BERI Modernization Project
Quality Assurance Statement of Work
(Version 1.2)

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1. Introduction to QA Statement of Work

1.1 Purpose

Contractor (henceforth “Contractor” or “QA Contractor”) shall perform Quality Management services for the Office of the Oregon Secretary of State (henceforth “Agency”) in relation to Agency’s BERI Modernization Project (henceforth “Project” or “BERI Modernization Project”). The purpose of the Contractor’s work is to assure that appropriate levels of Quality Management activity performance throughout the Project lifecycle. These activities shall provide Agency with appropriate visibility into the (type of) processes being used and the products being built in the Project, especially by its Development Contractor (henceforth “Development Contractor”). These Quality Management activities must be sufficient to assure that the Project satisfies the needs for which it was undertaken and that Project risks are well understood and appropriately mitigated and/or managed.

1.2 Quality Management Approach

The approach to ensure that the appropriate quality management and risk management activities are conducted shall be based on the Project Management Institute’s (PMI) Standard as described in the Project Management Body of Knowledge (PMBOK), Fifth Edition, 2013 (“PMBOK fifth edition”) and International Standards Organization standard ISO/IEC 12207:2008 (IEEE Std 12207-2008, Systems and software engineering – Software life cycle processes). This includes activities of Quality Management that determine the quality policy, objectives, and responsibilities, and implements them by means such as quality planning, quality control, and quality assurance.

Quality Management is defined as “a subset of project management that includes the process required to assure that the Project shall satisfy the needs for which it was undertaken.” Quality Management consists of activities in quality planning, quality assurance, and quality control. Where appropriate, quality control activities shall incorporate independent verification and validation (IV&V) activities, which are independent in the sense that they are conducted independently of the Development Contractor. Agency elects to use a separate entity, not associated with the Development Contractor to perform independent verification and validation (IV&V) activities. QA Contractor shall apply a risk management approach, in accordance with the standards identified in the last paragraph, in all aspects of quality management.

For the purpose of this document, the term “quality standards” shall refer to both Project “process” and “product” quality standards. “Process” quality standards shall cover organizational influences, management support, decision drivers, project management, schedule, resourcing, experience, and others. “Product” quality standards shall cover product content, design, development, deployment, environment, technology, security, maintainability, and others.

The BERI Modernization Project’s Quality Management approach shall adhere to and include, but not be limited to, work activities in support of the following quality management and related processes:
Quality Planning – Identifying and/or verifying quality standards that are relevant to the project and determining how to satisfy them. Quality Planning shall include the preparation of a Quality Management Plan based on the review of the Project’s Quality Management Guide, Agency policy and standards, statewide policy and standards, and other Project specific materials to identify quality standards and checklists that are relevant to the Project, and if not incorporated will result in low quality results creating significant risk to the Project’s success. In addition to identifying the relevant quality standards and checklists, quality planning involves determining how to satisfy each quality standard within the constraints of project schedule, available resources, and internal policies and procedures. The Quality Management Plan must address how these quality standards will be implemented, inspected, controlled, and reported.

Quality Control – Quality Control involves monitoring both the process and the products, to determine if the project is meeting relevant quality standards and identifying ways to mitigate risk or eliminate causes of unsatisfactory results at the work product level. Examples of Quality Control techniques include:

1. Initial Assessment – review of key project documentation (i.e., business case, project charter, business requirements, technical documentation, management plans, the work breakdown structure, project schedule, and budget – original and current baseline, and project reports, etc.) and interviews with key business and technical staff.
2. Peer Review / Work Product Review – a methodical examination of work products to identify defects and other needed changes. Examples of work product review methods include inspections, structured walkthroughs, and active reviews.
3. Software Testing / IV&V – independent verification and validation, typically on a sampling basis, to ascertain that the products for each phase in the software development life-cycle satisfies relevant standards, practices, and requirements for correctness, completeness, consistency, and accuracy. IV&V augments the Development Contractor’s internal software testing and QC activities.

Quality Assurance – Periodic executive review and evaluation of the management processes as well as overall project performance to assure that the Project will satisfy relevant quality standards. Quality assurance includes the periodic review of key project processes, documentation (i.e., business case, project charter, project schedule and budget – original and current baseline, requirements, designs, and project reports, etc.), and interviews with key business and technical staff. Quality assurance also includes evaluating, identifying, and recommending adjustments to the activities or tasks (and associated resources) that must be performed in the project to provide confidence that the project will satisfy the relevant quality standards.

Risk Management – In all aspects of quality management (i.e. quality planning, quality control, and quality assurance), risk management methodology shall be applied to characterize risks at the level of work product, process, and the overall Project. Risk management includes the identification of risks, the thorough assessment of the probability and the impact for the occurrence of risks, and the planning of viable responses that include, but are not limited to, mitigation, contingency, and avoidance strategies.
1.3 **Overview of QA Contractor Tasks & Deliverable Process**

The QA Contractor shall perform four primary Tasks:

1. Task 1 - Quality Management Planning
2. Task 2 - Quality Control
3. Task 3 - Quality Assurance
4. Task 4 - Risk Assessment

Together, these Tasks help Agency assure that the Development Contractor applies best practices in project management, including quality management, and delivers technical work products that meet or exceed Agency’s requirements in respect to schedule, cost, functionality, reliability, security, and other relevant quality standards.

**Deliverable Requirements:**
The QA Contractor shall meet deadlines, and provide required Deliverables within the QA Contract requirements. Each task has one or more Deliverables.

**Deliverable Process:**
The Development Contractor may implement the BERI Modernization Project in phases by sub-systems where appropriate, with corresponding QA Contractor Deliverables conforming to the delivery schedule of the Development Contractor. As a result, the QA Contractor must align its work schedule to that of the Development Contractor as approved by the Agency Project Manager. Approved Development Contractor project plans, Development Contract statement of work, and related Development Contract terms & conditions shall serve as the basis for identifying Development Contractor activities. Certain QA Contractor Deliverables and their due dates are dependent on Development Contractor deliverables. Subject to the Agency Project Manager’s approval, the QA Contractor must adjust its Project plan on an on-going basis. For further details on the Development Contractor procurement, see Attachment A, Development Contractor Statement of Work (Preliminary).

**Acceptance Process:**
The QA Contractor will have full responsibility for the Deliverables and Tasks listed in this SOW and shall treat the Deliverables and associated Tasks as formal work requirements. QA Contractor shall describe how deliverable due dates are met in the Baseline Project Plan.

All QA Contractor Deliverables and work products shall be submitted to the Agency Project Manager for acceptance and approval. (Note: The “Agency Project Manager” means Agency representative, or it’s duly authorized delegate, who coordinates Agency responsibilities under the Contract with Contractor and oversee all aspects of the Work.) The Agency Project Manager may request that a Deliverable outline be submitted for approval prior to work commencing on the Deliverable. All correspondence and documentation shall be delivered in electronic format.

Due dates in this RFP refer to first submittal of Deliverables to the Agency Project Manager. The Agency Project Manager shall review the Deliverable and provide written
comments or provide direction or provisional approval with or without comments to the QA Contractor within 10 (ten) business days.

The QA Contractor shall address the Agency Project Manager’s evaluation comments, and submit the final Deliverable within 10 (ten) business days from QA Contractor’s receipt of Agency Project Manager’s comments.
2. Statement of Work

2.1 Task 1: Quality Management Planning

The QA Contractor will work with the Project’s management to produce a Quality Management Plan (QMP), including all requisite quality standards, checklists, report templates, and processes. The QA Contractor will define the Project work tasks and resourcing that will add value and/or reduce risk subject to the constraints of available Project resources and organizational policies, Agency rules, and Oregon Revised Statutes, Oregon Administrative Rules, and statewide policies and standards.


Based on the QMP, the QA Contractor shall define the Baseline Project Plan and subsequent Project management related Deliverables. The QA Contractor will ensure that the Project plans, standards, processes and work tasks fit the Project’s needs and verify that they will be usable for performing quality control reviews, inspections, and uncovering quality risks throughout the life cycle of the Project. The emphasis of this task is to confirm that quality is planned into the Project versus a reactive quality approach that measures quality through audits completed after the work is done. Additionally – at the end of each Project phase and/or at the Project’s completion - the QA Contractor will facilitate a meeting to identify the lessons learned and record the results in the lessons learned and Project evaluation report.

Specifically the QA Contractor shall:

Deliverable 1.1: Quality Standards - Operational Definitions
Develop and submit a written operational definition of the quality standards (“Quality Standards”) for the Project products and processes, which describe in very specific terms, what the standards are, and how each will be measured by the quality control process. The QA Contractor will use the Generic Software Quality Standards Template (see Appendix A) with suitable customization or tailoring to the Project’s quality management and risk assessment needs by performing the following services:

1. Identifying from the template the relevant process and product quality standards, risk cues or measurements which are appropriate for the Project based on the Project’s current business and technical complexity assessment.
2. Recommending additional quality standards based on the type of project, current phase of the project, or expert opinion where the absence of a quality standard would present high risk to the project; e.g. information security.

3. Recommending elimination of unnecessary quality standards based on the Project’s business and technical complexity assessment or current phase of the Project.

However, the following Process and Product Quality Standards shall not be eliminated:

**Process Quality Standards:**
1. Definition of the project, development schedule, delivery commitment, cost controls, budget and resource size, project management approach (standards #10, 11, 12, 23, 25, 26, 27)
2. Political influences, organizational stability (standard #6, 37)
3. Leadership, project management authority, executive involvement (standard #12, 17, 41)
4. Team productivity, team member availability, user involvement, user justification (standard #28, 34, 44, 48)

**Product Quality Standards:**
1. An appropriate, useful, and maintainable set of requirements (standard #50)
2. An appropriate, useful, and maintainable set of engineering and design specifications (standard #58)
3. Appropriate, useful, and maintainable code, utility, object, etc., construction (standard #80)
4. Appropriate, useful, and maintainable test planning, test execution, and test corrective actions (standard #51)
5. The product or application is fit for use (standard #46, 76)
6. Alternatives Analysis, Commitment Process, Lessons Learned (standard #55, 56, 63)
7. Appropriate, thorough and maintainable implementation (standard #53, 81)

**Deliverable 1.2: Quality Checklists**
For each of the Development Contractor deliverables identified under Deliverable 2.1, the QA Contractor shall determine how the Quality Standards will be monitored and measured. At a minimum, for each major subsystem, the QA Contractor shall develop a checklist that combines the selected quality standards with the expected monitoring activities described in: (1) the Quality Control section of the Quality Management Approach (see above); and (2) Task 2, Quality Control. The QA Contractor shall deliver checklists for each Development Contractor deliverable to be reviewed under Task 2. These checklists must have the following attributes:

1. Indicate the schedule for reviews, including the deliverable(s) under review, the person(s) responsible for the deliverable(s), and the person(s) responsible for conducting the reviews.
2. Indicate a specific review procedure to follow, e.g. a procedure for schedule analysis, code walk-through, peer review, interviews, lessons learned, test methodology, or if the review will be performed informally.
3. Verify and record that a set of required inspections have been performed.
4. Indicate that the minimum quality standard has been met.
5. Record the measurements.
6. Identify the expected risk cue or measurement.
7. Indicate the expected acceptability or tolerance.
8. Indicate the rank of the quality standards where risk was found unacceptable.
9. Indicate change in risk rank since previous review.
10. Indicate a reference that will describe what was reviewed, who was interviewed, and the information or reasoning that non-adherence to a specific quality standard causes risk.

The process of measurement, setting tolerance, and risk ranking referred to above may be based on the QA Contractor’s subject matter knowledge, domain experience, and expert opinions. These checklists shall conform to the specific choice of system life cycle model chosen by the Development Contractor or Agency, especially in respect to detailed requirements definition, general and detailed system design, test design, test planning and execution, and system implementation.

**Deliverable 1.3: Quality Management Plan (QMP)**

The QA Contractor shall develop and submit a Quality Management Plan (QMP) that defines how Quality Assurance (QA), Quality Control (QC), Independent Validation and Verification (IV&V), and Risk Assessment will be conducted in the Project. When developing the QMP, the QA Contractor shall review and use as key input the following: all available Project planning artifacts including any guidance provided by the Agency in writing or orally; the PMBOK, third edition; and ISO 12207. The QA Contractor shall adhere to generally accepted industry practices for project quality management and software development quality management. At a minimum, the QMP shall include the following:

1. Definition of QA Contractor, Development Contractor, and Agency staff roles and responsibilities; and procedures and resources needed from the QA Contractor, Development Contractor and Agency staff to implement the Quality Management Plan,
2. Identification of all the work tasks to be performed by the QA Contractor, Development Contractor and the Agency staff to provide confidence that the Project will satisfy the specified and relevant process and product quality standards. At a minimum the QMP shall include:
   a. Detailed plan for QA Review, including scope, criteria, and methodology to be employed
   b. Detailed plan for QC, including scope, criteria, and methodology, including activities relating to IV&V
   c. Quality Management Tools:
      i. Quality standards
      ii. Quality checklists
      iii. Templates for all reporting types required during the lifecycle of the Project; e.g. QA Status & Improvement Report, QC Report, Monthly
iv. Additional quality tools and methods as needed

d. Risk Assessment Methodology
   i. Verification that the Quality Management Plan relates to and references the other Deliverables supporting the Quality Management Planning Task in this SOW.

Templates for quality standards, QA Status and Improvement Reports, Project Assessment Report, and Project Budget & Schedule Variance Report are provided in the Appendices.

**Deliverable 1.4: Baseline Project Plan**
The QA Contractor shall deliver a Baseline Project Plan. The plan shall address each QA Contractor Deliverable and establish the baseline against which subsequent QA Contractor Deliverables are to be measured. Upon acceptance by Authorized Purchaser, the QA Contractor shall conduct a walk-through presentation with the Agency Project team.

To accomplish this task, the QA Contractor must be well versed in all aspects of the Project. The QA Contractor shall review the following documents as input to its work:
1. The approved business case.
2. All available Agency planning artifacts, e.g. Integrated Project Plan (IPP), supporting plans, and quality management guidance.
3. Agency or statewide standards, including technology and security standards.
4. Documented requirements, including functional, non-functional, and security requirements.
5. The Development Contractor’s Proposal and contract SOW, especially the Project plan, software development methodology, data conversion & interface plan, and training plan where available.

Deliverable 1.4 shall include at a minimum the following elements:

1. General approach to achieve Contract requirements.
2. Schedule
3. Detailed work breakdown structure, with key milestones, critical path elements, and Deliverables identified
4. Estimated resource requirements
5. Staffing plan with key persons identified
6. Assessment of all levels of assistance needed from the Development Contractor, including but not limited to hands-on participation, facilities, and infrastructure
7. Assessment of all levels of assistance needed from State personnel, including but not limited to hands-on participation, facilities, and infrastructure
8. Demonstrate a clear link to the Development Contractor’s Project Plan and Deliverables
The accepted Baseline Project Plan shall be updated quarterly thereafter and be submitted to Agency for review and approval.

**Deliverable 1.5: Lessons Learned Report – Project Evaluation**

The Contractor shall facilitate a “Project Evaluation/Lessons Learned” session at the end of each Project phase or at the close of the Project, and create a report of the findings. The session will utilize as inputs, the Project’s QA Quarterly Status and Improvement Reports and other reports deemed suitable by the Agency Project Manager, to create the Project Evaluation Report (Appendix B). At a minimum, the session shall examine the progress made, planned vs. accomplished tasks, the risks, problems, and delays encountered, mitigation actions taken or not taken, successes and mistakes made, and shall include recommended actions. Further, the session shall specifically examine whether the original (or current baseline) business case & ROI targets (if they exist) will be achieved.

Within 12 months from the contract start, the QA Contractor shall prepare and conduct a “Project Evaluation/Lessons Learned” session. Those persons to be in attendance will be identified by the Agency Project Manager. Within 15 business days following the Project Evaluation/Lessons Learned session, the QA Contractor will deliver a written Project Evaluation Report.

The QA Contractor shall prepare Deliverable number 1.5 "Lessons Learned Report - Project Evaluation" within 30 days of the termination of the Design, Development and Implementation (DDI) contract in the event that the Development Contract is terminated early. In such case, Deliverable 1.5 will be considered the final Deliverable for this contract.

**Task 1 Deliverables:**

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<td>Quality Checklists</td>
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<td>Quality Management Plan</td>
<td>Contract Start + 25 Business Days</td>
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<td>Baseline Project Plan</td>
<td>Contract Start + 25 Business Days for the first version; quarterly update thereafter.</td>
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<td>Lessons Learned Report – Project Evaluation</td>
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2.2 Task 2: Quality Control (QC)

This task monitors Project results to determine if they comply with stated Project requirements. Project results include both work product results, notably deliverables, and project management results, notably schedule and cost performance.

The QA Contractor shall:

1. Review Project activities and inspect Agency and Development Contractor work product deliverables throughout the life of the Project in terms of their ability to meet the performance requirements for scope, schedule, and cost. This evaluation shall be done at the level of a specific work product deliverable, as well as its impact on subsequent deliverables to verify compliance and provide the Agency Project Manager, Project Team, and others in Agency management with visibility as to whether the Project is adhering to its established plans, process and product standards, and work tasks.
2. Review work product compliance with Agency security standards, especially in relation to system access.
3. Review Development Contractor deliverables for completeness and accuracy, as well as identifying and assessing issues and risks at the work product level. In ascertaining whether the Development Contractor work products meet Agency requirements, the QA Contractor shall pay particular attention to the scope, execution, and results of the Development Contractor’s Test Plan.
4. Address issues within the Project for resolution, if possible. Issues not resolvable within the Project will be escalated to the Project’s Steering Committee or in accordance with the Project’s governance processes.

Specifically, the QA Contractor shall:

**Deliverable 2.1: Quality Control Reviews**

Detailed Quality Control (QC) Reviews and Reports are required for the following Development Contractor deliverables:

a. Project Plan, Quarterly
b. BERI Application Framework and Security
c. BERI Application Administration Functionality
d. BERI Job Processing and Reporting
e. BERI Corrections Functionality
f. BERI Filing Functionality
g. BERI Project Implementation and Transition to Maintenance Plan

For each Development Contractor deliverable, the QC Review shall evaluate major components or subsystems as necessary to establish acceptable workmanship. Each QC report will be a separate Deliverable with all applicable quality checklists completed and attached.

QA Contractor shall conduct scheduled QC reviews by following the Quality Management Plan, and the approved Quality Standards, and Quality Checklists. The
Quality Management Plan, Quality Standards, and Quality Checklists will indicate the type of review expected, e.g. data analysis, schedule analysis, standards or process conformance analysis, and additional analysis based on subject matter expertise. At a minimum, QA Contractor shall complete checklists indicating that the reviews for the process and products in the current period have been completed, measured, ranked, and reported. The completed checklists will be provided with the QC Deliverables and shall become input to the Quarterly QA Status and Improvements Report (Deliverable 3.1), Project Assessment Report, and Project Budget & Schedule Variance Report. (See Appendix E for report templates.)

The precise nature of QC review shall be adjusted for the specific Development Contractor deliverable under review, as well the BERI Modernization Project subsystem within a Development Contractor deliverable under review. It shall also accommodate the specific choice of software development life cycle model chosen by the Development Contractor or Agency.

Agency estimates that this Deliverable will not exceed 400 hours.

**Deliverable 2.2: Quality Status Reporting and Tracking**

*Status Reporting.* The QA Contractor shall prepare a Monthly Quality Status Report that documents Project status with the following sections:

1. Project Quality Status Format
2. Project Quality Status
   a. For the overall Project
   b. For each element on the work breakdown structure in the Baseline Project Plan being executed
   c. Tracking of recommendations made through QA Status and Improvements Report or other channels designated by the Agency Project manager.

**Task 2 Deliverables:**

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<td>2.1e</td>
<td>BERI Corrections Functionality</td>
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<td>2.1f</td>
<td>BERI Filing Functionality</td>
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### 2.3 Task 3: Quality Assurance (QA)

The QA Contractor shall provide overall Project quality review; periodically examine quality control review results, checklists, change requests and tracking; and summarize the results for executive review and oversight throughout the life of the Project. The QA Contractor will create and deliver quarterly Quality Assurance Status and Improvements Reports and Presentations summarizing the overall Project status, performance, risks and recommendations for process improvement to the Agency Project Manager, the Project’s Steering Committee and other relevant governance bodies.

Specifically the QA Contractor shall:

**Deliverable 3.1: QA Status and Improvement Reports / Presentations**

The QA Contractor shall use the QA Status and Improvements Report template, Project Assessment Report, Project Budget and Schedule Variance Report, and other reporting vehicle or format as approved by the Agency, to conduct quarterly reviews, prepare reports, and deliver presentations. (See Appendix C for the template and Appendix D for a sample.)

In order to ensure that State and Development Contractor personnel are coordinated in a manner that minimizes the impact of the review on the overall Project schedule, the QA Contractor shall coordinate the review with the Agency Project Manager five (5) business days prior to conducting the review.

The Deliverable - QA Status and Improvement Report - shall contain, at a minimum, the following:
1. Overall risk rank for the Project.

2. Executive Summary paragraph of the entire report. It shall contain information such as: A brief description of the primary achievement in the last period; A brief description of the highest ranked primary (if any) quality risks covered in the following detail of the report; A brief description of the impact or consequence of the risk if left unresolved. At a minimum, the Executive Summary shall include:
   a. A summary of Project progress and accomplishments since the last report
   b. A summary of expenditures to date compared to budgeted Project dollars
   c. Identification and resolution of all problems encountered
   d. Plans, milestones and deliverables for the coming period
   e. A 3-month rolling risk matrix by assessment area
   f. Assessment of overall risk to the Project
   g. Evaluation of the overall Project status, Project budget and schedule variance, schedule and stage of completion, indicating the causal factors, mitigation efforts and recommendations
   h. Evaluation of the Project’s ability to deliver the benefits/results stated in the approved business case on file with the Agency, as documented in the Information Resource Request signed by the Agency CIO.

3. Summary of the current progress followed by major milestones. At a minimum the report shall contain a progress, status and risk analysis for the following assessment areas, in addition to other areas determined by the Agency Project Manager to be critical for monitoring purposes:
   a. Project Management
   b. Customer Involvement
   c. Technology
   d. Facilities and Support
   e. Project Scope
   f. Business Impact
   g. Deliverable Quality
   h. Development and Implementation
   i. Schedule
   j. Resources and Staff
   k. Actual expenditures compared to original (or current baseline) Project budget
   l. Project schedule performance compared to original (or current baseline) schedule
   m. Security

4. Brief Project effectiveness statements on all the high level categories from the approved Quality Standards:
   a. Categories where no risks were identified shall simply be indicated in one line, for example: Decision Drivers – no risks currently identified, or not evaluated at this time.
   b. Categories that contained a significant risk shall describe the risk, describe the factors used to determine the risk, estimate probability of occurrence, describe the potential impact, indicate the risk severity rating, and provide a recommended resolution strategy. At a minimum the resolution strategy shall include:
i. Status of risks that must be monitored, identifying probability of occurrence and potential impacts

ii. Identification of trigger points for intervention for each risk

iii. Recommended and alternative correction actions plans, with options identified, presented for each identified risk to prevent and/or reduce potential for the risk occurring or the danger escalating

iv. Intervention strategies to address any risk(s) that exceed a trigger point, to include a definition of options available to address the risk, the potential affects and costs of implementing the strategy, a comparative summary of the alternative strategies and identification of a recommended strategy

v. Implications for the Development Contractor’s Project Plan

5. Risks resolved since last period. Provide the previous risk rank, and brief status or the actions taken on risks and results.

6. Completed Project Assessment Reports and Project Budget & Schedule Variance Reports since Project start. (See Appendix E.)

The QA Status and Improvement Report Template will assist with the executive summary. (See Appendix C.) The QA Status and Improvement Report EXAMPLE will assist with how to create the report. (See Appendix D.) The Agency requires the completion of a Project Assessment Report approximately once every quarter. (See Appendix E.)

Task 3 Deliverables:

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<td>End of Quarter + 10 Business Days*</td>
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*Note: The exact dates of the End of Quarter will be specified in the Baseline Project Plan. These dates will take into account and include but not be limited to, Contractor start date, and Oregon’s Joint Legislative Committee on Information Management Technology hearing dates.

2.4 Task 4: Risk Assessment

The Risk Assessment Task defines the QA Contractor tasks to support the BERI Modernization Project’s overall risk management efforts. The QA Contractor will refer to the Project’s Risk Management Plan, if one exists. The BERI Modernization Project Team has the primary responsibility for executing the Project’s risk management activities with the QA Contractor providing a supporting function. Within the QA Contractor’s role of completing quality management, quality assurance and quality control on the Development Contractor’s plans, process and products, the QA Contractor will identify risks and provide recommendations for risk avoidance and mitigation strategies. Similarly, the QA Contractor will identify risks and provide recommendations for risk avoidance and mitigation strategies on the Agency project management’s plans, process, and products.
The QA Contractor shall perform an initial risk assessment (Deliverable 5.1) on the BERI Modernization Project Integrated Project Plan and/or related supporting plans, and the Development Contractor’s proposed project plan. After the initial assessment, the QA Contractor will provide On-Going Risk Notification (Deliverable 5.2) for the life of the Contract.

Identification of Information Security risks will be an essential part of the scope of the QA Contractor’s initial and on-going risk assessment.

Specifically, the Contractor shall:

**Deliverable 4.1: Initial Risk Assessment**

The QA Contractor shall conduct an Initial Risk Assessment of the Project to identify the current status of the project, identify risks and their likelihood of occurring, and provide an independent evaluation of the planned schedule, resources (budget and staffing) and processes.

The QA Contractor shall evaluate the BERI Modernization Project Project’s Integrated Project Plan (IPP), its components and processes, for reasonableness, validity, thoroughness and accuracy with emphasis on the following:

1. Project Plan including State Resource Plan
2. Project Requirements Management Plan
3. Project Change Management Plan
4. Project Issue Management Procedure
5. Communication Plan
6. Other critical Project processes

The QA Contractor shall perform a risk assessment on the Development Contractor’s most recent Project Plans including the Project Schedule, Software Development Plan, Configuration Management Plan, Data Conversion Strategy, Testing Strategy, Post-Implementation Support Strategy (for on-going operations and maintenance), Training Strategy. This risk assessment shall take into account work product and Project level considerations, including at a minimum:

1. Feasibility of the technical solution
2. Sufficiency of security controls to safeguard protected or confidential information and to meet security requirements
3. Sufficiency of Project components and processes
4. Sufficiency of Project budget, schedule and resources

To accomplish this task, the QA Contractor must be well versed in all aspects of the BERI Modernization Project. To gain basic project knowledge, the QA Contractor shall review the following documents:

1. BERI Modernization Project Business Case, Project Charter, Project Work Plan and Work Breakdown Structure, Approved (original or current) baseline project budget
and schedule, Integrated Project Plan and/or related supporting plans, the Development Contractor’s Proposal, Statement(s) of Work, and Project Plan, etc.

2. The Development Contract including the BERI Modernization Project Requirements that specifies functional, non-functional, and security requirements.

The Initial Risk Assessment Deliverable (4.1) will include:
1. Risk Identification – Provide a description, level of impact, probability of occurrence, and measurable threshold to trigger the risk.
2. Risk Avoidance Plan - Recommend specific solutions to avoid the triggering of each risk.
3. Risk Mitigation Plan – Recommend specific risk mitigation solutions for each risk that is identified. Solutions shall include cost/benefit analysis for each mitigation option along with specific recommendations.
4. Project Assessment Report – QA Contractor will complete “forward view” column for all metrics identified therein. (See Appendix E.)

Deliverable 4.2: On-Going Risk Notification
The QA Contractor shall immediately verbally report to the Agency Project Manager the discovery of problems, new risks, or previously known risks that have increased in risk probability or potential impact, which pose a risk of failure or danger to the success of the project. The QA Contractor shall develop and submit a written On-Going Risk Notification Report within three business days.

The on-going risk notification will follow the same requirements as defined for the initial risk assessment with an emphasis on managing risks that occur and change during the development and implementation process. On-going risk assessment will be conducted while conducting the quality assurance and quality control tasks. The on-going risk assessment will at a minimum:
1. Monitor BERI Modernization project risks as they apply to the project’s progress to ensure that the BERI system meets Agency’s requirements.
2. Review of implementation tasks and activities to assure that the confidentiality, integrity, and availability of the BERI system are not compromised.

Agency estimates that this Deliverable will not exceed 200 hours.

Task 4 Deliverables:

<table>
<thead>
<tr>
<th>Deliverable Number</th>
<th>Deliverable Description</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Initial Project Risk Assessment Report</td>
<td>Contract Start + 20 Business Days</td>
</tr>
<tr>
<td>4.2</td>
<td>On-Going Risk Notification Report</td>
<td>As needed. Written report three (3) days after verbal notification.</td>
</tr>
</tbody>
</table>
3. Appendices

QA Contractor shall use the appendices provided as reference materials for developing proposal and performing work specified in the Statement of Work. In addition, the QA Contractor should reference material documented in the Development Contract Statement of Work, other project planning artifacts, and related supporting documents as available and applicable.