

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

April 25, 2008

CHANGE NOTICE NO. 3
TO
CONTRACT NO. 071B7200290

Between
THE STATE OF MICHIGAN and

NAME & ADDRESS OF VENDOR Systems Technology Group, Inc. (STG) 3155 W. Big Beaver Road, Suite 220 Troy, Michigan 48084-3007 Attention: Ms. Mona Aggarwal, VP Finance apopat@stgit.com		TELEPHONE (248) 643-9010
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517) 241-7233 Joann Klasko
Contract Compliance Inspector: Cindy Turben WDRA MEMBER SELF SERVICE		
CONTRACT PERIOD: From: May 22, 2007 To: June 30, 2009		
TERMS Two (2) one-year options to extend N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		
MISCELLANEOUS INFORMATION:		

NATURE OF CHANGE(S):

Effective immediately, this contract is hereby **EXTENDED** to June 30, 2009. This notice issued to clarify Section 1.609, Optional Maintenance, per attached document.

Resource Rate for Services is \$97.17/hr for 1976 hours.

The DIT Project Manager is: **Scott Wagner**, wagers@michigan.gov, 517-636-5028.

All other terms and conditions remain the same.

AUTHORITY/REASON(S):

Per vendor and agency agreement.

TOTAL CONTRACT VALUE REMAINS: \$2,045,940.00

**Systems Technology Group
Contract 071B7200290
Section 1.601 Optional Maintenance Clarification**

Project Title: ORS Customer Web Self Service - Web Self Service Optional Maintenance	Period of Coverage: 4/13/2008 – 6/30/2009
Requesting Department: DMB – Office of Retirement Services	Date: 3/20/2008
Agency Project Manager: Laurie Mitchell (ORS) and Dave Gabler (MDIT)	Phone: 322-6016/ 322-5836
DIT Contract Liaison: Cindy Turben	Phone: 335-6069

Brief Description of Services to be provided:

BACKGROUND: Reference Contract 071B7200290 with Systems Technology Group, Section 1.601 Optional Maintenance. This option was exercised under P.O. #084N7203160. The provision allows for a resource from STG to be on-site at ORS full-time for a period of 1 year.

PROJECT OBJECTIVE: Manage and maintain the new ORS online service through significant project efforts while internal staff are mentored and knowledge is transferred.

SCOPE OF WORK:

STG will provide one resource to work under the direction and management of MDIT and ORS. STG will be providing this resource on a time and material basis. This resource will provide services onsite at ORS offices in Lansing, Michigan. STG is not responsible for providing project management or oversight for the scope of work identified in this contract. MDIT will be responsible for the project management and oversight for the tasks identified below.

- A. Provide analysis and programming services at the level of a Senior Systems Analyst to the web self-service application through the following major project initiatives:
 1. Upgrade from WAS 5.0 to WAS 6.1
 2. Addition of new legislative requirements including a new benefit type (called MIP-Plus), changes to the service credit purchase eligibility requirements, and changes to pension beneficiary nomination rules.
 3. Changes to security provisions
 4. Expansion of service to reach 24 x 7 availability
- B. Provide support/mentoring for the primary and back-up Application Support Team Functional Analysts (Senior Systems Analyst) and developers.
- C. Provide support/mentoring and Quality Assurance for the assigned developers
- D. Participate in maintenance and break/fix work as designated by the FA/BPO team
- E. Provide root cause analysis for defects and problem solving.

TASKS:

- Participate in tactical planning and prioritization of development initiatives for the web self-service applications, including web self service, web services interfaces and share security services. Work with internal team to develop and recommend creative solutions & strategies.
- Manage the delivery of quality application-based services including leading the design, development, testing and implementation
- Participate with the business and AST leadership to develop program goals for future implementations and scheduling
- Diagnose and assist in the development and propagation of fixes to issues through root-cause analysis research using all tools available. Identify additional research tools as needed.
- Assist in the development and oversight of Design Documents/test plan development and UAT scenario development
- Oversee (and assist) test scripting for performance validation. Support the testing staff with performance test.
- Provide input into replacement activities for the server farm
- Adhere to the SUITE Software Development Life Cycle process already integrated at MDIT-ORS
- Develop and maintain documentation (such as Design Documents, Test Plans, Use Case, etc) as appropriate
- Provide ongoing knowledge transfer to the AST personnel supporting the web self-service applications, including web self service, web services interfaces and share security services.

SKILLS NEEDED:

STG will provide one resource to work on a full time basis (40hrs per week) with the following skills:

- 3-4 years experience in application development programming/analysis
- 3-4 years experience working with Java in a J2EE Websphere (WSAD) development environment
- 3-4 years experience working with CASE Tools such as Rational Rose/RUP or SELECT
- Working knowledge of the applications deployed at ORS within the last year, specifically, web self service, and its integration with web services interfaces and shared security services
- Technical knowledge of the Web Self Service ORS infrastructure and how the Web Self Service application are deployed across that infrastructure such that points of failure can be identified and mitigated.
- 3 – 4 year experience completing application development using a formal project methodology.
- Good English communication skills are essential.

DELIVERABLES:

Deliverables will be the hours worked on a time and materials basis. Deliverables for this project include:

- A. This position will regularly deliver code changes authorized by the business on a schedule set by the business.
- B. Completed project documentation and transition documentation

PROJECT CONTROL AND REPORTS:

This position will meet weekly with the ORS business manager and the AST application manager to review progress and status.

1. Position will be required to provide weekly status reports for the weekly meeting and to conduct the weekly meeting.
2. Position will be required to provide biweekly accounting of hours.

SPECIFIC DEPARTMENT STANDARDS:

This project will adhere to all design & coding standards defined by the MDIT-Application Support Team.

PAYMENT SCHEDULE:

STG will be paid \$97.17 per hour for the services of this resource. Payment will be made on a Time & Materials basis for the maximum amount of \$192,000 representing 1976 hours. STG will invoice the state monthly. Invoices must list the project, agency, purchase order number and hourly rate. All invoices must include signed timesheets verifying hours were worked and that services were acceptably performed. The State will pay for all hours worked and the above mentioned rate. The State will not pay a premium rate for hours worked above 8hrs per day, holiday or other premium charges or other benefits.

PROJECT CONTACTS:

The designated Agency Project Manager is:

Laurie Mitchell
Management and Budget
Office of Retirement Services
General Office Building, 3rd Floor, Wing B
7150 Harris Rd.
Dimondale, MI 48821
517-322-6016
517-636-0073
mitchellL1@michigan.gov

The DIT Project Manager for this project is:

Dave Gabler
Michigan Department of Information Technology
General Office Building, 3rd Floor, Wing B
7150 Harris Rd.
Dimondale, MI 48821
517-322-5836

GablerD@michigan.gov

The DIT Contract Administrator for this project is:

Cindy Turben

Michigan Department of Information Technology

Constitution Hall, 1st Floor South

535 W. Allegan

Lansing, MI 438913

517-335-6069

TurbenC@michigan.gov

AGENCY RESPONSIBILITIES/ASSUMPTIONS:

The agency will provide appropriate building access, office space & equipment, and access to telephone service.

LOCATION OF WHERE THE WORK IS TO BE PERFORMED:

Consultants will work at the General Office Building of the State Secondary Complex; 7150 Harris Rd., Dimondale, MI.

EXPECTED CONTRACTOR WORK HOURS AND CONDITIONS:

Work hours are not to exceed eight (8) hours a day, forty (40) hours a week. Normal working hours of 8:30 am to 5:00 pm will be observed unless otherwise agreed to in writing.

No overtime will be permitted without prior written approval of the Agency Project Manager.

APPROVALS

Agency Project Manager

DIT Project Manager

Vendor Authorization

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

February 20, 2008

**CHANGE NOTICE NO. 2
 TO
 CONTRACT NO. 071B7200290**

Between
THE STATE OF MICHIGAN and

NAME & ADDRESS OF VENDOR Systems Technology Group, Inc. (STG) 3155 W. Big Beaver Road, Suite 220 Troy, Michigan 48084-3007 Attention: Ms. Mona Aggarwal, VP Finance apopat@stgit.com		TELEPHONE (248) 643-9010
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517) 241-7233 Joann Klasko
Contract Compliance Inspector: Cindy Turben WDRA MEMBER SELF SERVICE		
CONTRACT PERIOD: From: May 22, 2007 To: September 30, 2008		
TERMS Two (2) one-year options to extend N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		
MISCELLANEOUS INFORMATION:		

NATURE OF CHANGE(S):

Effective immediately, this contract is hereby **INCREASED** by \$209,630.00. Also, the scope has been changed to include PDF functionality to allow customers of the system the ability to have documents online. This change notice incorporates Change Control Requests 005, 007A and 008, which are attached. All other terms and conditions remain the same.

AUTHORITY/REASON(S):

Per vendor and agency agreement.

INCREASE: \$209,630.00

TOTAL REVISED CONTRACT VALUE: \$2,045,940.00

Change Control Request

Division	Global Solutions Delivery
Client Name & Department	State of Michigan Office of Retirement Services (ORS – WSS)
Client Manager Name	Laurie Mitchell
Project Manager	Sriram Rao
Project Start Date	06/04/2007
Change Control Issue Date	2/11/2008
CCR #	WSS_CCR005

Details:

CCR #	WSS_CCR005		
Description of Impact	This change control request document is being issued for new requirements gathering, analysis/design, application development, testing and deployment of the following bar-coded PDF forms/documents for the WSS application:		
	#	PDF Documents	Use Case
		Form ID	
	1	Spousal Waiver Authorization	UC_RA_01-Apply for Retirement
	2	Reprint pending bill as .pdf (per Manage Service Credit Use Case)	UC_SC_01- Manage Universal Buy-In
	3	Print Current Bill (SERS Only)	UC_SC_01- Manage Universal Buy-In
	4	Reprint pending bill as .pdf (per Manage Service Credit Use Case)	UC_RF_02-Re-Pay Refunds
	5	Reprint pending bills as .pdf (per Manage Service Credit Use Case)	UC_RF_01- Request Refund
	6	Print bill (SERS only, if No Plan A)	UC_RF_01- Request Refund
	7	Reprint pending bills as .pdf	UC_SC_02- Manage Service Credit
	8	TDP Agreement - See R0498G and R0392C TDP Agreements	UC_SC_02- Manage Service Credit
	9	Maternity/Paternity/Child Rearing or Parental Leave See R0008C and R0126G	UC_SC_02- Manage Service Credit

10	Non-Public Educational Service See R0149C	UC_SC_02- Manage Service Credit	School Employees - R0149C
11	Out of System Public Educational Service (Post '74) See R0149C	UC_SC_02- Manage Service Credit	School Employees - R0149C
12	Military Intervening/Nonintervening See R0081C R0081G R0081H	UC_SC_02- Manage Service Credit	Public School - R0081C State Employees - R0081G Police - R0081H
13	Sabbatical Leave Service R0148C	UC_SC_02- Manage Service Credit	School Employees - R0148C
14	Other Governmental Service R0127G	UC_SC_02- Manage Service Credit	State Employees - R0127G
15	Print personalized form for requesting refund for Active Members separated less than 90 days [compare date of last posting with system date]	UC_RF_01- Request Refund	State Employees - R0138G School Employees - R0311C Police - No Forms. User just sends a letter

Tasks in Scope:

Requirements

- Validate list of forms and fields, barcode formatting
- Analyze and specify Input/Output parameters for those forms that get WSI data
- Validate data availability for those forms that get data from WSS

Analysis and Design

- Re-format forms as Acroforms for iText
- WSS application components design

Application Development

- Coding
- Unit Test
- Test Case development

Testing

- System Testing
- Technical Testing
- User Acceptance Testing

Training

- One session to train ORS Staff with a "Train-the-Trainer" approach

Deployment

- Application Code related to the CCR will be deployed in Production

Additional Details

State requested additional details regarding the application development/delivery of the proposed solution. State requested that these details include the following information:

- description and physical location of any new software that will need to be installed (including Open Source)
- a narrative description of how the process will happen (e.g., A talks to B which creates C which married D and births E & F).
- a brief explanation of any changes to the technical design that we have already approved. If there are none, please state that.
- a description of the effect, if any, on WSI development

- anything else you believe would help us evaluate costs not included in your proposal (hardware, programming, procurement)
- a description of the number and type of resources that will be dedicated to this with as much detail as possible State can understand what State's choices are.

In response, STG provided the following information.

Proposed Technical Approach for PDF Generation:

WSS Architectural Change:

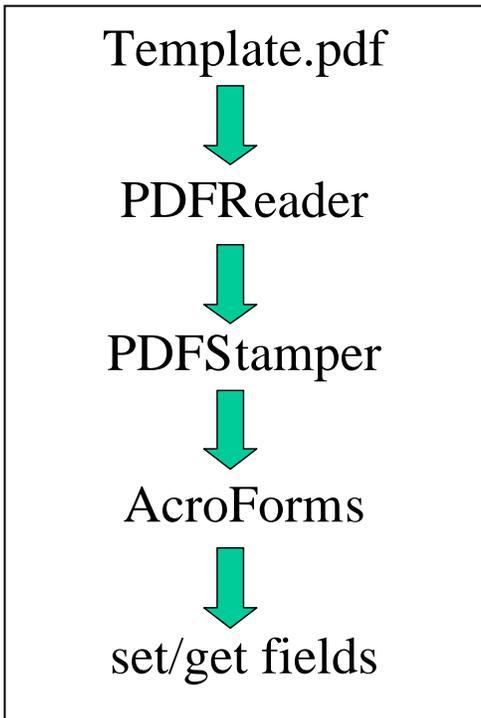
WSS application architecture will be modified to include **iText** (v. 2.0.8 for JDK 1.3) framework. State has confirmed that iText is an approved Open Source product that can be used on the project. iText is an **open source library** that allows developers to extend the capabilities of their Java applications with dynamic PDF document generation. This open source will reside within existing WSS application as a dependent jar file and thereby on existing State application server(s). WSS Technical architecture document will be modified to include iText framework open source usage. There will not be any changes to the existing WSS architecture which state has already approved.

PDF Creation Process:

State will provide the MS Word Templates of the forms in scope for the project. STG will convert the MS Word files to PDF Templates and will modify them using **Adobe Designer 7** to create AcroForms with place holders to replace with dynamic data/values from Clarity/WSI. Please note that State will need Adobe Designer 7 or similar tool for any future maintenance of these templates. Adobe Designer is installed on the Developer's desktop and not on a server.

STG will version control these templates within WSS Application source repository. Any changes to the template will need a new release or deployment of WSS application.

STG will develop application components using iText framework to generate the PDF dynamically. The following diagrams provide an overview of how iText framework will be used to dynamically generate PDF documents:



iText Key Classes

PDFReader - Reads a PDF from a file.

PdfStamper - Lets the developer add things to an existing PDF.

AcroFields - Contains information on the form fields. Can also remove or rename fields and set field values.

The steps involved in generating PDF output are:

1. A template will be selected based upon the use case.
2. iText PDFReader will be used to read the template. PdfStamper will be used to get and replace AcroForm's AcroField values and to generate PDF output.
3. The generated PDF output will be rendered to the user through the web browser.

Effect on WSI Development

WSI Development is State's responsibility. It pertains to WSI components to be either newly developed or modified by State towards supporting the PDF generation functionality developed by STG under this CCR. The dependency on WSI is listed in the CCR-005 document under Dependencies section. It will be State's responsibility to estimate the application development effort, manage application development, testing and deployment of the necessary WSI methods. STG will not be able to project the effect of this CCR on WSI development. The same will be State's responsibility.

Resource Planning

With an expected start date of February 19, 2008, the requirements gathering, analysis, design, application development and testing activities associated with this CCR will be performed by two additional STG resources (one senior programmer analyst and one programmer analyst) in a separate Work Stream. These two resources will be in addition to the team members that will be working on Stages 5&6 of the project. STG Project Manager, STG Technical Architect and one STG Senior System Analyst will be extended till the planned completion date of the work under this CCR.

Subject to a start date of February 19, 2008 the schedule of Work Stream 3 (Stages 5&6) will not be affected by the efforts of this CCR.

It is estimated that the deployment of this functionality will be completed in 45 business days after the start of the activities associated with this CCR (price quoted is for a start date on or before February 19, 2008).

Changes to Contract Required for this CCR:

State has decided to fund a portion of the cost of this CCR by relinquishing the warranty support towards non-routine business functions of Stages 5&6 components. STG has included below the cost adjustment towards the same in the Costs section below. However, in lieu of the removal of non-routine business functions of Stages 5&6 components, the following SOW changes are agreed upon between both parties:

Clause b of Warranty Section 1.104 in the SOW will be modified as below:

Contractor will provide warranty of 90 calendar days from the date the relevant application components are deployed in production environment. Contractor will resolve those warranty defects that are communicated to the Contractor no later than day 75 of the 90 calendar-day warranty period.

Notwithstanding any other provisions under this contract, any defect pertaining to Stage 5 & 6 deliverables developed by the contractor communicated to the contractor after day 75 of the 90 day warranty period will be addressed either under the optional maintenance contract if exercised by the State or at additional cost reimbursed to Contractor towards resolution of such defect.

Clause c of the warranty section 1.104 will be modified as below

For the deployment of Stages 2, 3 & 4, certain business functions of the system will not occur in production at a frequency that will allow a complete assessment during the applicable warranty period. Contractor will provide 180 calendar days of warranty for a maximum of 15 non-routine business functions after the date the application has been deployed in production. All non-routine business functions will be documented during the requirements analysis phase of the project. The Contractor will resolve those warranty defects that are communicated to the Contractor no later than day 165 of the

180 calendar-day warranty period. Contractor will not be responsible for providing warranty towards non-routine business functions pertaining to Stages 5 and 6 of the WSS system after the 90-day warranty period has expired.

State of Michigan Dependencies
<p>STG's schedule and price quoted under this CCR is based on the assumption that the following State of Michigan dependencies will be met in accordance with the requirements stated below:</p> <ol style="list-style-type: none"> 1. State must develop the Spousal Waiver Authorization form and make it available to STG on Day One of the start of the CCR 2. State will provide MS Word templates for the forms in scope on or before the sixth business day from the start date of this CCR during the requirements gathering activities 3. State must design and provide the WSDL method signatures for the WSI methods that provide data for all in-scope PDF documents to STG. Methods need to be available on or before the fourth business day after having received the input/output parameters definition from STG. 4. State must develop and deploy the application code in the System Test environment for the WSI methods that provide data for all in-scope PDF documents on or before the eleventh business day from the start date of the CCR. 5. Data elements needed to create and render PDF documents in scope for the CCR should already be available in the WSS screen or it must be available by the 11th business day from the start date of the CCR.

Impact Areas	Original	Changed
Deliverable		<p>1. The following deliverables will be developed for the scope defined above:</p> <ul style="list-style-type: none"> • Updated Application Code (with PDF document generation related code) • Updated System Test Cases (with PDF document generation related test cases) <p>WSS application code will comprise of additional application code components (JSP/HTML screens, J2EE code components) to support development of the bar-coded PDF documents. In addition STG will perform requirements gathering, testing and deploy the relevant code in production.</p> <p>Warranty for this scope item will end on the same day as the Stage 5& 6 - Warranty end date.</p>
Effort and Schedule		<p>It is estimated that the deployment of this functionality will be 45 business days after the start of the activities associated with this CCR.</p> <p>Based on State's recommendation, STG has assumed that it will begin the activities related to this CCR (after the Ad Board and DMB approval) no later than February 19, 2008.</p> <p>The schedule for the completion of the SDLC activities associated with this CCR is summarized in the CCR Milestone Dates table provided below.</p>

Original Project Milestone Schedule (after incorporating CCR001, CCR002, CCR003, CCR004, CCR006, CCR007A):

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)
Engagement Startup	<ul style="list-style-type: none"> • Project Plan • Communication Plan • Risk Management Document • CEASAR criteria • Issues Log (on-going) • Status Report (on-going) • Dependencies List (on-going) • Change Management plan • Requirements Development plan 	5
Use case Development Completed for Stages 2, 3, & 4 Requirements	<ul style="list-style-type: none"> • Use Case documents for Stages 2,3,4 Requirements • Application Prototype screens for Stages 2,3,4 Requirements • Logical Data Model for Stages 2,3,4 Requirements • Test Strategy Document for Stages 2, 3, & 4 Requirements 	30
Use case Development Completed for Stages 5 & 6	<ul style="list-style-type: none"> • Use Case documents for Stages 5 & 6 Requirements • Application Prototype screens for Stages 5 & 6 Requirements • Logical Data Model for Stages 5 & 6 Requirements • Test Strategy Document for Stages 5 & 6 Requirements 	65
Stages 2 & 3 System Integration Test Completed	<ul style="list-style-type: none"> • System Tested Application Code components for Stages 2 & 3 Requirements • Physical Data Model for Stages 2 & 3 Requirements • System Test Cases for Stages 2 & 3 Requirements • System Test Results for Stages 2 & 3 Requirements 	97
Stages 4, 5 & 6 Analysis and Design Completed	<ul style="list-style-type: none"> • Updated Logical Data Model for Stages 4, 5, & 6 Requirements • System Interface and Technical Architecture Design document for Stages 4, 5, & 6 Requirements • Class Diagrams for Stages 4, 5, & 6 Requirements • Sequence Diagrams for Stages 4, 5, & 6 Requirements • Updated Physical Data Model for Stages 4, 5, & 6 Requirements • Disaster Recovery Plan 	90

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)
Stage 4 User Acceptance Testing (UAT) Completed	<ul style="list-style-type: none"> User Acceptance Tested Application Code components for Stages 2,3 and 4 Requirements Updated Physical Data Model for Stages 2, 3 & 4 Requirements System Test Cases for Stages 4 Requirements System Test Results for Stages 4 Requirements Performance Test results for Stages 2,3 & 4 Requirements User Acceptance Test Results for Stage 2,3, & 4 Requirements 	143
Stages 2,3 and 4 Performance Testing Completed	<ul style="list-style-type: none"> Stages 2,3 and 4 Performance Testing 	160
Stage 2,3, and 4 - Training and Deployment Completed	<ul style="list-style-type: none"> Application code with Stage 2,3,4 deployed in Production User Manual for Stages 2,3, & 4 Requirements Installation Manual for Stages 2,3,&4 Requirements Training Plan for Stages 2,3, & 4 Requirements Training Manual for Stages 2,3, & 4 Requirements Training for Stage 2,3, & 4 Requirements completed 	153
Stage 2,3 and 4 Deployment Extension Completed	<ul style="list-style-type: none"> Application code with Stage 2,3,4 deployed in Production 	163
Stage 5 & 6 - UAT Completed	<ul style="list-style-type: none"> User Acceptance Tested Application Code components for Stages 5,&6 Requirements Updated Physical Data Model for Stages 5,&6 Requirements System Test Cases for Stages 5,&6 Requirements System Test Results for Stages 5,&6 Requirements Performance Test results for Stages 5,&6 Requirements User Acceptance Test Results for Stage 5,&6 Requirements 	195
Stage 5 & 6 - Training and Deployment Completed	<ul style="list-style-type: none"> Application code with Stage 5 & 6 deployed in Production User Manual for Stages 5 & 6 Requirements Installation Manual for Stages 5 & 6 Requirements Training Plan for Stages 5 & 6 Requirements Training Manual for Stages 5 & 6 Requirements Training for Stage 5 & 6 Requirements completed 	200
Stage 2, 3 & 4 Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements 	223
Stage 5& 6 - Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements 	260
Stage 2, 3 & 4 Warranty (After 180 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements (non-routine business functions only) 	283
Stage 5& 6 - Warranty (After 180 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements (Non-Routine Business Functions Only) 	320

CCR Milestone Dates:

With a start date of February 19, 2008 for the CCR, the milestone dates are represented in the table below. If the start date is other than February 19, 2008 the Scheduled Completion dates provided below will change. It is intended that the PDF functionality be available with the deployment of Stages 5 & 6 of this project, which is currently scheduled for 4/18/08. If that deployment is delivered sooner than 4/18/08, ORS will leverage the Access Management functionality of the application to turn off business functions that require PDF documents. This action will avoid the need for rework if to the application if Stages 5 & 6 are ready to deploy before the PDF functionality is complete.

Milestone/Deliverable Schedule	Deliverables	Business days from Start date of the CCR	Estimated Scheduled Completion Date
Requirements, Analysis and Design, Application Development Completed	<ul style="list-style-type: none"> Updated Architecture Design Document Application Code components System Test Cases Training Plan 	25	03/21/2008
System Test, Technical Test, Training and UAT Completed	<ul style="list-style-type: none"> User Acceptance Tested Application Code components Updated User manual Updated Training Manual 	42	04/15/2008
Deployment Completed	<ul style="list-style-type: none"> Application Code deployed in Production 	45	04/18/2008

Cost:

Original Payment Schedule:**

** Please refer to the Revised Milestone Schedule table provided above for the list of deliverables provided for each milestone.

Milestone/Deliverable Schedule	Original Payment Date (Business days from Start date of Project)	Original Payment (USD)
Engagement Startup	5	\$100,000
Use case Development Completed for Stages 2,3, & 4 Requirements	30	\$225,000
Use case Development Completed for Stages 5 & 6	65	\$225,000
Stages 2 & 3 System Integration Test Completed	97	\$215,000
Stages 4, 5 & 6 Analysis and Design Completed	90	\$250,000
Stages 2,3 and 4 Performance Testing Completed	160	\$25,440
Stage 2,3, and 4 - Training and Deployment Completed	153	\$250,000
Stage 2,3 and 4 Deployment Extension Completed	163	\$4,320
Stage 5 & 6 - Training and Deployment Completed	200	\$185,000
Stage 7 Enhancements, Metrics and Closeout		
Stage 2,3 & 4 – Warranty (After 90 calendar days)	223	\$50,000
Stage 5& 6 - Warranty (After 90 calendar days)	260	\$94,310
Stage 2,3 & 4 - Warranty (After 180 calendar days)	283	\$50,000
Total (USD)		\$1,674,070

CCR Payment Milestone (in addition to payment schedule above):

STG has assumed that STG will begin the activities related to this CCR no later than February 19 2008 The price listed below is based on the assumption that the start date is no later than February 19 2008. For each additional day of delay in the start of the activities related to this CCR there will be an increase in cost of \$2,760 per day.

State has decided to fund a portion of this cost by relinquishing the warranty support towards non-routine business functions for Stages 5 & 6 of the WSS system and applying the relevant value towards the cost of this CCR. STG has determined that the value of credit to be provided towards removal of non-routine business functions warranty of Stages 5 & 6 is \$11,530. So, the net cost of this CCR is determined as below:

Cost of CCR005	\$71,400
Value of credit towards removal of Stages 5&6 non-routine business functions warranty	\$11,530
Net cost of CCR005	\$59,870

No additional warranty towards the work performed under this CCR has been included in the price. The warranty for the application code developed with this CCR will be provided to the extent possible within the limits of warranty for "Stage 5& 6 – Warranty (After 90 calendar days)".

Milestone/Deliverable Schedule	Payment Date (Business days from Start date of CCR)	Payment (USD)
Application Development Complete	25	\$40,000
Deployment Completed	45	\$19,870
Total (USD)		\$59,870

With this CCR the total cost of the project is:

Original Cost	CCR Cost	Total Cost
USD 1,674,070	USD 59,870	USD 1,733,940

Approvals

_____ STG Project Manager Signature Date	_____ Agency Project Manager Signature Date
_____ STG Project Manager Name (Printed)	_Laurie Mitchell _____ Agency Project Manager Name (Printed)
_____ STG GSD Division Date	_____ MI DIT Project Manager Signature Date
_____ STG GSD Division Date	_____ MI DIT Project Manager Name (Printed)

Change Control Request

Division	Global Solutions Delivery
Client Name & Department	State of Michigan Office of Retirement Services (ORS – WSS)
Client Manager Name	Laurie Mitchell
Project Manager	Sriram Rao
Project Start Date	June 4, 2007
Change Control Issue Date	January 29, 2008
CCR #	WSS_CCR007A

Details:

CCR #	WSS_CCR007A
Description of Impact	<p>Background This change control request document is being issued to account for the actual delay in the completion of Performance Testing and delay in Release 1 Deployment past 1/15/2008 caused by activities State is responsible for. This CCR007A replaces CCR007 and confirms that actual additional costs that the State will pay to STG for State delays associated with completing Milestone “Stage 2,3 and 4 – Performance Testing Completed” , Milestone “Stage 2,3, and 4 Training & Deployment Completed”, and Milestone “Stage 2,3, and 4 - Deployment Extension Completed” These milestones have been completed and approved by the State. The total additional amount to be paid to STG as a result of these State delays is \$29,760.</p> <p>The Performance Testing was delayed by the State of Michigan due to the non-availability of the State Technical Testing (TT) environment. The TT environment was made available for testing on January 9, 2008. Consequently, deployment activities have been delayed till completion of Performance Testing.</p> <p>Resolution State started data preparation (registration of users) for the Technical Testing of Release One WSS application on January 8, 2008. Performance tests will begin on January 9, 2008. STG will assign a team of four resources (one System Analyst, one Senior Programmer Analyst, two Programmer Analysts) to work with the State to support the performance tests starting January 9, 2008.</p> <p>The performance tests will run for the WSS business transactions agreed upon by STG and the State and the load, concurrency requirements provided by the State. STG will assist root cause analysis (with WSI, SSS Technical Architect, JClarety, Employer Self Service support personnel) of the WSS performance in the performance tests. STG will fix defects identified during the analysis that are attributed to WSS application code developed by STG (as stated in the contract between both STG and State). State will be responsible for resolving all other defects.</p> <p>Upon acceptance of the WSS performance test results, the State will provide a sign off to STG for the completion of Performance Testing milestone. The resources assigned for the performance test support will be released only upon receipt of formal signoff.</p> <p>The next business day after the State acceptance of the WSS performance tests, WSS deployment activities will begin. STG will assign two resources (one Systems Analyst and one Programmer Analyst) to support the deployment of WSS from Day One of the deployment. WSS deployment includes the following activities:</p> <ul style="list-style-type: none"> • Business function validation of the application on TT environment • Deployment of WSS application on the Production environment • Post-production validation of WSS application <p>As defined in the contract between both STG and the State, Warranty support of the application will begin the next business day after the application has been successfully deployed.</p>

	<p>Impacts</p> <p>The impacts as described above are:</p> <ol style="list-style-type: none"> 1. Four STG resources (one System Analyst, one Senior Programmer Analyst, two Programmer Analysts) will begin supporting the Performance test starting January 9, 2008. From 1/9/2008 to 1/15/2008, STG will charge the State for 2 resources (two programmer analysts) at a rate of \$1,280 per day. Starting January 16, 2008, STG will charge the State \$2,720 per day till the date of formal sign-off of Performance Testing through a Delivery Signoff Slip for the extension of 4 total STG resources. STG will charge State for the above resource costs from January 9, 2008 till the date of formal State approval of the Performance Testing milestone evidenced by an STG Delivery Signoff Slip. 2. Two STG resources (one System Analyst, one Senior Programmer Analyst) will begin supporting WSS application deployment at a daily rate of \$1,440 for both the resources. The resources will begin support of the deployment activities the day after the acceptance of the Performance Testing milestone till acceptance of the WSS deployment to the Production environment by the State. STG will charge State for the above 2 resources from the date of commencement of Deployment activities till the date of formal approval of Deployment Completed milestone evidenced by an STG Delivery Signoff Slip. 3. "Performance Test results for Stages 2, 3 & 4 Requirements" deliverable will be removed from the list of deliverables for the "Stage 4 User Acceptance Testing (UAT) Completed" milestone. A new milestone "Stage 2,3, and 4 – Performance Testing Completed" will be added with the "Performance Test results for Stages 2, 3 & 4 Requirements" deliverable. Please refer to the "Project Milestone Schedule" below for additional details. 4. A new milestone namely "State 2,3 and 4 - Deployment Extension Completed" will be added to the project schedule to accommodate the extension to the deployment activities as stipulated under this Change Control Request.
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Assumptions	
<ol style="list-style-type: none"> 1. STG will begin support of Performance Test in Technical Test environment on January 9, 2008 2. State will make Technical Test environment fully available for performance tests on January 9, 2008 devoid of any environmental issues/defects. 3. State will make available sufficient State support personnel to address issues if any towards WSI, SSS and other affecting components during the performance test and deployment period. 4. Email interface will be implemented in Technical Test environment via a temporary work around to address the constraint of password reset until a proper connection to the SMTP server is established. 5. State will make Production environment fully functional including all integrating systems and components including but not limited to WSI, SSS, email port, LDAP port for Active Directory, and internal user access available on Day One of deployment activities. 6. Performance testing activities ended on 1/25/2008 and deployment activities ended on 1/29/2008. Based on these dates, cost of this CCR is \$29,760. 	

Impact Areas	Original	Changed
Deliverable		"Performance Test results for Stages 2, 3 & 4 Requirements" deliverable will be removed from the list of deliverables for the "Stage 4 User Acceptance Testing (UAT) Completed" milestone. A new milestone "Stage 2,3, and 4 – Performance Testing Completed" will be added with the "Performance Test results for Stages 2, 3 & 4 Requirements" deliverable. Please refer to the "Project Milestone Schedule" below for additional details.
Cost		<ul style="list-style-type: none"> • Four STG resources (one System Analyst, one Senior Programmer Analyst, two Programmer Analysts) will begin supporting the Performance test starting 01/09/2008. From 1/9/2008 to 1/15/2008, STG will charge

		<p>the State for 2 resources (two programmer analysts) at a rate of \$1,280 per day. From 01/16/08 onwards, STG will charge the State for a total of 4 resources (One systems analyst, one senior programmer analyst, and two programmer analysts) at a rate of \$2,720 per day. STG will charge State for the above resource costs from January 9, 2008 till the date of formal State approval of the Performance Testing milestone evidenced by an STG Delivery Signoff Slip.</p> <ul style="list-style-type: none"> Two STG resources (one System Analyst, one Senior Programmer Analyst) will begin supporting WSS application deployment at a daily rate of \$1,440 for both the resources. . STG will charge State for the above 2 resources from the date of commencement of Deployment activities till the date of formal approval of Deployment Completed milestone evidenced by an STG Delivery Signoff Slip. Performance testing ended on 1/25/2008 and deployment activities ended on 1/28/2008. Based on these dates, the actual cost of this CCR is \$28,320. If these dates change, costs paid to STG will change commensurately.
Effort and Schedule Impacts		<p>Since the end date of performance testing, start and end dates of deployment cannot be reliably estimated by the State, the schedule impacts are unknown at this time. The resources identified above will be extended at a daily rate specified above.</p>

Effort and Schedule Impacts:

Project Milestone Schedule (after incorporating CCR001, CCR002, CCR003, CCR004, CCR006, CCR007, and CCR007A):

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Engagement Startup	<ul style="list-style-type: none"> Project Plan Communication Plan Risk Management Document CEASAR criteria Issues Log (on-going) Status Report (on-going) Dependencies List (on-going) Change Management plan Requirements Development plan 	5	5
Use case Development Completed for Stages 2, 3, & 4 Requirements	<ul style="list-style-type: none"> Use Case documents for Stages 2,3,4 Requirements Application Prototype screens for Stages 2,3,4 Requirements Logical Data Model for Stages 2,3,4 Requirements Test Strategy Document for Stages 2, 3, & 4 Requirements 	30	30

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Use case Development Completed for Stages 5 & 6	<ul style="list-style-type: none"> • Use Case documents for Stages 5 & 6 Requirements • Application Prototype screens for Stages 5 & 6 Requirements • Logical Data Model for Stages 5 & 6 Requirements • Test Strategy Document for Stages 5 & 6 Requirements 	65	65
Stages 2 & 3 System Integration Test Completed	<ul style="list-style-type: none"> • System Tested Application Code components for Stages 2 & 3 Requirements • Physical Data Model for Stages 2 & 3 Requirements • System Test Cases for Stages 2 & 3 Requirements • System Test Results for Stages 2 & 3 Requirements 	97	97
Stages 4, 5 & 6 Analysis and Design Completed	<ul style="list-style-type: none"> • Updated Logical Data Model for Stages 4, 5, & 6 Requirements • System Interface and Technical Architecture Design document for Stages 4, 5, & 6 Requirements • Class Diagrams for Stages 4, 5, & 6 Requirements • Sequence Diagrams for Stages 4, 5, & 6 Requirements • Updated Physical Data Model for Stages 4, 5, & 6 Requirements • Disaster Recovery Plan 	90	90
Stage 4 User Acceptance Testing (UAT) Completed	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 2,3 and 4 Requirements • Updated Physical Data Model for Stages 2, 3 & 4 Requirements • System Test Cases for Stages 4 Requirements • System Test Results for Stages 4 Requirements • Performance Test results for Stages 2,3 & 4 Requirements • User Acceptance Test Results for Stage 2,3, & 4 Requirements 	143	143
Stage 2,3, and 4 – Performance Testing Completed	<ul style="list-style-type: none"> • Performance Test results for Stages 2,3 & 4 Requirements 	NA	160

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Stage 2,3, and 4 - Training and Deployment Completed	<ul style="list-style-type: none"> • Application code with Stage 2,3,4 deployed in Production • User Manual for Stages 2,3, & 4 Requirements • Installation Manual for Stages 2,3,&4 Requirements • Training Plan for Stages 2,3, & 4 Requirements • Training Manual for Stages 2,3, & 4 Requirements • Training for Stage 2,3, & 4 Requirements completed 	153	153
Stage 2,3, and 4 – Deployment Extension Completed	<ul style="list-style-type: none"> • Deployment of the State 2,3 and 4 components of the application in production environment 	NA	163
Stage 5 & 6 - UAT Completed	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 5,&6 Requirements • Updated Physical Data Model for Stages 5,&6 Requirements • System Test Cases for Stages 5,&6 Requirements • System Test Results for Stages 5,&6 Requirements • Performance Test results for Stages 5,&6 Requirements • User Acceptance Test Results for Stage 5,&6 Requirements 	195	195
Stage 5 & 6 - Training and Deployment Completed	<ul style="list-style-type: none"> • Application code with Stage 5 & 6 deployed in Production • User Manual for Stages 5 & 6 Requirements • Installation Manual for Stages 5 & 6 Requirements • Training Plan for Stages 5 & 6 Requirements • Training Manual for Stages 5 & 6 Requirements • Training for Stage 5 & 6 Requirements completed 	200	200

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Stage 2, 3 & 4 Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements 	213	Stage 2, 3 & 4 Warranty for routine business transactions will start the next business day after the completion of "Stage 2,3, and 4 - Deployment Extension Completed" milestone. Exact number of business days is not known.
Stage 5& 6 - Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements 	260	260
Stage 2, 3 & 4 Warranty (After 180 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements (non-routine business functions only) 	273	Stage 2, 3 & 4 Warranty for non-routine business transactions will start the next business day after the completion of "Stage 2,3, and 4 – Deployment Extension Completed" milestone. Exact number of business days is not known.
Stage 5& 6 - Warranty (After 180 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements (Non-Routine Business Functions Only) 	320	320

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Cost:

Revised Payment Schedule:**

** Please refer to the Project Milestone Schedule table provided above for the list of deliverables provided for each milestone.

Milestone/Deliverable Schedule	Current Payment Date (Business days from Start date of Project)	Original Payment (USD)	Revised Payment Date (Business days from Start date of Project)	Payment Per this CCR (USD)
Engagement Startup	5	\$100,000	5	\$100,000
Use case Development Completed for Stages 2,3, & 4 Requirements	30	\$225,000	30	\$225,000
Use case Development Completed for Stages 5 & 6	65	\$225,000	65	\$225,000
Stages 2 & 3 System Integration Test Completed	94	\$215,000	97	\$215,000
Stages 4, 5 & 6 Analysis and Design Completed	90	\$250,000	90	\$250,000
Stages 2,3 and 4 Performance Testing Completed	NA	NA	160	\$25,440
Stage 2,3, and 4 - Training and Deployment Completed	153	\$250,000	153	\$250,000
Stage 2,3, and 4 - Deployment Extension Completed		N/A	163	\$4,320
Stage 5 & 6 - Training and Deployment Completed	200	\$185,000	200	\$185,000
Stage 7 Enhancements, Metrics and Closeout				
Stage 2,3 & 4 – Warranty (After 90 calendar days)	213	\$50,000	213	\$50,000
Stage 5& 6 - Warranty (After 90 calendar days)	260	\$50,000	260	\$50,000
Stage 2,3 & 4 - Warranty (After 180 calendar days)	273	\$50,000	273	\$50,000
Stage 5& 6 - Warranty (After 180 calendar days)	320	\$44,310	320	\$44,310
Total (USD)		\$1,644,310		\$1,674,070

Approvals

_____ STG Project Manager Signature Date	_____ Customer Manager Signature Date
_____ STG Project Manager Name (Printed)	_____ Customer Manager Name (Printed)
_____ STG GSD Division Date	_____ Customer Manager Signature Date
_____ STG GSD Division Date	_____ Customer Manager Name (Printed)

Change Control Request

Division	Global Solutions Delivery
Client Name & Department	State of Michigan Office of Retirement Services (ORS – WSS)
Client Manager Name	Laurie Mitchell
Project Manager	Sriram Rao
Project Start Date	June 4, 2007
Change Control Issue Date	February 11, 2008
CCR #	WSS_CCR008

Details:

CCR #	WSS_CCR008																												
Description of Impact	<p>Background</p> <p>This change control request document is being issued to account for the delay in System Testing activities of Release 2 components (Work Stream 3 – Stages 5 & 6) due to the delays in the availability of the System Test Environment and the WSI methods for WSS Work Stream 3 past December 17th, 2007, caused by activities State is responsible for.</p> <ol style="list-style-type: none"> 1. The Work Stream 3 System Test environment was supposed to be available and ready for System Test activities on December 17, 2007. However State made it available on January 7th, 2008. 2. As of January 29, 2008 only 44 of the 51 WSI methods have been made available to STG for integrating WSS components with WSI layer for system test purposes. 3. During the time period January 7th, 2008 to January 29th, 2008, there has been significant down time in the availability of System Test environment due to environmental issues. 4. Due to these reasons the Work Stream 3 System Testing will be delayed past the original baseline schedule date of February 1st, 2008. 5. As of January 29th, 2008, STG has incurred a total delay of 20 business days. Additional State delays are expected. Each additional business day delayed caused by the State of Michigan results in additional payment of \$6,000 per day to be paid to STG. This is to compensate for costs incurred to STG as defined in the original statement of work. <p>This CCR is submitted to compensate STG for the 20 business-day delay caused so far (till January 29th, 2008) due to reasons State is responsible for.</p> <p>Resolution</p> <p>With the assumption that the remaining 7 methods will be available on January 30th, 2008, the revised timeline for the completion of Work Stream 3 deployment is:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ffff00;"> <th style="text-align: center;">Activity</th> <th style="text-align: center;">Start Date</th> <th style="text-align: center;">End Date</th> <th style="text-align: center;">Duration</th> </tr> </thead> <tbody> <tr> <td>System Integration Test</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Cycle-1</td> <td style="text-align: center;">1/7/2008</td> <td style="text-align: center;">1/22/2008</td> <td style="text-align: center;">11 days</td> </tr> <tr> <td style="padding-left: 20px;">Cycle-2</td> <td style="text-align: center;">1/23/2008</td> <td style="text-align: center;">2/11/2008</td> <td style="text-align: center;">14 days</td> </tr> <tr> <td style="padding-left: 20px;">Cycle-3</td> <td style="text-align: center;">2/12/2008</td> <td style="text-align: center;">2/26/2008</td> <td style="text-align: center;">10 days</td> </tr> <tr> <td style="padding-left: 20px;">Cycle-4</td> <td style="text-align: center;">2/27/2008</td> <td style="text-align: center;">3/3/2008</td> <td style="text-align: center;">4 days</td> </tr> <tr> <td>Performance Testing</td> <td style="text-align: center;">3/4/2008</td> <td style="text-align: center;">3/17/2008</td> <td style="text-align: center;">10 days</td> </tr> </tbody> </table>	Activity	Start Date	End Date	Duration	System Integration Test				Cycle-1	1/7/2008	1/22/2008	11 days	Cycle-2	1/23/2008	2/11/2008	14 days	Cycle-3	2/12/2008	2/26/2008	10 days	Cycle-4	2/27/2008	3/3/2008	4 days	Performance Testing	3/4/2008	3/17/2008	10 days
Activity	Start Date	End Date	Duration																										
System Integration Test																													
Cycle-1	1/7/2008	1/22/2008	11 days																										
Cycle-2	1/23/2008	2/11/2008	14 days																										
Cycle-3	2/12/2008	2/26/2008	10 days																										
Cycle-4	2/27/2008	3/3/2008	4 days																										
Performance Testing	3/4/2008	3/17/2008	10 days																										

User Acceptance Test	3/18/2008	4/14/2008	20 days
Deployment to Production	4/15/2008	4/21/2008	5 days

STG's team of eight resources (one Project Manager, one Technical Architect, one System Analyst, two Senior Programmer Analysts, two Programmer Analysts and one Quality Assurance/Documentation Specialist) will continue to work till the completion of System Test, Performance Test and User Acceptance Test.

Impacts

The impacts as described above are:

- STG's team of eight resources (one Project Manager, one Technical Architect, one System Analyst, two Senior Programmer Analysts, two Programmer Analysts and one Quality Assurance/Documentation Specialist) will continue to work till the completion of System Test, Performance Test and User Acceptance Test.
- STG will charge State at a rate of \$6,000/day for each day later to a maximum of 20 days (\$120,000).

Assumptions
<ol style="list-style-type: none"> All remaining WSI methods will be client-tested and available on January 30, 2008 System Test environment (UAT-21) is available with zero downtime from 8 AM – 8 PM every calendar day till Release 2 production deployment WSI/SSS defects will be fixed and available to STG for validation in accordance with the project schedule State will make System Test environment (including but not limited to FileNET) fully available devoid of any environmental issues/defects on January 31st, 2008 State will make Technical Test environment fully available devoid of any environmental issues/defects on or before March 4, 2008 State will make a separate User Acceptance Test environment fully available devoid of any environmental issues/defects on or before March 18, 2008 State will make available sufficient State support personnel to address issues if any towards WSI, SSS and other affecting components during the performance test and deployment period. State will make Production environment fully functional including all integrating systems and components including but not limited to WSI, SSS, email port, LDAP port for Active Directory, and internal user access available on Day One of deployment activities. If there are any further delays in test activities past the dates specified in revised schedule above due to reasons State is responsible for, then such further impact will be assessed as a separate CCR at the rate of \$6000 per day for each day of such delay. Every effort will be made to minimize the cost impact to the state while retaining quality of the software developed by STG. Gains, if any, will be assessed in terms of a reduction of additional days needed.

Impact Areas	Original	Changed
Deliverable		
Cost		<ul style="list-style-type: none"> STG's team of eight resources (one Project Manager, one Technical Architect, one System Analyst, two Senior Programmer Analysts, two Programmer Analysts and one Quality Assurance/Documentation Specialist) will continue to work till the completion of System Test, Performance Test and User Acceptance Test. Based on revised schedule above, it is estimated that Release 2 deployment

activities will close on April 21st, 2008. Based on these dates, projected maximum cost of this CCR is \$120,000.

Effort and Schedule Impacts:

Project Milestone Schedule (after incorporating CCR001, CCR002, CCR003, CCR004, CCR005, CCR006, CCR007A, CCR008):

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Engagement Startup	<ul style="list-style-type: none"> Project Plan Communication Plan Risk Management Document CEASAR criteria Issues Log (on-going) Status Report (on-going) Dependencies List (on-going) Change Management plan Requirements Development plan 	5	5
Use case Development Completed for Stages 2, 3, & 4 Requirements	<ul style="list-style-type: none"> Use Case documents for Stages 2,3,4 Requirements Application Prototype screens for Stages 2,3,4 Requirements Logical Data Model for Stages 2,3,4 Requirements Test Strategy Document for Stages 2, 3, & 4 Requirements 	30	30
Use case Development Completed for Stages 5 & 6	<ul style="list-style-type: none"> Use Case documents for Stages 5 & 6 Requirements Application Prototype screens for Stages 5 & 6 Requirements Logical Data Model for Stages 5 & 6 Requirements Test Strategy Document for Stages 5 & 6 Requirements 	65	65
Stages 2 & 3 System Integration Test Completed	<ul style="list-style-type: none"> System Tested Application Code components for Stages 2 & 3 Requirements Physical Data Model for Stages 2 & 3 Requirements System Test Cases for Stages 2 & 3 Requirements System Test Results for Stages 2 & 3 Requirements 	97	97

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Stages 4, 5 & 6 Analysis and Design Completed	<ul style="list-style-type: none"> • Updated Logical Data Model for Stages 4, 5, & 6 Requirements • System Interface and Technical Architecture Design document for Stages 4, 5, & 6 Requirements • Class Diagrams for Stages 4, 5, & 6 Requirements • Sequence Diagrams for Stages 4, 5, & 6 Requirements • Updated Physical Data Model for Stages 4, 5, & 6 Requirements • Disaster Recovery Plan 	90	90
Stage 4 User Acceptance Testing (UAT) Completed	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 2,3 and 4 Requirements • Updated Physical Data Model for Stages 2, 3 & 4 Requirements • System Test Cases for Stages 4 Requirements • System Test Results for Stages 4 Requirements • Performance Test results for Stages 2,3 & 4 Requirements • User Acceptance Test Results for Stage 2,3, & 4 Requirements 	143	143
Stage 2,3, and 4 – Performance Testing Completed	<ul style="list-style-type: none"> • Performance Test results for Stages 2,3 & 4 Requirements 	160	160
Stage 2,3, and 4 - Training and Deployment Completed	<ul style="list-style-type: none"> • Application code with Stage 2,3,4 deployed in Production • User Manual for Stages 2,3, & 4 Requirements • Installation Manual for Stages 2,3,&4 Requirements • Training Plan for Stages 2,3, & 4 Requirements • Training Manual for Stages 2,3, & 4 Requirements • Training for Stage 2,3, & 4 Requirements completed 	153	153
Stage 2,3, and 4 – Deployment Extension Completed	<ul style="list-style-type: none"> • Deployment of the State 2,3 and 4 components of the application in production environment 	163	163

Milestone/Deliverable Schedule	Deliverables	Per current SOW (Business days from Start date of Project)	Per this Change Control (Business days from the Start date of the project)
Stage 5 & 6 - UAT Completed	<ul style="list-style-type: none"> User Acceptance Tested Application Code components for Stages 5,&6 Requirements Updated Physical Data Model for Stages 5,&6 Requirements System Test Cases for Stages 5,&6 Requirements System Test Results for Stages 5,&6 Requirements Performance Test results for Stages 5,&6 Requirements User Acceptance Test Results for Stage 5,&6 Requirements 	195	215
Stage 5 & 6 - Training and Deployment Completed	<ul style="list-style-type: none"> User Manual for Stages 5 & 6 Requirements Installation Manual for Stages 5 & 6 Requirements Training Plan for Stages 5 & 6 Requirements Training Manual for Stages 5 & 6 Requirements Training for Stage 5 & 6 Requirements completed 	200	220
Stage 2, 3 & 4 Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements 	223	223
Stage 5& 6 - Warranty (After 90 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements 	260	Stage 5& 6 - Warranty (After 90 calendar days) for routine business transactions will start the next business day after the completion of "Stage 5 & 6 - Deployment Completed" milestone. Exact number of business days is not known.
Stage 2, 3 & 4 Warranty (After 180 calendar days)	<ul style="list-style-type: none"> Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements (non-routine business functions only) 	283	283

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Cost:**Revised Payment Schedule**:**

** Please refer to the Project Milestone Schedule table provided above for the list of deliverables provided for each milestone.

Milestone/Deliverable Schedule	Current Payment Date (Business days from Start date of Project)	Original Payment (USD)	Revised Payment Date (Business days from Start date of Project)	Payment Per this CCR (USD)
Engagement Startup	5	\$100,000	5	\$100,000
Use case Development Completed for Stages 2,3, & 4 Requirements	30	\$225,000	30	\$225,000
Use case Development Completed for Stages 5 & 6	65	\$225,000	65	\$225,000
Stages 2 & 3 System Integration Test Completed	94	\$215,000	97	\$215,000
Stages 4, 5 & 6 Analysis and Design Completed	90	\$250,000	90	\$250,000
Stages 2,3 and 4 Performance Testing Completed	160	\$25,440	160	\$25,440
Stage 2,3, and 4 - Training and Deployment Completed	153	\$250,000	153	\$250,000
Stage 2,3, and 4 - Deployment Extension Completed	163	\$4,320	163	\$4,320
Stage 5 & 6 - Training and Deployment Completed	200	\$185,000	220	\$305,000
Stage 7 Enhancements, Metrics and Closeout				
Stage 2,3 & 4 – Warranty (After 90 calendar days)	213	\$50,000	223	\$50,000
Stage 5& 6 - Warranty (After 90 calendar days)	260	\$50,000	280	\$94,310
Stage 2,3 & 4 - Warranty (After 180 calendar days)	273	\$50,000	283	\$50,000
Total (USD)		\$1,674,070		\$1,794,070

Payment schedule for CCR005 (in addition to above schedule)

Milestone/Deliverable Schedule	Payment Date (Business days from Start date of CCR005)	Payment (USD)
CCR005 Application Development Complete	25	\$40,000
CCR005 Deployment Completed	45	\$19,870
Total (USD)		\$59,870

With this CCR the total cost of the project is:

Original Cost	CCR Cost	Total Cost
USD 1,733,940	USD 120,000	USD 1,853,940

Approvals

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<p>_____ STG Project Manager Signature Date</p> <p>_____ STG Project Manager Name (Printed)</p> <p>_____ STG GSD Division Date</p>	<p>_____ Agency Project Manager Signature Date</p> <p>_____ Agency Project Manager Name (Printed)</p> <p>_____ IT Project Manager Signature Date</p> <p>_____ IT Project Manager Name (Printed)</p>
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**STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 PURCHASING OPERATIONS
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933**

September 12, 2007

**CHANGE NOTICE NO. 1
 TO
 CONTRACT NO. 071B7200290**

Between
THE STATE OF MICHIGAN and

NAME & ADDRESS OF VENDOR Systems Technology Group, Inc. (STG) 3155 W. Big Beaver Road, Suite 220 Troy, Michigan 48084-3007 Attention: Ms. Mona Aggarwal, VP Finance	TELEPHONE (248) 643-9010
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-7233 Joann Klasko
Contract Compliance Inspector: Cindy Turben WDRA MEMBER SELF SERVICE	
CONTRACT PERIOD: From: May 22, 2007 To: September 30, 2008	
TERMS Two (2) one-year options to extend N/A	SHIPMENT N/A
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION:	

NATURE OF CHANGE(S):

Effective immediately, this contract is hereby **INCREASED** by \$192,000.00. All other terms and conditions remain the same.

AUTHORITY/REASON(S):

Per vendor and agency agreement.

INCREASE: \$192,000.00

TOTAL REVISED CONTRACT VALUE: \$1,836,310.00

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

May 22, 2007

**NOTICE
 OF
 CONTRACT NO. 071B7200290**

Between
THE STATE OF MICHIGAN and

NAME & ADDRESS OF VENDOR Systems Technology Group, Inc. (STG) 3155 W. Big Beaver Road, Suite 220 Troy, Michigan 48084-3007 Attention: Ms. Mona Aggarwal, VP Finance	TELEPHONE (248) 643-9010
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-7233 Joann Klasko
Contract Compliance Inspector: Cindy Turben WDRA MEMBER SELF SERVICE	
CONTRACT PERIOD: From: May 22, 2007 To: September 30, 2008	
TERMS Two (2) one-year options to extend N/A	SHIPMENT N/A
F.O.B. N/A	SHIPPED FROM N/A
MINIMUM DELIVERY REQUIREMENTS N/A	
MISCELLANEOUS INFORMATION:	

Estimated Contract Value: \$1,644,310.

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

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Contract Compliance Inspector: Cindy Turben <p style="text-align: center;">WDRA MEMBER SELF SERVICE</p>	
CONTRACT PERIOD: From: May 22, 2007 To: September 30, 2008	
TERMS Two (2) one-year options to extend N/A	SHIPMENT N/A
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION: Estimated Contract Value: \$1,644,310	

THIS IS NOT AN ORDER: The terms and conditions of this contract are enclosed.

FOR THE VENDOR:

FOR THE STATE:

Systems Technology Group, Inc. (STG)

 Firm Name

 Authorized Agent Signature
Anup Popat, CEO

 Authorized Agent (Print or Type)

 Date

 Signature
Greg Faremouth, Acting Director

 Name
IT Division

 Title

 Date

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Article 1 – Statement of Work (SOW)

1.0 Project Identification

1.001 PROJECT REQUEST

The State of Michigan (State), through the Michigan Department of Information Technology (MDIT), with assistance of the Michigan Department of Management & Budget (MDMB), has issued this contract to provide online services for members and retirees of the four retirement systems supported by MDMB - Workforce Development and Retirement Administration (WDRA).

This contract consists of the following components:

- Development and documentation of use cases based on the attached business requirements
- Application design and development (including prototyping) of functionality that will be made available using web services interfaces. Development will use a loosely-coupled integration API that is SOAP/XML based, document oriented and WSI Basic Profile 1.0 compliant.
- Services to implement the application, including
 - o Configuration,
 - o Customization,
 - o Modification,
 - o Interfaces,
 - o Integration
 - o Testing
- Knowledge transfer to State business and operations support staff. Knowledge transfer must happen throughout all phases of design, development, test and deployment such that transition from Contractor to staff is seamless.
 - o Training, documentation and delivery
 - o System and transition documentation

The State seeks to have services begin upon the signing of this contract with full implementation of the system to be completed by **March 2008**. The schedule will be determined based on section 1.104.

1.002 BACKGROUND

The four retirement systems administered by Workforce Development and Retirement Administration are: Public School Employees Retirement System, State Employees Retirement System, State Police Retirement System and the Judges Retirement System. Over the next two to three years, the State projects a substantial annual increase in the number of individuals retiring and a consistent annual increase in the number of members becoming inactive. The State's vision is to provide fast, easy access to complete and accurate information and exceptional service. See the State's web site for additional information on the retirement systems: www.michigan.gov/ors.

The Workforce Development and Retirement Administration has been enhancing its internal systems gradually over the last four years so the increasing number of customers will continue to receive quality services. In this next phase of State's system development, the State will allow customers to serve themselves at their convenience through the Internet.

Contractors are advised that the State has methods, policies, standards and guidelines that have been developed over the years. Contractors are expected to follow these requirements. For example, the State's Project Management Methodology (PMM) must be followed. The PMM may be reviewed at www.michigan.gov/projectmanagement

1.1 Scope of Work and Deliverables

1.101 IN SCOPE

The Contractor will provide the following services for the complete and successful implementation of a web self service application (WSS) providing the functionality required for the State's business operations for the Michigan Department of Management and Budget, Workforce Development and Retirement Administration.



The Contractor will:

1. Develop technical solution that is WSI Basic Profile 1.0 compliant.
2. Recommend hardware needed to support development, test and production.
3. Develop and document detailed use cases for each of the requirements identified in the Attachment 1: WDRA Business Requirements (subject to the functional scope listed in this statement of work).
4. The Contractor will perform modifications to meet any requirements not identified in the Scope of Attachment 1 – Business Requirements to the extent possible with the available resources as long as there is no change to the milestone schedule provided in this contract. Any requirements that do not meet this stipulation will be handled via a scope change request.
5. Design & develop the application including prototyping where appropriate.
6. Perform activities necessary to design, develop, test, document and deploy the solution.
7. Deliver all levels of test, including Unit, System, Integration, Performance testing. The Contractor will support the State in performing User Acceptance Testing; this will include installing a local development and testing environment at the Contractor's facility for unit test purposes. The Contractor will work with the State jClarety application support team in performing regression tests as necessary.
8. Support the State staff in performing the End-user Focus Group testing before deployment.
9. Train up to 20 staff members using a "Train-the-Trainer" approach.
10. Transfer knowledge to the business design staff, the programming staff and the hardware support staff.
11. Document use cases, training manuals and user manuals.
12. Identify a Web site statistics tool, typical of those provided in standard web metric software programs. The Contractor will assist the State hardware support team to configure and install the tool.
13. The Contractor will provide warranty support for the application. Details regarding scope of warranty are provided in section 1.104 Work and Deliverables.

1.102 OUT OF SCOPE

The following items are considered out-of-scope for this Project:

1. The Contractor will be insulated from performing any application enhancement, bug-fixing activities of the existing jClarety application.
2. The Contractor is not responsible for any programming changes to the current application (jClarety).
3. The Contractor will not be required to supply hardware or commercial software to the state.
4. Any hardware or software needed will be procured for the state through existing state contracts.
5. Installation of hardware onto the state's network and installation of software onto state-owned servers will be performed by state personnel. If the Contractor assistance is necessary, arrangements will be made for the Contractor to participate in installation with state personnel.
6. Automated Clearinghouse (ACH) payments.
7. Once warranty is complete, there is no ongoing maintenance requirement unless State chooses to engage the Contractor for the Optional Maintenance. See Section 1.601 Compensation and Payment for details on Optional Maintenance
8. The Contractor will not provide any Help Desk and Technical Support.

What is expressly not stated in scope within the Work and Deliverables section (1.104) is out of scope and can be addressed through the Change Management process as needed.

1.103 ENVIRONMENT

The Office of Retirement Services currently operates in the following environment

1. Windows-based
2. Websphere compatible
3. SQL server database
4. Clustered environment



ORS' legacy application is called jClarety and it consists of several components. This contract is for an independently developed application that will communicate with jClarety through web services interfaces. For detailed information about jClarety, see Attachment 6: ORS Operating Environment.

Information regarding the State's information technology architecture and standards for hardware, database applications, network hardware and monitoring tools, identity management/authentication and development tools may be found at: <http://www.michigan.gov/dit/0,1607,7-139-34305---,00.html>.

1.104 WORK AND DELIVERABLE

The Contractor shall provide deliverables, services and staff, and otherwise do all things necessary or incidental, for the complete and successful implementation of a web self service application providing the functionality required in accordance with the approved business requirements and technical design documents approved during the course of this project.

In this statement of work the term ORS (Office of Retirement Services) will also include the State.

A. Requirements

Functional Scope

The Contractor has carefully analyzed the information Business Considerations Document .The table below defines the functional boundaries of the application the Contractor will develop. Attachment 1 defines the agreed upon Functional Scope of the project. Attachment 1 has been incorporated into this Statement of Work as a separate file named Attachment 1: WDRA Business Requirements.

The estimated number of JAD sessions is based on the ability to leverage business rules and screens available in jClarety wherever possible. The Contractor will work with WDRA/MDIT subject matter experts to map the enhancements and validate the estimated number of JAD sessions subject to meeting the timelines specified in the Milestone Schedule. Each JAD session is estimated to run for two hours and it is estimated that there will be six JAD sessions each week. The remaining hours in a business week will be utilized to document the use cases, develop the User Interface prototype and prepare for the forthcoming sessions. More details are provided in "Activities and Deliverables" section of this contract.

Consistent with WDRA's requirements, the Contractor has assumed in their total cost that up to 20 percent increase in scope is expected during the requirements gathering and use case development phase. The Contractor's Project Manager will track these changes and periodically provide updates as to how much of the 20 percent buffer has been used. All changes will be identified by the end of the Requirements Gathering phase. Changes identified after that may be subject to additional charge. The Contractor may credit the State for any unused buffer at the close of Stages 5 and 6 subject to the mutual agreement between the State and the Contractor.

The Contractor will follow State's UI Look & Feel standards and will code for the browsers (specified below) provided in the standards. The WSS system will display and function correctly in Microsoft Internet Explorer 5.X, Netscape 4.8 and Firefox 1.0.X minimum. However, for a given HTML code input there may be inherent differences between these browsers in terms of visual display of information. The Contractor will not be held accountable for such differences.

Functional Solution

Based on the WSS requirements, the Contractor has identified 6 key modules. They are:

- Retiree Financial Transactions Module
- Maintain Demographics and Insurance Data Module
- Service Credit Module
- Refunds Module
- Retirement Application Module
- Transaction Status Check Module



Users		Active	Inactive	Deferred	Applicant/ Pending	Owner	Survivor	Payee 2	ORS 1	ORS 2	ORS 3
Processes	Ret. Sys. Access								Read – only	Sys Admin.	Security Profile
Establish user-ID and password	All	✓	✓	✓	✓	✓	✓	✓			✓
EFT – establish new	All				✓	✓	✓	✓	✓		✓
EFT – add/delete/edit	All				✓	✓	✓	✓	✓		✓
Reprint 1099	All		✓			✓	✓	✓	✓		✓
Tax – establish new	All				✓	✓	✓	✓	✓		✓
Tax – add/delete/edit	All				✓	✓	✓	✓	✓		✓
View earnings limit cap	MPSERS	✓		✓	✓	✓			✓		✓
Print Income Verification	All					✓	✓	✓	✓		✓
View Pension Statement	All					✓	✓	✓	✓		✓
Address – establish new	All		✓	✓					✓		✓
Address – add/edit	All	✓	✓	✓	✓	✓	✓	✓	✓		✓
Health ins. – enroll	All but JRS				✓	✓	✓	✓	✓		✓
Health ins. – change plans	All but JRS				✓	✓	✓	✓	✓		✓
Health ins. – add/delete dependents	All but JRS				✓	✓	✓	✓	✓		✓
Vision/Dental ins. -- enroll	All but JRS				✓	✓	✓	✓	✓		✓
Vision/Dental ins. – add/delete dependents	All but JRS				✓	✓	✓	✓	✓		✓
Life ins. – enroll	SERS/JRS/ SPRS				✓	✓	✓	✓	✓		✓
Life ins. – change	SERS/JRS/				✓	✓	✓	✓	✓		✓



Users		Active	Inactive	Deferred	Applicant/ Pending	Owner	Survivor	Payee 2	ORS 1	ORS 2	ORS 3
Processes	Ret. Sys. Access								Read – only	Sys Admin.	Security Profile
benef.	SPRS										
Establish Refund Benef.	All	✓			✓				✓		✓
Add/Edit Refund Benef.	All	✓	✓	✓	✓	✓			✓		✓
Establish Pension Benef.	MPSERS/ SERS/JRS	✓			✓				✓		✓
Edit Pension Benef	MPSERS/ SERS/JRS	✓		✓	✓				✓		✓
Apply for Service Credit	MPSERS/ SERS/SPRS	✓			✓				✓		✓
Repay a Refund	MPSERS/ SERS	✓							✓		✓
Request Refund	MPSERS/ SERS	✓	✓	✓							
Apply to Retire	All MPSERS/ SERS/SPRS	✓		✓					✓		✓
Estimate Pension using Customer-entered data	MPSERS/ SERS/SPRS	All users include Guest Users.									
Model Service Credit & UBI purchases; find break-even point	MPSERS/ SERS/SPRS	All users include Guest Users.									
Estimate Pension using System-supplied data; save estimate	MPSERS/ SERS/SPRS	✓		✓					✓		✓
Register for meetings;	MPSERS/ SERS/SPRS	✓	✓	✓	✓				✓		✓
Register for appointments	MPSERS/ SERS	✓	✓	✓	✓				✓		✓
View account activity (service & wages)	MPSERS/ SERS/SPRS	✓	✓	✓	✓	✓			✓		✓

Users		Active	Inactive	Deferred	Applicant/ Pending	Owner	Survivor	Payee 2	ORS 1	ORS 2	ORS 3
Processes	Ret. Sys. Access								Read – only	Sys Admin.	Security Profile
View TDP balances	MPSERS/ SERS	✓			✓				✓		✓
Order personalized forms	All	✓	✓	✓	✓	✓	✓	✓	✓		✓
Lock/unlock accounts										✓	
Reset web user passwords										✓	
Assign access privileges										✓	
Establish/change user groups										✓	
View/download transaction and activity logs										✓	

The Common Use Case Scenarios section provides textual descriptions of some of the common uses of the proposed system or application. This section is intended to capture the primary uses of the system, and may include narratives further describing the business processes identified in the previous section.

User Classification	Primary Uses of the Application
Active Members	These members are currently employed with either the state or with a school system. They'll primarily be looking to verify the wages and service hours that their employer has reported to ORS. This is the only user group besides Applicant that can buy service credit. They will want to model future pension income, save their estimates and revisit them in the future.
Inactive Members	These members may have worked for the state or with a school system for a short period of time and have some dollars on account with us. They will be looking to add or update their addresses, see what is on record with ORS for them and possibly request a refund of personal contributions paid into the system. There are probably over 1 million inactive members; however finding them all to let them know to access the system will not be a priority for several years.
Deferred Members	These members worked for the state or with a school system long enough to become vested for retirement. They will primarily be looking to update demographics and beneficiaries, and to model future pension income, save their estimates and revisit them in the future.
Applicant/Pending	These users will either be Active Members or Deferred Members. They will use this system to submit their retirement application, enroll in insurances, sign up for EFT, state their preferred tax withholding, and model pension income. They will want to come back to the site to check the status of their application while it's in process. Applications are usually in process less than 3 months, but can be in process for 6 months or more.
Owner	These users are retirees, are receiving a monthly pension benefit and almost all are enrolled in state-sponsored insurance plans. They will want to view their pay stub and will also want to print copies of it as proof of income. They will want to update their address (e.g., southern address in the winter, Michigan address in other seasons), and update their insurance dependents (as a result of marriage, divorce or death). They will also use the site to report the death of a pension beneficiary or other dependent. These users may wish to view their pre-retirement account activity.
Survivor	These users are receiving a monthly pension benefit because they were named as the survivor on a pension and the pension owner is deceased. Almost all are enrolled in state-sponsored insurance plans. They will want to view their pay stub and will also want to print copies of it as proof of income. They will want to update their address (e.g., southern address in the winter, Michigan address in other seasons), and update their insurance dependents (as a result of marriage, divorce or death). They will also use the site to report the death of a dependent. These users will have no access to pre-retirement account activity.
Payee 2	These users are receiving a monthly pension benefit because they were named in a divorce decree as entitled to a portion of a pension. Many are enrolled in state-sponsored insurance plans. They will want



User Classification	Primary Uses of the Application
	to view their pay stub and will also want to print copies of it as proof of income. They will want to update their address (e.g., southern address in the winter, Michigan address in other seasons). These users will have no access to pre-retirement account activity.
Guest	These users are not authenticated. The only activities they can perform are iterative income modeling with the ability to print but not save. In 2005, over 40,000 estimates were generated by customers using the current ORS website. These users will also report deaths, however at no time can any confirming information be provided to these users.
ORS Staff	ORS has an estimated 150 employees, 80 of which are in direct contact with customer accounts and customer activity. These staff members need read-only access to every transaction a customer can perform; they need to be able to see what the customer has done and provide support for them.
ORS Limited Access	Some users will need hands-on support for their web account. To achieve this, a limited number of staff members will need read/write access to make account changes. This will be controlled using security roles.
ORS System Admin	Lock and unlock accounts; assign access privileges.
System Auditor	Read access to all accounts and access to all logs.

Technical Solution

The Contractor’s technical solution addresses the State’s requirements as a custom developed J2EE enterprise web application which uses a WS-I Basic Profile 1.0 compliant Web Services Interface (wrapper) to interface with the WDRA jClarety application.

WSS Web Services / jClarety Integration

This section defines Web Service, Web Service standards and provides various approaches towards building the WSS Web Services to integrate with jClarety application.

Web Service

A Web service is a software application identified by a URI, whose interfaces and binding are capable of being defined, described, and discovered by XML artifacts, and supports direct interactions with other software applications using XML-based messages via Internet-based protocols.

Web Services are based on Service Oriented Architecture where

- Service Provider provides an interface for software that can carry out a specified set of tasks.
- Service Requestor discovers and invokes a software service to provide a business solution.
- Service Agent/Registry manages and publishes the service.

Service providers publish their services with the Service Registry, and Service Requestors access those services by creating bindings to the Service Provider.

Web Services Interoperability (WS-I)

WS-I is an organization designed to promote Web Service interoperability across platforms, operating systems, and programming languages.

WS-I Basic Profile 1.0 is an outline of requirements to which WSDL and Web service protocol (SOAP/HTTP) traffic must comply in order to claim WS-I conformance. It provides guidelines of interoperability for XML, XML Schema, SOAP, WSDL, and UDDI. Contractor’s solution **will be compliant** to WS-I Basic profile 1.0 requirements.

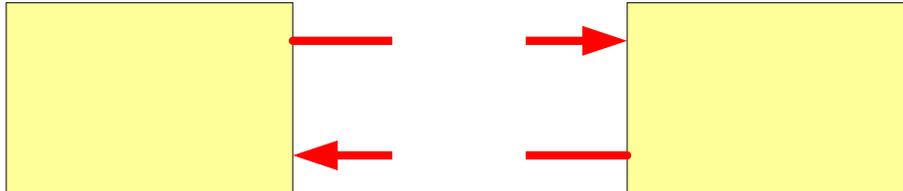


WS-I Usage Scenario

The WS-I has defined three usage scenarios to complement the Basic Profile 1.0:

- One-way usage scenario
- Synchronous request/response usage scenario
- Basic callback usage scenario

The Contractor’s solution will follow “Synchronous request/response usage scenario” as shown below:

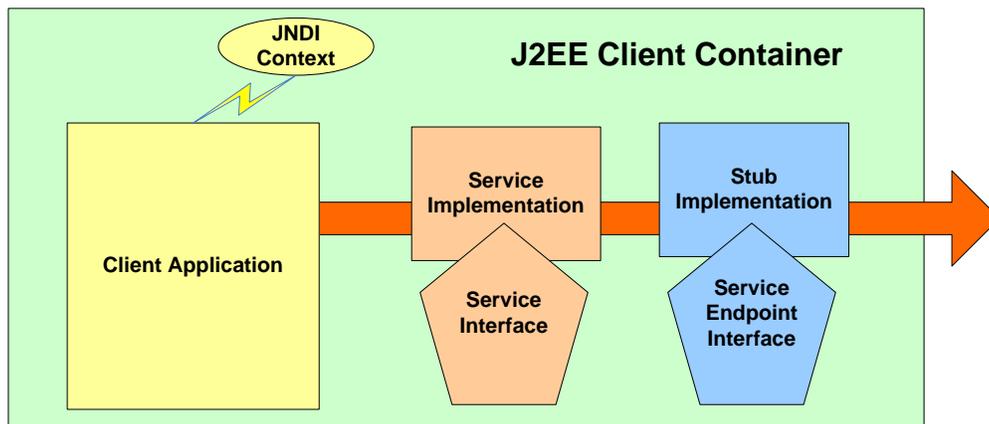


Implementing Enterprise Web Services (JSR 109)

JSR 109 is an architecture that standardizes the deployment of Web Services in J2EE platform to create portable and interoperable services across different server platforms. The Contractor solution will leverage both **Server Programming Model** and **Client Programming Model** to implement Web Service Interface and WSS Web Application respectively.

Client Programming Model

The Client Programming Model provides the client guidelines for access to Web services in a J2EE environment. The following diagram illustrates this model. In this model, client uses a JNDI lookup to find the service interface. The J2EE container is responsible for the boundary between JNDI name and the service implementation. With the service interface the client can get static stub which is the local representation of the remote Web service and is used by the client to invoke the Web Service.



Technical Approach

Approach for Service Provider (Web Services)

WSS (the user-facing application) will interact directly with WSI (Web Services Interface), rather than back-end systems like jClarety. The existing jClarety team will be responsible for building the WSI layer. The interaction between WSI and WSS is based on the following (as provided by jClarety architect Piotr Palacz on March 14, 2007):

- The message format is SOAP with prescribed structure for header, body and fault sections of the message.
- The semantics of the message is essentially RPC-like in that the message identifies symbolic operation for WSI to perform and provides required arguments for it as XML payload - consequently, the web

Consum



service provides a single point of entry which does not need to be modified in case of extensions to the functional scope supported by WSI.

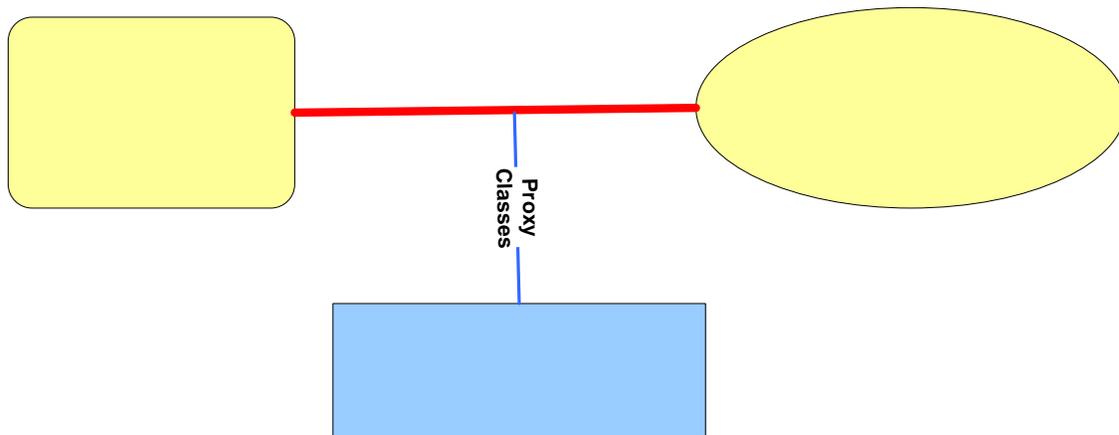
- The interactions with the web service are synchronous and provide a response message.
- All exceptions, either encountered in the service itself or in the target system, are communicated back to the service consumer using the standard Fault section of the returned SOAP message.
- The web service will be defined by a WSDL and acceptable payloads will be described by XSDs.
- The extent of validations performed by WSI is limited to XSD-based validations of message payloads, and generally to making sure that the request sent to the target system is well-formed and has a reasonable chance of being executed.
- The only responsibility of WSS as much as interaction with WSI is concerned is to operate a web service client and to make sure that the client produces and consumes prescribed message payloads.

Approach for Service Requestor (Consumer)

The Contractor’s approach for consumer is **Static Stub**. WebSphere Studio Application Developer 5.1 will be used to generate services and stubs (using the information contained in the generated WSDL document) as it is defined by JSR 101 and JSR 109, the mapping parameters, and JSPs to test the client visually. The following four types of proxy classes will be generated for each Web Service:

1. Service endpoint interface (SEI) – Defines the method signature of the Web Service
2. Service interface – Defines the service methods of the locator class
3. Service locator class – Implements the service interface (i.e. provides access to the SEI)
4. Binding stub – Implements the SEI (i.e. makes the actual calls to the Web service).

The following diagram represents proxy-based (static stub) client to communicate with the Web Services.

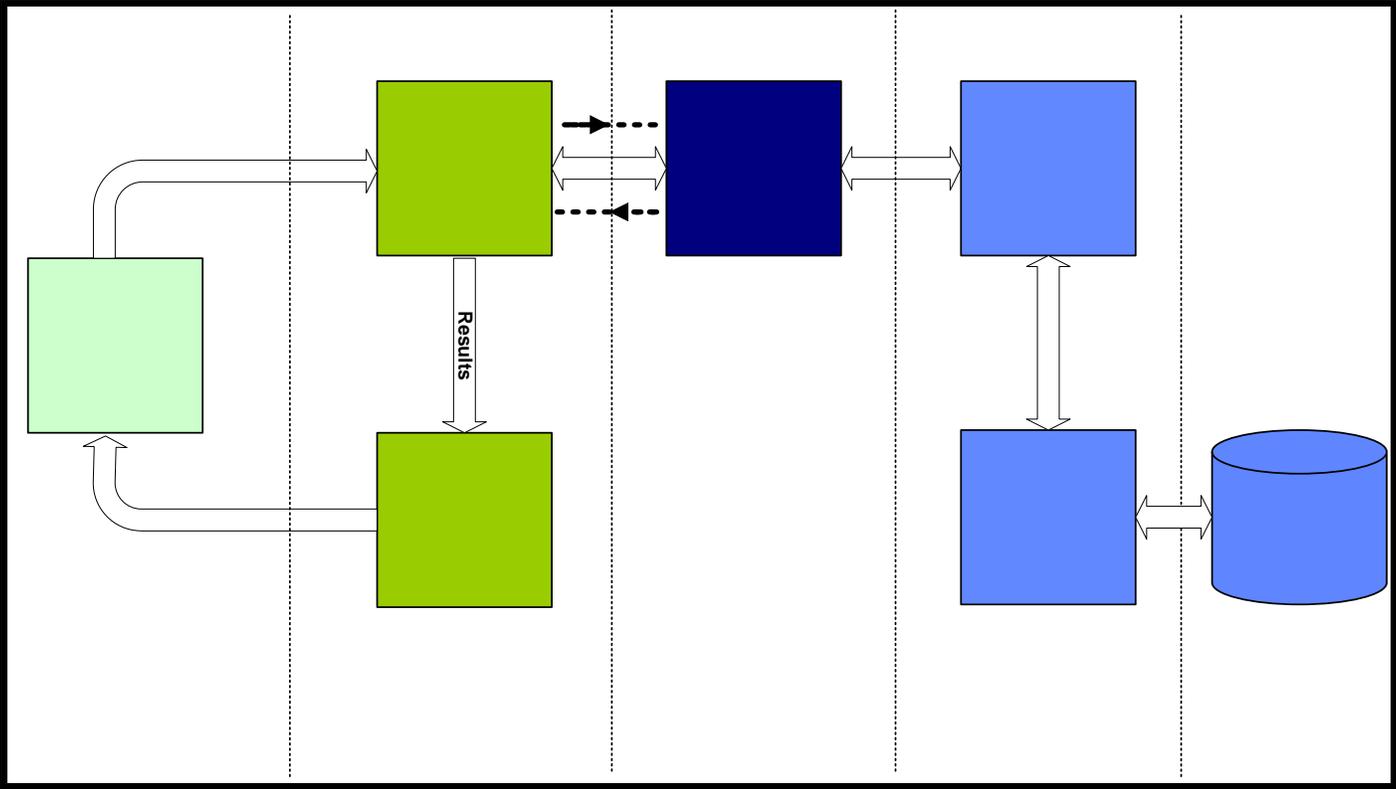


WSS Web Application

This section provides the Contractor’s solution towards implementing WSS web application using logical and application architecture views.

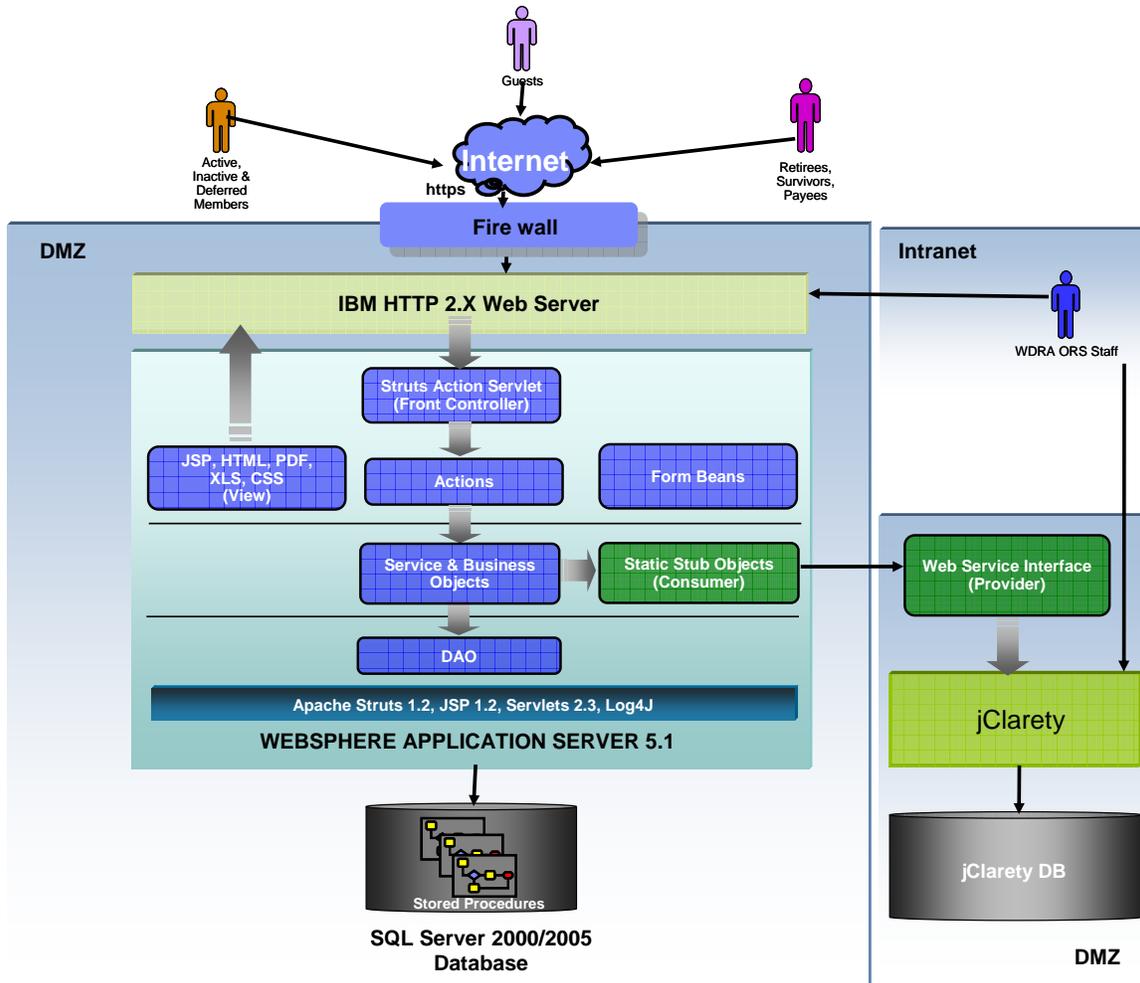
Logical Architecture

Below is a diagrammatic representation of the WSS web application logical architecture overview provided by the Contractor. This diagram depicts the information flow and how jClarety application is conceptually integrated with WSS web application.



Application Architecture

Below is a diagrammatic representation of the WSS web application architecture overview by the Contractor. This architecture fully leverages J2EE industry standards and Core J2EE design patterns. The architecture will use IBM HTTP 2.x Web Server, IBM WebSphere Application Server 5.1 or later and SQL Server 2000/2005 database.



Model-View-Controller Framework

The Contractor will deploy the system architecture advantages of Apache Struts, the industry standard Web Application Framework based on MVC (Model-View-Controller). The components in this framework will be responsible for handling requests, validating the data fields, dispatching the requests to model components and delegating the control to business components.

Services & Business Objects

The Contractor will deploy services & business objects to work in conjunction with Struts framework components to provide business logic execution interacting with the backend components to retrieve data and integrate with other systems. This will allow the business logic to evolve without disrupting the rest of the web application

Data Transfer Object (DTO)

The Contractor will deploy a Data Transfer Object design pattern to help the web client to transfer bulk data between tiers. These are plain Java classes, which contain and encapsulate bulk data in one network transportable bundle.

Data Access Objects

The Contractor will use Data Access Objects to separate business logic from data access logic so that the type of the data source (for example SQL Server or Oracle or UDB) can be changed easily and independently. Factory design pattern will be used to create instances of the DAOs.

The Synchronizer Token



The Contractor will use this pattern to avoid Duplicate form submission, Client (browser) navigation (back/forward/refresh), Client access to Actions out of sequence by returning to previous bookmarks.

JSPs

The Contractor will implement all the presentation objects using the industry standard JSP technology. JSPs will have minimal Java code to implement the view. View Helper and Composite View Patterns will be used to display the JSPs.

Database & Stored Procedures

There will be a dedicated SQL Server database for WSS Web application. This database will be used to store any new business transactions that do not exist in Clarety system. Per Business consideration document temporary data sets must be used to house certain transactions before commitment to Clarety. The Contractor will design temporary worksheet tables in WSS specific database to house these transactions.

Stored procedures will be used to encapsulate business logic and are executed inside the Database process. They will enhance the performance of the system as they can be maintained and tuned separately from the other client application components.

Global Exception Handler

This architecture will have a global exception handler component to capture and log all the unhandled exceptions. After logging, the request will be redirected to a user-friendly error page. JSP pages will be coded with error handling tag to forward errors the same user-friendly error page.

Logging

The Contractor will use Apache Log4J for application logging to troubleshoot issues that arise. The component will be used as required to avoid unnecessary logging which could slow down the application performance.

Package View

The Contractor will leverage J2EE Core design patterns guidelines and will follow a three-tier architecture model which will contain the following packages.

Presentation Tier

- Controller – Performs common processing on all requests.
- Views – Provides the generation of the GUI to be presented to the user.
- Actions – Coordinates execution of user requests with the business services.
- Forms – Self-validating data objects that are passed between the actions and the views.

Business Services Tier

- Services – Services contain the core application logic specific to the business functionality of the application.
- Business Objects – Contains objects representing the business data entities.
- DTOs (Data Transfer Objects) – Data only objects that are suitable for passing between the tiers of the application.

Integration Tier

- DAOs (Data Access Objects) – Provides an interface to the persistent data.

Solution for Special Technical Requirements

PDF and Barcode Generation

iText open source component will be used wherever the application needs to generate PDF output, Reports, for example.



Business consideration document section 9.2 point number 3 states that “*All output documents generated by the system will be populated with relevant user information. All forms that are to be returned to ORS will be barcoded.*” In order to implement this requirement, the Contractor ‘s solution will leverage jClarety WSI interface to be provided by the State towards displaying PDF outputs with barcode included in them.

Message Board

Business consideration document section 9.3 point number 2D states that “*System must include a Message Board where users can see messages they have sent and see the response ORS provided. Message Board must be presented in reverse chronological order*”.

The Contractor will perform a detailed gathering/analysis of this requirement and will provide a solution by leveraging an open source (such as jForum, mvnForum, etc.,) or by developing a simple custom solution.

Email Confirmation Messages

Per the Business consideration document, email confirmation provided in WSS application will have the following features:

- In Text and HTML Format
- Save emails for certain transaction types
- Version control for saving templates
- Confidential and HIPAA compliant

The Contractor’s solution will use JavaMail to send email communication to WSS users. **Apache Velocity** templates will be used to define, maintain and generate dynamic email contents.

Performance

The web application transactions will be real-time, 24 x 7. The WSS application will share the same database, and clustered web servers with internal jClarety systems and with other self-service applications. There are batch jobs that will run concurrently with the WSS application. The State will establish an infrastructure to support all concurrent activity.

The Contractor will design and develop the application without any significant degrade in performance of jClarety under the assumption that the server and network infrastructure of jClarety will be sufficiently deployed or upgraded to handle the higher volumes of user traffic (public users) accessing the application through WSS. The State will provide to the Contractor necessary test lab facilities with appropriate hardware and software to perform system load and performance tests that adequately mirror real load/performance parameters anticipated in the production environment.

Web Site Use Statistics Solution

The Contractor analyzed various commercial and open source web statistics products that are available in the market. The Contractor has listed them below in the order of recommendation. Depending on State’s preference, any one of the following product could be used to meet the State’s requirements.

Advanced Web Statistics (AWStats)

AWStats is a **free** powerful and featureful tool that generates advanced web, streaming, ftp or mail server statistics, graphically. Advanced Web Statistics (AWStats) is a free powerful Web server logfile analyzer (Perl script) that shows you all your Web statistics including visits, unique visitors, pages, hits, rush hours, search engines, keywords used to find your site, robots, broken links, and more. It works with both IIS 5.0+ and Apache Web server log files as a CGI and/or from the command line.

<http://awstats.sourceforge.net/>

FastStats Log Analyzer

FastStats is a high-performance web analytics **commercial** solution. FastStats is optimized to deal with the massive log files generated by busy modern web sites. The FastStats analysis module contains only optimized C code and hooks directly into low-level Windows APIs.

<http://www.mach5.com/products/analyzer/>





WebTrends Analytics

WebTrends Analytics® 8 is the latest version of WebTrends 7, the award-winning solution for accurate, timely web analytics to help you measure and improve your online marketing ROI.

<http://www.webtrends.com/Products/WebTrendsAnalytics8.aspx>

Environment

The Contractor’s solution will be compliant to the environment requirements identified in the Section 1.103.

The environment will be:

- Windows-based
- WebSphere compatible
- SQL Server Database
- Clustered Environment

The web application transactions will be real-time, 24 x 7. The application will share the same database and clustered web servers with internal jClarety systems and with State’s employer self-service website. During the day, call center activity will run concurrently with self-service; at night and weekends, batch jobs will run concurrently with web self-service transactions. ORS will establish an infrastructure to support all concurrent activity.

The Contractor’s solution is fully compliant with State’s information and technology architecture standards for hardware, database applications, network hardware, monitoring tools, authentication and development tools.

Software Recommendation/Requirements

Components	Software Version
WSS Web Application	
Enterprise Application Platform	Java 2 Enterprise Edition (J2EE 1.3)
Web Server	IBM HTTP 2.x Web Server
Application Server	IBM WebSphere 5.1
Database	SQL Server 2000/2005
MVC Framework	Apache Struts 1.2.x
Logging Framework	Log4j
Network Protocol	TCP/IP, HTTP, HTTPS
Transport	HTTP
Web UI/Protocol	HTML/HTTP(S)
Email Notifications	SMTP, Java Mail
Security – Authentication	State COM Object based Authentication
Transaction Management	User Transaction API
IDE (Integrated Development Environment)	WebSphere Studio Application Developer 5.1.1
WSS Web Services	
Web Services Transport	SOAP 1.1/HTTP 1.1
Interoperability	WS-I Basic Profile 1.0
Remote Procedure Calls	JAX-RPC Version 1.0
Web Services for J2EE	JSR 109 (J2EE 1.3)
Web Services Definition	WSDL 1.1, Style: Document/Literal
Web Services Runtime Environment	IBM WebSphere 5.1 Web Service Runtime (Compliance to WS-I Basic Profile 1.0)



Hardware Recommendation/Requirements

The Contractor has made the following preliminary recommendations based on the provided by the State. The Contractor, together with WDRA Application Support Team staff, will perform hardware infrastructure validation and capacity planning during the technical design phase of the project to validate the recommendation.

Production Environment

Components	Hardware Configuration
1 Web Server	jClarety web server(s) will be used
1 Application Server	Dell Poweredge 6850 Rack Mounted Four dual-core 64-bit Intel® Xeon® 7100 sequence processors, 800MHz FSB, 4 GB DDR-2 memory (RAM), SAS or SCSI hard drives and PCI Express Windows Server® 2003 R2
1 Database Server	Dell Poweredge 6850 Rack Mounted Four dual-core 64-bit Intel® Xeon® 7100 sequence processors, 800MHz FSB, 8 GB DDR-2 memory (RAM), SAS or SCSI hard drives and PCI Express Windows Server® 2003 R2

UAT/Testing Environment

Components	Hardware Configuration
1 Web Server	jClarety UAT web server(s) will be used
1 Application Server	Dell Poweredge 1950 Rack Mounted Dual Core Intel® Xeon® 5120, 4MB Cache, 1.86GHz, 1066MHz FSB, 4 GB 533MHz (4x512MB), Single Ranked DIMMs Windows Server® 2003 R2
1 Database Server	Dell Poweredge 1950 Rack Mounted Dual Core Intel® Xeon® 5120, 4MB Cache, 1.86GHz, 1066MHz FSB, 8 GB 533MHz (4x512MB), Single Ranked DIMMs Windows Server® 2003 R2

Development Environment

Components	Hardware Configuration
1 Web Server	jClarety UAT web server(s) will be used



1 Application Server	Dell Poweredge 1950 Rack Mounted Dual Core Intel® Xeon® 5120, 4MB Cache, 1.86GHz, 1066MHz FSB, 4 GB 533MHz (4x512MB), Single Ranked DIMMs Windows Server® 2003 R2
1 Database Server	Dell Poweredge 1950 Rack Mounted Dual Core Intel® Xeon® 5120, 4MB Cache, 1.86GHz, 1066MHz FSB, 4 GB 533MHz (4x512MB), Single Ranked DIMMs Windows Server® 2003 R2

Testing Approach

The Contractor will fully complete/support all the required tests prior to the deployment of the application code in the production environment. Included below is Contractor’s Testing approach.

A Preliminary test plan for each stage of the project will be created during the requirements phase of the project. The test plan will describe the methodology for System test, Non-functional test (includes load test), User Acceptance testing, regression and end-user Focus Group test. The test plan will contain testing approach, security risks in each type of test, resources from the Contractor and State, schedule, validation of test results and corrective action to fix issues and bugs. The test plans will be finalized for each stage prior to the start of system testing.

Perform Unit Testing

The Contractor will perform unit tests on the developed/modified programs. Unit testing will be performed at the Contractor’s application development center at Troy, Michigan. The purpose of these tests is only to test the correctness of the program logic at a screen/functional level. In addition, these tests will also test the navigation to the next application component in a business process sequence. The unit tested code will be installed on the State’s Testing servers where the Contractor will complete the System, Integration, Non-Functional (to measure system response times) tests.

Perform System Integration Testing

The Contractor will perform System Integration tests, validate the results and will make corrective actions for issues resulting from the integration tests. System Integration testing is intended to test the integration of the application within its components and external interfaces. System Integration testing will be carried out at the test environment provided by State at its facilities.

The Contractor will develop System Integration test cases for various business scenarios, security testing and transactions. The Contractor will commence this activity during the business design stage of the project and will conclude this before development. The Contractor will work with appropriate subject matter experts to validate the test cases.

The Contractor will develop test cases for various business scenarios, security testing and transactions. These test plans and test cases will cover the entire business functional scope to the extent they are exposed through the WSS layer.

The Contractor will perform System/Integration testing during which the Contractor will execute all the test cases including business functionality testing.

Perform Security Testing

Security testing will be completed as part of the System Integration Tests. Separate test case items will be created in the System Integration test cases for this requirement. The Contractor will develop and execute



set of test cases to test the application from the standpoint of validating authentication and authorization modules only. This security testing will be performed for non-authenticated users, authenticated users and administrative users to determine vulnerabilities inherent in each user class.

Regression Testing

After completion of system integration tests, the Contractor will lead regression testing for all web self service functionality developed by the Contractor and support regression tests conducted by the jClarety application support team by addressing defects pertaining to code developed by the Contractor. The Contractor will identify places of vulnerability or risk within the WSS application; identify causes of defects and possible changes to web services code to resolve defects that occur during regression testing. The State shall provide all the software / tools (Quick Test Pro and TestDirect / Quality Center from Mercury) necessary for executing the regression testing. Regression testing will be carried out at the test environment provided by State at its facilities.

During regression tests, the Contractor will only address defects to the extent they pertain to the code developed or modified by the Contractor under this project.

Execute Non-Functional (Technical/Load) Testing

The Contractor will performance test (Non-Functional Testing) the application for peak loads after regression testing is complete within a time-boxed duration provided in a separate table in "High level Project Schedule" section. The State shall provide all the software / tools (QA / load from Compuware) necessary for executing the load / performance testing. Performance testing will be carried out at the test environment provided by the State at its facilities.

User Acceptance Testing

Test Data

The State will prepare and load the entire test data needed to conduct user acceptance testing to the test databases before commencement of user acceptance testing.

Support User Acceptance Tests

User Acceptance Tests will be performed by Business users and the State will be responsible for performing UAT. UAT will be performed after Regression and Performance testing. The State users will use the Integration Test Cases created during the design and development stages. The State users can add more test cases to cover additional test scenarios if they deem necessary. The State will assign necessary amount of testing resources to perform the user acceptance testing within the time-boxed duration. It is anticipated that there will be at least two test cycles within the allotted time-period. The User Acceptance Test is performed to validate the functionality of the entire system from a business usage perspective. Agency Project Manager will assist the Contractor Project Manger in scheduling this activity within a time-boxed duration provided in a separate table in "High level Project Schedule" section. The Contractor will assist State Business Customers in performing the User Acceptance Test by providing clarifications on application functionality.

Test Environment

User Acceptance Test will be performed in the test environment provided by the State at its location. This test environment shall contain all server tiers needed for operations including web access, web application, application server and database server. The Contractor will deploy all application components to the test environment.

Co-ordinate Focus Group Acceptance Testing

Focus Group testing will provide a means for validation of the usability of the self service screens from a 'real' end user perspective. Actual members of public who are potential users of the system will be selected for a Focus Group. They will be provided access to relevant screen designs as well as the end system. Through their usage, the ease of use and the usability of the system will be established. The Contractor will incorporate as part of the design and testing phases feedback from this process to the extent it does not



alter the State technical standards and agreed upon requirements. The State will coordinate the testing activities and provide a consolidated feedback after sorting through different views and feedbacks expressed by the Focus Group team members. The State will be responsible to identify and arrange for Focus Group testing. The State will assign necessary amount of testing resources to perform the Focus group acceptance testing within a time-boxed duration provided in a separate table in "High level Project Schedule" section. Focus Group users will use Integration test cases or can add additional test scenarios. The Contractor will assist Focus Group users in performing the Acceptance Test by providing clarifications on application functionality

Focus Group Acceptance Testing will be performed parallel to user acceptance testing.

Resolve Defects

The Contractor will fix application defects reported by the business users during user acceptance testing. The Contractor will submit these fixes to the users for re-testing and validation. The Contractor will track all UAT defects in a defects log and provide updates to Agency Project Manager. Metrics pertaining to progress of testing activities and defects will be tracked periodically towards managing the Testing phase effectively.

Defect Tracking

The Contractor will track defects using either a spreadsheet based defect tracking tool containing the following information

- Defect Description
- Defect Type: Such as Cosmetic, Technical, Functional, Environment, User Error
- Severity: Such as Critical, Serious, Major, Moderate and Minor
- Priority: Such as Show Stopper, High, Normal, Low and Defer
- Test Case Reference
- Date and Time of Occurrence
- Assignee
- Status: Such as New, Re-Opened, Assigned, WIP, Hold and Closed-Fixed, Closed-Simulation, Closed-Invalid
- Resolution Description
- Notes

The Contractor will perform the following activities to resolve a defect:

- Person encountering the defect will log the defect in the defect tracking log
- The Contractor's Senior System Analysts will acknowledge valid defects and determine the Severity and Priority of the defect.
- The Contractor's Senior System Analysts will work with the Contractor's Senior Project Manager to schedule a fix for the identified defect and will assign it to a Contractor developer.
- The assigned resource will fix defects in the order of priorities.
- The assigned resources will notify the Contractor's Senior System Analysts how and when the defect was fixed
- The Contractor's Senior System Analyst will test the fix in the development environment and will approve it for further testing (such as System Integration and UAT) and deployment.
- Defect log will be maintained on a daily basis throughout this process cycle listed above

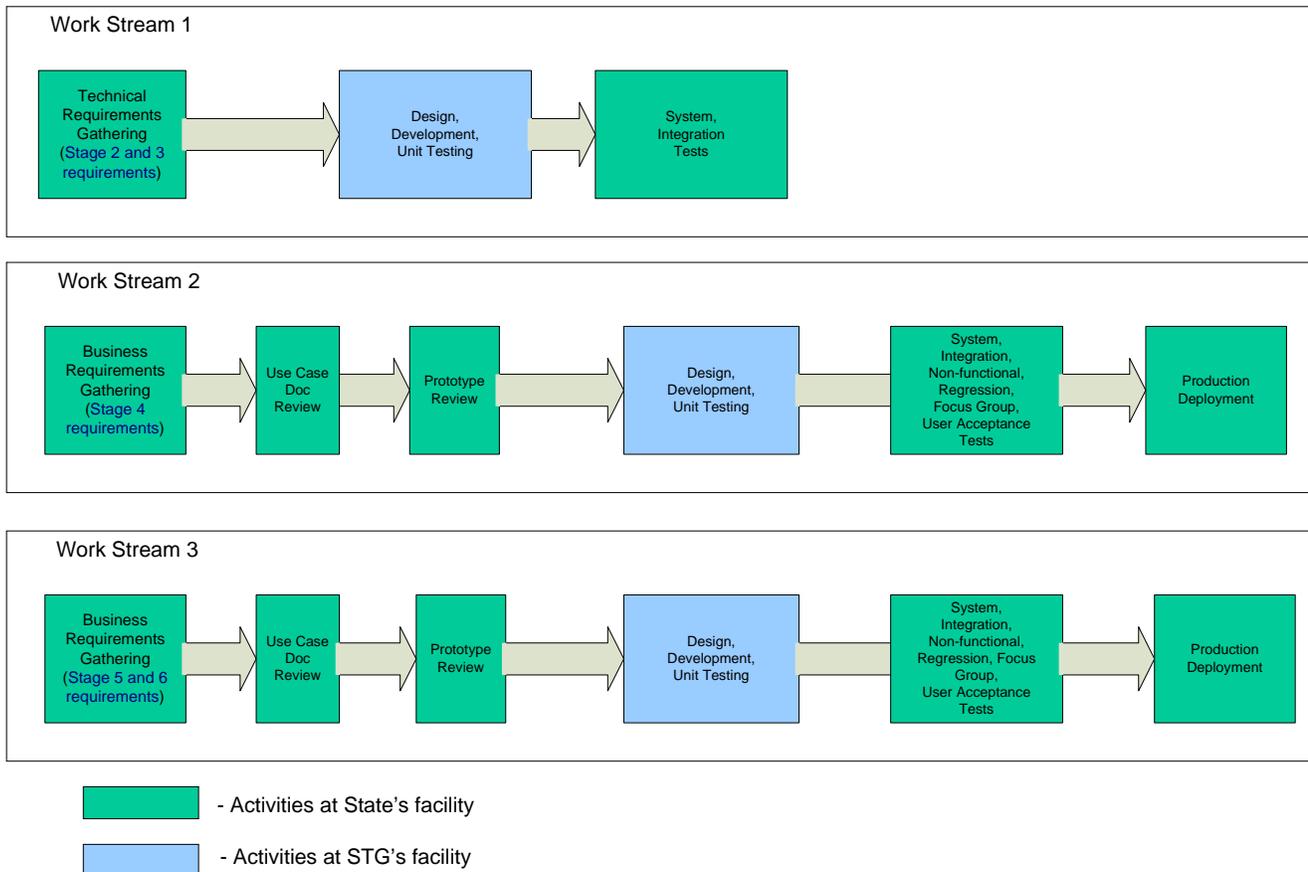
B. Services

Project Approach

The Contractor has thoroughly analyzed the scope of the application and will use the following optimal approach to gather requirements, analyze, design, develop, test and deploy the complete solution by Jan 30, 2008. Any delays in the project start date will cause delay in the completed solution. The Contractor firmly believes that application development should iterate over multiple stages without creating

unnecessary overheads. With this in mind, The Contractor will use 3 parallel work streams that complete the Software Development Life Cycle activities using a common Project Manager and Project Technical Architect. Below is a schematic of Contractor's project approach, detailing activities performed at the Contractor's and the State's facilities.

- Work Stream 1 will handle Stages 2 & 3 requirements in the contract. Upon careful analysis of available information Contractor has determined that it would be most optimal to combine Stages 2 & 3 design and development into one delivery bundle (work stream)
- Work Stream 2 will handle Stage 4 requirements from the contract
- Work Stream 3 will handle Stages 5 & 6 requirements from the contract – Since most of the functional and system requirements between Active and Other member business requirements are expected to be the same, Contractor has determined that it would be most optimal to combine Stages 5 & 6 design and development into one delivery bundle (work stream). The Contractor's approach is designed to optimize the work schedule and reduce the overhead associated with the testing, obtaining approvals for milestones etc.



The team working on Work stream 1 will design, develop and test the User Authentication, System Access (this is a Stage 2 requirement) and the Global Functionality (this is a Stage 3 requirement). This team will install the application on the State's Test environment and perform System and Integration tests. However this functionality will not be deployed in the Production environment independently, because it would be necessary to also complete the front-end business function components to leverage the components developed in User Authentication and System Access. The team working on Work stream 2 will design, develop and test the Retiree Business Transactions (this is a Stage 4 requirement). The code components from this stream and Work stream 1 (Stages 2 and 3) will be deployed together in the Production environment upon completion of Stage 4.



The team working on Work stream 3 will design, develop and test the Active Member Business Transactions (this is a Stage 5 requirement) and the Other Member Business Transactions (this is a Stage 6 requirement). Upon completion of User Acceptance Testing, application code from this stream will be deployed in the production environment. Since most of the business transactions are common between Active and Non-Active members, a single deployment for both of these functionalities will optimize the work schedule and reduce the overhead associated with the testing, obtaining approvals for milestones etc.

Under Work Stream 1:

The Project Technical Architect and the developers working in Work stream 1 will complete technical requirements analysis with MDIT technical experts towards the following:

- User Authentication
- System access
- Validation of hardware infrastructure
- Capacity planning for this application.

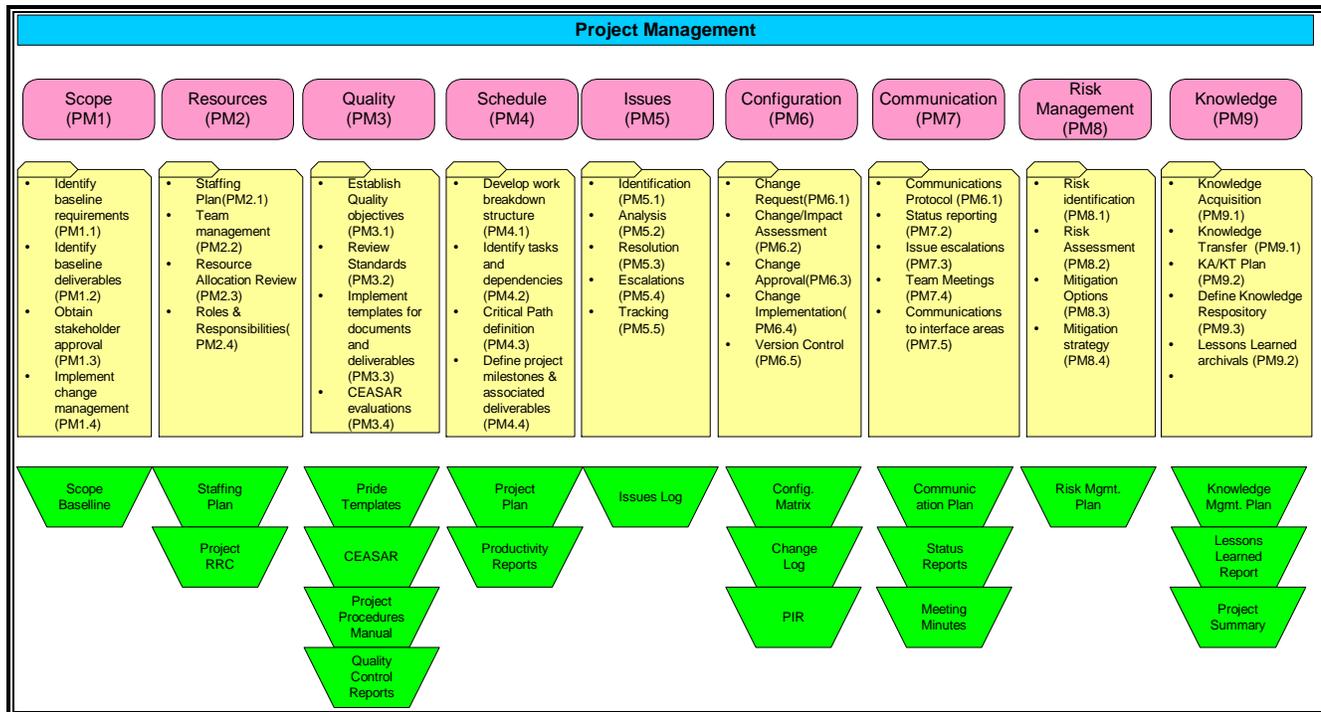
In addition, the Contractor will provide technical expertise to the MDIT resources as necessary to procure relevant Web, Application, Physical servers, Web analytics software.

Under Work Streams 2 and 3:

Each team of analysts and developers from Work stream 2 and 3 will develop use case documents relevant to their scope from the business Subject Matter Experts (SMEs) during the JAD sessions at the State's facilities. The teams will also develop User Interface (UI) prototypes for all the business transactions and will use them to provide a common understanding of all the fields and edits during the JAD sessions. The UI prototypes will become part of the use case documents that will be reviewed and approved by the State.

Project Management Approach

The Contractor will follow the PRIDE Project Management Framework (PMF) to accomplish the project management activities on this assignment. This framework provides the capability to consistently and efficiently manage Contractor's projects. The processes within the framework act as guide points to proactively manage issues in a project thereby improving efficiencies and effectiveness while minimizing project delays and inefficiencies. The framework encompasses several tools and templates to be used in the day-to-day operations of a project. It enables proactive communication within and outside project teams. The Project Management framework will be used with the PRIDE Online tool to manage, track the progress of the project.



PRIDE Online – The Contractor’s Project Management Tool

To facilitate consistent adherence to the well-defined processes and standards for delivering projects, the Contractor has a delivery portal called PRIDE Online. PRIDE Online hosts several applications that project teams use to cohesively interact within the team and manage their operations effectively. PRIDE Online consists of virtual rooms as below:

Process Room – Hosts all the methodology frameworks and underlying details and documents. Project teams can refer to these documents as well as download templates when necessary.

Project Room – A virtual project room setup for each project, providing access not only to the Contractor’s team members but also to authorize client personnel. Within the project room, there are several functional components such as Status Reports, Change Requests, Meeting notes etc. These functional components centralize and automate the recording, tracking and management of various project tasks. The Contractor’s delivery management accesses the project rooms to view current status of projects and interface with the project management team to address issues if any in a proactive manner.

In addition to facilitating various project tasks, PRIDE Online project room also provides a mechanism to preview project application deliverables in the case of web applications. These preview capabilities provide clients and project teams to get early feedback on the deliverables and also provide means for assessing the status of the project.

Knowledge Room – This room stores information on completed engagements as well as other knowledge assets such as white papers, news publications etc. Contractor’s employees would use this room for referring to project archives and other technical documents.

Corporate Room – This room allows Contractor’s employees to interface with the corporate office for all support functions, including Human Resources and Finance related activities.

Admin Room – This room allows the site administrator to perform administrative functions.

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Knowledge Transfer Approach

A critical component of this project is the ability of staff, upon project closure, to add web pages, deploy new functionality, maintain hardware and to secure the system. The Contractor is responsible for including the ORS business and support staff in development as appropriate to ensure a seamless transition.

The Contractor will provide knowledge transfer for Function, Technology and Process to the business and operation support staff during all phases of the project. The State will assign necessary personnel towards receiving the knowledge transfer from the Contractor. Knowledge transfer will be performed by the Contractor to the State team through meetings, one-on-one sessions and document handover. The knowledge transfer will be limited to the technical aspects of the application developed/modified by the Contractor within the relevant project stage/work stream.

Function KT will include explaining the details of functional components developed/implemented under this project. This KT is typically provided to the Application support team members.

Process KT will include explaining the details of processes and procedures to be followed towards performing various maintenance activities. This KT is typically provided to Application Support team members, typically to the Support Team Lead.

Example:

- Procedure for receiving trouble ticket from user groups/business unit
- Communicating system readiness to application migration team
- Initiating a request for data base change

Technology KT will include procedures for maintaining and supporting the application, once the application transits from the Contractor's team to the Operation Support Staff. By Operations Support Staff we mean those that are responsible for hosting and running the application in the production environment. These members typically have administrative privileges for monitoring the performance of the application in production with the ability to view configuration files, logs etc. to ensure smooth operation of system. Technology KT to Operations staff includes knowledge pertaining to

- running the application in the production environment
- configuration of customizable features
- scheduling/executing batch jobs
- viewing/diagnosing application errors using error logs

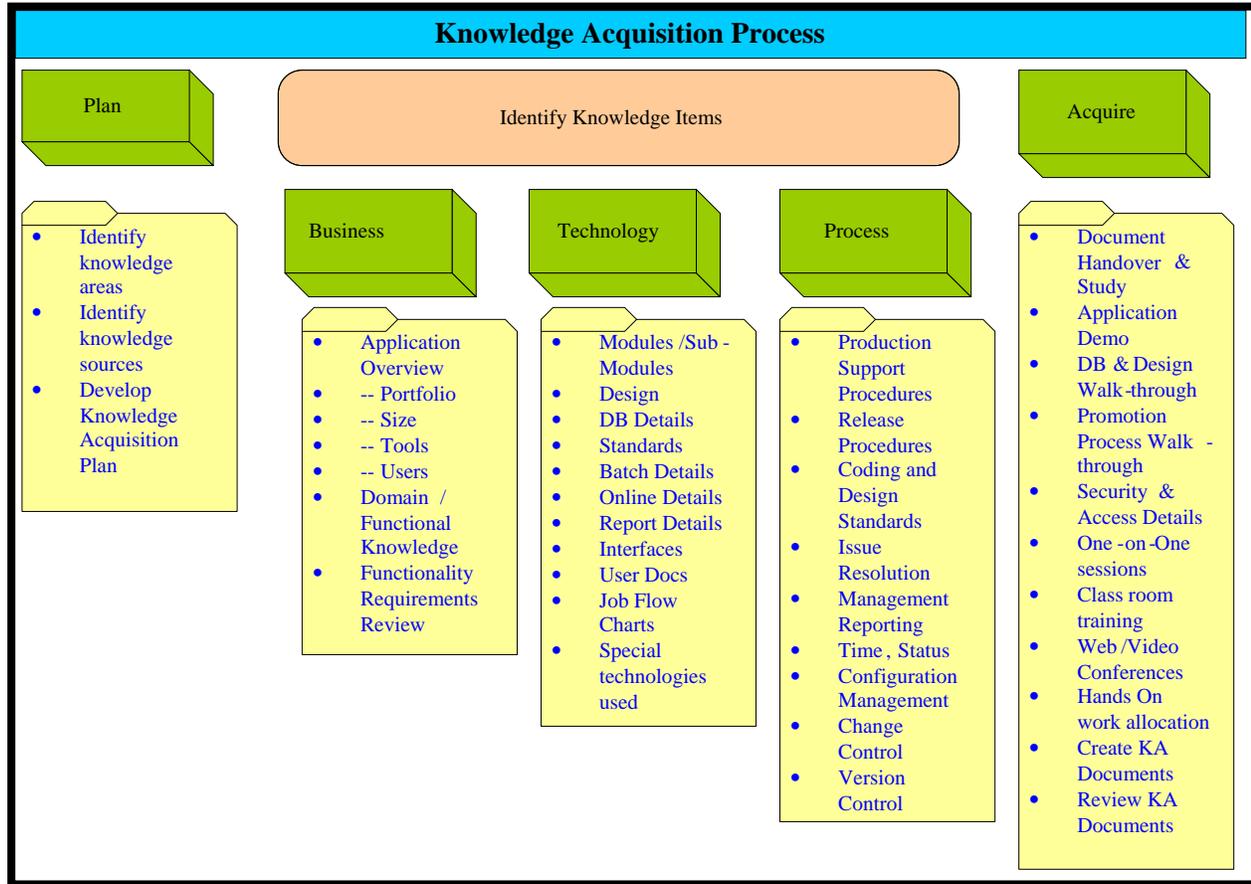
In addition, Technology KT also includes details pertaining to performing defect resolution and enhancements to the application. This KT is provided to Application Support Team (team of analysts and developers). This aspect of Technology KT includes:

- Program Architecture
- Technical Design
- Program/Component decomposition of new system
- Data Model
- Batch process sequence and schedules
- Test Plans and Test Cases
- Defects History
- Defect density by functional area
- System Customization and Configuration details

The Contractor will provide progress reports on knowledge transfer activities on a monthly basis. The Contractor will create a summary report describing the knowledge transfer performed by the Contractor on each technical area, accomplishments, corrective or remedial action taken, and risks in State's assumption of full application support. The Contractor will provide a monthly knowledge transfer report detailing the knowledge elements being imparted to the State application support team. Knowledge management is handled in three areas:

- Knowledge Acquisition
- Knowledge Repository
- Knowledge Transfer

The following diagram illustrates knowledge acquisition / transfer methodology.



Knowledge Transfer Process

This KT process starts with a planning activity. The Contractor will work with the State team to identify knowledge areas and sources during the engagement startup week and will detail the KT plan to define the tasks and associated work assignments.

Business Knowledge

Business knowledge includes business process overview, Application Overview and Application Domain / Functional Knowledge. Information such as application portfolio, size, tools, end users, total users and concurrent users will be identified and documented under Application Overview. Application Domain / Business specific knowledge will be gained by studying and understanding available documents and through application demos.

Technology

Technology area knowledge includes details such as modules/sub-modules, design, database, standards, batch, online and reports. Technology information will be obtained by conducting database and design walk-throughs and by performing screen and database mapping activity.

Process

Process area knowledge includes production support procedures, release procedures, issue resolution management, time/status reporting, configuration management, change control and



version control. Process information will be obtained by conducting process walk-throughs and by gathering security and access details.

Transfer

The Contractor will provide the available information and materials relevant to the project to State. The Contractor will provide knowledge on functional, technical and process areas through work sessions, and other technical sessions.

Knowledge Management Templates

The Contractor will provide the following Knowledge Management templates and these templates will be customized to suit State’s needs.

Template Name	Brief Description
Knowledge Transfer Plan	An Excel spreadsheet structure detailing all the Knowledge Elements that will be transferred under each group and the plan for transferring the same to the recipients. Includes Provider Information, recipient (Primary and Secondary), mode of transfer, schedule/target date for completing transfer
Knowledge Transfer WBS	Microsoft Project WBS structure detailing the tasks under the different stages of knowledge transfer process
Knowledge Transfer Document	The word document used to capture the application/project knowledge information
K*Pro® Assessment Checklists	These checklists are used the K*Pro evaluators (typically State SME’s transferring knowledge to vendor KT recipients) for each Knowledge Element. The K*Pro assessments sheets provide an optimal numerical evaluation of the knowledge level of the recipients and are standardized for the Knowledge Groups Technology, History, Relationships and Process. The K*Pro Assessment Checklists are developed ground up by the SME’s for the Knowledge elements under the Business Knowledge Group since those are application business domain specific. The State will conduct knowledge assessments on the State’s staff. Contractor will not make any assessments on State staff.

The knowledge transfer activities will be performed according to the schedule identified below so as not to adversely impact the progress of the requirements, development and testing activities.

Work Stream	Phase	Schedule
1	Requirements	After Technical Requirements gathering is complete. This activity will be performed in parallel with the Analysis and design for Work Stream 1 components
1	Technical Design	After Technical Architecture Document is approved. This activity will be performed in parallel with the application development for Work Stream 1 components
1	Application Development	After the System Integration Test is complete
2	Requirements	After Focus Group Review for Stage 4 is complete. This activity will be performed in parallel with the Analysis and design for Work Stream 2 components
2	Technical Design	After Technical Architecture Document with updates for this stage is approved



		This activity will be performed in parallel with the application development for Work Stream 2 components
2	Application Development	During User Acceptance Test
2	User Acceptance Tests	During Deployment Phase of Stages 2,3,4
3	Requirements	After Focus Group Review for Stage 5 is complete This activity will be performed in parallel with the Analysis and design for Work Stream 3 components
3	Technical Design	After Technical Architecture Document with updates for this stage is approved This activity will be performed in parallel with the application development for Work Stream 3 components
3	Application Development	During User Acceptance Test
3	User Acceptance Tests	During Deployment Phase of Stages 5,6

Activities and Deliverables

The following sections detail the activities and deliverables that the Contractor will complete under this initiative.

The Contractor will leverage State’s Project Management Methodology (PMM) and PRIDE J2EE frameworks for the purpose of executing this project. Project teams are equipped with forms, templates and tools supported by the frameworks.

Engagement Startup Phase Activities and Deliverables

The Contractor will assign a full-time Senior Project Manager for the purpose of this project. The Contractor’s Senior Project Manager will follow the State’s Project Management Methodology (PMM) framework including:

- Work / Task management
- Requirements management
- Risk management
- Issue management
- Change management
- Quality Assurance and
- Configuration management

Kickoff Meeting

The Contractor’s team and State team members will participate in a project kickoff meeting to be convened by the Agency Project Manager. This will be held at the State site and will involve the Contractor’s project team members from and State employees currently assigned to the project. This is to introduce existing team members to each other and to review the project goals and objectives.

Develop Risk management Plan

See Section 1.402.

Establish CEASAR Expectation Criteria

During the engagement startup, the contractor’s Project Manager will meet with the Agency Project Manager to set up the CEASAR criteria. CEASAR (Customer Expectations and Satisfaction Assessment



Report) is a soft process, above and beyond a Statement of Work, used to capture Contractor's customer's expectations from Contractor's team members in a project and provides a mechanism to assess and track the performance against the expectations.

Define Communication Plan

Agency Project Manager will be responsible for coordinating all State resources for the purpose of the execution of this project. Agency Project Manager will be the single point of contact for receiving deliverables, coordinating resources and addressing business and technical issues.

The Contractor's Project Manager will meet with Agency Project Manager and other designated State personnel on a weekly basis to review the status of the project and address project issues. The Contractor will submit weekly status reports to Agency Project Manager. The Contractor's project manager will communicate all issues requiring escalation above to the Contractor's Delivery Executive. State will provide to the Contractor's team members necessary access to State facilities for the purpose of attending meeting and working on other project matters. The Contractor's Project Manager and Agency Project Manager will mutually develop a communication plan that describes the process for communication during the project.

See also Section 1.203.

Develop Issue Management Plan

See Section 1.401

Setup Infrastructure

See Section 1.201.

Knowledge Acquisition

During the Engagement Startup stage, State will provide all the information and materials relevant to the project. State will provide the Contractor directions in terms of any additional details and timetable for tasks.

Final Project Plan

The Contractor's Project Manager will develop a project plan containing the following

- The Contractor's Staffing and project organization structure
- The project breakdown showing sub-projects, activities and tasks, and resources required and allocated to each.
- The time-phased plan in the form of a graphic display, showing each event, task, and decision point in the work plan, as identified in the table that follows.
- Contractor agrees that the Project Plan shall become incorporated as part of the Contract and Scope of Services.
- The Plan will serve as the State's measurement tool, outlining all of the tasks, testing periods and delivery dates.
- Deliverables list by stage
- Brief description of testing plan
- Target dates for deliverables and any critical paths
- Identification of roles and responsibilities, including the organization responsible.
- All resources required to be provided by State to meet the target dates established in the preliminary implementation plan.
- Internal milestones
- Task durations
- Activities and resources

A copy of project schedule prepared in MS project will be attached with the plan. The Contractor will submit the project plan for State's approval before beginning any project activity.

Define Change Management Process

See Section 1.403.



Develop Requirements Development Plan

The Contractor will develop requirement development plan identifying the total number of JAD sessions, requirement items that will be addressed at each JAD session, state’s SME’s requirement for each session, meeting minutes for each session and transformation of meeting minutes into use case documents. The Contractor will obtain inputs from Agency Project Manager and SME’S to develop this document.

Deliverables*:

Deliverable	Description	Format
Project Plan	Describes the project plan with an attachment of project schedule prepared in MS project.	PRIDE Template
Communication Plan	Describes the process for communication during the project.	PRIDE Template
Risk Management Document	This document will identify the risks affecting completion of milestones and deliverables. This document will also identify the probability of the risk occurrence, its impact and available mitigation options.	PRIDE Template
CEASAR Expectation Criteria	Customer Expectations and Satisfaction Assessment Report. The criteria will identify critical success factors, establish customer expectations and degree of importance, setup review dates, and communicate expectations to team members.	PRIDE Template
Issue document	Identifies project issues, issue description, action items and issue resolution details.	PRIDE Template
Change Management Plan	Defines the process for initiating, reviewing, approving and tracking change requests	PRIDE Template
Requirements Development Plan	Defines the process for JAD session and use case development	MS Word

* The Contractor will validate the deliverable templates for all phase of the project with Agency Project Manager for approval during the engagement startup phase of the project.

Business Design Phase Activities and Deliverables

Develop Requirements

The following provides Contractor’s approach towards accelerating requirement-gathering process:

Techniques:

The Contractor will leverage the following techniques to accelerate the requirement gathering process:

- JAD Sessions – Joint Application Development (JAD) is a technique/process that allows the development, management and customer groups to work together to build a product. JAD refers to the joint process of collecting requirements and resolving issues as early as possible through a series of meetings.
- User Interface Prototype – UI Prototyping is an iterative analysis technique in which users are actively involved in the mocking-up of the UI for a system.

Kick-off JAD Sessions:

The Contractor will conduct one (or more depending upon the number of Subject Matter Experts groups) JAD Sessions kick-of meeting(s) with the Agency Project Manager, SMEs and other related parties. The objectives of these meetings are to:

- Confirm scope of the application
- Explain the purpose of JAD sessions/workshops
- Plan and confirm the use case workshops



- Set objective for each workshop
- Develop/Confirm a detailed agenda for each workshop
- Choose and invite participants - **The success of each workshop is dependent on the workshop participants. The Agency Project Manager should decide who the most appropriate people are to attend each workshop.**
- Set the expectations with respect to reviewing requirement deliverables and providing sign-offs.

Conduct JAD Sessions and Develop Use Case:

The Contractor will conduct use case workshops with the subject matter experts. Prior to conducting JAD sessions the Contractor's PM will send a meeting notice with agenda to the session participants.

Use Cases are basically a method of capturing and validating functional requirements from the perspective of different classes of users of an application. Each use case defines a sequence of actions performed by the user while using the application. The use cases are documented in the form of Use Case diagrams and flow of events. The use case diagrams depict the interaction between the users (actors), processes (use cases) and systems (external interfaces). The use case method will be a very expeditious way of reviewing and confirming the requirements. It will also allow the project team to identify new requirements that may have been overlooked in the first round.

The Contractor's Project Manager and Analysts have adequate experience and training on conducting facilitated sessions with multiple participants. They follow good meeting management practices towards achieving meeting objectives. The Contractor's team will also use the following techniques in the workshops:

- **Parking Lot** - The parking lot is a place to 'park' issues that cannot be resolved in the workshop in a timely manner. It is a great help in moving the workshop along. Once an item is placed on the Parking Lot, there should be no other discussion on the issue. At the end of the workshop the Contractor will review the Parking Lot to decide what, if any, action needs to be taken to resolve each issue.
- **Ground Rules** – The Contractor will set ground rules (such as one conversation, one topic at a time, etc.) with the participants at the start of the workshop. During the workshop, if anyone steps out of line, the Contractor's facilitator will remind the offender of the Ground Rules.

The Contractor will work with State staff to determine and define optimal response times for online transactions as part of use case development. After each Use Case session, the Contractor's analysts will document the use cases and submit to appropriate parties for review and approval. The turn around time for the use cases will depend on the size and complexity of the business processes analyzed.

Define Fields and Edits:

The Contractor will identify required screens, fields and edits as part of the use case discussions. The defined screens, fields and edits will be used in developing the UI Prototype.

Identify User Interface Requirements:

The Contractor will gather the user interface related requirements. This includes requirements with respect to screen controls such as drop down box, buttons, links etc. The Contractor will meet with user groups to define the look and feel requirements for the application. The UI requirements will be in conformity with the UI standards. In cases where an exception is required, the Contractor will submit the same to Agency Project Manager for necessary approvals.

Develop User Interface Prototype:

Based on the information defined from the above steps, the Contractor will develop the screen mockups (UI Prototype). The mockups will help the business users, Focus group users, and other stakeholder get an understanding as to how the system will look when developed. The screen mockups will be submitted to the Agency Project Manager and any feedback obtained from the users will be incorporated. The screen



mockups will be based on the approved UI standards. UI prototype will be provided as static HTML pages merely to provide means to confirm the screen content; it will not be a navigable demo nor will it contain any business logic.

Review Use Case documents

The Contractor will submit the use case documents for State’s review.

Approve Use Case documents

The Contractor will incorporate the feedback provided by the business users and Focus group users on the Use Case documents. The Contractor will conduct review sessions on the updated Use Case documents to get sign-off. Turn around time limits for use case reviews are stipulated under section 1.501.

Develop Testing Plan (Strategy):

The Contractor will develop a preliminary test plan for each stage of the project. The test plan will describe the methodology for System test, Technical test (includes load test), User Acceptance testing, regression and end-user Focus Group test (customer testing). The test plan will contain testing approach, test scenarios, tools and environment to be used, security risks in each type of test, resources needed from the Contractor and State, schedule, approach for validation of test results and corrective action to fix issues and bugs.

Develop Logical Data Model:

The Contractor will identify any new tables that may be necessary and will create logical data model. The Logical Data Model will contain:

- Entity relationship diagram (ERD)
- Data dictionary (Entities, Attributes, Unique Identifiers, Primary Unique Identifiers, Relationships)

Develop Non-functional requirements:

The Contractor will document the non-functional requirements including system response time, UI look and feel and usability. The Contractor will use the following state identified UI look & feel standards.

http://michigan.gov/documents/Look_and_Feel_Standards_2006_v3_166408_7.pdf

The Contractor will use the following usability standards as per “Usability Guidelines for eGovernment Applications”

http://www.michigan.gov/documents/Usability_guidelines_2003v1_72381_7.pdf

Provide Knowledge Transfer

See Knowledge Transfer approach in Section 1.104.

Deliverables:

Deliverable	Description	Format
Use Case document	Describes the actors, user action, system response, basic flow and alternate flows	MS Word
Application screen mockup (UI Prototype)	Screen mockup (prototype) of the application to be developed	HTML files
Testing plan	Identifies the testing methodology including system, regression, load and user acceptance testing	MS Word
Logical data model	Logical data model of any new tables describing entities and relationships	MS Visio
Non-functional requirements document	Identifies all the non-functional requirements for the application	MS Word

Technical Design Phase Activities and Deliverables

Develop Technical Architecture



The Contractor will develop a detailed architecture, using the initial Technical Architecture as the basis. The Contractor will communicate design issues, trade-offs, and alternatives to the Project Manager and Project Team. The Contractor will also list any open standards, proprietary components, framework and APIs, that will be used for building/enhancing the system.

The Contractor will perform detailed Application Design and document the design in architecture document. The Contractor will ensure that the Application Design is reviewed in sufficient detail and all aspects of the design have been covered through reviews.

The document will:

- Provide a definition of the major processing subsystems, topology/distribution of the application tiers (presentation, security, business logic, and data storage) across platforms (client, web server, business logic server, security server, data server etc.)
- Identify major external system interfaces and indications of how they will be implemented (live link, file transfer, message queuing)
- Define the key applications, their interfaces, their inter-dependencies, deployment strategy and other strategies required to bring about strategic and tactical opportunities
- Document the overall application design based on Object Oriented Analysis and Design principles

Update Logical Data Model

The Contractor will update the Logical Data Model created in the business design phase of the project

Develop Physical Data Model

The Contractor will develop the Physical Data Model and will adhere to State Naming Standards for all Physical Data Model elements. The Physical Data Model will contain:

- Physical Data Model Table Data Diagram.
- Table Data Dictionary for all tables.

Establish Secure Development environment

The Contractor will develop secure Development environment at the Contractor's offsite location before starting on the development activity.

Update Application screen mockup and testing plan

The Contractor will update the application screen mockup and testing plan created in the business design phase of the project.

Provide Knowledge Transfer

See Knowledge Transfer Section 1.104

Validate Technical Infrastructure

The Contractor will validate and update the technical infrastructure recommendations created at the time of this contract with State's IT team. This includes reviewing and validating the hardware requirements for the development, test and production environments as well as the selection of relevant 3rd party/open source tools for Web Statistics interface. State will be responsible for procuring and installing hardware and 3rd party software tools stipulated in the technical architecture plan.

Validate Capacity Planning

The Contractor will validate and update the Capacity planning recommendations created at the time of this contract with State's IT team.

Develop Disaster Recovery Plan

The Contractor will create a disaster recover plan containing priority service for repair and work around in the event of a natural or manmade disaster.

Deliverables:

Deliverable	Description	Format
Application screen mockup (Updated)	Screen mockup (prototype) of the application to be developed	HTML files
Testing plan (Updated)	Identifies the methodology for testing	MS Word
Logical data model (Updated)	Logical data model of new tables	MS Visio
Physical data model	Physical data model of new tables	MS Visio
System Interface and Technical Architecture design document	Contains application architecture, system interfaces and technical design	MS Word
Non-functional requirements document	Identifies all the non-functional requirements for the application	MS Word
Disaster Recovery Plan	Details disaster recovery procedures	MS Word

Develop, Test & Deploy Phase Activities and Deliverables

Develop application code

The Contractor will develop the application code components as per design, screen mockup and use case requirements. This activity will be performed at the Contractor’s offsite location at Troy, Michigan.

Develop Training Plan

The Contractor will develop a training plan which will include the subject areas and the number of hours needed. This will enable the State to schedule a training site and communicate the same to the State staff.

Provide Training

The Contractor will provide training to 20 identified State staff on the application end-user functionality. This will enable the State staff to train the remainder of the staff on the end-user functions.

Provide Knowledge Transfer

See Knowledge Transfer Section 1.104

Update Testing Plan

The Contractor will update the testing plan created in the business design phase of the project.

Perform Unit Tests

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Develop System Integration Test Cases

The Contractor will develop System Integration test cases for various business scenarios, security testing and transactions. The Contractor will commence this activity during the business design stage of the project and will conclude this before development. The Contractor will work with appropriate subject matter experts to validate the test cases.

Perform System Integration Testing

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Perform Regression Testing

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Execute Performance Testing

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Focus Group Testing

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

User Acceptance Testing

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Resolve Defects

See Testing Approach defined in Section 1.401 (Work and Deliverables) - Item A (Requirements)

Develop required documentation for support

The Contractor will develop the following documentation for application support. The Contractor will update the appropriate manuals whenever improvements or enhancements are made to the system. The Contractor will provide all the documents to State prior to implementation date.

- User manual
- Training manual
- Installation manual
- Operations procedures including configuration, installation and migration

Develop Data Migration plan

The Contractor will develop a data migration plan if necessary for migrating historic data. This might be necessary for the SQL database for registering retirement information meetings and appointments. The Contractor will determine whether this data migration is necessary during the technical design stage of the project.

Install Web Statistics software

The Contractor will provide assistance towards installation of 3rd party Web analytics software in the production environment as part of deployment to gather web site statistics.

Deploy application code

The Contractor will provide assistance towards deployment of all the application code components in the production environment as part of deployment. The Contractor will follow the state's configuration management system for staging application components in preparation for deployment.

Deliverables

Deliverable	Description	Format
Application screen mockup (Updated)	Screen mockup (prototype) of the application to be developed	HTML files
Testing plan (Updated)	Identifies the methodology for testing	MS Word
Logical data model (Updated)	Logical data model of new tables	MS Visio
Physical data model	Physical data model of new tables	MS Visio
System Interface and Technical Architecture design document	Contains application architecture, system interfaces and technical design	MS Word
Non-functional requirements document	Identifies all the non-functional requirements for the application	MS Word

Warranty

- a. The Contractor will provide a warranty provision for the products and services resulting from this statement of work beginning when each stage of delivery is installed in the production environment.
- b. Contractor will provide warranty of 90 calendar days from the date the relevant application components are deployed in production environment. Contractor will resolve those warranty defects that are communicated to the Contractor no later than day 75 of the 90 calendar-day warranty period.



- c. Certain business functions of the system will not occur in production at a frequency that will allow a complete assessment during the applicable warranty period. Contractor will provide 180 calendar days of warranty for a maximum of 15 non-routine business functions after the date the application has been deployed in production. All non-routine business functions will be documented during the requirements analysis phase of the project. The Contractor will resolve those warranty defects that are communicated to the Contractor no later than day 165 of the 180 calendar-day warranty period.
- d. During the warranty period, Contractor must correct any defective element of the application that fails to perform in accordance with the requirements as defined in the approved requirement specifications and associated technical design.
- e. For the purpose of warranty, a defect is defined as instance of application behavior that represents a lack of compliance with the approved requirement specifications and associated technical design developed by Contractor (significant or material defects). The Contractor will fix such defects identified during the warranty periods at no additional cost to the State.
- f. The State agrees to notify the Contractor of such defects within three (3) days of occurrence of such defect in the production environment. The State will appropriately triage the defect and ascertain that it requires Contractor repair.
- g. Corrective action by the Contractor may include, but is not limited to repairing or replacing the nonconforming element.
- h. The Contractor will provide an escalation process for warranty support.
- i. The Contractor must warrant the functioning of the system against defects that are detected after UAT and implementation that could not be detected in the Quality Assurance environment due to the limited amount of access and load. This warranty is limited to the extent such defects do not meet the business functionality that is represented in the State approved requirement specifications and associated technical design. This warranty is limited to those defects that are directly attributed to software code developed by Contractor. This warranty does not cover for any issues pertaining to system throughput and performance to the extent such issues are not attributed to the code developed by the contractor.
- j. The warranty shall provide that the application is free from imperfections in design and free from any and all defects and is able to perform continuously and satisfactorily under normal operating conditions.
- k. The Contractor is not responsible for any defects arising from components not developed by the Contractor such as JClarety components and/or other components / interfaces that have been developed or modified by others.
- l. In the event deployment of application components is delayed due to reasons attributed to the State, then warranty for the relevant application components will begin from the date the application was accepted under the user acceptance test process.
- m. Contractor is not responsible for providing any warranty on components should any component or work product be modified by anyone other than Contractor personnel assigned during this statement of work.

Engagement Wrap-up Activities and Deliverables

The Contractor will perform the project closure activities:

- Receive CEASAR Evaluation. Please refer to the CEASAR section in the document for detailed information on the CEASAR process
- Document Lessons Learned – The Contractor will conduct a meeting with State team members to discuss lessons learned from the project. These are used to make improvements in future projects.

Milestone Schedule

The estimated completion dates (business days from the project start date) is listed below for the significant Project Milestones:

Milestone/Deliverable Schedule	Deliverables	Estimated Completion Date (Business days from Start date of Project)
Engagement Startup	<ul style="list-style-type: none"> • Project Plan • Communication Plan • Risk Management Document • CEASAR criteria • Issues Log (on-going) • Status Report (on-going) • Dependencies List (on-going) • Change Management plan • Requirements Development plan 	5
Use case Development Completed for Stages 2, 3, & 4 Requirements	<ul style="list-style-type: none"> • Use Case documents for Stages 2,3,4 Requirements • Application Prototype screens for Stages 2,3,4 Requirements • Logical Data Model for Stages 2,3,4 Requirements • Test Strategy Document for Stages 2, 3, & 4 Requirements 	30
Use case Development Completed for Stages 5 & 6	<ul style="list-style-type: none"> • Use Case documents for Stages 5 & 6 Requirements • Application Prototype screens for Stages 5 & 6 Requirements • Logical Data Model for Stages 5 & 6 Requirements • Test Strategy Document for Stages 5 & 6 Requirements 	65
Stages 2 & 3 System Integration Test Completed	<ul style="list-style-type: none"> • System Tested Application Code components for Stages 2 & 3 Requirements • Physical Data Model for Stages 2 & 3 Requirements • System Test Cases for Stages 2 & 3 Requirements • System Test Results for Stages 2 & 3 Requirements 	80
Stages 4, 5 & 6 Analysis and Design Completed	<ul style="list-style-type: none"> • Updated Logical Data Model for Stages 4, 5, & 6 Requirements • System Interface and Technical Architecture Design document for Stages 4, 5, & 6 Requirements • Class Diagrams for Stages 4, 5, & 6 Requirements • Sequence Diagrams for Stages 4, 5, & 6 Requirements • Updated Physical Data Model for Stages 4, 5, & 6 Requirements • Disaster Recovery Plan 	90

Milestone/Deliverable Schedule	Deliverables	Estimated Completion Date (Business days from Start date of Project)
Stage 4 User Acceptance Testing (UAT) Completed	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 2,3 and 4 Requirements • Updated Physical Data Model for Stages 2, 3 & 4 Requirements • System Test Cases for Stages 4 Requirements • System Test Results for Stages 4 Requirements • Performance Test results for Stages 2,3 & 4 Requirements • User Acceptance Test Results for Stage 2,3, & 4 Requirements 	130
Stage 2,3, and 4 - Training and Deployment Completed	<ul style="list-style-type: none"> • Application code with Stage 2,3,4 deployed in Production • User Manual for Stages 2,3, & 4 Requirements • Installation Manual for Stages 2,3,&4 Requirements • Training Plan for Stages 2,3, & 4 Requirements • Training Manual for Stages 2,3, & 4 Requirements • Training for Stage 2,3, & 4 Requirements completed 	140
Stage 5 & 6 - UAT Completed	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 5,&6 Requirements • Updated Physical Data Model for Stages 5,&6 Requirements • System Test Cases for Stages 5,&6 Requirements • System Test Results for Stages 5,&6 Requirements • Performance Test results for Stages 5,&6 Requirements • User Acceptance Test Results for Stage 5,&6 Requirements 	190

Milestone/Deliverable Schedule	Deliverables	Estimated Completion Date (Business days from Start date of Project)
Stage 5 & 6 - Training and Deployment Completed	<ul style="list-style-type: none"> • Application code with Stage 5 & 6 deployed in Production • User Manual for Stages 5 & 6 Requirements • Installation Manual for Stages 5 & 6 Requirements • Training Plan for Stages 5 & 6 Requirements • Training Manual for Stages 5 & 6 Requirements • Training for Stage 5 & 6 Requirements completed 	195
Stage 2, 3 & 4 Warranty (After 90 calendar days)	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements 	200
Stage 5& 6 - Warranty (After 90 calendar days)	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements 	255
Stage 2, 3 & 4 Warranty (After 180 calendar days)	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 2, 3 & 4 Requirements (non-routine business functions only) 	260
Stage 5& 6 - Warranty (After 180 calendar days)	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements (Non-Routine Business Functions Only) 	315

The Contractor assumes that there will be no time gap between any two subsequent activities.

Time boxed activities:

The Contractor has proposed the following time boxed activities for the different stages of the project in the interest of managing to the project schedule and the timeline that the State provided. The Contractor and the State will validate the durations suggested by the Contractor after requirements gathering and will mutually address the impact to the schedule/cost and process the same through the Change Management Process. The State will not be responsible for shortening the below time boxed durations to the extent delays or quality issues are caused solely by the contractor.

Activities listed as time-boxed activities will be performed only to the extent possible within the allocated time duration. Both the Contractor and State personnel will apply diligent efforts towards completing these activities in its entirety within the allotted time-boxed durations. Below time-boxed schedule

The following table illustrates the time boxed activities for the different stages of the project.

Stage	Activity	Time boxed duration (Business days)	Description
Stage 4	Performance testing	10 business days	Performance Testing will be executed in State Test environment on a time-boxed basis for 10 business days
Stage 4	Focus Group Testing (executed in parallel to user acceptance testing)	10 business days	Focus Group Testing will be executed in State Test environment on a time-boxed basis for 10 business days. These tests will be executed in parallel to UAT
Stage 4	User Acceptance testing & regression Testing	15 business days	User Acceptance testing and Regression Testing will be performed by State users within the time boxed duration
Stage 4	Training and Deployment	10 business days	Training and Deployment are performed together within the time boxed duration
Stage 5 & 6	Performance testing	10 business days	Performance testing will be executed in the State test environment within the time boxed duration
Stage 5 & 6	Focus Group Testing (executed in parallel to user acceptance testing)	10 business days	Focus Group Testing will be executed in State Test environment on a time-boxed basis for 10 business days. These tests will be executed in parallel to UAT.
Stage 5 & 6	User Acceptance testing and Regression testing	20 business days	User Acceptance testing and regression Testing will be performed by State users within the time boxed duration
Stage 5 & 6	Training	15 business days	Training activities will overlap with UAT (for 10 business days) and Deployment (for 5 business days) activities.
Stage 5 & 6	Deployment	5 business days	Deployment activities will be performed within the time boxed duration

1.2 Roles and Responsibilities

1.201 CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES

1. Location of Work
 - a. The work is to be performed, completed, and managed at the following locations:
 - i. The Contractor’s place of business, Troy, Michigan
 - ii. State of Michigan, General Office Building, Dimondale
 - b. Most development and unit testing can be performed in the Contractor’s place of business. Due to the need to test compatibility with existing systems, most testing will need to be conducted from the



General Office Building. Deployments will also need to be conducted from the General Office Building.

- c. During Engagement Start-up, the State will provide the following resources for up to four of the Contractor's staff members for the duration of this project:
- Work space
 - GroupWise accounts will be established for all four staff members who will be required to use them for security purposes
 - Minimal clerical support
 - Desk
 - Telephone
 - Printer
 - Access to copiers and fax machine
 - Parking

The State will further provide Groupwise addresses to Contractor personnel assigned to this project for secured communications with the State and Contractor team. VPN access will be assigned to Contractor personnel as requested with appropriate Agency Project Manager & State of Michigan approval.

Subject to State regulations, the Contractor team members will have access to their work facilities at all times during the course of the project during work hours established and approved by the state.

Due to aggressive schedule requirements, it will become necessary to work long hours to complete project deliverables. Therefore, State will provide to the Contractor team members access to State project site facilities 24x7 as needed during the course of the project. The Contractor's PM will provide reasonable advance notice when such long hours of work are anticipated and after-hours access is required.

The Contractor understands that State will not provide PCs or software licenses, however if access is needed to software that is specific to WDRA's business (e.g NIKU for tracking, Groupwise, etc.) such licensing will be provided by the state.

The Contractor's staff must be able to pass a security clearance check conducted by the Contractor. Contractors must present certifications evidencing satisfactory background checks and drug tests for all staff identified for assignment to this project. Contractor is responsible for any costs associated with ensuring their staff meets all requirements.

The Contractor fully understands the strategic importance of this initiative. Considering the same, it is very critical that the resources assigned to the project are of high caliber in technical and professional competence. Contractor will provide a team of consultants for the project that is sufficient to meet the project deliverables and timeline.

Contractor will not intentionally re-assign staff from this project team should such removal cause a delay in project schedule or affect contractors ability to complete deliverables and milestones per project schedule and this statement of work or in such a manner as to cause undue costs to the State.

- For some reason, if the proposed resources are not available at the time the project commences, the Contractor will replace the resources with equivalent or better skills.
- The Contractor retains the right to manage, control, direct, assign all the Contractor's resources servicing this contract so that the Contractor can achieve the objectives and deliverables as stated in this proposal and under this contract. Hence, the Contractor will not be subject to any liquidated damages as stated in section 2.041 with respect to the Contractor personnel.

Contractor will assign a Contract Administrator for this statement of work. The duties of the Contract Administrator include but are not limited to:

- Supporting the management of the Contract
- Facilitating dispute resolution, and
- Advising the State of performance under the terms and conditions of the Contract.

Contractor will use a blend of personnel that includes the following:

Roles & Responsibilities

Contractor will use a blend of personnel that includes the following:

Position	Project Responsibilities
Senior Project Manager	<p><u>Management Responsibilities</u></p> <ul style="list-style-type: none"> • Operational management of project • Reports to Agency Project Manager • Interacts with Agency Project Manager for the purpose of IT coordination (quality, standards, interfaces etc.) • Direct the project resources in their daily project assignments • Coordinate with State personnel for project processes and technology related matters. • Assist in preparing and attending meetings to discuss various issues, as well as perform analysis of these issues and develop proposed solutions • Provide information for Executive Review. • Liaison with State project team staff to gather information and identify issues • Ensure the completeness, accuracy, and integrity of deliverables whether developing or reviewing. • Communicate project issues and concerns to the project leads for resolution and follow-up. • Communicate project status as required in the Communication Plan. • Follow the Configuration Management (CM) Plan for version control. • Inform Agency Project Managers of issues and risks as they arise. • Develop project standards that follow published State standards. • Maintain records of work completed and status of deliverables. • Maintain adherence to the project charter and scope document. Initiates change control documents and insures that disposition is made before changes are made. • Maintain risk management document. • Insure all program and system documentation is complete before approvals and payments are made. • Develop and document recommendations or specific courses of action that may provide a benefit for future phases of this or other projects. • Manage the Contractor's team deliverable quality • Single point of contact for all Contractor issues <p><u>Technical Responsibilities</u></p> <ul style="list-style-type: none"> • Prepare project plan • Review and approve project plan by the Agency Project Manager • Maintain Change Log, issue and risk logs and develop mitigation plans • Manage and track the requirements using a requirements traceability matrix. • Review deliverables for quality assurance purposes • Responsible for reviewing approved business requirements and identifying strategy for technical architecture • Work with technical teams (IT representatives) towards identifying technical architecture components • Develop a technical architecture model based on technical strategy and technical needs of the application • Conduct & participate in technical review sessions with clients and technical teams • Develop Test Strategy for the overall project by working with Agency Project Manager, State SME's, Senior Technical architect and Senior System Analysts of all the work streams.



Position	Project Responsibilities
	<ul style="list-style-type: none"> • Coordinate testing activities - Manage testing activities, track defects, test cases and defect metrics. • Develop Test Strategies and Test Plans • Co-ordinate and participate in development and testing activities. • Conduct code review activities • Conduct training activities. • Conduct Knowledge Transfer sessions
<p>Senior Technical Architect / DBA</p>	<p><u>Management Responsibilities</u></p> <ul style="list-style-type: none"> • Reports to the Project Manager <p><u>Database Administration Responsibilities</u></p> <ul style="list-style-type: none"> • Participate in requirement validation, analysis and design sessions • Work with the project team to identify data requirements • Develop data modeling methodologies • Map data from different sources • Identify data elements • Develop logical and physical data models <p><u>Technical Responsibilities</u></p> <ul style="list-style-type: none"> • Work with technical teams towards developing technical architecture model • Design and develop Web Services Interfaces • Develop logical diagrams to interpret functional requirements • Develop specifications for the physical deployment of the System • Develop views of non-functional requirements including packaging requirements • Develop disaster recovery plan • Identify product components and interfaces • Identify major reuse approaches and sources • Work with interfacing application specialists in relation to application integration strategies • Communicate and get agreement in various architecture options to be followed for the project • Ensure that the technical components definition complies with the technical architecture standards <p><u>Quality Assurance responsibilities</u></p> <ul style="list-style-type: none"> • Develop deliverables standards including document deliverables and program deliverables • Review deliverables for adherence to standards • Perform sample code reviews • Perform System Testing • Perform Regression Testing • Perform Load Testing • Assist User Acceptance Testing • Assist Focus Group Testing • Co-ordinate development and testing activities • Responsible for developing Non-Functional / Load Testing Test cases for the new system • Perform Non-Functional and Security Testing and document test results • Providing technical support for all types of testing during entire testing life cycle of the project. • Collect and analyze Non-Functional Testing Metrics
<p>Senior System Analysts</p>	<p><u>Common Technical Responsibilities</u></p> <ul style="list-style-type: none"> • Conduct Use Case sessions • Develop Use Case models



Position	Project Responsibilities
	<ul style="list-style-type: none"> • Conduct & participate in technical review sessions with clients and technical teams • Develop design deliverables • Develop technical and end user documentation Documents • Develop test strategies and test plans • Conduct training sessions • Conduct knowledge transfer sessions <p><u>Common Management Responsibilities</u></p> <ul style="list-style-type: none"> • Manage developer teams • Provide guidance and clarification to developers • Provide status reports <p><u>Quality Assurance responsibilities</u></p> <ul style="list-style-type: none"> • Develop deliverables standards including document deliverables and program deliverables • Review deliverables for adherence to standards • Perform sample code reviews • Perform System Testing • Perform Regression Testing • Perform Load Testing • Assist User Acceptance Testing • Assist Focus Group Testing • Co-ordinate development and testing activities • Responsible for reviewing Test Plan, Unit Test Cases, System/Integration test cases for all the work streams • Assist Senior Project Manager in development of Test Strategy. • Developing Test Plan and Test Cases for System Integration Testing and Security Testing for their respective work streams. • Support User Acceptance Testing • Review Unit Test Cases • Perform System Integration Testing and Security Testing • Document System Integration testing results • Collect System Integration Testing metrics <p><u>Technical Architect Specific</u></p> <ul style="list-style-type: none"> • Responsible for reviewing approved business requirements and identifying strategy for technical architecture • Work with technical teams (IT representatives) towards identifying technical architecture components • Develop a technical architecture model based on technical strategy and technical needs of the application
<p>Senior Programmer Analyst</p>	<p><u>Technical Responsibilities</u></p> <ul style="list-style-type: none"> • Develop User Interface Prototypes • Develop Class Diagrams • Develop Interaction Diagrams • Develop Test Plans • Develop Web Application Modules (screens, reports, objects, web services, and batch processes) • Develop data migration components • Conduct peer reviews for application deliverables • Perform Unit and System Testing • Assist Senior System Analysts in developing Test Plan and Test Cases for System Integration Testing for their respective work streams.



Position	Project Responsibilities
	<ul style="list-style-type: none"> • Review Unit Test Cases of Peers • Conduct Unit Testing, System Integration testing, Non-Functional Testing and Security Testing • Document Test Results • Collect and analyze testing metrics • Conduct Cross-work stream (Piers) System Integration testing for sample test scenarios.
Programmer Analyst	<p><u>Technical Responsibilities</u></p> <ul style="list-style-type: none"> • Develop User Interface Prototypes • Develop Class Diagrams • Develop Interaction Diagrams • Develop Test Plans • Develop Web Application Modules (screens, reports, objects, web services, and batch processes) • Develop data migration components • Conduct peer reviews for application deliverables • Perform Unit and System Testing
Document / Training Specialist	<p><u>Management Responsibilities</u></p> <ul style="list-style-type: none"> • Reports to the Project Manager • Writes business, technical, non-technical, functional, non-functional, user manual, training manual documents. • Ensures documents created by other Contractor project team member for quality and consistency. • Helps PM and analyst to capture meeting notes, issues as and when necessary. • Participate in requirement validation, analysis and design sessions • Assists Business/System Analysts with writing test cases • Develops training plan • Provides/Assists in training State application support team.

1.202 STATE STAFF, ROLES, AND RESPONSIBILITIES

The State project team consists of a steering committee, MDIT and Agency project managers, and a project team. MDIT will provide a Project Manager. MDIT will be responsible for the State’s infrastructure and will work together with WDRA and the Contractor in determining the system configuration.

The Project Steering Committee will include the following individuals:

- Ms. Laurie Hill, ORS Executive Sponsor
- Mr. Doug Couto, MDIT Executive Sponsor
- Ms. Ann Newell, MDIT Customer Service Director
- Mr. Anthony Estell, Technology Owner
- TBD, MDIT Project Manager
- Ms. Laurie Mitchell, Agency Project Manager

The Steering Committee or a subset of the 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 State

The Agency Project Manager is Laurie Mitchell who will provide the following services:

- Provide State facilities, as needed
- Coordinate the State resources necessary for the project
- Facilitate coordination between various external Contractors and the state’s Application Support Team in keeping with the project schedule.



- 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
- Use change control procedures
- Conduct 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. Arrange for facility access as needed by all contractors.
- Act as (or delegate) a single point of contact for the purpose of coordinating the definition of requirements and associated information including those pertaining to participating agencies, other interfacing business entities and third party agencies.

The Project Team will include the following individuals:

Ms. Kim LaClear, web designer
 Mr. Robert Glennon, web designer
 Mr. Marc Olenzek, functional analyst
 Mr. Tamilinian Chinnachamy, operations support lead
 Other business experts to be named

The Project Team 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 and are empowered to do the following:

- Resolve project issues in a timely manner
- Review project plan, status, and issues
- Resolve deviations from project plan
- Use change control procedures
- Provide input into key implementation decisions, as identified by the Contractor's project manager within 48-hours of their expected decision date.

Issues shall be escalated for resolution from level 1 through level 3, as defined below:

Level 1 – Project Team
 Level 2 – Project Managers
 Level 3 – Project Steering Committee

In addition, the following MDIT personnel/resources will be required at stages of the project. The Contractor's Project Manager will make every effort to provide the State with advance notice of when those services may be required.

- Mr. Dave Gabler, Application Administrator
- Mr. Mike Bilek, Network Administrator and remote access
- Ms. Debbie Edmondson, Database Administrator
- Other development and operations team members as needed

MDIT shall provide a Contract Administrator whose duties shall include but not be limited to supporting the management of the Contract.

- Cindy Turben

The Department of Management & Budget, Purchasing Operations, serves as the State's contract administrator.

- Joann Klasko



Additional State Responsibilities

1. The State jClarety application support team will define and create the interface requirements prior to the start of Design phase of the relevant stages of the project.
2. The State will add additional data tables, fields identified by the Contractor to the jClarety database as necessary to complete the application development and fulfill the requirements per project schedule.
3. Coordination of Saber and other parties – State is responsible for coordinating the dependencies with Saber and other parties involved in the project, In particular, the State will be responsible to ensure that the dependent activities are completed in accordance with the proposed schedule
4. The Agency Project Manager will act as a single point of contact for the purpose of coordinating the definition of requirements and associated information including those pertaining to participating agencies, other interfacing business entities and third party agencies.
5. The technical feasibility of leveraging the WS-I based web services technology with jClarety application components in order to provide the WDRA-WSS as a web services wrapper around jClarety has already been validated by the State.
6. This initiative requires active participation from several entities including the State subject matter experts, State business users and State technical personnel in its IT department. In order to meet the required timelines and meeting the milestones as scheduled in the plan section above, it is extremely important that all parties concerned perform their duties with respect to this project in a timely manner. The State is responsible for ensuring this on the part of all agencies internal and external.
7. Modifications to JClarety and other state systems to support new requirements is the State's responsibility; the same will be done in accordance with the proposed project schedule.
8. The State's current redesign of jClarety application will not cause any delay in the proposed project schedule. This includes but not limited to document exchange functionality and refactoring of Java classes. The same will be completed prior to the start of this project.
9. ORS is currently replacing its server farm the replacement activities will not affect the WDRA WSS project schedule.
10. The State will be responsible for coordinating the availability and cooperation of all parties / vendors for the purpose of providing necessary information required for this project at appropriate times when needed during the project. This includes information pertaining to jClarety system as well as other interfacing systems. The Contractor's Project Manager will develop a schedule of SME requirements during the Engagement Startup phase.
11. The Agency Project Manager will be responsible for distributing the Contractor's deliverables to the appropriate State personnel (including 3rd party agents if required).
12. The Agency Project Manager will be responsible for coordinating the review and approval activities for the deliverables submitted in accordance with the project plan.
13. The State will provide to the Contractor, at no charge to the Contractor, office facilities, and network access for the onsite personnel for the purpose of executing this project in timely manner in accordance with the project schedule.
14. The State will be responsible for providing necessary meeting room facilities for conducting project meetings including work sessions during the course of the project.
15. The State SMEs and technical personnel will be available per the Project plan in a timely manner for providing System Interface requirements.



1.203 OTHER ROLES AND RESPONSIBILITIES

1. Orientation Meeting
 - a. The Contractor will be required to attend an orientation meeting in Lansing, Michigan to discuss the content and procedures of the Contract.
 - b. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.
2. Meetings
 - a. The State will require the Contractor's Contract Administrator and Project Manager to attend monthly meetings with the Steering Committee, at a minimum, to review the Contractor's performance under the Contract.
 - b. The Contractor's Project Manager, the Agency Project Manager and the MDIT Project Manager will meet weekly to discuss the status of the project at a time agreed to by all parties. This meeting will also be used to address any key project issues. Agency Project Manager is responsible for ensuring adequate participation from State personnel and any third party personnel and for arranging facilities as needed.
 - c. The Contractor's Project Manager, the Agency Project Manager and the MDIT Project Manager will establish a schedule for full team meetings.
 - d. The meetings will be held in Lansing, Michigan, or by teleconference, as mutually agreed by the State and the Contractor.
 - e. The Contractor's Project Manager and Agency Project Manager will mutually define a schedule for these meetings. Agency Project Manager is responsible for ensuring adequate participation from State personnel and any third party personnel and for arranging facilities as needed.
 - f. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.
3. Project Control
 - a. The Contractor will carry out this project under the direction and control of the Department of Management and Budget, Workforce Development and Retirement Administration.
 - b. Within five (5) working days of the award of the Contract, the Contractor will submit to the Agency Project Manager(s) for final approval a work plan.
 - c. This work plan must be in agreement with section 1.104 Work and Deliverables, and must include the following:
 1. The Contractor's project organizational structure.
 2. The project breakdown (work plan) showing sub-projects, activities and tasks, and resources required and allocated to each.
 3. The time-phased plan in the form of a graphic display, showing each event, task, and decision point in the work plan.
4. The Contractor will manage the project in accordance with the PMBOK® (Project Management Body of Knowledge from the Project Management Institute) and the state's Project Management Methodology (PMM). Methodology is available at www.michigan.gov/projectmanagement. The Contractor will use PRIDE Online as its Project Management tool.
 - a. The Contractor will use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract.
 - b. The Contractor shall use automated project management tools, as reasonably necessary, in order to perform the cited Services, which shall include, through the end of the Contract, the capability to produce:
 1. Staffing tables with names of personnel assigned to Contract tasks.
 2. 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).
 3. Updates must include actual time spent on each task and a revised estimate to complete.
 4. Graphs showing critical events, dependencies and decision points during the course of the Contract.



5. 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

1. Orientation Meeting
 - c. The Contractor will be required to attend an orientation meeting in Lansing, Michigan to discuss the content and procedures of the Contract.
 - d. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.
2. Performance Review Meetings
 - a. The State will require the Contractor to attend monthly meetings, at a minimum, to review the Contractor's performance under the Contract.
 - b. The meetings will be held in Lansing, Michigan, or by teleconference, as mutually agreed by the State and the Contractor.
 - c. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.
3. Project Control
 - a. The Contractor will carry out this project under the direction and control of the Department of Management and Budget, Workforce Development and Retirement Administration.
 - b. Within five (5) working days of start of the project under the Contract, the Contractor will submit to the Agency Project Manager(s) for final approval a work plan; this plan will be progressively elaborated upon finalization of requirements and design for each stage of deployment.
 - c. This work plan must be in agreement with section 1.104 Work and Deliverables, and must include the following:
 1. The Contractor's project organizational structure.
 - The Contractor's staffing table with names and title of personnel assigned to the project.
 2. The project breakdown (work plan) showing sub-projects, activities and tasks, and resources required and allocated to each.
 3. The time-phased plan in the form of a graphic display, showing each event, task, and decision point in the work plan.
4. The Contractor will manage the project in accordance with the PMBOK® (Project Management Body of Knowledge from the Project Management Institute) and the state's Project Management Methodology (PMM). Methodology is available at www.michigan.gov/projectmanagement.
 - a. Contractor will use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract.
 - b. Contractor shall use automated project management tools, as reasonably necessary, in order to perform the cited Services, which shall include, through the end of the Contract, the capability to produce:
 1. Staffing tables with names of personnel assigned to Contract tasks.
 2. 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).
 3. Updates must include actual time spent on each task and a revised estimate to complete.
 4. Graphs showing critical events, dependencies and decision points during the course of the Contract.
 5. 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.1.302 REPORTS

1.302 REPORTS

Reporting formats must be submitted to the State's Project Manager by the Contractor for approval within 10 business days after the effective date of the contract. Once both parties have agreed to the format of the report, it shall become the standard to follow for the duration of the contract.

Reports are required as follows:

- Weekly Project status to include the following:
 - Summary of activity during the report period
 - Accomplishments during the report period
 - Action Item status
 - Issues and Risks to deliverables
 - 1-month plan for accomplishments
- Updated project plan monthly (or as needed due to change) to include the following:
 - Schedule status
 - Change Control

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 issues relating to the provision of services under this Contract. The issue management log must be communicated to the State's Project Manager on an agreed upon schedule, with email notifications and updates. The issue log must be updated 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 Contract. 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.

To meet this requirement, the Contractor will adhere to the following risk management plan. 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. 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).

Develop Risk Management Plan

The Contractor Project Manager and Agency Project Manager will mutually define the risks associated with the project. This includes business as well as technical risks surrounding the project. They will assess the



probability of occurrence of these risks, the severity of the impact if they occur, and prioritize them for mitigation. A preliminary mitigation plan will be defined based on the advice received from project team members. At the outset, Contractor categorizes the project risks as business and technical. It is the responsibility of the project team (Contractor and state) to proactively recognize and track these risks in a manner that best allows the project team to avoid or mitigate the risks so that the risks do not affect the goals of the project.

Risk Identification

During the engagement startup phase as well as throughout the project, the project team will identify risks that surround the project at any given point in time. These risks are grouped into Business and Technical risks. The risks are documented in a Risk Management Plan document.

Severity of Occurrence

For each risk item, the severity of occurrence of impact to the project is identified in terms of High, Medium and Low. The impact is visualized through discussions among relevant team members. Thresholds are established to qualify risks as High, Medium or Low.

Probability of Occurrence

In addition to severity of occurrence, the probability of occurrence is assessed. This is based on the current situation in the project environment as well as past experiences within the client organization and projects based on similar technologies and processes. The probability of occurrence is categorized as High, Medium and Low.

Risk Priorities

Risk priorities are determined based on the probability of occurrence and severity of impact.

Mitigation Plan

Based on the risk priority, the steps to avoid or mitigate the risks are identified. This results in a series of action items for various project team members depending on the risk. All these action items are tracked through the project plan as tasks for follow up and completion.

1.403 CHANGE MANAGEMENT

Change management is defined as the process to communicate, assess, monitor, and control all changes to system resources and processes. The State also employs change management in its administration of the Contract.

If a proposed contract change is approved by the Contract Compliance Inspector, the Contract Compliance Inspector will submit a request for change 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.

The Contractor will employ the following change management procedures for items deemed out-of-scope. The Contractor will issue a Change Control Request (CCR) whenever the project suffers from an impact caused by a change in requirements or scope or assumptions stated in this document. Within the CCR, all changes to effort, time and resources associated with the scope change will be identified for the State. The CCR will describe the effect on effort, cost and schedule. Either the Contractor or the State can raise a CCR at any time and the state may use the CCR process as a method to identify costs associated with desired scope changes or with the underlying impact. The Contractor may assess a separate cost to the State for the development of CCR information subject to the mutual agreement between the State and the Contractor. The CCR must be approved by both the State and the Contractor before any work begins; the



Contractor will not be reimbursed for any activity associated with the CCR before it has been approved by State.

The Contractor will use the following hourly rates when determining costs to the State for Change Control Request's (CCR). Hourly rates are defined in US Dollars.

Delivery Executive/Contract Administrator: \$350 per hour
 Project Manager: \$135 per hour
 Senior Technical Architect: \$115 per hour
 Senior Systems Analyst: \$95 per hour
 Senior Programmer Analysts: \$85 per hour
 Programmer Analysts: \$80 per hour
 Documentation Specialist: \$75 per hour

1.5 Acceptance

1.501 CRITERIA

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

1. All tasks listed under 1.104 Work and Deliverable are completed.
2. Each requirement defined in the Approved use cases and/or technical design documents has been reviewed and accepted by the Agency Project Manager.
3. All source code has been migrated into ORS' Perforce management system, a clean compile has been done and deployment has been verified.
4. Training for users and administrators is complete (as described in section 1.104 work and deliverables)
5. Knowledge transfer to agency staff has progressed throughout the life of the project
6. No significant material defects exist that would prohibit the successful use of any function.

Before delivering any deliverable to the state, the Contractor will first:

1. Perform all required quality assurance activities
2. Verify that the deliverable is complete and in conformance with its specifications
3. Certify that
 - a. It has performed such quality assurance activities
 - b. It has performed all applicable testing
 - c. It has corrected all material deficiencies discovered during such quality assurance activities and testing, and
 - d. The deliverable is in a suitable state of readiness for the state's review and approval.

The following criteria will be used by the State to determine acceptance of the deliverables provided under this contract. The criteria cover both the delivery and transition phases. The delivery phase includes the release of approved code into WDRA's software production stream. The transition phase includes Contractor providing knowledge transfer through the course of the project schedule

- A. **Document Deliverables** - Documents include, but are not limited to plans, design documents, project schedules, user guides, and procedure manuals.
 1. Documents are dated and in electronic format, compatible with State of Michigan software in accordance with Article 1.302.
 2. Requirements documents are reviewed and updated throughout the development process to assure requirements are delivered in the final product.
 3. Draft documents are not accepted as final deliverables.
 4. WDRA and MDIT will review business documents within five business days from the date of submission of the deliverables for review.
 - a. Approvals will be written and signed by both the WDRA and MDIT Project Managers.



- b. Unacceptable issues will be documented and submitted to the Contractor.
- c. After issues are resolved or waived, the Contractor will resubmit documents for approval within schedule agreed to by both parties that meets the goals of the project and the overall project schedule as stipulated in this contract.
- 5. Both MDIT and WDRA Project Managers will review technical documents within five business days upon submission of the deliverables
 - a. Approvals will be written and signed by both the WDRA and MDIT Project Managers with assistance from MDIT.
 - b. Unacceptable issues will be documented and submitted to the Contractor.
 - c. After issues are resolved or waived, the Contractor will resubmit documents for approval within schedule agreed to by both parties that meets the goals of the project and the overall project schedule as stipulated in this contract.
 - d. Both the WDRA and Project Managers will review project documents within five business days from the date of submission of the deliverables for review.
 - a. Approvals will be written and signed by both Project Managers.
 - b. Unacceptable issues will be documented and submitted to the Contractor.
 - c. After issues are resolved or waived, the Contractor will resubmit documents for approval within schedule agreed to by both parties that meets the goals of the project and the overall project schedule as stipulated in this statement of work.

- B. **Software Deliverables** - Software includes, but is not limited to, software product developed under this statement of work.
- 1. Beta software is not accepted as final deliverable.
 - 2. The software will be reviewed and accepted in accordance with the requirements of the contract
 - 3. Software is installed and configured, with assistance from MDIT, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
 - 4. Contingency plans, de- installation procedures, and software are provided by the Contractor and approved by both the WDRA and MDIT Project Managers.
 - 5. Final acceptance of the software will depend on the successful completion of UAT and associated warranty period described in Section 1.104, A-13.
 - 6. WDRA and MDIT will review test software, data, and results per schedule agreed to by both parties that meets the goals of the project and the overall project schedule as stipulated by this statement of work.
 - a. Approvals will be written and signed by both the WDRA and MDIT Project Managers.
 - b. Unacceptable issues will be documented and submitted to the Contractor.
 - c. After issues are resolved or waived, the Contractor will resubmit test software, data and results for approval within 30 days of receipt.

- C. **Service Deliverables** - Services include, but are not limited to training and data migration.
- 1. The services will be accepted in accordance with the requirements of the contract.
 - 2. Both the WDRA and MDIT will review a Request for Approval of Services within a mutually agreed upon timeframe from completion or implementation.
 - a. Approvals will be written and signed by both the WDRA and MDIT Project Managers.
 - b. Unacceptable issues will be documented and submitted to the Contractor.
 - c. After issues are resolved or waived, the Contractor will resubmit a Request for Approval of Services for approval within schedule agreed to by both parties that meets the goals of the project and the overall project schedule as stipulated in the statement of work.
 - 3. The services will be accepted in accordance with the requirements of the contract.

1.502 FINAL ACCEPTANCE

Final acceptance is expressly conditioned upon completion of all deliverables, completion of all tasks in the project plan as approved, completion of all applicable inspection and/or testing procedures, and the certification by the State that the Contractor has met the defined requirements for that stage. See also Section 2.086



1.6 Compensation and Payment

1.601 COMPENSATION AND PAYMENT

State shall pay Contractor an amount not to exceed USD \$1,644,310 (One million, six hundred forty-four thousand three hundred and ten dollars) for the performance of all activities necessary for or incidental to the performance of work as set forth in this contract. This amount excludes any optional application maintenance support the State may wish to procure at a later date.

The Contract is a firm, fixed-priced, deliverable-based contract. The state will only pay for services rendered in delivering the requirements of the contractor proposal and reserves the right to reduce the value of the contract for any unused service hours. Any such price reduction must in be in accordance with the mutual consent between the State and the Contractor.

Payment will be made based on an acceptance of a deliverable. Deliverables will be either physical deliverables (documents) or service deliverables and will be invoiced upon acceptance of the deliverable. The pricing for the deliverables is all-inclusive. Any expenses the Contractor expects to incur were built into the price for the deliverable. The State will not pay for travel costs. Travels costs expected were estimated as a component of the Contractor pricing and included with the Contractor's pricing submitted to the State.

The state reserves the right to reduce the requirements or withdraw requirements. The state will only pay for services rendered in delivering authorized requirements of this contract and reserves the right to negotiate to reduce the value of the contract for any reduced or withdrawn requirements. Any such price reduction must in be in accordance with the mutual consent between the State and the Contractor.

The Contractor will not be paid for any costs attributable to corrections of any errors or omissions that have been determined by the state's Project Managers to be occasioned by the Contractor. Payments will not be made until work is accepted subject to the information contained in section 1.104 and associated assumptions agreed upon in this statement of work.

All prices/rates quoted in this contract will be firm for the duration of the Contract. No price changes will be permitted.

The Contractor has based pricing on the following information:

- The Contractor's estimations and team size have been based on the information, requirements and details provided herein. If the requirements specified in the documents and subsequent communication change, then the estimates, plans, resource levels, and/or costs may be adjusted accordingly. Any such changes will be pursuant to mutual agreement between State and the Contractor.
- The Contractor has assumed that up to 20% increase in scope is expected during the requirements gathering and use case development phase. The Contractor's Project Manager will track these changes and periodically provide updates as to how much of the 20% buffer has been utilized. However, it is assumed that all changes will be identified by the end of the Requirements Gathering Phase. Changes identified after and/or above the 20% buffer may be subject to additional charge. The Contractor may credit the state for any unused buffer at the end of Stages 5 and 6 subject to the mutual agreement between the State and the Contractor. The 20% buffer is valued at \$135,000 and includes only additional developer time for the new requirements. Costs associated with the Project Manager, the Technical Architect and the Functional Analyst toward implementing the requirements under the 20% buffer will not be billed separately.
- Contractor's price, estimates and schedule have been determined based on State of MI, MDIT technology standards as of January 23rd, 2007 and other technical parameters specifically included in this Statement of Work.



- Should delays caused by the State have an impact on the Contractor's ability to complete deliverables and milestones in accordance with the price and/or timelines stated in this contract, then the State and the Contractor will make every effort to re-structure work plans to mitigate additional costs to the Contractor by rescheduling activities, operating activities in parallel and accelerating other activities. However, if the delays result in an extension of the project past the scheduled end dates for deployment of Stages 2, 3, 4, 5 & 6 per this contract or if the delays result in additional resource costs to contractor, then the Contractor will use the Change Control Request (CCR) process as stated in section 1.403 to identify additional costs and impact to the project schedule caused by the State's delay and to request payment for those costs. The State will be responsible for such additional costs incurred by the Contractor to complete such deliverables and milestones.

The following table provides the payment schedule.

Milestone/Deliverable Schedule	Deliverables	Estimated Completion Date (Business days from Start date of Project)	Payment (USD)
Engagement Startup	<ul style="list-style-type: none"> Project Plan Communication Plan Risk Management Document CEASAR criteria Issues Log (on-going) Status Report (on-going) Dependencies List (on-going) Change Management plan Requirements Development plan 	5	\$100,000
Use case Development Completed for Stages 2,3, & 4 Requirements	<ul style="list-style-type: none"> Use Case documents for Stages 2,3,4 Requirements Application Prototype screens for Stages 2,3,4 Requirements Logical Data Model for Stages 2,3,4 Requirements Test Strategy Document for Stages 2, 3, & 4 Requirements 	30	\$225,000
Use case Development Completed for Stages 5 & 6	<ul style="list-style-type: none"> Use Case documents for Stages 5 & 6 Requirements Application Prototype screens for Stages 5 & 6 Requirements Logical Data Model for Stages 5 & 6 Requirements Test Strategy Document for Stages 5 & 6 Requirements 	65	\$225,000
Stages 2 & 3 System Integration Test Completed	<ul style="list-style-type: none"> System Tested Application Code components for Stages 2 & 3 Requirements Physical Data Model for Stages 2 & 3 Requirements System Test Cases for Stages 2 & 3 Requirements System Test Results for Stages 2 & 3 Requirements 	80	\$215,000

<p>Stages 4, 5 & 6 Analysis and Design Completed</p>	<ul style="list-style-type: none"> • Updated Logical Data Model for Stages 4, 5, & 6 Requirements • System Interface and Technical Architecture Design document for Stages 4, 5, & 6 Requirements • Class Diagrams for Stages 4, 5, & 6 Requirements • Sequence Diagrams for Stages 4, 5, & 6 Requirements • Updated Physical Data Model for Stages 4, 5, & 6 Requirements • Disaster Recovery Plan 	<p>90</p>	<p>\$250,000</p>
<p>Stage 2,3, and 4 - Training and Deployment Completed</p>	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 2,3 and 4 Requirements • Updated Physical Data Model for Stages 2, 3 & 4 Requirements • System Test Cases for Stages 4 Requirements • System Test Results for Stages 4 Requirements • Performance Test results for Stages 2,3 & 4 Requirements • User Acceptance Test Results for Stage 2,3, & 4 Requirements • Application code with Stage 2,3,4 deployed in Production • User Manual for Stages 2,3, & 4 Requirements • Installation Manual for Stages 2,3,&4 Requirements • Training Plan for Stages 2,3, & 4 Requirements • Training Manual for Stages 2,3, & 4 Requirements • Training for Stage 2,3, & 4 Requirements completed 	<p>140</p>	<p>\$250,000</p>



<p>Stage 5 & 6 - Training and Deployment Completed</p> <p>Stage 7 Enhancements, Metrics and Closeout</p>	<ul style="list-style-type: none"> • User Acceptance Tested Application Code components for Stages 5,&6 Requirements • Updated Physical Data Model for Stages 5,&6 Requirements • System Test Cases for Stages 5,&6 Requirements • System Test Results for Stages 5,&6 Requirements • Performance Test results for Stages 5,&6 Requirements • User Acceptance Test Results for Stage 5,&6 Requirements • Application code with Stage 5 & 6 deployed in Production • User Manual for Stages 5 & 6 Requirements • Installation Manual for Stages 5 & 6 Requirements • Training Plan for Stages 5 & 6 Requirements • Training Manual for Stages 5 & 6 Requirements • Training for Stage 5 & 6 Requirements completed 	<p>195</p>	<p>\$185,000</p>
<p>Stage 2,3 & 4 – Warranty (After 90 calendar days)</p>	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 2,3 & 4 Requirements 	<p>200</p>	<p>\$50,000</p>
<p>Stage 5& 6 - Warranty (After 90 calendar days)</p>	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements 	<p>255</p>	<p>\$50,000</p>
<p>Stage 2,3 & 4 - Warranty (After 180 calendar days)</p>	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 2,3 & 4 Requirements (Non-Routine Business Functions Only) 	<p>260</p>	<p>\$50,000</p>
<p>Stage 5& 6 - Warranty (After 180 calendar days)</p>	<ul style="list-style-type: none"> • Warranty Defects log with list and status of defects for Stages 5 & 6 Requirements (Non-Routine Business Functions Only) 	<p>315</p>	<p>\$44,310</p>
<p>Total (USD)</p>			<p>\$1,644,310</p>

The Contractor will submit an invoice based on approved deliverables per the above payment schedule. The invoice will include copies of Delivery Signoff Slips pertaining to the milestone / deliverable being invoiced.

If the State terminates the contract, the State will pay the Contractor all professional fees towards time expended by Contractor till the effective date of such Termination per the following:

For the milestone in progress at the time of communication of termination, the amount payable will be determined on the basis of number of expired days in relation to the total duration for the next milestone in the invoicing schedule. Amount payable for current milestone = Fees for the milestone multiplied by (number of expired days divided by total duration for the current milestone)



All fees for all completed milestones as of the date of communication of the termination will be payable to the Contractor per the payment schedule outlined in the pricing proposal.

Optional Maintenance

Contractor will provide optional application maintenance and support services by assigning one Contractor's resource on a full time basis onsite at State's facilities for a period of one year following the deployment of the WSS system in production environment. The price quotation for this Optional Maintenance service will be **\$16,000/month**.

1.7 Additional Terms and Conditions Specific to this SOW

1.701 ADDITIONAL TERMS AND CONDITIONS SPECIFIC TO THIS SOW

A. Additional Agreements Required

The Contractor agrees to provide the following State-approved documents, signed by an authorized representative of the Contractor: a non-disclosure agreement, a confidentiality agreement, a HIPAA compliance statement and a resulting HIPAA Business Partner Agreement.

- C. The Contractor is not limited to the tasks identified in this document, and may supplement them with an alternate list of tasks or sub-tasks that will still permit the proper development of the project. Any additions or modifications of the tasks by the Contractor must be so noted, along with reasons the changes were necessary. Changes and modifications are subject to written approval by the State's Project Managers.



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 ("PURCHASING OPERATIONS") DIT AND MDMB WORKFORCE DEVELOPMENT AND RETIREMENT ADMINISTRATION (ORS) (collectively, including all other relevant State of Michigan departments and agencies, the "State"). PURCHASING OPERATIONS 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 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
 Email: KlaskoJ@michigan.gov
 Phone: (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 (insert the end using agency), 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 Purchasing Operations.** The Contract Compliance Inspector for this Contract is:

Cindy Turben
 Department of Information Technology
 Constitution Hall,
 525 W Allegan Street, 1st Floor, North Tower
 Lansing, MI 48933
 Email: TurbenC@michigan.gov
 Phone: (517)335-6069

2.016 Project Manager

The following individual will oversee the project:

For the: Department of Management & Budget (ORS)

Laurie Mitchell

Address: General Office Building - 3rd floor

7150 Harris Road

Lansing, MI 48909

Email: MitchellL@michigan.gov

Phone: (517)322-6016

For the Department of Information Technology (DIT)

To be determined when contract is awarded.

2.020 Contract Objectives/Scope/Background

2.021 Background

DMB Workforce Development and Retirement Administration (WDRA) administers four retirement systems for the State of Michigan. They are: Public School Employees Retirement System, State Employees Retirement System, State Police Retirement System and the Judges Retirement System. Over the next two to three years a substantial annual increase in the number of individuals retiring and a consistent annual increase in the number of members becoming inactive has been projected. WDRA's vision is to provide fast, easy access to complete and accurate information and exceptional services. WDRA has been enhancing its internal systems over the last four years so the increasing number of customers will continue to receive quality services. In this next phase of the system development, it will allow customers to serve themselves at their convenience through the Internet.

2.022 Purpose

The contract resulting from this solicitation will provide members of the Michigan public retirement systems online access to personal retirement information and the ability to transact retirement business in a secure environment. The purpose of this RFP is to identify a contractor who will deliver secure online self-service functionality for information review, data collection and transactional business to the 1 in 18 Michigan citizens served by the WDRA.

2.023 Objectives and Scope

The objective of this solicitation is to obtain proposals from qualified firms to provide online services for members and retirees of the four retirement systems supported by MDMB - Workforce Development and Retirement Administration (WDRA).

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 one (1) year and four (4) months 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

This clause is not applicable.

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.

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
- 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. The interaction with Vignette 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 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

Exhibit F lists the items of hardware the State is required to purchase for execution the Contract. The list in **Exhibit F** includes all hardware required to complete the Contract and make the Deliverables operable; if any additional hardware is required in order for the Deliverables to meet the requirements of this Contract, such hardware shall be provided to the State by Contractor at no additional charge (except where agreed



upon and specified in a Contract Change Notice). **Exhibit F** also identifies certain items of hardware to be provided by the State.

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.

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

This clause is not applicable.

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

Reserved

2.076 Service Level Agreements (SLAs)

a) SLAs will be completed with the following operational considerations:

- (i) SLAs will not be calculated for individual Incidents where any event of Excusable Failure has occurred as defined in **Section 2.202**,
- (ii) SLAs will not be calculated for individual Incidents where loss of service is planned and where the State has received prior notification and/or coordination.
- (iii) SLAs will not apply if the applicable Incident could have been prevented through planning proposed by Contractor and not implemented at the request of the State. In order to invoke this consideration, complete documentation relevant to the denied planning proposal must be presented to substantiate the proposal.
- (iv) Time period measurements will be based on the time Incidents are received by the Contractor and the time that the State receives notification of resolution based on 24x7x365 time period, except that the time period measurement will be suspended based on the following ("Stop-Clock Conditions"):

- 1. Time period(s) will not apply where Contractor does not have access to a physical State Location and where access to the State Location is necessary for problem identification and resolution.
- 2. Time period(s) will not apply where Contractor needs to obtain timely and accurate information or appropriate feedback and is unable to obtain timely and accurate information or appropriate feedback from the State.

(b) Chronic Failure for any Service(s) will be defined as three (3) unscheduled outage(s) or interruption(s) on any individual Service for the same reason or cause or if the same reason or cause was reasonably discoverable in the first instance over a rolling thirty (30) day period. Chronic Failure will result in the State's option to terminate the effected individual Service(s) and procure them from a different vendor for the chronic location(s) with Contractor to pay the difference in charges for up to three (3) additional months. The termination of the Service will not affect any tiered pricing levels.

(c) Root Cause Analysis will be performed on any Business Critical outage(s) or outage(s) on Services when requested by the Contract Administrator. Contractor will provide its analysis within two (2) weeks of outage(s) and provide a recommendation for resolution.

(d) All decimals shall be rounded to two decimal places with 5 and greater rounding up and 4 and less rounding down unless otherwise specified.

Section 2.076 Service Level Agreements is not applicable to this contract.

2.080 Delivery and Acceptance of Deliverables

2.081 Delivery of Deliverables



This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable and associated assumptions stated in this statement of work.

Prior to delivering any Deliverable to the State, Contractor will first perform all required quality assurance activities, and, in the case of Custom Software Deliverables, System Testing to verify that the Deliverable is complete and in conformance with its specifications. Before delivering a Deliverable 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 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.

In discharging its obligations under this Section, Contractor shall be at all times (except where the parties agree otherwise in writing) in compliance with Level 3 of the Software Engineering Institute's Capability Maturity Model for Software ("CMM Level 3") or its equivalent.

2.082 Contractor System Testing

This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable and associated assumptions stated in this statement of work.

Contractor will be responsible for System testing each Custom Software Deliverable in Contractor's development environment prior to turning over the Custom Software Deliverable to the State for User Acceptance Testing and approval. Contractor's System Testing shall include the following, at a minimum, plus any other testing required by CMM Level 3 or Contractor's system development methodology:

Contractor will be responsible for performing Unit Testing and incremental Integration Testing of the components of each Custom Software Deliverable.

Contractor's System Testing will also include Integration Testing of each Custom Software Deliverable to ensure proper inter-operation with all prior software Deliverables, interfaces and other components that are intended to inter-operate with such Custom Software Deliverable, and will include Regression Testing, volume and stress testing to ensure that the Custom Software Deliverables are able to meet the State's projected growth in the number and size of transactions to be processed by the Application and number of users, as such projections are set forth in the applicable Statement of Work.

Contractor's System Testing will also include Business Function Testing and Technical Testing of each Application in a simulated production environment. Business Function Testing will include testing of full work streams that flow through the Application as the Application will be incorporated within the State's computing environment. The State shall participate in and provide support for the Business Function Testing to the extent reasonably requested by Contractor. Within ten (10) days before the commencement of Business Function Testing pursuant to this Section, Contractor shall provide the State for State review and written approval Contractor's test plan for Business Function Testing.

Within five (5) Business Days following the completion of System Testing pursuant to **Section 2.080**, Contractor shall provide to the State a testing matrix establishing that testing for each condition identified in the System Testing plans has been conducted and successfully concluded. To the extent that testing occurs on State premises, the State shall be entitled to observe or otherwise participate in testing under this Section as the State may elect.

2.083 Approval of Deliverables, In General

This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable and associated assumptions stated in this statement of work.

All Deliverables (Written Deliverables and Custom Software Deliverables) 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, in the case of Custom



Software Deliverables, will include the successful completion of State User Acceptance Testing, 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.

The State's obligation to comply with any State Review Period is conditioned on the timely delivery of Deliverables being reviewed. If Contractor fails to provide a Deliverable to the State in a timely manner, the State will nevertheless use commercially reasonable efforts to complete its review or testing within the applicable State Review Period.

Before commencement of its review or testing of a Deliverable, the State may inspect the Deliverable to confirm that all components of the Deliverable (e.g., software, associated documentation, and other materials) have been delivered. If the State determines that the Deliverable is incomplete, the State may refuse delivery of the Deliverable without performing any further inspection or testing of the Deliverable. Otherwise, the review period will be deemed to have started on the day the State receives the Deliverable and the applicable certification by Contractor in accordance with **Section 2.080**.

The State will approve in writing a Deliverable upon confirming that it conforms to and, in the case of a Custom Software Deliverable, performs in accordance with, its specifications without material deficiency. The State may, but shall not be required to, conditionally approve in writing a Deliverable 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 that remain outstanding at the time of State approval.

If, after three (3) opportunities (the original and two repeat efforts), Contractor is unable to correct all deficiencies preventing State approval of a Deliverable, 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 this 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 and will pay the State an additional sum equal to ten percent (10%) of such excess expenditure to cover the State's general expenses without the need to furnish proof in substantiation of such general expenses; or (iii) terminate this Contract for default, either in whole or in part by notice to Contractor (and without the need to afford Contractor any further opportunity to cure). 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.

The State, at any time and in its own discretion, may halt the UAT or approval process if such process reveals deficiencies in or problems with a Deliverable 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 return the applicable Deliverable to Contractor for correction and re-delivery prior to resuming the review or UAT process and, in that event, Contractor will correct the deficiencies in such Deliverable in accordance with the Contract, as the case may be.

Approval in writing of a Deliverable by the State shall be provisional; that is, such approval shall not preclude the State from later identifying deficiencies in, and declining to accept, a subsequent Deliverable based on or which incorporates or inter-operates with an approved Deliverable, to the extent that the results of subsequent review or testing indicate the existence of deficiencies in the subsequent Deliverable, or if the Application of which the subsequent Deliverable is a component otherwise fails to be accepted pursuant to **Section 2.080**.

2.084 Process for Approval of Written Deliverables

This section is limited to the extent of items listed in section 1.101 (In Scope) and 1.104 Work and Deliverable.



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 Written Deliverable (failing which the State Review Period, by default, shall be five (5) Business Days for Written Deliverables of one hundred (100) pages or less and ten (10) 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 Written Deliverable is approved in the form delivered by Contractor or describing any deficiencies that must be corrected prior to approval of the Written Deliverable (or at the State's election, subsequent to approval of the Written Deliverable). If the State delivers to Contractor a notice of deficiencies, Contractor will correct the described deficiencies and within five (5) 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 Written 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 Written Deliverable to confirm that the identified deficiencies have been corrected.

2.085 Process for Approval of Custom Software Deliverables

This section is limited to the extent of items listed in section 1.101 (In Scope) and 1.104 Work and Deliverable.

The State will conduct UAT of each Custom Software Deliverable in accordance with the following procedures to determine whether it meets the criteria for State approval – i.e., whether it conforms to and performs in accordance with its specifications without material deficiencies.

Within thirty (30) days (or such other number of days as the parties may agree to in writing) prior to Contractor's delivery of any Custom Software Deliverable to the State for approval, Contractor shall provide to the State a set of proposed test plans, including test cases, scripts, data and expected outcomes, for the State's use (which the State may supplement in its own discretion) in conducting UAT of the Custom Software Deliverable. Contractor, upon request by the State, shall provide the State with reasonable assistance and support during the UAT process.

For the Custom Software Deliverables listed in **Exhibit G**, the State Review Period for conducting UAT will be as indicated in **Exhibit G**. For any other Custom Software Deliverables not listed in **Exhibit G**, the State Review Period shall be the number of days agreed in writing by the parties (failing which it shall be forty-five (45) days by default). The State Review Period for each Custom Software Deliverable will begin when Contractor has delivered the Custom Software Deliverable to the State accompanied by the certification required by **Section 2.080** and the State's inspection of the Deliverable has confirmed that all components of it have been delivered.

The State's UAT will consist of executing test scripts from the proposed testing submitted by Contractor, but may also include any additional testing deemed appropriate by the State. If the State determines during the UAT that the Custom Software Deliverable contains any deficiencies, the State will notify Contractor of the deficiency by making an entry in an incident reporting system available to both Contractor and the State. Contractor will modify promptly the Custom Software Deliverable to correct the reported deficiencies, conduct appropriate System Testing (including, where applicable, Regression Testing) to confirm the proper correction of the deficiencies and re-deliver the corrected version to the State for re-testing in UAT. Contractor will coordinate the re-delivery of corrected versions of Custom Software Deliverables with the State so as not to disrupt the State's UAT process. The State will promptly re-test the corrected version of the Software Deliverable after receiving it from Contractor.

Within three (3) business days after the end of the State Review Period, the State will give Contractor a written notice indicating the State's approval or rejection of the Custom Software Deliverable according to the criteria and process set out in this **Section 2.080**.

2.086 Final Acceptance



This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable and associated assumptions stated in this statement of work. See also Section 1.502.

“Final Acceptance” shall be considered to occur when the Custom Software Deliverable to be delivered has been approved by the State and has been operating in production without any material deficiency for fourteen (14) consecutive days. If the State elects to defer putting a Custom Software Deliverable into live production for its own reasons, not based on concerns about outstanding material deficiencies in the Deliverable, the State shall nevertheless grant Final Acceptance of the Project.

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. 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 per mutual agreement between contractor and the state.

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** 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**.

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**. 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 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

This clause is not applicable.

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** (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 including contractor's proposal response to the original ITB.

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

(a) Inspection of Work Performed. The State's authorized representatives shall at all reasonable times and with ten (10) days prior written request, have the right to enter Contractor's premises, or any other places, where the Services are being performed, and shall have access, upon reasonable request, to interim drafts of Deliverables or work-in-progress. Upon ten (10) Days prior written notice and at all reasonable times, the State's representatives shall be allowed to inspect, monitor, or otherwise evaluate the work being performed and to the extent that such access will not reasonably interfere or jeopardize the safety or operation of the systems or facilities. Contractor must provide all reasonable facilities and assistance for the State's representatives.

(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.

(c) Retention of Records. Contractor shall maintain at least until the end of the Audit Period all pertinent financial and accounting records (including time sheets and payroll records, and information pertaining to the Contract and to the Services, equipment, and commodities provided under the Contract) pertaining to the Contract in accordance with generally accepted accounting principles and other procedures specified in this Section. Financial and accounting records shall be made available, upon



request, to the State at any time during the Audit Period. If an audit, litigation, or other action involving Contractor's records is initiated before the end of the Audit Period, the records must be retained until all issues arising out of the audit, litigation, or other action are resolved or until the end of the Audit Period, whichever is later.

(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.

2.112 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, 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

(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 it's 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. Standard Software to be licensed to the State is listed in **Exhibit J**.

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

This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable.

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 the 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, is 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

This section is limited to the extent of items listed in section 1.101 (In Scope), 1.104 Work and Deliverable

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

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.

2.176 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 coverage's 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.

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 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 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. 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 and Resource time spent by the contractor 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: Cindy Turben
525 West Allegan, 1st Floor, North Tower
Constitution Hall
Lansing, Michigan 48933

Contractor(s):

Systems Technology Group, Inc. (the Contractor)
3155 W. Big Beaver Road, Suite 220
Troy, Michigan 48084-3007
Attention: Mona Aggarwal

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 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://www.archives.gov/federal_register/codification/executive_order/12549.html

http://www.archives.gov/federal_register/executive_orders/pdf/12869.pdf

<http://www.epls.gov/epl/servlet/EPLSSearchMain/1>



Attachment 1 – WDRA Business Requirements



Note: STG's solution description provided below is preliminary and will be validated and confirmed during requirements gathering phase. If due to technical infeasibility solution provided below cannot be implemented alternate solution will be provided.

Each JAD session is estimated to run for two hours and it is estimated that there will be six JAD sessions each week. The remaining hours in a business week will be utilized to document the use cases, develop the User Interface prototype and prepare for the forthcoming sessions. The estimated number of sessions for each use case will be validated with the State during the engagement startup phase.



9.1 Integration with Clarety				
Integration with Clarety				
<u>Overview:</u> The web self-service application will communicate with the internal jClarety system through web services interfaces. The ORS jClarety application support team will define and create the interface requirements, and a contracted Clarety Enterprise Architect will be available for the duration of the project to support communications with Clarety. The website developer is not responsible for any changes to Clarety components or substructures. The website developer will need to write data validation programs to clean data before it is passed into Clarety (e.g., verifying RTNs, formats, basic edits).				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
1. Interfaces will be SOAP/XML based, document oriented and WSI Basic Profile 1.0 compliant.	This requirement is covered in STG's Technical solution provided in Section 1.104 of the SOW			
2. All data passing into the jClarety system through the web services interfaces will be stored in the existing database (SQL 2005). Requirements for additional data tables and fields will be identified during use case development and added by ORS' internal jClarety support team to the existing database.	STG will identify additional data tables and fields needed during requirements sessions and will work with ORS internal jClarety support team to modify the existing database.			
3. All data passing from jClarety into the WSS layer and most calculations, projections and income modeling programs will be retrieved using Methods within the existing application. It is our intention to avoid duplication of complex code.	This requirement is covered in STG's Technical solution provided in Section 1.104 of the SOW			
4. When a web user logs into WSS, WSS will log into the Clarety user interface with a generic WSS user. ORS will provide the vendor with the generic WSS and a COM object to get the password. This password will change periodically following standard password security techniques (e.g., every 3 months).	STG will store the generic WSS user information in a configurable parameter in encoded format. STG will call ORS provided COM object to get the password for the generic WSS user and then will log on to jClarety using the generic user id and password.			
5. WSS will collect data needed to perform a function and feed the data to the legacy system using the web services interfaces	This requirement is covered in STG's Technical solution provided in Section 1.104 of the SOW			

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
6. Select transactions and inquiries started or completed in WSS need to be captured in activity log.	These transactions and inquiries will be identified during use case sessions. STG will develop a common component to capture this information in an activity log.			
7. User IDs must include a prefix to indicate that the transaction came through the website.	STG will adhere to intent of this requirement; the actual implementation strategy will be finalized during the technical design.			



NOTE: Functional Requirements for Stage 2 (User Authentication and System Access) are in Section 9.10.

Stage 3: Overall Features				
<u>Overview:</u> These requirements apply to the entire system. Some may also be associated with a specific transaction or with other category of information, but they are provided here to give an overview of general expectations. The features are not presented in any order.				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
1. For certain transactions, customers should be able to save information between sessions, access the information when they sign in again and submit the transaction when they have completed all the information required	STG assumes that jClarety supports storing the transaction data in draft format between user sessions. In order to implement this, STG will send an additional flag indicating that the data is in draft format to jClarety.			
2. All output documents generated by the system will be populated with relevant user information. All forms that are to be returned to ORS will be barcoded	Barcode Generation	The PDF documents and bar-coded personalized forms will be displayed in WSS by invoking the jClarety WSI to be developed by State	Global Functionality Module	.5
3. All output documents and confirmation screens need to be available in a printer-friendly format	This requirement is being provided as part of the Global functionality module. The transactions that need output documents and confirmation screens in a printer friendly format will be identified during requirements gathering.			
4. Users must have the option to have a document delivered to the address of record instead of printing it at their desktop	As clarified in the Q & A response, STG will trigger jClarety process through web services to implement this requirement.			
5. Whenever documents are delivered to the user's desktop, documents will be populated with data from the Clarety database.	Barcode Generation	All documents for downstream processing will be personalized and barcoded by invoking the jClarety WSI to be developed by the State.	Global Functionality Module	.5



WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
6. System will allow the display of documents created in Clarety on behalf of the customer, for example, a pension estimate	Barcode Generation	All documents generated for downstream processing will be bar coded by invoking the jClarety WSI to be developed by State	Global Functionality Module	.5
7. System will be able to recognize if user belongs to multiple systems and display information from each system. If in multiple systems, the user login page will prompt users to choose which system they want information from. Users will be able to navigate back to this start page and change systems without logging in again. For users with accounts in the Military Retirement or Legislative Retirement systems, system will notify users that account activity for those systems is not available through web self-service	This requirement will be met by the Authentication module.			
8. System will be able to recognize if user's spouse is also a system member and generate the appropriate responses according to current business rules	This requirement will be met by the Authentication module.			
9. System administrator must be able to turn off or hide screen availability for groups of users or for an individual user	Role-based Access	The authorization layer for this application will be implemented using a Role-based functional access. This will be based on a user type to function mapping created during the requirements development phase	Security Module	1
10. System must have the ability to mask any field.	STG will develop common component(s) and method(s) to mask fields. These methods will be called before displaying the field values to the end users.			



WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
11. System administrator must have the ability to enable or disable any transaction for groups of users	Role-based Access	The authorization layer for this application will be implemented using a Role-based functional access. This will be based on a user type to function mapping created during the requirements development phase	Security Module	1
12. Messages and disclaimers generated by this system are targeted to the end-user and will assume a customer is reading them; they are not intended for internal staff or system support staff	Messages and disclaimers will be displayed only to the end-users. The text will be provided by the State			
13. System must have the ability to display dates of certain transactions by transaction date, effective date, payroll date, or date deemed appropriate by ORS	Agree. The details this requirement will be detailed during requirement sessions.			
14. System must be able to lock accounts to prevent access by individual, groups of individuals and by system/plan. For example, we must be able to lock out an individual account, but we must also be able to lock out everyone who has an active account but belongs to the Judges Retirement System	Role-based Access	The authorization layer for this application will be implemented using a Role-based functional access. This will be based on a user type to function mapping created during the requirements development phase	Security Module	1
15. System will have ability to collect and report data regarding the specifics of the end user's computing environment (e.g., Windows OS, Acrobat 5.0, browser version).	Install and configure a WebSite statistics tool	A web site statistics tool that is configured to capture end-user computing data will be installed and configured to monitor site usage statistics and aid in infrastructure capacity planning. Fulfillment of the requirements stipulated by the state is subject to limitations of the tool chosen mutually by the State and STG.	Global Functionality Module	1



16. User will be able to choose preferred correspondence method (by mail or email).	This information will be captured in the manage demographics screen.			
17. User transactions that update the Clarety database must always generate a confirming email message and a confirmation screen, which will both carry the same confirmation number	At the successful completion of user transactions, the system will generate and send a confirmation email to the user. The same information will also be displayed in a confirmation screen.			
18. Users will be able to cancel any transaction at any point	A cancel button will be provided on all the transaction screens to cancel the transaction.			
19. User will be able to save/resume transactions for which the data has been passed into Clarety.	Users will be able to save data into Clarety. Users will be able to resume transactions that have been saved in draft mode in Clarety.			
20. The system will provide a mechanism to prevent the unintentional double posting of transactions and any untoward effects caused by the use of the user's back button	<i>The Synchro-nizer Token</i> pattern will be used to avoid Duplicate form submission, Client (browser) navigation (back/forward/refresh), Client access to actions out of sequence by returning to previous bookmarks			
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
21. When a user makes an account change, the system will build logic to recommend changes in other areas (e.g., if the user drops an insurance dependent, offer to change tax withholding)	The logic to recommend changes in other areas will be captured during use case sessions and will be incorporated on the corresponding screens. This logic will be included in the corresponding use case documents.			
22. Whenever a link is included to take the user to a different website, the new site must open in a new window. The user must not be logged out and window must remain open	Agree. STG's page design will provide solution to this requirement.			
23. System will include website statistics typical of those provided in standard web metric software programs (e.g., SurfAid, WebTrends, etc.)	Install and configure a WebSite statistics tool	A web site statistics tool will be installed and configured to monitor site usage statistics and aid in infrastructure capacity planning	Global Functionality Module	1
24. The web application transactions will be real-time, 24 x 7. The application will share the same database and clustered web servers with internal jClarety systems and with our employer self-service website. During the day, call center activity will run concurrently with self-service; at night and weekends, batch jobs will run concurrently with web self-service transactions. ORS will establish an infrastructure to support all concurrent activity. Self-service interfaces must be designed in such a way the legacy application performance is not degraded	<p>STG understands that the web application transaction will be real-time, 24 x 7 excluding scheduled maintenance.</p> <p>STG will design and develop the application without any significant degrade in performance of jClarety under the assumption that the server and network infrastructure of jClarety will be sufficiently deployed or upgraded to handle the higher volumes of user traffic (public users) accessing the application through WSS.</p> <p>The WSS and jClarety Batch processes will run concurrently as long as there are no data integrity/contention issues in running the batch and WSS application at the same time.</p>			



WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
25. System must have the ability to provide messages to users (e.g., on their home page or on the screen associated with an affected process) based on selected criteria. For example, all users with an Idle Code in Clarety (binary indicator in database) must see a screen that tells them to call ORS to research their account).	Message Board Functionality	Users will be able to send messages to ORS through their account. The users will be able to view the messages and the responses sent by the ORS staff in a reverse chronological order	Global Functionality Module	1
26. Whenever a transaction is completed, WSS must generate a unique confirmation number, include it in a message on the screen to the customer, include it in an email to the customer and log it against that customer's account	This functionality will be provided by the Global Functionality module. The components will be defined during the Technical design			

Stage 3: Customer Communication & Documents

1. Document and Information Delivery

Overview: Documents and information will be driven by users' status and process (see Section 9.10, Security; #2 Password Management).

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. System will access, display and print documents created within Clarety using WSI-supplied data. It is intended that documents will be available as pdf.	Barcode And PDF Generation	WSS will access display and print documents (as PDF) using WSI-supplied data from Clarety.	Global Functionality Module	.5
b. Users need the ability to upload documents to WSS in multiple formats. WSS will convert formats into .tif files (or other format specified by ORS), and deliver to the web services interface. Examples of documents are proofs of dependency (e.g., a birth certificate), or proof of military service.	Convert Picture Formats into TIFF files	Users will be able to upload documents to WSS in multiple formats. The feasibility of implementation of conversion of picture formats to .TIFF format will be determined during the Technical Design phase.	Global Functionality Module	.5



WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
c. Users will be able to print personalized documents at their local printer.	Barcode And PDF Generation	Users will be able to print personalized PDF documents at their local printer	Global Functionality Module	.5
d. Documents will be in a secure pdf format (i.e., locked against editing).	Barcode And PDF Generation	Documents will be available in PDF format (locked against editing)	Global Functionality Module	.5
e. System needs ability to access and display educational information from e-Michigan Vignette database.	STG will provide links to display education information available on www.michigan.gov/ors from WSS.			
f. Some transactions require a barcoded cover sheet to be printed at the users' desktop to include with documents that prove age, dependency, etc. After a transaction has occurred, user must have the ability to go back into the system and re-generate that cover sheet.	Barcode And PDF Generation	The PDF documents will have a barcoded coversheet. Users will be able to go back into the system and re-generate the cover sheet.	Global Functionality Module	.5

2. Secured Correspondence

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. Users must be able to send messages to ORS through their account.	Message Board Functionality	Users will be able to send messages to ORS through their account. The users will be able to view the messages and the responses sent by the ORS staff in a reverse chronological order	Global Functionality Module	1
b. Correspondence received from a web account and transmitted into Clarety will initiate a Clarety workflow				
c. It is intended that correspondence received from a web account and sent into a web account will be tracked in jClarety using the account's Correspondence Imaging Folder. Details of delivering and receiving from the individual account will be developed during use case development.				
d. System must include a Message Board where users can see messages they have sent and see the response ORS provided. Message Board must be presented in reverse chronological order.				



WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
e. WSS vendor must work with ORS staff to develop method for ORS staff to reply to messages and have the posted to the members' Message Board. ORS staff will support the jClarety part of the functionality.	Message Board Functionality	Users will be able to send messages to ORS through their account. The users will be able to view the messages and the responses sent by the ORS staff in a reverse chronological order	Global Functionality Module	1

3. Screen Confirmations
Overview: Screen confirmations do not exist in Clarety and there is no intention to include them in Clarety at this time. Current intention is that this functionality will reside wholly within the WSS application.

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. All transactions that pass data into Clarety will be confirmed with an on-screen message.		STG will provide for an on-screen confirmation message (up to 2000 words) for all transactions that pass into Clarety. However the confirmation messages will be hard-coded and may not be editable unless changes are made to the application code related to the transaction directly. No dynamic data maintenance capability will be provided.		
b. On-screen confirmations will be printer-friendly.				
c. On-screen confirmations must allow for up to 2,000 words				
d. Confirmation must pull user-specific data fields into message.				

4. Email Confirmations
Overview: Email confirmations do not exist in Clarety and there is no intention to include them in Clarety at this time. Current intention is that this functionality will reside wholly within the WSS application.

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. All transactions that pass data into Clarety will be confirmed with an email message.		This requirement is covered in STG's Technical solution provided in Section 1.104 of the SOW		
b. Confirmation emails need to be in both text and HTML code format.				
c. Email confirmations must allow for up to 2,000 words				

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
d. System will be able to save email confirmation on a case-by-case basis for certain transaction types to be determined at a later date		This requirement is covered in STG's Technical solution provided in Section 1.104 of the SOW		
e. System must have version control for saving templates of email confirmations.				
f. Email messages must be confidential and HIPAA compliant.				



5. Error Handling and Messages

Overview: Clarety will sometimes send error messages related to the data passed into it. Where possible, we would like to leverage these error messages. However, it is likely that at the data validation stage (before passing into Clarety), other types of error messages will need to be crafted. The language of these messages must be clear, easy-to-read at roughly a 6th grade reading level, and user-friendly. Where possible, they must give explicit instruction on what steps to take to fix whatever problem has occurred. We expect error-handling to be a significant work effort.

Error handling as described here does not exist in Clarety and there is no intention to include it in Clarety at this time. Current intention is that this functionality will reside wholly within the WSS application.

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. When WSS sends a transaction into Clarety, Clarety may return an error. WSS will convert the Clarety error message to a more user-friendly message. ORS will provide a Clarety-to-friendly message conversion map.		STG will provide for an on-screen error messages (up to 500 words) for all transactions that Clarety may return an error. However the error messages will be hard-coded and may not be editable unless changes are made to the application code related to the transaction directly.		
b. WSS will take an action appropriate to any Clarety error. ORS will provide an error-action matrix so WSS knows what action to take.		The error messages will not be stored in a database nor will it be administered from a central admin screen and controlled by specific dates. In other words, no dynamic data maintenance capability will be provided		
c. Error messages must allow for up to 500 words.				

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
d. Besides error messages directly associated with a transaction, system should have the ability to create messages designed for a general audience for the start/home page. These messages must be able to be administered from a central admin screen, displayed and controlled by start and stop dates, and have the ability to add formatting (bold, indent, etc.) and to include or reference an image.		STG will provide for an on-screen error messages (up to 500 words) for all transactions that Clarety may return an error. However the error messages will be hard-coded and may not be editable unless changes are made to the application code related to the transaction directly.		
e. Error messages must be maintained in a database structure by ID number and have versioning.		The error messages will not be stored in a database nor will it be administered from a central admin screen and controlled by specific dates. In other words, no dynamic data maintenance capability will be provided		
f. Error messages must be approved by ORS and focus-group tested.				
g. Selected ORS staff will have access and ability to change error messages and screen messages. WSS vendor must create an interface for staff to edit/add messages.				
h. Error messages need to accept either text or HTML code.				
i. Error messages and screen messages will be able to have start and end dates.				
j. Screen messages can be either text or HTML.				
k. Screen messages need to be specific to system and will be based on login and authentication. For example, messages that are specific to public school employees will not be seen by state employees.				



6. Screen Design and Style Sheets				
<u>Overview:</u> The website will have a common style sheet for four retirement systems that can be enhanced to distinguish between retirement systems (e.g., same fonts, headers, etc. for all systems but different background color for the different systems).				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. Common screens will have different style sheets.	STG will adhere to this design requirement by providing different style sheets to the 4 retirement systems with in the WSS application.			
b. Must follow e-Michigan standards, including, but not limited to, accessibility, look and feel.	STG will follow State’s usability and look and feel standards available in: http://michigan.gov/documents/Look_and_Feel_Standards_2006_v3_166408_7.pdf and http://www.michigan.gov/documents/Usability_guidelines_2003v1_72381_7.pdf			
c. Page view will offer a printer-friendly version.	Agree. The contents and the printer-friendly screens will be identified during use case sessions and will be documented in use case documents.			
d. Web designer will be able to easily make changes to a minimum of content, add/mask/edit/delete fields, change style sheets, change error messages and screen messages.	STG will provide for an on-screen confirmation messages, error messages, for all transactions that pass into Clarety. However the messages will be hard-coded and may not be editable by a web designer. For updates to content, add/mask/edit/delete fields, error messages or screen messages changes will need to be made to the application code related to the transaction directly. Web designers may be able to make changes to stylesheets. STG assumes that State will provide resources that are adequately qualified and/or trained to perform these changes. No dynamic data maintenance capability will be provided.			
e. Logic programmer will manage validation and logic, including, but not limited to, transaction processing, database updates, workflows, data storage.	Agree. STG assumes that State will provide resources that are adequately qualified and trained to perform these changes.			
f. WSS will have website feedback and storage for feedback (as part of the WSS application; not resident in Clarety). Upon submitting email through this feature, user will receive on-screen acknowledgement of their message to include non-response clause. Feedback message must be routed appropriately (e.g., through email to the web designer) or made available in method easy to access and approved by ORS.	Agree. The required pages will have link to provide website feedback. The required pages will be identified during use case sessions.			



Stage 4: Retiree Financial Transactions				
1. Tax Withholding				
<u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to establish, verify or change tax withholding.				
a. Upon login, users will see current tax withholding status and current deductions.	View / Update tax withholding status and deductions	Application will let users view current tax withholding status and current deductions. Users will also be able to change the tax withholding amount or deduction	Retiree Financial Transactions Module	1
b. If there is no established tax withholding, view will present the default deduction and notify the user that this is a default that can be changed.	This requirement is covered in Stage 4 - Item 1. a			
c. The application must allow users to make a tax withholding according to current business rules. This includes, but is not limited to, allowing the user to establish a number of deductions, set marital status, supply a number of exemptions and enter an additional withholding amount. Deduction field is required; must enter 0 if user wants no deduction.	Setup Tax Withholding	Application will let users make a tax withholding based on current business rules - set up number of deductions, set marital status, supply a number of exemptions and enter a withholding amount	Retiree Financial Transactions Module	1
d. System will access existing Clarety calculator that provides users the ability to enter proposed change (change in deduction or change in withholding amount). System will pass information back and forth iteratively through the calculator so user can see the effects on the pension benefit.	This requirement states that WSS will access an existing Clarety calculator. STG accepts the responsibility to invoke the WSI interfaces available to access existing Clarety calculator to provide this requirement			
e. When user accepts the change, the system submits the information into Clarety.	This requirement is covered in Stage 4 - Item 1. c			
f. Users will be able to post-date a change in deductions or withholdings.	STG will invoke the necessary WSI to post-date a change in deductions or withholdings. The details will be identified during requirements gathering.			
g. Users will be able to view a post-dated change and be able to cancel or change before effective date of change.	This requirement is covered in Stage 4 - Item 1. a			
h. Based on transaction, system will offer to users other areas to change such as deductions in other pertinent areas such as, but not limited to, CitiStreet, Sick Leave, and Early Out Leave.	This requirement is covered in Stage 3 – Item 21			



2. Reprint 1099 <u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to view, print, or mail to an address listed in Clarity.				
a. Users will be able to print a substitute 1099. Users will only be able to view/print the most current version of the 1099 available for each year, i.e., they will be unable to view/print an original 1099 if a corrected version has been issued. This document does not exist in Clarity as a template.	View and Print 1099 forms	Application will let the users view/print the most current version of the 1099 available for each year from all years available (post 2002) The details will be identified during requirements gathering	Retiree Financial Transactions Module	1
b. Users will have ability to choose from all years available (post 2002) and print selected year.	This requirement is covered in Stage 4 - Item 2. a			
c. Based on transaction, system will offer to users other areas to change such as their status in other pertinent areas such as, but not limited to, tax withholding and change of address.	This requirement is covered in Stage 3 – Item 21			

3. Electronic Fund Transfer (EFT) <u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to establish, verify, change, or rescind an EFT. Users are allowed a total of two accounts for EFT options.				
a. Upon login, users will see current EFT enrollments, including, but not limited too, bank name (converted from RTN), account numbers and scheduled amount.	Verify/Change/Rescind EFTs	Application will let users view their current EFT enrollments (bank name, account numbers and scheduled amount), change their EFT account.	Retiree Financial Transactions Module	1
b. System will allow users to enter dollar amount or percentage to be directed to an account.	This requirement is covered in Stage 4 - Item 3. c			

c. If two EFT accounts are selected, user will enter an amount or percent for the first account and system will automatically place remaining amount or percentage from the first EFT account into the second EFT account.	Setup Electronic Funds Transfer (EFT)	Application will let users set up (up to a maximum of 2) bank accounts to which their pension can be deposited directly.	Retiree Financial Transactions Module	1
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d. Users will be able to post-date an EFT change. Users will need to be able to see the effective date of the change and the date that the change was made (transaction date).	This requirement is covered in Stage 4 - Item 3. c			
e. System will send selection into Clarety and return information to allow users to see the effect of a change on the deposit amounts then accept or reject the change.	This requirement is covered in Stage 4 - Item 3. c			
f. When user accepts the change, system passes final information into Clarety.	This requirement is covered in Stage 4 - Item 3. c			
g. If users change their EFT account, system will flag users not to close old EFT account until the appropriate time. System will generate a message to indicate when the EFT is effective based on current business rules and if the change occurred too late to be included in the next payroll.	This requirement is covered in Stage 4 - Item 3. a			
h. Based on transaction, system will offer to users other areas to change such as tax withholding and change of address.	This requirement is covered in Stage 3 – Item 21			

4. Earnings Limit				
<u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to view current earnings and the amount of their earnings limit for the current year.				
a. System will display “Earnings As Of” date and earnings limit for users receiving a benefit.	View Earnings and limits	Application will let users view earnings "as of" date and earning limit for users receiving a benefit.	Retiree Financial Transactions Module	1
b. System will have ability to exclude certain groups of benefit recipients.	This requirement is covered in Stage 4 - Item 4. d			
c. System will have a calculator that provides users the ability to enter dollar amounts and see the effects on the pension benefit.	This requirement is covered in Stage 4 - Item 4. d			
d. Users will be able to select future years and view earnings limit at that time.	Estimate Earnings Limit effect of pension	Application will let users estimate the effects of a certain dollar amount on their pension benefits.	Retiree Financial Transactions Module	1
e. System needs to generate disclaimers for certain user groups based on ORS defined rules.	This requirement is covered in Stage 4 - Item 4. d			
f. System needs to link to critical shortage list on another website.	This requirement is covered in Stage 3 – Item 22			
g. For active members, system will generate future earnings limit when users are running the pension estimate module.	STG will invoke the appropriate Clarety WSI to provide this functionality. Details will be deferred to requirements gathering.			
h. System will generate a printer-friendly version of earnings limitation information or calculator scenarios.	This requirement is covered in Stage 3 - Item 3			



5. Income Verification				
<u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to view their pay stubs online. Users will have ability to print, or mail an income verification document. HIPAA guidelines apply.				
a. Upon login, users will see their basic demographic information, including, but not limited too, their income.	This requirement is covered in Stage 4 - Item 5. b			
b. Users will be able to choose to view and print their pay stubs. This document does not exist in Clarity as a template.	View pay stubs/ demographic information	Application will let users view their demographic information (incl income) and print their pay stubs Details will be deferred to requirements gathering.	Retiree Financial Transactions Module	1
c. Users will be able to choose to view and print, a personalized income verification letter for an assisted living home (includes HIPAA-protected information). This document does not exist in Clarity as a template.	View / Print personalized income verification letter	Application will let users view and print their personalized income verification letter for an assisted living home or a mortgage company STG will invoke the appropriate Clarity WSI to provide this functionality. Details will be deferred to requirements gathering.	Retiree Financial Transactions Module	1
d. Users will be able to choose to view and print, personalized income verification letter for a mortgage company (excludes HIPAA-protected information).	This requirement is covered in Stage 4 - Item 5. c			
e. Users will have ability to mail income verification to an alternate address. The users may have an alternate address in Clarity they can choose from.	This requirement is covered in Stage 4 - Item 5. c			
f. Based on transaction, system will offer users to change their status in other pertinent areas such as, but not limited to, tax withholding and change of address.	This requirement is covered in Stage 3 – Item 21			
	Review Session for Retiree Financial Transactions	The review sessions will be used to review all the use case documents and screen mock-up created for the Retiree Financial Transactions module.	Retiree Financial Transactions Module	2



	Approval Session for Retiree Financial Transactions	Any recommended changes from the review sessions will be completed and reviewed with the business users for final approval.	Retiree Financial Transactions Module	1
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Stage 4: Demographics and Insurances

1. Address

Overview: All groups of users will log on to Web Self Service (WSS) and be able to establish, verify, or change their address.

a. Upon login, users will see their permanent address on record and their alternate address with applicable effective dates.	Establish permanent/alternate address and View / Change Address	Application will let users setup, verify and change a permanent and an alternate address for the mailings related to this application	Maintain Address, Insurance Data, Report Death Module	1
b. Users will be able to change their permanent address.	This requirement is covered in Stage 4 – Item 1. a			
c. Users will be able to change their alternate address and applicable effective dates for alternate address.	This requirement is covered in Stage 4 – Item 1. a			
d. System will not allow users to change the “In Care Of” field, if applicable	This requirement is covered in Stage 4 – Item 1. a			
e. System generated confirmation of the change will be mailed to both the old and new addresses for either a permanent or alternate address change. Correspondence will be sent by Clarity.	This requirement is covered in Stage 3 – Item 4			
f. System will show all current addresses on record for the user (permanent and temporary).	This requirement is covered in Stage 4 – Item 1. a			
g. Users will be able to add, or change email address. For active members only, deliver message that the address will be retained for 60 days when it will be overwritten by the employer-provided address.	This requirement is covered in Stage 4 – Item 1. a			
h. Users will be able to add, or change phone numbers.	This requirement is covered in Stage 4 – Item 1. a			
i. Based on transaction, system will offer to users other areas to change such as changing their address with their employer.	This requirement is covered in Stage 3 – Item 21			



2. SERS Life Insurance				
<u>Overview:</u> Users will log on to Web Self Service (WSS) and be able to establish, verify, or change their life insurance beneficiary and applicable beneficiary information.				
a. Upon login, users will see their life insurance policy amount and beneficiary information.	View life insurance details and beneficiaries	Application will let users view their life insurance policy amount and beneficiary information. The system will also generate a printer-friendly version of the policy and beneficiary information.	Maintain Address, Insurance Data, Report Death Module	1
b. Users will be able to change beneficiary information. Expected fields include, but are not limited to, beneficiary name, date of birth, address, relationship, etc.	Setup life insurance details and beneficiaries	Application will let users setup their life insurance and beneficiary details	Maintain Address, Insurance Data, Report Death Module	1
c. Upon change in life insurance beneficiary, generate document required for signature and notarization.	Change life insurance details and beneficiaries	Application will let users change the beneficiary information. Upon change system will generate a document required for signature and notarization.	Maintain Address, Insurance Data, Report Death Module	1
d. System will lock user's account so no changes to life insurance may be made upon reported death by either unauthenticated WSS entry or by system administrator.	This requirement is covered in Stage 4 – Item 5. L			
e. System will generate a printer-friendly version of life insurance policy and beneficiary information.	View life insurance details and beneficiaries	Application will let users view their life insurance policy amount and beneficiary information. The system will also generate a printer-friendly version of the policy and beneficiary information.	Maintain Address, Insurance Data, Report Death Module	1
f. Based on transaction, system will offer to users other areas to change such as their beneficiary, their survivor beneficiary, health insurance dependents, tax withholding	This requirement is covered in Stage 3 – Item 21			



3. Pension/Refund Beneficiary				
Overview: Users will log on to Web Self Service (WSS) and be able to establish, verify, or change their pension beneficiary and applicable beneficiary information.				
a. System will be able to determine users' status upon login and populate screen with available pension beneficiary recipients and pension refund beneficiary recipients.	This requirement is covered in Stage 4 – Item 3 d, e			
b. System will be able to determine allowable beneficiaries based on user's plan, i.e., parent, child, grandparent, etc.	This requirement is covered in Stage 4 – Item 3 d, e			
c. System will be able to determine named beneficiary's eligibility (flagged by date of birth) based on current business rules.	This requirement is covered in Stage 4 – Item 3 d, e			
d. Active member users will be able to establish, verify, or change a pension beneficiary from a default drop down list and then add pertinent information including, but not limited too, name, address, date of birth.	Setup and Change pension/refund beneficiary recipients	Application will let users establish and change pension and refund beneficiaries based on eligible beneficiaries for each user's plan from a drop-down list	Maintain Address, Insurance Data, Report Death Module	1
e. Active member users will be able to establish, verify, or change a refund beneficiary from a default drop down list and then add pertinent information including, but not limited too, name, address, date of birth, % of refund.	Setup and Change pension/refund beneficiary recipients	Application will let users establish and change pension and refund beneficiaries based on eligible beneficiaries for each user's plan from a drop-down list	Maintain Address, Insurance Data, Report Death Module	1
f. Deferred members will have at a minimum the ability to view their pension beneficiary or refund beneficiary.	This requirement is covered in Stage 4 – Item 3 a.			
g. Retirees will be able to view their current pension beneficiary and survivor option.	View pension/refund beneficiary recipients	Application will let users view the details of their pension and refund beneficiaries	Maintain Address, Insurance Data, Report Death Module	1
h. Retirees will be able to view their current refund beneficiary.	View pension/refund beneficiary recipients	Application will let users view the details of their pension and refund beneficiaries	Maintain Address, Insurance Data, Report Death Module	1
i. System will be able to allow for unlimited contingent beneficiaries for a refund and pertinent information including, but not limited too, name, address, date of birth, along with the ability for users to enter percentage of benefit.	This requirement is covered in Stage 4 – Item 3 e			
j. System will generate a printer-friendly version of beneficiary information.	This requirement is covered in Stage 3 – Item 3			
k. Based on transaction, system will offer to users other areas to change such as their beneficiary, their life insurance beneficiary, health insurance dependents, tax withholding.	This requirement is covered in Stage 3 – Item 21			



4. Insurance Dependents				
<u>Overview:</u> Users (to include at least retirees and users who have applied for retirement) will be able to establish, verify, or change their dependents on their health, dental, vision insurance plans.				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. System will be able to determine users' status upon login and populate insurance options available based on zip code. Note that this is not currently available in Clarety and will need to be developed entirely on the WSS side. The information must be in an easily updateable format (e.g., table) as the information changes at least yearly and as often as monthly.	View insurance status	Application will let users view user's insurance status and available insurance options based on the zip code. This functionality is not currently available in Clarety.	Maintain Address , Insurance Data, Report Death Module	0.5
b. System will be able to determine if users are eligible for Medicare (flagged by age of either users or a dependent entered by users).	This requirement is covered in Stage 4 – Item 4.c			
c. System will notify (on screen) eligible Medicare users they must sign up for Medicare.	Determine insurance and Medicare eligibility / notify eligible users' for signup	Application will let users view their eligibility to signup for medicare and notify eligible users to sign up	Maintain Address , Insurance Data, Report Death Module	1.5
d. Users will be able to delete insurance dependent at any time.	Delete / view / Add / Change insurance dependents	Application will let users view and delete any number of insurance dependents. Application will let users add or change insurance dependents based on a qualifying event. System will generate a document listing proofs needed to complete the transaction	Maintain Address , Insurance Data, Report Death Module	1
e. Users will be able to add/change/remove an unlimited number of insurance dependents at any time, including self.	Delete / view / Add / Change insurance dependents	Application will let users view and delete any number of insurance dependents. Application will let users add or change insurance dependents based on a qualifying event. System will generate a document listing proofs needed to complete the transaction	Maintain Address , Insurance Data, Report Death Module	1



<p>f. When adding or changing a dependent, users will choose a qualifying event (from drop-down list) and be notified if coverage is immediately available, or if a 6-month wait applies, based on current business rules. System will provide a document listing proofs of qualifying events that are needed. Clarety will flag the transaction as incomplete until proofs are mailed in, at that time, system will complete insurance change transaction.</p>	<p>Delete / view / Add / Change insurance dependents</p>	<p>Application will let users view and delete any number of insurance dependents. Application will let users add or change insurance dependents based on a qualifying event. System will generate a document listing proofs needed to complete the transaction</p>	<p>Maintain Address, Insurance Data, Report Death Module</p>	<p>1</p>
<p>g. When adding a dependent, system will provide data to Clarety and return a personalized document to users detailing proofs needed for addition to be accepted. Clarety will flag the transaction as incomplete until proofs are mailed in, at that time, system will complete insurance change transaction.</p>	<p>Delete / view / Add / Change insurance dependents</p>	<p>Application will let users view and delete any number of insurance dependents. Application will let users add or change insurance dependents based on a qualifying event. System will generate a document listing proofs needed to complete the transaction</p>	<p>Maintain Address, Insurance Data, Report Death Module</p>	<p>1</p>
<p>h. Based on input code, users needs to be notified when a choice will result in loss of coverage.</p>	<p>This business rule will be implemented when users signup for an insurance. Details will covered during requirements gathering</p>			
<p>i. System will generate a printer-friendly version of insurance information.</p>	<p>This requirement is covered in Stage 3 – Item 3</p>			
<p>j. Based on transaction, system will offer to users other areas to change such as their beneficiary, their life insurance beneficiary, tax withholding.</p>	<p>This requirement is covered in Stage 3 – Item 21</p>			



5. Report a Death				
Overview: WSS will capture/record reports of the death of: Pension or life insurance beneficiary by authenticated users; spouse who is also a member. Any member (including, but not limited too, retiree, active, deferred) by a non-authenticated guest user.				
a. Users will see their current beneficiary information.	This requirement is covered in Stage 4 – Item 3. g			
b. Users will choose which beneficiary they need to report the death of, and enter the date of the death. This transaction, upon passing into Clarety, will initiate workflow.	Authenticated user/Unauthenticated user - Report Death	Application will let authenticated users notify the death of a pension/insurance beneficiary or a retiree. The system will then resume an internal workflow in jClarety upon receipt of the death certificate	Maintain Address, Insurance Data, Report Death Module	1
c. System will provide data to Clarety and return a document requiring death certificate. Clarety will flag the transaction as incomplete until the death certificate is received.	This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.			
d. Receipt of death certificate will resume internal workflow in Clarety.	This requirement is covered in Stage 4 – Item 5. b			
e. System will recognize if the beneficiary is a retiree of any system by the social security number. If the beneficiary is a retiree of a retirement system, the system will lock the deceased's WSS account.	This requirement is covered in Stage 4 – Item 5. b			
f. If deceased beneficiary is SERS, system will generate life insurance beneficiary form to be signed and witnessed.	This requirement is covered in Stage 4 – Item 5. b			
g. If the deceased is also a retiree of a retirement system, the system will generate an email notification to retiree that his/her death has been reported and lock the deceased's WSS account.	This requirement is covered in Stage 4 – Item 5. b			
h. System will allow guest users to report the death of a member. At no time will the system deliver any kind of confirming information to the guest user.	This requirement is covered in Stage 4 – Item 5. b			
i. If guest users cannot provide social security number of deceased member, prompt guest users to call, no further transaction allowed.	This requirement is covered in Stage 4 – Item 5. b			
j. Guest users will enter information including, but not limited too, deceased name, date of death, city/state of death, relationship of caller, multiple lines for contact information for survivors.	This requirement is covered in Stage 4 – Item 5. b			
k. System will allow notification of the same death by more than one guest user. First guest user's report will initiate workflow in Clarety.	This requirement is covered in Stage 4 – Item 5. b			



I. System will lock the deceased's WSS account and generate email notification that the death has been reported.	This requirement is covered in Stage 4 – Item 5. b			
	Review Session for Maintain Address and Insurance Data	The review sessions will be used to review all the use case documents and screen mock-up created for the Maintain Address and Insurance Data Module.	Maintain Address, Insurance Data, Report Death Module	2
	Approval Session for Maintain Address and Insurance Data	Any recommended changes from the review sessions will be completed and reviewed with the business users for final approval.	Maintain Address, Insurance Data, Report Death Module	1

Stage 5: Service Credit				
1. Universal Buy-in (UBI)				
<p>Overview: System will access existing Clarety calculator that provides users the ability to model scenarios and calculate effect on pension (and current wages if payroll deduction is chosen) if they choose to purchase UBI credit. System will pass information back and forth iteratively through the calculator. System needs to determine type of users, if they are eligible to buy time, inform users for how much time they have previously purchased, how much they are eligible to buy based on current business rules.</p> <p>Guest users will have the ability to model the additional pension realized because of a UBI purchase and calculate the number of years of retirement before the retiree would have recouped the cost of the service credit. Note that this functionality does not currently reside within Clarety and will need to be built separately. Data will not pass into Clarety, however, users must have the ability to print the results of the service credit cost modeling.</p>				
a. System will inform users if they are ineligible to buy UBI service credit and why based on current business rules. If the user is not eligible, system needs to generate reason and when users will be eligible, if ever.	Determine UBI service credit eligibility	Application will let users determine if they are eligible to buy UBI service credit based on business rules available in jClarety. If they are ineligible, system will generate a reason and let them know if will ever be eligible.	Service Credit Module	1
b. If user is eligible to buy UBI, system presents Clarety calculations on how many years are available to purchase and display any UBI credit previously purchased.	View UBI eligibility details	Application will let eligible users buy UBI and display jClarety calculations on how many years are available to purchase and display any previous credit.	Service Credit Module	1
c. System will access existing calculator to model the effect of a UBI purchase on the users' future pension, and allow the users to save different scenarios for comparison. The scenarios will model different amounts of UBI credit along with calculating the effects of three different payment methods.	<p>This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p> <p>This functionality is not currently available in Clarety.</p>			

<p>d. Users will be able to print a bill that is barcoded and printer friendly for purchases they intend to complete. Also need the ability to cancel the request.</p>	<p>This requirement is covered in Stage 3 – Item 3</p>			
<p>e - If users indicate they want to purchase with payroll deduction, system will generate a document for users to print, sign, and take to employer. f - If payroll deduction is selected, system will generate a remittance advice document g -If users indicate they want to purchase with a Plan-to-Plan Transfer, system will provide data to Clarety and return a form for use at a financial institution</p>	<p>Purchase UBI credit Display # of days of service credit that can be purchased</p>	<p>Application will let users indicate that want to purchase a UBI credit with payroll deduction. System will generate a document for the user to print, sign and take to employer. If payroll deduction is selected, system will generate a remittance advice document. If users indicate they want to purchase with a Plan-to-Plan Transfer, system will provide data to jClarety and return a form for use at a financial institution. If more than one payment option is selected, system must have logic to notify users to complete the transaction based on current business rules. System will also notify user of implications of service purchases, if they are near retirement and provide option to cancel. Application will let eligible users view how many years are available for purchase based on years of service or type of service credit chosen.</p>	<p>Service Credit Module</p>	<p>1</p>

<p>h - If more than one payment option is selected, system must have logic to notify users to complete the transaction based on current business rules</p> <p>i - System will recognize if users have a retirement application on file and will display a warning about the implications of service purchases so near to retirement and give user the option to cancel. If retirement effective date is less than 3 months away from purchase date, ORS may decide to disallow transactions for purchases by payroll deduction (requirement to be fully defined in use case development)</p>	<p>Application will let users indicate that want to purchase a UBI credit with payroll deduction. System will generate a document for the user to print, sign and take to employer. If payroll deduction is selected, system will generate a remittance advice document. If users indicate they want to purchase with a Plan-to-Plan Transfer, system will provide data to jClarety and return a form for use at a financial institution. If more than one payment option is selected, system must have logic to notify users to complete the transaction based on current business rules. System will also notify user of implications of service purchases, if they are near retirement and provide option to cancel. Application will let eligible users view how many years are available for purchase based on years of service or type of service credit chosen.</p>		
<p>j. WSS will need to define a set of parameters that drive messages to the user that reflect likelihood of being able to pay off a purchase made through payroll deduction. System will consider total cost of service and amount of payment and deliver messages that help the user to determine whether it is in his/her best interest to continue with the purchase.</p>	<p>This requirement is covered in Stage 5 – Item 1. e,f,g,h,i</p>		



2. Purchase Service Credit

Overview: System will access existing Clarety calculator that provides users the ability to model scenarios and calculate effect on pension (and current wages if payroll deduction is chosen) if they choose to purchase service credit. System will pass information back and forth iteratively through the calculator. System needs to determine type of users, if they are eligible to buy time in the type of service credit they have selected, Notify users of how much time they have previously purchased, how much they are eligible to buy based on type of service selected and current business rules. These are the service credit types that will be permitted through web self-service.

- a. Maternity/Paternity
- b. Non-Public Service (MPSERS only)
- c. Other Government Service (SERS only)
- d. Military Service
- e. Out of System Service After 1974 (MPSERS only)
- f. Sabbatical Service Granted After July 1, 1981 (MPSERS only)

<p>b. Guest users will have the ability to model the additional pension realized because of a service credit purchase and calculate the number of years of retirement before the retiree would have recouped the cost of the service credit. Note that this functionality does not currently reside within Clarety and will need to be built separately. Data will not pass into Clarety, however, users must have the ability to print the results of the service credit cost modeling</p>	<p>This requirement will be addressed. Details will be identified during requirements gathering. This functionality does not reside within jClarety</p>			
<p>c. System will inform users if they are ineligible to buy service credit and why based on users' years of service and type of service credit selected. If users are not eligible, system needs to provide reason and date users will be eligible, or other appropriate messages defined by ORS.</p>	<p>Determine eligibility to buy service credit</p>	<p>Application will let users determine their eligibility to buy service credit. If the user is ineligible, system will notify why and when they may be eligible based on years of service or type of service credit chosen.</p>	<p>Service Credit Module</p>	<p>1</p>
<p>d. If users are eligible to buy service credit, system will display how many years are available to purchase based on type of service credit selected and service credit previously purchased</p>	<p>Determine eligibility to buy service credit</p>	<p>Application will let users determine their eligibility to buy service credit. If the user is ineligible, system will notify why and when they may be eligible based on years of service or type of service credit chosen.</p>	<p>Service Credit Module</p>	<p>1</p>

<p>e. If user has an approved bill on file but has not purchased all the years available, system will allow user to generate a Member Billing Statement to advance the purchase.</p>	<p>Generate member billing statement Generate bar-coded personalized forms to purchase service credit</p>	<p>Application will let users view a member billing statement if they have not purchased all the years available. Application will let users who do not have an approved bill on file to print personalized bar-coded forms. The PDF documents and bar-coded personalized forms will be displayed in WSS by invoking the jClarety WSI to be developed by State</p>	<p>Service Credit Module</p>	<p>1</p>
<p>f. If user does not have an approved bill on file, the system will allow user to print personalized forms that are barcoded and printer friendly.</p>	<p>Generate member billing statement Generate bar-coded personalized forms to purchase service credit</p>	<p>Application will let users view a member billing statement if they have not purchased all the years available. Application will let users who do not have an approved bill on file to print personalized bar-coded forms. The PDF documents and bar-coded personalized forms will be displayed in WSS by invoking the jClarety WSI to be developed by State</p>	<p>Service Credit Module</p>	<p>1</p>

<p>g. System will access existing calculator to model the effect on the users' future pension, allow the users to save different scenarios for comparison. The scenarios will model different types of service credit purchases along with calculating the effects of three different payment methods.</p>	<p>Model additional pension realized due to Service Credit purchase</p>	<p>Application will let users model additional income realized because of a service credit purchase and calculate the number of years of retirement before the retiree would have recouped the cost of the service credit. System will access existing jClarety calculator to model the effect on the users' future pension, allow the users to save different scenarios for comparison.</p>	<p>Service Credit Module</p>	<p>1</p>
	<p>Review Session for Service Credit</p>	<p>The review sessions will be used to review all the use case documents and screen mock-up created for the Service Credit and Refunds Module.</p>	<p>Service Credit Module</p>	<p>2</p>
	<p>Approval Session for Maintain Address and Insurance Data</p>	<p>Any recommended changes from the review sessions will be completed and reviewed with the business users for final approval.</p>	<p>Service Credit Module</p>	<p>1</p>



3. Repayment of Refunds				
<u>Overview:</u> Users will be able to determine when and if they took a refund, the amount of service cancelled due to refund, request repayment for refunds.				
a. Users will see date of refund.	View Refund details View contribution history	Application will let users view refund details (date, amount of refund, amount of service cancelled due to refund) Application will let users view history of personal contributions	Refunds Module	1
b. Users will see amount of refund.	View Refund details View contribution history	Application will let users view refund details (date, amount of refund, amount of service cancelled due to refund) Application will let users view history of personal contributions	Refunds Module	1
c. Users will see the amount of service canceled due to refund (only for refunds that were made since Clarety went into production).	View Refund details View contribution history	Application will let users view refund details (date, amount of refund, amount of service cancelled due to refund) Application will let users view history of personal contributions	Refunds Module	1
d. Users will be able to view history of personal contributions (only for refunds that were made since Clarety went into production).	View Refund details View contribution history	Application will let users view refund details (date, amount of refund, amount of service cancelled due to refund) Application will let users view history of personal contributions	Refunds Module	1
e. System will determine if user is eligible to repay refund based on the business rules in place at the time of implementation and member status.	Determine eligibility to repay refunds	Application will determine user's eligibility to repay refunds based on business rules	Refunds Module	1
f. System will generate bill for users to repay refund if users chooses.	Generate bill for refund repay	Application will generate a personalized bill for users to repay refund and will initiate a workflow (if service credit was earned after 09/30/2002)	Refunds Module	1



<p>g. If user is trying to purchase service credit that was earned before 09/30/02, system will personalize forms for the customer to print. This process will follow the current manual process.</p>	<p>This requirement is covered in Stage 5 – Item 3.e</p>			
<p>h. If user is trying to purchase service credit that was earned after 09/30/02, system will personalize forms for the customer to print and will initiate a workflow. Receipt of documents will resume internal workflow in Clarety.</p>	<p>Generate bill for refund repay</p>	<p>Application will generate a personalized bill for users to repay refund and will initiate a workflow (if service credit was earned after 09/30/2002)</p>	<p>Refunds Module</p>	<p>1</p>

4. Refund Request
Overview: Inactive and deferred users will be able to see if they have any MIP or personal contributions on account, the value of those contributions plus interest, and request a refunds.

<p>WDRA Requirements</p>	<p>Use Case Requirement</p>	<p>STG Solution Description</p>	<p>STG Solution Grouping</p>	<p>Estimated # of JAD Sessions**</p>
<p>a. Upon a request for a refund, system will notify the user that this action will cancel all service credit associated with the funds and that they will be able to repay the refund later if they rejoin public service.</p>	<p>Request refund</p>	<p>Application will let a user request a refund. System will notify the user that this action will cancel all service credit associated with the funds and that they will be able to repay the refund later if they rejoin public service</p>	<p>Refunds Module</p>	<p>1</p>
<p>b. If a deferred member requests a refund, system will notify the user that the user is eligible for pension and insurance benefits, route the user to the Pension Estimator and show potential benefit (so they can see what they are giving up). System will permit the transaction with user override.</p>	<p>Process refund request</p>	<p>Application will process a refund request based on user type. If a deferred member requests a refund, system will notify the user that the user is eligible for pension and insurance benefits, route the user to the Pension Estimator and show potential benefit. If an active member requests a refund, system will notify the user that members who are currently employed (receiving wages) are not eligible for a refund.</p>	<p>Refunds Module</p>	<p>1</p>
<p>c. If an active member requests a refund, system will notify the user that members who are currently employed (receiving wages) are not eligible for a refund. System will permit the transaction with user override</p>	<p>This requirement is covered in Stage 5 – Item 4.a</p>			



<p>d. System will allow users to indicate that funds should be delivered to a 3rd party financial institution (roll over) and will collect appropriate data fields for processing through Clarety.</p>	<p>Rollover refunds</p>	<p>Application will allow users to indicate that funds should be delivered to a 3rd party financial institution (roll over) and will collect appropriate data fields for processing through jClarety</p>	<p>Refunds Module</p>	<p>1</p>
<p>e. System will pass information into Clarety and initiate workflow.</p>	<p>This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p>			
<p>f. Documentation and a wet signature are required for accounts that terminated less than 2 years before the date of request before funds can be released. System will generate appropriate barcoded, printer-friendly documents, suspend workflow and resume workflow when documents are received internally.</p>	<p>This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p>			
<p>g. For accounts without an address of record, documentation and a wet signature may be required before funds can be released. System will generate appropriate barcoded, printer-friendly documents, suspend workflow and resume workflow when documents are received internally.</p>	<p>This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p>			
<p>h. Accounts that have a Domestic Relations Order on file (portion of pension is payable to an ex-spouse) are unable to claim a refund. Transaction must stop and member redirected to call our office.</p>	<p>This requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p>			
	<p>Review Session for Service Credit and Refunds</p>	<p>The review sessions will be used to review all the use case documents and screen mock-up created for the Refunds Module.</p>	<p>Refunds Module</p>	<p>2</p>
	<p>Approval Session for Service Credit and Refunds</p>	<p>Any recommended changes from the review sessions will be completed and reviewed with the business users for final approval.</p>	<p>Refunds Module</p>	<p>1</p>



Stage 5: Apply for Retirement

1. Apply for Retirement:

Overview: The application process is in 5 separate steps as follows: Apply (retirement type), Choose Survivor, Tax Withholding, EFT, and Insurance Enrollment. For some members, there is also Life Insurance Enrollment. Users will be able to stay in each step and adjust data iteratively, using the existing Clarety calculators, to see the effect on payment. This will all need to be accomplished through temporary storage. Upon concluding each step, users will submit data and at this point, the system will pass the data into the Clarety database. Users can return to a previous step to make changes at any time.

Note that the Michigan retirement system offers 5 different types of retirements with different options available for each type. See attached chart.

Members of the Judges Retirement System do not have wage and service information in the Clarety database. Their online application process will be a data entry process only with little to no personalization. Process will need to be defined separately.

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
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<p>a. Users will enter termination date and be asked to verify that retirement effective date is the first date of the following month, if user chooses “no,” system will generate disclaimer that other rules apply and direct the user to call.</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			
<p>b. System will notify users of necessary steps/documents to complete application process along with timeframe to complete.</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			
<p>c. System will personalize screens and documents with information resident in the Clarety database (does not apply to judges).</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			
<p>d. System will display eligibility based on age and years of service, if they are not eligible to retire, when they will be eligible, and estimated future benefit based on business rules in effect at the time of implementation.</p>	<p>Determine eligibility for retirement</p>	<p>Application will determine user's retirement eligibility based on age and years of service, if they are not eligible to retire, when they will be eligible, and estimated future benefit based on business rules in effect at the time of implementation. If users are eligible, system will offer the user a choice of survivor option. If users are eligible but at early-reduced option, users will have to confirm (online) they understand they are taking a reduced benefit. Users will be able to use the pension estimator at any time in the application process and not lose retirement application information already completed. System will notify users of necessary steps/documents to complete application process along with timeframe to complete. System will personalize screens and documents with information resident in the jClarety database (does not apply to judges).</p>	<p>Retirement Application Module</p>	<p>1</p>



<p>e. If users are eligible, system will offer the user a choice of survivor option.</p>	<p>Determine eligibility for retirement</p>	<p>Application will determine user's retirement eligibility based on age and years of service, if they are not eligible to retire, when they will be eligible, and estimated future benefit based on business rules in effect at the time of implementation. If users are eligible, system will offer the user a choice of survivor option. If users are eligible but at early-reduced option, users will have to confirm (online) they understand they are taking a reduced benefit. Users will be able to use the pension estimator at any time in the application process and not lose retirement application information already completed. System will notify users of necessary steps/documents to complete application process along with timeframe to complete. System will personalize screens and documents with information resident in the jClarety database (does not apply to judges).</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>f. If users are eligible but at early-reduced option, users will have to confirm (online) they understand they are taking a reduced benefit.</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			



<p>g. Users will be able to use the pension estimator at any time in the application process and not lose retirement application information already completed</p>	<p>Determine eligibility for retirement</p>	<p>Application will determine user's retirement eligibility based on age and years of service, if they are not eligible to retire, when they will be eligible, and estimated future benefit based on business rules in effect at the time of implementation. If users are eligible, system will offer the user a choice of survivor option. If users are eligible but at early-reduced option, users will have to confirm (online) they understand they are taking a reduced benefit. Users will be able to use the pension estimator at any time in the application process and not lose retirement application information already completed. System will notify users of necessary steps/documents to complete application process along with timeframe to complete. System will personalize screens and documents with information resident in the jClarety database (does not apply to judges).</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>h. Users will enter survivor information and indicate if the named survivor is the spouse. If the survivor is not the spouse, system will generate a form to be signed, notarized and returned</p>	<p>Enter Survivor information</p>	<p>Application will let users enter survivor information and indicate if the named survivor is the spouse. If the survivor is not the spouse, system will generate a form to be signed, notarized and returned.</p>	<p>Retirement Application Module</p>	<p>1</p>



<p>i. Users must indicate if they are married. If married users choose option other than 100% survivor, system will generate a form to be signed, notarized and returned.</p>	<p>Enter Survivor information</p>	<p>Application will let users enter survivor information and indicate if the named survivor is the spouse. If the survivor is not the spouse, system will generate a form to be signed, notarized and returned.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>j. System will flag users if they have a service credit payroll deduction, warn them about the time limits on receiving payment and allow the transaction to proceed.</p>	<p>This business rule will be implemented by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering.</p>			
<p>k. Users must enroll for EFT.</p>	<p>Enter EFT details</p>	<p>Application will let users fill out bank account information (up to 2) for a direct deposit of their pension</p>	<p>Retirement Application Module</p>	<p>1</p>



l. Users must choose a withholding.	Enter tax withholding	Application will let fill out details of tax to be withheld	Retirement Application Module	1
m. Users will be able to sign up for health insurance and be able to choose from available plans in their area based on zip code. Note that this is not currently available in Clarity and will need to be developed entirely on the WSS side.	Signup for health insurance	Application will let users sign up for health insurance and choose from available plans in their area based on zip code. System will let users enter their insurance dependents, display a link to insurance cost options, insurance start date, deliver message to user about dual coverage solutions. STG understands that this functionality is not currently available in Clarity.	Retirement Application Module	1
	Populate insurance options based on Zip Code	Application will determine user's insurance status on login and populate insurance options based in zip code	Maintain Address, Insurance Data, Report Death Module	1
n. System will accommodate users entry of, at a minimum, capturing other insurance coverage, spouse's social security number, unlimited dependents, Medicare/HIB number if eligible.	This requirement is covered in Stage 5 – Item 1.m			
o. System will recognize if users' spouse is a member of any system by social security number and will deliver message to user about dual coverage solutions (e.g., contract combining, etc).	Signup for health insurance	Application will let users sign up for health insurance and choose from available plans in their area based on zip code. System will let users enter their insurance dependents, display a link to insurance cost options, insurance start date, deliver message to user about dual coverage solutions.	Retirement Application Module	1



<p>p. System will link to or display insurance cost options</p>	<p>Signup for health insurance</p>	<p>Application will let users sign up for health insurance and choose from available plans in their area based on zip code. System will let users enter their insurance dependents, display a link to insurance cost options, insurance start date, deliver message to user about dual coverage solutions.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>q. Default of insurance coverage start date will be retirement effective date. Users have the ability to change the default.</p>	<p>Signup for health insurance</p>	<p>Application will let users sign up for health insurance and choose from available plans in their area based on zip code. System will let users enter their insurance dependents, display a link to insurance cost options, insurance start date, deliver message to user about dual coverage solutions.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>r. System will show the result of users' elections and show estimated pension amount as a result. Users will have ability to add/enter/delete/change any option.</p>	<p>Display final pension amounts/details and Generate necessary documents for retirement</p>	<p>Application will display user's insurance elections, show estimated pension amount as a result of the election. Application will generate a document detailing necessary proofs for customer to send in. Application process is not complete until receipt of proofs.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>s. System will ask users to enter if they have a divorce agreement on file. If yes, disclaimer needed and internal review will be initiated.</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			
<p>t. Users will submit retirement application, initiate workflow in Clarety</p>	<p>This requirement is covered in Stage 5 – Item 1.d,e</p>			

<p>u. System will generate a document detailing necessary proofs for customer to send in. Application process is not complete until receipt of proofs and resume workflow</p>	<p>Display final pension amounts/details and Generate necessary documents for retirement</p>	<p>Application will display user's insurance elections, show estimated pension amount as a result of the election. Application will generate a document detailing necessary proofs for customer to send in. Application process is not complete until receipt of proofs.</p>	<p>Retirement Application Module</p>	<p>1</p>
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2. Pension Estimates

Overview: Both authenticated users and guest users will be able to model scenarios using the existing pension estimate calculator. Authenticated users will be able to save multiple scenarios in temporary database storage, while guest users will not be able to save scenarios. All users should be able to print estimates. Authenticated users will be able to model pension payments based on existing account information with the ability to use real time insurance premiums. Pension estimates will also display post-retirement earnings limits. All pension calculations for authenticated users will be determined within Clarety unless otherwise specified. WSS vendor is not required to write these programs, just call them and return the results.

It is intended that pension calculations for guest users will also use the same Clarety programs. This will have to be explored during use case development and it is possible that a second version of the estimator module will need to operate within (outside Clarety) for guest users. If required, calculations will be required for all retirement types. For a definition the various retirement options, see the chart in Appendix A: Retirement Types.

Members of the Judges Retirement System will not be able to model pension income.

WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
<p>a. For authenticated users, system will display user's final average compensation and show the years it is based on.</p>	<p>Display pension estimates/insurance coverage</p>	<p>Application will let users model various scenarios of their final pension based on the number of years of service, insurance options chosen. Authenticated users will be able to save and print the different options. Guest users can only print the pension estimates.</p> <p>Details will be identified during requirements gathering.</p>	<p>Retirement Application Module</p>	<p>1</p>



<p>b. For authenticated users, system will populate screens with existing data. Users will be able to model multiple scenarios using real data, pension selections and insurance premiums</p>	<p>Display pension estimates/insurance coverage</p>	<p>Application will let users model various scenarios of their final pension based on the number of years of service, insurance options chosen. Authenticated users will be able to save and print the different options. Guest users can only print the pension estimates.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>c. For authenticated users, system will also allow the users to change personalized information to model future pension estimates</p>	<p>Display pension estimates/insurance coverage</p>	<p>Application will let users model various scenarios of their final pension based on the number of years of service, insurance options chosen. Authenticated users will be able to save and print the different options. Guest users can only print the pension estimates.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>d. Authenticated users need to be able to save multiple pension estimates in Clarety and to delete them later. Display the date the estimate was created and the transaction number (estimate number assigned by Clarety).</p>	<p>This requirement is covered in Stage 5 – Item 2.c</p>			
<p>e. Users or guest users need the ability to print printer-friendly pension estimates</p>	<p>Display pension estimates/insurance coverage</p>	<p>Application will let users model various scenarios of their final pension based on the number of years of service, insurance options chosen. Authenticated users will be able to save and print the different options. Guest users can only print the pension estimates.</p>	<p>Retirement Application Module</p>	<p>1</p>
<p>f. System will generate necessary disclaimers related to the calculation of final average compensation (e.g., for part time members).</p>	<p>This requirement is covered in Stage 5 – Item 2.c</p>			

<p>g. State Police DROP (Deferred Retirement Option Plan) calculations are a percentage of the pension amount. The percentage is a flat rate based on how many years you want to participate in the program. These calculations are currently not resident in Clarety but are simple and will be programmed by the WSS vendor</p>	<p>This requirement will be addressed. Details will be identified during requirements gathering.</p> <p>This functionality is not currently available in Clarety.</p>			
<p>h. Guest users will be able to enter scenarios and view and print pension estimates.</p>	<p>Display pension estimates/insurance coverage</p>	<p>Application will let users model various scenarios of their final pension based on the number of years of service, insurance options chosen. Authenticated users will be able to save and print the different options. Guest users can only print the pension estimates.</p> <p>This functionality is not currently available in Clarety.</p>	<p>Retirement Application Module</p>	<p>1</p>



3. Register for Meetings / Appointments				
<u>Overview:</u> Users will register for informational meetings for phone counseling appointments. This functionality already exists as a website (for public and internal users) in a SQL database with an Access front end. All the logic has already been developed and WSS vendor is expected to leverage the existing functionality. This functionality needs to be integrated into the new WSS site so it appears to be a single website.				
a. Integrate existing registration functionality with new website. Maintain all existing features such as:	View/Edit/Registrar users for meetings and other meeting related administrative capabilities	Application will let internal staff view/edit/register users for the meetings. Application will also generate email reminders, track materials sent.	Retirement Application Module	1
i. Internal staff will be able to view, edit, and register users through their own separate web view	This requirement is covered in Stage 5 – Item 3.a			
ii. Users must be able to self enroll in a meeting or schedule phone appointment.	Enroll in a meeting; Change/Delete meeting request	Application will let users enroll in meetings for phone counseling. Application will let users change or delete their meeting enrollments	Retirement Application Module	1
iii. Existing decision structure must remain, e.g., users cannot register for phone appointments unless they have attended a meeting	This requirement is covered in Stage 5 – Item 3.a. ii			
iv. All existing administrative capabilities must be retained, e.g., e-mail reminders, tracking materials sent, etc.	This requirement is covered in Stage 5 – Item 3.a. ii			
b. Add the following new functionality				
i. Allow users to change or delete a meeting enrollment or phone appointment	This requirement is covered in Stage 5 – Item 3.a. ii			
ii. Populate screens with existing Clarety data	This requirement is covered in Stage 5 – Item 3.a. ii			
iv. For every meeting or appointment scheduled or canceled, create a Siebel interaction	This requirement is covered in Stage 5 – Item 3.a. ii			
	Review Session for Retirement Application	The review sessions will be used to review all the use case documents and screen mock-up created for the Retirement Application Module	Retirement Application Module	2
	Approval Session for Retirement Application	Any recommended changes from the review sessions will be completed and reviewed with the business users for final approval.	Retirement Application Module	1



5. Statuses and Account Activity				
1. Account Activity				
<u>Overview:</u> Users will be able to see the status (or processing) of a variety of activities, including, but not limited too, the items listed below. Users will be able to use this functionality even if they did not initiate the transaction through WSS.				
a. Users will be able to view their application for retirement and understand (at a minimum) if the application is in process, waiting for paperwork from users, or approved.	View retirement application status	Application will let users view the status of their retirement application	Transaction Status Check Module	0.5
b. Users will be able to view their insurance enrollment application or change request and understand (at a minimum) if the application is in process, waiting for paperwork from users, or approved	View insurance application /change request status	Application will let users view the status of their insurance enrollment application	Transaction Status Check Module	0.5
c. Users will be able to view their refund application and understand (at a minimum) if the application is initiated, waiting for paperwork from users, in audit, approved, enroute with check number.	View refund application status	Application will let users view the status of their refund application	Transaction Status Check Module	0.5
d. Users will be able to view their billing and understand (at a minimum) if the billing/payment is initiated, waiting for paperwork from users, in audit, approved	View billing/payment and receipt of payment	Application will let users view and understand their billing/ payment invoice	Transaction Status Check Module	1
e. Users (member or survivor beneficiary) will be able to view and understand reported death and the status of the claim, e.g., waiting for paperwork, in audit, etc.	View/understand reported death / status claim	Application will let users view a reported death and the status of their claim	Transaction Status Check Module	0.5
f. Users will be able to view and understand receipt of payment and next process steps	View billing/payment and receipt of payment	Application will let users view and understand their billing/ payment invoice	Transaction Status Check Module	1
g. Users will be able to view post-dated transaction, such as, but not limited too, post-dated EFT changes, tax withholding, and address changes	View EFT changes/tax withholding/address changes	Application will let users view post-dated transaction, such as postdated EFT changes, tax withholding, and address changes.	Transaction Status Check Module	1
h. Users will be able to view and print correspondence received through WSS	This requirement is covered by the Printer-friendly screens			
i. Users will have ability to request most current version of their member statement.	Request member statement	Application will let users request most current version of their member statement.	Transaction Status Check Module	0.5



2. Years of Service				
<u>Overview:</u> Users will see employer and years of service (including fractions of a year, hours and wages) earned with each employer. Users may have multiple employers. View will be different for different systems. Estimated 12 fields per fiscal year. For service credit recorded before 9/30/2002, the only data available is combined information for all previous years. For service credit recorded from 9/30/2002 forward, separate data will be available for each year.				
a. Users will have ability to view years of service by fiscal year from 2003 to present	View years of service	Application will let users view the years of service by fiscal year from 2003	Transaction Status Check Module	0.5
b. MPSERS users will show total service credit for the year and list employers they earned credit with	View service credit purchase	Application will display the total service credit earned, purchased by year and the employers earned with	Transaction Status Check Module	0.5
c. Users will view list of fiscal year, service credit earned, with employer(s) listed underneath, and rolling service credit total at top of list	This business requirement is covered in "View Service Credit purchase"			
d. Users will also be able to view service credit purchases with a "rolling up" total for payroll deduction agreement. For example, Fiscal Year 2004, total payments = \$12,000, Balance due = \$24,000. Fiscal Year 2005, total payments = \$24,000, Balance due = \$12,000	This business requirement is covered in "View Service Credit purchase"			
e. Users will be notified if purchased service credit is not included in career service credit total if they are not vested.	This business requirement is covered in "View Service Credit purchase"			
f. Users will be able to view service credit purchases, the year purchase was made and service years that it applies to	This business requirement is covered in "View Service Credit purchase"			
g. Users will be able to see repayment of a refund and years it applies to.	View repayment of funds history View status of payment of payment agreement	Application will display a history of refunds repayment	Transaction Status Check Module	0.5



3. Payroll Deduction Balances				
<u>Overview:</u> This screen can be accessed by users as well as linked to from other pages by clicking on their payroll deduction information.				
a. Users will be able to view and understand the status of their payment agreement and their payments	View status of payment agreement. View payments / yearly interest	Application will display a status of repayment agreement. Application will display payments and their yearly interest.	Transaction Status Check Module	1
b. Users will be able to view their yearly interest	View status of payment agreement. View payments / yearly interest	Application will display a status of repayment agreement. Application will display payments and their yearly interest.	Transaction Status Check Module	1
c. Users will be able to view last activity date	This requirement is covered in "View status of payment agreement. View payments / yearly interest"			

Knowledge Transfer	
1. Knowledge Transfer	
<u>Overview:</u> Rather than defer knowledge transfer to the end of the project, knowledge transfer must occur throughout the development, design, test and deployment phases of the project. It is the obligation of the vendor to work closely with the state staff to grow their knowledge of the system throughout the project so that at the end of the project staff is fully prepared to continue web growth and development.	
There will be two types of staff that will maintain this web site: Logic Programmers and Web Designers. The website must be designed so the skill sets of the staff can be leveraged appropriately, i.e., we do not wish to pay programmers to change phone numbers on a web page or to establish hyperlinks to other areas.	
a. <u>Logic Programmer:</u> i. Maintains web services interfaces ii. Handles any non-Clarety data access and programming logic iii. Provides all of the data needed by the web pages iv. Codes all control-of-flow logic on the web pages (this should be made as modularized as possible to facilitate the separation-of-duties)	This requirement is covered in STG's Knowledge Transfer Approach provided in Section 1.104 of the SOW.
b. <u>Web Designer:</u> i. Maintains all aspects of the web page presentation ii. Is the "consumer" of the data provided by the Logic Programmer iii. Maintains both the creation of and placement of data fields on web pages iv. Maintains all of the static information on the web pages v. Maintains all of the style sheets	
2. In addition to the programming and design staff, vendor must transfer knowledge appropriately to operations staff and security staff as needed and specified in the Statement of Work	

**Stage 2: Security Access and Management****1. Security**

Overview: Security measures must be implemented that mitigate threats, consistent with the level of acceptable risk as determined by Office of Retirement Services (ORS), and adhering to the state's security standards. Following are mandatory security requirements for the proposed WSS development work. All WSS activities must adhere to the following general and application specific standards. If requested, the rationale and guidance for these requirements can be discussed with the vendor at any time during the process. Exceptions to these requirements must be formally documented and accepted by the Office of Retirement Services (ORS).

In some cases, the following requirements reference *sensitive data*, which includes a minimum of the following:

- Source code
- All test and production data (with a specific emphasis on demographic information, social security numbers, medical information, and financial information)
- System documentation including diagrams of data flows, networks, etc.
- Access passwords (to applications, databases and servers at a minimum)
- Encryption keys
- Information related to the WSS application structure and to the existing application structure (Clarety and its subsystems) that could provide an avenue for inappropriate access.

Information related to the State of Michigan LAN structure that could provide an avenue for inappropriate access.



2. Password / ID Management				
<u>Overview:</u> UserIDs and passwords will be stored in a separate database and managed by the WSS application with the exception of internal users who will be authenticated using the state’s Active Directory LDAP services. Method for generating IDs and passwords (i.e., authenticating users), will be determined at a later date.				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. System will provide a prefix for the userID to distinguish transactions created using WSS from transactions created by internal users. This prefix will remain masked from users		STG will adhere to intent of this requirement; the actual implementation strategy will be finalized during the technical design		
b. Upon login, users will be presented with a message similar to the following: “This account is intended exclusively for conducting State of Michigan retirement business. Changes made in this account are monitored and recorded. Disconnect immediately if you are not the authorized use of this account.” The user will have to click through this window before entering the website.		STG will adhere to this requirement. Upon login users will be presented with a screen that has a message that is provided.		
c. Before creating a user’s login account, system will authenticate the user using Clarety business rules. <ul style="list-style-type: none"> i. Users must have some kind of account in the Clarety system to be granted a userID and password. ii. Guest users who do not have an account in Clarety must be able to report a death iii. Guest users who do not have an account in Clarety must be able to model pension scenarios 		STG has addressed this requirements in the Security Module (Authentication common components) – work stream 1 STG assumes that jClarety will provide the necessary web services to access the necessary business rules		
d. System should be able to authenticate a minimum of 500,000 users with the ability to build to 1,000,000.		STG will design the WSS database to accommodate storing the authentication credentials of 500,000 users and recommendations will be made to scale the DB to 1,000,000 users.		
e. System will interface with Clarety to determine status and assign users a security profile that grants access to screens associated with the users.		STG will address this requirements in the Security Module (Authentication common components) – work stream 1 Yes this requirement will be addressed by invoking the appropriate jClarety WSI. Details will be identified during requirements gathering. STG assumes that jClarety will provide the necessary web services to access the necessary business rules		



3. System and Users' Passwords				
a. Passwords shall not be stored in any form on the client side (e.g. cookies, hidden form elements, etc.)	<p>STG will need to understand the requirements of SOM password recovery functions.</p> <p>These requirements are business rules that STG will address using the components in the Authentication module. The components details will be identified in the Technical design document.</p>			
b. Passwords must be able to support a minimum of 8 characters of which at least 3 of the 4 following categories must be used: <ul style="list-style-type: none"> i. Upper case ii. Lower case iii. Numbers iv. Symbols 				
c. Lost password recovery functions should be configured securely as per SOM requirements				
d. The application must be able to enforce mandatory password changes after a pre-defined number of days.				
e. Authenticated users must be able to change password themselves, online, at any time				
f. Passwords must be stored and checked via a one-way hash function as opposed to storing the actual password	One Way hash Generator	All passwords will be stored and checked via a one-way hash function using this generator. No clear text passwords will be stored in the database.	Security Module	.5
g. Account lockout should be able to mitigate against password guessing or "brute force" attacks. At a minimum the application should lock out the account after 5 failed passwords within 30 minutes or a total of ten consecutive failed logins.	<p>These requirements are business rules that STG will address using the components in the Authentication module. The components details will be identified in the Technical design document.</p>			
h. The application must be able to deny login if a comparison of the country of origin for the session's IP address, to the set of addresses retrieved from the line-of-business application for the login id, are not within the ORS specified acceptable geographic range				
i. Failed login attempts will display a generic error message that does not indicate the precise nature of the failed information. Guidance on password resets or contacting the helpdesk should be provided on failed logins.				
j. Successful logins will detail date of last login and IP address				
k. Enable Application Security Administrator profile that is allowed management over all accounts <ul style="list-style-type: none"> i. Lock/unlock accounts ii. Reset web self-service passwords (not internal user passwords) iii. Review account usage iv. Manage profiles for accounts 	<p>These requirements have been addressed in the Security Module (Authorization common components) – work stream 1</p>			



<p>I. Enable an Application Auditor profile that is allowed to review the transaction log and account activity.</p>	<p>Role-based Access</p>	<p>The authorization layer for this application will be implemented using a Role-based functional access. This will be based on a user type to function mapping created during the requirements development phase</p>	<p>Security Module</p>	<p>1</p>
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<p>4. Function Access WSS vendor will establish access to processes using profiles based on users' status (see attached Appendix B: Matrix of Process by Users) and retirement system. Internal users may be assigned (at the minimum) any of the following profiles:</p> <ul style="list-style-type: none"> • Read only • Super users (ability to modify limited amount of information) • System administrator • Full system test <p>System Auditor (full access to read all logs and configuration data, but no ability to change any settings)</p>				
<p>a. WSS vendor must establish profiles in a structure that simplifies maintenance, preferably tableized and easily updated by system administrator</p>	<p>Role-based Access</p>	<p>The authorization layer for this application will be implemented using a Role-based functional access. This will be based on a user type to function mapping created during the requirements development phase</p>	<p>Security Module</p>	<p>1</p>
<p>b. WSS vendor must create an interface for the system administrator to make changes to profiles</p>				
<p>c. Each user will have a single userID and password regardless of the number of accounts the user has (e.g., user is an active member of SERS and an inactive member of MPSERS). Profiles must be controlled based on the system the user wishes to access. For example, upon login the user is presented with a choice of the retirement system to access; user chooses SERS and is able to only view SERS information on SERS screens</p>				
<p>d. System will record and maintain history of changes to profiles</p>				



5. Data Management				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. Any customer data stored in non-production databases must be sanitized using a method approved by ORS		STG will host a development database onsite at STG's facilities. State will provide test data for the Development database that is sanitized (with a specific emphasis on demographic information, social security numbers, medical information, and financial information).		
b. Back up project data during development, and keep an inventory of all backups, so that all tapes can be readily identified and retrieved as necessary. Back up data must be encrypted and stored in a physically secure location		STG will implement a project data backup process that addresses this requirement		
c. Database backup from vendor must be in readable format with SQL Lightspeed		It is assumed that SQL LightSpeed can read the standard SQL Server database back up files.		
d. Any customer data, cached or temporarily housed outside of Clarety must be sanitized or purged upon session termination		STG has accounted for this design requirement in its WSS technical design. No JAD sessions are necessary for this requirement.		
e. Any databases must be housed in the state's resources		STG will host a development database onsite at STG's facilities. The State will host and manage Test, Stage and Production databases. The State will perform any data sanitization, backup activities on the databases that it administers as it deems necessary. STG will delete any backup tapes that contain sensitive data related to the project once final acceptance of the WSS application has been provided.		
f. HTML "No cache" directives to disable browser auto-completion and password caching will be used wherever possible; host machine may not cache sensitive data.		STG has accounted for this design requirement in its WSS technical design. No JAD sessions are necessary for this requirement.		
g. For development purposes, sensitive data will only be housed within state network. Vendor will be responsible for creating artificial data for any offsite development		STG will host a development database onsite at STG's facilities. State will provide test data for the Development database that is sanitized (with a specific emphasis on demographic information, social security numbers, medical information, and financial information).		
h. When sensitive data, including source code, is moved between physical locations, the data must be encrypted.		VPN, secureFTP will be used to move project source code, between physical locations.		
i. Physically secure all servers and backups that contain sensitive data during all stages of work		STG will secure its development environment servers and back up data. It will be State's responsibility to physically secure its servers and backups.		
j. Provide any and all backup tapes containing project data or code upon request		STG will provide any backup tapes that contain sensitive data to the State upon adequate advance notice		
k. Sanitize media containing sensitive data (e.g. tape backups, disks) with a secure wiping or degaussing system at the completion of the project, when hardware is no longer being used for the project, or upon request		STG will comply.		



6. Source Code and Configuration Management				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. Provide documentation and description of all software configuration and management	<p>The WSS source code will be checked-into State's software configuration tool. The State will be responsible to document and provide to STG any processes necessary to maintain access to State's Configuration Management tool.</p> <p>STG will transfer all source code from the development phase into ORS' Perforce management system to test code, compile, validate the upload and deployment.</p> <p>The application code developed during this application will be the property of State of Michigan. STG's development team will check-in/check-out code in to its source control tool. The source control tool will be password-protected.</p>			
b. Source file management will ultimately reside in the State's Perforce change control / configuration management system. Upon request, all code will be uploaded into ORS' Perforce management system	<p>The WSS source code will be checked-into State's software configuration tool.</p>			
c. Vendor must transfer all source code from the development phase into ORS' Perforce management system to test code, compile, validate the upload and deployment. A clean compile from the Perforce will be required to validate the completeness of the source code. Once code is in ORS' Perforce system, purge requirements apply.	<p>STG will transfer source code for the WSS application into ORS Perforce Configuration Management tool. State will be responsible for any purge process on its servers.</p>			
d. Must secure control of source code while in vendor's possession in a method that complies with the state's security protocols	<p>STG's development team will check-in/check-out code from its source control tool. The source control tool will be password-protected.</p>			
e. Use an industry acceptable Software Configuration Management system before uploading into State of Michigan's Perforce	<p>STG's development team will check-in/check-out code from its source control tool. The source control tool will be password-protected.</p>			



<p>f. Any proprietary source code cannot be reused by vendor outside of the ORS project without express written permission by ORS. Vendor must notify ORS in writing if any code being used for the ORS project is being repurposed from another project; ORS reserves the right to reject the use of that code</p>	<p>The Statement of work will govern this.</p>
<p>g. Source code developed during this application is the property of State of Michigan.</p>	<p>STG understands and is in agreement with the requirement provided.</p>
<p>h. Limit source code access to personnel assigned to WSS project with consideration for separation of duties</p>	<p>STG understands and is in agreement with the requirement provided</p>

<p>7. Separation of Duty</p>				
<p>WDRA Requirements</p>	<p>Use Case Requirement</p>	<p>STG Solution Description</p>	<p>STG Solution Grouping</p>	<p>Estimated # of JAD Sessions**</p>
<p>a. Controls must be documented and in place to ensure that project members have access to only the resources required to accomplish their duties and are restricted from performing incompatible functions, or functions beyond their responsibility.</p>	<p>STG understands and is in agreement with the requirement provided</p>			

<p>8. Workstation Security (for vendor machines accessing systems, source code, and sensitive data)</p>	
<p>a. All workstations must have most recent operating system service packs and must have automatic update configured</p>	<p>STG understands the requirements provided. STG employees that are assigned to work onsite at State's facilities will comply with these requirements.</p>
<p>b. All workstations must have anti-virus software, with real-time agents and automatic update configured</p>	
<p>c. All workstations must uniquely identify and authenticate the users (i.e., not shared accounts, and all accounts must have passwords).</p>	
<p>d. All workstations will be vendor owned and must be scanned for viruses, etc., by the Office of Enterprise Security before being connected to the state's network.</p>	
<p>e. The workstation must lockdown after five minutes of inactivity and require the users to provide a password to re-enable use.</p>	
<p>f. Sanitize workstations of all sensitive data with a secure wiping or degaussing system at the completion of the project, when hardware is no longer being used for the project, or upon request.</p>	<p>STG will comply.</p>



9. Remote Access	
a. If remote access from the vendor's location to the ORS servers becomes necessary, the vendor may apply for a SecurID token from the State of Michigan Department of Information Technology with the appropriate ORS approvals.	State will provide remote access from the STG's Troy development location to the ORS servers upon request using a SecurID token from the State of Michigan Department of Information Technology with the appropriate WDRA approvals. Such STG personnel receiving remote access will sign an SOM Acceptable Use policy.
b. Personnel with remote access must sign an SOM Acceptable Use policy	
c. SecurID cannot be transferred to another employee and always remain the property of the SOM and must be returned at the end of the project, upon request, or when off project	

10. Building Access	
a. Must follow State of Michigan security procedures and facility procedures	STG personnel working onsite at the State's facilities will follow State of Michigan security procedures and facility procedures.

11. Internal Security Testing and Code Review	
a. All types of test plans, including, but not limited to, scripts and results will be documented and delivered.	STG will document System, non-Functional test plans with necessary scripts for security testing of the authentication and authorization modules. The results of these tests will be delivered to the State
b. A formal internal code review process by the vendor must be used that includes checks for overall security best practices, as well as the secure coding standards identified in the OWASP guide	<p>STG will incorporate the following items of the OWASP standards in the application design :</p> <ul style="list-style-type: none"> i. SQL injection ii. Cross-Site Scripting iii. Session manipulation / handling flaws iv. Use of encryption v. Authentication bypass / privilege escalation vi. Use of cookies vii. Use of hidden inputs and variables viii. Information disclosure <p>STG's scope of work does not include separate reviews or testing to verify and validate the compliance to the above specified standards.</p>
c. The vendor must perform application security assessments and provide results to the Agency Project Manager as per the OWASP standards and provide documentation of compliance. For web applications this following application components must be tested for:	<p>STG will incorporate the following items of the OWASP standards in the application design:</p> <ul style="list-style-type: none"> i. SQL injection ii. Cross-Site Scripting iii. Session manipulation / handling flaws iv. Use of encryption v. Authentication bypass / privilege escalation vi. Use of cookies vii. Use of hidden inputs and variables viii. Information disclosure <p>STG's scope of work does not include separate reviews or testing to verify and validate the compliance to the above specified standards.</p>



12. Security Testing				
<u>Overview:</u> Testing requirements are defined in the Statement of Work. Each test plan must include security concerns that are inherent in that part of the test. Vendor must describe what needs to be tested, how the test will be conducted and scripts needed. Will include security				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. Include in all test plans a description of the security concerns inherent in that part of the application (e.g., theft of source code, hacking, etc.).	STG will develop a Test Plan document that will include the description of security concerns inherent in the authentication and authorization modules of the application			
b. Include in all test plans a description of what needs to be tested, how the test will be conducted and what scripts are needed	STG will develop a preliminary test strategy for each stage of the project. The test plan will describe the methodology for System test, Technical test (includes load test), User Acceptance testing, regression and end-user Focus Group test (customer testing). The test plan will contain testing approach, test scenarios, tools and environment to be used, security risks in each type of test, resources needed from STG and State, schedule, approach for validation of test results and corrective action to fix issues and bugs.			
c. Results from all tests must be shared with the state before code is uploaded into the State's configuration management system	Since STG will be performing all tests except Unit Tests on the State's environment, it may not be possible to provide the results prior to the code being uploaded in to the State's configuration management system.			
d. Iterative security assessments will be done by the State of Michigan or a contractor of ORS' choosing (or approved by ORS) before acceptance	This activity will be performed by the State after the completion of System Integration Testing but prior to deployment. .			
e. Negotiated security changes resulting from the assessment must be resolved before production and are in scope for this project.	STG agrees to resolve issues identified in application code developed by STG, during the security assessments as long as they meet the acceptance criteria identified in the Test Plan document.			

13. Documentation	
a. Document (using visual representations) all data flows (e.g., web server on DMZ talking to SQL server, etc).	The data flows will be documented in the Technical Architecture document
b. Document (using visual representations) all security dependencies (e.g., all authentication sources, all ODBC / DSN connections, etc.)	The visual representation of security dependencies will be documented in the Technical Architecture document
c. The vendor must sign Business Partner Agreement for HIPAA compliance	STG has no objections to review and sign a non-disclosure Agreement
d. The vendor must sign a Non-disclosure Agreement	STG has no objections to review and sign a non-disclosure Agreement
e. The vendor will provide their written security policy addressing: <ul style="list-style-type: none"> i. Storage of data ii. Data confidentiality iii. Access permissions process 	Upon contract finalization, STG will provide, upon State's request, its security policy addressing: <ul style="list-style-type: none"> i. Storage of data ii. Data confidentiality iii. Access permissions process
f. The vendor will provide its written process to respond to security incidences in the development phase such as hacking, breach, theft, etc.	Upon State's request and upon contract finalization, STG will provide its written policy.
g. All security accounts (e.g., super-user or back-door accounts) delivered with the product must be documented to include: <ul style="list-style-type: none"> i. Identifier ii. Access rights iii. Usage 	STG will deliver WSS application code with the super-user account (if any) userid, password and access rights.



14. SOM Computing Resources	
a. All users who access SOM computing resources must accept and adhere to the states' Acceptable Use policy and all administration procedures	STG's onsite resources having access to the State of Michigan's network will adhere to the State of Michigan Acceptable Use policy.
b. Any proposed usage of third party software packages must be reviewed and approved as acceptable and secure software first by ORS, and then by the DIT standards committee, before purchase and development	<p>Procurement of Hardware is out-of-scope of STG's responsibilities. All hardware/new software licenses must be procured by the State of Michigan and available for use in accordance with the project schedule stipulated in the Statement of work.</p> <p>STG will review the use of any third party software packages not identified in STG's Technical solution provided in Section 1.104 of the SOW with the State PM prior to its use.</p>

15. Use of Encryption	
a. All access must be conducted over encrypted connections	The application will be accessed over a secure HTTP protocol (HTTPS).
b. All management functions (e.g. server management) must be conducted over encrypted connections	The Server management of State's database, application servers on the Test, Stage and Production environment will be conducted by the State of Michigan Network operations team.
c. User names, passwords, and other authentication information must not be stored in plain text	User names, passwords, and other authentication information will not be stored in plain text.
d. All sensitive correspondence and attachments between the vendor and SOM personnel must be done only within the SOM network (LMAN). GroupWise mail accounts will be created for vendor staff needing a secured communication channel and must remain in GroupWise and not forwarded to another email system outside of the firewall. Sanitized communication will be allowed over public networks	See Statement of Work, Section 1.201, State will provide GW access to all parties needing it for the duration of the project.



16. Database Security				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. SQL Server 2000 or a later backward compatible version must be used with the latest service packs according to SOM standards		The State has specified the use of SQL Server 2005. The WSS database will be hosted on State's servers. State will be responsible to ensure the latest service packs are used.		
b. Document all database and security configurations		STG will document WSS database and security configurations in the Technical Architecture document		
c. The vendor is expected to read, understand and generally follow the OWASP 2.01 best practices guide for secure software development at: http://www.owasp.org/index.php/OWASP_Guide_Project .		STG will read and understand the OWASP 2.01 best practices guide. STG will follow the best practices identified in section 16.d (i to v)		
d. Specifically follow the OWASP best practices for a minimum of the following mandatory areas: i. <u>Client-side input validation and scripting</u> – Client side input validation (e.g. JavaScript) may be used only to enhance the users experience, but not for any security purposes. For example, ensuring that a date is properly formatted before submission is acceptable, but performing security functions at the client side is not. ii. <u>Server-side input validation</u> -appropriate input validation routines, including security functions, will be performed on the server side for all data submitted by the users in any format, including GET requests and form POSTs. All unnecessary characters must be stripped by input validation routines before being processed, with a particular emphasis on characters being used in the SQL query language and HTML coding. Any input that is taken from the client and then displayed must be converted to character entity references (for example, < and > will be transformed into < and >) to minimize the risk of a cross-site scripting attack.		STG will follow the best practices identified in section 16.d (i to v)		



<p>iii. <u>Session Handling</u> – Session handling will be performed on the server side and will uniquely identify users. Session keys should be obfuscated (for example by using MD5 hashes) and will not be used as HTTP GET variables. Session handling routines must ensure that a session will expire if the users’ IP address changes, 30 minutes of inactivity elapse, or if any session variables have been surreptitiously modified. Session keys should be of sufficient length (32 bytes or more) and should not exhibit obvious patterns such as sequential iteration</p> <p>iv. <u>Error Handling</u> – Error handling routines will be implemented within application logic to trap all error messages. Generic, sanitized error messages must be presented to users when an unknown error occurs. However, all relevant error information (module, error description, users name, session variables, etc.) must be logged to a file, and a means of accessing the error log must be provided to system administrators. The capability for real-time alerting of errors (i.e. an email to administrators) must be configured to allow for a timely follow-up</p> <p>v. <u>Data Caching</u> – the application will be configured with directives to prohibit the caching of pages with sensitive data. In addition, sensitive form elements and variable (such as passwords) will be configured such that client browsers will not cache users data (e.g. the autocomplete=off directive)</p> <p>vi. <u>All exceptions to the OWASP standards</u> must be formally identified in the proposal and approved before the project being awarded.</p>	<p>STG will follow the best practices identified in section 16.d (i thru v). For item vi, exceptions may apply, but can only be determined during the technical design phase of the project. Subject to the feasibility of what STG and the State agree are applicable, to that extent standards may or may not be applied.</p>
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17. Database and Middleware Security				
WDRA Requirements	Use Case Requirement	STG Solution Description	STG Solution Grouping	Estimated # of JAD Sessions**
a. No blank or default passwords will be used for database and middleware authentication		The passwords for external users to access the WSS application will be stored in the WSS Database. STG will not store clear-text passwords in the database. The databases and any middleware will be accessed using a non-blank password.		
b. The application will use dedicated (non-administrator) accounts for all database and middleware access		The databases and any middleware will be accessed using a dedicated account.		
c. The application should connect to the middleware with different credentials for every trust distinction (e.g. users, read only, guest, administrators, etc. as appropriate), and permissions applied to those tables and databases to prevent unauthorized access and modification		WSS application will connect to the middleware with different credentials for every trust distinction (e.g. users, read only, guest, administrators, etc. as appropriate), and permissions applied to those tables and databases to prevent unauthorized access and modification		
d. Stored procedures should be used for SQL command language		The WSS database will be accessed through Stored Procedures from the DAO layer.		
e. Database and middleware connector DSNs (users name, passwords, etc.) must be unique (not shared), encrypted and not stored in plain text.		The database and middleware connector userid, passwords will be unique, and not stored in plain text. Websphere application server data source configuration will be used to manage the DSNs securely.		



18. Logging and Auditing	
a. Detailed application level logging must be available in addition to any operating system, web server, or middleware logging with the administrative option of turning on and off at various levels for various components. Such logs must be kept according to SOM retention schedule.	STG will provide detailed application level logging using Log4J in addition to any operating system, web server, or middleware logging with the administrative option of turning on and off at various levels for various components. SOM will retain the data of such logs according to SOM retention schedule.
b. Provide detailed performance measurement logs/tools for measuring each transaction (in detail, at each invocation class and method level) and any programs to administrate such logs/programs, with detailed technical documentation. The purpose of these logs is to summarize all the WSS transactions during the day and provide us the data so we can identify whether performance concerns are within Clarety or within WSS.	These requirements are not clear at this time. Detailed requirements gathering will be completed during the technical sessions and feasible options to address this requirement will be recommended to the State.
c. Storage of IP addresses must be captured and stored in temporary database storage and kept according to SOM retention schedule	STG will capture and store IP addresses in the WSS database. The addresses will be stored according to SOM retention schedule specified during the Technical Design.
d. System message logs should contain sufficient information to reliably reconstruct the chain of events and track those back to the authenticated users	The application log files will contain session ids and other details (subject to the requirements in (e) below – “Log files must not contain sensitive data”) that can be used to reliably reconstruct the chain of events
e. Log files must not contain sensitive data.	State will specify the sensitive data that must not be part of the log files.
f. Logs must be secured from viewing by non-administrative personnel and from manipulation by any personnel	The WSS application will be hosted on State’s production servers. The State will need to secure the logs from non-administrative personnel and modification by any personnel.
g. Log rotation routines must be implemented and approved by ORS	Agreed. The WSS application deployment manual will contain details on the log rotation routines.
h. All systems with logging capabilities must have their time synchronized to a single source in production.	The WSS application will be hosted on State’s production servers. The State will need to configure its servers so the logging capabilities are time synchronized to a single source in Production.
i. Log administration document must be provided by the vendor including: <ul style="list-style-type: none"> i. Names, locations and content of all logs ii. Log archival and rotation procedure iii. Procedure to read/interpret log records 	The WSS application deployment manual will contain details on the log administration requested.



19. Fault Tolerance and Disaster Recovery	
a. Provide D/R documentation for the failover and recovery of all delivered components.	STG will work with the State Network Operations team to create a Disaster Recovery and Failover plan. STG will provide recommendations based on existing Network standards within the State of Michigan.
b. Before implementation in production, perform an on-site test of the D/R plan with ORS and AST	The State Network Operations team will be responsible to perform an onsite implementation and test of the D/R plan in a time-boxed manner within the deployment timeline provided in the Project schedule. STG will assist the State with this activity.
c. The application must provide, at minimum, nightly backups of all data repositories, log files, and any other dynamic data. Where possible, SOM preference is for transaction-level recovery	The WSS application will be hosted on State's production servers. State will be responsible to provide the necessary backups as identified here.
d. The application must provide a fully-synchronized recovery mechanism to a previous backup point.	The WSS application will be hosted on State's production servers. State will be responsible to provide a suitable recovery mechanism as per the requirements specified here.