal (TSD) facilities in a timely manner. After the paper manifests are received, some states then transfer them to electronic formats, using methods such as scanning, microfilm, and/or manual data entry. The time needed for manual validation and processing requires full-time resources and leads to significant data quality problems and timing issues related to regulatory response and data use.

This burden is similar in other states. Approximately 400,000 manifests are annually submitted to Massachusetts Department of Environmental Protection (MA DEP). In addition to these reporting requirements, hazardous waste transporters must submit monthly summaries of all activities via diskette to MA DEP which use it to generate invoices to collect revenue from them. MA DEP devotes almost seven employees to managing the entire manifest process, at an annual cost of \$500,000, with most of their hazardous waste tracking activity devoted to billing and filing. New Jersey receives about 85,000 manifests annually, uses over nine staff to microfiche each manifest, manually data enters the manifest data which it uses to assess approximately 11,000 generator fees that amount to about \$1.3 million per year. Manifest photocopying and Freedom of Information Act, FOIA, OPRA (Open Public Records Act in NJ) requests add to administration costs. Minnesota receives about 47,000 manifests per year with three staff processing 60 manifests each per day at a cost of \$130,700 per year.

Industry also suffers. According to a recent EPA report, the cost nationwide for generators, transporters, and disposal facilities to comply with the current paper-based process is over \$500.00 per manifest. Preparing the manifests costs industry more than \$64 million nationwide. Transmitting manifests costs industry more than \$59 million in mail and other postage. Record-keeping costs are almost \$71 million, and submitting copies to the states costs more than \$10 million annually. Buying new manifest forms from private contractors, or participating states, runs more than \$6 million, and employee training on the manifest rules is at least \$9 million. Finally, at over \$200 million, the biggest expense for the transporters, generators, and Treatment Storage Disposal, TSD, facilities is the information systems required to manage the rules and parallel regulatory reporting requirements.

An integrated e-manifest system would eliminate much of this burden, including the costs associated with manual validation and the processing effort. It would also make the manifest data immediately available to those needing it most, including those involved in the cradle-to-grave generation, transport and disposal process, state and federal regulators, emergency response, enforcement and border customs inspectors. In short, it would quickly create a quantifiable and easily defensible, positive Return-On-Investment for involved states.

Although several states have attempted State-level, tentative e-Manifest projects in the past (such as Michigan's flat-files submitted via floppy disk and/or email option), the Project Team feels that a multi-state effort that could serve as a model for a national system would provide added benefits in tracking waste shipments that cross state and national (i.e., Canada and Mexico) boundaries.



The Project Team is also aware of national interest to develop an e-manifest System, including one led by EPA's Office of Solid Waste. As such, EPA will play a pivotal role in this project, providing guidance and expertise from its own Washington DC-based program staff, in addition to the contacts it has with representatives in other state agencies and the private sector. The Integrated Project Team of program experts will help develop and evaluate the proposed pilot business process and the Exchange Network technology needed for use by individual states, and consider the pilot for a prototype national manifest tracking system.

National adoption of the model reporting application developed by the stakeholders (notably the four states) engaged in this project, regardless of how technologically successful its outcome, will be dependent upon the decisions of the EPA's Offices of Environmental Information and Solid Waste, and the solid & hazardous waste industry. EPA's decisions, in turn, will be predicated by verification that the e-manifest system will meet state needs and performance requirements (see Phase 1, Initiation Technology Business Process Research), the existence of a federal rule authorizing the use of e-manifests to replace the current paper manifests, and funding to support deployment and maintenance via possible fee legislation. Successful completion of this project resulting in a technologically sound prototype, therefore, is no automatic guarantee that it will become nationally accepted or used by any state, EPA or industry

Since EPA Office of Solid Waste-related initiatives are in progress, the Project Team will first focus on the state-centric aspects of the overall e-manifest process, such as transporter and TSD facility certification and defining node-to-node exchange between states and a central e-manifest tracking system. Every attempt will be made to coordinate with the federal initiatives during the two to three year grant project period. Applicable aspects of other Exchange Network projects which incorporate and share manifest data, such as the four-state Pacific Northwest Water Quality Data Exchange, will also be considered for and incorporated into this project

During that time, and depending on the results or maturity of the above initiatives, the Project Team will design and build a pilot-scale system for the entire cradle-to-grave e-manifest tracking process. The whole or parts of this pilot application may be adopted by the four project states. Additionally, it could also be considered as a technological option, starting point or a component for a larger system. Such an option may be useful as an educational tool to inform national stakeholders of the state-level processing needs, data usability, system functionality and related technology.

The goal of the project is to develop a system in each State to:

- eliminate the current paper and mail-based business processing burden, including costs associated with manual validation by state regulators, and
- make manifest data immediately available to those needing it most, including those involved in the cradle-to-grave generation, transport & disposal process, state-federal regulators, emergency response, enforcement and customs inspectors.

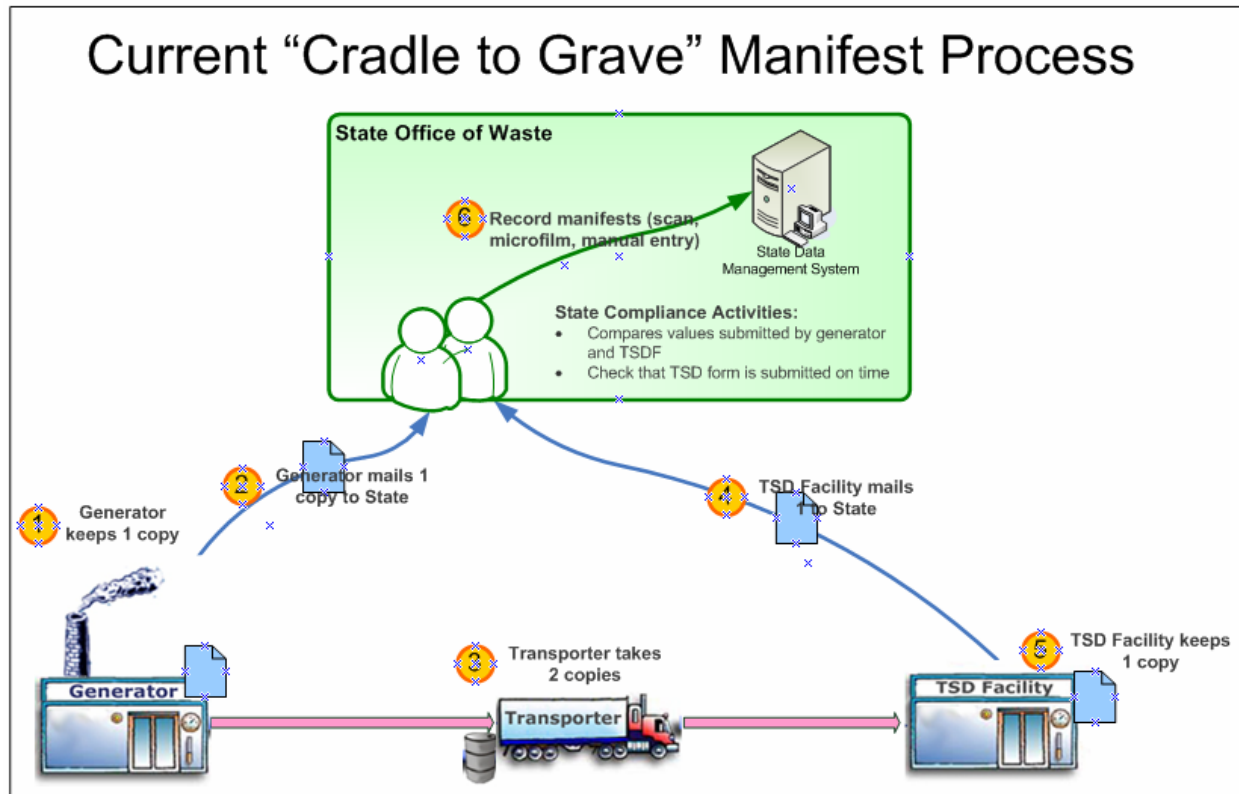
The Project Team feels that this project will have immediate direct benefits to states, EPA and generators, transporters, TSD, emergency response and enforcement agencies by providing:

- States with an electronic mechanism to track manifests,
- The capability to automate manifest certification validation and balance checking,
- EPA with a pilot to demonstrate either:
  - The success of a nationally led e-Manifest System, and/or
  - An e-Manifest pilot that could be used as a model for a future national system,
  - A web-based portal of manifest data for authorized system users such as emergency response and enforcement agencies, generators, transporters and TSDs.



### Current Manifest Tracking Process:

A typical manifest tracking process is outlined in the diagram and further described below:



1. A waste generator fills out a waste manifest form. A copy of the revised federal manifest form to be used beginning September 5, 2006, is found at: <http://www.epa.gov/epaoswer/hazwaste/gener/manifest/registry/index.htm>. The manifest form has five or more carbon copies, so that six or more total paper copies are generated. Each form has a manifest number that is unique. The waste generator keeps one copy for their records after transportation is initiated.
2. The waste generator mails one copy of the manifest form to the State Waste Office, if required.
3. The transporter takes the remaining copies of the manifest.
4. When the transporter arrives at the designated facility, which is usually the Treatment Storage Disposal (TSD) facility, one copy of the manifest is kept after the TSD facility verifies that the waste amounts and type are correct, then the other three copies of are given to the TSD facility. The TSD facility sends one signed copy of the manifest to the generator and one copy to the State Waste Management agency corresponding to the state where the TSD facility is located, if required. Copies of manifests from Canada and Mexico show the U.S. importer as the generator, so the U.S. importer would have all of the manifest copies. The TSD Facility keeps one copy of the manifest for their records.
5. If the TSD facility is not located in the state where the waste originated the generator sends a copy of the manifest received from the TSD to the State Waste Management agency, if required.
6. Some states then scan, microfilm, and/or otherwise perform manual entry to keep track of all manifests that have been received.

In addition to the above tracking, the state performs the following regulatory actions:

1. When the first manifest is received from the waste generator, the state monitors to verify that a follow-up manifest is received from the TSD within a certain time limit. (Please note: An EPA survey of manifest users determined that it was rare for more than three truck transporters to be involved in the shipping process. One suggestion is that the time frame begins from the date shipped.)



2. Once both manifests are received from the waste generator and TSD facility, a balance check is performed to verify that no waste has been lost during waste transport. Discrepancies are also documented (currently in Box 19 of the manifest but after September 5, 2006 there is a specific area on the manifest to address discrepancies, which is Box 18).

### 1.1 Scope of Work and Deliverables

#### **1.101 IN SCOPE**

The Contractor will provide the following services for the completion and successful implementation of a pilot e-Manifest Tracking System utilizing the existing central manifest database and functionality required for the state business operations for the Michigan Department of Environmental Quality (lead state), Minnesota Pollution Control Agency, Massachusetts Department of Environmental Protection, and New Jersey Department of Environmental Protection. All four-agency office locations are in their respective state capitols in Lansing, St. Paul, Boston and Trenton.

The project will meet this goal by providing states with an infrastructure, based on the National Environmental Exchange Network (Exchange Network) technologies and tools, to support secure and timely availability of their manifest information. It will also be available, based on need, to other local, state and federal environmental networks and efforts.

Services and deliverables include:

1. Technology & Business Process Research (shared resources and results)
  - a. Verification and validation of business requirements
  - b. Review of existing schemas, such as RCRAInfo and Shareable Schema Components
  - c. Assessment reports
  - d. Analysis reports
  - e. Evaluation of mobile devices for pilot transporter and TSD Facilities
    - i. Conduct a review and evaluation of current thin-client mobile device software with wireless capability technology, and their applicability to this project.
    - ii. Present recommendations and selection of potential pilot users.
2. Infrastructure and System Design - Data Flow Configuration Development (shared resources and results)
  - a. XML Schema: An e-Manifest XML schema and Conformance Report will be developed as part of a State/EPA IPT effort.
  - b. Application design to include:
    - i. Central e-Manifest System Design Document: A System Design Document (SDD) will be developed that will include designs for:
      1. Central Manifest Tracking System (Web Interface, middle-tier process, data model)
    - ii. Flow Configuration Document (FCD): serving as a data flow implementation guide covering the following major areas:
      1. Data exchange between the Central Manifest Tracking System and State Nodes
      2. Data exchange between Central Manifest Tracking System and Waste Generator
      3. Data exchange between Central Manifest Tracking System and Transporter
      4. Data exchange between Central Manifest Tracking System and TSD Facility
3. Central e-Manifest Tracking System Development, Hosting, and Implementation
 

**Windsor will host the prototype out of its headquarters in Lake Oswego, Oregon.** Note: This decision impacts the proposed project plan and schedule and will be addressed as part of Phase 1, Task A.

  - a. Installation of software (XML e-Manifest schema development and data flow implementation)
  - b. Develop a pilot system to include the following major components:
    - i. Web Interface (GUI) & Web Service interface for Waste Generator to create manifest
    - ii. Web Interface (GUI) & Web Service interface for Waste Generator, Transporter, and TSD Facility to monitor and update waste manifest tracking status.
    - iii. Central Manifest Database
    - iv. Web Service interface for States to update certification information and retrieve manifest results
    - v. Validation services including:





1. Transporter and TSD Facility certification verification
2. Material balance on received waste
- vi. On-line user "How To Manual" for registration/authentication and manifest data submission
- c. Services to implement the application, including:
  - i. Configuration,
  - ii. Customization,
  - iii. Modification,
  - iv. Interfaces,
  - v. Integration
  - vi. Testing
- d. Knowledge transfer to State operations staff
- e. Training
  - i. Train the trainer
  - ii. End user
  - iii. Technical
- f. Documentation, to include:
  - i. User manuals
  - ii. Technical manuals
  - iii. Database diagrams and metadata
  - iv. Application Programming Interfaces (API)
  - v. Detailed description of the data input, output, and flow within the application
4. Data Flow Implementation at Each Project Team State
  - a. Selection of pilot members: The Project Team will select a few waste generators, transporters and TSD Facilities as members of the pilot demonstration based on criteria to be developed, including technical readiness.
  - b. State-Specific Implementation: Each state would implement the following components:
    - i. State Node configuration: to retrieve manifest data from the Central Manifest Tracking System and send certification information to the system,
    - ii. Mapping to backend systems: Data mapping to update state backend manifest tracking system with data received from Central Manifest Tracking System.
  - c. System Pilot: The pilot will be conducted with Project Team members.
5. Post Implementation
  - a. Support
  - b. Lessons Learned and Knowledge Sharing:
    - i. Lessons Learned Report to communicate the lessons learned. Include guidance to serve as a "How to Manual", using the Flow Configuration Document and other resources to make the flow happen. The Lessons Learned Report, required by US EPA, describes the project's pluses and minuses (i.e., what was learned, pitfalls to avoid, what could be done better if there is a next time, what should some other entity do to make their own attempt at a similar project successful). The Flow Configuration Document, required document of the Exchange Network (EN) that describes what the XML schema does. It must be completed and submitted with the completed XML schema to the EN - Network Operation Board for their review and approval prior to posting to the EN's schema repository. This document, which is detailed on the Exchange Network website [www.exchangenetwork.net](http://www.exchangenetwork.net), includes: 1) background and purpose of the system reviewed, 2) standards and business rules examined, including versions, 3) indication of apparent discrepancies/deviations from the EN guidelines and standards, with justification and 4) XML design concepts that the NOB should consider in advancing schema use in the EN.
    - ii. Develop "marketing package" (conference calls, presentations, on-line flash video, etc.) to serve as outreach to other states and communicate how other states could implement the approach developed in this project for their own state.
    - iii. Publish project results at the Exchange Network web site. All project deliverables, including the schema will be published to either the project website or the Exchange Network or both. The developed XML schema and Flow Configuration Document will be published to the EN repository.



**All deliverables will be made freely available to the public. Any source code, if applicable, will be in the public domain. No proprietary code will be allowed. This is a requirement of the grant.**

- iv. Development of a Team Project website for hosting deliverables, notes, etc.

### **1.102 OUT OF SCOPE**

1. Desktop upgrades, if required;
2. Scanning software and equipment;
3. Application design and development not related to the specific waste management tracking described in this contract.

### **1.103 ENVIRONMENT**

All data flow implementations will occur with the established nodes currently resident within each state, utilizing published Exchange Network tools, protocols and related resources. These resources include the Design Rules & Conventions, data standards, Shareable Schema Components and existing XML schema needed for identified data flow development. The e-Manifest schema will need to be developed by the Contractor according to the above standards and guidelines. The needed resources for this development are available on the Exchange Network website [www.exchangenetwork.net](http://www.exchangenetwork.net).

Extensive mapping between the developed data flow schemas residing on the state nodes and the back-end application databases is expected. The state nodes typically reside on the internet/database hosting platforms established for the respective state environmental program area. Hosting will be required for the environment. An initial description of the above information and Web Hosting and Application Infrastructure of the four states is provided in APPENDIX A1 through APPENDIX A-4. Additional node and hosting environment details for each state, including any supplemental requirements, will be provided upon request and at the initiation of the project.

### **1.104 WORK AND DELIVERABLE**

Contractor shall provide Deliverables/Services and staff, and otherwise do all things necessary for or incidental to the performance of work, as set forth below:

#### **A. Requirements**

##### **1. Technical and Business Requirements –**

- a. The system will be developed meeting the requirements stated in **Appendix B**.
- b. The system must meet all MDIT requirements for system security. See Sections 2.051-2.054 of this CONTRACT.

##### **2. Functional Requirements -** The system will be developed meeting the requirements stated in **Appendix C**.

#### **B. Services to be Provided**

1. The Contractor will provide services identified in Section 1.101, In Scope – for the complete and successful implementation of a pilot e-manifest system providing the functionality required for the business operations described.
2. The contractor will provide the revised detailed Project Plan - within 30 business days of the orientation meeting described in 1.203. The Contractor will update the draft Project Plan from their submitted proposal. See Section 1.301 Project Plan Management, for requirements for the draft Project Plan. The detailed plan will:
  - a. Include a schedule and Gantt chart (for all project tasks, subtasks, and activities), milestones, and deliverables.
  - b. Include Contractor and State resources for all tasks, subtasks, and activities that exist as line items within the Project Plan.
  - c. Include the following date-related information:



- i. Scheduled start and end dates for all tasks, subtasks, and activities (including milestones and deliverables)
  - ii. Anticipated start dates for future tasks, subtasks, and activities, if schedule fluctuation has occurred
  - iii. Anticipated end dates for all current and future tasks, subtasks, and activities, if schedule fluctuation has occurred
  - iv. Actual start dates for all current and completed tasks, subtasks, and activities
  - v. Actual end dates for all completed tasks, subtasks, and activities
  - vi. Be updated, at a minimum, weekly and
  - vii. Identify issues that affect deadlines.
3. The contractor will include the purchase of Mobile Devices (10) – wireless thin-client mobile barcode scanning options for transporters and TSD's. However, the State reserves the right to purchase the hardware and software outside of this contract.
  4. The e-manifest project will consist of identifiable phases, described in further detail below.
    - a. Within each phase of the project, the Contractor must provide identified deliverables.
    - b. Contractor payments will be based on successful completion of the deliverables.
    - c. The State Project Manager (MDEQ and MDIT) must approve each deliverable.

***Phase 1. Project Initiation, Business Process Analysis, Technology Research, Infrastructure Preparation***

A. Initiation and Project Management:

Contractor's responsibilities:

- Develop Project Plan, including quality assurance plans
- Establish a Facilitator to work with the project team
- Clarify roles and responsibilities, which include diagramming how deliverables, comments, and outstanding issue will flow between the different project team members and their counterparts within their own state, along with the format for comments (e.g., blank comment sheet that clearly defines the section being commented on).
- Establish a mechanism to track all project communications and deliverables and allow the project members to access the information
- The vendor uses an extranet Web application with the capacity to manage the communications and deliverables for a project. A Project Web site will be established for this specific project that allows secure access to project information.
- Provide up to 24 WebEx-facilitated conference calls throughout the project duration and facilitate group discussion for all the calls
- Submit project monthly reports

State's Staff's Responsibilities:

- Coordinate State resources needed
- Provide work area when on-site
- Define project standards and controls required by the State
- Attend project kickoff

Deliverables:

1. Project plan (including Gantt chart, all steps/tasks, review and revision time frames for documentation (e.g., schedules, plans, and system documentation, and application testing. Estimate of the hours of work required from State staff. The Project Gantt chart shall be updated as needed to reflect project status.)
2. Conduct one (1) project kickoff meeting via webex facilitated conference call with state and federal representatives





3. Host conference calls, facilitate discussion and issue conference call and meeting minutes and provide monthly project reports

Acceptance Criteria:

The four-state project team will approve the project plan; call minutes, and monthly project reports. Once this is accomplished, then the MDEQ and MDIT project managers will approve for final acceptance.

- B. Business Process Analysis and Technology Research (focusing on common waste manifest tracking needs):

Contractor's responsibilities:

- Develop Requirements Document
- Review existing schemas, such as RCRA Info and Shareable Schema Components for relevance to the e-Manifest project

The vendor will utilize its experience and knowledge of the RCRAInfo Schema and the SSC of the CRM to identify the reusable components for the e-Manifest data flow.

- Conduct feasibility study and technical evaluation of representative waste generators, transporters & TSD facilities to determine those willing and ready to participate in pilot.

The vendor will perform a feasibility study and technical evaluation based upon a set of representative business community organizations. To perform this study and evaluation the vendor will work with the four states to identify candidate business community companies. One mechanism to be considered for this purpose would be to use the list of attendees at the e-Manifest stakeholders meeting since participation in the meeting indicates an interest by those organizations in the future direction of e-Manifests.

(<http://www.epa.gov/epaoswer/hazwaste/gener/manifest/pdf/agenda.pdf>).

There are several criteria that the vendor's team will look for in a group of representative organizations. First, the vendor's team will be looking for progressive organizations with a willingness to embrace the Pilot project and to work towards the common good of the regulated community, the states and the EPA combined. Second, in principle it would be ideal to select a group of generators, the transporters and the TSD facilities that currently have business relationships for the management of hazardous waste shipments since this would allow the tracking of single shipments from cradle to grave via all participating pilot companies.

A number of the potential issues and risks surrounding the project lie within the regulated community and the representative organizations should allow the project team to gain a thorough understanding of these issues and risks.

- Document the e-manifest flow requirements (including national and state organizational structure, data elements, and business processes for generators, transporters, state agency, and US EPA). The requirements shall be confined to the "Waste Manifest" activities only. Detailed waste tracking at the generator location will not be required.

The vendor has identified a preliminary set of use cases for the e-Manifest flow. This set of use cases represents a preliminary step in gathering and understanding the actual e-Manifest flow requirements. Using the vendor's knowledge in this business area as a foundation, facilitated workshops will be used to work with national and state representatives and the business community to gather and document the actual requirements.



Because the requirements gathering process will involve the interests of a wide variety of stakeholders (handlers, multiple states and EPA), it is likely that overlapping conflicting and “blue sky” requirements will be identified. One stakeholder meetings have concluded, the vendor will consolidate and categorize the feedback. The vendor will work with the project team to review the list of candidate requirements. The project team will determine which requirements to include and which are out of scope for the pilot system design. This process ensures that the final requirements list is realistic, attainable and that the project team has reviewed and agreed to the final requirements list.

Having a thorough understanding of the business area will help the vendor’s identified facilitator’s work with the project team at large to document a comprehensive set of e-Manifest flow requirements and to thoroughly explore and document potential issues.

- Conduct a review and evaluation of current hand-held mobile device, associated software with potential wireless capability technology, and their applicability to this pilot project to be used by transporter and TSD facilities needed to track waste manifests

State’s Staff’s Responsibilities:

- Coordinate State resources needed
- Provide work area
- Define project standards and controls required by the State

Deliverables:

4. Business Requirements Document (1 report) with focus on state-level processing needs, flow requirements, including data elements to exchange and evaluation of needs from recruited representative participant waste generators, transporters and TSDs
5. Technology Recommendation Report (1 report) to provide technical options to implement a pilot-scale “Central e-Manifest System” for tracking manifest activities

Acceptance Criteria:

The Business Requirement document will be reviewed by a four-state project team to compare all content deliverables to the defined project business requirements specified by the program area experts (facility, state and EPA). The Technology Recommendation will be followed by a review and approval of the individual state information technology staff involved in application development, security and web hosting. Once this is accomplished, then the MDEQ and MDIT project managers will provide final approval.

C. State Readiness Assessment:

Contractor’s Responsibilities:

- Assess each of the four State’s technical readiness to proceed with the project
- Analyze each participating state to identify infrastructure needs & node-to-node data exchanges
- Manage the server and database for the duration of the pilot and some agreed upon duration once the pilot is completed, for the recommended/prototype Shared e-Manifest Tracking System
- Document the state data exchange requirements between the Shared e-Manifest system and the state databases
- Finalize the representative waste generators, transporters and TSD Facilities as members of the pilot demonstration based on developed criteria

The selection of representative waste generators, transporters and TSD facilities as members of the pilot demonstration should be performed as part of the prior task (Phase 1.B



- Business Process Analysis and Technology Research). This task logically should be aligned with the feasibility study and technical evaluation of that community.
  - Present recommendations and selection of potential pilot users of mobile devices
- As per the previous task, this task will be performed as part of the prior task (Phase 1.B- Business Process Analysis and Technology Research).
- Conduct kickoff meeting
- This task is referring to the Project Initiation and Project Management section. A kick-off meeting will be conducted with the representative generators, transporters and TSD facilities.

State Staff Responsibilities:

- Review the Assessment and Readiness reports
- Schedule and attend business requirement analysis meetings

Deliverables:

6. (4) Readiness Assessment Reports (one report for each of the four states) with focus on state-level processing needs, data exchange requirements with the Central manifest system, identify infrastructure needs and node-to-node data exchanges
7. A Project Program/Technical Conference in one of the four states with all four state (program area and IT) and EPA represented to determine and/or verify business requirements, policies and standards

Acceptance Criteria:

Verify and receive sign-off from the four-state Waste program staff and IT Agency Services teams of report content and compliance with program area requirements and IT standards and procedures. Once this is accomplished, then final approval will be provided by the project manager.

D. Infrastructure Preparation to support e-Manifest data flow

Contractor's Responsibilities:

- Determine system requirements
- Document infrastructure requirements to support the e-Manifest data flow
- Create development environment
- Install required development software
- Establish security procedures

State's Responsibilities:

- Provide access to infrastructure for installation
- Schedule State staff required
- Ensure resources available as needed
- Adopt standards and procedures required

Deliverables:

8. Report for Technology & Security Requirements (1 report) to support e-Manifest data flow, including any applicable:
  - Infrastructure requirements
  - Software requirements
  - Technical standards
  - Security standards
  - Technical procedures

Acceptance Criteria:

Verify and receive sign-off from individual state IT Agency Services, Web Hosting & Database teams, Office of Enterprise Security, etc., of report content & compliance with required standards and procedures for infrastructure hosting, installation, testing & deployment. Once this is accomplished, then the project manager will provide final approval.

**Phase 2. Design and Development of a Central e-Manifest Tracking System**

A. Development of a Central e-Manifest Schema (1 schema) for data exchange and for schema documentation including (I report/template each for the items below): Note - one of the four project states may serve as a surrogate or model EPA Central Manifest Tracking System for the other participating states in order to mimic what could be a national system linked to EPA Central Data Exchange. Implementation is to occur at Michigan, New Jersey, Massachusetts and Minnesota.

Contractors Responsibilities:

- Create the XML e-manifest schema and the appropriate Exchange Network submittal templates for submission to the Exchange Network governance (Network Operations Board) for review, approval and posting to the Exchange Network registry
- Development of an Exchange Network compliant, e-Manifest Data Schema Conformance Report

State Staff Responsibilities:

- Review documents, schema and verify accuracy

Deliverables:

9. The Central e-manifest system schema which will contain data elements that correspond to the data elements in the *new* national manifest form (an XML e-Manifest schema. )
10. The Central e-Manifest Schema Conformance Report and Data Flow Configuration templates

Acceptance Criteria

Review and approval by state project representatives, including program area experts, to ensure acceptance of data elements, then approval by state IT staff experts for compliance with IT web hosting and security. This will be followed by a review and approval by Exchange Network governance entrusted with acceptance of submitted schema for posting to Exchange Network registry. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.

**B: Central Manifest Tracking System Design and Development:**Contractor Responsibilities:

- Work with the facility representatives, State and EPA program and IT staff to design and develop a prototype Central e-Manifest System for tracking manifest activities based on the business requirements, security policies and Exchange Network guidelines acquired/considered in Phase 1, (including web interface, middle-tier process, data model described in Phase 2, if applicable)
- Present recommended web interface (GUI) and web service interface for waste generator, transporter & TSD
- Install the Central e-Manifest system at the contractor's *in situ* hosting environment
- Develop a testing document for the Central e-Manifest system
- Develop a sharable e-Manifest schema from the Exchange Network's Shareable Schema Components (SSCs) and leverage on existing waste related schema effort/results



The vendor will perform this activity as part of the prior activity (Phase 2.A Develop an e-Manifest Schema). Having the schema is necessary in order to complete the development tasks.

State Staff Responsibilities:

- Schedule and attend meetings to continue providing any needed business requirements
- Review the Central e-Manifest Tracking System Design Document provide needed comments to other team members and contractor
- Obtain comments from EPA program staff of the recommended pilot to design the system.

Deliverables:

11. A System Design Document (SDD) for a Central e-manifest Tracking System and related web services. Such a plan will elaborate on the needed GUI/user interfaces, the need/use of wireless thin-client, mobile barcode scanning (and related tracking) device options for transporters and TSDs, the roles of various participants by the TSDs, state and EPA program area. State-to-EPA Node-to-Node transfer, and State node to State Manifest database transfer functionality is also included.
12. A prototype Central e-Manifest Tracking System to include:
  - web entry forms for data access via a model Central Manifest Tracking System, and
  - node client functionality with web service interface capabilities for waste generators and TSDs
13. Provide installation support of the Central e-Manifest Tracking System at the selected hosting state
14. A Central e-Manifest system testing document

Acceptance Criteria:

Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse

C. Agreement for, and Acquisition of Mobile Devices, if the State chooses to purchase from this contract

Contractor Responsibilities:

- Based on project team approval of the recommendations for mobile devices, acquire up to 10 devices for testing and further field evaluation with waste industry representatives to include wireless thin-client mobile barcode scanning options for TSD representatives
- Develop software to be used in the mobile device for e-Manifest tracking
- Provide a draft training plan and guidance on the use of mobile devices by facilities and related users.

State Staff Responsibilities:

- Provide resources and access to IT specifications to ensure compliance with state and facility IT telecommunications and security policies
- Provide a centralized location for any needed in the use of the selected mobile devices

Deliverables:

15. 10 approved mobile devices
16. A mobile-version e-Manifest software
17. Provide a draft training plan and guidance on the use of mobile devices by facilities and related users.
18. A mobile-version e-Manifest software testing document

Acceptance criteria:

Review and approval by state project representatives once need is determined, including IT web hosting and database teams reps, then sign-off by project manager prior to agreement to reimburse

***Phase 3. State e-Manifest Data Flow Design and Development***

A. State-Specific Data Flow System Design Documents (4 reports, one per state). These reports will include the technical specifications for implementing data flows to meet the requirements identified in the Implementation Plan in Phase 2. Two-way communications between Central Manifest system and each state.

Contractor Responsibilities:

- Verify the business requirement findings in the assessment reports prepared in Phase 1 and 2 for the functionality to be implemented, including the use of any applicable Exchange Network protocols, data standards and related requirements.
- Data element dictionary and data crosswalk documentation,
- Develop the node client functionality with web service interface capabilities for waste generators and TSDs,
- Configure software and/or equipment based on the State's unique business requirements to include:
  - Web entry forms for data access via a model Central Manifest Tracking System in Phase 2, used in each state
  - State Node configuration: to retrieve manifest data from the central Manifest Tracking System and send certification information to the system,
  - Mapping to backend systems: Data mapping to update state backend manifest tracking system with data received from Central Manifest Tracking System.
  - Implementation of the State-to-Central flows should allow real-time operation. Real-time means that comparison of manifests is possible in 5 minutes or less, so that errors can be noted before the truck pulls away.
  - Define user training and additional documentation requirements.
- Develop a test plan for 1) State-to-EPA Node-to-Node data flow/transfer, and 2) State node to State Manifest database transfer functionality
- Develop a data flow implementation guide covering:
  - Data exchange between central manifest tracking system and state nodes
  - Data exchange between central manifest tracking system and waste generator
  - Data exchange between central manifest tracking system and transporter
  - Data exchange between central manifest tracking system and TSD facility

State Staff Responsibilities:

- Coordinate appropriate program area and IT staff attendance at all conference call and meetings,
- Provide access to the State's web hosting and database systems with the appropriate IT staff supervision,
- Provide all reference materials and user documents as required.
- Provide contractor with business rules for data.

Deliverables:

19. Four general System Design Documents (SDD) for state e-Manifest data flow (one for each participating state). The SDD shall provide a completed state-specific Data Flow System Design Document customized for each state to implement an e-manifest data flow.





20. Web entry forms for data access via a model Central Manifest Tracking System in Phase 2, used for each state,
21. Data flow implementation guide covering:
  - Data exchange between central manifest tracking system and state nodes
  - Data exchange between central manifest tracking system and waste generator
  - Data exchange between central manifest tracking system and transporter
  - Data exchange between central manifest tracking system and TSD facility
22. Test plan for 1) State-to-EPA Node-to-Node data flow/transfer, and 2) State node to State Manifest database transfer functionality

Acceptance Criteria:

Review and approval by state project representatives, including program area experts, then approval by state IT staff experts followed by sign-off by project manager prior to agreement to reimburse.

B. State-Specific Data Flow Development (4 data flows, one per state).

Contractor Responsibilities

- Develop data flows in accordance with the approved state e-Manifest SDD

State Staff Responsibilities:

- Provide comments on the system development.

Deliverables:

23. Four state e-Manifest data flows (one for each participating state).

Acceptance Criteria:

Review and approval by state project representatives, including program area experts, then approval by state IT staff experts followed by sign-off by project manager prior to agreement to reimburse.

***Phase 4. State e-Manifest Data Flow Installation***

A. Configure test and production environments.

Contractor Responsibilities:

- Production planning meeting agenda and web hosting production planning meeting,
- Work with state web hosting teams to acquire the test and production environments,
- System test plan and test scripts provided to web hosting and data base teams
- Production system specification verification
- Perform full conversion testing and system test

State Staff Responsibilities:

- Provide staff resources and server access needed for testing and production environments
- Review of Source Code for compliance of best practices and contractual requirements
- Work with contractor to develop user acceptance test criteria for test scripts
- Validate system installation on test and production environments
- Perform user acceptance testing
- Validate/accept test scripts and testing results
- Signoff on system install

Deliverables:

24. Test – production-planning meetings with web hosting teams
25. Provision of test plan and test scripts to state web-hosting teams

Acceptance Criteria:

Review and approval by state project representatives, including program area experts and approval by state IT staff experts for conformance with IT web hosting, security and installation validation. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.

**B. Migration and Data Flow Installation/Implementation:**Contractor Responsibilities:

- Coordinate tasks for implementation, including scheduling logistics
- Implement/install the data flows

State Staff Responsibilities:

- Validate the production environment
- Facilitate the contractor to implement/install flows according to agreed upon schedule

Deliverables:

- 26. Production setup plan and schedule
- 27. Migration task list for installs
- 28. Production system installed, tested and validated for each state:
  - Michigan Data Flow Implementation
  - Massachusetts Data Flow Implementation
  - Minnesota Data Flow Implementation
  - New Jersey Data Flow Implementation

Acceptance Criteria:

Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse

**C. Conduct e-Manifest & Tracking System User Training:**Contractor Responsibilities:

- Develop and provide end user training guidance documents/manuals for using the system – for state and industry staff for the four project states
- Provide training to state technical, program and facility staff in each state (this may be a Webex facilitated session)

State Staff Responsibilities:

- Identify State and facility representatives for training attendance
- Provide feedback on training documentation
- Provide and schedule training rooms
- Establish appropriate training sessions and agenda.
- Conduct end user training

Deliverables:

- 29. End user training documents
- 30. Training plan
- 31. User training sessions
- 32. Well commented, uncompiled source code and scripts





33. Updated Technical documents including Database scripts, publishes APIs listing properties, methods, input and output parameters, detailed ERD, Use Cases and any documentation describing the process and data flows

**Acceptance Criteria:**

Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) followed by sign-off by project manager prior to agreement to reimburse

**Phase 5. Post Implementation/Lessons Learned**

**A. Post Production Support**

Contractor Responsibilities:

- Provide three (3) months free maintenance and support to resolve any e-manifest implementation issues and problems in the states where it is installed, as detected.
- Develop lessons learned report to communicate the lessons learned. Include guidance to serve as a “How to Manual”, using the Flow Conformance Document and other delivered resources to make the flow happen.
- Develop “marketing package” (presentation, on-line flash video on a project website, etc.) to serve as outreach to EPA, regulated community and other states and communicate how others could either implement the approach developed in this project or to become involved in the use of e-manifest.
- Publish project results at the Exchange Network web site
- Consider development of a Team Project website for hosting deliverables, notes, etc.

State Staff Responsibilities:

- Provide support to user community

Deliverables:

34. Develop a marketing package for outreach to EPA, regulated community and other states/tribes

35. Lessons Learned Report

Acceptance Criteria:

Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse.

**C. Interfaces**

The Contractor is to assume that the existing Nodes within each of the four states will serve as system interfaces to any relevant back-end waste management manifest databases for “data access and storage,” as required.

**Names of applications:**

1. MI DEQ - Waste Management Data System (WDS)
2. MN Pollution Control Agency – Hazardous Waste Delta Database
3. MA DEP - Electronic Monthly Operating Report System (EMORS)
4. NJ DEP – NJ Environmental Management System (NJEMS)

**\*Note - Additional details are provided in APPENDIX A1 through APPENDIX A4.**



## 1.2 Roles and Responsibilities

### **1.201 CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES**

#### Location of Work

- a. The work is to be performed, completed, and managed at the following locations:
  - i. Contractor-supplied work site
  - ii. State-supplied workspace during selected business requirements gathering, testing and implementation phases
- b. The State will provide the following resources for the Contractor's use on this project:
  - Work space when on-site
  - Telephone
  - Printer
  - Access to copiers and fax machine

The Contractor will provide all necessary and qualified staff to assure delivery of all components of the project, as specified. The Contractor will identify all staff who will be involved in the project, identify by name individuals that are to be designated as Key Personnel, and describe in detail their roles and responsibilities.

All of the contractor's team members have been identified as "key individuals." Project team members will be located onsite at MDEQ's offices, or in contractors office as project tasks dictate. Additional staff will be included in the Contractor's project team as required during the course of the project subject to approval by MDEQ and MDIT. All changes to Contractor "key individuals" project staff must be approved by both the MDIT and MDEQ Project Manager (see section 2.041) The Contractor's key staff team are:

#### **Jason Bunker**

##### **Project Team Role: Project Manager**

Key Individual: Yes

Responsibilities:

Jason will act as contractor's Project Manager for the electronic manifest tracking pilot project. He will be responsible for the development of all project planning and communication materials for the project and will work in collaboration with Project Team representatives.

#### **Guy Outred**

Project Team Role: Project Advisor

Key Individual: Yes

Responsibilities:

Guy will provide specialist business area knowledge in support of the project, bringing thirteen years experience working with information management for the RCRA program at the State and Federal levels. Guy will bring his considerable experience with the facilitation of diverse interest groups to the project.

#### **Steve Rosenberger**

Project Team Role: Project Advisor

Key Individual: Yes

Responsibilities:



Steve will provide specialist business area knowledge in support of the project, bringing extensive experience working with information management for the RCRA program at the State and Federal levels. Steve is generally recognized by EPA and State staff engaged in the RCRA program as the leading national expert with respect to RCRA program information management.

**Mark Chmarny**

Project Team Role: Technical Architect

Key Individual: Yes

Responsibilities:

Mark will be responsible for the development of the technical architecture to support the electronic manifest tracking system, and will also direct all technical software development activities.

**Victor Kaiser**

Project Team Role: Senior Analyst

Key Individual: Yes

Responsibilities:

Victor will act as senior analyst for this project and will lead the analysis and design tasks, reporting to the Contractor Project Manager.

**Bill Rensmith**

Project Team Role: Senior Analyst

Key Individual: Yes

Responsibilities:

Bill will assist with analysis and design tasks during this project, reporting to the Contractor Project Manager.

**Eric Schwenter**

Project Team Role: Lead .Net Developer

Key Individual: Yes

Responsibilities:

Eric will be responsible for leading all development and implementation tasks for components of the pilot electronic manifest tracking system that are to be developed using .Net-based technologies. This will include support for Project Team members whose Node environments are .Net based.

**Tim Christensen**

Project Team Role: Lead Java Developer

Key Individual: Yes



#### Responsibilities:

Tim will be responsible for leading all development and implementation tasks for components of the pilot electronic manifest tracking system that are to be developed using Java-based technologies. This will include support for Project Team members whose Node environments are Java based.

The Contractor will provide an internal project manager who will be responsible for completion of the project plan and communication plan. The Contractor's project manager will coordinate with the State of Michigan project manager all project-related duties as they relate to the Contractor staff involved in this project.

The Contractor will be responsible for delivery of a Quality Assurance (QA) testing plan of the system module(s) prior to delivery to the state MDIT support team. The Contractor will be responsible for delivery of test scripts to be performed by state staff. There will be a 30-day Performance and Reliability Evaluation (PARE) period as outlined in Article 2. The Contractor will not be held responsible or liable for failures of equipment or malfunctions within the State network or on the hosting platform. The Contractor will follow all Agency Support team procedures for delivery and implementation of any source code specified in the contract. All source code will be shared with the Exchange Network user community.

The Contractor will provide knowledge transfer of the technology used in constructing this application. MDIT will provide an experienced programmer/analyst to this effort. The Contractor shall furnish staff equipment and supplies; the State shall furnish workspace during the project period.

#### Contractor's Staff will have:

1. Working experience or knowledge of the hazardous waste manifest system, the associated data elements, the process of tracking, and the relationship between other hazardous waste reporting requirements, such as the Hazardous Waste Report, is preferred.
2. Demonstrated comprehensive working experiences with business process review and development, requirements gathering and gap analysis, and incorporation of business process needs for in development of software applications.
3. Completed at least two major environmental information Exchange Network projects that involve technical development of major State/USEPA data flows and be capable of facilitating/collaborating works with representatives from states and USEPA with diverse technical backgrounds. Examples of major State/USEPA data flows are listed below:
  - a. Air Quality System (AQS),
  - b. PCS/IDEF/e-DMR (Discharge Monitoring Reports),
  - c. Drinking Water and Lab Reporting,
  - d. Toxic Release Inventory (TRI),
  - e. Facility Registry System (FRS)
  - f. National Emission Inventory (NEI)
  - g. NESHAPS, and
  - h. RCRAInfo
4. Demonstrated comprehensive working experiences, during the past three years, of environmental data tracked by the State (e.g., data flows listed above) to facilitate the gathering of critical environmental information vital to support the e-Manifest & Tracking System Project initiatives.
5. Demonstrated project experience for developing XML schemas for national environmental data flow use.
6. Demonstrated working knowledge of Exchange Network architecture, Node protocols, data standards, registry, and Core Reference Model.
7. Demonstrated working knowledge of developing and applying environmental data standards for Exchange Network related projects.
8. Demonstrated working knowledge of Exchange Network Node requirements including successful examples of implemented working state Nodes using both .NET and JAVA environment.
9. Prior working experience with USEPA Headquarters and Regional offices.
10. Three years experience in the Health/Education/Environmental fields.



## 1.202 STATE STAFF, ROLES, AND RESPONSIBILITIES

The State project team will consist of a steering committee, Executive Subject Matter Experts (SME's), project support, and a project manager. The following agencies,

MI Department of Environmental Quality  
MN Pollution Control Agency  
MA Department of Environmental Protection  
NJ Department of Environmental Protection

are the project co-sponsors and will serve on the steering committee, with the MI Department of Environmental Quality, Executive Division serving as the Chair. The project co-sponsors will identify the additional members of the steering committee.

Michael Beaulac, Assistant Administrator, MI Department of Environmental Quality (DEQ), will represent the lead state for this multi-state effort and serve as the MDEQ Project Manager. Subject matter experts from each of the participating state waste management programs will also be recruited for program area expertise when needed.

The Project Manager will be responsible for compiling all project documentation, reviewing the project plan, implementing the communication plan, coordinating resources between the State and the Contractor, obtaining memorandums of agreement with the other partner states and for all change management documentation. If change orders are needed during this project, the Project Manager will also complete a risk assessment for each change request. The Project Manager will review and approve payments based on successful completion and signoff of deliverables. Upon project completion, the Project Manager will complete a lessons learned session with the Contractor and the Project team so the Contractor can document those lessons.

The State's MDEQ Project Manager, in coordination with the other state project team members, is responsible for:

- Conducting outreach with the waste generators, Treatment Storage Disposal (TSD) and regulatory stakeholders within the four states and EPA.
- Identifying project participants
- Developing audit procedures
- Developing compliance assistance documents in consultation with stakeholders
- Maintaining the official, approved EPA Quality Assurance Project Plan (QAPP)
- Ensuring all Contractor staff have the necessary QA training to successfully complete tasks and functions in accordance with the QAPP
- Issuing quarterly and annual reports to EPA

MDIT will be responsible for the State's infrastructure and work together with the Contractor in determining the system configuration. MDIT will provide an information technology Project Manager. The MDIT Project Manager shall serve as a contact for all issues pertaining to the execution of services under the contract. As of the effective date for contract commencement the MDIT Project Manager shall be:

Mark Breithart  
MI Department of Information Technology (MDIT)  
Lansing, MI.  
517- 241-1293  
BreithartM@michigan.gov

This role may be assigned to another MDIT staff person, depending on workloads at the initiation of this project.



The MDIT Project manager will provide state programming and node support and will be available to work with the Contractor to acquire knowledge of the schema development and web publishing capabilities as they are being developed and deployed. The Project Manager will also assist the MDEQ Project Lead/Manager with the completion of all required documentation

The State's MDEQ and MDIT Project Managers will also provide the following services:

- Provide State facilities, as needed
- Coordinate the State resources necessary for the project
- Facilitate coordination between various external contractors
- Facilitate communication between different State departments/divisions (IT-Networking, Integrated Services, Administration, Personnel Department, Accounting, Administration etc.)
- Milestone acceptance sign-off
- Resolution of project issues
- Escalation of outstanding/high priority issues
- Utilize change control procedures
- Conducting regular and ongoing review of the project to confirm that it meets original objectives and requirements
- Documentation and archiving of all important project decisions
- Arrange, schedule and facilitate State staff attendance at all project meetings
- Review and approve deliverables and invoices for payment processing

The project steering committee will provide the following services:

- Approve the project schedule
- Authorize modifications for scope, resources, and budget of the project
- Ensure senior management commitment to the project
- Act as a final arbiter on proposed changes that significantly affect the business interests of the states.

The Executive Subject Matter Experts representing the business units involved will provide the vision for the business design and how the application shall provide for that vision. They shall be available on an as needed basis.

Other MDIT and MDEQ Program staff will be available for completion of all test scripts and will be responsible for final testing and approval of the deliverables. The MDIT Agency Support team will provide the Quality Assurance and production environment for the roll out of this application, including web hosting for Michigan. Staff in similar roles will provide comparable support in the other states. They will be responsible for all operational issues as they relate to the roll out.

The project sponsor for this project is Mr. Michael Beaulac, Assistant Administrator for the Michigan Department of Environmental Quality. Issues that cannot be resolved by the individual state representatives will be elevated to Mr. Beaulac for final determination. Any issue that affects the project budget will require Mr. Beaulac's approval.

The states of Minnesota, Massachusetts and New Jersey will each provide project representatives, including Ed Meyer, CIO, MN Pollution Control Agency  
Deborah Quinn, CIO, MA Department of Environmental Protection  
Sherry Driber, CIO, NJ Department of Environmental Protection.

These representatives will also serve as project managers within their respective state. Each state will also provide staff who will act as subject area experts throughout the discovery and development process. Staff will also be identified that will perform acceptance testing according to the test scripts delivered and for whom knowledge transfer will be performed.



## 1.203 OTHER ROLES AND RESPONSIBILITIES

### A. Orientation Meeting

1. Within 30 calendar days from execution of the Contract, Contractor will be required to participate in a webex-facilitated conference call to serve as an orientation meeting to discuss the content and procedures of the Contract.
2. The conference call will include representatives of the four states involved in the project and the EPA.

### B. Performance Review Meetings

1. The State will require the Contractor to attend meetings by conference call and during at least two face-to-face sessions with the other state project team representatives to review the Contractor's performance under the Contract. Each of the two face-to-face sessions will also involve project-related business, such as business requirements gathering and analysis, implantation plan reviews, etc. The contractor will assist the State in providing financial reimbursement for state staff from each of the participating States for each face-to-face meeting will be included for up to \$1000 per state to cover travel and related expenses up to that amount. Federal employees will not be compensated for their attendance. Total budgeted expense is not to exceed \$8,000 in travel-related compensation.
2. The meetings will be held at a location determined by the state project team representatives, at a date and time mutually acceptable to the states and the Contractor.
3. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.

- C. **Project Plan** – The Project Team estimates the project shall be completed within 24 months. A preliminary timeline for major deliverables (described above in Article 1.104) is listed below:

Project Deliverables	Preliminary Completion Dates
1. Project Kickoff / Feasibility Study	1 to 3 months from project kick-off
2. System Design	3 to 6 months from project kick-off
3. Central Manifest Tracking System Implementation	7 to 14 months from project kick-off
4. Pilot State integration implementation	15 to 19 months from project kick-off
5. System Pilot	20 to 24 months from project kick-off

1. Contractor will provide a project plan with the proposal reflecting the tasks and deliverables identified in each section of this CONTRACT.
2. The plan shall:
  - i. Outline all tasks needed to complete the project, all resources needed, and a test plan.
  - ii. Include expected dates and duration of needed resources.
  - iii. Be reviewed by both the Contractor's project manager and the State's project managers on a monthly basis and updated to include any necessary modification.
3. The Contractor will use an automated tool(s) for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract. Contractors who use other than Microsoft Project, as a project management tool, need to specify this use.
4. The use of automated project management tools shall include the capability to produce:
  - i. Staffing tables with names of personnel assigned to Contract tasks.
  - ii. Project plans showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed within the next sixty (60) calendar days, updated semi-monthly). Updates must include actual time spent on each task and a revised estimate to complete.





- iii. Graphs showing critical events, dependencies and decision points during the course of the Contract. Any tool(s) used by Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State's standard to the extent such standard is described with reasonable detail in the Statement of Work.

### 1.3 Project Plan

#### **1.301 PROJECT PLAN MANAGEMENT**

Reporting formats must be submitted to the State's Project Managers for approval within twenty (20) business days after the orientation meeting described in 1.301A. Once both parties have agreed to the format of the report, it shall become the standard to follow for the duration of the contract. The Contractor shall submit weekly reports using the agreed upon format. These reports should contain, at a minimum, the following:

- Accomplishments
- Tasks to be accomplished
- Hours expended during the report period, including estimated hours to complete
- Funds expended during the report period, including estimated funding to complete
- Issues or concerns, real or perceived, including issues resolved and a listing of all outstanding issues

Additionally, within twenty (20) business days after the effective date of the contract resulting from this CONTRACT, the parties shall determine an appropriate set of meetings to be held between representatives of the State and Contractor. Contractor shall prepare and circulate an agenda prior to the meeting(s).

#### **1.302 REPORTS**

The Contractor will manage the project in accordance with the best practices and guidelines in PMBOK® (Project Management Body of Knowledge from the Project Management Institute) which are also reflected in the framework outlined in the State of Michigan's Project Management Methodology (PMM). The Methodology is available at [www.michigan.gov/projectmanagement](http://www.michigan.gov/projectmanagement). The intent of these requirements are to deliver the highest quality solution by deploying and maintaining best practices, methodologies, tools, and knowledge within a structured framework. Contractor shall:

- a. Provide documentation of Management and System requirements that provides an understanding the management approach and the full system operability, usability, and maintainability. The amount, type, and format of project and system documentation required will be discussed and agreed upon with the State's Project Manager, and is dependent upon the size and scope of the project.
- b. Provide the State with clearly written processes for managing updates to software during and after the implementation of the system.
- c. Provide a plan for showing Contractor responsibility in leading and managing end user testing.
- d. Provide a detailed process for controlling the development of all deliverables. This would include controlling access to documents and version control.
- e. Provide a performance measurement system that addresses the continuous measurement of actual achievements against a detailed performance plan to be able to predict the final costs and final scheduled results for the project or operations.

### 1.4 Project Management

#### **1.401 ISSUE MANAGEMENT**

An issue is an identified event that if not addressed may affect schedule, scope, quality, or budget.

The Contractor shall maintain an issue log for the project. The issue management log must be communicated to the State's project managers weekly, with email notifications and updates, as well as be electronically accessible at all times and viewable by the entire project team. The issue log must be updated weekly and must contain the following minimum elements:





- Description of issue
- Issue identification date
- Responsibility for resolving issue.
- Priority for issue resolution (to be mutually agreed upon by the State and the Contractor)
- Resources assigned responsibility for resolution
- Resolution date
- Resolution description

#### 1.402 RISK MANAGEMENT

A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project. Risk management generally involves (1) identification of the risk, (2) assigning a level of priority based on the probability of occurrence and impact to the project, (3) definition of mitigation strategies, and (4) monitoring of risk and mitigation strategy.

The Contractor must create a risk management plan for the project. A risk management plan format will be submitted to the State for approval within twenty (20) business days after the effective date of the contract resulting from this CONTRACT. Once both parties have agreed to the format of the plan, it shall become the standard to follow for the duration of the contract. The plan must be updated bi-weekly, or as agreed upon. The risk management plan will be developed in accordance with the State's PMM methodology and the PMBOK® (Project Management Institute).

#### 1.403 CHANGE MANAGEMENT

Any changes to scope or schedule or budget must follow a change management process, and they must be agreed upon and communicated to the State of Michigan's Project Manager in writing explaining the reason for the change and the impact.

The following provides a detailed process to follow if a change to this Statement of Work (SOW) is required.

- A Project Change Request (PCR) will be the vehicle for communicating change. The PCR must describe the change; the rationale for the change and the effect the change will have on the project.
- The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.
- The Contractor's Project Manager and the State will review the proposed change and approve it for further investigation or reject it. Contractor will specify any charges for such investigation. If the investigation is authorized, the State and the Contractor will sign the PCR, which will constitute approval for the investigation charges. (The timing of signature by the State Project Manager will be in accordance with the State's Administrative Board or other applicable approval process). Contractor will invoice the State for any such charges. The investigation will determine the effect that the implementation of the PCR will have on price, schedule and other terms and conditions of the contract.

A written Change Authorization and/or Project Change Request (PCR) must be signed by both parties to authorize implementation of the investigated changes. Change Authorizations and/or Project Changes Request (PCR) will be processed through the state's Purchasing Operations Office.

If a proposed contract change is approved by MDIT/MDEQ, a request for change will be submitted to the Department of Management and Budget, Purchasing Operations Buyer, who will make recommendations to the Director of Purchasing Operations regarding ultimate approval/disapproval of change request. If the DMB Purchasing Operations Director agrees with the proposed modification, and all required approvals are obtained (including State Administrative Board), the Purchasing Operations Buyer will issue an addendum to the Contract, via a Contract Change Notice. **Contractors who provide products or services prior to the issuance of a Contract Change Notice by the DMB Office of Purchasing Operations, risk non-payment for the out-of-scope/pricing products and/or services.**



## 1.5 Acceptance

### 1.501 CRITERIA

The following criteria will be used by the State to determine Acceptance of the Services and/or Deliverables provided under this SOW.

The pilot **e-Manifest Tracking System** project is an innovative effort that will require some flexibility during its inception. The hazardous waste manifest data flow and the various stages of tracking from waste generation through transportation and ultimate disposal, will be identified in the project plan and considered complete when fully tested in the QA environment and all issues associated with the deliverables are resolved. Project completion also assumes agreement by a simple majority of subject matter experts participating in this project, including SMEs within the four member states, EPA, and any private sector representatives formally invited to be a part of this effort.

### 1.502 FINAL ACCEPTANCE

Final acceptance of the pilot **e-Manifest Tracking System** project will be based upon successful integration testing as outlined in the test plan supplied by the Contractor. Successful completion of the integration testing will signal readiness to roll the application into the production environment. Final payment will be based upon a 30-day, error-free period of operation in the production hosting environment.

The following criteria will be used by the State to determine Final Acceptance of the Services and/or Deliverables provided under this SOW:

- The Contractor shall deliver an end-to-end testing plan for the system.
- The Contractor and States will need to conduct an end-to-end testing of the system, and the Contractor will need to adequately resolve all "bugs" identified during the scheduled testing event. The approved testing plan will need to identify and define what constitutes a "bug" vs. an "enhancement."
- All errors found as a result of the testing must be corrected.
- All deliverables listed in Article 1, Statement of Work, will be delivered.

All end user testing listed in Article 1, Statement of Work, will be completed.

## 1.6 Compensation and Payment

### 1.601 Compensation and Payment

State shall pay Contractor an amount not to exceed **\$603,623.00** for the performance of all activities necessary for or incidental to the performance of work as set forth in this SOW. The Contractor's Pricing Table for the Deliverables can be found in Article 1, Attachment D.

State shall pay Contractor a fixed price for the performance of all activities necessary for or incidental to the performance of work as set forth in this SOW. Payments will be deliverable-based, where each deliverable has a cost, and upon approval/acceptance of each deliverable by the MDEQ and MDIT Project Managers, the contractor will receive payment for that deliverable.

This contract will be subject to a 10% set-a-side on the labor costs of each deliverable. The payment of the holdback will be paid upon completion of the PARE, see Section 2.071.

All invoicing must include tasks and deliverables summarized in Article 1.101 In Scope and in the Work and Deliverables described in Article 1.104. The Contractor tasks detailed in Article 1.104, include:

- A. Technology & Business Process Research
- B. Infrastructure and System Design - Data Flow Configuration Development
- C. Central e-Manifest Tracking System Development, Hosting, and Implementation
- D. Data Flow Implementation at Each State
- E. Post Implementation Support/Lessons Learned



All invoicing corresponds to the tasks listed above and in Article 1.104 including: A through E. All Invoices must include: hourly rates, number of hours per task, unit prices or cost per task or deliverable, etc. Costs are to be broken down by acceptance of deliverables, time periods, invoicing, labor vs. non-labor, etc. as appropriate to the subject of the Scope of Work.

1.7 Additional Terms and Conditions Specific to this SOW

**1.701 ADDITIONAL TERMS AND CONDITIONS SPECIFIC TO THIS SOW**

**Reserved**



**Article 1, Attachment A**

**Pricing**

**See Attachment D – Deliverables & Pricing**



**Article 1, Attachment B**

Organizational Chart, including Key Personnel

Reserved



**Article 1, Attachment C**

**Labor Rates**

**See Attachment D – Deliverables and Pricing**



### **Article 1, Attachment D**

#### **Deliverables/Pricing**

Per the Contractor, the Other Costs column includes travel costs and any other direct costs, which is limited for this proposal to be:

- Exceptional graphic design and printing costs (i.e., for marketing materials),
- \$8,000 for State travel to joint project meeting, and
- \$20,000 for the cost of procuring 10 mobile devices including bar coders (if requested by the Project Team).

#### **Consultant Rate Schedule**

The contractor has been developed using the rate schedule below. This represents the contractor's standard rates for government contracts.

<b>Role</b>	<b>Hourly Rate</b>
Project Advisor	\$ 175.00
Project Manager	\$ 160.00
Technical Architect	\$ 160.00
Lead / Senior Developer	\$ 125.00
Lead / Senior Analyst	\$ 125.00
Data Analyst	\$ 115.00
Analyst	\$ 95.00
Developer	\$ 95.00

Accounting for this reduction, the final estimated cost for the project is **\$603,623**.

Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
B. Phase 1. Project Initiation, Business Analysis, Research, Infrastructure Preparation			\$209,684						
A. Initiation & Project Management:	1. Project facilitation with IPT, EPA, State, Local stakeholders to develop data flow requirements including Research, Conference Calls and logistics, meeting minutes, monthly project reports, etc	On-going evaluation of services by project manager and state representatives	324	\$43,740		\$43,740	\$4,374	\$3,936.60	\$35,429.40
	2. Conduct one (1) project kickoff meeting with state and EPA representatives	On-going evaluation of services by project manager and state representatives	126	\$17,640	*\$10,350 <sup>1</sup>	\$27,990	\$2,399 <sup>2</sup>	\$1,587.60	\$24,003.40
	3. Project Plan (1 plan) o GANTT chart, including all steps, review and revision time frames for documentation (e.g., schedules, plans, and system documentation) and application testing. o Estimate of the hours of work required from State staff	Compare content deliverables to defined project requirements, standards and controls required by the four States. Once this is done, then the project manager will approve for acceptance.	58	\$8,700		\$8,700	\$870	\$783.00	\$7,047.00
B. Business Process Analysis & Technology Research (focusing on common waste manifest tracking needs):	4. Business Requirements Document (1 report) with focus on state-level processing needs, flow requirements, including data elements to exchange and evaluation of needs from recruited representative participant waste generators, transporters and TSDs	The Business Requirement document will be reviewed by a four-state project team to compare all content deliverables to the defined project business requirements specified by the program area experts (facility, state and EPA). Once this is accomplished, then final approval will be provided by the project manager.	221	\$30,056		\$30,056	\$3,056	\$2,700.00	\$24,300.00

<sup>1</sup> These costs contain \$4,000 for State representative travel

<sup>2</sup> 10% discount is applicable to the Windsor costs exclusive of the required State representative travel. To ensure the same end price a further discount has been calculated on the handhelds.



Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
	5. Technology Recommendation Report (1 report) to provide technical options to implement a pilot-scale “Central e-Manifest System” for tracking manifest activities	The Technology Recommendations will be followed by a review and approval of the individual state information technology staff involved in application development, security and web hosting. Once this is accomplished, then final approval will be provided by the project manager. Once this is accomplished, then final approval will be provided by the project manager.	178	\$23,496		\$23,496	\$2,349.60	\$2,114.64	\$19,031.76
C. State Readiness Assessment:	6. Four (4) Readiness Assessment Reports (one report for each of the four states) pilot-scale system for e-Manifest tracking process with focus on state-level processing needs, national & state organizational structure and function, data elements to exchange, data exchange requirements with the Central manifest system, identify infrastructure needs and node-to-node data exchanges, feasibility survey & technical evaluation of representative waste generators, transporters, and TSD Facilities, recruitment of pilot waste generators, transporters and TSDs for project input/participation	Verify and receive sign-off from the four-state Waste program staff and IT Agency Services teams of report content and compliance with program area requirements and IT standards and procedures. Once this is accomplished, then final approval will be provided by the project manager	282	\$32,712		\$32,712	\$3,271.20	\$2,944.08	\$26,496.72



Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
	7. A Project Program/Technical Conference in one of the four states with all four state (program area and IT) and EPA represented to determine and/or verify business requirements, policies and standards	Verify and receive sign-off from the four-state Waste program staff and IT Agency Services teams of report content and compliance with program area requirements and IT standards and procedures. Once this is accomplished, then final approval will be provided by the project manager.	128	\$17,408	*\$10,350 <sup>3</sup>	\$27,758	\$2,375.80 <sup>4</sup>	\$1,566.72	\$23,815.48
D. Infrastructure Preparation to support e-Manifest data flow	8. Report for Technology & Security Requirements (1 report) to support e-Manifest data flow, including any applicable: • Infrastructure requirements • Software requirements • Technical standards • Security standards • Technical procedures	Verify and receive sign-off from individual state IT Agency Services, Web Hosting & Database teams, Office of Enterprise Security, etc., of report content & compliance with required standards and procedures for infrastructure hosting, installation, testing & deployment. Once this is accomplished, then final approval will be provided by the project manager.	112	\$15,232		\$15,232	\$1,523.20	\$1,370.88	\$12,337.92
Phase 2. Design and Development of a Central e-Manifest Tracking System						\$242,528			
A. Development of a Central e-Manifest Schema (1 schema) for data exchange	9. XML e-Manifest schema	Review and approval by state project representatives, including program area experts, to ensure acceptance of data elements, then approval by state IT staff experts for compliance with IT web hosting and security. This will be followed by a review and approval by Exchange Network governance entrusted with acceptance of submitted schema for posting to Exchange Network registry. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.	108	\$13,500		\$13,500	\$1,350	\$1,215.00	\$10,935.00

<sup>3</sup> These costs include \$4,000 for State representative travel.

<sup>4</sup> The 10% discount is applicable to the Windsor costs exclusive of the required State representative travel. To ensure the same end price a further discount has been calculated on the handhelds.

Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
	10. e-Manifest Schema Conformance Report and Data Flow Configuration templates	Review and approval by state project representatives, including program area experts, to ensure acceptance of data elements, then approval by state IT staff experts for compliance with IT web hosting and security. This will be followed by a review and approval by Exchange Network governance entrusted with acceptance of submitted schema for posting to Exchange Network registry. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.	136	\$17,000		\$17,000	\$1,700	\$1,530.00	\$13,770.00
B: Central Manifest Tracking System Design and Development:	11. A System Design Document (SDD) for a Central e-manifest Tracking System and related web services. Such a plan will elaborate on the needed GUI/user interfaces, the need/use of wireless thin-client, mobile barcode scanning (and related tracking) device options for transporters and TSDs, the roles of various participants by the TSDs, state and EPA program area. State-to-EPA Node-to-Node transfer, and State node to State Manifest database transfer functionality is also included.	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse	208	\$24,960		\$24,960	\$2,496	\$2,246.40	\$20,217.60
	12. A prototype Central e-Manifest Tracking System to include: a. web entry forms for data access via a model Central Manifest Tracking System, and b. node client functionality with web service interface capabilities for waste generators and TSDs	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse	1060	\$122,960		\$122,960	\$12,296	\$11,066.40	\$99,597.60

Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
	13. Provide installation support of the Central e-Manifest Tracking System at the selected hosting state	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.)	62	\$8,060		\$8,060	\$806	\$725.40	\$6,528.60
	14. A Central e-Manifest system testing document	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.)	38	\$4,750		\$4,750	\$475	\$427.50	\$3,847.50
C. Agreement for, and Acquisition of Mobile Devices	15. ten (10) approved mobile devices (If the State decides to purchase the equipment off this contract.)	Review and approval by state project representatives once need is determined, including IT web hosting and database teams reps, then sign-off by project manager prior to agreement to reimburse	14	\$1,890	*\$20,000	\$21,890	\$2,989 <sup>5</sup>	\$170.10	\$18,730.90
	16. A mobile-version e-Manifest software	Review and approval by state project representatives once need is determined, including IT web hosting and database teams reps, then sign-off by project manager prior to agreement to reimburse	189	\$22,680		\$22,680	\$2,268	\$2,041.20	\$18,370.80
	17. Provide a draft training plan and guidance on the use of mobile devices by facilities and related users.	Review and approval by state project representatives once need is determined, including IT web hosting and database teams reps, then sign-off by project manager prior to agreement to reimburse	32	\$3,712		\$3,712	\$371.20	\$334.08	\$3,006.72
	18. A mobile-version e-Manifest software testing document	Review and approval by state project representatives once need is determined, including IT web hosting and database teams reps, then sign-off by project manager prior to agreement to reimburse	26	\$3,016		\$3,016	\$301.60	\$271.44	\$2,442.96
Phase 3. State e-Manifest Data Flow Design and Development						\$88,384			

<sup>5</sup> The 10% discount applied to this includes the 10% that would have been attributable to State representative travel.

Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
A. State-Specific Data Flow System Design Documents	19. Four (4) general System Design Documents (SDD) for state e-Manifest data flow (one for each participating state). The SDD shall provide a completed state-specific Data Flow System Design Document customized for each state to implement an e-manifest data flow.	Review and approval by state project representatives, including program area experts, then approval by state IT staff experts followed by sign-off by project manager prior to agreement to reimburse.	116	\$13,456	\$11,600	\$25,056	\$2,505.60	\$1,211.04	\$21,339.36
	20. Web entry forms for data access via a model Central Manifest Tracking System in Phase 2, used for each state		96	\$11,616		\$11,616	\$1,161.60	\$1,045.44	\$9,408.96
	21. Data flow implementation guide covering: o Data exchange between central manifest tracking system and state nodes o Data exchange between central manifest tracking system and waste generator o Data exchange between central manifest tracking system and transporter o Data exchange between central manifest system and TSD facility	Review and approval by state project representatives, including program area experts, then approval by state IT staff experts followed by sign-off by project manager prior to agreement to reimburse.	72	\$9,504		\$9,504	\$950.40	\$855.36	\$7,698.24
	22. Test plan for 1) State-to-EPA Node-to-Node data flow/transfer, and 2) State node to State Manifest database transfer functionality	Review and approval by state project representatives, including program area experts.	16	\$1,888		\$1,888	\$188.80	\$169.92	\$1,529.28
B. State-Specific Data Flow Development (4 data flows, one per state).	23. Four state e-Manifest data flows (one for each participating state).	Review and approval by state project representatives, including program area experts, then approval by state IT staff experts followed by sign-off by project manager prior to agreement to reimburse.	336	\$40,320		\$40,320	\$4,032.	\$3,628.80	\$32,659.20
Phase 4. State e-Manifest Data Flow Installation						\$110,374			



Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
A. Configure test and production environments.	24. Test– production planning meetings with web hosting teams	Review and approval by state project representatives, including program area experts and approval by state IT staff experts for conformance with IT web hosting, security and installation validation. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.	96	\$12,672	\$4,150	\$16,822	\$1,682.20	\$1,140.48	\$13,999.32
	25. Provision of test plan and test scripts to state web hosting teams	Review and approval by state project representatives and state IT staff experts for conformance with IT web hosting, security and installation validation. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.	48	\$5,904		\$5,904	\$590.40	\$531.36	\$4,782.24
B. Migration and Data Flow Installation/Implementation	26. Production setup plan and schedule	Review and approval by state project representatives, program area experts and state IT staff experts.	44	\$5,984		\$5,984	\$598.40	\$538.56	\$4,847.04
	27. Migration task list for installs	Review and approval by state project representatives and state IT staff experts.	82	\$10,168		\$10,168	\$1,016.80	\$915.12	\$8,236.08
	28. Production system installed, tested and validated for each state: o Michigan Data Flow Implementation o Massachusetts Data Flow Implementation o Minnesota Data Flow Implementation o New Jersey Data Flow Implementation	Review and approval by state project representatives, including program area experts and approval by state IT staff experts for conformance with IT web hosting, security and installation validation. Once these reviews are completed, the project manager will consider the deliverables acceptable and approve all invoices for payment.	312	\$35,880	\$11,600	\$47,480	\$4,748	\$3,229.20	\$39,502.80

Task	Vendor Deliverable	Acceptance Criteria	Hrs	Labor Costs	Other Costs	Total Cost	10% Discount	10% Set-A-Side	Amount To Pay
C. Conduct e-Manifest & Tracking System User Training:	29. End user training documents	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) followed by sign-off by project manager prior to agreement to reimburse	82	\$10,250		\$10,250	\$1,025	\$922.50	\$8,302.50
	30. Training plan	Review and acceptance of training plan document	22	\$2,750		\$2,750	\$275	\$247.50	\$2,227.50
	31. User training sessions	Completion of training session(s)	32	\$4,000		\$4,000	\$400	\$360.00	\$3,240.00
	32. Well commented, uncompiled source code and scripts	Review and acceptance by MDIT staff	16	\$2,000		\$2,000	\$200	\$180.00	\$1,620.00
	33. Updated Technical documents including Database scripts, publishes APIs listing properties, methods, input and output parameters, detailed ERD, Use Cases and any documentation describing the process and data flows.	Review and acceptance by MDIT staff	38	\$5,016		\$5,016	\$501.60	\$451.44	\$4,062.96
Phase 5 Post Implementation/ Lessons Learned						\$19,722			
A. Post Production Support	34. Develop a marketing package for outreach to EPA, regulated community and other states/tribes	Review and approval by state project representatives, including program area experts and state IT staff experts (web hosting, etc.) including EPA Office of Solid Waste and Central Data Exchange, followed by sign-off by project manager prior to agreement to reimburse	88	\$11,792	\$3,450	\$15,242	\$1,524.20	\$1,061.28	\$12,656.52
	35. Lessons Learned Report	Review and approval by state project representatives	32	\$4,480		\$4,480	\$448	\$403.20	\$3,628.80
*Adjustment For Other Costs									\$50.60
Final Payment – Set – A-Side									\$53,922.24
TOTALS			4830	\$599,192	\$71,500	\$670,692	\$67,069	\$53,922.24	\$603,623.00

**Article 1, Attachment E**  
Project Plan

**Appendix A - Detailed Project Schedule**

Work Breakdown Structure	Project Task Name	Start Date	End Date
<b>1</b>	<b>Central e-Manifest Tracking System (CMTS) Project Plan</b>	<b>11/14/2006</b>	<b>8/26/2008</b>
<b>1.1</b>	<b>Phase 1. Project Initiation, Analysis, Tech Research,</b>	<b>11/14/2006</b>	<b>2/2/2007</b>
1.1.1	Project Initiation and Project Management	11/14/2006	12/28/2006
1.1.1.1	Kick-off Meeting	11/14/2006	12/1/2006
1.1.1.1.1	Prepare for Kick-off Meeting	11/14/2006	11/20/2006
1.1.1.1.2	Conduct Kick-off Meeting	11/21/2006	11/21/2006
1.1.1.1.3	Prepare and Issue call minutes	11/22/2006	11/24/2006
1.1.1.1.4	Obtain team approval for Kick-off meeting minutes	11/27/2006	12/1/2006
1.1.1.2	Develop Detailed Project Plan	11/14/2006	12/6/2006
1.1.1.2.1	Develop draft detailed project plan	11/14/2006	11/20/2006
1.1.1.2.2	Issue Detailed Project Plan for Team Review	11/21/2006	11/27/2006
1.1.1.2.3	Incorporate Project Plan Feedback	11/28/2006	11/29/2006
1.1.1.2.4	Finalize Project Plan (within 30 business days of CED)	11/30/2006	12/6/2006
1.1.1.2.5	Obtain Team Acceptance for Project Plan Deliverable	12/6/2006	12/6/2006
1.1.1.3	Implement Project Management Protocols	12/4/2006	12/28/2006
1.1.1.3.1	Establish Project Web Site	12/4/2006	12/6/2006
1.1.1.3.2	Submit reporting formats to Michigan PM	12/7/2006	12/13/2006
1.1.1.3.3	Finalize set of meetings for State and Contractor	12/14/2006	12/18/2006
1.1.1.3.4	Implement communication and tracking mechanisms	12/19/2006	12/20/2006
1.1.1.3.5	Develop Risk Management Plan	12/21/2006	12/25/2006
1.1.1.3.6	Develop QA Plan	12/26/2006	12/28/2006
1.1.1.4	Produce Monthly Reports	12/15/2006	8/26/2008
1.1.1.5	Host WebEx conference calls (x24)	12/15/2006	8/26/2008





Work Breakdown Structure	Project Task Name	Start Date	End Date
1.1.2	Business Process Analysis and Technology Research	12/4/2006	2/2/2007
1.1.2.1	Gather e-Manifest system and flow requirements	12/4/2006	2/2/2007
1.1.2.1.1	Prepare for business requirements gathering sessions	12/4/2006	12/8/2006
1.1.2.1.2	Facilitate business requirement gathering sessions	12/11/2006	12/12/2006
1.1.2.1.3	Document initial session business requirements	12/13/2006	12/15/2006
1.1.2.1.4	Issue session business requirements for comment	12/18/2006	12/29/2006
1.1.2.1.5	Incorporate feedback	1/1/2007	1/5/2007
1.1.2.1.6	Document Requirement identified Issues	1/8/2007	1/12/2007
1.1.2.1.7	Resolve Business Requirement Issues	1/15/2007	2/2/2007
1.1.2.2	Identify re-usable existing schema components	12/4/2006	12/12/2006
1.1.2.2.1	Review RCRAInfo Schema and SSC for re-usability	12/4/2006	12/8/2006
1.1.2.2.2	Document identification of re-usable components	12/11/2006	12/12/2006
1.1.2.3	Conduct Feasibility Study and Technical Evaluation	12/4/2006	1/23/2007
1.1.2.3.1	Identify candidate generators, transporters, TSDF	12/4/2006	12/5/2006
1.1.2.3.2	Select and obtain commitment from representatives	12/6/2006	12/19/2006
1.1.2.3.3	Perform feasibility study and technical evaluation	12/20/2006	1/16/2007
1.1.2.3.4	Develop feasibility and technical evaluation report	1/17/2007	1/23/2007
1.1.2.4	Conduct Review and Evaluation of Handheld devices	12/4/2006	1/17/2007
1.1.2.4.1	Determine initial criteria for use of handhelds	12/4/2006	12/6/2006
1.1.2.4.2	Identify candidate technologies for review & evaluation	12/7/2006	12/13/2006
1.1.2.4.3	Obtain literature, hardware, software for evaluation	12/14/2006	12/27/2006
1.1.2.4.4	Perform review and evaluation of selected technologies	12/28/2006	1/10/2007
1.1.2.4.5	Develop findings and recommendations report	1/11/2007	1/17/2007
1.1.2.5	Develop Business Requirements	12/4/2006	1/19/2007
1.1.2.5.1	Develop Draft Business Requirements Document	12/4/2006	12/15/2006
1.1.2.5.2	Issue Draft Business Requirements Document	12/18/2006	12/29/2006
1.1.2.5.3	Incorporate Business Requirements Feedback	1/1/2007	1/5/2007
1.1.2.5.4	Finalize Business Requirements Document	1/8/2007	1/12/2007



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.1.2.5.5	Obtain Team Acceptance for Business Requirements	1/15/2007	1/19/2007
1.1.2.6	Develop Technology Recommendations Report	12/4/2006	1/3/2007
1.1.2.6.1	Develop Draft Technology Recommendations Report	12/4/2006	12/8/2006
1.1.2.6.2	Issue Draft Technology Recommendations Report	12/11/2006	12/15/2006
1.1.2.6.3	Incorporate Technology Recommendations Feedback	12/18/2006	12/20/2006
1.1.2.6.4	Finalize Technology Recommendations Report	12/21/2006	12/27/2006
1.1.2.6.5	Obtain Team Acceptance for Technology Report	12/28/2006	1/3/2007
1.1.3	State Readiness Assessment	12/29/2006	1/30/2007
1.1.3.1	Perform Minnesota State Readiness Assessment	12/29/2006	1/26/2007
1.1.3.1.1	Assess State technical readiness	12/29/2006	12/29/2006
1.1.3.1.2	Assess State Node readiness	12/29/2006	12/29/2006
1.1.3.1.3	Document state data exchange requirements	1/1/2007	1/1/2007
1.1.3.1.4	Develop draft State Assessment and Readiness Report	1/2/2007	1/8/2007
1.1.3.1.5	Issue Draft State Assessment and Readiness Report	1/9/2007	1/15/2007
1.1.3.1.6	Incorporate State Assessment Feedback	1/16/2007	1/17/2007
1.1.3.1.7	Finalize State Assessment and Readiness Report	1/18/2007	1/19/2007
1.1.3.1.8	Obtain Team Acceptance for State Assessment Report	1/22/2007	1/26/2007
1.1.3.2	Perform New Jersey State Readiness Assessment	12/29/2006	1/26/2007
1.1.3.2.1	Assess State technical readiness	12/29/2006	12/29/2006
1.1.3.2.2	Assess State Node readiness	12/29/2006	12/29/2006
1.1.3.2.3	Document state data exchange requirements	1/1/2007	1/1/2007
1.1.3.2.4	Develop draft State Assessment and Readiness Report	1/2/2007	1/8/2007
1.1.3.2.5	Issue Draft State Assessment and Readiness Report	1/9/2007	1/15/2007
1.1.3.2.6	Incorporate State Assessment Feedback	1/16/2007	1/17/2007
1.1.3.2.7	Finalize State Assessment and Readiness Report	1/18/2007	1/19/2007
1.1.3.2.8	Obtain Team Acceptance for State Assessment Report	1/22/2007	1/26/2007
1.1.3.3	Perform Michigan State Readiness Assessment	12/29/2006	1/26/2007
1.1.3.3.1	Assess State technical readiness	12/29/2006	12/29/2006



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.1.3.3.2	Assess State Node readiness	12/29/2006	12/29/2006
1.1.3.3.3	Document state data exchange requirements	1/1/2007	1/1/2007
1.1.3.3.4	Develop draft State Assessment and Readiness Report	1/2/2007	1/8/2007
1.1.3.3.5	Issue Draft State Assessment and Readiness Report	1/9/2007	1/15/2007
1.1.3.3.6	Incorporate State Assessment Feedback	1/16/2007	1/17/2007
1.1.3.3.7	Finalize State Assessment and Readiness Report	1/18/2007	1/19/2007
1.1.3.3.8	Obtain Team Acceptance for State Assessment Report	1/22/2007	1/26/2007
1.1.3.4	Perform Massachussets State Readiness Assessment	12/29/2006	1/26/2007
1.1.3.4.1	Assess State technical readiness	12/29/2006	12/29/2006
1.1.3.4.2	Assess State Node readiness	12/29/2006	12/29/2006
1.1.3.4.3	Document state data exchange requirements	1/1/2007	1/1/2007
1.1.3.4.4	Develop draft State Assessment and Readiness Report	1/2/2007	1/8/2007
1.1.3.4.5	Issue Draft State Assessment and Readiness Report	1/9/2007	1/15/2007
1.1.3.4.6	Incorporate State Assessment Feedback	1/16/2007	1/17/2007
1.1.3.4.7	Finalize State Assessment and Readiness Report	1/18/2007	1/19/2007
1.1.3.4.8	Obtain Team Acceptance for State Assessment Report	1/22/2007	1/26/2007
1.1.3.5	Identify state to host and manage the server and db	1/29/2007	1/30/2007
1.1.3.6	Conduct Project Program / Technical Conference	12/29/2006	1/30/2007
1.1.3.6.1	Select venue and schedule conference	12/29/2006	12/29/2006
1.1.3.6.2	Prepare for conference	12/29/2006	1/5/2007
1.1.3.6.3	Host conference	1/5/2007	1/9/2007
1.1.3.6.4	Issue conference notes	1/9/2007	1/16/2007
1.1.3.6.5	Incorporate feedback	1/16/2007	1/23/2007
1.1.3.6.6	Issue final conference notes	1/23/2007	1/30/2007
1.1.4	Infrastructure Preparation to support e-Manifest data flow	12/29/2006	2/1/2007
1.1.4.1	Develop Technology and Security Requirements	12/29/2006	1/25/2007
1.1.4.1.1	Conduct Tech and Security Requirements workshop	12/29/2006	1/2/2007
1.1.4.1.2	Document Technology and Security Requirements	1/3/2007	1/9/2007



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.1.4.1.3	Issue draft Technology and Security Requirements	1/10/2007	1/16/2007
1.1.4.1.4	Incorporate comments into Technology and Security	1/17/2007	1/18/2007
1.1.4.1.5	Obtain Tech and Security Requirements acceptance	1/19/2007	1/25/2007
1.1.4.2	Establish Development Environment	12/29/2006	2/1/2007
1.1.4.2.1	Acquire necessary hardware and software	12/29/2006	1/25/2007
1.1.4.2.2	Install necessary hardware and software	1/26/2007	2/1/2007
<b>1.2</b>	<b>Phase 2. Design and Development of a CMTS</b>	<b>2/5/2007</b>	<b>8/29/2007</b>
1.2.1	Develop Central e-Manifest Schema	2/5/2007	8/6/2007
1.2.1.1	Develop e-Manifest Schema	2/5/2007	4/30/2007
1.2.1.1.1	Develop draft XML	2/5/2007	2/9/2007
1.2.1.1.2	Develop draft data exchange template (DET)	2/12/2007	2/16/2007
1.2.1.1.3	Develop sample XML instance files	2/19/2007	2/19/2007
1.2.1.1.4	Develop draft flow configuration document (FCD)	2/20/2007	3/19/2007
1.2.1.1.5	Develop data exchange services	3/20/2007	4/16/2007
1.2.1.1.6	Develop test scripts and tools to support testing	4/17/2007	4/30/2007
1.2.1.2	Test e-Manifest Schema	5/1/2007	5/21/2007
1.2.1.2.1	Test iteratively, documenting problems and corrections	5/1/2007	5/14/2007
1.2.1.2.2	Refine XML schema and services based on test	5/15/2007	5/21/2007
1.2.1.3	Publish e-Manifest Schema	5/22/2007	8/6/2007
1.2.1.3.1	Finalize documentation to reflect any changes	5/22/2007	5/28/2007
1.2.1.3.2	Prepare the schema submission package	5/29/2007	6/4/2007
1.2.1.3.3	Schema Review Process	6/5/2007	7/9/2007
1.2.1.3.4	Develop Trading Partner Agreements (TPA)	7/10/2007	7/30/2007
1.2.1.3.5	Submit XML schema and supporting documents	7/31/2007	8/6/2007
1.2.2	Design and Develop CMTS	2/5/2007	8/29/2007
1.2.2.1	Design CMTS	2/5/2007	4/11/2007
1.2.2.1.1	Prepare draft design for prototype CMTS	2/5/2007	3/2/2007



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.2.2.1.2	Conduct design workshops for CMTS	3/5/2007	3/9/2007
1.2.2.1.3	Revise CMTS design documentation	3/12/2007	3/23/2007
1.2.2.1.4	Present CMTS design	3/26/2007	3/27/2007
1.2.2.1.5	Issue CMTS design to EPA and stakeholders	3/28/2007	3/28/2007
1.2.2.1.6	Incorporate comments from EPA and others	3/29/2007	4/4/2007
1.2.2.1.7	Obtain CMTS design acceptance	4/5/2007	4/11/2007
1.2.2.2	Develop CMTS	4/12/2007	7/25/2007
1.2.2.2.1	Build CMTS Components	4/12/2007	7/4/2007
1.2.2.2.2	Install Components to Test Environment	7/5/2007	7/11/2007
1.2.2.2.3	Test and fix CMTS Components	7/12/2007	7/25/2007
1.2.2.3	Produce CMTS Test Documentation	7/26/2007	8/29/2007
1.2.2.3.1	Prepare draft test document for CMTS	7/26/2007	8/8/2007
1.2.2.3.2	Issue test document for comment	8/9/2007	8/15/2007
1.2.2.3.3	Incorporate comments into CMTS test document	8/16/2007	8/22/2007
1.2.2.3.4	Obtain CMTS test document acceptance	8/23/2007	8/29/2007
1.2.2.4	Install CMTS at Host State	7/26/2007	8/22/2007
1.2.2.4.1	Install and configure CMTS at host site	7/26/2007	8/1/2007
1.2.2.4.2	Support CMTS testing at host site	8/2/2007	8/15/2007
1.2.2.4.3	Obtain acceptance of CMTS at Host Site	8/16/2007	8/22/2007
1.2.3	Develop Mobile CMTS	4/12/2007	8/27/2007
1.2.3.1	Acquire Mobile Devices	4/12/2007	5/10/2007
1.2.3.1.1	Obtain agreement to purchase mobile devices	4/12/2007	4/12/2007
1.2.3.1.2	Acquire 10 mobile devices per agreement to purchase	4/13/2007	5/10/2007
1.2.3.2	Develop Mobile Software	4/12/2007	7/25/2007
1.2.3.2.1	Build mobile CMTS components	4/12/2007	7/4/2007
1.2.3.2.2	Install components to test mobile devices	7/5/2007	7/11/2007
1.2.3.2.3	Test and fix Mobile CMTS components	7/12/2007	7/25/2007
1.2.3.3	Develop Mobile CMTS Training Guide	7/26/2007	8/27/2007

Work Breakdown Structure	Project Task Name	Start Date	End Date
1.2.3.3.1	Prepare draft Mobile CMTS training guide	7/26/2007	8/1/2007
1.2.3.3.2	Issue draft Mobile CMTS training guide for comment	8/2/2007	8/15/2007
1.2.3.3.3	Incorporate comments into Mobile CMTS training guide	8/16/2007	8/20/2007
1.2.3.3.4	Obtain Mobile CMTS training guide acceptance	8/21/2007	8/27/2007
1.2.3.4	Produce Mobile CMTS Test Documentation	7/26/2007	8/27/2007
1.2.3.4.1	Prepare draft test document for CMTS	7/26/2007	8/1/2007
1.2.3.4.2	Issue test document for comment	8/2/2007	8/15/2007
1.2.3.4.3	Incorporate comments into CMTS test document	8/16/2007	8/20/2007
1.2.3.4.4	Obtain CMTS test document acceptance	8/21/2007	8/27/2007
<b>1.3</b>	<b>Phase 3. State e-Manifest Data Flow Design and Dev</b>	<b>8/30/2007</b>	<b>1/11/2008</b>
1.3.1	Design State Specific e-Manifest Data Flows	8/30/2007	1/11/2008
1.3.1.1	Design NJ Data Flow	8/30/2007	10/9/2007
1.3.1.1.1	Verify business requirements gathered earlier	8/30/2007	8/31/2007
1.3.1.1.2	Perform data element mapping and crosswalk	9/3/2007	9/7/2007
1.3.1.1.3	Develop System Design Document (SDD)	9/10/2007	9/14/2007
1.3.1.1.4	Issue SDD for comment	9/17/2007	9/28/2007
1.3.1.1.5	Incorporate SDD comments	10/1/2007	10/2/2007
1.3.1.1.6	Obtain SDD acceptance	10/3/2007	10/9/2007
1.3.1.2	Design MN Data Flow	10/10/2007	11/19/2007
1.3.1.2.1	Verify business requirements gathered earlier	10/10/2007	10/11/2007
1.3.1.2.2	Perform data element mapping and crosswalk	10/12/2007	10/18/2007
1.3.1.2.3	Develop System Design Document (SDD)	10/19/2007	10/25/2007
1.3.1.2.4	Issue SDD for comment	10/26/2007	11/8/2007
1.3.1.2.5	Incorporate SDD comments	11/9/2007	11/12/2007
1.3.1.2.6	Obtain SDD acceptance	11/13/2007	11/19/2007
1.3.1.3	Design MI Data Flow	8/30/2007	10/9/2007
1.3.1.3.1	Verify business requirements gathered earlier	8/30/2007	8/31/2007

Work Breakdown Structure	Project Task Name	Start Date	End Date
1.3.1.3.2	Perform data element mapping and crosswalk	9/3/2007	9/7/2007
1.3.1.3.3	Develop System Design Document (SDD)	9/10/2007	9/14/2007
1.3.1.3.4	Issue SDD for comment	9/17/2007	9/28/2007
1.3.1.3.5	Incorporate SDD comments	10/1/2007	10/2/2007
1.3.1.3.6	Obtain SDD acceptance	10/3/2007	10/9/2007
1.3.1.4	Design MA Data Flow	10/10/2007	11/19/2007
1.3.1.4.1	Verify business requirements gathered earlier	10/10/2007	10/11/2007
1.3.1.4.2	Perform data element mapping and crosswalk	10/12/2007	10/18/2007
1.3.1.4.3	Develop System Design Document (SDD)	10/19/2007	10/25/2007
1.3.1.4.4	Issue SDD for comment	10/26/2007	11/8/2007
1.3.1.4.5	Incorporate SDD comments	11/9/2007	11/12/2007
1.3.1.4.6	Obtain SDD acceptance	11/13/2007	11/19/2007
1.3.1.5	Develop State Data Flow Test Plans	11/20/2007	12/19/2007
1.3.1.5.1	Prepare draft test document for State data flow	11/20/2007	11/26/2007
1.3.1.5.2	Issue test document for comment	11/27/2007	12/10/2007
1.3.1.5.3	Incorporate comments into State data flow test	12/11/2007	12/12/2007
1.3.1.5.4	Obtain State data flow test document acceptance	12/13/2007	12/19/2007
1.3.1.6	Develop State e-Manifest Flow Implementation Guide	12/20/2007	1/11/2008
1.3.1.6.1	Prepare draft implementation guide	12/20/2007	12/26/2007
1.3.1.6.2	Issue draft implementation guide for comment	12/27/2007	1/2/2008
1.3.1.6.3	Incorporate comments into implementation guide	1/3/2008	1/4/2008
1.3.1.6.4	Obtain implementation guide acceptance	1/7/2008	1/11/2008
1.3.2	Develop State Specific e-Manifest Data Flows	10/10/2007	12/24/2007
1.3.2.1	Develop NJ Data Flow	10/10/2007	11/13/2007
1.3.2.1.1	Develop flow components	10/10/2007	10/30/2007
1.3.2.1.2	Configure flow components for the State	10/31/2007	11/2/2007
1.3.2.1.3	Unit Test e-Manifest Data Flow	11/5/2007	11/9/2007
1.3.2.1.4	Obtain state approval	11/12/2007	11/13/2007



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.3.2.2	Develop MN Data Flow	11/20/2007	12/24/2007
1.3.2.2.1	Develop flow components	11/20/2007	12/10/2007
1.3.2.2.2	Configure flow components for the State	12/11/2007	12/13/2007
1.3.2.2.3	Unit Test e-Manifest Data Flow	12/14/2007	12/20/2007
1.3.2.2.4	Obtain state approval	12/21/2007	12/24/2007
1.3.2.3	Develop MI Data Flow	10/10/2007	11/13/2007
1.3.2.3.1	Develop flow components	10/10/2007	10/30/2007
1.3.2.3.2	Configure flow components for the State	10/31/2007	11/2/2007
1.3.2.3.3	Unit Test e-Manifest Data Flow	11/5/2007	11/9/2007
1.3.2.3.4	Obtain state approval	11/12/2007	11/13/2007
1.3.2.4	Develop MA Data Flow	11/20/2007	12/24/2007
1.3.2.4.1	Develop flow components	11/20/2007	12/10/2007
1.3.2.4.2	Configure flow components for the State	12/11/2007	12/13/2007
1.3.2.4.3	Unit Test e-Manifest Data Flow	12/14/2007	12/20/2007
1.3.2.4.4	Obtain state approval	12/21/2007	12/24/2007
<b>1.4</b>	<b>Phase 4. State e-Manifest Data Flow Installation</b>	<b>1/14/2008</b>	<b>5/16/2008</b>
1.4.1	Configure Test and Production Environments	1/14/2008	3/26/2008
1.4.1.1	Establish Test and Production Environments	1/14/2008	2/6/2008
1.4.1.1.1	Conduct Production Planning Meeting	1/14/2008	1/16/2008
1.4.1.1.2	Finalize deployment schedule	1/17/2008	1/23/2008
1.4.1.1.3	Establish State test and Production Environments	1/24/2008	2/6/2008
1.4.1.2	System Test	2/7/2008	3/26/2008
1.4.1.2.1	Deliver system test plans and scripts to State Test	2/7/2008	2/13/2008
1.4.1.2.2	Implement application in test environment	2/14/2008	2/27/2008
1.4.1.2.3	Support conversion and system testing	2/28/2008	3/19/2008
1.4.1.2.4	Obtain system test acceptance sign-off	3/20/2008	3/26/2008
1.4.2	Migration and Data Flow Installation / Implementation	3/27/2008	5/2/2008



Work Breakdown Structure	Project Task Name	Start Date	End Date
1.4.2.1	Confirm deployment schedule	3/27/2008	4/2/2008
1.4.2.2	Develop deployment task lists	4/3/2008	4/4/2008
1.4.2.3	Implement production data flows	4/7/2008	4/18/2008
1.4.2.4	Implement production mobile devices	4/21/2008	4/25/2008
1.4.2.5	Implement production CMX	4/28/2008	5/2/2008
1.4.3	Conduct e-Manifest & Tracking System User Training	3/27/2008	5/9/2008
1.4.3.1	Develop and deliver training curriculum	3/27/2008	5/9/2008
1.4.3.1.1	Produce draft training manual	3/27/2008	4/2/2008
1.4.3.1.2	Issue training manual for comment	4/3/2008	4/16/2008
1.4.3.1.3	Incorporate training manual comments	4/17/2008	4/23/2008
1.4.3.1.4	Schedule training session	4/24/2008	4/25/2008
1.4.3.1.5	Deliver user training	4/28/2008	5/9/2008
1.4.4	Produce System Documentation	5/5/2008	5/16/2008
1.4.4.1	Deliver source code and scripts	5/5/2008	5/9/2008
1.4.4.2	Deliver technical documentation	5/12/2008	5/16/2008
1.4.5	Implement in Production	5/16/2008	5/16/2008
<b>1.5</b>	<b>Phase 5. Post Implementation / Lessons Learned</b>	<b>5/19/2008</b>	<b>8/26/2008</b>
1.5.1	Post Production Support	5/19/2008	8/19/2008
1.5.1.1	Free Maintenance and Support (3 months)	5/19/2008	8/19/2008
1.5.1.2	Develop Lessons Learned Report	5/19/2008	6/3/2008
1.5.1.3	Develop Marketing Package	6/4/2008	7/1/2008
1.5.1.4	Publish Project Results	7/2/2008	7/8/2008
1.5.1.5	PARE (30 days)	5/19/2008	6/19/2008
1.5.2	Obtain Project Sign Off	8/20/2008	8/26/2008



Article 1, Attachment F  
Service Level Agreement

RESERVED



## **Article 2 – General Terms and Conditions**

### **2.010 Contract Structure and Administration**

#### **2.011 Definitions**

Capitalized terms used in this Contract (including its Exhibits) shall have the meanings given below, unless the context requires otherwise:

- (a) “Days” means calendar days unless otherwise specified.
- (b) “24x7x365” means 24 hours a day, seven days a week, and 365 days a year (including the 366th day in a leap year).
- (c) “Additional Service” means any Services/Deliverables within the scope of the Contract, but not specifically provided under any Statement of Work, that once added will result in the need to provide the Contractor with additional consideration. “Additional Service” does not include New Work.
- (d) “Amendment Labor Rates” means the schedule of fully-loaded hourly labor rates attached as **Article 1, Attachment C**.
- (e) “Audit Period” has the meaning given in **Section 2.111**.
- (f) “Business Day,” whether capitalized or not, shall mean any day other than a Saturday, Sunday or State-recognized legal holiday (as identified in the Collective Bargaining Agreement for State employees) from 8:00am EST through 5:00pm EST unless otherwise stated.
- (g) “Incident” means any interruption in Services.
- (h) “Business Critical” means any function identified in any Statement of Work as Business Critical.
- (i) “Deliverable” means physical goods and/or commodities as required or identified by a Statement of Work
- (j) “Key Personnel” means any Personnel designated in **Article 1, Section 1.201 and/or Attachment B**, as Key Personnel.
- (k) “New Work” means any Services/Deliverables outside the scope of the Contract and not specifically provided under any Statement of Work, that once added will result in the need to provide the Contractor with additional consideration. “New Work” does not include Additional Service.
- (l) “Services” means any function performed for the benefit of the State.
- (m) “State Location” means any physical location where the State performs work. State Location may include state-owned, leased, or rented space.
- (n) “Subcontractor” means a company Contractor delegates performance of a portion of the Services to, but does not include independent contractors engaged by Contractor solely in a staff augmentation role.
- (o) “Work in Process” means a Deliverable that has been partially prepared, but has not been presented to the State for Approval.

#### **2.012 Attachments and Exhibits**

All Attachments and/or Exhibits attached to any, and all Statement(s) of Work, attached to, or referencing this Contract, are incorporated in their entirety into, and form part of, this Contract.

#### **2.013 Statements of Work**

- (a) The parties agree that the Services/Deliverables to be rendered by Contractor pursuant to this Contract (and any future amendments of it) will be defined and described in detail in Statements of Work or Purchase Orders (PO) executed under this Contract. Contractor shall not be obliged or authorized to commence any work to implement a Statement of Work until authorized via a PO issued against this Contract, or an amendment to this Contract (see 2.106). Contractor shall perform in accordance with this Contract, including the Statements of Work/Purchase Orders executed under it.
- (b) Unless otherwise agreed by the parties, each Statement of Work (as defined in Article 1) will include, or incorporate by reference to the appropriate Contract Article 1 Attachment containing, the following information:
  - a description of the Services to be performed by Contractor under the Statement of Work;



- a project schedule (including the commencement and completion dates for all tasks, subtasks (for all projects of sufficient duration and complexity to warrant sub task breakdown), and Deliverables;
- a list of the Deliverables to be provided, if any, including any particular specifications and acceptance criteria for such Deliverables, and the dates on which the Deliverables are scheduled to be completed and delivered to the State;
- all Deliverable price schedules and other charges associated with the Statement of Work, the overall fixed price for such Statement of Work and any other appropriate pricing and payment terms;
- a specification of Contractor's and the State's respective performance responsibilities with respect to the performance or completion of all tasks, subtasks and Deliverables;
- a listing of any Key Personnel of Contractor and/or its Subcontractors for that Statement of Work and any future Statements of Work;
- any other information or provisions the parties agree to include.

(c) Reserved.

(d) The initial Statements of Work, as of the Effective Date, are attached to this Contract.

## 2.014 Issuing Office

This Contract is issued by the Department of Management and Budget, Office of Purchasing Operations ("PO") and MDIT/MDEQ (collectively, including all other relevant State of Michigan departments and agencies, the "State"). PO is the sole point of contact in the State with regard to all procurement and contractual matters relating to 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 Contractor Administrator within the Office of Purchasing Operations for this Contract is:

Joann Klasko  
Office of Purchasing Operations  
Department of Management and Budget  
Mason Bldg, 2nd Floor  
PO Box 30026  
Lansing, MI 48909  
KlaskoJ@michigan.gov  
(517) 241-7233

## 2.015 Contract Compliance Inspector

Upon receipt at Purchasing Operations of the properly executed Contract, it is anticipated that the Director of DMB Purchasing Operations, in consultation with MDIT, will direct that the person named below, or any other person so designated, be authorized to monitor and coordinate the activities for the Contract on a day-to-day basis during its term. However, monitoring of this Contract implies **no authority to change, modify, clarify, amend, or otherwise alter the prices, terms, conditions and specifications of such Contract as that authority is retained by the Office of Purchasing Operations.** The Contract Compliance Inspector for this Contract is:

Patty Bogard  
Department of Information Technology  
Constitution Hall/Atrium South  
525 W Allegan Street  
Lansing, MI 48933  
(517) 335-4051  
BogardP@michigan.gov



## 2.016 Project Manager

The following individual will oversee the project:

Mark Breithart  
Department of Information Technology  
Constitution Hall  
525 W. Allegan, 5 South  
Lansing, MI 48933  
Phone: 517- 241-1293  
Email: BreithartM@michigan.gov

### 2.020 Contract Objectives/Scope/Background

#### **2.021 Background**

Please refer to Section 1.001.

#### **2.022 Purpose**

Please refer to Section 1.002.

#### **2.023 Objectives and Scope**

The objective of this contract is to acquire services for the completion and successful implementation of a pilot e-Manifest Tracking System providing the central manifest database and functionality required for the state business operations for the Michigan Department of Environmental Quality (lead state), Minnesota Pollution Control Agency, Massachusetts Department of Environmental Protection, and New Jersey Department of Environmental Protection.

The project will meet this goal by providing states with an infrastructure, based on the National Environmental Exchange Network (Exchange Network) technologies and tools, to support secure and timely availability of their manifest information. It will also be available, based on need, to other local, state and federal environmental networks and efforts.

#### **2.024 Interpretation**

Sections 2.021 through 2.023 are intended to provide background and context for this Contract and are not intended to expand the scope of the obligations under this Contract or to alter the plain meaning of the terms and conditions of this Contract. However, to the extent the terms and conditions of this Contract are unclear or otherwise ambiguous, such terms and conditions are to be interpreted and construed in light of the provisions of this Section.

#### **2.025 Form, Function and Utility**

If the Contract is for use of more than one State agency and if the Deliverable/Service does not meet the form, function, and utility required by that State agency, that agency may, subject to State purchasing policies, procure the Deliverable/Service from another source.

### 2.030 Legal Effect and Term

#### **2.031 Legal Effect**

Except as otherwise agreed in writing by the parties, the State assumes no liability for costs incurred by Contractor or payment under this Contract, until Contractor is notified in writing that this Contract (or Change Order) has been approved by the State Administrative Board (if required), approved and signed by all the parties, and a Purchase Order against the Contract has been issued.



## **2.032 Contract Term**

This Contract is for a period of two (2) years commencing on the date that the last signature required to make the Contract enforceable is obtained. All outstanding Purchase Orders shall also expire upon the termination (cancellation for any of the reasons listed in 2.210) of the Contract, unless otherwise extended pursuant to the Contract. Absent an early termination for any reason, Purchase Orders issued but not expired, by the end of the Contract's stated term, will remain in effect for the balance of the fiscal year for which they were issued.

## **2.033 Renewal(s)**

This Contract may be renewed in writing by mutual agreement of the parties not less than thirty (30) days before its expiration. The Contract may be renewed for up to two (2) additional one (1) year periods. Successful completion of negotiations surrounding the terms of the extension will be a pre-requisite for the exercise of any option year.

### **2.040 Contractor Personnel**

## **2.041 Contractor Personnel**

(a) Personnel Qualifications. All persons assigned by Contractor to the performance of Services under this Contract shall be employees of Contractor or its majority-owned (directly or indirectly, at any tier) subsidiaries (or a State-approved Subcontractor) and shall be fully qualified to perform the work assigned to them. Contractor shall include a similar provision in any subcontract entered into with a Subcontractor. For the purposes of this Contract, independent contractors engaged by Contractor solely in a staff augmentation role shall be treated by the State as if they were employees of Contractor for this Contract only; however, the State understands that the relationship between Contractor and Subcontractor is an independent contractor relationship.

### **(b) Key Personnel**

(i) In discharging its obligations under this Contract, Contractor shall provide the named Key Personnel on the terms indicated (ii) Key Personnel shall be dedicated as defined to the Project for its duration in the applicable Statement of Work with respect to other individuals designated as Key Personnel for that Statement of Work.

(iii) The State will have 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, will introduce the individual to the appropriate State representatives, and will 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. Additionally, the State's request shall be based on legitimate, good-faith reasons. Proposed alternative for the individual denied, shall be fully qualified for the position.

(iv) Contractor shall not remove any Key Personnel from their assigned roles or the Contract without the prior written consent of the State. If the Contractor does remove Key Personnel without the prior written consent of the State, it shall be considered an unauthorized removal ("Unauthorized Removal"). It shall not be considered an Unauthorized Removal if Key Personnel must be replaced 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. It shall not be considered an Unauthorized Removal if Key Personnel must be replaced because of promotions or other job movements allowed by Contractor personnel policies or Collective Bargaining Agreement(s) as long as the State receives prior written notice before shadowing occurs and Contractor provides thirty (30) days of shadowing unless parties agree to a different time period. The Contractor with the State shall review any Key Personnel replacements, and appropriate transition planning will be established. Any Unauthorized Removal may be considered by the State to be a material breach of the Contract, in respect of which the State may elect to exercise its rights under **Section 2.210**.



(v) It is acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of the Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix 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 2.210**, the State may assess liquidated damages against Contractor as specified below.

For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the liquidated damages amount shall be \$25,000.00 per individual provided Contractor identifies a replacement approved by the State pursuant to **Section 2.041** and assigns the replacement to the Project to shadow the Key Personnel s/he is replacing for a period of at least thirty (30) days prior to such Key Personnel's removal.

If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least thirty (30) days, in addition to the \$25,000.00 liquidated damages for an Unauthorized Removal, Contractor shall pay the amount of \$833.33 per day for each day of the thirty (30) day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$25,000.00 maximum per individual. The total liquidated damages that may be assessed per Unauthorized Removal and failure to provide thirty (30) days of shadowing shall not exceed \$50,000.00 per individual.

(c) Re-assignment of non-Key Personnel. Prior to re-deploying to other projects, at the completion of their assigned tasks on the Project, teams of its non-Key Personnel who are performing Services on-site at State facilities or who are otherwise dedicated primarily to the Project, Contractor will give the State at least ten (10) Business Days notice of the proposed re-deployment to give the State an opportunity to object to the re-deployment if the State reasonably believes such team's Contract responsibilities are not likely to be completed and approved by the State prior to the proposed date of re-deployment.

(d) Re-assignment of Personnel at the State's Request. The State reserves the right to require the removal from the Project of Contractor personnel found, in the judgment of the State, to be unacceptable. The State's request shall be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request shall be based on legitimate, good-faith reasons. Replacement personnel for the removed person shall be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed personnel, the State agrees to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any such incident with removed personnel results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Service will not be counted in **Section 2.076** for a time as agreed to by the parties.

(e) Staffing Levels.

(i) All staff requirements not specified in the applicable Statement of Work or State-approved project plan as State personnel will be supplied by Contractor. This includes secretarial, clerical and Contract administration support staff necessary for Contractor to perform its obligations hereunder.

(ii) Contractor shall provide sufficient personnel resources for the completion of Contract tasks indicated in Contractor's project plan approved by the State. If the level of personnel resources is insufficient to complete any Contractor Contract tasks in accordance with the Contract time schedule as demonstrated by Contractor's failure to meet mutually agreed to time schedules, Contractor shall promptly add additional qualified personnel resources to the performance of the affected tasks, at no additional charge to the State, in an amount sufficient to complete performance of Contractor's tasks in accordance with the Contract time schedule.

(f) Personnel Turnover. The Parties agree that it is in their best interests to keep the turnover rate of employees of Contractor and its Subcontractors who are performing the Services to a reasonable minimum. Accordingly, if the State determines that the turnover rate of such employees is excessive and so notifies





Contractor, Contractor will meet with the State to discuss the reasons for the turnover rate and otherwise use commercially reasonable efforts to minimize such turnover rate. If requested to do so by the State, Contractor will submit to the State its proposals for reducing the turnover rate to an acceptable level. In any event, notwithstanding the turnover of personnel, Contractor remains obligated to perform the Services without degradation and in accordance with the State-approved Contract schedule.

(g) Location. All staff assigned by Contractor to work on the Contract will perform their duties either primarily at Contractor's offices and facilities or at State facilities. Without limiting the generality of the foregoing, Key Personnel will, at a minimum, spend at least the amount of time on-site at State facilities as indicated in the applicable Statement of Work. Subject to availability, selected Contractor personnel may be assigned office space to be shared with State personnel.

#### **2.042 Contractor Identification**

Contractor employees shall be clearly identifiable while on State property by wearing a State-issued badge, as required. Contractor employees are required to clearly identify themselves and the company they work for whenever making contact with State personnel by telephone or other means.

#### **2.043 Cooperation with Third Parties**

Contractor agrees to cause its personnel and the personnel of any Subcontractors to cooperate with the State and its agents and other contractors including the State's Quality Assurance personnel, and, as reasonably requested by the State, to provide to the State's agents and other contractors with reasonable access to Contractor's Project personnel, systems and facilities to the extent they relate to activities specifically associated with this Contract and will not interfere or jeopardize the safety or operation of the systems or facilities and provided Contractor receives reasonable prior written notice of such request. The State acknowledges that Contractor's time schedule for the Contract is very specific and agrees not to unnecessarily or unreasonably interfere with, delay or otherwise impeded Contractor's performance under this Contract with such requests for access.

#### **2.044 Subcontracting by Contractor**

(a) Contractor shall have full responsibility for the successful performance and completion of all of the Services and Deliverables. The State will consider Contractor to be the sole point of contact with regard to all contractual matters under this Contract, including payment of any and all charges for Services and Deliverables.

(b) Contractor shall not delegate any duties under this Contract to a Subcontractor unless the Department of Management and Budget, Office of Purchasing Operations has given written consent to such delegation. The State shall have the right of prior written approval of all Subcontractors and to require Contractor to replace any Subcontractors found, in the reasonable judgment of the State, to be unacceptable. The State's request shall be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request shall be based on legitimate, good-faith reasons. Replacement Subcontractor(s) for the removed Subcontractor shall be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed Subcontractor, the State will agree to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any such incident with a removed Subcontractor results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Work will not be counted in **Section 2.076** for a time agreed upon by the parties.

(c) In any subcontracts entered into by Contractor for the performance of the Services, Contractor shall require the Subcontractor, to the extent of the Services to be performed by the Subcontractor, to be bound to Contractor by the terms of this Contract and to assume toward Contractor all of the obligations and responsibilities that Contractor, by this Contract, assumes toward the State. The State reserves the right to receive copies of and review all subcontracts, although Contractor may delete or mask any proprietary information, including pricing, contained in such contracts before providing them to the State. The management of any Subcontractor will be the responsibility of Contractor, and Contractor shall remain



responsible for the performance of its Subcontractors to the same extent as if Contractor had not subcontracted such performance. Contractor shall make all payments to Subcontractors or suppliers of Contractor. Except as otherwise agreed in writing by the State and Contractor, the State will not be obligated to direct payments for the Services other than to Contractor. The State's written approval of any Subcontractor engaged by Contractor to perform any obligation under this Contract shall not relieve Contractor of any obligations or performance required under this Contract. Attached as **Exhibit E** is a list of the Subcontractors, if any, approved by the State as of the execution of this Contract, together with a copy of the applicable subcontract.

(d) Except where specifically approved in writing by the State on a case-by-case basis, Contractor shall flow down the obligations in **Sections 2.040, 2.110, 2.150, 2.160, 2.171(c), 2.172(b), 2.180, 2.260, 2.276, 2.297** in all of its agreements with any Subcontractors.

(e) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the Contract.

#### **2.045 Contractor Responsibility for Personnel**

Contractor shall be responsible for all acts and omissions of its employees, as well as the acts and omissions of any other personnel furnished by Contractor to perform the Services.

#### 2.050 State Standards

#### **2.051 Existing Technology Standards**

The Contractor will adhere to all existing standards as described within the comprehensive listing of the State's existing technology standards at [http://www.michigan.gov/dit/0,1607,7-139-30639\\_30655---,00.html](http://www.michigan.gov/dit/0,1607,7-139-30639_30655---,00.html).

#### **2.052 PM Methodology Standards**

The State has adopted a standard documented Project Management Methodology (PMM) for use on all Information Technology (IT) based projects. See the State's PMM website at <http://www.michigan.gov/projectmanagement>.

The Contractor shall use the State's PPM to manage this Contract. If the Contractor requires training on the PMM, those costs shall be the responsibility of the Contractor, unless otherwise stated.

#### **2.053 Adherence to Portal Technology Tools**

The State has adopted the following tools for its Portal Technology development efforts:

- Vignette Content Management and personalization Tool
- Inktomi Search Engine
- E-Pay Payment Processing Module
- Websphere Commerce Suite for e-Store applications

Unless otherwise stated, Contractor must use the Portal Technology Tools to implement web content management and deployment efforts. Tools used for web-based application development must work in conjunction with Vignette and Inktomi. The interaction with Vignette and Inktomi must be coordinated with DIT, Enterprise Application Services Office, e-Michigan Web Development team.

Contractors that are compelled to use alternate tools must have received an exception from DIT, Enterprise Application Services Office, e-Michigan Web Development team, before this Contract is effective.

#### **2.054 Acceptable Use Policy**

To the extent that Contractor has access to the State computer system, Contractor must comply with the State's Acceptable Use Policy, see <http://www.michigan.gov/ditservice/0,1607,7-179-25781-73760--,00.html>.



All Contractor employees must be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State system. The State reserves the right to terminate Contractor's access to the State system if a violation occurs.

## 2.060 Deliverables

### **2.061 Ordering**

(a) Any Services/Deliverables to be furnished under this Contract shall be ordered by issuance of written Purchase Orders/Blanket Purchase Order by the State after approval by the Contract Administrator or his/her designee. All orders are subject to the terms and conditions of this Contract. In the event of conflict between an order and this Contract, the Contract shall take precedence as stated in **Section 2.293**. In no event shall any additional terms and conditions contained on a Purchase Order/Blanket Purchase Order be applicable, unless specifically contained in that Purchase Order/Blanket Purchase Order's accompanying Statement of Work.

(b) DIT will continue to oversee the use of this Contract by End Users. DIT may, in writing, delegate to agencies the authority to submit requests for certain services directly to the Contractor. DIT may also designate, in writing, some services as non-delegated and require DIT review and approval before agency acquisition. DIT will use Contractor provided management reports and periodic random agency audits to monitor and administer contract usage for delegated services.

### **2.062 Software**

**Exhibit J**, if applicable, lists the items of software the State is required to purchase for execution the Contract. The list in **Exhibit J** includes all software required to complete the Contract and make the Deliverables operable; if any additional software is required in order for the Deliverables to meet the requirements of this Contract, such software shall be provided to the State by Contractor at no additional charge (except where agreed upon and specified in a Statement of Work or Contract Change Notice). **Exhibit J** also identifies certain items of software to be provided by the State.

### **2.063 Hardware**

#### **RESERVED**

### **2.064 Equipment to be New and Prohibited Products**

#### **(a) Equipment to be New**

If applicable, all equipment provided under this Contract by Contractor shall be new where Contractor has knowledge regarding whether the equipment is new or assembled from new or serviceable used parts that are like new in performance or has the option of selecting one or the other. Equipment that is assembled from new or serviceable used parts that are like new in performance is acceptable where Contractor does not have knowledge or the ability to select one or other, unless specifically agreed otherwise in writing by the State.

#### **(b) Prohibited Products**

The State will not accept salvage, distressed, outdated or discontinued merchandise. Shipping of such merchandise to any State agency, as a result of an order placed against the Contract, shall be considered default by the Contractor of the terms and conditions of the Contract and may result in cancellation of the Contract by the State. The brand and product number offered for all items shall remain consistent for the term of the Contract, unless Purchasing Operations has approved a change order pursuant to **Section 2.106**.

## 2.070 Performance

### **2.071 Performance, In General**

The State engages Contractor to execute the Contract and perform the Services/provide the Deliverables, and Contractor undertakes to execute and complete the Contract in its entirety in accordance with the terms and conditions of this Contract and with the participation of State representatives as specified in this Contract.



## **PERFORMANCE AND RELIABILITY EVALUATION (PARE)**

When the State requires that a performance and reliability evaluation (PARE) is to be performed, the standard of performance for the PARE will be closely monitored during the acceptance period.

In the event that the PARE is for components only, all references to systems (processors) should be changed to components.

The Performance and Reliability Evaluation will consist of two phases.

### **1. PHASE I**

The first phase shall be comprised of a specification compliance review of the e-Manifest & Tracking System listed on the ordering documents. Such a system and any associated equipment shall be checked for total compliance with all required specifications of the CONTRACT. In the event that the State determines that any component or feature of the delivered equipment or software does not comply with the mandatory specifications of the CONTRACT, the State shall so notify the Contractor, allowing 14 calendar days for rectification by the Contractor. Should the Contractor be unable to rectify the deficiency, the State reserves the right to cancel the ordering document. Should the equipment and software pass the specification conformance review, the equipment shall enter Phase II of the PARE.

### **2. PHASE II**

#### **a. Determination of System Readiness**

- 1) Prior to the PARE, a committee of three persons will be formed to evaluate the system's performance on a daily basis. The committee will consist of one Contractor representative and two State personnel.
- 2) The PARE will begin on the date when the Contractor and the State certifies that the e-Manifest & Tracking system and any associated equipment is ready for use by the State.

#### **b. During the PARE:**

- 1) All rerun times resulting from system and any associated equipment failure and preventive maintenance shall be excluded from the performance hours.
- 2) All reconfiguration and reload time shall be excluded from the performance hours.
- 3) If files are destroyed as a result of a problem with the Contractor's developed system and any associated equipment and must be rebuilt, the time required to rebuild the files will be considered "down-time" for the system.
- 4) If the Contractor requests access to the failed e-Manifest & Tracking system and any associated equipment and the State refuses, then such maintenance will be deferred to a mutually agreeable time and the intervening time will not count against the PARE.
- 5) A functional benchmark demonstration will be run for the PARE Committee to confirm that the installed system and any associated equipment is capable of performing the same functions that were demonstrated. This run must be completed to the satisfaction of the PARE Committee.



## 1. STANDARD OF PERFORMANCE

- a. The performance period (a period of thirty consecutive calendar days) shall commence on the date, at which time the operational control becomes the responsibility of the State. It is not required that one thirty-day period expire in order for another performance period to begin.
- b. If the installed e-Manifest & Tracking system and any associated equipment operates at an acceptable level of effectiveness of 95 percent or more for a period of 30 consecutive days from the commencement date of the performance period, it shall be deemed to have met the State's standard of performance period. The State shall notify the Contractor in writing of the successful completion of the performance period. The average effectiveness level is a percentage figure determined by dividing the total operational use time by the total operational use time plus associated down-time. In addition, the equipment shall operate in substantial conformance with the Contractor's published specifications applicable to such equipment on the date of this Agreement. The installed e-Manifest & Tracking system and any associated equipment added by amendment to this contract shall operate in conformance with the Contractor's published specifications applicable to such equipment at the time of such amendment.
- c. During the successful performance period, all rerun time resulting from equipment failure and preventive maintenance time shall be excluded from the performance period hours. All reconfigurations and reload time shall be excluded from the performance hours. The installed e-Manifest & Tracking system and any associated equipment failure down-time shall be measured by those intervals during the performance period between the time that the Contractor is notified of equipment failure and the time that the equipment is returned to the State in operating condition.
- d. During the successful performance period, a minimum of 80 hours of operational use time on each component of the installed e-Manifest & Tracking system and any associated equipment will be required as a basis for computation of the average effectiveness level. However, in computing the effectiveness level, the actual number of operational use hours shall be used when in excess of the minimum stated above.
- e. No more than one hour will accrue to the performance hours during any one wall clock hour.
- f. The installed e-Manifest & Tracking system and any associated equipment shall not be accepted by the State and no charges will be paid by the State until the standard of performance is met.
- g. If a system involves on-line machines such as pen computers or GPS units which are remote to the basic installation, the required effectiveness level shall apply separately to each component in the system.
- h. Promptly upon successful completion of the performance period, the State shall notify the Contractor in writing of acceptance of the installed e-Manifest & Tracking system and any associated equipment and authorize the monthly payments to begin on the first day of the successful performance period.
  - i. If successful completion of the performance period is not attained within 90 days of the installation date, the State shall have the option of terminating the Contract, or continuing the performance tests. The State's option to terminate the contract shall remain in effect until such time as a successful completion of the performance period is attained. The Contractor shall be liable for all outbound preparation and shipping costs for contracted items returned under this clause.



- j. The PARE will be complete when the installed e-Manifest & Tracking system and any associated equipment has met the required effectiveness level for the prescribed time period.
- k. After 45 days of successful completion of the PARE, the final payment which is the holdback, will be paid by the State. (See Section 1.601)

## **2.072 Time of Performance**

(a) Contractor shall use commercially reasonable efforts to provide the resources necessary to complete all Services and Deliverables in accordance with the time schedules contained in the Statements of Work and other Exhibits governing the work, and with professional quality.

(b) Without limiting the generality of **Section 2.072(a)**, Contractor shall notify the State in a timely manner upon becoming aware of any circumstances that may reasonably be expected to jeopardize the timely and successful completion of any Deliverables/Services on the scheduled due dates in the latest State-approved delivery schedule and, in such event, shall inform the State of the projected actual delivery date.

(c) If Contractor believes that a delay in performance by the State has caused or will cause Contractor to be unable to perform its obligations in accordance with specified Contract time periods, Contractor shall notify the State in a timely manner and shall use commercially reasonable efforts to perform its obligations in accordance with such Contract time periods notwithstanding the State's failure. Contractor will not be in default for a delay in performance to the extent such delay is caused by the State.

## **2.073 Liquidated Damages**

Reserved

## **2.074 Bankruptcy**

If Contractor shall file for protection under the bankruptcy laws, or if an involuntary petition shall be filed against Contractor and not removed within thirty (30) days, or if the Contractor becomes insolvent, be adjudicated bankrupt, or if it should make a general assignment for the benefit of creditors, or if a receiver shall be appointed due to its insolvency, and Contractor and/or its affiliates are unable to provide reasonable assurances that Contractor and/or its affiliates can deliver the services provided herein, the State may, without prejudice to any other right or remedy, terminate this Contract, in whole or in part, and, at its option, may take possession of the "Work in Process" and finish such Works in Process by whatever appropriate method the State may deem expedient. Contractor will fix appropriate notices or labels on the Work in Process to indicate ownership by the State. To the extent reasonably possible, materials and Work in Process shall be stored separately from other stock and marked conspicuously with labels indicating ownership by the State.

To secure the State's progress payments before the delivery of any services or materials required for the execution of Contractor's obligations hereunder, and any work which Contractor may subcontract in the support of the performance of its obligations hereunder, title shall vest in the State to the extent the State has made progress payments hereunder.

## **2.075 Time is of the Essence**

The Contractor agrees that time is of the essence in the performance of the Contractor's obligations under this Contract

## **2.076 Service Level Agreements (SLAs) [USE ONLY IF CONTRACT INCLUDES SERVICES] RESERVED**

(a)

## **2.080 Delivery and Acceptance of Deliverables**





## **2.081 Delivery Responsibilities**

Unless otherwise specified by the State within an individual order, the following shall be applicable to all orders issued under this Contract.

- (a) Shipment responsibilities - Services performed/Deliverables provided under this Contract shall be delivered "F.O.B. Destination, within Government Premises." The Contractor shall have complete responsibility for providing all Services/Deliverables to all site(s) unless otherwise stated. Actual delivery dates will be specified on the individual purchase order.
- (b) Delivery locations - Services will be performed/Deliverables will be provided at every State of Michigan location within Michigan unless otherwise stated in the SOW. Specific locations will be provided by the State or upon issuance of individual purchase orders.
- (c) Damage Disputes - At the time of delivery to State Locations, the State shall examine all packages. The quantity of packages delivered shall be recorded and any obvious visible or suspected damage shall be noted at time of delivery using the shipper's delivery document(s) and appropriate procedures to record such.

Where there is no obvious or suspected damage, all deliveries to a State Location must be opened by the State and the contents inspected for possible internal damage not visible externally within fourteen (14) days of receipt. Any damage must be reported to the Contractor within five (5) days of inspection. If this inspection does not occur and damages not reported within thirty (30) days of receipt, the cure for such damaged deliveries shall transfer to the delivery signing party.

## **2.082 Delivery of Deliverables**

- (a) Where applicable, the Statements of Work/POs contain lists of the Deliverables to be prepared and delivered by Contractor including, for each Deliverable, the scheduled delivery date and a designation of whether the Deliverable is a document ("Written Deliverable"), a good ("Physical Deliverable") or a Service. All Deliverables shall be completed and delivered for State review and written approval and, where applicable, installed in accordance with the State-approved delivery schedule and any other applicable terms and conditions of the Contract.

## **2.083 Testing**

- (a) Prior to delivering any of the above-mentioned Statement of Work Physical Deliverables or Services to the State, Contractor will first perform all required quality assurance activities to verify that the Physical Deliverable or Service is complete and in conformance with its specifications listed in the applicable Statement of Work or Purchase Order. Before delivering a Physical Deliverable or Service to the State, Contractor shall certify to the State that (1) it has performed such quality assurance activities, (2) it has performed any applicable testing, (3) it has corrected all material deficiencies discovered during such quality assurance activities and testing, (4) the Deliverable or Service is in a suitable state of readiness for the State's review and approval, and (5) the Deliverable/Service has all Critical Security patches/updates applied.
- (b) If a Deliverable includes installation at a State Location, then Contractor shall (1) perform any applicable testing, (2) correct all material deficiencies discovered during such quality assurance activities and testing, and (3) inform the State that the Deliverable is in a suitable state of readiness for the State's review and approval. To the extent that testing occurs at State Locations, the State shall be entitled to observe or otherwise participate in testing.

## **2.084 Approval of Deliverables, In General**

- (a) All Deliverables (Physical Deliverables and Written Deliverables) and Services require formal written approval by the State, in accordance with the following procedures. Formal approval by the State requires that the Deliverable be confirmed in writing by the State to meet its specifications, which will include the successful completion of Testing as applicable in **Section 2.083**, to be led by the State with the support and assistance of Contractor. The parties acknowledge that the approval process set forth herein will be facilitated by ongoing consultation between the parties, visibility of interim and intermediate Deliverables and collaboration on key decisions.



- (b) The State's obligation to comply with any State Review Period is conditioned on the timely delivery of Deliverables/Services being reviewed.
- (c) Prior to commencement of its review or testing of a Deliverable/Service, the State may inspect the Deliverable/Service to confirm that all components of the Deliverable/Service have been delivered without material deficiencies. If the State determines that the Deliverable/Service has material deficiencies, the State may refuse delivery of the Deliverable/Service without performing any further inspection or testing of the Deliverable/Service. Otherwise, the review period will be deemed to have started on the day the State receives the Deliverable or the Service begins, and the State and Contractor agree that the Deliverable/Service is ready for use and, where applicable, certification by Contractor in accordance with **Section 2.083(a)**.
- (d) The State will approve in writing a Deliverable/Service upon confirming that it conforms to and, performs in accordance with, its specifications without material deficiency. The State may, but shall not be required to, conditionally approve in writing a Deliverable/Service that contains material deficiencies if the State elects to permit Contractor to rectify them post-approval. In any case, Contractor will be responsible for working diligently to correct within a reasonable time at Contractor's expense all deficiencies in the Deliverable/Service that remain outstanding at the time of State approval.
- (e) If, after three (3) opportunities (the original and two repeat efforts), Contractor is unable to correct all deficiencies preventing Final Acceptance of a Deliverable/Service, the State may: (i) demand that Contractor cure the failure and give Contractor additional time to cure the failure at the sole expense of Contractor; or (ii) keep the Contract in force and do, either itself or through other parties, whatever Contractor has failed to do, in which event Contractor shall bear any excess expenditure incurred by the State in so doing beyond the Contract price for such Deliverable/Service and will pay the State an additional sum equal to ten percent (10%) of such excess expenditure to cover the State's general expenses provided the State can furnish proof of such general expenses; or (iii) terminate the particular Statement of Work for default, either in whole or in part by notice to Contractor provided Contractor is unable to cure such breach. Notwithstanding the foregoing, the State shall not use, as a basis for exercising its termination rights under this Section, deficiencies discovered in a repeat State Review Period that could reasonably have been discovered during a prior State Review Period.
- (f) The State, at any time and in its reasonable discretion, may halt the testing or approval process if such process reveals deficiencies in or problems with a Deliverable/Service in a sufficient quantity or of a sufficient severity as to make the continuation of such process unproductive or unworkable. In such case, the State may stop using the Service or return the applicable Deliverable to Contractor for correction and re-delivery prior to resuming the testing or approval process.

### **2.085 Process For Approval of Written Deliverables**

The State Review Period for Written Deliverables will be the number of days set forth in the applicable Statement of Work following delivery of the final version of the Deliverable (failing which the State Review Period, by default, shall be thirty (30) Business Days for Written Deliverables of one hundred (100) pages or less and thirty (30) Business Days for Written Deliverables of more than one hundred (100) pages). The duration of the State Review Periods will be doubled if the State has not had an opportunity to review an interim draft of the Written Deliverable prior to its submission to the State. The State agrees to notify Contractor in writing by the end of the State Review Period either stating that the Deliverable is approved in the form delivered by Contractor or describing any deficiencies that must be corrected prior to approval of the Deliverable (or at the State's election, subsequent to approval of the Deliverable). If the State delivers to Contractor a notice of deficiencies, Contractor will correct the described deficiencies and within thirty (30) Business Days resubmit the Deliverable in a form that shows all revisions made to the original version delivered to the State. Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Deliverable from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Deliverable to confirm that the identified deficiencies have been corrected.





## 2.086 Process for Approval of Services

The State Review Period for approval of Services is governed by the applicable Statement of Work (failing which the State Review Period, by default, shall be thirty (30) Business Days for Services). The State agrees to notify Contractor in writing by the end of the State Review Period either stating that the Service is approved in the form delivered by Contractor or describing any deficiencies that must be corrected prior to approval of the Services (or at the State's election, subsequent to approval of the Service). If the State delivers to Contractor a notice of deficiencies, Contractor will correct the described deficiencies and within thirty (30) Business Days resubmit the Service in a form that shows all revisions made to the original version delivered to the State. Contractor's correction efforts will be made at no additional charge. Upon implementation of a corrected Service from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Service for conformity and that the identified deficiencies have been corrected.

## 2.087 Process for Approval of Physical Deliverables

The State Review Period for approval of Physical Deliverables is governed by the applicable Statement of Work (failing which the State Review Period, by default, shall be thirty (30) continuous Business Days for a Physical Deliverable). The State agrees to notify Contractor in writing by the end of the State Review Period either stating that the Deliverable is approved in the form delivered by Contractor or describing any deficiencies that must be corrected prior to approval of the Deliverable (or at the State's election, subsequent to approval of the Deliverable). If the State delivers to Contractor a notice of deficiencies, Contractor will correct the described deficiencies and within thirty (30) Business Days resubmit the Deliverable in a form that shows all revisions made to the original version delivered to the State. Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Deliverable from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Deliverable to confirm that the identified deficiencies have been corrected.

## 2.088 Final Acceptance

Unless otherwise stated in the Statement of Work or Purchase Order, "Final Acceptance" of each Deliverable shall occur when each Deliverable/Service has been approved by the State following the State Review Periods identified in **Sections 2.080-2.087**. Payment will be made for Deliverables installed and accepted. Upon acceptance of a Service, the State will pay for all Services provided during the State Review Period that conformed to the acceptance criteria.

## 2.090 Financial

## 2.091 Pricing

### (a) Fixed Prices for Services/Deliverables

Each Statement of Work/PO issued under this Contract shall specify (or indicate by reference to the appropriate Contract Exhibit) the firm, fixed prices for all Services/Deliverables, and the associated payment milestones and payment amounts. To the extent the parties agree that certain specific Services will be provided on a time and materials basis, such Services shall be provided at the Amendment Labor Rates (**Article 1, Attachment C**). The State may make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts approved by the Contract Administrator, after negotiation. Contractor must show verification of measurable progress at the time of requesting progress payments.

### (b) Adjustments for Reductions in Scope of Services/Deliverables

If the scope of the Services/Deliverables under any Statement of Work issued under this Contract is subsequently reduced by the State, the parties shall negotiate an equitable reduction in Contractor's charges under such Statement of Work commensurate with the reduction in scope, using the rates in **Article 1, Attachment** Unless specifically identified in an applicable Statement of Work.

### (c) Services/Deliverables Covered



For all Services/Deliverables to be provided by Contractor (and its Subcontractors, if any) under this Contract, the State shall not be obligated to pay any amounts in addition to the charges specified in this Contract.

(d) Labor Rates

All time and material charges will be at the rates specified in **Article 1, Attachment C**.

## 2.092 Invoicing and Payment Procedures and Terms

(a) Invoicing and Payment – In General

(i) Each Statement of Work issued under this Contract shall list (or indicate by reference to the appropriate Contract Exhibit) the prices for all Services/Deliverables, equipment and commodities to be provided, and the associated payment milestones and payment amounts.

(ii) Each Contractor invoice will show details as to charges by Service/Deliverable component and location at a level of detail reasonably necessary to satisfy the State's accounting and charge-back requirements. The charges for Services billed on a time and materials basis shall be determined based on the actual number of hours of Services performed, at the applicable Labor Rates specified in **Article 1, Attachment C**. Invoices for Services performed on a time and materials basis will show, for each individual, the number of hours of Services performed during the billing period, the billable skill/labor category for such person and the applicable hourly billing rate. Prompt payment by the State is contingent on the Contractor's invoices showing the amount owed by the State minus any holdback amount to be retained by the State in accordance with **Section 2.094**.

(iii) Correct invoices will be due and payable by the State, in accordance with the State's standard payment procedure as specified in 1984 Public Act No. 279, MCL 17.51 et seq., within forty-five (45) days after receipt, provided the State determines that the invoice was properly rendered.

(b) Taxes (See Section 2.305 and Article 3, Section 3.022-3.024 for additional )

The State is exempt from Federal Excise Tax, State and Local Sales Taxes, and Use Tax with respect to the sale to and use by it of tangible personal property. Such taxes shall not be included in Contract prices as long as the State maintains such exemptions. Copies of all tax exemption certificates shall be supplied to Contractor, if requested.

(c) Out-of-Pocket Expenses

Contractor acknowledges that the out-of-pocket expenses that Contractor expects to incur in performing the Services/ providing the Deliverables (such as, but not limited to, travel and lodging, document reproduction and shipping, and long distance telephone) are included in Contractor's fixed price for each Statement of Work. Accordingly, Contractor's out-of-pocket expenses are not separately reimbursable by the State unless, on a case-by-case basis for unusual expenses, the State has agreed in advance and in writing to reimburse Contractor for such an expense at the State's current travel reimbursement rates. See [http://www.mi.gov/dmb/0,1607,7-150-9141\\_13132---,00.html](http://www.mi.gov/dmb/0,1607,7-150-9141_13132---,00.html) for current rates.

(d) Pro-ration

To the extent there are any Services that are to be paid for on a monthly basis, the cost of such Services shall be pro-rated for any partial month.

(e) Antitrust Assignment

The Contractor assigns to the State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Contractor, toward fulfillment of this Contract.

(f) Final Payment

The making of final payment by the State to Contractor does not constitute a waiver by either party of any rights or other claims as to the other party's continuing obligations under the Contract, nor will it constitute a waiver of any claims by one party against the other arising from unsettled claims or failure by a party to comply with this Contract, including claims for Services and Deliverables not reasonably known until after acceptance to be defective or substandard. Contractor's acceptance of final payment by the State under this



Contract shall constitute 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 unsettled.

### **2.093 State Funding Obligation**

The State's obligation under this Contract is payable only and solely from funds appropriated for the purpose of this Contract. Contractor acknowledges and agrees that all funds for payments after the end of the current fiscal year are subject to the availability of a legislative appropriation for the purpose of this Contract. Events of non-appropriation are addressed further in **Section 2.210** of this Contract.

### **2.094 Holdback**

### **RESERVED**

### **2.095 Electronic Payment Availability**

Electronic transfer of funds is available to State contractors. Contractor is required to register with the State electronically at <http://www.cpexpress.state.mi.us>. Public Act 533 of 2004, requires all payments be transitioned over to EFT by October, 2005.

## **2.100 Contract Management**

### **2.101 Contract Management Responsibility**

(a) Contractor shall have overall responsibility for managing and successfully performing and completing the Services/Deliverables, subject to the overall direction and supervision of the State and with the participation and support of the State as specified in this Contract. Contractor's duties will include monitoring and reporting the State's performance of its participation and support responsibilities (as well as Contractor's own responsibilities) and providing timely notice to the State in Contractor's reasonable opinion if the State's failure to perform its responsibilities in accordance with **Article 1, Attachment E** (Project Plan) is likely to delay the timely achievement of any Contract tasks.

(b) The Services/Deliverables will be provided by the Contractor either directly or through its affiliates, subsidiaries, subcontractors or resellers. Regardless of the entity providing the Service/Deliverable, the Contractor will act as a single point of contact coordinating these entities to meet the State's need for Services/Deliverables. Nothing in this Contract, however, shall be construed to authorize or require any party to violate any applicable law or regulation in its performance of this Contract.

### **2.102 Problem and Contract Management Procedures**

Problem Management and Contract Management procedures will be governed by the Contract and the applicable Statements of Work.

### **2.103 Reports and Meetings**

(a) Reports.

Within thirty (30) days after the Effective Date, the parties shall determine an appropriate set of periodic reports to be issued by Contractor to the State. Such reports may include:

- (i) separately address Contractor's performance in each area of the Services;
- (ii) for each area of the Services, assess the degree to which Contractor has attained or failed to attain the pertinent objectives in that area, including on-time completion and delivery of Deliverables;
- (iii) explain the reasons for any failure to achieve on-time completion and delivery of Deliverables and include a plan for corrective action where appropriate;
- (iv) describe any circumstances that Contractor anticipates will impair or prevent on-time completion and delivery of Deliverables in upcoming reporting periods;
- (v) include plans for corrective action or risk mitigation where appropriate and describe the status of ongoing problem resolution efforts;



- (vi) provide reports setting forth a comparison of actual hours spent by Contractor (including its augmented personnel and Subcontractors) in performing the Project versus hours budgeted by Contractor.
- (vii) set forth a record of the material personnel changes that pertain to the Services and describe planned changes during the upcoming month that may affect the Services.
- (viii) include such documentation and other information may be mutually agreed to verify compliance with, and meeting the objectives of, this Contract.
- (ix) set forth an updated schedule that provides information on the status of upcoming Deliverables, expected dates of delivery (or redelivery) of such Deliverables and estimates on timing for completion of the Project.

(b) Meetings.

Within thirty (30) days after the Effective Date, the parties shall determine an appropriate set of meetings to be held between representatives of the State and Contractor. Contractor shall prepare and circulate an agenda sufficiently in advance of each such meeting to give participants an opportunity to prepare for the meeting. Contractor shall incorporate into such agenda items that the State desires to discuss. At the State's request, Contractor shall prepare and circulate minutes promptly after a meeting.

#### **2.104 System Changes**

Contractor is not responsible for and not authorized to make changes to any State systems without written authorization from the State. Any changes Contractor makes to State systems with the State's approval shall be done in accordance with applicable State procedures, including security, access and configuration management procedures.

#### **2.105 Reserved**

#### **2.106 Change Requests**

The State reserves the right to request from time to time, any changes to the requirements and specifications of the Contract and the work to be performed by the Contractor under the Contract. During the course of ordinary business, it may become necessary for the State to discontinue certain business practices or create Additional Services/Deliverables. At a minimum, to the extent applicable, the State would like the Contractor to provide a detailed outline of all work to be done, including tasks necessary to accomplish the services/deliverables, timeframes, listing of key personnel assigned, estimated hours for each individual per task, and a complete and detailed cost justification.

If the State requests or directs the Contractor to perform any Services/Deliverables that are outside the scope of the Contractor's responsibilities under the Contract ("New Work"), the Contractor must notify the State promptly, and before commencing performance of the requested activities, that it believes the requested activities are New Work. If the Contractor fails to notify the State before commencing performance of the requested activities, any such activities performed before notice is given by the Contractor shall be conclusively considered to be in-scope Services/Deliverables, not New Work.

If the State requests or directs the Contractor to perform any services or provide deliverables that are consistent with and similar to the Services/Deliverables being provided by the Contractor under the Contract, but which the Contractor reasonably and in good faith believes are not included within the Statements of Work, then before performing such services or providing such deliverables, the Contractor shall notify the State in writing that it considers the services or deliverables to be an Additional Service/Deliverable for which the Contractor should receive additional compensation. If the Contractor does not so notify the State, the Contractor shall have no right to claim thereafter that it is entitled to additional compensation for performing that service or providing that deliverable. If the Contractor does so notify the State, then such a service or deliverable shall be governed by the Change Request procedure in this Section.



In the event prices or service levels are not acceptable to the State, the Additional Services or New Work shall be subject to competitive bidding based upon the specifications.

(a) Change Requests

(i) State Requests

If the State should require Contractor to perform New Work, Additional Services or make changes to the Services that would affect the Contract completion schedule or the amount of compensation due Contractor (a "Change"), the State shall submit a written request for Contractor to furnish a proposal for carrying out the requested Change (a "Change Request").

(ii) Contractor Recommendations

Contractor shall be entitled to propose a Change to the State, on its own initiative, should it be of the opinion that this would benefit the Contract.

(iii) Upon receipt of a Change Request or on its own initiative, Contractor shall examine the implications of the requested Change on the technical specifications, Contract schedule and price of the Deliverables and Services and shall submit to the State without undue delay a written proposal for carrying out the Change. Contractor's proposal will include any associated changes in the technical specifications, Contract schedule and price and method of pricing of the Services. If the Change is to be performed on a time and materials basis, the Amendment Labor Rates shall apply to the provision of such Services. If Contractor provides a written proposal and should Contractor be of the opinion that a requested Change is not to be recommended, it shall communicate its opinion to the State but shall nevertheless carry out the Change as specified in the written proposal if the State directs it to do so.

(iv) By giving Contractor written notice within a reasonable time, the State shall be entitled to accept a Contractor proposal for Change, to reject it or to reach another agreement with Contractor. Should the parties agree on carrying out a Change, a written Contract Change Notice shall be prepared and issued under this Contract, describing the Change and its effects on the Services and any affected components of this Contract (a "Contract Change Notice").

(v) No proposed Change shall be performed until the proposed Change has been specified in a duly executed Contract Change Notice issued by the Department of Management and Budget, Office of Purchasing Operations.

(vi) If the State requests or directs Contractor to perform any activities that Contractor believes constitute a Change, Contractor must notify the State that it believes the requested activities are a Change prior to commencing the performance of the requested activities. If Contractor fails to so notify the State prior to commencing performance of the requested activities, such activities shall be considered to be performed gratuitously by Contractor, and Contractor shall not have any right thereafter to assert any claim for additional compensation or time for the performance of such activities. If Contractor commences performance of gratuitous services outside the scope of this Contract and subsequently elects to stop performing such out-of-scope services, Contractor must, at the request of the State, back out or reverse any changes resulting from such performance that would adversely affect the Contract.

## 2.107 Management Tools

Contractor will use an automated tool for planning, monitoring and tracking the Contract's progress. In addition, Contractor shall use automated project management tools as reasonably necessary to perform the Services, which tools shall include the capability to produce through the end of the Contract: (i) staffing tables with names of personnel assigned to Contract tasks, (ii) project plans showing tasks, subtasks, Deliverables and the resources required and allocated to each (including detailed plans for all Services to be performed within the next sixty (60) days, updated semi-monthly) and (iii) graphs showing critical events, dependencies and decision points during the course of the Contract. Any tool(s) used by Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State's standard to the extent such information is described with reasonable detail in the Statements of Work and to the extent the related work is of sufficient project complexity and duration to warrant such reporting.





## 2.110 Records and Inspections

### **2.111a Records and Inspections**

(b) Examination of Records. Contractor agrees that the State, including its duly authorized representatives, until the expiration of seven (7) years following the creation of the material (collectively, the "Audit Period"), shall, upon twenty (20) days prior written notice, have access to and the right to examine and copy any of Contractor's books, records, documents and papers pertinent to establishing Contractor's compliance with the Contract and with applicable laws and rules, including the State's procurement rules, regulations and procedures, and actual performance of the Contract for the purpose of conducting an audit, examination, excerpt and/or transcription but the State shall not have access to any information deemed confidential to Contractor to the extent such access would require such confidential information to become publicly available. This provision also applies to the books, records, accounts, documents and papers, in print or electronic form, of any parent, affiliated or subsidiary organization of Contractor, or any Subcontractor of Contractor performing services in connection with the Contract.

(d) Audit Resolution. If necessary, the Contractor and the State shall meet to review each audit report promptly after issuance. The Contractor will respond to each audit report in writing within thirty (30) days from receipt of such report, unless a shorter response time is specified in such report. The Contractor and the State shall develop, agree upon and monitor an action plan to promptly address and resolve any deficiencies, concerns, and/or recommendations in such audit report.

### **2.111b Records and Inspections**

The Contractor agrees that the State may, upon 24-hour notice, perform an audit at Contractor's location(s) to determine if the Contractor is complying with the requirements of the Contract. The Contractor agrees to cooperate with the State during the audit and produce all records and documentation that verifies compliance with the Contract requirements.

### **2.112 Errors**

(a) If the audit demonstrates any errors in the statements provided to the State, then the amount in error shall be reflected as a credit or debit on the next invoice and in subsequent invoices until the amount is paid or refunded in full. However, a credit or debit may not be carried for more than four (4) quarterly statements. If a balance remains after four (4) quarterly statements, then the remaining amount will be due as a payment or refund within forty-five (45) days of the last quarterly statement that the balance appeared on or termination of the contract, whichever is earlier.

(b) In addition to other available remedies, the difference between the payment received and the correct payment amount is greater than ten percent (10%), then the Contractor shall pay all of the reasonable costs of the audit.

## 2.120 State Responsibilities

### **2.121 State Performance Obligations**

(a) Equipment and Other Resources. To facilitate Contractor's performance of the Services/Deliverables, the State shall provide to Contractor such equipment and resources as identified in the Statements of Work or other Contract Exhibits as items to be provided by the State.

(b) Facilities. The State shall designate space as long as it is available and as provided in the Statement of Work, to house Contractor's personnel whom the parties agree will perform the Services/Deliverables at State facilities (collectively, the "State Facilities"). Contractor shall have reasonable access to, and unless agreed otherwise by the parties in writing shall observe and comply with all rules and regulations relating to, each of the State Facilities (including hours of operation) used by Contractor in the course of providing the Services. Contractor agrees that it will not, without the prior written consent of the State, use any State Facilities or access any State information systems provided for Contractor's use, or to which Contractor otherwise gains access in the course of performing the Services, for any purpose other than providing the Services to the State.



(c) Return. Contractor shall be responsible for returning to the State any State-furnished equipment, facilities and other resources when no longer required for the Contract in the same condition as when provided by the State, reasonable wear and tear excepted.

(d) Except as otherwise provided in **Section 2.220**, the State's failure to perform its responsibilities as set forth in this Contract shall not be deemed to be grounds for termination by Contractor. However, Contractor will not be liable for any default or delay in the performance of its obligations under this Contract to the extent such default or delay is caused by nonperformance of the State's obligations under this Contract, provided Contractor provides the State with reasonable written notice of such nonperformance and Contractor uses commercially reasonable efforts to perform notwithstanding the State's failure to perform. In addition, if the State's nonperformance of its responsibilities under this Contract materially increases the time required for Contractor's performance or Contractor's cost of performance, Contractor shall be entitled to seek an equitable extension via the Change Request process described in **Section 2.106**.

### 2.130 Security

#### **2.131 Background Checks**

The Contractor shall authorize the investigation of its personnel proposed to have access to State facilities and systems on a case by case basis. The scope of the background check is at the discretion of the State and the results will be used to determine Contractor personnel eligibility for working within State facilities and systems. Such investigations will include Michigan State Police Background checks (ICHAT) and may include the National Crime Information Center (NCIC) Finger Prints. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Finger Print Check. Any request for background checks will be initiated by the State and will be reasonably related to the type of work requested.

All Contractor personnel will also be expected to comply with the State's security and acceptable use policies for State IT equipment and resources. See <http://www.michigan.gov/ditservice/0,1607,7-179-25781-73760--00.html>. Furthermore, Contractor personnel will be expected to agree to the State's security and acceptable use policies before the Contractor personnel will be accepted as a resource to perform work for the State. It is expected the Contractor will present these documents to the prospective employee before the Contractor presents the individual to the State as a proposed resource. Contractor staff will be expected to comply with all Physical Security procedures in place within the facilities where they are working.

### 2.140 Reserved

### 2.150 Confidentiality

#### **2.151 Freedom of Information**

All information in any proposal submitted to the State by Contractor and this Contract is subject to the provisions of the Michigan Freedom of Information Act, 1976 Public Act No. 442, as amended, MCL 15.231, et seq (the "FOIA").

#### **2.152 Confidentiality**

Contractor and the State each acknowledge that the other possesses and will continue to possess confidential information that has been developed or received by it. As used in this Section, "Confidential Information" of Contractor shall mean all non-public proprietary information of Contractor (other than Confidential Information of the State as defined below) which is marked confidential, restricted, and proprietary or with a similar designation. "Confidential Information" of the State shall mean any information which is retained in confidence by the State (or otherwise required to be held in confidence by the State pursuant to applicable federal, state and local laws and regulations) or which, in the case of tangible materials provided to Contractor by the State pursuant to its performance under this Contract, is marked as confidential, proprietary or with a similar designation by the State. In the case of information of either Contractor or the State "Confidential Information" shall exclude any information (including this Contract) that is publicly available pursuant to the Michigan FOIA.



### **2.153 Protection of Confidential Information**

The State and Contractor will each use at least the same degree of care to prevent disclosing to third parties the Confidential Information of the other as it employs to avoid unauthorized disclosure, publication or dissemination of its own confidential information of like character, but in no event less than reasonable care. Neither Contractor nor the State will (i) make any use of the Confidential Information of the other except as contemplated by this Contract, (ii) acquire any right in or assert any lien against the Confidential Information of the other, or (iii) if requested to do so, refuse for any reason to promptly return the other party's Confidential Information to the other party. Each party will limit disclosure of the other party's Confidential Information to employees and Subcontractors who must have access in order to fulfill the purposes of this Contract. Disclosure to, and use by, a Subcontractor is permissible where (A) use of a Subcontractor is authorized under this Contract, (B) such disclosure is necessary or otherwise naturally occurs in connection with work that is within such Subcontractor's scope of responsibility, and (C) Contractor obligates the Subcontractor in a written Contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor and of any Subcontractor having access or continued access to the State's Confidential Information may be required to execute an acknowledgment that the employee has been advised of Contractor's and the Subcontractor's obligations under this Section and of the employee's obligation to Contractor or Subcontractor, as the case may be, to protect such Confidential Information from unauthorized use or disclosure.

### **2.154 Exclusions**

Notwithstanding the foregoing, the provisions of this Section will not apply to any particular information which the State or Contractor can demonstrate (i) was, at the time of disclosure to it, in the public domain; (ii) after disclosure to it, is published or otherwise becomes part of the public domain through no fault of the receiving party; (iii) was in the possession of the receiving party at the time of disclosure to it without an obligation of confidentiality; (iv) was received after disclosure to it from a third party who had a lawful right to disclose such information to it without any obligation to restrict its further disclosure; or (v) was independently developed by the receiving party without reference to Confidential Information of the furnishing party. Further, the provisions of this Section will not apply to any particular Confidential Information to the extent the receiving party is required by law to disclose such Confidential Information, provided that the receiving party (i) promptly provides the furnishing party with notice of the legal request, and (ii) assists the furnishing party in resisting or limiting the scope of such disclosure as reasonably requested by the furnishing party.

### **2.155 No Implied Rights**

Nothing contained in this Section shall be construed as obligating a party to disclose any particular Confidential Information to the other party, or as granting to or conferring on a party, expressly or impliedly, any right or license to the Confidential Information of the other party.

### **2.156 Remedies**

Each party acknowledges that, if it breaches (or attempts or threatens to breach) its obligations under this Section, the other party may be irreparably harmed. Accordingly, if a court of competent jurisdiction should find that a party has breached (or attempted or threatened to breach) any such obligations, the non-breaching party shall be entitled to seek an injunction preventing such breach (or attempted or threatened breach).

### **2.157 Security Breach Notification**

In the event of a breach of this Section, Contractor shall take (i) prompt corrective action to cure any such deficiencies and (ii) any action pertaining to such unauthorized disclosure required by applicable federal and state laws and regulations. Contractor and the State will cooperate to mitigate, to the extent practicable, the effects of any breach, intrusion, or unauthorized use or disclosure. Contractor shall report to the State in writing any use or disclosure of Confidential Information, whether suspected or actual, other than as provided for by the Contract within ten (10) days of becoming aware of such use or disclosure or such shorter time period as is reasonable under the circumstances.





## 2.158 Survival

The parties' respective obligations under this Section shall survive the termination or expiration of this Contract for any reason.

## 2.159 Destruction of Confidential Information

Promptly upon termination or cancellation of the Contract for any reason, Contractor shall certify to the State that Contractor has destroyed all State Confidential Information.

### 2.160 Proprietary Rights

#### 2.161a Ownership

**Ownership of Work Product by State.** All Deliverables shall be owned by the State and shall be considered works made for hire by the Contractor for the State. The State shall own all United States and international copyrights, trademarks, patents or other proprietary rights in the Deliverables.

**Vesting of Rights.** With the sole exception of any preexisting licensed works identified in **Exhibit J**, the Contractor shall assign, and upon creation of each Deliverable automatically assigns, to the State, ownership of all United States and international copyrights, trademarks, patents, or other proprietary rights in each and every Deliverable, whether or not registered by the Contractor, insofar as any such Deliverable, by operation of law, may not be considered work made for hire by the Contractor for the State. From time to time upon State's request, the Contractor and/or its personnel shall confirm such assignment by execution and delivery of the assignments, confirmations of assignment, or other written instruments as the State may request. The State shall have the right to obtain and hold in its own name all copyright, trademark, and patent registrations and other evidence of rights that may be available for Deliverables.

#### 2.162 Source Code

**Any source code, if applicable, will be in the public domain. No proprietary code will be allowed. This is a requirement of the grant.**

(a) Definition. "Source Code Escrow Package" shall mean:

- (i) A complete copy in human-readable form of the source code and executable code of the Licensed Software, including any updates or new releases of the product;
- (ii) A complete copy of any existing design documentation and user documentation, including any updates or revisions; and/or
- (iii) Complete instructions for compiling and linking every part of the source code into executable code for purposes of enabling verification of the completeness of the source code as provided below. Such instructions shall include precise identification of all compilers, library packages, and linkers used to generate executable code.
- (iv.) Complete copy of all system related documentation, guides and manuals including but not limited to: installation guides, configuration guides, administration guides, user guides, database diagrams and metadata, API's, and application documentation.

(b) Delivery of Source Code. Contractor shall deliver a Source Code Package to the Department of Information Technology (DIT) prior to completion of the project and payment of the holdback payment.

(c) Delivery of New Source Code. If at anytime during the term of this Contract, the Contractor provides a maintenance release or upgrade version of the Licensed Software, Contractor shall within ten (10) days send to the DIT the complete maintenance release or upgrade version.

(d) Verification. The State reserves the right at any time, but not more than once a year, either itself or through a third party contractor, upon thirty (30) days written notice, to seek verification of the Source Code Package.



- (e) Fees. No fees and expenses shall be charged by the Contractor for the Source Code Package delivery or for preparation of the Source Code Package.
- (f) Release Events. The Source Code Package will be released to the State in its entirety prior to completion of the project and payment of the holdback payment.
- (g) Reserved
- (h) Reserved
- (i) Derivative Works. Any Derivative Works to the source code released which are made by or on behalf of the State shall be the sole property of the State. The State acknowledges that its ownership rights are limited solely to the Derivative Works and do not include any ownership rights in the underlying source code.

### **2.163 Rights in Data**

(a) The State will be and remain the owner of all data made available by the State to Contractor or its agents, Subcontractors or representatives pursuant to the Contract. Contractor will not use the State's data for any purpose other than providing the Services, nor will any part of the State's data be disclosed, sold, assigned, leased or otherwise disposed of to the general public or to specific third parties or commercially exploited by or on behalf of Contractor, nor will any employee of Contractor other than those on a strictly need to know basis have access to the State's data. Contractor will not possess or assert any lien or other right against the State's data. Without limiting the generality of this Section, Contractor shall only use personally identifiable information as strictly necessary to provide the Services and shall disclose such information only to its employees who have a strict need to know such information. Contractor shall comply at all times with all laws and regulations applicable to such personally identifiable information.

(b) The State is and shall remain the owner of all State-specific data pursuant to the Contract. The State may use the data provided by the Contractor for any purpose. The State will not possess or assert any lien or other right against the Contractor's data. Without limiting the generality of this Section, the State shall only use personally identifiable information as strictly necessary to utilize the Services and shall disclose such information only to its employees who have a strict need to know such information, except as provided by law. The State shall comply at all times with all laws and regulations applicable to such personally identifiable information. Other material developed and provided to the State shall remain the State's sole and exclusive property.

### **2.164 Ownership of Materials**

State and Contractor will continue to own their respective proprietary technologies developed before entering into the Contract. Any hardware bought through the Contractor by the State, and paid for by the State, will be owned by the State. Any software licensed through the Contractor and sold to the State, will be licensed directly to the State.

### **2.165 Standard Software**

If applicable and necessary, all Standard Software used in performing the Services shall be provided to the State under a separate license agreement between the State and the owner (or authorized licensor) of such software.

### **2.166 Pre-existing Materials for Custom Software Deliverables**

Neither Contractor nor any of its Subcontractors shall incorporate any preexisting materials (including Standard Software) into Custom Software Deliverables or use any pre-existing materials to produce Custom Software Deliverables if such pre-existing materials will be needed by the State in order to use the Custom Software Deliverables unless (i) such pre-existing materials and their owners are identified to the State in writing and (ii) such pre-existing materials are either readily commercially available products for which Contractor or its Subcontractor, as the case may be, has obtained a license (in form and substance approved by the State) in the name of the State, or are materials that Contractor or its Subcontractor, as the case may be, has the right



to license to the State and has licensed to the State on terms and conditions approved by the State prior to using such pre-existing materials to perform the Services.

## **2.167 General Skills**

Notwithstanding anything to the contrary in this Section, each party, its Subcontractors and their personnel shall be free to use and employ its and their general skills, know-how and expertise, and to use, disclose and employ any generalized ideas, concepts, know-how, methods, techniques or skills gained or learned during the course of performing the Services, so long as it or they acquire and apply the foregoing without disclosure of any confidential or proprietary information of the other party.

## **2.170 Warranties And Representations**

### **2.171 Warranties and Representations**

The Contractor represents and warrants:

- (a) It is capable in all respects of fulfilling and shall fulfill all of its obligations under this Contract. The performance of all obligations under this Contract shall be provided in a timely, professional, and workman-like manner and shall meet the performance and operational standards required under this Contract.
- (b) The Contract Appendices, Attachments and Exhibits identify the equipment and software and services necessary for the Deliverable(s) to perform and Services to operate in compliance with the Contract's requirements and other standards of performance.
- (c) It is the lawful owner or licensee of any Deliverable licensed or sold to the State by Contractor or developed by Contractor under this Contract, and Contractor has all of the rights necessary to convey to the State the ownership rights or licensed use, as applicable, of any and all Deliverables. None of the Deliverables provided by Contractor to the State under this Contract, nor their use by the State, will infringe the patent, copyright, trade secret, or other proprietary rights of any third party.
- (d) If, under this Contract, Contractor procures any equipment, software or other Deliverable for the State (including equipment, software and other Deliverables manufactured, re-marketed or otherwise sold by Contractor under Contractor's name), then in addition to Contractor's other responsibilities with respect to such items in this Contract, Contractor shall assign or otherwise transfer to the State or its designees, or afford the State the benefits of, any manufacturer's warranty for the Deliverable.
- (e) The contract signatory has the power and authority, including any necessary corporate authorizations, necessary to enter into this Contract, on behalf of Contractor.
- (f) It is qualified and registered to transact business in all locations where required.
- (g) Neither the Contractor nor any Affiliates, nor any employee of either, has, shall have, or shall acquire, any contractual, financial, business, or other interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of its duties and responsibilities to the State under this Contract or otherwise create an appearance of impropriety with respect to the award or performance of this Agreement. Contractor shall notify the State within two (2) days of any such interest that may be incompatible with the interests of the State.
- (h) Neither Contractor nor any Affiliates, nor any employee of either has accepted or shall accept anything of value based on an understanding that the actions of the Contractor or Affiliates or employee on behalf of the State would be influenced. Contractor shall not attempt to influence any State employee by the direct or indirect offer of anything of value.
- (i) Neither Contractor nor any Affiliates, nor any employee of either has paid or agreed to pay any person, other than bona fide employees and consultants working solely for Contractor or such Affiliate, any fee,



commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract.

(j) 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; 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.

(k) All financial statements, reports, and other information furnished by Contractor to the State as part of its response to the RFP or otherwise in connection with the award of this Contract fairly and accurately represent the business, properties, financial condition, and results of operations of Contractor as of the respective dates, or for the respective periods, covered by such financial statements, reports, other information. Since the respective dates or periods covered by such financial statements, reports, or other information, there have been no material adverse change in the business, properties, financial condition, or results of operations of Contractor.

(m) All written information furnished to the State by or behalf of Contractor in connection with this Contract, including its bid, it true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make such information not misleading.

(n) It 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 or such department within the previous five (5) years for the reason that Contractor failed to perform or otherwise breached an obligation of such contract.

## **2.172 Software Warranties**

### **(a) Performance Warranty**

The Contractor represents and warrants that Deliverables, after Final Acceptance, will perform and operate in compliance with the requirements and other standards of performance contained in this Contract (including all descriptions, specifications and drawings made a part of the Contract) for a period of ninety (90) days. In the event of a breach of this warranty, Contractor will promptly correct the affected Deliverable(s) at no charge to the State.

### **(b) No Surreptitious Code Warranty**

The Contractor represents and warrants that no copy of licensed Software provided to the State contains or will contain any Self-Help Code or any Unauthorized Code as defined below. This warranty is referred to in this Contract as the "No Surreptitious Code Warranty."

As used in this Contract, "Self-Help Code" means any back door, time bomb, drop dead device, or other software routine designed to disable a computer program automatically with the passage of time or under the positive control of a person other than the licensee of the software. Self-Help Code does not include Software routines in a computer program, if any, designed to permit an owner of the computer program (or other person acting by authority of the owner) to obtain access to a licensee's computer system(s) (e.g. remote access via modem) for purposes of maintenance or technical support.

As used in this Contract, "Unauthorized Code" means any virus, Trojan horse, spyware, worm or other Software routines or components designed to permit unauthorized access to disable, erase, or otherwise harm software, equipment, or data; or to perform any other such actions. The term Unauthorized Code does not include Self-Help Code. Unauthorized Code does not include Software routines in a computer program, if any, designed to permit an owner of the computer program (or other person acting by authority of the owner) to



obtain access to a licensee's computer system(s) (e.g. remote access via modem) for purposes of maintenance or technical support.

In addition, Contractor will use up-to-date commercial virus detection software to detect and remove any viruses from any software prior to delivering it to the State.

(c) Calendar Warranty

The Contractor represents and warrants that all software for which the Contractor either sells or licenses to the State of Michigan and used by the State prior to, during or after the calendar year 2000, includes or shall include, at no added cost to the State, design and performance so the State shall not experience software abnormality and/or the generation of incorrect results from the software, due to date oriented processing, in the operation of the business of the State of Michigan.

The software design, to insure calendar year rollover compatibility, shall include, but is not limited to: data structures (databases, data files, etc.) that provide 4-digit date century; stored data that contain date century recognition, including, but not limited to, data stored in databases and hardware device internal system dates; calculations and program logic (e.g., sort algorithms, calendar generation, event recognition, and all processing actions that use or produce date values) that accommodates same century and multi-century formulas and date values; interfaces that supply data to and receive data from other systems or organizations that prevent non-compliant dates and data from entering any State system; user interfaces (i.e., screens, reports, etc.) that accurately show 4 digit years; and assurance that the year 2000 shall be correctly treated as a leap year within all calculation and calendar logic.

(d) Third-party Software Warranty

The Contractor represents and warrants that it will disclose the use or incorporation of any third-party software into the Deliverables. At the time of Delivery, the Contractor shall provide in writing the name and use of any Third-party Software, including information regarding the Contractor's authorization to include and utilize such software. The notice shall include a copy of any ownership agreement or license that authorizes the Contractor to use the Third-party Software.

**2.173 Equipment Warranty**

To the extent Contractor is responsible under this Contract for maintaining equipment/system(s), Contractor represents and warrants that it will maintain such equipment/system(s) in good operating condition and will undertake all repairs and preventive maintenance in accordance with the applicable manufacturer's recommendations for the period specified in this Contract.

The and shall operate and perform to the requirements and other standards of performance contained in this Contract, when installed, at the time of Final Acceptance by the State, and for a period of one (1) year commencing upon the first day following Final Acceptance.

Contractor represents and warrants that the equipment/system(s) shall be in good operating condition

Within \_90\_ business days of notification from the State, the Contractor shall adjust, repair or replace all equipment that is defective or not performing in compliance with the Contract. The Contractor shall assume all costs for replacing parts or units and their installation including transportation and delivery fees, if any.

The Contractor shall provide a toll-free telephone number to allow the State to report equipment failures and problems to be remedied by the Contractor.

The Contractor agrees that all warranty service it provides under this Contract shall be performed by original equipment manufacturer (OEM) trained, certified and authorized technicians.





The Contractor shall act as the sole point of contact for warranty service. The Contractor warrants that it shall pass through to the State any and all warranties obtained or available from the original equipment manufacturer, including any replacement, upgraded, or additional equipment warranties.

All warranty work shall be performed on the State of Michigan worksite(s).

#### **2.174 Physical Media Warranty**

(a) Contractor represents and warrants that each licensed copy of the Software provided by the Contractor is free from physical defects in the media that tangibly embodies the copy. This warranty does not apply to defects discovered more than thirty (30) days after that date of Final Acceptance of the Software by the State. This warranty does not apply to defects arising from acts of Excusable Failure. If the Contractor breaches this warranty, then the State shall be entitled to replacement of the non-compliant copy by Contractor, at Contractor's expense (including shipping and handling).

#### **2.175a DISCLAIMER**

THE FOREGOING EXPRESS WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES AND EACH PARTY EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

#### **2.175b Standard Warranties**

##### **(a) Warranty of Merchantability**

Deliverables shall be merchantable. All Deliverables shall be of good quality within the description given by the State, shall be fit for their ordinary purpose, shall be adequately contained and packaged within the description given by the State, shall conform to the agreed upon specifications, and shall conform to the affirmations of fact made by the Contractor on the container or label.

##### **(b) Warranty of fitness for a particular purpose**

When Contractor has reason to know or knows any particular purpose for which the Deliverables are required, and when the State is relying on the Contractor's skill or judgment to select or furnish suitable Deliverables, the Contractor warrants that the Deliverables are fit for such purpose.

##### **(c) Warranty of title**

Contractor shall convey good title in those Deliverables, whose transfer is right and lawful. All Deliverables provided by Contractor shall be delivered free from any security interest, lien, or encumbrance. Deliverables shall be delivered free of any rightful claim of any third person of ownership, interest, lien or encumbrance.

#### **2.176 Consequences For Breach**

In addition to any remedies available in law, if the Contractor breaches any of the warranties contained in this section, such breach may be considered as a default in the performance of a material obligation of this Contract.

### **2.180 Insurance**

#### **2.181 Liability Insurance**

##### **(a) Liability Insurance**

The Contractor is required to provide proof of the minimum levels of insurance coverage as indicated below. The purpose of this coverage shall be to protect the State from claims which may arise out of or result from the Contractor's performance of services under the terms of this Contract, whether such services are performed by the Contractor, or by any subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.



The Contractor waives all rights against the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents for recovery of damages to the extent these damages are covered by the insurance policies the Contractor is required to maintain pursuant to this Contract.

All insurance coverages provided relative to this Contract/Purchase Order are PRIMARY and NON-CONTRIBUTING to any comparable liability insurance (including self-insurances) carried by the State.

The insurance shall be written for not less than any minimum coverage specified in this Contract or required by law, whichever is greater.

The insurers selected by Contractor shall have an A.M. Best rating of A or better, or as otherwise approved in writing by the State, or if such ratings are no longer available, with a comparable rating from a recognized insurance rating agency. All policies of insurance required in this Contract shall be issued by companies that have been approved to do business in the State.

See [http://www.mi.gov/cis/0,1607,7-154-10555\\_22535---,00.html](http://www.mi.gov/cis/0,1607,7-154-10555_22535---,00.html).

Where specific limits are shown, they are the minimum acceptable limits. If Contractor's policy contains higher limits, the State shall be entitled to coverage to the extent of such higher limits.

Before the Contract is signed by both parties or before the purchase order is issued by the State, the Contractor must furnish to the Director of Purchasing Operations, certificate(s) of insurance verifying insurance coverage ("Certificates"). The Certificate must be on the standard "accord" form or equivalent. **THE CONTRACT OR PURCHASE ORDER NO. MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING.** All Certificate(s) are to be prepared and submitted by the Insurance Provider. All Certificate(s) shall contain a provision indicating that coverages afforded under the policies WILL NOT BE CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED without THIRTY (30) days prior written notice, except for ten (10) days for non-payment of premium, having been given to the Director of Purchasing Operations, Department of Management and Budget. The notice must include the Contract or Purchase Order number affected and be mailed to: Director, Purchasing Operations, Department of Management and Budget, P.O. Box 30026, Lansing, Michigan 48909. Failure to provide evidence of coverage, may, at the State's sole option, result in this Contract's termination.

The Contractor is required to pay for and provide the type and amount of insurance checked ☒ below:

- ☒ 1. Commercial General Liability with the following minimum coverage:  
 \$2,000,000 General Aggregate Limit other than Products/Completed Operations  
 \$2,000,000 Products/Completed Operations Aggregate Limit  
 \$1,000,000 Personal & Advertising Injury Limit  
 \$1,000,000 Each Occurrence Limit  
 \$500,000 Fire Damage Limit (any one fire)

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSURED(S) on the Commercial General Liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

- ☒ 2. If a motor vehicle is used to provide services or products under this Contract, the Contractor must have vehicle liability insurance on any auto including owned, hired and non-owned vehicles used in Contractor's business for bodily injury and property damage as required by law.

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSURED(S) on the vehicle liability certificate. The Contractor



also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☒ 3. Workers' compensation coverage must be provided in accordance with applicable laws governing the employees and employers work activities in the state of the Contractor's domicile. If the applicable coverage is provided by a self-insurer, proof must be provided of approved self-insured authority by the jurisdiction of domicile. For employees working outside of the state of qualification, Contractor must provide appropriate certificates of insurance proving mandated coverage levels for the jurisdictions where the employees' activities occur.

Any certificates of insurance received must also provide a list of states where the coverage is applicable.

The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company. This provision shall not be applicable where prohibited or limited by the laws of the jurisdiction in which the work is to be performed.

☒ 4. Employers liability insurance with the following minimum limits:  
\$100,000 each accident  
\$100,000 each employee by disease  
\$500,000 aggregate disease

☐ 5. Employee Fidelity, including Computer Crimes, insurance naming the State as a loss payee, providing coverage for direct loss to the State and any legal liability of the State arising out of or related to fraudulent or dishonest acts committed by the employees of Contractor or its Subcontractors, acting alone or in collusion with others, in a minimum amount of one million dollars (\$1,000,000.00) with a maximum deductible of fifty thousand dollars (\$50,000.00).

☐ 6. Umbrella or Excess Liability Insurance in a minimum amount of ten million dollars (\$10,000,000.00), which shall apply, at a minimum, to the insurance required in Subsection 1 (Commercial General Liability) above.

☐ 7. Professional Liability (Errors and Omissions) Insurance with the following minimum coverage: three million dollars (\$3,000,000.00) each occurrence and three million dollars (\$3,000,000.00) annual aggregate.

☐ 8. Fire and Personal Property Insurance covering against any loss or damage to the office space used by Contractor for any reason under this Contract, and the equipment, software and other contents of such office space, including without limitation, those contents used by Contractor to provide the Services to the State, up to the replacement value thereof, where such office space and its contents are under the care, custody and control of Contractor. Such policy shall cover all risks of direct physical loss or damage, including without limitation, flood and earthquake coverage and coverage for computer hardware and software. The State shall be endorsed on the policy as a loss payee as its interests appear.

(b) Subcontractors

Except where the State has approved in writing a Contractor subcontract with other insurance provisions, Contractor shall require all of its Subcontractors under this Contract to purchase and maintain the insurance coverage as described in this Section for the Contractor in connection with the performance of work by those Subcontractors. Alternatively, Contractor may include any Subcontractors under Contractor's insurance on the coverage required in this Section. Subcontractor(s) shall fully comply with the insurance coverage required in this Section. Failure of Subcontractor(s) to comply with insurance requirements does not limit Contractor's liability or responsibility.

(c) Certificates of Insurance and Other Requirements





Contractor shall furnish to the Office of Purchasing Operations certificate(s) of insurance verifying insurance coverage or providing satisfactory evidence of self-insurance as required in this Section (the "Certificates"). Before the Contract is signed, and not less than 20 days before the insurance expiration date every year thereafter, the Contractor shall provide evidence that the State and its agents, officers and employees are listed as additional insureds under each commercial general liability and commercial automobile liability policy. In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.

Contractor shall maintain all required insurance coverage throughout the term of the Contract and any extensions thereto and, in the case of claims-made Commercial General Liability policies, shall secure tail coverage for at least three (3) years following the expiration or termination for any reason of this Contract. The minimum limits of coverage specified above are not intended, and shall not be construed, to limit any liability or indemnity of Contractor under this Contract to any indemnified party or other persons. Contractor shall be responsible for all deductibles with regard to such insurance. If Contractor fails to pay any premium for required insurance as specified in this Contract, or if any insurer cancels or significantly reduces any required insurance as specified in this Contract without the State's written consent, at the State's election (but without any obligation to do so) after the State has given Contractor at least thirty (30) days written notice, the State may pay such premium or procure similar insurance coverage from another company or companies; and at the State's election, the State may deduct the entire cost (or part thereof) from any payment due Contractor, or Contractor shall pay the entire cost (or any part thereof) upon demand by the State.

## 2.190 Indemnification

### **2.191 Indemnification**

#### **(a) General Indemnification**

To the extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State 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 Contractor in the performance of this Contract and that are attributable to the negligence or tortious acts of the Contractor or any of its subcontractors, or by anyone else for whose acts any of them may be liable.

#### **(b) Code Indemnification**

To the extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State from any claim, loss, or expense arising from Contractor's breach of the No Surreptitious Code Warranty.

#### **(c) Employee Indemnification**

In any and all claims against the State of Michigan, its departments, divisions, agencies, sections, commissions, officers, employees and agents, by any employee of the Contractor or any of its subcontractors, the indemnification obligation under the Contract shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Contractor or any of its subcontractors under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.

#### **(d) Patent/Copyright Infringement Indemnification**

To the extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or the operation of such equipment, software, commodity or service, or the use or reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States patent, copyright, trademark or trade secret of any person or entity, which is enforceable under the laws of the United States.



In addition, should the equipment, software, commodity, or service, or its operation, become or in the State's or Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor shall at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Contractor, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Notwithstanding the foregoing, the Contractor shall have no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any claim based upon (i) equipment developed based on written specifications of the State; or (ii) use of the equipment in a configuration other than implemented or approved in writing by the Contractor, including, but not limited to, any modification of the equipment by the State; or (iii) the combination, operation, or use of the equipment with equipment or software not supplied by the Contractor under this Contract.

## **2.192 Continuation of Indemnification Obligations**

The Contractor's duty to indemnify pursuant to this Section continues in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred prior to expiration or cancellation.

## **2.193 Indemnification Procedures**

The procedures set forth below shall apply to all indemnity obligations under this Contract.

(a) After receipt by the State of notice of the action or proceeding involving a claim in respect of which it will seek indemnification, the State shall promptly notify Contractor of such claim in writing and take or assist Contractor in taking, as the case may be, any reasonable action to avoid the imposition of a default judgment against Contractor. No failure to notify Contractor shall relieve Contractor of its indemnification obligations except to the extent that Contractor can demonstrate damages attributable to such failure. Within ten (10) days following receipt of written notice from the State relating to any claim, Contractor shall notify the State in writing whether Contractor agrees to assume control of the defense and settlement of that claim (a "Notice of Election"). After notifying Contractor of a claim and prior to the State receiving Contractor's Notice of Election, the State shall be entitled to defend against the claim, at Contractor's expense, and Contractor will be responsible for any reasonable costs incurred by the State in defending against the claim during such period.

(b) If Contractor delivers a Notice of Election relating to any claim: (i) the State shall be entitled to participate in the defense of such claim and to employ counsel at its own expense to assist in the handling of such claim and to monitor and advise the State about the status and progress of the defense; (ii) Contractor shall, at the request of the State, demonstrate to the reasonable satisfaction of the State, Contractor's financial ability to carry out its defense and indemnity obligations under this Contract; (iii) Contractor shall periodically advise the State about the status and progress of the defense and shall obtain the prior written approval of the State before entering into any settlement of such claim or ceasing to defend against such claim and (iv) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State shall have the right, at its own expense, to control the defense of that portion of such claim involving the principles of Michigan governmental or public law. Notwithstanding the foregoing, the State may retain control of the defense and settlement of a claim by written notice to Contractor given within ten (10) days after the State's receipt of Contractor's information requested by the State pursuant to clause (ii) of this paragraph if the State determines that Contractor has failed to demonstrate to the reasonable satisfaction of the State Contractor's financial ability to carry out its defense and indemnity obligations under this Section. Any litigation activity on behalf of the State of Michigan, or any of its subdivisions pursuant to this Section, must be coordinated with the Department of Attorney General. In the event the insurer's attorney represents the State pursuant to this Section, the insurer's attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.



(c) If Contractor does not deliver a Notice of Election relating to any claim of which it is notified by the State as provided above, the State shall have the right to defend the claim in such manner as it may deem appropriate, at the cost and expense of Contractor. If it is determined that the claim was one against which Contractor was required to indemnify the State, upon request of the State, Contractor shall promptly reimburse the State for all such reasonable costs and expenses.

#### 2.200 Limits of Liability and Excusable Failure

##### **2.201 Limits of Liability**

The Contractor's liability for damages to the State shall be limited to two times the value of the Contract or \$200,000 (for low risk contracts – Select a higher amount for moderate to high risk contracts) which ever is higher. The foregoing limitation of liability shall not apply to claims for infringement of United States patent, copyright, trademarks or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of this Contract calling for liquidated damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on this Contract.

The State's liability for damages to the Contractor shall be limited to the value of the Contract.

Neither the Contractor nor the State shall be liable to each other, regardless of the form of action, for consequential, incidental, indirect, or special damages. This limitation of liability shall not apply to claims for infringement of United States patent, copyright, trademark or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of this Contract calling for liquidated damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on this Contract.

##### **2.202 Excusable Failure**

Neither party will be liable for any default, damage or delay in the performance of its obligations under the Contract to the extent such default, damage or delay is caused by government regulations or requirements (executive, legislative, judicial, military or otherwise), power failure, electrical surges or current fluctuations, lightning, earthquake, war, water or other forces of nature or acts of God, delays or failures of transportation, equipment shortages, suppliers' failures, or acts or omissions of common carriers, fire; riots, civil disorders; strikes or other labor disputes, embargoes; injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of such party; provided the non-performing party and its Subcontractors are without fault in causing such default or delay, and such default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means, including disaster recovery plans.

In such event, the non-performing party will be excused from any further performance or observance of the obligation(s) so affected for as long as such circumstances prevail and such party continues to use its commercially reasonable efforts to recommence performance or observance whenever and to whatever extent possible without delay and provided further that such party promptly notifies the other party in writing of the inception of the excusable failure occurrence, and also of its abatement or cessation.

If any of the above-enumerated circumstances substantially prevent, hinder, or delay Contractor's performance of the Services/provision of Deliverables for more than ten (10) Business Days, and the State determines that performance is not likely to be resumed within a period of time that is satisfactory to the State in its reasonable discretion, then at the State's option: (a) the State may procure the affected Services/Deliverables from an alternate source, and the State shall not be liable for payment for the unperformed Services/ Deliverables not provided under the Contract for so long as the delay in performance shall continue; (b) the State may terminate any portion of the Contract so affected and the charges payable there under shall be equitably adjusted to reflect those Services/Deliverables terminated; or (c) the State may terminate the affected Statement of Work



without liability to Contractor as of a date specified by the State in a written notice of termination to Contractor, except to the extent that the State shall pay for Services/Deliverables provided through the date of termination.

Contractor will not have the right to any additional payments from the State as a result of any Excusable Failure occurrence or to payments for Services not rendered/Deliverables not provided as a result of the Excusable Failure condition. Defaults or delays in performance by Contractor which are caused by acts or omissions of its Subcontractors will not relieve Contractor of its obligations under the Contract except to the extent that a Subcontractor is itself subject to an Excusable Failure condition described above and Contractor cannot reasonably circumvent the effect of the Subcontractor's default or delay in performance through the use of alternate sources, workaround plans or other means.

### **2.203 Disaster Recovery**

Contractor and the State recognize that the State provides essential services in times of natural or man-made disasters. Therefore, except as so mandated by Federal disaster response requirements, Contractor personnel dedicated to providing Services/Deliverables under this Contract will provide the State with priority service for repair and work around in the event of a natural or manmade disaster.

#### **2.210 Termination/Cancellation by the State**

The State may terminate this Contract without further liability or penalty to the State, its departments, divisions, agencies, offices, commissions, officers, agents and employees for any of the following reasons:

#### **2.211 Termination for Cause**

(a) In the event that Contractor breaches any of its material duties or obligations under this Contract (including a Chronic Failure to meet any particular SLA as defined in **Section 2.076**), which are either not capable of or subject to being cured, or are not cured within the time period specified in the written notice of breach provided by the State (such time period not to be less than thirty (30) days), or pose a serious and imminent threat to the health and safety of any person, or the imminent loss, damage or destruction of any real or tangible personal property, the State may, having provided written notice of termination to Contractor, terminate this Contract in whole or in part, for cause, as of the date specified in the notice of termination.

(b) In the event that this Contract is terminated for cause, in addition to any legal remedies otherwise available to the State by law or equity, Contractor shall be responsible for all costs incurred by the State in terminating this Contract, including but not limited to, State administrative costs, reasonable attorneys' fees and court costs, and any reasonable additional costs the State may incur to procure the Services/Deliverables required by this Contract from other sources. Re-procurement costs shall not be considered by the parties to be consequential, indirect or incidental damages, and shall not be excluded by any other terms otherwise included in this Contract, provided such costs are not in excess of fifty percent (50%) more than the prices for such Service/Deliverables provided under this Contract.

(c) In the event the State chooses to partially terminate this Contract for cause, charges payable under this Contract will be equitably adjusted to reflect those Services/Deliverables that are terminated and the State shall pay for all Services/Deliverables for which Final Acceptance has been granted provided up to the termination date. Services and related provisions of this Contract that are terminated for cause shall cease on the effective date of the termination.

(d) In the event this Contract is terminated for cause pursuant to this Section, and it is determined, for any reason, that Contractor was not in breach of contract pursuant to the provisions of this section, that termination for cause shall be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties shall be limited to that otherwise provided in this Contract for a termination for convenience.



### **2.212 Termination for Convenience**

The State may terminate this Contract for its convenience, in whole or part, if the State determines that such a termination is in the State's best interest. Reasons for such termination shall be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the Services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Services no longer practical or feasible, (c) unacceptable prices for Additional Services or New Work requested by the State, or (d) falsification or misrepresentation, by inclusion or non-inclusion, of information material to a response to any RFP issued by the State. The State may terminate this Contract for its convenience, in whole or in part, by giving Contractor written notice at least thirty (30) days prior to the date of termination. If the State chooses to terminate this Contract in part, the charges payable under this Contract shall be equitably adjusted to reflect those Services/Deliverables that are terminated. Services and related provisions of this Contract that are terminated for cause shall cease on the effective date of the termination.

### **2.213 Non-Appropriation**

(a) Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this Contract. If funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available, the State shall have the right to terminate this Contract and all affected Statements of Work, in whole or in part, at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The State shall give Contractor at least thirty (30) days advance written notice of termination for non-appropriation or unavailability (or such time as is available if the State receives notice of the final decision less than thirty (30) days before the funding cutoff).

(b) If funding for the Contract is reduced by law, or funds to pay Contractor for the agreed-to level of the Services or production of Deliverables to be provided by Contractor are not appropriated or otherwise made available, the State may, upon thirty (30) days written notice to Contractor, reduce the level of the Services or the change the production of Deliverables in such manner and for such periods of time as the State may elect. The charges payable under this Contract will be equitably adjusted to reflect any equipment, services or commodities not provided by reason of such reduction.

(c) In the event the State terminates this Contract, eliminates certain Deliverables, or reduces the level of Services to be provided by Contractor pursuant to this Section, the State shall pay Contractor for all Work-in-Process performed through the effective date of the termination or reduction in level, as the case may be and as determined by the State, to the extent funds are available. For the avoidance of doubt, this Section will not preclude Contractor from reducing or stopping Services/Deliverables and/or raising against the State in a court of competent jurisdiction, any claim for a shortfall in payment for Services performed or Deliverables finally accepted before the effective date of termination.

### **2.214 Criminal Conviction**

The State may terminate this Contract immediately and without further liability or penalty in the event Contractor, an officer of Contractor, or an owner of a 25% or greater share of Contractor is convicted of a criminal offense incident to the application for, or performance of, a State, public or private Contract or subcontract; convicted of a criminal offense, including any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under State or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State reflects upon Contractor's business integrity.

### **2.215 Approvals Rescinded**

The State may terminate this Contract without further liability or penalty in the event any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, § 5, and Civil Service Rule 7-1. Termination may be in whole or in





part and may be immediate as of the date of the written notice to Contractor or may be effective as of the date stated in such written notice.

## **2.216 Rights and Obligations Upon Termination**

(a) If this Contract is terminated by the State for any reason, Contractor shall (a) stop all work as specified in the notice of termination, (b) take any action that may be necessary, or that the State may direct, for preservation and protection of Deliverables or other property derived or resulting from this Contract that may be in Contractor's possession, (c) return all materials and property provided directly or indirectly to Contractor by any entity, agent or employee of the State, (d) in the event that the Contractor maintains title in Deliverables that is intended to be transferred to the State at the termination of the Contract, Contractor will transfer title in, and deliver to, the State, unless otherwise directed, all Deliverables intended to be transferred to the State at the termination of the Contract and which are resulting from the Contract (which shall be provided to the State on an "As-Is" basis except to the extent the amounts paid by the State in respect of such items included compensation to Contractor for the provision of warranty services in respect of such materials), and (e) take any action to mitigate and limit any potential damages, or requests for Contractor adjustment or termination settlement costs, to the maximum practical extent, including terminating or limiting as otherwise applicable those subcontracts and outstanding orders for material and supplies resulting from the terminated Contract.

(b) In the event the State terminates this Contract prior to its expiration for its own convenience, the State shall pay Contractor for all charges due for Services provided prior to the date of termination and, if applicable, as a separate item of payment pursuant to this Contract, for Work In Process, on a percentage of completion basis at the level of completion determined by the State. All completed or partially completed Deliverables prepared by Contractor pursuant to this Contract shall, at the option of the State, become the State's property, and Contractor shall be entitled to receive equitable fair compensation for such Deliverables. Regardless of the basis for the termination, the State shall not be obligated to pay, or otherwise compensate, Contractor for any lost expected future profits, costs or expenses incurred with respect to Services not actually performed for the State.

(c) Upon a good faith termination, the State shall have the right to assume, at its option, any and all subcontracts and agreements for services and deliverables provided under this Contract, and may further pursue completion of the Services/Deliverables under this Contract by replacement contract or otherwise as the State may in its sole judgment deem expedient.

## **2.217 Reservation of Rights**

Any termination of this Contract or any Statement of Work issued under it by a party shall be with full reservation of, and without prejudice to, any rights or remedies otherwise available to such party with respect to any claims arising prior to or as a result of such termination.

## **2.218 Contractor Transition Responsibilities**

In the event this contract is terminated, for convenience or cause, dissolved, voided, rescinded, nullified, expires or is otherwise rendered unenforceable, the Contractor agrees to comply with direction provided by the State to assist in the orderly transition of equipment, services, software, leases, etc. to the State or a third party designated by the State. In the event of termination or the expiration of this Contract, the Contractor agrees to make all reasonable efforts to effect an orderly transition of services within a reasonable period of time that in no event will exceed ninety (90) days. These efforts shall include, but are not limited to, the following:

(a) Personnel - The Contractor shall work with the State, or a specified third party, to develop a transition plan setting forth the specific tasks and schedule to be accomplished by the parties, to effect an orderly transition. The Contractor shall allow as many personnel as practicable to remain on the job to help the State, or a specified third party, maintain the continuity and consistency of the services required by this Contract. In addition, during or following the transition period, in the event the State requires the Services of the Contractor's subcontractors or vendors, as necessary to meet its needs, Contractor agrees to reasonably, and with good-faith, work with the State to use the Services of Contractor's subcontractors or vendors. Contractor will notify all of Contractor's subcontractors of procedures to be followed during transition.



(b) Information - The Contractor agrees to provide reasonable detailed specifications for all Services/Deliverables needed by the State, or specified third party, to properly provide the Services/Deliverables required under this Contract. The Contractor will provide the State with asset management data generated from the inception of this Contract through the date on which this Contractor is terminated in a comma-delineated format unless otherwise requested by the State. The Contractor will deliver to the State any remaining owed reports and documentation still in Contractor's possession subject to appropriate payment by the State.

(d) Software. - The Contractor shall reasonably assist the State in the acquisition of any Contractor software required to perform the Services/use the Deliverables under this Contract. This shall include any documentation being used by the Contractor to perform the Services under this Contract. If the State transfers any software licenses to the Contractor, those licenses shall, upon expiration of the Contract, transfer back to the State at their current revision level. Upon notification by the State, Contractor may be required to freeze all non-critical changes to Deliverables/Services.

(e) Payment - If the transition results from a termination for any reason, reimbursement shall be governed by the termination provisions of this Contract. If the transition results from expiration, the Contractor will be reimbursed for all reasonable transition costs (i.e. costs incurred within the agreed period after contract expiration that result from transition operations) at the rates specified by **Exhibit D**. The Contractor will prepare an accurate accounting from which the State and Contractor may reconcile all outstanding accounts.

## 2.219 State Transition Responsibilities

In the event that this Contract is terminated, dissolved, voided, rescinded, nullified, or otherwise rendered unenforceable, the State agrees to perform the following obligations, and any others upon which the State and the Contractor agree:

- (a) Reconciling all accounts between the State and the Contractor;
- (b) Completing any pending post-project reviews.

## 2.220 Termination by Contractor

### 2.221 Termination by Contractor

If the State materially breaches its obligation to pay Contractor undisputed amounts due and owing under this Contract in accordance with **Section 2.090**, or if the State breaches its other obligations under this Contract to an extent that makes it impossible or commercially impractical for Contractor to perform the Services, and if the State does not cure the breach within the time period specified in a written notice of breach provided to the State by Contractor (such time period not to be less than thirty (30) days), then Contractor may terminate this Contract, in whole or in part based on Statement of Work for cause, as of the date specified in the notice of termination; provided, however, that Contractor must discharge its obligations under **Section 2.250** before any such termination.

## 2.230 Stop Work

### 2.231 Stop Work Orders

The State may, at any time, by written stop work order to Contractor, require that Contractor stop all, or any part, of the work called for by the Contract for a period of up to ninety (90) calendar days after the stop work order is delivered to Contractor, and for any further period to which the parties may agree. The stop work order shall be specifically identified as such and shall indicate that it is issued under this **Section 2.230**. Upon receipt of the stop work order, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the stop work order during the period of work stoppage. Within the period of the stop work order, the State shall either: (a) cancel the stop work order; or (b) terminate the work covered by the stop work order as provided in **Section 2.210**.

### 2.232 Cancellation or Expiration of Stop Work Order

If a stop work order issued under this **Section 2.230** is canceled or the period of the stop work order or any extension thereof expires, Contractor shall resume work. The parties shall agree upon an equitable



adjustment in the delivery schedule, the Contract price, or both, and the Contract shall be modified, in writing, accordingly, if: (a) the stop work order results in an increase in the time required for, or in Contractor's costs properly allocable to, the performance of any part of the Contract; and (b) Contractor asserts its right to an equitable adjustment within thirty (30) calendar days after the end of the period of work stoppage; provided that, if the State decides the facts justify the action, the State may receive and act upon a Contractor proposal submitted at any time before final payment under the Contract. Any adjustment will conform to the requirements of **Section 2.106**.

### **2.233 Allowance of Contractor Costs**

If the stop work order is not canceled and the work covered by the stop work order is terminated for reasons other than material breach, such termination shall be deemed to be a termination for convenience under **Section 2.212**, and the State shall allow reasonable costs resulting from the stop work order in arriving at the termination settlement. For the avoidance of doubt, the State shall not be liable to Contractor for loss of profits because of a stop work order issued under this **Section 2.230**.

### 2.240 Reserved

### 2.250 Dispute Resolution

#### **2.251 In General**

Any claim, counterclaim, or dispute between the State and Contractor arising out of or relating to the Contract or any Statement of Work shall be resolved as follows. For all Contractor claims seeking an increase in the amounts payable to Contractor under the Contract, or the time for Contractor's performance, Contractor shall submit a letter executed by Contractor's Contract Administrator or his designee certifying that (a) the claim is made in good faith, (b) the amount claimed accurately reflects the adjustments in the amounts payable to Contractor or the time for Contractor's performance for which Contractor believes the State is liable and covers all costs of every type to which Contractor is entitled from the occurrence of the claimed event, and (c) the supporting data provided with such an affidavit are current and complete to Contractor's best knowledge and belief.

#### **2.252 Informal Dispute Resolution**

(a) All operational disputes between the parties shall be resolved under the Contract Management procedures developed pursuant to **Section 2.100**. If the parties are unable to resolve any disputes after compliance with such processes, the parties shall meet with the Director of Purchasing Operations, DMB, or designee, for the purpose of attempting to resolve such dispute without the need for formal legal proceedings, as follows:

(i) The representatives of Contractor and the State shall meet as often as the parties reasonably deem necessary in order to gather and furnish to each other all information with respect to the matter in issue which the parties believe to be appropriate and germane in connection with its resolution. The representatives shall discuss the problem and negotiate in good faith in an effort to resolve the dispute without the necessity of any formal proceeding.

(ii) During the course of negotiations, all reasonable requests made by one party to another for non-privileged information reasonably related to the Contract will be honored in order that each of the parties may be fully advised of the other's position.

(iii) The specific format for the discussions will be left to the discretion of the designated State and Contractor representatives, but may include the preparation of agreed upon statements of fact or written statements of position.

(iv) Following the completion of this process within sixty (60) calendar days, the Director of Purchasing Operations, DMB, or designee, shall issue a written opinion regarding the issue(s) in dispute within thirty (30) calendar days. The opinion regarding the dispute shall be considered the State's final action and the exhaustion of administrative remedies.

(b) This **Section 2.250** will not be construed to prevent either party from instituting, and a party is authorized to institute, formal proceedings earlier to avoid the expiration of any applicable limitations period, to preserve a superior position with respect to other creditors, or pursuant to **Section 2.253**.





(c) The State will not mediate disputes between the Contractor and any other entity, except state agencies, concerning responsibility for performance of work pursuant to the Contract.

### **2.253 Injunctive Relief**

The only circumstance in which disputes between the State and Contractor will not be subject to the provisions of **Section 2.252** is where a party makes a good faith determination that a breach of the terms of the Contract by the other party is such that the damages to such party resulting from the breach will be so immediate, so large or severe and so incapable of adequate redress after the fact that a temporary restraining order or other immediate injunctive relief is the only adequate remedy.

### **2.254 Continued Performance**

Each party agrees to continue performing its obligations under the Contract while a dispute is being resolved except to the extent the issue in dispute precludes performance (dispute over payment shall not be deemed to preclude performance) and without limiting either party's right to terminate the Contract as provided in **Section 2.210** and **2.220**, as the case may be.

### 2.260 Federal and State Contract Requirements

#### **2.261 Nondiscrimination**

In the performance of the Contract, Contractor agrees not to discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, physical or mental disability. Contractor further agrees that every subcontract entered into for the performance of this Contract or any purchase order resulting from this Contract will contain a provision requiring non-discrimination in employment, as specified here, binding upon each Subcontractor. This covenant is required pursuant to the Elliot Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, and any breach of this provision may be regarded as a material breach of the Contract.

#### **2.262 Unfair Labor Practices**

Pursuant to 1980 PA 278, MCL 423.231, *et seq.*, the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled pursuant to section 2 of the Act. This information is compiled by the United States National Labor Relations Board. A Contractor of the State, in relation to the Contract, shall not enter into a contract with a Subcontractor, manufacturer, or supplier whose name appears in this register. Pursuant to section 4 of 1980 PA 278, MCL 423.324, the State may void any Contract if, subsequent to award of the Contract, the name of Contractor as an employer or the name of the Subcontractor, manufacturer or supplier of Contractor appears in the register.

#### **2.263 Workplace Safety and Discriminatory Harassment**

In performing Services for the State, the Contractor shall comply with the Department of Civil Services Rule 2-20 regarding Workplace Safety and Rule 1-8.3 regarding Discriminatory Harassment. In addition, the Contractor shall comply with Civil Service regulations and any applicable agency rules provided to the Contractor. For Civil Service Rules, see <http://www.mi.gov/mdcs/0,1607,7-147-6877---,00.html>.

### 2.270 Litigation

#### **2.271 Disclosure of Litigation**

(a) Disclosure. Contractor must disclose any material criminal litigation, investigations or proceedings involving the Contractor (and each Subcontractor) or any of its officers or directors or any litigation, investigations or proceedings under the Sarbanes-Oxley Act. In addition, each Contractor (and each Subcontractor) must notify the State of any material civil litigation, arbitration or proceeding which arises during the term of the Contract and extensions thereto, to which Contractor (or, to the extent Contractor is aware, any



Subcontractor hereunder) is a party, and which involves: (i) disputes that might reasonably be expected to adversely affect the viability or financial stability of Contractor or any Subcontractor hereunder; or (ii) a claim or written allegation of fraud against Contractor or, to the extent Contractor is aware, any Subcontractor hereunder by a governmental or public entity arising out of their business dealings with governmental or public entities. Any such litigation, investigation, arbitration or other proceeding (collectively, "Proceeding") must be disclosed in a written statement to the Contract Administrator within thirty (30) days of its occurrence. Details of settlements which are prevented from disclosure by the terms of the settlement may be annotated as such. Information provided to the State from Contractor's publicly filed documents referencing its material litigation will be deemed to satisfy the requirements of this Section.

(b) Assurances. In the event that any such Proceeding disclosed to the State pursuant to this Section, or of which the State otherwise becomes aware, during the term of this Contract would cause a reasonable party to be concerned about:

- (i) the ability of Contractor (or a Subcontractor hereunder) to continue to perform this Contract in accordance with its terms and conditions, or
- (ii) whether Contractor (or a Subcontractor hereunder) in performing Services for the State is engaged in conduct which is similar in nature to conduct alleged in such Proceeding, which conduct would constitute a breach of this Contract or a violation of Michigan law, regulations or public policy, then Contractor shall be required to provide the State all reasonable assurances requested by the State to demonstrate that:

(A) Contractor and/or its Subcontractors hereunder will be able to continue to perform this Contract and any Statements of Work in accordance with its terms and conditions, and

(B) Contractor and/or its Subcontractors hereunder have not and will not engage in conduct in performing the Services which is similar in nature to the conduct alleged in such Proceeding.

(c) Contractor shall make the following notifications in writing:

(1) Within thirty (30) days of Contractor becoming aware that a change in its ownership or officers has occurred, or is certain to occur, or a change that could result in changes in the valuation of its capitalized assets in the accounting records, Contractor shall notify the Office of Purchasing Operations.

(2) Contractor shall also notify the Office of Purchasing Operations within thirty (30) days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership or officers.

(3) Contractor shall also notify Purchasing Operations within thirty (30) days whenever changes to company affiliations occur.

## **2.272 Governing Law**

The Contract shall in all respects be governed by, and construed in accordance with, the substantive laws of the State of Michigan without regard to any Michigan choice of law rules that would apply the substantive law of any other jurisdiction to the extent not inconsistent with, or pre-empted by federal law.

## **2.273 Compliance with Laws**

Contractor shall comply with all applicable state, federal, and local laws and ordinances ("Applicable Laws") in providing the Services/Deliverables.

## **2.274 Jurisdiction**

Any dispute arising from the Contract shall be resolved in the State of Michigan. With respect to any claim between the parties, Contractor consents to venue in Ingham County, Michigan, and irrevocably waives any objections it may have to such jurisdiction on the grounds of lack of personal jurisdiction of such court or the laying of venue of such court or on the basis of forum non conveniens or otherwise. Contractor agrees to appoint agents in the State of Michigan to receive service of process.



## 2.280 Environmental Provision

### **2.281 Environmental Provision**

For the purposes of this Section, "Hazardous Materials" is a generic term used to describe asbestos, ACBMs, PCBs, petroleum products, such construction materials as paint thinners, solvents, gasoline, oil, etc., and any other material the manufacture, use, treatment, storage, transportation or disposal of which is regulated by the federal, state or local laws governing the protection of the public health, natural resources or the environment. This includes, but is not limited to, materials such as batteries and circuit packs, and other materials that are regulated as (1) "Hazardous Materials" under the Hazardous Materials Transportation Act, (2) "chemical hazards" under the Occupational Safety and Health Administration standards, (3) "chemical substances or mixtures" under the Toxic Substances Control Act, (4) "pesticides" under the Federal Insecticide Fungicide and Rodenticide Act, and (5) "hazardous wastes" as defined or listed under the Resource Conservation and Recovery Act. This Contract does not cover the handling, removal, or disposal of all Hazardous Materials.

(a) The Contractor shall use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material in accordance with all federal, State and local laws. The State shall provide a safe and suitable environment for performance of Contractor's Work. Prior to the commencement of Work, the State shall advise Contractor of the presence at the work site of any Hazardous Material to the extent that the State is aware of such Hazardous Material. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor shall immediately stop all affected Work, give written notice to the State of the conditions encountered, and take appropriate health and safety precautions.

(b) Upon receipt of a written notice, the State will investigate the conditions. If (a) the material is a Hazardous Material that may present a substantial danger, and (b) the Hazardous Material was not brought to the site by the Contractor, or does not result in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Materials, the State shall order a suspension of Work in writing. The State shall proceed to have the Hazardous Material removed or rendered harmless. In the alternative, the State shall terminate the affected Work for the State's convenience.

(c) Once the Hazardous Material has been removed or rendered harmless by the State, the affected Work shall be resumed as directed in writing by the State. Any determination by the Michigan Department of Community Health and/or the Michigan Department of Environmental Quality (whichever is applicable) that the Hazardous Material has either been removed or rendered harmless shall be binding upon the State and Contractor for the purposes of resuming the Work. If any such incident with Hazardous Material results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Work will not be counted in **Section 2.076** for a time as mutually agreed by the parties.

(d) If the Hazardous Material was brought to the site by the Contractor, or results in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Material, or from any other act or omission within the control of the Contractor, the Contractor shall bear its proportionate share of the delay and costs involved in cleaning up the site and removing and rendering harmless the Hazardous Material in accordance with Applicable Laws to the condition approved by applicable regulatory agency(ies). If the Contractor fails to take appropriate action pursuant to Applicable Laws and consistent with the State requirements, then the State may take appropriate action.

## 2.290 General

### **2.291 Amendments**

The Contract may not be modified, amended, extended, or augmented, except by a writing executed by the parties.

### **2.292 Assignment**

(a) Neither party shall have the right to assign the Contract, or to assign or delegate any of its duties or obligations under the Contract, to any other party (whether by operation of law or otherwise), without the prior



written consent of the other party; provided, however, that the State may assign the Contract to any other State agency, department, division or department without the prior consent of Contractor and Contractor may assign the Contract to an affiliate so long as such affiliate is adequately capitalized and can provide adequate assurances that such affiliate can perform the Contract. Any purported assignment in violation of this Section shall be null and void. It is the policy of the State of Michigan to withhold consent from proposed assignments, subcontracts, or novations when such transfer of responsibility would operate to decrease the State's likelihood of receiving performance on the Contract or the State's ability to recover damages.

(b) Contractor may not, without the prior written approval of the State, assign its right to receive payments due under the Contract. In the event of any such permitted assignment, Contractor shall not be relieved of its responsibility to perform any duty imposed upon it herein, and the requirement under the Contract that all payments shall be made to one entity shall continue.

## **2.293 Entire Contract; Order of Precedence**

(a) The Contract, including any Statements of Work and Exhibits, to the extent not contrary to the Contract, each of which is incorporated for all purposes, constitutes the entire agreement between the parties with respect to the subject matter and supersedes all prior agreements, whether written or oral, with respect to such subject matter and as additional terms and conditions on the purchase order shall apply as limited by **Section 2.061**.

(b) In the event of any inconsistency between the terms of the Contract and a Statement of Work, the terms of the Statement of Work will take precedence (as to that Statement of Work only); provided, however, that a Statement of Work may not modify or amend the terms of **Sections 2.110 through 2.220** of the Contract, which may be modified or amended only by a formal Contract amendment.

## **2.294 Headings**

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of the Contract.

## **2.295 Relationship of the Parties (Independent Contractor Relationship)**

The relationship between the State and Contractor is that of client and independent Contractor. No agent, employee, or servant of Contractor or any of its Subcontractors shall be or shall be deemed to be an employee, agent or servant of the State for any reason. Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and Subcontractors during the performance of the Contract.

## **2.296 Notices**

(a) Any notice given to a party under the Contract shall be deemed effective, if addressed to such party as addressed below, upon: (i) delivery, if hand delivered; (ii) receipt of a confirmed transmission by facsimile if a copy of the notice is sent by another means specified in this Section; (iii) the third (3rd) Business Day after being sent by U.S. mail, postage pre-paid, return receipt requested; or (iv) the next Business Day after being sent by a nationally recognized overnight express courier with a reliable tracking system.

State:  
State of Michigan  
Office of Purchasing Operations  
Attention: Joann Klasko  
PO Box 30026  
530 West Allegan  
Lansing, Michigan 48909



with a copy to:  
State of Michigan  
Department of Information Technology  
Attention: Patty Bogard  
525 West Allegan  
Constitution Hall/Atrium South  
Lansing, Michigan 48933

Contractor(s): Simon Watson  
4000 Kruse Way  
Building 62, Suite 285  
Lake Oswego, OR 97035

Either party may change its address where notices are to be sent by giving notice in accordance with this Section.

(b) Binding Commitments

Representatives of Contractor identified in **Exhibit I** shall have the authority to make binding commitments on Contractor's behalf within the bounds set forth in such table. Contractor may change such representatives from time to time upon written notice.

## **2.297 Media Releases and Contract Distribution**

(a) Media Releases

Neither Contractor nor the State will make any news releases, public announcements or public disclosures, nor will they have any conversations with representatives of the news media, pertaining to the Contract, the Services or the Contract without the prior written approval of the other party, and then only in accordance with explicit written instructions provided by that party. In addition, neither Contractor nor the State will use the name, trademarks or other proprietary identifying symbol of the other party or its affiliates without such party's prior written consent. Prior written consent of the Contractor must be obtained from authorized representatives.

(b) Contract Distribution

Purchasing Operations shall retain the sole right of Contract distribution to all State agencies and local units of government unless other arrangements are authorized by Purchasing Operations.

## **2.298 Reformation and Severability**

Each provision of the Contract shall be deemed to be severable from all other provisions of the Contract and, if one or more of the provisions of the Contract shall be declared invalid, the remaining provisions of the Contract shall remain in full force and effect.

## **2.299 Consents and Approvals**

Except as expressly provided otherwise in the Contract, if either party requires the consent or approval of the other party for the taking of any action under the Contract, such consent or approval shall be in writing and shall not be unreasonably withheld or delayed.

## **2.300 No Waiver of Default**

The failure of a party to insist upon strict adherence to any term of the Contract shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term, or any other term, of the Contract.

## **2.301 Survival**

Any provisions of the Contract that impose continuing obligations on the parties including the parties' respective warranty, indemnity and confidentiality obligations, shall survive the expiration or termination of the





Contract for any reason. Specific references to survival in the Contract are solely for identification purposes and not meant to limit or prevent the survival of any other section.

### **2.302 Covenant of Good Faith**

Each party agrees that, in its dealings with the other party or in connection with the Contract, it shall act reasonably and in good faith. Unless stated otherwise in the Contract, the parties will not unreasonably delay, condition or withhold the giving of any consent, decision or approval that is either requested or reasonably required of them in order for the other party to perform its responsibilities under the Contract.

### **2.303 Permits**

Contractor shall obtain and pay any associated costs for all required governmental permits, licenses and approvals for the delivery, installation and performance of the Services. The State shall pay for all costs and expenses incurred in obtaining and maintaining any necessary easements or right of way.

### **2.304 Website Incorporation**

State expressly states that it will not be bound by any content on the Contractor's website, even if the Contractor's documentation specifically referenced that content and attempts to incorporate it into any other communication, unless the State has actual knowledge of such content and has expressly agreed to be bound by it in a writing that has been manually signed by an authorized representation of the State.

### **2.305 Taxes**

Vendors are expected to collect and pay all applicable federal, state, and local employment taxes, including the taxes defined in Section 3.022 for all persons involved in the resulting Contract.

The State may refuse to award a contract to any Vendor who has failed to pay any applicable State taxes. The State may refuse to accept Vendor's bid, if Vendor has any outstanding debt with the State. Prior to any award, the State will verify whether Vendor has any outstanding debt with the State.

### **2.306 Prevailing Wage**

The rates of wages and fringe benefits to be paid each class of individuals employed by the Contractor, its subcontractors, their subcontractors, and all persons involved with the performance of this Contract in privity of contract with the Contractor shall not be less than the wage rates and fringe benefits established by the Michigan Department of Labor and Economic Development, Wage and Hour Bureau, schedule of occupational classification and wage rates and fringe benefits for the local where the work is to be performed. The term Contractor shall include all general contractors, prime contractors, project managers, trade contractors, and all of their contractors or subcontractors and persons in privity of contract with them.

The Contractor, its subcontractors, their subcontractors, and all persons involved with the performance of this contract in privity of contract with the Contractor shall keep posted on the work site, in a conspicuous place, a copy of all wage rates and fringe benefits as prescribed in the contract. You must also post, in a conspicuous place, the address and telephone number of the Michigan Department of Labor and Economic Development, the office responsible for enforcement of the wage rates and fringe benefits. You shall keep an accurate record showing the name and occupation of the actual wage and benefits paid to each individual employed in connection with this contract. This record shall be available to the State upon request for reasonable inspection.

If any trade is omitted from the list of wage rates and fringe benefits to be paid to each class of individuals by the Contractor, it is understood that the trades omitted shall also be paid not less than the wage rate and fringe benefits prevailing in the local where the work is to be performed.



### **2.307 Call Center Disclosure**

**Contractor and/or all subcontractors involved in the performance of this Contract providing call or contact center services to the State must disclose the location of its call or contact center services to inbound callers. Failure to disclose this information shall be a material breach of this Contract.**

### **2.308 Future Bidding Preclusion**

Contractor acknowledges that, to the extent this Contract involves the creation, research, investigation or generation of a future RFP, it may be precluded from bidding on the subsequent RFP. The State reserves the right to disqualify any bidder if the State determines that the bidder has used its position (whether as an incumbent Contractor, or as a Contractor hired to assist with the RFP development, or as a Vendor offering free assistance) to gain a leading edge on the competitive RFP.

#### **2.310 Reserved**

#### **2.320 Extended Purchasing**

### **2.321 MiDEAL**

Public Act 431 of 1984 permits DMB to provide purchasing services to any city, village, county, township, school district, intermediate school district, non-profit hospital, institution of higher education, community, or junior college. A current listing of approved program members is available at: <http://www.michigan.gov/doingbusiness/0,1607,7-146-6586-16656--,00.html>. Unless otherwise stated, it is the responsibility of the Contractor to ensure that the non-state agency is an authorized purchaser before extending the Contract pricing.

The Contractor will supply Contract Services and equipment at the established State of Michigan contract prices and terms to the extent applicable and where available. Inasmuch as these are non-state agencies, all invoices will be submitted to and payment remitted by the local unit of government on a direct and individual basis.

To the extent that authorized local units of government purchase quantities of Services and/or equipment under this Contract, the quantities of Services and/or equipment purchased will be included in determining the appropriate rate wherever tiered pricing based on quantity is provided.

### **2.322 State Employee Purchases**

Reserved

#### **2.330 Federal Grant Requirements**

### **2.331 Federal Grant Requirements**

The following links contain certifications and terms which may be required for some purchases paid via Federal funds. They are included here to be utilized as required.

Lobbying Certifications are usually for agreements over \$100,000. The debarment certification is required for all agreements. The last link is where you can go and search for debarred or suspended contractors.

[http://straylight.law.cornell.edu/uscode/html/uscode31/usc\\_sec\\_31\\_00001352----000-.html](http://straylight.law.cornell.edu/uscode/html/uscode31/usc_sec_31_00001352----000-.html)  
[http://www.archives.gov/federal\\_register/codification/executive\\_order/12549.html](http://www.archives.gov/federal_register/codification/executive_order/12549.html)  
[http://www.archives.gov/federal\\_register/executive\\_orders/pdf/12869.pdf](http://www.archives.gov/federal_register/executive_orders/pdf/12869.pdf)  
<http://www.epls.gov/epl/servlet/EPLSearchMain/1>



## **Appendix A-1**

### **Michigan's Web Hosting and Application Infrastructure**





Understanding  
Constitution Hall Consolidated  
Internet Application Hosting Environment

---

Department of Information Technology  
Agency Services

Constitution Hall  
Application Hosting Services

## Table of Contents

N/A	3
N/A	3
Information Technology Division.....	3
Table of Contents.....	1
Article 1 – Statement of Work (SOW) .....	5
1.0 Project Identification .....	5
1.1 Scope of Work and Deliverables.....	9
1.2 Roles and Responsibilities.....	22
1.3 Project Plan.....	28
1.4 Project Management .....	28
1.5 Acceptance .....	30
1.6 Compensation and Payment .....	30
1.7 Additional Terms and Conditions Specific to this SOW .....	31
Reserved.....	31
Article 1, Attachment A .....	32
Pricing .....	32
See Attachment D – Deliverables & Pricing Article 1, Attachment B .....	32
Article 1, Attachment B .....	33
Article 1, Attachment C .....	34
Article 1, Attachment D .....	35
Consultant Rate Schedule .....	35
Price Estimate.....	<b>Error! Bookmark not defined.</b>
Estimation Approach .....	<b>Error! Bookmark not defined.</b>
Article 1, Attachment E .....	44
Appendix A - Detailed Project Schedule .....	44
Article 1, Attachment F.....	55
Article 2 – General Terms and Conditions .....	56
2.010 Contract Structure and Administration .....	56
2.020 Contract Objectives/Scope/Background .....	58
2.030 Legal Effect and Term .....	58
2.040 Contractor Personnel .....	59
2.050 State Standards.....	62
2.060 Deliverables .....	63
2.070 Performance.....	63
PERFORMANCE AND RELIABILITY EVALUATION (PARE) .....	64
2.080 Delivery and Acceptance of Deliverables .....	66
2.090 Financial .....	69
2.100 Contract Management.....	71
2.110 Records and Inspections.....	74
2.120 State Responsibilities .....	74
2.130 Security .....	75
2.140 Reserved.....	75
2.150 Confidentiality .....	75
2.160 Proprietary Rights.....	77
2.170 Warranties And Representations.....	79
2.180 Insurance .....	82
2.190 Indemnification .....	85
2.200 Limits of Liability and Excusable Failure .....	87
2.210 Termination/Cancellation by the State.....	88
2.220 Termination by Contractor .....	91
2.230 Stop Work.....	91

2.240	Reserved .....	92
2.250	Dispute Resolution .....	92
2.260	Federal and State Contract Requirements .....	93
2.270	Litigation .....	93
2.280	Environmental Provision.....	95
2.290	General .....	95
2.310	Reserved.....	99
2.320	Extended Purchasing .....	99
2.330	Federal Grant Requirements .....	99
	<a href="http://www.epls.gov/epl/servlet/EPLSSearchMain/1">http://www.epls.gov/epl/servlet/EPLSSearchMain/1</a> .....	99
	Table of Contents .....	102
	Overview .....	104
	Software Architecture .....	104
	Application Development .....	105
	Hosting Services .....	106
	Related Services .....	106
	Web Hosting Services .....	106
	Currently Supported Web Technologies and Third-Party Software.....	107
	Current Web Server Breakdown .....	107
	Application / Middleware Hosting Services .....	107
	Currently Supported Middleware Technologies and Third-party Software .....	107
	Current Middleware Server Breakdown .....	107
	Database Hosting Services .....	108
	Currently Supported Database Technologies and Third-party Software .....	108
	Current Database Server Breakdown.....	108
	Intranet Hosting.....	108
	Environment.....	111
	Manifest Scanning .....	111
	EMORS .....	112
	MA Node Hardware and Software Specs .....	112
	Appendix C – Functional Requirements.....	<b>Error! Bookmark not defined.</b>

## Overview

The purpose of this working document is to assist in the understanding of the overall consolidated application hosting environment. This document will describe the current hardware, operating systems, configuration, processor, memory, and storage capability as well as currently supported technologies and third-party supported software for application integration.

Even though this document contains some detailed aspects of the hosting environment, it should mainly be used for a general understanding of the consolidated hosting environment as it is always maturing. Since this document is a dated snap shot of the current hosting environment, software application developers should continually communicate with the hosting operations teams to ensure any designs, assumptions, questions, or issues are addressed as early as possible in the software application product lifecycle.

## Software Architecture

Software applications developed by staff and contractors may have different client-server software architectures. Software applications may be designed using 2-tiers, 3-tiers, or n-tier software architectures depending on many factors and business requirements. Software architectures can be designed so the presentation layer, business logic layer, and data layer are contained within each or all of the tiers.

Software architectures are the responsibility of the contractor or staff developing a software application. However, the overall systems architecture (which includes the hosting environment) is the joint responsibility of both the software development team and hosting operations teams.

In order for the hosting operations teams to best meet the needs of each software application, an Application Hosting Requirements form should be completed for each new or enhanced software application. Details include but are not limited to the type of application, technologies used, and memory requirements, storage requirements, transaction speed, uptime, backups, security isolation, configuration, throughput should be communicated to the hosting team. In addition, all major milestones in the product lifecycle of a software application should be communicated to the operations teams including but not limited to analysis, design, code, maintenance, as well as training plans, testing and implementation plans.

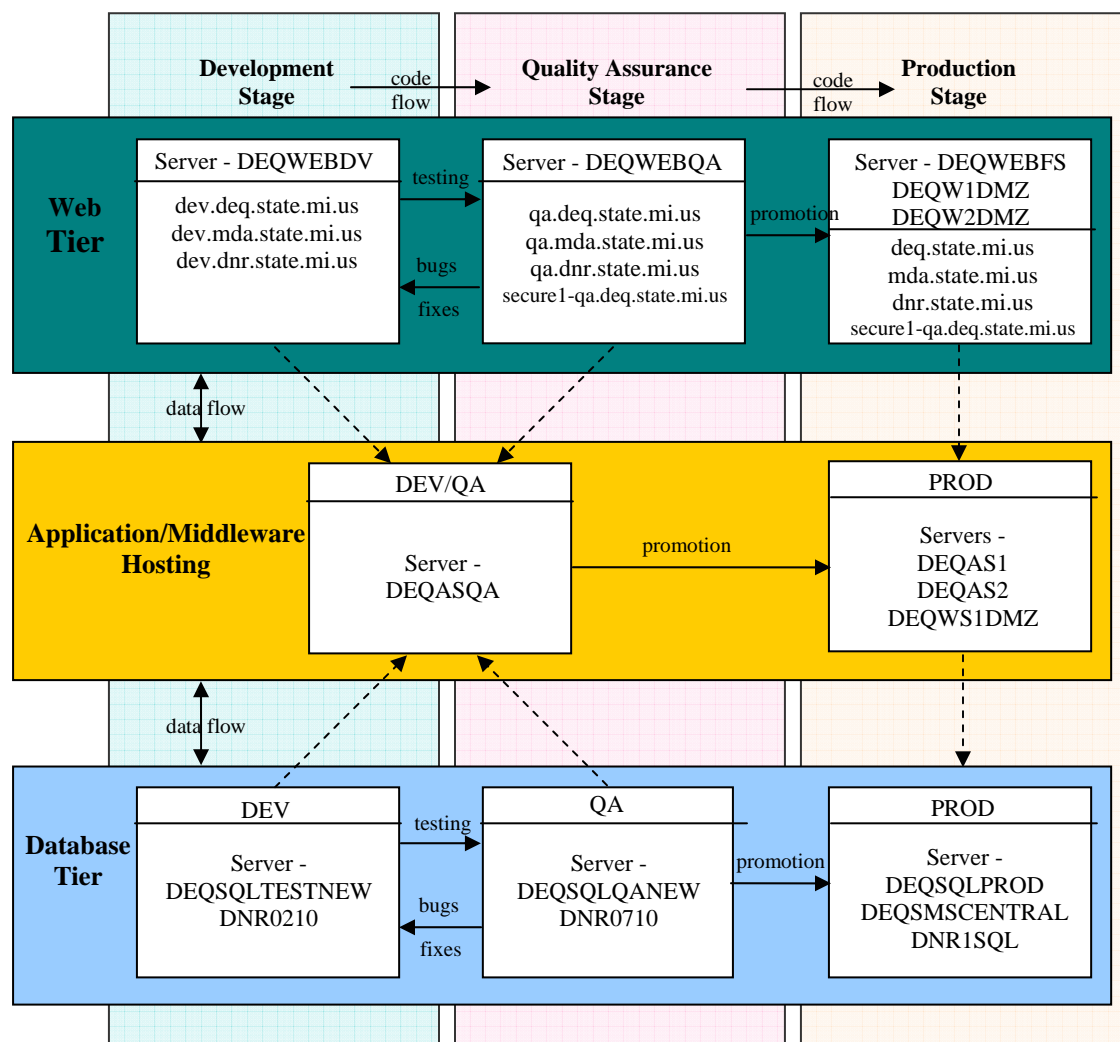
## Application Development

Application development in the consolidated hosting environment consists of a three stage lifecycle approach : Development (DEV), Quality Assurance (QA), and Production (PROD). The DEV stage consists of the actual development and testing of the application by the developer. New or enhanced web applications should be developed on the developer's environment and/or the shared development web server (WEBDV). Similarly, a local desktop database or SQLTEST database server should be utilized while developing software applications that require database functions.

Once applications and associated databases are stable and ready for customer acceptance testing, they should be repackaged and submitted for installation on the QA environment. The QA stage should be for customer acceptance testing. Any changes or bugs found in the QA stage should return the application to the DEV stage until the fixes are ready to be tested in QA. After final acceptance testing, requested software applications are then submitted for installation to a PROD environment.

CH

### Application Development Logical Code & Data Flow



Application  
Hosting  
Services

## Hosting Services

The consolidated hosting environment utilizes a Microsoft Windows 2000-based Hosting Solution running on multiple Intel-based processors. This hosting solution includes centralized management, monitoring/reporting, patch management as well as web, middleware, and database hosting services.

Centralized Management	Provides one point of contact for web, middleware and database services. Centrally managed users, accounts, servers, applications, services and security. Developers are not given access to QA or production servers.
Monitoring and Reporting	Tools are available to proactively monitor both internal and external operations.
Patch Management	Centralizes and simplifies the process of performing software and security updates. All critical patches related to the operating system are installed without notification; however, major service packs are planned and communicated with all software application owners.
Data Hosting Services (DEV, QA, PROD Environments)	Enables you to Develop, QA, and power your Production web sites and client/server applications with a reliable database environment.
Middleware Hosting Services (QA and PROD Environments)	Enables you to Test as well as power your Production applications and client/server systems with a centralized middleware environment.
Web Hosting Services (DEV, QA, and PROD Environments)	Enables a variety of Development, QA, and Production hosted Web services (e.g. basic dedicated mail, ASP applications, FTP Applications, .NET applications).
Clustered Hosting Environment (PROD Environment)	Gives Production applications greater uptime thanks to load balancing and NLB clustering.

The database, middleware, and web hosting teams work closely with the infrastructure team (commonly known as the server Team) for File/Print Services, Email Services, Backup Solutions, and Patch Management Solutions.

### Related Services

Backup Services – are coordinated with the local Server Team.

File Services – are coordinated with the local Server Team.

Print Services – are coordinated with the local Server Team.

Network Services – are coordinated with the local Server Team.

GroupWise Services – are coordinated with the local Server Team.

SMTP Email Services – are coordinated with the DIT Telecom Team.

DNS Naming Services – are coordinated with the DIT Telecom Team.

## Web Hosting Services

- All web servers are dual or quad processor Dell PowerEdge servers.
- Windows 2000 or Advanced Servers running IIS 5.0 web server.
- Windows 2003 Servers running IIS 6.0 web server.
- The Internet production web servers are clustered with a network load balancing switch.
- All web servers are patched within 3 days of new Microsoft critical security patches.

Currently Supported Web Technologies and Third-Party Software

- Active Server Pages 2.0 (ASP)
- ActivePDF Server / WebGrabber 3.5.2 SP5
- Component Services (COM+)
- ESRI ArcIMS Web Components (ActiveX and Java Connectors)
- File Transfer Protocol (FTP) Services
- Java Servlet Pages (JSP) (utilizing JRun4 Proxy connector to JRun4 Application Server)
- JRE 1.4.0
- HTTP 1.0, 1.1 (host headers utilized)
- MDAC 2.7 SP2
- MSXML 2.6SP3, 3.0SP4 and 4.0SP2
- .NET Framework 1.0, 1.1, 2.0
- Secure Socket Layer (SSL)
- Server Side Includes (SHTML)
- Simple Mail Transfer Protocol (SMTP) Services
- Symantec Anti-virus corporate edition
- Web Services Enhancements (WSE) 1.0 SP1 for .NET

Please contact the Web Services Team if additional technologies or services are needed, as well as any specific memory or storage space requirements.

Current Web Server Breakdown

FTPDZ	Dedicated Production Internet FTP server
WS1DMZ	Dedicated Production Internet Web Services server for stand alone applications and non-clustered web services
WWWDMZ	Consolidated load balanced internet Web Servers (W1DMZ, W2DMZ)
WEBFS	Dedicated Production Staging Web Server for Automated Batch Processing, Web Application Management, and Pre-Production Application Staging.
WEBQA	Dedicated Quality Assurance Testing Web Server for intranet and Internet Applications
WEBDV	Dedicated Development Web Server for intranet and Internet Applications

**Application / Middleware Hosting Services**

- All middleware servers are dual or single processor Dell PowerEdge servers.
- All middleware servers are Windows 2000 Advanced Server.
- All middleware servers are patched within 3 days of new Microsoft critical security patches.

Currently Supported Middleware Technologies and Third-party Software

- Component Services (COM+)
- ESRI ArcIMS 4.0
- ESRI License Manager
- JRun4 Application Server
- JRE 1.4.0
- MDAC 2.7 SP2
- Rockworks License Manager

Please contact the Web Services Team if additional technologies or services are needed, as well as any specific memory or storage space requirements.

Current Middleware Server Breakdown

AS1	Shared Dual-Processor Production Middleware Application Server
-----	--



AS2	Shared Single-Processor Production Middleware Application Server
ASQA	Dedicated Development and Quality Assurance Testing Server

## Database Hosting Services

- All database servers are single, dual or quad processor Dell PowerEdge servers.
- All\* database servers are Windows 2000 Server or Advanced Server running Cluster Services.
- Both SQLPRD and SQLDMZ production database servers are designed for high availability and utilize Windows Cluster Service.

### Currently Supported Database Technologies and Third-party Software

- SQL Server 2000 SP4
- SQL Server 7.0

### Current Database Server Breakdown

SQLPRD	Consolidated Production Cluster Services intranet SQL server (SQL1PRD, SQL2PRD)
SQLDMZ	Consolidated Production Cluster Services Internet SQL server (SQL1DMZ, SQL2DMZ)
SQLQANEW	Dedicated Quality Assurance SQL database server
SQLTESTNEW	Dedicated Development/Testing SQL database server
SMSCENTRAL	Dedicated Production SQL server for SMS
DNR50710	Dedicated Quality Assurance SQL database server
DNR50210	Dedicated Development/Testing SQL database server
DNR50810	Dedicated Production SQL server
SQL7PROD	* Deprecated SQL 7.0 server for legacy application
SQLQA	* Deprecated SQL 6.5 server for legacy application

### Intranet Hosting

Please see the "Intranet Hosting Environment" document for an overview of the intranet hosting environment.

## Appendix A-2

### New Jersey's Web Hosting and Application Infrastructure

#### New Jersey IT Environment for Hazardous Waste Manifests - Hardware and Software Specs

Hardware Listing (Will be migrating from a mainframe to Dell PowerEdge data servers in the Core Layer see diagram below)

Operating Systems (Linux for the Database and Windows 2k server for the Novel Network file servers)

Desktop Workstations (Dell pcs running Windows 98, 2000, and XP)

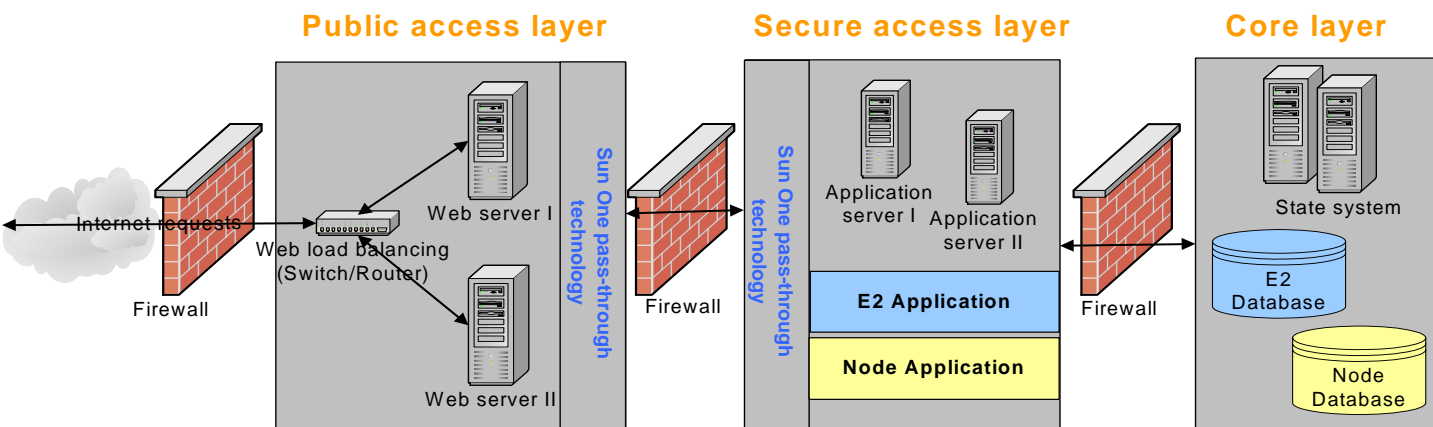
Software Listing (Will be migrating manifest data from a mainframe to a custom data system called New Jersey Environmental Management System - NJEMS)

Database (ORACLE 9I)

Network (Netware)

Firewall (see diagram below)

Locations (see diagram below)



1. Web Servers - Sun v480, Solaris 9 OS, SunOne Web Server 6.x, Server Certificate/SSL
2. App. Servers - Sun v480, Solaris 9 OS, SunOne Application Server 7 EE, Server Certificate/SSL
3. Database Servers - Dell PowerEdge 6650, Red Hat Enterprise Linux AS v2.1, ORACLE 9I

Note: In addition to the HW represented here, there is a box in the Secure access layer that acts as a reverse proxy so our Node can talk directly to other Nodes. Without the reverse proxy, NJDEP would not be able to use NAAS.

Capacity (Projections 80,000 manifests per year)

Current Workload Profile (7 FTEs)

Disaster Recovery Requirements and Priorities

- M-F daily data exports to data system off-site
- Sat. cold tape back-up of data
- Sun. full data export to data system off-site

Development tools (NJEMS built using PowerBuilder)

Browser (IE 6 or greater)

Reporting tools (Business Objects 5.1.5 and WebIntelligence 2.7.2)

Interfaces (Data Miner and eNODE that run on Sun Solaris Unix servers interfacing with SUN ONE application and web servers)

Current enhancements under way (Migration from Mainframe system to NJEMS with estimated completion of 9/1/2006)

Classes of users (2 data entry users, hundreds of read only users)

Other systems/applications requiring integration (eNODE)

#### Interfaces

The project's application must interface with:

Name of application (eNODE)

Details of interface (web services interface developed using JAVA for deployment on a Sun One 7 application server)

System interfaces to the following will be required:

System Title: NJEMS              Description: Data extraction via web services, and JAVA.

System Title: eNODE              Description: Data transfer using eNODE on the Exchange Network

#### Service Levels

- A. Uploads are achieved within twenty (20) seconds.
- B. Query results shall be achieved with within five (5) seconds.

## Appendix A-3

### Massachusetts' Web Hosting and Application Infrastructure

#### Massachusetts IT Environment for Hazardous Waste Manifests - Hardware and Software Specs (2/1/2005 rev 1.3 DCS)

##### Environment

MA-DEP processes information from the three main entities in the hazardous waste manifest tracking process – generators, transporters, and facilities.

The MA-DEP system can be characterized as an archival system. It archives information so that audits of specific events can be performed. The system does not perform real time tracking of manifests, and it is not completely automated. Two main computer-based subsystems are used.

- A manifest scanning system
- An electronic reporting system called EMORS (Electronic Monthly Operating Report System)

The manifest scanning system is used to store an electronic copy of the multi-layer paper manifest form. Manifests from generators, transporters, and facilities are scanned. Only two data items are acquired from the scan – the manifest number and the “copy number” (the layer number of the multi-layer form). The scanning system has a self-contained database that can be searched by the manifest number.

Transporters report information to MA-DEP using the EMORS system. The transporters use a client software program, provided by MA-DEP, to enter data about manifests and to save that data to a fixed format file on a floppy disk. The transporters then send the disks to MA-DEP.

MA-DEP staff uses another program to read the EMORS disks and write the data into an Oracle database. Staff uses Microsoft Access queries to view the data. MA-DEP charges a fee to the transporter that is a function of the amount of material transported. Anomalies in the transported billing records trigger an audit of the transported activity. The audit uses the manifest number reported in EMORS to search the scanning database for the relevant manifest.

##### Manifest Scanning

All manifests are scanned using a single PC system based on INFOtrieve software.

Hardware = Server class (HPDL 350)

Operating System = Windows Server 2000

Desktop Workstations = Dell PC or equivalent desktop machine

Software = INFOtrieve

Database = Pervasive

Network = 100BASE-TX, MA-DEP internal

Firewall = not accessible outside MA-DEP

Location = Boston

[Machine] Capacity Projections = 70,000 forms per month

Current Workload Profile = 35,000 forms per month

Disaster Recovery Requirements and Priorities

Development = N/A

Browser =

Reporting tools = INFOtrieve

Interfaces =

Current enhancements under way = Will be upgraded for EPA form due 9/2006

Classes (numbers) of users = Scan operator (1), report viewers (20)

Other systems/applications requiring integration = None

##### **Interfaces**

None.

### **Service Levels**

- A. On-line inquiry of any of single transaction shall be achieved in five (5) seconds.
- B. All Severity One problems shall be resolved 24 hours from the time the problem was first reported to contractor.

### **EMORS**

All PCs used in the EMORS system (both at the transporter facilities and at MA-DEP) are generic desktop machines. Only moderate performance is required.

Hardware = Dell PC or equivalent desktop machine

Operating System = Windows 2000 @ MA-DEP, Win95 through Win XP at transporters

Desktop Workstations = Dell PC or equivalent desktop machine

Software = DEP created application written in Visual Basic 6

Database = data is stored at MA-DEP in an Oracle database

Network = 100BASE-TX, MA-DEP internal

Firewall = not accessible outside MA-DEP

Location = Boston

[Machine] Capacity Projections = 1500 forms per month

Current Workload Profile = 150 forms per month

Disaster Recovery Requirements and Priorities

Development = N/A

Browser = N/A

Reporting tools = Microsoft Access

Interfaces = None

Current enhancements under way = Will be upgraded for EPA form due 9/2006

Classes (numbers) of users = Upload operator (1), billing auditors (5), other staff (20)

Other systems/applications requiring integration = None

### **Interfaces**

None. There is no automated interface. A user would copy and paste data from EMORS (for example manifest number) into the scanning system to perform a search.

### **Service Levels**

- A. Uploads are achieved within twenty (20) seconds.
- B. Query results shall be achieved with within five (5) seconds.
- C. All Severity One problems shall be resolved 24 hours from the time the problem was first reported to the MA-DEP help desk.

### **MA Node Hardware and Software Specs**

The server platform used for the Massachusetts Exchange Network node has the following characteristics:

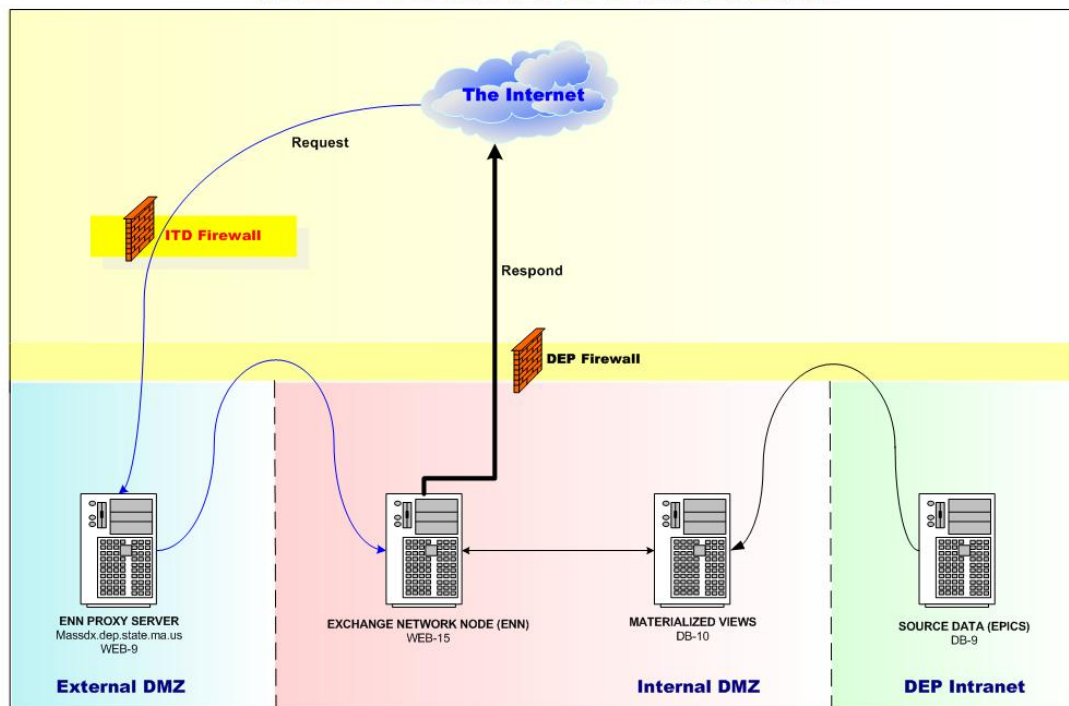
- Rack mounted HP/Compaq DL380
- Two Intel® Xeon™ 2.80GHz Processor (512KB Level 2 ECC Cache),
- ServerWorks GC-LE chipset, supporting a 400MHz FSB
- Embedded Wide Ultra3 Smart Array 5i Plus RAID controller and 2 embedded NC7781 Gigabit Ethernet NIC ports
- Six 1" 36GB SCSI Hot Plug Drives At Raid 5
- Three full-length PCI-X expansion slots: Two hot plug 64-bit/100MHz and one non-hot plug 64-bit/133MHz
- 2 GB of 2-way interleaved, 266MHz DDR SDRAM with Advanced ECC and Online Spare Memory capabilities, expandable to 6 GB

The software already installed is:

- Microsoft Windows 2000 Server
- Microsoft .NET Framework 1.1
- Symantec Antivirus 9.0
- Exchange Network Node Application

The network configuration is shown in the drawing below.

## EXCHANGE NETWORK WEB SERVICE DIAGRAM



October 26 2004

## Appendix A-4

### Minnesota's Web Hosting and Application Infrastructure

#### Minnesota IT Environment for Hazardous Waste Manifests - Hardware and Software Specs

Hardware Listing: HP (including Digital Alpha and Compaq machines)

Operating Systems: Hazardous Waste Delta database runs on Unix

Desktop Workstations: Our standard workstations are Intel/Windows XP

Software Listing: Custom application called Hazardous Waste Delta

Database: Hazardous Waste portion of Delta uses an Oracle database

Network: Network is used by all staff for all computer work. There is not a separate network for the Delta applications

Firewall: Multiple firewalls segment our network into zones.

Locations: The MPCA has 8 locations in Minnesota. All locations are connected via ATM, so all staff have access to all computer services.

Capacity Projections: The volume of manifest traffic in MN will not be an issue for our network.

Current Workload Profile: the MPCA processes 40,000-50,000 manifests per year.

Disaster Recovery Requirements and Priorities: We do nightly backups with an off-site tape repository. No special procedures will be needed for the manifest records that would be different from all our other databases.

Development tools: HW Delta is created in Powerbuilder.

Browser: IE

Reporting tools: Custom reports in HW Delta database application

Interfaces: Custom GUI

Current enhancements under way: enhancements to the various portions of Delta are continuous, but for HW Delta manifest functionality, no substantial enhancements are currently being worked on.

Classes of users: A small number have write access, but several hundred have read access.

Other systems/applications requiring integration: none that come to mind at this time.

#### Interfaces

The project's application must interface with:

- Name of application (MN Node)
- Details of interface (web services interface for deployment on the Hazardous Waste portion of Delta database using the Oracle database server)

System interfaces to the following will be required:

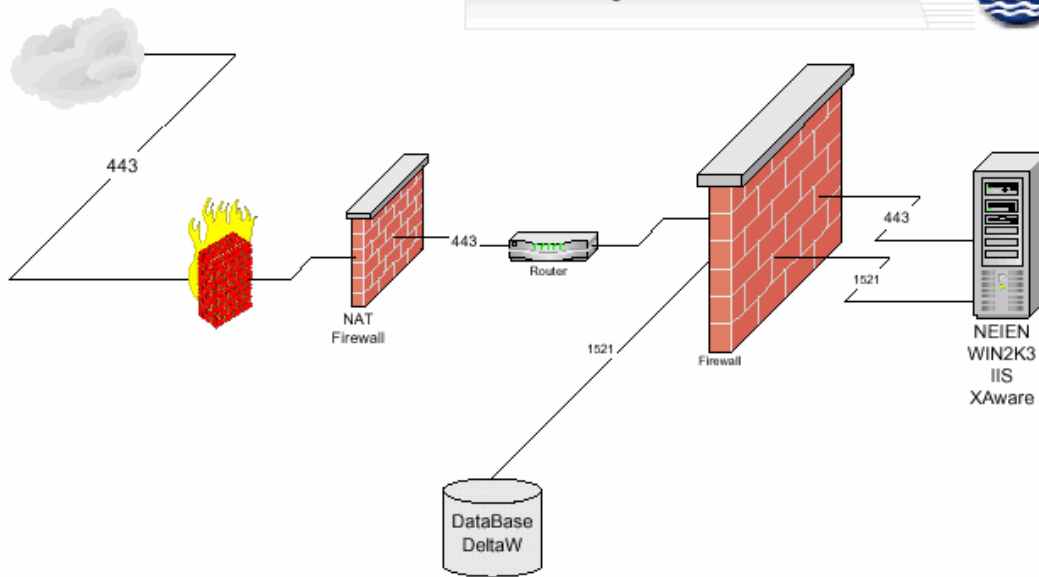
System Title: Hazardous Waste - Delta database      Description: Data extraction via web services.

System Title: MN Node      Description: Data transfer using the MN Node on the Exchange Network

#### E. Service Levels

- Both on-line inquiry and on-line update of single transactions shall be achieved in three (3) seconds or less ninety-five percent (95%) of the time as measured from the time the request arrives at the web server until the final response leaves the web server.
- All Severity One problems shall be resolved, or a plan of action to resolve, within 24 hours from the time the problem was first reported to Contractor.





Warning: This document contains nonpublic security information that cannot be disclosed to the public and should only be accessed with management approval on a need-to-know basis by authorized staff. See Minnesota Statutes §13.37, subds 1(A) and 2.

## Appendix B - Technical and Business Requirements

### Technical Requirements

Requirements
1. System Architecture
a. The system will utilize a Service Oriented Architecture (SOA) based on already tried and tested deployments of the Exchange Network (EN) Node. The Central Manifest Tracking System (CMTS) itself will not impose any record size limitations but rather be based on the limitations of the underlying RDBMS.
b. The standard-based architecture will provide extendibility through its loosely coupled interfaces based on technologies like Web Services, SOAP and XML. Additionally, the issue of portability will be addressed through the use of the two main middleware frameworks favored by the four participating states: .either NET or J2EE.
c. The system must be fully self-contained and capable of being operated by State staff with no dependency on Contractor services for its routine operation. During the development a large emphasis will be placed on ease of use and overall usability of the system. In addition, when combined with the train-the-trainer sessions and post implementation knowledge transfer sessions this approach will assure self-sustainability of the delivered solution.
d. The system server proposed by the Contractor must be compatible with the State's technical architecture and be sized suitable for the system specified. The system server design should also consider requirements from the other partner states (NJ, MA, MN). Contractor must ensure that the system design and deliver solution that is both compatible with these architectures and size-suitable for the current requirements. Furthermore, Contractor will future proof the system for the anticipated growth.
e. The system must be based on the features and components provided by either the .NET or J2EE frameworks. The system must be an open system, with no dependency on the use of specific models (except for applicable pre-existing software) or models of equipment operating systems, etc., to ensure the future viability of the system.
f. The system must record the user ID and timestamp for each time the record is modified in the database. Contractor must use an industry standard means of auditing user activities including, but not limited to, the time and user performing each auditable action.
g. Contractor will work with individual states to assure that the system adheres to their established architectures. Furthermore, Contractor will attempt to provide a blueprint in this pilot implementation for future cross-state solution allowing for larger reuse beyond the initial, four-state implementation.
2. Software Licensing
a. Contractor and the State's will avoid the use of propriety software for which they do not have access to the code base for modifications or API's. All code developed during this project will be open source and provided to individual states in its entirety. The application software will be provided to the clients for perpetual use without royalties or service fees.
3. Programming Language
a. The system's client applications must be written in JAVA J2EE (1.4 or higher), or .NET 1.1 or higher programming language, whichever is currently acceptable by each of the four states participating in this project. Other components will include XML, Web Services and others, if determined necessary during the project discovery phase, and employ the design principles recommended by SOA and the Exchange Network. A loosely coupled architecture will assure a potential for cross-framework compatibility. XML will be the only cross-domain messaging format within the system.
b. The system must offer Application Programming Interfaces (APIs) that enable the State to develop custom interfaces to all modules. Contractor must provide training and documentation. The proposed software solution will provide two forms of extensibility:

<b>Requirements</b>
1. Use of SOA will allow for orchestration of business processes through the use of exposed Web Services and their definitions.
2. The individual components will be exposing public interfaces when appropriate to allow for future extensions and customization using the respected development frameworks (.NET or J2EE)
c. Source code will be delivered to the four project States at any time requested during the project, and a final set at its completion.
<b>4. Hardware</b>
<p>a. Contractor's recommended platform/topology must provide for optimal functioning in the following areas:</p> <p>Communication line speed for distributed entry functions and major online processes of departments and offices located in various areas of the State.</p> <p>Processing the volumes presented and any increases in volume that can be expected through the implementation of the proposed system.</p> <p>Application installation, administration and support.</p> <p>Contractor will reuse the established Exchange Network Node architecture with its current hardware and software. When necessary Contractor will propose an alternative type of hardware/networking solution with no specific Contractor selected.</p> <p>Contractor will provide an automated installation process for delivered solutions. When no full automation is possible, the deployment process will be clearly documented.</p> <p>The ongoing support will be covered during both the train-the-trainer sessions and knowledge transfer when the most common support activities will be outlined.</p>
ii. Support for a variety of TCP/IP network configurations. The system will depend on standard, routable, TCP/IP protocols configurable on both the client and the server portions of the solution.
iii. Support wireless LAN and WAN configurations that support TCP/IP.
<b>5. RDBMS / Applications / Database Management</b>
a. The system must be compatible with the four States' standard relational database management system and designed with at least three possible RDBMS configurations in mind. 1. Natively, for Oracle databases, 2. Microsoft SQL Server databases as well as 3. an ODBC-based solution compatible with which any ODBC compliant database.
<b>6. System and Performance Requirements</b>
a. Contractor will work with individual states to assure that the designed architecture will adhere to their acceptable responsiveness standards.
<b>7. Security / Access Control</b>
a. The system will provide multi-tier security architecture which will be easily configurable in each layer and extensible should individual states have custom authentication and or authorization requirements.
b. The system must provide secure access control based upon unique user login, for types of record (e.g., fund, order) as well as by function performed upon the record (e.g., Display, Add, Edit, Delete.) including a contextual security model based on multiple variables including but not limited to the user identity, role, the record type and current action.
c. The system must check each user's access privileges at login, and automatically disable or enable client functions (in real time) based upon the user's profile including their identity, role and status. That user context will be established during his or her initial sign-on as well as at each critical stage of the application.
d. The system must have component-level security, to be able to define security roles, assign users to those roles and grant component-level security privileges to specific roles. The user administration will be exposed

## Requirements

through a series of administrative functions using a distributed security model. This multi-tier security architecture will be easily configurable on each component.

e. The system will provide a distributed administration model, which will allow the granting and revocation of individual roles within the system administrative module during the normal operation of the system.

### 8. Software Package Specifications

a. The system will be compatible with the hardware outlined by individual states in their current architecture documentation.

b. The system will be functional on operating systems, which are capable of supporting either the .NET or J2EE frameworks. These include, but not limited to: 2000 and 2003 Servers. Since the project will start prior to the full release of the Microsoft new operating system Vista, the contractor guarantees compatibility only with the operating systems available for and tested during development.

c. The software will allow the State, from PC workstations, to access and update all necessary information to complete a transaction. The minimum acceptable PC OS to be supported by the software will be defined and agreed to prior to application development.

d. The software will allow for the accurate and timely input and extraction of State data.

e. The software will allow for processing of all identified State business

f. The software will provide identified data reporting capabilities. The specific functionality and technology necessary to address the CMTS reporting needs will be identified during the design phase of the project, the proposed system architecture will deliver a structured (identified) data reporting capability.

g. The software provides a Graphical User Interface (GUI) that is user-friendly and provides data, calculation, reporting, and communication capabilities to State users. The user-friendly GUI capable supporting all functionality will be outlined during the application design phase.

h. The software will include user-friendly system administration tools for actions such as reference table maintenance, security definition, etc. The system will provide user administration utility through easily accessible interfaces capable of supporting the necessary security, lookup and configuration administration.

i. The system must be modular in design to accommodate phased implementation and future expansion. The system will be developed in modules both on the physical site (tiers) as well as logical side (layers).

j. The modularity must allow the capabilities of the core systems to function without the entire system complement. Messaging between individual physical layers of the system will be entirely XML based and asynchronous in nature. This approach will allow the core system to function without or with different interfaces delivering the messaging.

k. Additional modules may be integrated into the system without a major impact to the installed components.

l. All modules of the system are integrated and designed to work together using a single input and a common database with no redundant data entry or data storage eliminating the need to duplication and unnecessary maintenance.

m. The system supports paperless processing through the use of electronic documents that are routed for electronic signatures through user-defined approval paths. The system will provide a single mechanism capable of processing the inbound documents regardless of their initial format (paper or electronic).

n. The system prevents transaction data from being posted in the system unless all members on the approval path have approved the associated electronic document. This may include a process orchestration mechanism where the "triggers" identifying transaction as completed, containing warnings/errors will be customizable.

o. Response times, at local and remote sites, for the major on-line processes stated above will meet business requirements.

<b>Requirements</b>
p. The software provides the capability of transferring data to and from the host/server to the client for processing on other software packages. This will include the utilization of established and tried Exchange Network Node architecture to managed distributed transactions of the submitted data across all server/client deployments at the participating partners.
<b>9. Reporting</b>
a. The software delivers standard reports which will be identified during the design phase.
b. The system includes ad-hoc query and reporting tools which are based on the criteria and capabilities outlined during the design phase.
<b>10. Audit Trail</b>
a. The system enables the user to modify data entry transactions that have already been posted to the database while maintaining an audit trail of the change. The design of an Audit Trail feature will utilize an industry standard means of auditing user activities including all audit requirements identified during the design phase.
<b>11. Edit and Validation Control</b>
a. The system includes comprehensive field edits to prevent incomplete or incorrect data from entering the system. The system will utilize the established .NET and J2EE validation techniques to validate all data prior to entering the system.

### **Business Requirements**

<b>Requirements</b>
<b>1. Security and Confidentiality</b>
The State will retain administration of data access security, including application security (granting of access, resetting of passwords, definition of password syntax rules, monitoring of access violation reports, etc.). The State will administer all user security profiles. MDIT will oversee and coordinate security issues relative to the Contractor and State agencies. However, the function of security software implementation and maintenance will be the responsibility of the Contractor.
a. Contractor will guard against and monitor unauthorized activity of the Contractor's employees and all other unauthorized parties in the implementation and maintenance of the software.
b. Contractor will guard against the unauthorized access or alteration of State data by the Contractor's employees and all other unauthorized parties. Any violations will be recorded and reported to the State. All modifications needed for production databases would be applied through a secure system interfaces to which access managed by the system administrator.
c. Contractor will provide security training for its staff.
d. The State requires thorough criminal background checks of the Contractor's staff. Contractor must provide evidence of satisfactory completion of required background checks for all staff to be assigned to this Contract.
e. The Contractor must meet all Federal, State, and Agency conditions (such as HIPAA) as they relate to the security and privacy of data, when implemented. The Contractor must establish and maintain formal, documented policies and procedures for granting different levels of access to information and the handling of State data to ensure that its confidentiality is protected.
<b>2. Training</b>

<b>Requirements</b>
a. Contractor must provide training as part of the cost of the system, to include:
i. User training with the cost of developing the user training materials and performing the education of the pilot users included in the contract. These materials can then be reused once the pilot has successfully proven the value of the e-manifest system.
ii. Technical training for State individuals who will be working with the services Contractor to configure the applications including establishing databases and interfaces, data conversion, customization, and upgrading the customized software. This would be performed on-site, along with detailed instructions.
iii. System administration training for State personnel who will be responsible for ongoing maintenance and administration of the system, including security. This would be performed on-site, along with detailed instructions.
b. All Contractor Software training manuals, training plans and other documentation will be provided to the States in a user editable format and will become the property of the States.
3. Documentation
a. All documentation will be kept available on Contractor's project website, including previous versions. All project participants will be able to access this information, and this Web site will be secured to avoid any unintended access. The site will be hosted from Contractor's servers, and will ensure no third party access to these interim materials will be available.  Contractor shall supply <i>two</i> copies of the following documentation in an electronic format, online and one in hard copy to each project State:
i. User and Technical Manuals - On-line and Hard Copy
ii. Data element dictionary, database diagram and entity relationship diagram.
iii. Operations Manual
iv. All updates of documentation during the term of the Contract, software license, and maintenance agreement
v. Information flow, function and procedure calls (API), and internal system operations diagrams and descriptions of sufficient detail that they will allow the four states' IT staff to debug the application without Contractor's assistance.
b. The Contractor must submit the following documentation for all modules and program development:
i. System-wide documentation and specifications
ii. Baseline End-User training manuals will be provided and used as a basis for "User Manuals" and online help
iii. Installation procedure
iv. Module configuration documents sufficient for configuration maintenance purposes
v. Two sets of testing scripts will be delivered. The first set will be to direct the internal project team testing of the system to ensure it meets the team's requirements and design specifications. The second set will be intended to direct the generators, transporters and TSD facilities that have volunteered to participate in the pilot.
vi. Specification documentation
vii. Production migration
4. Obsolescence

<b>Requirements</b>
a. The State is responsible for long-term retention of public records. The Contractor must guarantee that data, and related information have a migration path to future revisions of the Contractor's hardware and software and that there is a guaranteed and reasonably straightforward "exit path" to systems of other Contractors.
b. The architecting of the system will take all reasonable precautions within its control to ensure that the solution is upwardly compatible with potential future 3 <sup>rd</sup> party software or hardware and to any future revision of the software and hardware developed during this project.
c. The data will be stored in standard relational database(s) that allow full access for export purposes. Any security used to ensure that the data cannot be accessed inappropriately, will be administered by the select State staff and will not restrict the ability to extract data should that be necessary by those staff.
<b>5. Modification to Meet New Requirements</b>
a. The Contractor shall make system modifications deemed necessary and reasonable by the State during the term of this contract. The Contractor shall make system modifications deemed necessary and reasonable due to new requirements or standards mandated by Federal or State laws during the term of this contract.
<b>6. Delivery Requirements</b>
a. The Contractor shall be solely responsible for assuring that deliveries are made to personnel authorized to accept delivery on behalf of the States. Any losses resulting from the Contractor's failure to deliver the product to authorized personnel shall be borne exclusively by the Contractor



## Appendix C – Functional Requirements

### Functional Requirements

Requirements
A. General System Requirements
1. Provide the capability to automate manifest certification validation and balance checking. Identify a variety of differences - such as waste codes, number or type of containers, management methods etc.
2. This successful pilot of an electronic manifest system will identify some very useful technology and lessons learned which are applicable towards a potential national solution. Provide EPA with a pilot to demonstrate either:
a. The success of an e-Manifest System, and/or
b. A Challenge Grant Team-led e-Manifest pilot that is useful as a future national model
3. The system will provide states with an electronic, web-based portal to track hazardous waste manifests of selected authorized system users such as emergency response and enforcement (including customs) agencies, and generators, transporters and TSDs. The system will be developed with the users' needs primarily in mind - ultimately the voluntary use of the e-manifest system will only succeed if these stakeholders find benefits from using such a system, and also find it easy to implement.
4. The system will provide auditing of all transactions including the user ID, the date and time, and the computer from which the data was accessed or modified. The system will utilize industry standard means of auditing user activities including, but not limited to, the time, user and performed action on each auditable action.
5. The system will ensure that confidential information is protected, both when stored and as it transits the network. Confidential information in the CMTS will be stored in an encrypted format. The type of this encryption will be configurable. Furthermore, the sensitive information will not be cached and or stored at the user session.
6. Provide for the support of system interfaces and integration necessary for the coordination of services with other federally assisted programs and for the elimination of paperwork and duplication of data collection and data entry. This system should have an important goal to eliminate the most significant portion of the federal Biennial Report requirements (and State equivalents, which are often annual reporting). The off-site generation and receipt and management reporting requirements of this regulatory requirement may be eliminated or drastically simplified by the reuse of the manifest data.
7. The system will provide for the careful and full protection of all clients' rights to privacy and confidentiality through effective internal and external security controls that meet or exceed all legal requirements and official regulations on the subject. There are some States that do restrict some information to protect generator's trade secrets. If this issue is deemed by the project team to be a necessary requirement of the e-manifest system then reporting capabilities will be restricted in such cases.
8. The system will contain on-line edits and warnings designed to identify and avoid data inconsistencies. The Contractor will employed software code whereby each of the many validation rules can be easily maintained, identified with a severity level, and can be bypassed by the user (if they so wish) up until the user attempts the formal submission of that data. This approach allows great flexibility for the users, while also allowing for easy addition of new data warning rules as either requirements change, or as common data issues are identified.
9. The system standardizes forms. A common design template will be used throughout the system.

Requirements
10. The system will use consistent methods to enter, update, and retrieve data. Users who understand one function of the system and feel comfortable navigating through it will feel comfortable navigating through all functions. The design should include high levels of guidance and prompting to help often novice users to quickly and confidently learn the system.
11. Every enterable field within the system will have contextual help, if so determined during the business requirements phase. This help will be maintained within an easy to use interface for the agency system administrators, so the help can be improved as common questions and issues occur during the pilot testing of the system
12. The system will have a logical navigation order for each screen. Where possible an effort will be made to tailor individual screen navigation towards specific user groups.
13. The system provides the capability to confirm or undo changes, as well as prompt the user when required that data have not been properly entered. Data validation will be performed before a user can finalize a submission of a data change.
14. The system will work within the existing agency and State technical environment. Contractor will work with individual states to assure that the system adheres to their established architecture and provide a coherent cross-state implementation allowing for larger reuse in the future beyond the initial four state implementation.
15. The system will work with a variety of computer hardware including tablet-PCs, handheld PCs, desktop (fixed) PCs, etc. The user interface solution for the mobile devices will target the Microsoft Windows platform. The data transfer solution for the mobile devices will be platform neutral.
16. The system date and time stamps all entries
17. The system will be accessible and available to all authorized users 99.5% of the time
18. The system incorporates extensive, secure telecommunications capabilities that link staff and authorized users from remote locations to the central site (e.g. secure remote provider access). The facilitation of these capabilities within the system to perform such activities will be addressed in the final solution design.
19. The system logs all transactions processing and archiving
20. The system has the ability to allow inclusion of free text as well as the capture of discrete data.
21. The system places emphasis on user friendliness
22. Input protocol is easy/fast; intuitive input interface
23. The system supports a full range of input technologies and modalities for data entry. Examples include: standard keyboard/mouse device, touch screen, stylus-pen, wireless PDA/laptop access, etc. The system will utilize the most approximate input mechanism for each interface.
24. The system has the capability of reproducing and displaying a variety of end user forms
25. The system will use standard, and user defined, table driven phrases that can be input from pull down menus to reduce the key entry effort. Code lists will be retrieved from data tables that store this information. The data tables will include start and end dates so that users can only use codes that are valid at the time of the waste shipment. Controls displaying code lists in a selectable format will also allow for manual entry of values not listed in the pre-defined format.
26. The system automatically captures the electronic signature and title of the person entering data and date/time stamps each transaction. The solution will utilize an industry standard means of auditing user activities including, but not limited to, the time, user and performed action on each auditable action.

<b>Requirements</b>
27. The modules will utilize pull-down menus and check boxes to speed up data entry. See number 25 above.
28. Optionally, the input modules can be populated by data entered or stored elsewhere in this system or other on-line systems (e.g. through the use of web services).
29. The system has the capability to create, review, update, the data entered into the data warehouse. System capabilities will support the data flow, as well as exceptions such as typographical errors. The system will however, still ensure that the official record of submission is impervious to modification.
30. The system accepts electronic submissions from multiple locations.
31. The solution will utilize a fully integrated and open source barcode functionality. This will include the capability to print paper manifest with unique identifying bar code
<b>B. Staff/Workload Management</b>
1. The system defines authorization of users to certain functions, screens, fields, and data.
2. Provides for user authentication, including a unique login ID for each user.
<b>C. Intake and Investigation</b>
1. The system creates/edits a report of the following information: Date and time the report was made.
2. To avoid duplicate entry, the system provides the ability to pre-populate the new incident with data from previous incidents, if so determined during the business requirements phase of this project. See item 28 above.
3. The system provides for on-line access as well as paper report with the information in a transaction audit log such as date, time, computer and user. The system will facilitate both an ad-hoc query and detail report capability of all auditable events as well as message-based notifications of critical events.
<b>D. Interfaces</b>
1. The system will interface with the state nodes.
2. The system will interface with the four state waste hazardous waste management systems and perform requested functions and provide for the identified agency.
<b>E. Notification, Alerts, and Task Management</b>
1. Individuals with approval authority are notified whenever items requiring their approval are submitted. At a minimum, e-mail notifications will be used whenever significant events occur.