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Model Statement of Work

The State of South Dakota (State) requires that the Contractor provide a complete and comprehensive set of services that will ensure project success within the planned timeline and budget as detailed in the contractual agreement between the State and the Contractor. Following is a high-level list of the implementation services and deliverables that are required; however, additional services and deliverables may be required to ensure implementation success in accordance with the Contractor's methodology.

The remainder of this document provides a detailed description of the services to be included in any proposal. These services shall be addressed in the Statement of Work (SOW) included in the contractual agreement between the State and the Contractor.

Each section includes a listing of minimum expected deliverables applicable to that section, along with a responsibility matrix indicating the State's expectation as to whether the Contractor or the State has a lead or assist role for a specified project activity. For the purposes of this model SOW, the terms "Lead" and "Assist", as applied to these responsibility matrices, are defined as follows:

- Lead in reference to roles and responsibilities, means that the assigned team has primary responsibility
 for completing any deliverable items and/or managing and guiding the activity, and will be performing
 the activity; and
- Assist in reference to roles and responsibilities, means the assigned team will actively participate and support the Lead team in successfully completing the deliverable or activity, under the management and guidance of Lead.

1 Plan Phase

1.1 Project Management

Methodology

The Contractor shall provide, and use for the entire project, a proven project management methodology as part of its implementation approach. The project management methodology shall have a foundation in established methodologies and standards, such as Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK), IT Infrastructure Library (ITIL) or other methodologies used in previous similar projects.

Project Manager

The Contractor is expected to provide a full-time, experienced Project Manager who will be accountable for all services and deliverables provided under the Contract resulting from this RFP, and who will work to ensure the on-time delivery and successful deployment of the ERP software solution. This individual is expected to be dedicated to the State project and shall function as the State's primary point of contact with the Contractor. The Contractor's Project Manager is expected to promote project team collaboration, respond to day-to-day problems, manage issues, and manage personnel resources. It is preferred that the Project Manager be certified by the Project Management Institute as a Project Management Professional (PMP).

Implementation Project Charter

The Contractor shall provide an Implementation Project Charter (that will be an addendum to the ERP Project Charter) that includes, at a minimum, the following elements:

- Project Scope The project description, its deliverables and what business needs, problems or opportunities the project addresses;
- Project Governance The State will provide documentation of current governance policies and

applicable bodies for the project. The Contractor will provide comments regarding the existing project governance structure and recommendations for improvement. A project governance organization chart would also be in this section.

- Roles and Responsibilities The identification of and contact information for the Contractor's Project
 Manager, State Project Manager and Key Personnel. This section shall identify which roles have the
 authority to interface, delegate and communicate as required for successful and timely completion of the
 project. It shall also identify which roles have the responsibility for meeting the project plan objectives,
 monitoring the schedule, cost, and scope of the project; and
- Project Summary A high-level series of key deliverables and/or milestones to be used as the
 performance measures and gates in accordance with the proposed implementation methodology.

Work Plan

A comprehensive work plan shall be submitted within forty-five (45) days of project start as a key deliverable on the Deliverable Payments Schedule. The project schedule shall be accessible via a fully capable project management tool. The work plan shall be developed by the Contractor with input and participation of the State and include tasks to be performed by the State and Contractor personnel. The following standards apply to the work plan:

- Project management activities shall be documented;
- The work plan shall outline a plan for the entire project;
- The work plan shall include tasks, dependencies, linked predecessors/successors, critical paths, and responsible parties (both Contractor and State staff) assigned to each task;
- The work plan shall include all deliverables that support the proposed methodology and approach;
- Estimated work effort, duration, start and end dates shall be shown for each task;
- No individual task shall be longer than four (4) weeks in duration;
- Appropriate milestones shall be identified in the work plan to gauge the project's progress toward meeting desired target completion dates; and
- Any assumptions made in developing the work plan shall be documented.

The Contractor shall also produce a Staffing Plan that addresses each of the Contractor's project staff, as well as the necessary project staff to be provided by the State. The Plan shall indicate a percentage estimate by role of the time on-site by the Contractor's staff and work that could be done remotely, as well as proposed percentage estimate by role of State staff.

The Staffing Plan shall show the plan of usage (days per month) on a monthly basis for each resource over the period of the project, and whether the resource will be on-site or off-site. It is expected that the Staffing Plan will include named resources for all key personnel and as many project roles as possible for a rolling, six-month period. The State will allow reasonable approaches for off-site work to support cost reductions or to appropriately achieve on-time completion of project tasks with mutual agreement between the State and Contractor. With that said, State data shall not be transferred outside of the United States under any circumstance without the written permission of the State. No Contractor services will be performed from outside the United States without prior written consent from the State.

Throughout the project, the Contractor's Project Manager shall monitor project activities, update the project plan, develop further detail as appropriate, and work closely with the State Project Manager. At the end of each month, the Contractor's Project Manager shall submit an updated project plan for the remaining months' activities. An

updated Project Plan will be a key deliverable each quarter of the project on the Deliverable Payments Schedule.

Project Time Reporting

By the 15th of each month, the Contractor shall report in MS Excel or other State approved format, actual hours worked during the previous month for each team member. Hours worked shall be exclusive of travel time.

Status Reporting

The Contractor shall provide timely project status reporting. The Contractor shall provide weekly status reports to the State Project Management Office (PMO) to reflect the major activities for the reporting period. The weekly status report shall serve as the agenda for weekly status meetings. The Contractor may also be required to prepare periodic status reports for sponsor groups and executive leadership. Topics to be covered shall include, but not be limited to, the following:

- A listing of significant departures from the Project Work Plan with explanations of causes and effects on other areas, as well as remedies to achieve realignment;
- Changes to project objectives, scope, schedule, and/or budget;
- A listing of tasks completed since the last report;
- Tasks that were delayed and reasons for delay, with revised completion dates and remediation steps;
- Updates for previously delayed tasks;
- Planned activities for the next scheduled period;
- Summary of major concerns, risks, and issues encountered along with proposed resolutions and actual resolutions;
- Identification and discussion of any security issues (if applicable); and
- Any other topics that require attention from the State PMO and/or sponsors.

Issue Resolution

The Contractor shall provide and use a methodology and software tool for issue identification, tracking, and resolution that shall be accessible to State Project Team members. The issues tracking process shall integrate into configuration management, testing processes, and the overall project management methodology. Topics that shall be included are:

- Issue identification;
- Issue tracking, reporting, and trending;
- Issue review, prioritization, and assignment;
- Issue analysis;
- Issue resolution;
- Issue escalation;
- Issue follow-up (for resolutions with lead time); and
- Impact to the overall project schedule and budget.

The State and the Contractor will agree on a protocol for collaboratively resolving implementation issues. This protocol is expected to address the topics above, responsible parties, and specific steps to be taken on issues or disputes arising during the implementation process.

Risk Management Plan, Discussions and Mitigations

The Contractor shall conduct risk identification and mitigation development discussions early in the Plan Phase of the project and at scheduled points in time over the life of the project. These procedures shall be documented in a risk management plan, and the results of these periodic sessions shall be documented as prescribed by Project Controls, Standards, and Procedures.

Communication and Cooperation

The Contractor shall communicate and cooperate with all parties involved in the project. The Contractor's staff shall have excellent communication skills and conduct themselves professionally and courteously in all instances. Communications between parties shall be performed through, but are not limited to:

- Regularly scheduled and ad hoc on-site meetings;
- Voice and Web conferencing system;
- Instant messaging platform;
- Email;
- Weekly written status reports provided to the State by the Contractor;
- Required Project Plans; and
- Other reports as required.

Project Controls, Standards, and Procedures

The Contractor shall provide project controls, standards, and procedures for all project tasks. These items are required to be submitted for review and approval by the State's project leadership at project initiation. These requirements include, but are not limited to:

- Meeting Procedures Includes techniques and technology solutions to ensure that meetings are efficient and productive, and discussions, decisions, and action items are adequately documented;
- Managing Project Documentation Includes templates used (e.g., configuration setting and procedures, functional and technical design specifications, test case scenarios, change request procedures, etc.), organization of project directories, naming conventions, and version control procedures;
- Project Repository The document collaboration tool for the project will be the State's SharePoint site, and the Contractor and the State shall agree on the organization of documents on that tool. No materials should be stored outside of the State and the repository should be a complete repository of all project materials. This includes all the bullet-pointed documentation in this section;
- Scope Management Includes scope control processes to ensure that work is not performed on out-ofscope features, functions, or tasks unless the State grants advanced written authorization. This includes processes to provide a competent assessment of the impact of potential scope changes to assist with the State's decision-making processes;
- Communications Management Includes a project communication plan and the types, frequency, sensitivity classification, and target audience for each communication;
- Deliverable Expectation Document (DED) Includes a Deliverable Outline Template that identifies an
 outline (and description if necessary) of the planned content, the acceptance criteria for the deliverable
 as required by the State, the review complexity, and the State approvers for each deliverable. The format
 of the Deliverable Outline Template shall be agreed by the Contractor and the State; and
- Deliverable Reviews Includes the process and time periods whereby the State determines the readiness

of a deliverable for formal submission, provides feedback on deficiencies, and conducts subsequent reviews.

Information Security Risk Management Plan

The project involves the replacing and interfacing of systems that maintain confidential, sensitive, and public data. Employees and representatives from the Contractor's firm will likely have access to these systems and data to support various activities throughout the life cycle of the project. To ensure that necessary and appropriate risk mitigation steps are taken from the beginning of the project through its completion, the Contractor shall develop, maintain, and assess compliance with an Information Security Risk Management Plan (ISRMP) that shall establish how the project will protect the data assets of the State in the course of delivering services of the contract. The elements of the plan shall include, but are not limited to, the following:

- Classification of systems in scope (for either replacement or interface) in terms of the degree of sensitivity of the data resident in those systems;
- Incorporation of State incident management procedures;
- Incorporation of State data security standards and procedures;
- Definition of the responsibilities of the project team members and State stakeholders to ensure the data are managed properly in accordance with the plan, policies, and procedures;
- Definition of approach to monitor, audit, control, and report on compliance with the plan; and
- Communication and escalation procedures used to notify appropriate State personnel of a security-related breach.

Onboarding Process and Documentation

The Contractor shall develop and maintain an onboarding process and related documentation to ensure that project team members (Contractor and State) develop a collective understanding of the project scope, team members, roles and responsibilities, work breakdown structure, project policies and procedures, etc.

Tenant Management Plan

The Contractor shall develop and maintain a plan that describes activities, roles, responsibilities and scheduling related to the request, preparation, and deployment of tenants used during the implementation (A tenant is an instance of the software and related data intended for a specific purpose such as production, testing, training, or demonstration). The plan shall include descriptions of processes and steps to address copy/move of configuration settings and other design features from one tenant to another such that the tenants are prepared to meet the needs of the implementation project at the times required by the project work plan.

Release Management Plan

The Contractor is required to provide all consulting services necessary to keep the State current on the latest release of the ERP software and other software applications within scope for the duration of the implementation. The ERP software provider will be responsible for the technical installation of any new software releases, while the Contractor will be responsible for managing all other activities required (with State's participation) to ensure a successful transition to the new software release (e.g., testing and training on new functionality).

The Contractor shall develop and maintain a plan that describes activities, roles, responsibilities and scheduling related to the review, coordination, scheduling, and testing (including regression testing) of updates and patches that the software provider deploys across the various tenants in the State's ERP solution.

Project Team Training

Within seven (7) days of project initiation, Contractor shall provide a recommended curriculum of product training for each State project team member. The State expects that the software provider shall provide software training to the project team, unless Contractor offers an alternative.

In addition, the Contractor shall develop and provide training to the entire project team on the project procedures, project tools, and a walk through of the project work plan. Additional work plan walk-throughs shall be conducted at appropriate points in the project schedule to allow continued understanding of the scope of work, roles, and responsibilities.

Project Management Deliverables:

- Implementation Project Charter
- Project Work Plan
- Time Reporting Plan
- Status Reporting Plan
- Status Reports
- Issues Management Plan
- Risk Management Plan
- Project Control, Standards, and Procedures
- Information Security Risk Management Plan
- On-Boarding Process and Documentation
- Tenant Management Plan
- Release Management Plan
- Recommended Curriculum for Project Team Training

Table 1: Project Management Responsibility Matrix

Activities	Contractor	State
Develop Project Initiation Overview	Lead	Assist
Obtain Approval of Project Initiation Overview	Assist	Lead
Report to Project Governance	Assist	Lead
Develop Weekly Status Report	Lead	Assist
Develop Project Work Plan	Lead	Assist
Manage Project Work Plan and Associated Reporting	Lead	Assist
Conduct Regular (Weekly) Project Team Meeting	Lead	Assist
Develop Issues Management Plan	Lead	Assist
Manage Issues	Assist	Lead
Develop Risk Management Plan	Lead	Assist
Manage Risks	Assist	Lead
Develop Information Security Risk Management Plan	Lead	Assist
Develop Internal Communications Plan	Lead	Assist
Develop Deliverable Expectation Document (DED) template, and	Lead	Assist
DEDs for Plan phase deliverables		

Activities	Contractor	State
Manage Compliance with Information Security Risk Management	Lead	Assist
Plan		
Consultant Team Resource Management	Lead	Assist
State Team Resource Management	Assist	Lead
Project On-Boarding Documentation	Lead	Assist
Tenant Management Plan	Lead	Assist
Release Management Plan	Lead	Assist
Provide new release analysis, testing, training, and other services required	Lead	Assist
for a successful upgrade		
Develop Project Control, Standards, and Procedures	Lead	Assist
Manage Project Control, Standards, and Procedures	Lead	Assist
Recommendations for State product training	Lead	Assist
Walk-Through of Project Procedures, Tools and Plan	Lead	Assist

1.2 Organizational Change Management (OCM) and Communications

Methodology

The Contractor shall provide a structured method and approach, guidance, and mentoring to support a successful transition to the new ERP-enabled business processes and related business processes impacted by the software. The Contractor shall partner with State personnel to orchestrate change activities. Contractor and State team members shall support the change process where required, lending both subject matter expertise and assistance by creating content and supporting materials.

OCM Manager

The Contractor is expected to provide a full-time, experienced OCM Manager who is expected to define and execute the overall OCM strategy, to promote project team collaboration, respond to day-to-day problems, manage issues, and manage personnel resources.

OCM Strategy and Plan

The Contractor shall deliver a detailed OCM Strategy and associated plans (such as Communication Plan and End User Training Strategy and Plan) that outlines a change management methodology, approach, activities, dependencies, and assumptions for key stakeholders to support a successful transition from the current environment to the future state. Together, these plans shall describe an approach that maximizes engagement from each State office, bureau, department, and division.

The OCM Strategy shall be based on a comprehensive assessment of the State's capacity for and tolerance to change, a stakeholder analysis, and assessment of the overall change risk. The OCM Strategy and its accompanying plan shall encompass the entire project lifecycle.

The OCM Strategy and Plan shall include, but is not limited to, the following elements:

- OCM Resources Plan;
- Sponsorship and Stakeholder Engagement Plan;
- Communications Plan;
- Impact Assessment and Readiness Plan;
- Training and Workforce Development Plan; and

Sustainability Plan.

OCM Resources Strategy and Plan

The Contractor shall develop an OCM Resources Strategy and Plan that defines personnel, skills, equipment, and physical resources needed to support the change and achieve the expected benefits of the ERP solution. The OCM Resources Strategy and Plan shall include, but are not limited to the following elements:

- Staffing plan that assigns roles and individuals to specific change management tasks; and
- Physical OCM resources needed to support the implementation.

Sponsorship and Stakeholder Engagement Strategy and Plan

The Contractor shall develop a Stakeholder Engagement Strategy and Plan that outlines the activities and methodology that will ensure project sponsors, State employees and functional groups promote and drive adoption of the new software at all levels across the State and can make the process changes required for successful ERP implementation. The Sponsorship and Stakeholder Engagement Plan will address stakeholders effected by new business processes and technology. The Stakeholder Engagement Strategy and Plan shall include, but are not limited to the following elements:

- Stakeholder analysis;
- Approach for gaining sponsorship commitment;
- Leadership alignment;
- Organizational readiness and risk assessment;
- Cultural assessment;
- Change network program; and
- Channels, key messages, and critical path needs for impacted Stakeholder groups.

Communication Strategy and Plan

The Contractor shall develop a Communication Strategy and Plan that defines all communication touch points between the project and all change champions, change agents, and change targets. The Communication Strategy and Plan shall include, but are not limited to the following elements:

- Core message outlines;
- Communication Plan with the following elements: target audiences, outcomes, sender, key messages, communication channels, frequency, timing, cost and resources, reviewers and approvers, monitoring and feedback. type of communication event, event objectives, key messages, target audience, delivery date(s), communications channel, presenter, content developer, reviewer/approver, and status; and
- Communication Calendar showing key messages of each communication channel over each month of the implementation.

As part of this effort, the Contractor shall:

- Direct the development of materials appropriate for each communication event. Materials will vary based on the communication channel, but may include videos, presentations, and documents developed in Microsoft PowerPoint presentations, Microsoft Word, Microsoft Publisher and similar tools; and
- Work with assigned State staff to incorporate policy, procedure, and specific personnel roles into the materials.

All communication materials must be reviewed and approved by the State prior to distribution. The Contractor shall ensure that all electronic source documents are consistent with branding and graphics used in the development and presentation of communication materials across all delivery channels.

The Contractor shall implement methods to assess the effectiveness of communication events and identify specific recommendations for adjustments. The Contractor shall, throughout the project, improve the approach, methods, procedures, and communication material based on lessons learned throughout execution of the Communication Plan to ensure the end-users are receiving communications that will enable them to execute tasks within the software upon go-live.

Impact Assessment and Readiness Plan

The Contractor shall develop an Impact Assessment and Readiness Plan that analyzes the impacts on employees, processes, tools, and job roles the ERP will have across the State. This plan will outline the activities that need to be accomplished in advance of planned phase go-live. The Impact Assessment and Readiness Plan shall include, but are not limited to the following elements:

- Change impact assessment;
- Organizational change capacity assessment;
- Process mapping and process adoption plan; and
- Organizational design.

End-User Training Strategy and Plan

The Contractor shall develop an End-User Training Strategy and Plan based on a comprehensive end-user training needs assessment conducted by the Contractor in conjunction with overall change management and stakeholder analysis activities. The End-User Training Strategy and Plan shall include, but is not limited to the following elements:

- End-User Training Stakeholder Analysis;
- Map of End-User Training Needs to Awareness, Skills and Sustainment learning phases;
- Map of End-User Training Needs to modules with associated learning objectives and assessment methods;
- Map of End-User Training Modules to Training Events and Delivery Channels; and
- Job Aid Strategy; and
- Sustainment Strategy.

As part of this effort, the Contractor shall:

- Provide a senior Training Lead who can plan, direct and execute end-user training for the State. The
 Contractor shall lead and provide resources for 80% of the development of end-user training based on
 the Training Strategy and Plan, and will be responsible for train-the-trainer sessions with State training
 resources. The State will be responsible for 20% of the training development efforts, and will administer
 enrollment and lead all instructor-led classes;
- Develop materials appropriate for each training delivery channel to support training that has been
 customized to address specific software configuration and designs made as part of the implementation
 project. Where possible, these materials should be sustainable beyond go-live for self-paced learning
 needs. Materials will vary by delivery channel, but shall include instructor guides, learner guides, quick
 reference guides, job aids, videos, and user exercise and engagement materials as appropriate;

- Work with assigned State staff to incorporate policy, procedure, and specific personnel roles into the materials;
- Provide a stable, tested environment that is pre-loaded with representative converted reference and
 historical State data that can become a starting point for creating training materials (including screen
 prints showing user actions and processing outcomes, if included as part of the training approach); and
- Provide back-up, refresh, and troubleshooting assistance in the training environment as materials are prepared and customized and as end-user training proceeds.

All end-user training materials must be provided to the State with sufficient lead time for the materials to be reviewed and approved by the State prior to the start of training delivery. The Contractor shall provide all electronic source documents and graphics used in the development and presentation of training across all delivery channels.

The Contractor shall implement methods to assess the effectiveness of the training delivery process and identify specific recommendations for adjustments. The Contractor shall, throughout the project, improve the approach, curriculum, methods, procedures, and end-user training material based on lessons learned throughout the training delivery to ensure the end-users are receiving training that will enable them to execute tasks within the new ERP system upon go-live.

End-User Training Delivery

The Contractor must provide a senior Training Lead who will work with the Project Manager to develop, direct and execute a statewide End-User Training Strategy and Plan. The Contractor shall lead and provide resources for development of end-user training based on the End User Training Strategy and Plan (80% of the effort, as noted above) and coordinate train-the-trainer sessions with State training resources. The State also expects the strategy and plan to produce self-paced course to be delivered online when appropriate. Once end-user training has been completed and the ERP system is live and in production, the Contractor shall provide the State with all Instructor Training Materials developed for and utilized in the end-user training to allow the State to support the ongoing training needs related to the ERP system.

Sustainability Strategy and Plan

The Contractor shall develop a Sustainability Strategy and Plan that describes how the new ERP system will become a part of the State's normal operations. The Sustainability Strategy and Plan shall include, but are not limited to the following elements:

- Roles, resources requirements, governance structure for sustainment;
- Ongoing communications;
- Metrics tracking;
- Rewards and recognition;
- Sustained ownership and knowledge transfer; and
- Process improvements.

OCM and Communications Delivery

The State expects the Contractor to deliver the initial strategy plans in the Plan Phase of the project as indicated in this section. The execution of those plans shall be aligned to the project phase in which they are appropriate. The Contractor shall provide a senior OCM Lead for planning and leadership in this area, plus a senior Communications Lead for planning and leadership.

These senior consultants will help the State project personnel develop the OCM and Communications Management plans for the duration of the project. For execution of the agreed OCM and Communications Management plans, the State will provide at least the staff resources noted in the RFP.

OCM Deliverables:

- Change Management Strategy and Plans
- Communications Management Strategy and Plan
- Impact Assessment and Readiness Plan
- End-User Training Strategy
- End-User Training Plan
- Training Sustainment Plan
- Train-the-Trainer Sessions and Support for End-User Training
- End-User Training Materials and Instructor Training Materials

Table 2: Organizational Change Management Responsibility Matrix

Activity	Contractor	State
Develop Change Management Strategy and Supporting Plan	Lead	Assist
Determine Organizational Readiness	Lead	Assist
Conduct Periodic Change Management Program Achievement Reviews	Lead	Assist
Develop Communications Strategy and Plan	Lead	Assist
Develop Communications	Lead	Assist
Deliver Communications	Assist	Lead
Impact Assessment and Readiness Plan	Lead	Assist
Develop End-User Training Strategy and Plan	Lead	Assist
Develop Training Materials	Lead	Assist
Develop Readiness and Sustainment Materials	Lead	Assist
Deliver Train-the Trainer Support to State Trainers	Lead	Assist
Conduct Classroom Training Sessions (following the Train-the-Trainer period led by Contractor)	Assist	Lead
Manage evaluations of End-User Training Events	Assist	Lead

1.3 Additional Project Preparation and Planning

The following deliverables are not listed as part of the Plan phase of the project, but the State expects that these strategy deliverables will be completed during Plan phase or early in the Design phase.

- Integration Strategy Plan (detail included in Section 3.3)
- Conversion Strategy (detail included in Section 3.4)
- Security Plan (detail included in Section 3.7)
- Knowledge Transfer Plan (detail included in Section 5.4)

2 Design Phase

2.1 Business Process Design

The Contractor shall lead work group sessions and provide tools and other services as required to complete the

Business Process Design. The State expects the Design phase will involve input from most departments in the State. At a minimum, the Contractor's approach to standardized business process design shall include the following, at a minimum:

- Conduct multiple process analysis and design workshops by business process area that:
 - o Utilize the ERP software and other appropriate software in the facilitation of the workshops, and
 - o Include State subject matter experts (SMEs) representative of the identified State departments in order to leverage their State-specific process knowledge;
- Produce business process design documents that capture a profile of the business process, process flow diagrams (in "swim-lane" format, as appropriate), key inputs and outputs, and linkages to other processes and system modules, as well as to third-party systems;
- Identify and document organizational change impacts in terms of process, policy, and skill sets;
- Analyze and document the resolution of published System Requirements (Requirements Traceability),
 identifying: (1) those that are available in the system as delivered or through configuration, and (2) those
 that are gaps, which may lead to the development of business process changes, software extensions,
 additional integration(s), or modifications to existing third-party systems;
- Conduct an analysis of requirements specific to the South Dakota Department of Transportation, to better understand the complexities involved in supporting SDDOT on the new ERP solution;
- Design of reports to support business processes and identification of any needed custom reports;
- Identify and document any additional information or changes to lists of systems that have been identified for replacement, interface, or conversion;
- Achieve organizational alignment on a unified financial structure and reporting format for the State.

2.2 Specific Design Strategies

The Contractor shall provide structured methodologies and guidance for the following strategies during Design to support the successful execution of the implementation project and the efficient ongoing operations of the ERP solution.

- Enterprise Reporting and Analytics Strategy: The Contractor shall lead the development of an enterprise
 reporting and analytics strategy that will include education of the State's executive Bureaus and
 department reporting resources on the query, reporting, and analysis features of the applications,
 development of a statewide model of audience and purpose of the query, reporting, and analysis tools of
 the system; and facilitation of department discussions to gather input for a recommended statewide
 model.
- Chart of Accounts Plan and Redesign: The Contractor shall lead a State workgroup consisting of Bureau of Finance and Management and department representatives charged with developing a new chart of accounts that will support the financial management and reporting processes of the State. The State expects the Contractor to develop a plan to guide the redesign effort, educate the workgroup on the functionality of the system pertaining to chart of accounts and reporting, provide guidance on other State models, include a means by which broader input can be incorporated, and to demonstrate iterations of the design in the system to achieve approval by the State.
- Cash Edit Solution Design: The Contractor shall lead early gap analysis and resolution identification sessions for the State's operating requirement that payments issued by the State be validated against available cash as well as budget. The State expects the Contractor to coordinate with representatives for

the State Treasurer, the Bureau of Finance and Management (BFM), and selected departments to develop an understanding of the existing State practice, demonstrate system features and processes that could support addressing the practice in whole or part, and facilitate design decisions that will contribute to subsequent business process change, organizational change management, and solution design activities of the project.

Cost Allocation Strategy and Design: The Contractor shall identify the various cost allocation approaches
employed by the BFM and key departments and develop a strategy and operational design to meet the
needs of the state. The State expects the Contractor to understand the data elements, allocation bases,
source of metrics, and other requirements necessary to allocate costs in accordance with department
cost-reimbursement procedures and/or the Statewide Cost Allocation Plan. The design must also ensure
that necessary data elements can be captured in a manner that does not place undue workload upon
State personnel.

Business Process Design Deliverables:

- Business process and roles design
- Documented System Requirements resolution
- Requirements for configured and custom integrations
- Reports inventory
- Software gap inventory
- Enterprise Reporting and Analytics Strategy
- Chart of Accounts Plan and Redesign
- Cash Edit Solution Design
- Cost Allocation Strategy and Design

Table 3: Design Responsibility Matrix

Activities	Contractor	State
Provide subject matter expertise on business process requirements and make final business process decisions	-	Lead
Coordinate participation in workshops	-	Lead
Conduct business process design workshops	Lead	Assist
Develop Business Process and Roles Design documents	Lead	Assist
Review and approve Business Process and Roles Design documents	-	Lead
Document resolution of System Requirements	Lead	Assist
Develop Change Impact Assessment document	Lead	Assist
Develop/update Integration Inventory Document	Lead	Assist
Develop Software Gaps Inventory	Lead	Assist
Develop Enterprise Reporting and Analytics Strategy	Lead	Assist
Develop Chart of Accounts Plan and Redesign	Lead	Assist
Develop Cash Edit Solution Design	Lead	Assist
Develop Cost Allocation Strategy and Design	Lead	Assist

3 Configure and Prototype Phase

3.1 Software Configuration

The Contractor shall lead the configuration of all application software in accordance with business process design. The Contractor shall use the highest applicable industry standards for sound and secure software configuration practices. The "highest applicable industry standards" shall be defined as the degree of care, skill, efficiency, and diligence that a prudent person possessing technical expertise in the subject area, and acting in a like capacity, would exercise in similar circumstances.

The State believes that early and frequent access to the system during the design and configuration phases will allow the State to progressively refine its understanding of the ERP software and how it can be implemented in the State. The State expects the Contractor's approach to provide iterative prototyping of the software configuration throughout the Configure and Prototype Phase to validate the design of business processes, provide knowledge transfer, and identify organizational change impacts.

Software Configuration Deliverables:

- Configuration Management Plan
- Project Team Training on Configuration Tools and Process
- Configured Application Software
- Updated Configuration-related Aspects of Software Documentation

Table 4: Software Configuration Responsibility Matrix

Activities	Contractor	State
Develop Configuration Management Plan	Lead	Assist
Conduct Project Team Training on configuration tools and process	Lead	Assist
Conduct prototyping sessions	Lead	Assist
Coordinate State participation in prototyping sessions	-	Lead
Configure applications	Lead	Assist
Review and approve configuration	Assist	Lead
Verify expected State functionality	Assist	Lead
Create/update software documentation with configuration	Lead	Assist

3.2 Technical Team Support

Working in partnership, the State expects the Contractor to support the management and coordination of all project technical team activities. The Contractor shall provide a Technical Lead, Integrations Lead, Conversions Lead, Reporting Lead, and a Testing Lead. (One person may be able to perform more than one role.)

The split of the technical tasks will be agreed between the Contractor and the State. For example, as discussed below, the State will be responsible for some of the technical activities, such as extracting data from legacy systems for conversions. The Contractor technical resources will provide technical expertise on software and support development, and will work with the State technical director on architecture/strategy for conversions, integrations, security and other technical areas.

3.3 Integration

For the purposes of this Statement of Work, integration (or interface) is defined in broad terms as two systems sharing data, regardless of the batch or real-time nature of the data exchange. It could also include sharing of a business process or workflow and, where possible, a real-time processing of data or the elimination of duplicate

data residing in two systems.

The Contractor is responsible for at least 75% of the integration technical effort, and the State will perform no more than 25% of the integration work. The State will provide technical resources to extract data from and load data into the State's legacy systems. The Contractor shall provide technical expertise on software and support development to lead the State Technical Team Lead on architecture/strategy for integrations, and lead the State Technical Team Lead in planning and coordinating technical work. For reference, the State has provided its initial scope for integrations as RFP Attachment 3, *Current Integrations Inventory*.

Based on the Integration Strategy prepared during Design phase, the Contractor shall support the State in preparing an Integration Plan document that shall include but is not limited to:

- Validation and assessment to confirm the inclusion of integration candidates identified in RFP Attachment 3, Current Integrations Inventory;
- Identification of secure data transfer needs for third parties;
- Identification of responsibilities and State personnel assigned as contact for the integration; and
- Graphical representation of the integration environment.

The Contractor shall provide the following services for integrations:

- Supporting and assisting with all activities related to interfacing data with the ERP software and other software applications within scope, including the coordination of integration development efforts;
- Developing a detailed data Integration Plan document;
- Provide templates for integration design and develop its share of programming specifications;
- Coding of integration programs that transform and load data to the ERP software and other software applications within scope in accordance with program specifications;
- Performing unit testing of its share of the integration programs;
- Developing reports and other means for State personnel to audit the results of interfacing;
- Facilitating integration user acceptance testing; and
- Developing mechanisms for monitoring and notification for use in the production environment that immediately alerts specified State personnel when real-time integration issues occur between the ERP software and other State software applications within scope.

The State shall be responsible for subject matter knowledge of existing integrations and associated data. State SMEs are expected to be available to consult with the Contractor during the development of the Integration Plan and specifications, and to assist with the determination and adoption of acceptable alternatives to integrations wherever feasible. The State shall be responsible for coding the legacy application side of the integration.

Integration Deliverables:

- Integration Plan
- Development of automated integrations, which include alerts for processing issues
- Integration Platform (if applicable) and Integration Training of State Personnel on Use and Support

Table 5: Integrations Responsibility Matrix

Activities	Contractor	State
Integration Plan Document	Lead	Assist

Activities	Contractor	State
Training and mentoring of State project team resources on integration	Lead	-
platform (if applicable)		
Analysis and assessment of real-time and batch integration requirements	Lead	Assist
Approval of real-time and batch integrations for design	-	Lead
Real-time and batch integration design	Lead	Assist
Real-time and batch integration development and unit test: required	Lead	Assist
transformation and load processes to the new system, and extracts from		
the new system (80% Contractor, 20% State)		
Real-time and batch integration development and unit test: Extracts from	Assist	Lead
legacy and external systems and load processes to legacy and external		
systems (this work may be split between Contractor and State)		
Coordinate Integration/System testing of integrations to ensure proper	Lead	Assist
operation	Leau	Assist
Integrations User Acceptance Testing	Assist	Lead
Management reporting and deployment tracking of production	Assist	Lead
integrations		
Integrations Knowledge Transfer Document Development	Lead	Assist
Training of State support personnel for major integration systems	Lead	Assist

3.4 Data Conversion

As stated in Section 3.2, Technical Team Support, the State will provide technical resources and expects to extract data from the State's legacy systems. The Contractor shall provide resources to translate the State's data to the ERP system's data structure and values as well as import the information into the ERP system.

The Contractor shall assist and support the State in managing all activities related to converting legacy data to the ERP software and other software applications within scope. The State is dedicated to minimizing data conversion to only data required (as determined by the State) for proper system operation. For reference, the State has provided its initial scope for data conversions as RFP Attachment 4, *Data Conversions*.

The Contractor shall provide a detailed Data Conversion Plan document that includes, at a minimum, the following:

- All data to be loaded or entered in the new system;
- Data sources;
- Expected data volumes;
- Determination of conversion method and load process (i.e., manual, automated, or semi-automated method);
- Roles and responsibilities and timing requirements for the conversion effort; and
- Extract/Transform/Load (ETL) methods to be used.

In partnership with the State, the Contractor shall provide the following data conversion services:

- Coordinating pre-conversion activities such as verification of data to be converted, archiving, purging, and cleansing of legacy data by State resources;
- Developing programming specifications in accordance with the detailed data conversion plan that includes coding and unit and system testing for the conversion programs;

- Coding of conversion programs that transform and load data to the ERP software and other software applications within scope in accordance with program specifications;
- Building any crosswalk file structures required to assist the State in developing test scenarios and conducting acceptance testing;
- Performing unit and system testing of any conversion programs developed by the Contractor;
- Developing reports and other means for State personnel to validate converted data;
- Running conversion programs and working with the State to validate the accuracy of results in the production environment following all conversion activities; and
- Maintaining a conversion log to track the progress and accuracy of all conversion efforts.

The State will be responsible for subject matter knowledge of existing applications and associated data. The State expects to perform all data cleansing and manual conversion processes, with the expertise and guidance of the Contractor. Manual conversions are defined as "manual" when the Contractor and the State agree that the volume is too low to justify the cost of developing an automated conversion program.

The State will code and unit test conversion programs that extract data from the legacy applications and output the data using the formats and protocols specified in the programming specifications for use in the transformation and load processes. The State will also be responsible for verifying the accuracy of the converted/loaded data through participation in all levels of testing.

The Contractor shall plan and execute at least two (2) complete and successful test runs of the end-to-end conversion process. Test exercises shall consist of the following:

- Extracting data from legacy systems;
- Loading data extract files provided by the State; and
- Providing reports/query results so that State staff may validate the accuracy and completeness of the conversion programs and related activities.

The State will be responsible for developing test scenarios and conducting the acceptance testing of conversion programs with the assistance of the Contractor. The State PMO will define the timing, requirements, and acceptance criteria for the test conversions. In support of conversion 'test runs', State staff responsible for manual entry and correction, data reconciliation and acceptance, technical support, issue resolution and executive level go/no-go decision-making shall be available to role play their tasks in real-time.

Data Conversion Deliverables:

- Data Conversion Plan
- Completed Conversion Programs and Crosswalks
- Successful Completion of End-to-End Conversion Test Runs
- Successful Conversion of Data into Production Environment

Table 6: Data Conversion Responsibility Matrix

Activities	Contractor	State
Manage conversion activities	Lead	Assist
Create a Data Conversion Plan for migrating data between legacy systems and the new system	Lead	Assist

Activities	Contractor	State
Design and document Data Mappings	Lead	Assist
Extract data from legacy systems	Assist	Lead
Provide Subject Matter Expertise for legacy system data	Assist	Lead
Perform data cleansing	Assist	Lead
Develop conversion programs to transform and load extracted data from State systems into the ERP software and other software applications within scope (and in accordance with defined load protocols); create crosswalk structures	Lead	Assist
Provide guidance to the State on performing required data clean-up efforts identified through the mock data conversion process	Lead	Assist
Execute test run conversions and production conversion automated processes	Lead	Assist
Present test conversion results to Project Governance	Assist	Lead
Validate quality and accuracy of converted data for mock conversions and production conversion	Assist	Lead
Perform manual conversion of data (including non-electronic data) and crosswalks	Assist	Lead

3.5 Reports, Queries, Dashboards and Forms

The State expects the development of customer reports, queries, forms, dashboards and similar items (collectively, referred to as reports in this section) to be a joint activity between the Contractor and the State that will initiate early in the project and run throughout. The Contractor shall provide services and tools to accomplish two broad objectives upon go- live:

- Develop and deploy all the necessary reports in conjunction with the appropriate preparation of endusers to know how to access, execute, and apply the data to their respective functions. This applies to delivered reports, queries, dashboards and forms within the ERP software applications and more complex reporting needs considered nonstandard; and
- Define and train select State personnel on the software tools and methodologies to address current and future reporting needs of the State.

The Contractor shall provide the following services, at a minimum, to develop the Reports, Queries, Dashboards and Forms Strategy and Plan:

- Identify reports, queries, dashboards and forms required for normal business operations in the respective functional areas;
- As part of the identification step, the Contractor will ensure that all reports required for completing the State's Annual Comprehensive Financial Report (ACFR) and Single Audit are identified and on the inventory (see SOW Appendix 2);
- Create a disposition for identified reports when the ERP software and other software applications within scope are deployed:
 - Using standard ERP software and other software applications within scope reports, online inquiry pages, or other online data access methods, or
 - Developing complex queries/reports using tools resident in the ERP software and other software applications within scope;

- Partner with the State to organize and prioritize reports that are either: (a) standard reports that require some level of modification to meet the State's needs, or (b) new reports that will be needed;
- For each report requiring development on the Report Inventory, estimate the complexity of the request
 and the effort required to design, develop and unit test the report. The assignment of complexity and
 allocation of hours will be mutually agreed by the State and Contractor. The guidelines for classification
 of complexity are included as SOW Appendix 3; and
- Recommend appropriate placement of reports, queries or online analytics based on business process and navigation set up of the software.

In support of the establishment of appropriately trained State personnel on the software tools and methodologies to address future reporting needs of the State, the Contractor shall develop and deliver training and knowledge transfer for the State project team on the reporting tools and procedures.

All activities and deliverables described so far in this section are included as part of the fixed fee bid for implementation services. In addition, the State is committed to leveraging the delivered reports, queries and views in the ERP software; however, it is anticipated that there may be a need for reporting that may not be delivered within the application. In support of the reports, queries, and forms deployment, the Contractor shall provide the following services:

- Report, query, dashboard and form design, development, and testing; and
- Report, query, dashboard and form access and execution training for System end users.

In addition, the fixed fee bid will include the costs for three categories of report development:

- The Contractor will be responsible for design and development of any reports required for completing the State's Annual Comprehensive Financial Report (ACFR) and Single Audit (See Appendix 2);
- The Contractor will be responsible for an additional 150 reports (50 "Simple,", 50 "Average," and 50 "Complex") from the prioritized Reports Inventory, to be defined and mutually agreed during the project; and
- The Contractor will include a "Development Pool" of an additional 5000 Contractor hours for design and development of additional reports as needed, to be defined and agreed during the project.

The State will also be assigned and be responsible for a portion of the design and development of reports during the project. The "Development Pool" is described below in Section 3.8, Provisional Consultant Development.

Reporting Deliverables:

- Reports, Queries, Dashboards and Forms Plan
- Updated Report Inventory
- Report Training Development and Execution
- Completed Reports, Queries, Dashboards and Forms (as assigned)

Table 7: Reports, Queries, Dashboards and Forms Responsibility Matrix

Activities	Contractor	State
Managing reports activities	Lead	Assist
Updates to Report Inventory - Reports, queries, dashboards and forms inventory, disposition, prioritization, and estimation	Lead	Assist
Provide subject matter expertise and developer mentoring on reports	Lead	Assist

Activities	Contractor	State
Reports (assigned to Contractor) design	Lead	Assist
Reports (assigned to State) design	Assist	Lead
Reports design review and approval	Assist	Lead
Reports (assigned to Contractor) development and unit testing	Lead	Assist
Reports (assigned to State) development and unit testing	Assist	Lead
Reports development training for report development resources	Lead	Assist

3.6 Work-around or Extension Development

The State is committed to adapting to the best practices inherent in the new ERP system and to minimizing the need for "work-arounds" external to the delivered solution or extensions to the new system, where allowed. A work-around would be adopted as a last resort. It is anticipated, however, that certain development work products could be necessary to meet high impact gaps identified in the Design/Architect Phase. If needed, the State at its option may desire to engage Contractor staff for technical development. With agreement between the State and Contractor, these items will consume hours from the development pool of hours, or will result in a change order based on the hourly rates supplied with the Pricing Schedules.

3.7 Security Configuration

The ERP software and other software applications within scope provide application controls to prevent unauthorized use of the system, maintain system process controls, and log all transactions. In addition, the ERP software and other software applications within scope provide security to limit availability to application functionality, software screens, data records, data elements, and date element values, where appropriate.

The Contractor shall develop a Security Plan that includes the following:

- Compliance with all required State security standards;
- Design that is sustainable by the State and aligns with the organizational structure and responsibilities for all roles;
- Security configuration recommendations based on best practices regarding segregation of duties;
- Approach to analyzing, establishing, and documenting security functions into the State's security network;
- Actions required by the Contractor and by the State in the event of a security incident (Security Incident Response Plan);
- Risk management approach to application development and deployment in terms of threat and vulnerability identification, analysis and prioritization, and mitigation techniques; and
- Security configuration that is sufficiently simple to provide efficient and sustainable administration after go-live.

The Contractor shall provide training to the State security SMEs and implementation team on the security capabilities, controls implemented, and required configuration steps to meet the State's security requirements for the ERP software and other software applications within scope.

The Contractor shall work with the State security SMEs to design, configure, and test the application security, including establishment of end-user roles and organizational security.

The Contractor shall develop a Security Administration Guide based on the Security Plan and the design of the security configuration. This guide will provide the foundation for security administration and the configuration of application security. The Contractor will assist in the implementation of the Security Administration Guide by

working with and training the State Security team.

Security Configuration Deliverables:

- Security Plan
- Security Administration Guide
- Security Training
- Security Configuration and implementation across all ERP software and other software applications within scope

Table 8: Security Configuration Responsibility Matrix

Activities	Contractor	State
Conduct product Security Training	Lead	Assist
Provide current State Security Policies to include details regarding what data the State considers confidential and sensitive	Assist	Lead
Develop Security Plan, with configuration for resource groups, security roles, user profiles, data level security, infrastructure and sensitive data	Lead	Assist
Review and Approve Security Plan and Security Configuration	Assist	Lead
Create and Test Application Security Configuration	Lead	Assist
Verify Application Security Configuration	Assist	Lead
Create Application Security Templates	Lead	Assist
Update Templates with Users and Security Roles	Assist	Lead
Review Templates Submitted by Departments	Lead	Assist
Upload Security Templates	Lead	Assist
Provide post Roll-out User Security Maintenance	Assist	Lead
Develop Security Administration Guide	Lead	Assist
Monitor Security Compliance	Assist	Lead

3.8 Provisional Consultant Development

While the State is committed to adapting to the process designs and functionality inherent in the ERP software and other software applications within scope, the State expects that there will be some areas for which the system as delivered may not fully meet the State's business needs. Thus, additional Contractor effort may be required outside of the scope of the project as known at project start. This effort will be handled by allocating a Development Pool of Hours that the Contractor will provide as its share of development effort.

As part of the technical services requested, the State is asking for the Contractor to include in the quoted fee a total cost for a block of 5000 technical development hours. The fee for these hours will be assigned to a "Development Pool" deliverable in the Payment Schedule, not to any other project deliverable. The primary purpose for this Development Pool will be for the Contractor to develop reports, queries, dashboards and forms. The State expects custom report/query/form development to be a joint activity between the Contractor and the State that will be initiated early in the project and run throughout.

The State and the Contractor will jointly agree to a list of development items during the project, with the Contractor assigning complexity (see SOW Appendix 3) and hours estimate, and State providing item priority and approval of the list. When development items have been reviewed and approved, the State and the Contractor will refine the scope for development items and the precise number of person-hours from the pool that will be used to deliver that scope. Once defined, the agreed-upon development scope becomes "fixed-fee" in effect, as the Contractor shall agree to deliver those development objects for the agreed person-hours and cost.

Consumption of these hours by the Contractor requires the written, prior approval of the State. Pool development items will be paid as the additional items are developed by the Contractor and accepted by the State. The State and the Contractor shall define a process by which the request, approval, and use of these hours may take place.

This Pool may also provide development hours if other technical items, such as integrations, are added to the scope post-contract at the request of the State. If development items that were included in the fixed cost, such as integrations, are eliminated post-contract, the hours associated with that item will be added to the pool and made available for other development items. Any hours remaining in the Pool may be used as a contingency fund for the project as the State determines and may or may not be expended during the project. The unexpended funds associated with any unused pool hours remain with the State at contract termination.

The Contractor shall create a Development Pool monitoring tool(s) for the project and shall be responsible for tracking additions/deletions to the development scope and monitoring and reconciling the number of hours in the Pool.

4 Test Phase

The Contractor shall provide a Testing Lead to manage and direct the planning, preparation and execution of all testing in partnership with the State. The Contractor shall provide testing plans, scripts, processes, tools, and test execution services that are necessary and prudent for a system of this magnitude, including, but not limited to:

- Unit Testing Validates that modular configuration values operate according to approved design specifications;
- System Testing Validates that dependent business processes and functional requirements within a
 functional area can be fully executed and produce the pre-defined and expected results for each test
 script. Validates that business processes across functional areas and software components interact
 seamlessly. Validates that configurations, security, work around development units, data conversion
 programs, integrations, reports, and forms work together;
- Performance (load/stress) Testing Validates the readiness of the application to support the State's transaction and user volumes and will include both interface/batch transactions and on-line/end-user response times;
- User Acceptance Testing Validates the system is functioning as designed, verifies the conversion process, and confirms that the system is ready to be moved into the production environment; and
- Regression Testing Validates the operation of the system after the application of patches and updates and identifies system and functionality problems resulting from the application of patches and updates.

The Contractor shall provide tools to facilitate the testing process, including those tools used for performance testing. The Contractor shall provide training on the proposed testing tools to all State staff that are expected to use the proposed testing tools.

The Contractor shall deliver a series of Test Plans that cover specific procedures and practices to be followed throughout the project. These plans shall cover all types of testing:

- Unit Test Plan Included as part of each development item. Acceptance criteria are defined by the
 functional and technical detailed design documents. Depending upon the Contractor's testing approach,
 this plan may also include unit testing of software module configuration values;
- System Test Plan Includes testing of solution components being implemented, including configured system components, business processes, reports, forms, on-line and batch job streams, security roles and integrations that apply cross functionally. Includes entrance and exit criteria for the System test and

documents the basis for State acceptance of the System Test;

- Performance Test Plan Documents the approach, test protocols and test cases for conducting a
 performance test to verify the ability of the system to perform for the anticipated transaction volume
 and number of users. The Performance Test Plan will include entrance and exit criteria for the
 performance test and document the basis for State acceptance of the Performance Test;
- User Acceptance Test Plan Documents the approach, test protocols, test cases, testing environment set-up and refresh scheduling, identified users, and any required training necessary to complete acceptance testing. The User Acceptance Test Plan will include entrance and exit criteria for the user acceptance test and document the basis for State acceptance of the system;
- Security Test Plan Documents the approach for testing or otherwise establishing that security
 configuration requirements and all the State's IT Security Policies have been met. Security testing shall be
 integrated into each phase of testing, as appropriate for that phase of the overall testing effort; and
- Regression Testing Plan Documents that approach for defining and running a set of test scripts intended to validate the operation of the system after the application of patches and updates to the State's tenants.

All Test Plans shall include the following:

- Procedures for tracking, reporting, and correcting incidents identified during testing;
- Roles and responsibilities of participants and facilitators;
- Examples of forms, templates, and/or tools used for testing; and
- Approaches to address testing for negative results and provide for regression testing, when necessary, to
 ensure that incidents are appropriately resolved without creating other unexpected consequences.

In partnership with the State, the Contractor shall conduct tests as an active participant in accordance with the approved test plans. All test results must be documented, all exceptions analyzed, and any software defects corrected.

The Contractor shall provide a comprehensive list of testing scenarios for each module early in the project to assist the State Project Team members with development of additional scenarios to be used in testing. In addition, the Contractor shall lead selected State Project Team members through the test process to facilitate knowledge transfer, so they may review the test process and outcomes and learn about system operations and functionality.

The Contractor shall conduct performance testing for the fully configured and tested software prior to commencing live operations and at a preliminary point in the project sufficiently in advance of go-live but no later than three months prior. Mechanisms utilized to monitor and verify technical performance with respect to user response time metrics must be described and documented in detail. These tasks must be coordinated and performed with the appropriate State technical staff.

The Contractor shall conduct regression testing using tools provided by the primary services provider (if included in response) of the State tenants after the periodic application of patches and updates by the primary software provider.

The Contractor shall conduct security testing to ensure security requirements and State policies and standards are met. Security testing shall be performed in accordance with the Security Test Plan.

The State shall have the responsibility for conducting acceptance testing of the entire application. The Contractor shall provide assistance during such testing. This assistance shall include:

- Creating the acceptance testing environments, as appropriate;
- Loading configuration values, converting data, and establishing user security in accordance with the "go-live" deployment plan;
- Restoring/refreshing databases/environments as required;
- Tracking, resolving and reporting issue status for issues identified during testing;
- Analyzing and explaining outcomes; and
- Answering questions from testers as they arise.

Successful completion of this test will be required before the software can be approved for production use.

Testing Deliverables:

- Test Plans for Unit Testing, System Testing, Performance Testing, User Acceptance Testing, and Regression Testing
- Testing Scenarios
- Completed Tests
- Completed Acceptance Testing Assistance
- Documented procedures for monitoring and capturing user-response time metrics
- Completed Tuning Resulting from Performance Tests

Table 9: Testing Responsibility Matrix

Testing Type	Activities	Contractor	State
Unit Testing	Develop Unit Test Plan	Lead	Assist
	Unit Testing for development done by Contractor	Lead	Assist
	Unit Testing for development done by the State	Assist	Lead
	Manage and Track status of activities	Lead	Assist
System Testing	Develop System Test Plan	Lead	Assist
	Provide sample test scripts and lists of scenario topics developed from other projects	Lead	-
	Develop System Test scenarios/scripts for business processes, forms, reports, integrations, conversion components, and workflows	Assist	Lead
	Execute System Test scenarios/scripts and document results	Lead	Assist
	Perform issue resolution for identified testing defects	Lead	Assist
	Manage and track status of activities	Lead	Assist
	Manage issue resolution for identified testing defects	Lead	Assist
	Manage and track status of activities	Lead	Assist
Performance	Develop Performance Test Plan	Lead	Assist
Testing	Document procedures to capture and monitor user-response time metrics	Lead	Assist
	Conduct Performance Testing	Lead	Assist
	Perform issue resolution as required to meet performance requirements	Lead	Assist

Testing Type	Activities	Contractor	State
	Manage and track status of activities	Lead	Assist
User	Develop User Acceptance Test Plan	Lead	Assist
Acceptance	Set-up the UAT environment, submit batch jobs,		
Testing (UAT)	refresh databases, and execute data conversion loads	Lead	Assist
	as reasonably required to support acceptance testing		
	Provide UAT Tester training	Lead	Assist
	Select scenarios from System Testing that will be used	Assist	Lead
	for UAT	ASSIST	Leau
	Maintain user profiles and security configuration for	Assist	Lead
	UAT testers.	Assist	Leau
	Execute UAT, document defects	Assist	Lead
	Support UAT Testers	Lead	Assist
	Manage issue resolution for defects	Lead	Assist
	Manage and track status of activities	Assist	Lead
Security Testing	Develop Security Test Plan	Lead	Assist
	Conduct security tests	Lead	Assist
	Identify and remediate issues	Lead	Assist

5 Deploy Phase

5.1 System Administration Training

Based on the recommended approach, the Contractor shall provide training to ensure that State technical personnel have developed the necessary skills required to successfully operate and maintain the ERP software and other software applications within scope. It is assumed that State personnel will perform all operations and system administrative functions with assistance as needed by the Contractor when live operations commence. Training topics shall include, but are not limited to:

- System administration responsibilities, log on/log off procedures, and security;
- Systems operations;
- Job scheduling, monitoring and performance tuning;
- Troubleshooting;
- Procedures for handling software updates/releases;
- Training on the use of system management and application administration tools.

System Administration Training Deliverables:

- Technical and Operations Personnel Training
- Training Materials

Table 10: System Administration Training Responsibility Matrix

Activity	Contractor	State
Develop Technical Team training materials (includes system procedures	Lead	Assist
and business process steps)		
Deliver Technical Training for system administration and operations	Lead	Assist
personnel		

5.2 End-user Training

The delivery of end-user training shall commence in Deployment Phase and continue as needed during the Post-Implementation Phase. The Contractor shall provide train-the-trainer sessions, attend the first two sessions of each instructor-led course for quality assurance, and support end-user training services as described in Section 1.2, Organizational Change Management (OCM) and Communications, above. The State will be responsible for end user training delivery, including administration of a learning management system to deliver computer-based courses, and will administer enrollment and lead all instructor-led classes.

5.3 Documentation

The Contractor shall develop, maintain, and provide technical and end-user documentation, systems and operational documentation, system configuration documentation, and procedural documentation, including manuals, quick reference guides, tutorials, on-line help, and other techniques as appropriate. The Contractor shall keep documentation current throughout the project.

5.4 Knowledge Transfer Process

The Contractor shall deliver services to ensure that State employees are prepared to operate and maintain all applications at go-live. The Contractor shall provide a knowledge transfer and skill transfer process throughout the project that will ensure the State has a "critical mass" of knowledgeable business users (experts), system administrators, and other support personnel sufficient to operate and maintain the system. Knowledge Transfer shall be planned and assessed at each phase of the project to confirm corresponding skills have been appropriately transferred to State staff.

The Contractor shall deliver a Knowledge Transfer Plan that will identify opportunities for State staff to gain knowledge on the maintenance and operations of the ERP software and other software applications within scope. The State requires a formal sign-off from key Contractor and State staff members that appropriate knowledge transfer has occurred as a condition of final system acceptance.

Knowledge Transfer Deliverables:

- Knowledge Transfer Plan
- Formal Knowledge Transfer Signoffs by Contractor and State Module Leads

Table 11: Knowledge Transfer Responsibility Matrix

Activity	Contractor	State
Develop Knowledge Transfer Plans	Lead	Assist
Review and Approve Knowledge Transfer Plan	Assist	Lead
Deliver Knowledge Transfer to key State staff	Lead	Assist
Monitor Accomplishment of Knowledge Transfer Milestones	Assist	Lead
Complete Knowledge Transfer Sign Off	Assist	Lead

5.5 Deployment (Roll-out) Support

The State requires a carefully structured approach to the implementation and deployment of the ERP solution. This includes the organization and execution of cut-over activities necessary to transition operations to the new system. The Contractor must provide more on-site support during the deployment period if requested. The State requires the services described below at a minimum.

Deployment Cut-over Plan

The Contractor shall deliver a detailed Cut-over Plan to reflect all project activities that impact deployment of the

ERP software and other software applications within scope into the production environment. This deliverable shall document all steps required to make a successful cut-over to the production environment, including specific cut-over tasks, planned and actual dates for tasks completed, task responsibilities, task dependencies, estimated work effort required to complete each task, task status, results of task completion, and sign-off for each task completed. Additionally, the plan shall include:

- Final data conversion activities;
- Technical preparation and system change-over activities;
- Resolution of all identified security issues;
- Development of a cut-over activities checklist;
- Staffing requirements, by role and responsibilities, for both Contractor and State staff for all deployment/cut-over activities; and
- Deployment schedule.

The State expects that the Contractor will orient the project team to this plan to ensure collective understanding of assignments, activity interdependencies, and deadlines. Additionally, this plan must serve as the guiding document for project team's work efforts in the weeks before go-live.

Go-Live Readiness Checklist

The Contractor shall maintain a Go-Live Readiness Checklist that tracks each activity required to ascertain that the ERP system is ready for deployment. This checklist must be reviewed with the PMO starting no later than six months before go-live with increasing frequency as the Go-Live date approaches to confirm:

- All testing has been successfully completed;
- All staff have completed end-user and management training;
- All data has been cleansed, converted, and accepted by the users;
- All integrations are functioning as required;
- All site preparation requirements have been met; and
- End-user support and incident management has been established.

Establish Procedures for End-User Support

The Contractor shall provide services to prepare procedures, establish processes, train personnel, track incidents, and participate in the delivery of end-user support. The services shall include, but are not limited to, the following:

- Development of a Service Desk and End-User Support Strategy that includes plans for using the State Service Desk infrastructure and defines roles and responsibilities for the Service Desk and the ERP system support personnel;
- Development of procedures for providing support that includes all activities, procedures, and steps necessary to allow State and Contractor team members to provide required functional support for State Departments;
- Incorporation of procedures into the State's existing Service Desk infrastructure to capture initial incident information for subsequent transfer to members of the project team;
- Provision of support for end-users; and
- Tracking of incidents.

End-user support personnel are expected to respond to questions regarding the use of the application. Efficient and effective procedures for providing end-user support shall be established before the beginning of production cut-over and shall be supported by the Contractor through the end of the production support period.

Deployment Support Deliverables:

- Service Desk and Support Strategy
- Deployment Cut-over (Go-Live) Plan
- Go-Live Readiness Checklist
- End-user Support Procedures

Table 12: Deployment Support Responsibility Matrix

Activity	Contractor	State
Develop Deployment Cut Over Plan	Lead	Assist
Develop Go-Live Readiness Checklist	Lead	Assist
Develop Service Desk Procedures	Assist	Lead
Execute Cutover Plan for the new system components	Lead	Assist
Execute Cutover Plan for components owned by the State	Assist	Lead

5.6 Post-implementation Support

This post-implementation maintenance and support shall consist of technical, functional, and operational support, and must be provided by skilled Contractor personnel who have become familiar with the project over the course of the implementation effort. An on-site presence at appropriate times is essential to maintaining a stable production environment, and in providing for a smooth transition of business processes.

Post go-live, the Contractor shall provide: (1) a minimum of three months of post-implementation support for each production (go-live) event, (2) on-site (if needed, otherwise remote) support for the first fiscal year-end for Finance, and (3) on-site (if needed, otherwise remote) support at key milestones in the first year for Budget Development.

The Contractor will define with the State a System Acceptance Checklist to serve as the basis upon which the final acceptance of the system can be evaluated. The System Acceptance Checklist will be completed after go-live to document that all acceptance criteria have been met. (See example as Appendix 1, System Acceptance Checklist.)

Post-implementation Support Deliverables:

- Biweekly Status Report of Team Support Activities
- System Acceptance Checklist

Table 13: Post-implementation Support Responsibility Matrix

Activity	Contractor	State
Provide service desk infrastructure and tools for service management		Load
activities	_	Lead
Manage Service Desk	Assist	Lead
Address critical system issues as requested by the State	Lead	Assist
Confirm acceptance of system by completing System Acceptance	Assist	Lood
Checklist.	Assist	Lead

6 Appendix 1: System Acceptance Checklist

During the post-production support period (first ninety days) following the production (go-live) date, Contractor will work with State resources to confirm that the system is performing as prescribed. The State Project leadership will complete a System Acceptance Checklist (see example that follows) that lists the criteria that must be completed for system acceptance to occur. These criteria may be refined at a later date based on mutual agreement between the State and Contractor.

The System Acceptance Checklist will be completed after go-live once all acceptance criteria have been met. Any contract payments (retainage) deferred until System Acceptance will be released upon satisfactory completion and proper State approvals of the System Acceptance Checklist.

System Acceptance Checklist

	Acceptance Item	Acceptance
1.	All software designated as "in scope" per the Statement of Work is fully operational.	
2.	Satisfactory execution of software user acceptance tests. This will entail executing all scenarios/business processes and confirming that they operate as intended.	
3.	All deliverables through the go-live date have been completed and signed off by the State.	
4.	Security configuration as agreed by the Security Configuration Plan is complete and all security issues resolved.	
5.	All historical data has been converted in accordance with the Data Conversion Plan.	
6.	All Contractor-provided documentation is current and complete for all software in production.	
7.	All issues in test tracking log for which Contractor has been assigned responsibility have been resolved to the State's satisfaction.	
8.	All defects/support items classified critical or high have been resolved or have a resolution plan in place that is satisfactory to the State.	
9.	All State team resources have signed-off that Contractor has provided satisfactory knowledge transfer.	
10.	All reports designed and developed as part of the implementation, in addition to any delivered reports, have been run/executed and have been found to be complete, accurate and run to completion in acceptable timeframes as defined by the software SLA's.	
11.	All internal/external integrations are working as expected and any role the contractor has/had in assisting with these is considered complete.	
12.	This acceptance checklist is complete and bears the required signatures of authorized State representative(s).	

7 Appendix 2: Current Annual Comprehensive Financial Report (ACFR) Components

Financial Section

Management's Discussion and Analysis

Basic Financial Statements

- Statement of Net Position
- Statement of Activities
- Balance Sheet Governmental Funds
- Reconciliation of the Governmental Funds Balance Sheet to the Statement of Net Position
- Statement of Revenues, Expenditures, and Changes in Fund Balances Governmental Funds
- Reconciliation of the Change in Fund Balances of Governmental Funds to the
- Statement of Activities
- Statement of Net Position Proprietary Funds
- Statement of Revenues, Expenses, and Changes in Net Position Proprietary Funds
- Statement of Cash Flows Proprietary Funds
- Statement of Fiduciary Net Position Fiduciary Funds
- Statement of Changes in Fiduciary Net Position Fiduciary Funds

Notes to the Financial Statements

Required Supplementary Information

- Budgetary Comparison Schedule General Fund
- Budgetary Comparison Schedule Transportation Fund
- Budgetary Comparison Schedule Social Services Federal Fund
- Budgetary Comparison Schedule Budget-to-GAAP Reconciliation
- Notes to Required Supplementary Information Budgetary Reporting
- Schedule of Proportionate Share of Net Pension Liability (Asset)
- Schedule of Contributions
- Notes to Required Supplementary Information Schedule of Proportionate Share of Net Pension Liability (Asset) and Schedule of Contributions

Combining Financial Statements

- Combining Balance Sheet Nonmajor Governmental Funds By Type
- Combining Statement of Revenues, Expenditures, and Changes in
- Fund Balances Nonmajor Governmental Funds By Type
- Combining Balance Sheet Nonmajor Special Revenue Funds
- Combining Statement of Revenues, Expenditures, and Changes in
- Fund Balances Nonmajor Special Revenue Funds
- Combining Balance Sheet Nonmajor Debt Service Funds
- Combining Statement of Revenues, Expenditures, and Changes in Fund Balances –
- Nonmajor Debt Service Funds
- Combining Statement of Net Position Nonmajor Enterprise Funds
- Combining Statement of Revenues, Expenses, and Changes in Net Position –

- Nonmajor Enterprise Funds
- Combining Statement of Cash Flows Nonmajor Enterprise Funds
- Combining Statement of Net Position Internal Service Funds
- Combining Statement of Revenues, Expenses, and Changes in Net Position 4Internal Service Funds
- Combining Statement of Cash Flows Internal Service Funds
- Combining Statement of Fiduciary Net Position Private Purpose Trust Funds
- Combining Statement of Changes in Fiduciary Net Position Private Purpose Trust Funds
- Combining Statement of Fiduciary Net Position Custodial Funds
- Combining Statement of Changes in Fiduciary Net Position Custodial Funds
- Combining Statement of Net Position Component Units
- Combining Statement of Revenues, Expenses, and Changes in Net Position Component Units
- Statement of Cash Flows Higher Education
- Combining Statement of Fiduciary Net Position Higher Education
- Combining Statement of Changes in Fiduciary Net Position Higher Education o
- Combining Statement of Net Position Nonmajor Component Units
- Combining Statement of Revenues, Expenses, and Changes in Net Position Nonmajor Component Units

Single Audit

- Schedule of Expenditures of Federal Awards
- Notes to the Schedule of Expenditure of Federal Awards
- SF-SAC Federal Clearinghouse upload file.

8 Appendix 3: Report Complexity Definitions

Complexity	Definition	Number of Custom Reports
Simple	Minimal subtotaling and/or filtering criteria, no external data or complex data merges, and no more than 5 calculated fields, or is a simple dashboard that is a collection of existing reports.	50
Average	Sub-totaling and filtering on 5 or fewer fields and/or 10 or fewer calculated fields, no external data or complex data merges using non-standard data joins and/or no sub-queries required within the report	50
Complex	Complex filtering and subtotaling logic, may include locally stored external data OR complex non-standard data merges (i.e. merging data from different modules using non-standard data joins and/or sub-queries within the final report), OR more than 10 calculated fields.	50