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One Washington
Staffing Strategy

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1.0 Deliverable Overview

1.1 Purpose

The Staffing Strategy builds on prior Readiness Assessment, Change Management, and Phasing and Timeline analysis from the One Washington project to provide a recommendation regarding the human resources needed for the State's replacement of the core financials system, based upon necessary skills, competencies, and balance between State and vendor resources. This analysis includes staffing for the planning and procurement, business process redesign, system implementation, and post-implementation phases.

Key Question

The Staffing Strategy deliverable seeks to answer the following question:

> *What human resources are needed to implement and operate the State's ERP solution?*

1.2 Key Considerations

The development of this deliverable has taken into consideration the following:

- The deliverables referenced throughout this document refer to project deliverables submitted to the State as a part of the One Washington ERP Assessment engagement.
- The Staffing Strategy aligns State and vendor resources to the timeline presented in the Phasing and Timelines deliverable.
- The Staffing Strategy aligns with the Budget, Procurement and Financing Strategy and Business Case deliverables.
- The Staffing Strategy deliverable meets the requirement defined in Contract K2636 in the Compensation Section, as well as in the Statement of Work, Section 5.1, related to Phase 2, Deliverable #4.

2.0 Executive Summary

As the State of Washington develops its plan for replacing its core financial systems, there are a number of factors that contribute to the Staffing Strategy. Through our significant experience implementing Enterprise Resource Planning (ERP) transformation projects, our perspective is that a blended team of State and vendor resources promotes project success and enhances the State's understanding how to get the most out of the One Washington system.

We recommend utilizing State resources as a part of the One Washington ERP team to:

- Develop a strong program leadership team, which would enable crisp decision making and clear direction
- Fill specific roles across the program as a means to provide deep legacy application knowledge and expertise in State policies and procedures
- Develop the appropriate skills and capabilities in State resources that would play a role in using and supporting the new ERP solution after the system goes live

Scenario 1: Managed Services ERP

The following chart depicts the State and vendor full-time equivalents (FTEs) by quarter for Scenario 1. This Staffing Strategy reflects the integrated team concept, whereby State and vendor resources complement each other during the various activities and phases of the overall program. A key point is that State staff will participate in the project throughout its duration, but the levels of participation vary over time. In the FY 2019-2021 timeframe, State resources peak at approximately 63 FTEs and vendor resources peak at roughly 88 FTEs, which is the duration of the ERP implementation. The second staffing 'bump', in the FY 2024 timeframe, reflects a major application upgrade. The graph below illustrates the variance in staffing over the course of the One Washington project lifecycle for both State and vendor FTEs.
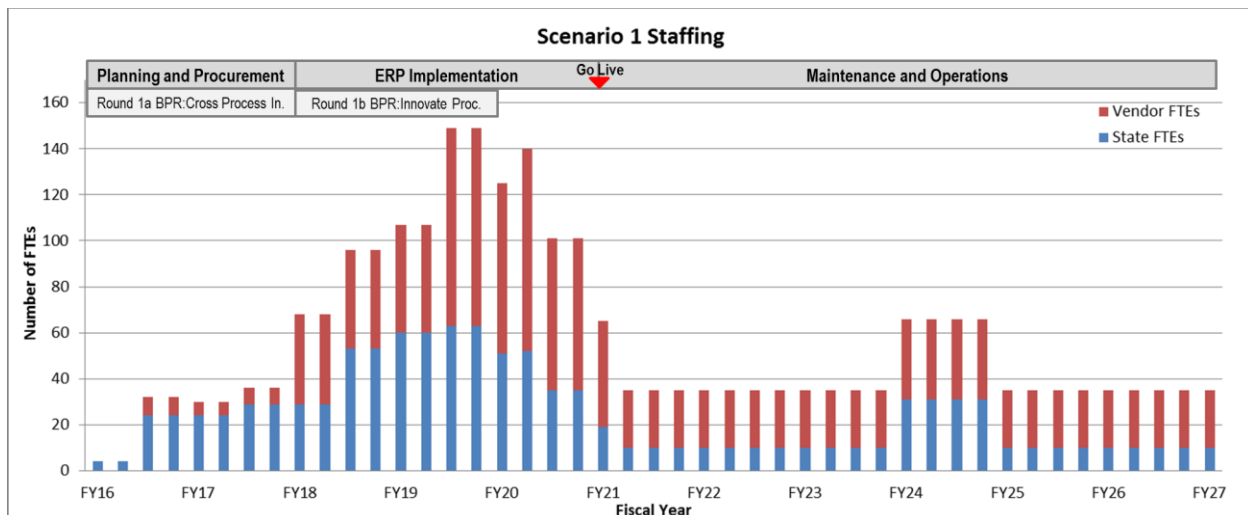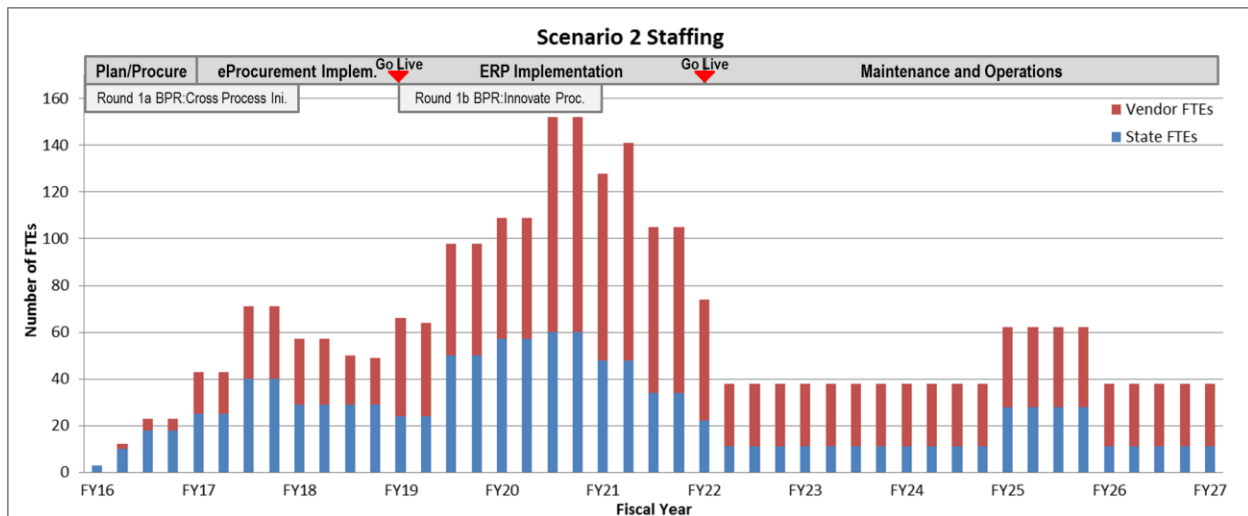
Scenario 2: Best-of-Breed eProcurement with Managed Services ERP Financials

For Scenario 2, the Staffing Strategy is based on the same major concepts: an integrated team and continued State participation in the project throughout its duration, with varying levels of participation over timeframe. In Scenario 2 there are two implementation projects, so there is a noticeable bump in staffing in the FY 2017-2018 timeframe for the eProcurement implementation, a peak of 60 State resources and 93 vendor resources in the FY 2020-2022 timeframe for the ERP Financials implementation, and a third bump in the FY 2025 timeframe for an application upgrade. Other differences in the staffing between Scenario 1 and 2 are summarized as follows:

- *Planning and Procurement*: In Scenario 2, there is more staff because of an additional planning and procurement activity for eProcurement
- *Implementation:* In Scenario 2, there is more staff because of an additional implementation project for eProcurement
- *Post-Implementation Support:* In Scenario 2, there is slightly more staff because of an additional post-implementation support group for eProcurement
- *Overall:* The timing for activities and thus timing for staffing is different in Scenario 2

In Scenario 2, the number and nature of roles to be filled by State employees is slightly different, with additional roles assigned to eProcurement and fewer roles to ERP, with an overall net increase.

Scenario 3: Best-of-Breed eProcurement with Software-as-a-Service (SaaS) ERP Financials

In a SaaS deployment model, we believe the State can follow the same general parameters for the Staffing Strategy as Scenario 2 with the following differences.

Stage	Deviation from Scenario 2
Planning and Procurement	A slight increase in staffing because of a slightly more complicated (i.e. less experienced) procurement process for SaaS.
Business Process Redesign	No change
Implementation	An overall net decrease in staffing, with differences noted below. *eProcurement Implementation* ▪ No change *SaaS Financials Implementation* ▪ More up-front and dedicated time and involvement from the State business owners and subject matter experts. ▪ Less SaaS ERP functional and technical development resources needed, but more interface and configuration staff needed. ▪ Increased Change Management effort and thus staffing from both the State and vendor. ▪ Overall training effort and staffing may be less given that SaaS software is usually more intuitive and easier to use. ▪ Typically more work is done off-site due to ease of access of cloud-based environments.
Post-Implementation	An overall net decrease in staffing, with differences noted below. ▪ No need for State or vendor staffing for a major application upgrade, but a slight need for State staffing to review and configure new SaaS software versions. ▪ There continues to be a need for State staff to perform service desk (i.e. Level 1) support, but vendor staffing for technical support (i.e. Level 2 and Level 3 support for bug fixes, etc.) is covered under the SaaS subscription fee. ▪ There may be an ongoing need for the State to supplement its staffing with additional professional services in the event that new requirements (from legislation and other sources) cannot be met by SaaS configuration, in which case new development, interfaces or other workarounds would be needed. ▪ In the SaaS market there is a smaller pool of experienced SaaS vendor consultants available, which may lead to higher SaaS consulting costs and longer lead time to find resources.

3.0 Introduction

This analysis takes into consideration the scope of the project agreed upon by the State, forecasting of State resources to fill roles across each stage of the overall program, and the end-state operating model that will be in place after go-live for each of the three scenarios. To develop the Staffing Strategy, the team built on the Phasing and Timelines deliverable and engaged State stakeholders from the Office of Financial Management (OFM), Department of Enterprise Services (DES), and various agencies to provide input into the approach. This analysis was supplemented with input from Accenture ERP subject matter experts to estimate the amount of effort and resources needed to complete the work in each scenario, and reconciles to the budget in the Budget, Procurement and Financing Strategy deliverable.

3.1 Staffing Considerations

We recommend assessing the following considerations when the State gets into detailed staff planning:

- *Number of project team members*: What is the right size for the core project team, recognizing that there will be periods when the team is ramped up to a peak and periods where the team will be ramped down to minimum staffing levels?

- *Phasing of project team members*: Do project team members stay on the One Washington team for the duration of system implementation, or roll onto and off the project for specific phases?

- *Sourcing project team members*: From what agencies should One Washington source the project team, and what is the plan for backfilling those resources to minimize adverse impacts to agencies?

- *Post-Implementation support:* How many State resources will be needed to support the new ERP system after go-live, and what will their roles be?

- *Achieving continuity of individual resource assignment:* Is the assignment process synchronized to the onboarding and roll-off schedule, and organized in a manner to avoid less than full-time focus of an individual person during the assignment period?

3.2 Lessons Learned from State Implementations

Our experience working with state governments on large-scale implementations has identified specific lessons learned related to staffing. We share these lessons as important for One Washington to consider as the State moves forward with detailed planning.

1. **The project needs the State's best and brightest – not just available resources**: Identifying, recruiting and reallocating high performers to the project could have a major impact to operations (business and technical). Balancing the tradeoff between the imperatives of the project and the requirements of daily operations is a policy issue and is a critical responsibility of the Project Sponsors. In making this judgment, the short-term costs result in significant long-term benefits, as high performers reflect the best investment for project success and strengthen project operations in the long run. Bringing agency resources that comprise the State's best and brightest will pay back dividends to the sustained project success after go-live.

2. **Full-time resources are the rule, not the exception**: Very few people can take on multiple concurrent projects well, and competing priorities will pull team members in opposite directions. To prioritize the One Washington effort for project team members and enable their full focus to be dedicated to the project, backfilling their roles at their respective agencies is important. There will be some exceptions to this rule, such as roles that are not core to the project team in nature and require attendance at occasional meetings or discussions on a periodic basis.

3. **Co-locate the project team**: Creating a centralized physical space for One Washington should be a priority, and progress has already been made in this area. Co-locating the project team enables

efficient and effective operations, removes the risk of daily operations pulling away dedicated project staff, and helps strengthen team cohesion .

4. **Allocate necessary resources to highest risk areas**: Prioritizing areas that represent significant risk to project success and allocating the appropriate level of resources to those areas ensure that One Washington proactively anticipates and addresses risk to project success, schedule, and outcomes. Risk areas arise in all aspects of the implementation, including project management, functional, technical, and change management teams.

5. **Design for a blended team:** A committed and engaged team of both State and vendor resources are critical to achievement of the program objectives. Working together as a single team promotes open discussions, better understanding of decisions, and greater assurance of achieving desired business outcomes. Additionally, this approach facilitates capability development and knowledge transfer in State resources that will be users of the new technology solution and facilitates a deeper understanding of the context of design decisions.

6. **Play to each organization's strengths**: In putting together the detailed staffing model for the project, the selected vendor should bring specialized skills related to the selected technologies and state government experience. The State should seek to maximize the value of the One Washington investment to leverage that expertise and strengthen the overall success of the project effort. Similarly, State resources bring a wealth of knowledge with respect to current business processes and operations, and are well-positioned to serve as ambassadors for the One Washington project. Effectively utilizing and investing in the development of State resources during the One Washington effort enables the State to maximize the return on its One Washington investment.

7. **Team cohesion starts at the top**: The leadership team, comprised of State and vendor resources, works to chart the course for the overall effort and communicates with all members of the team regarding their roles and how they fit into the greater program. This sets the tone for the team to act as one, and leadership should foster that environment throughout the program. The goal is not to have a "vendor team" and a "State team", but to have a single One Washington project team.

8. **Include State resources from both central and line agencies:** It is very important to have balanced agency representation throughout the One Washington project. There needs to be a balance between the members of the project team representing the interests of the central, control, and support agencies (e.g., OFM, DES) with representation across the operating agencies (e.g., Departments of Transportation, Social and Health Services, Corrections) to assure theses interests and perspectives are accommodated. One possible approach for achieving agency representation on the core One Washington project team is to include the following:

   - At least two team members each drawn from OFM (one member coming from the Office of the Chief Information Officer) and DES
   - A team member each drawn from two of the larger participating agencies, perhaps the Department of Corrections and Department of Natural Resources
   - A team member each drawn from two of the medium-sized participating agencies, perhaps Labor and Industries and the Department of Fish and Wildlife
   - A team member drawn from one of the smaller participating agencies, perhaps the Administrative Office of the Courts
   - At least 1 team member drawn from the Department of Transportation
   - At least 1 team member drawn from the Department of Social and Health Services

3.3   Budgeting and Accounting for Agency Staffing Costs

Budgeting and accounting for agency staffing costs for the One Washington project is an important consideration. Agency staffing cost can be significant in ERP projects, and many times agencies need to backfill positions in their agency to account for agency resources working on the project. Backfilling resources for these types of projects are very common, and having dedicated State resources at 100% to the project is highly recommended. We recommend budgeting for the net new positions as part of the project budget.

There are a number of different ways the backfill costs can be accounted for by the State. The most common approach to account for backfill costs is when an agency subject matter expert (SME) moves from the agency account to the ERP account, the SME charges the ERP account and the agency has the budget left in the agency account for the backfill. If an agency SME works part-time on the One Washington project, there are a couple options, and we recommend the approach that works easiest due to State accounting rules. One approach is to leave the entire salary of the agency SME in the agency account and the One Washington project "reimburses" the agency account (this requires authorization for the agency account to retain this inflow and increase their budget). A second approach is to split the SME's salary with labor distribution, and charge part of their salary to the One Washington project and part of their salary to the agency account (this requires the State to have labor distribution functionality). Either way, the agency account is held harmless for the expense (and time) the agency SME spends on the ERP project.

A separate question relates to the funding for agency staff that have additional work to perform activities such as data cleansing and developing agency interfaces. We have included funding in the One Washington cost estimate for these resources, which we refer to as a "bucket of hours". This funding can be made available to the agencies to add resources for these tasks, either by hiring additional staff for a limited time or by augmenting staff with contractors. These resources are not counted as FTEs included in the staffing plan for the core project team.

A different but related question is the use of occasional agency staff to attend One Washington meetings, workshops, training classes, etc. These types of activities happen throughout an ERP project, with a couple hours here and there for activities such as attending meetings and reviewing documents. For such situations, the agency is expected to contribute the part-time help by having their staff member participate. In this case, no reimbursement of the agency account is expected, and this labor is not included in the staffing plan.

3.4   Business Case Cost Drivers

The business case cost drivers derived from the Staffing Strategy are:

- Estimated number of FTEs, both from the State and vendor
- The "bucket of hours" for agencies to perform activities such as data cleansing and interface work
- Type of resources
- Hours
- Rates
- Estimated hours (by fiscal year and quarter)
- Timeframe/overall duration (by fiscal year and quarter)

These drivers have been loaded into the Budget, Procurement and Financing Strategy and Business Case deliverables.

4.0 Staffing Strategy Recommendations

This section describes the key staffing strategy recommendations for each of the three scenarios. For Scenarios 1 and 2, detailed information has been provided regarding roles, organization, number of resources, and delineation between State and vendor resources. Detailed ERP implementation role descriptions can be found in Appendix B, detailed post-implementation roles and responsibilities can be found in Appendix C, and detailed organizational charts and estimated number of State and vendor FTEs have been provided in Appendix D.

Scenario 1: Managed Services ERP

The approach for Scenario 1 includes all functionality in a single project. As depicted in the two charts below, the Staffing Strategy accounts for the work activities of the overall program as follows:

Planning and Procurement: Staffing assumptions have a 36-month duration and starts in FY 2015, Q1 and concludes in FY 2017, Q4.

Business Process Redesign: Staffing assumptions partially overlap with a 48-month duration, starting in FY 2016, Q1 and concluding in FY 2019, Q4.

Implementation: Staffing assumptions have a 39-month duration, and starts in FY 2018, Q1 and concludes in FY 2021, Q1. This implementation staffing is organized into five phases, representing a Blueprint design phase, followed by successive releases of functionality rolled out to three waves of agencies.
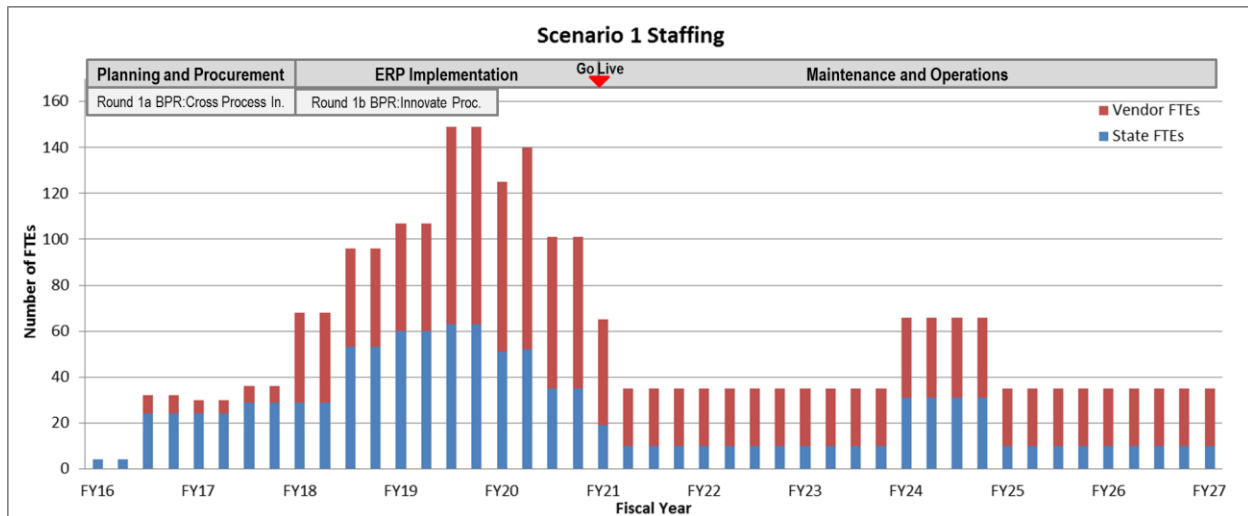
Post-Implementation: Staffing assumptions start in FY 2021, Q2 and run to the end of the timeframe in the business case. These assumptions include staffing for an application upgrade.
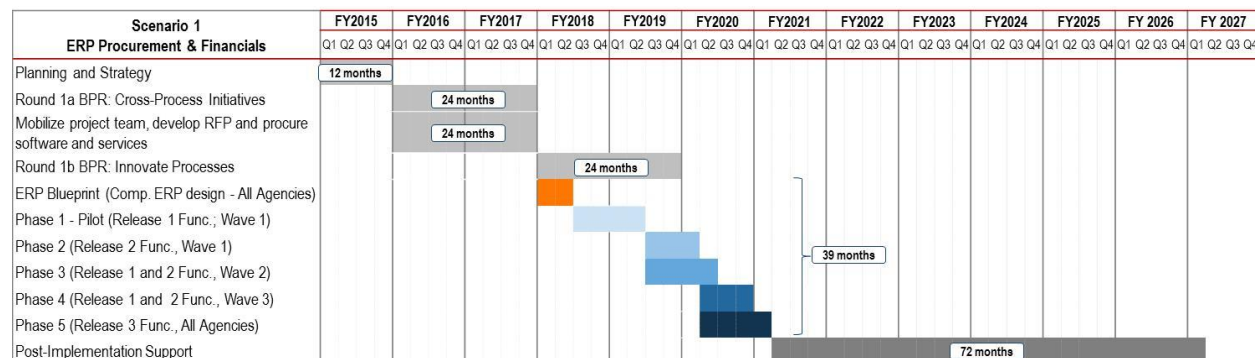
The Scenario 1 staffing chart on the following page shows State and vendor staffing levels by quarter. Staffing ramps up during the major effort of the ERP implementation and ramps down after go-live to a steady state in the post-implementation stage, with a bump in FY 2024 for a major application upgrade. For the recommended individual role descriptions for both State and vendor members of the implementation team, please see Appendix B. For the recommended division of labor the State and vendor members of the post-implementation support team, please see Appendix C. For the recommended organization charts and estimated number of State and vendor FTEs, please refer to Appendix D.

Please note that the staffing chart above depicts State employees that are dedicated full-time to the One Washington project. These are FTEs assigned 100% and funded by the project, also referred to as the project core team. We have also recommended (and included in the budget) additional State resources who would be contributing to certain aspects of the project. For example, the budget includes a "bucket of hours" for agencies to perform activities such as data clean up and development of agency interfaces. These resources would be assigned as needed, and are not included in the FTE count and staffing chart. In addition we assume certain State employees would participate in occasional project activities such as

attending meetings and participating in user acceptance testing. Our assumption is these people would contribute their efforts as part of their regular job responsibilities, hence they are not included in the FTE count and staffing plan.

Scenario 2: Best-of-Breed eProcurement with Managed Services ERP Financials

The approach for Scenario 2 includes implementing a Best-of-Breed eProcurement system first, followed by a Managed Services ERP Financial system implementation. As depicted in the two charts below, the Staffing Strategy accounts for the work activities of the overall program as follows:

Planning and Procurement: Staffing assumptions have a 48-month duration and start in FY 2015, Q1 and concludes in FY 2018, Q4. This is twelve months longer than Scenario 1, as there are two sets of procurements to account for, not one.

Business Process Redesign: Staffing assumptions partially overlap with a 48-month duration, starting in FY 2017, Q1 and concluding in FY 2020, Q4. This is the same duration as Scenario 1 but the timing is different.

Implementation: Staffing assumptions for the eProcurement implementation have a 24-month duration, starting in FY 2017, Q1 and concluding in FY 2018, Q4. This is organized into two phases of functionality and rollout to waves of agencies. Staffing assumptions for the ERP Financials implementation have a 39-month duration, and start in FY 2019, Q1 and concludes in FY 2022, Q1. This is the same duration and concept as Scenario 1, but starting and finishing a year later.

Post-Implementation: Staffing assumptions start in FY 2022, Q2 and runs to the end of the timeframe in the business case. These assumptions include staffing for an application upgrade.
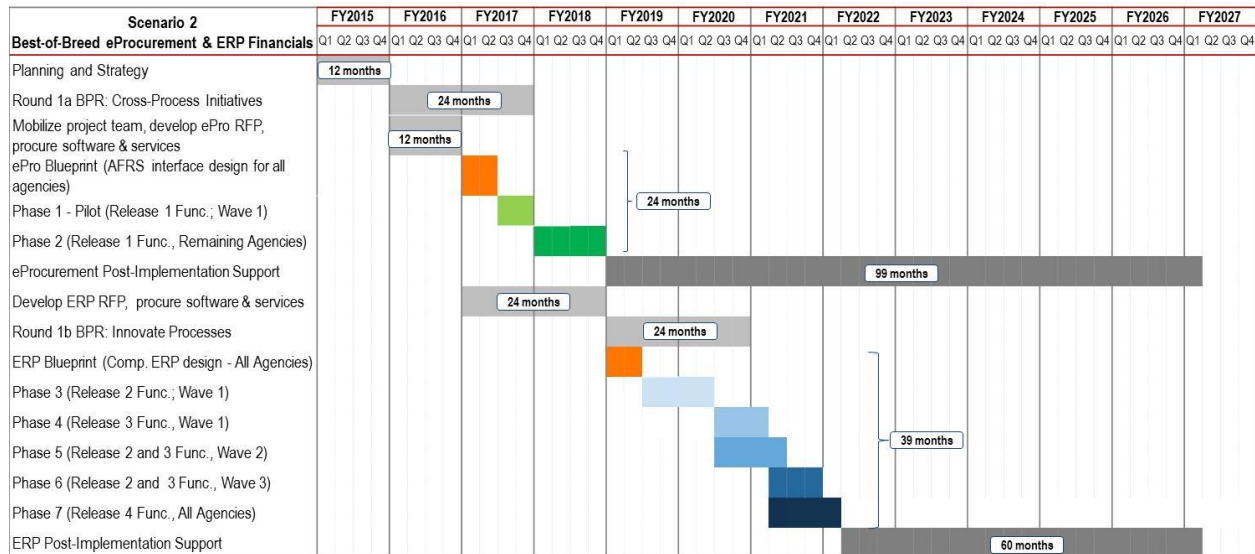
The Scenario 2 staffing chart below shows the State and vendor staffing levels by quarter. Staffing ramps up during the effort of the eProcurement implementation, ramps up further during the major effort of the ERP Financial implementation, and ramps down after go-live to a steady state in the post-implementation stage, with a bump in FY 2024 for a major application upgrade. For the recommended individual role descriptions for both State and vendor members of the implementation team, please see Appendix B. For the recommended division of labor the State and vendor members of the post-implementation support team, please see Appendix C. For the recommended organization charts and estimated number of State and vendor FTEs, please refer to Appendix D.

Similar to Scenario 1, please note that the staffing chart above depicts State employees that are dedicated full time to the One Washington project. These are FTEs assigned 100% and funded by the project, also referred to as the project core team. We have also recommended (and included in the budget) additional State resources who would be contributing to certain aspects of the project. For example the budget includes a 'bucket of hours" for agencies to perform activities such as data clean up and development of agency interfaces. These resources would be assigned as needed, and are not included in the FTE count and staffing chart. In addition we assume certain State employees would participate in occasional project activities such as attending meetings and participating in user acceptance testing. Our assumption is these people would contribute their efforts as part of their regular job responsibilities, hence they are not included in the FTE count and staffing plan.

Scenario 2 Staffing

Scenario 3: Best-of-Breed eProcurement and SaaS Financials

The phasing and timeline approach for Scenario 3, and thus the staffing strategy, is closer to Scenario 2 versus Scenario 1. The major differences between Scenario 2 and Scenario 3 appear in the implementation methodology and post-implementation maintenance and operation model. The implementation methodology for SaaS would be an iterative, agile-type methodology compared to a waterfall-type methodology assumed in Scenario 2. The post-implementation support model for the SaaS system will essentially replace the managed services vendor with the SaaS vendor. A few SaaS vendors are actively working to provide the financial functionality required by state governments, but until more experience exists, at this time it is difficult to provide specific staffing guidance. With that caveat, we provide the following advice.

Planning and Procurement: We expect a slight increase in the staffing for this stage because of a slightly more complicated (i.e. less experienced) procurement process for SaaS. Also, we believe it is in the State's best interest to develop specifications and requirements for both a "traditional" ERP and SaaS ERP, and solicit responses for both in the RFP process. This approach would give the State the ability to compare and contrast the vendor responses by leveraging the competitive marketplace. This approach keeps all options open and enables the State to make a fully informed selection.

Business Process Redesign: We expect no change in the staffing for BPR activities. This includes activities related to both Round 1a BPR Cross-Process Initiatives and Round 1b Innovate Processes. As described in other deliverables, these BPR activities can be launched as they are software-agnostic (although eventually software will be needed to sustain the benefits).

Implementation: For the eProcurement implementation, we expect no change in staffing. However we point out that if the same software vendor was selected for eProcurement as was selected for SaaS Financials, due to the consistency of the software and the continuity of the staff, there could be decrease in staffing compared to Scenario 2.

There are several impacts to staffing that might arise in the financial implementation stage of the project.

- Project Management: SaaS requires strong project management and governance as the State will need to conform its business processes to the configurations offered by the SaaS vendor. Accordingly, we estimate a slight increase, approximately 10%, in duration and amount of staffing related to governance and project management.

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- Functional Implementation Activities: We also estimate a slight increase, approximately 10%, in duration and amount of staff for the functional team. This relates to the need to do an extensive analysis of Washington business requirements, compare those requirements to the configuration options offered by the SaaS provider, and develop acceptable business process changes and/or other workarounds for requirements that cannot be accommodated via configuration. We also expect the same number of staff but more up-front and dedicated time and involvement from the State business owners and subject matter experts. When considering the staffing impact on the functional team, the State should also consider the amount for the time, and thus staffing impact, it will have on agency employees to complete agency-related interfaces.

- Change Management: Another area in the implementation team that we expect to have an increase in staffing is change management. Since customization is not possible with a SaaS solution, the degree of change to which Washington must adapt increases by changing business processes, past practices, and even laws. This translates to a possible staffing increase of approximately 25%. Partially offsetting this staffing impact is the reduced staffing needed for training, as SaaS solutions are generally more intuitive and easier for the end user.

- Technical Implementation Activities: For the technical portion of the implementation team, we expect a moderate staffing decrease, approximately 10%. For example, technical work to code custom objects and establish multiple computing environments is essentially eliminated. Partially offsetting this cost decrease are cost and effort increases related to testing, data conversion, and the importance of an integration plan using the State's enterprise service bus to leverage other systems in order to address requirements not served by the SaaS. Another factor that could generally impact staffing is that SaaS typically employ an agile software development lifecycle, with the ability to accelerate the phasing, hence saving time and staffing. We expect the State might reduce the SaaS Financials implementation duration by a significant factor, perhaps from 39 months to 36 or 33 months, with concomitant impact on staffing.

- Vendor Support: Another factor that we expect would impact the staffing strategy is that there is a smaller pool of experienced SaaS vendor consultants available in the SaaS market, which may lead to higher rates and longer lead time to find resources. A technique to partially offset that point is to utilize outside resources from offshore locations, a technique which is popular in cloud-based SaaS projects. The net effect of these considerations is a slight increase to the staffing for implementation.

Post-Implementation: We expect several impacts to the Staffing Strategy in the post-implementation stage for SaaS Financials. One major factor is that here is no need for State and vendor staffing for a major application upgrade. Partially offsetting this, we do note a slight impact to State staffing to review new SaaS software versions. Typically SaaS providers offer 2-3 software versions annually. Washington will need to analyze each version, understand the costs (on interfaces or other costs) and benefits, and make a decision about configuring and using the functionality available in the new version. A second major impact to staffing is the virtual elimination of technical support needed for Level 2 and Level 3 application support. However, we do note the State will need to continue to staff the service desk for Level 1 type calls. There may be an ongoing need for the State to supplement its staffing with additional vendor staffing in the event new requirements (from legislation and other sources) cannot be met by SaaS configuration, in which case new development, interfaces or other workarounds would be needed. We expect the net effect to the staffing strategy for post-implementation support of the SaaS Financial system to be major decrease.

A. Appendix A: Assumptions

Assumptions used in creating the Staffing Strategy in this document are provided below.

Assumptions
There are three ERP scenarios included in this Staffing Strategy deliverable are: ▪ Scenario 1: ERP Managed Services scenario ▪ Scenario 2: Best-of-Breed eProcurement with Managed Services ERP ▪ Scenario 3: Best-of-Breed eProcurement with Software-as-a-Service (SaaS) ERP
State and vendor staff will be responsible for Business Process Redesign work for Round 1a BPR, or Cross-Process Initiatives, which includes creating a Payee Master Data File, a Customer Master Data File, a Uniform Chart of Accounts and Outcomes, and a Master Reporting Strategy. State and vendor staff will also be responsible for BPR work associated with Round 1b BPR, or Innovate Processes, which includes these processes: Accounts Payable, Accounts Receivable, Grants Management, Project Accounting, Strategic Sourcing, Vendor Relationship Management, Internal Customer Satisfaction, and Procure to Pay Strategy.
Round 1a BPR activities approved by the State will be accomplished either prior to or in conjunction with eProcurement and ERP implementation. Round 1b BPR activities will be accomplished in conjunction with eProcurement and ERP implementation.
Software-driven Business Process Redesign activities for all business process areas in scope (Round 2) will be accomplished in conjunction with eProcurement and ERP implementation.
The FTE estimates contained in this deliverable are representative estimates based on other ERP projects of similar size and scope. It is assumed that these FTE and team structure assumptions will be refined and updated during future planning and estimating activities of the One Washington project.

B. Appendix B: ERP Implementation Roles and Responsibilities

Standard roles and responsibilities for ERP Implementation roles are provided below.

Role / Resource	Description of Responsibilities	Skills Required
Application Designer **(State / Vendor)**	▪ Assist in defining and reviewing requirements and use cases for the application. ▪ Use the business process requirements to drive out application requirements and metrics. ▪ Assist in translating functional requirements into technical terms relevant to the application to coordinate and along with the detailed technical design tasks. ▪ Design the application to meet the business process design and application requirements. ▪ Participate in transitioning the designs to the developers, and help confirm a clear and complete understanding of the designs. ▪ Complete all appropriate documentation required by the developers, testers, deployment team, and application management team that will maintain the application.	▪ Knowledge of the functionality of the ERP applications to be developed ▪ Ability to transform customer requirements into a workable design at the functional and/or technical levels
Business/Process Analyst **(State / Vendor)**	▪ Work with the business architect and other planners to assess current capabilities and identify high-level customer requirements. ▪ Identify and define detailed product requirements and use cases. ▪ Assist with developing product requirements based on input gathered from a variety of sources including analysis results and feedback from the user community. ▪ Participate in transitioning the requirements and use cases to the designers, and help confirm a clear and complete understanding of the requirements. ▪ Assist in translating requirements and use cases into test conditions and expected results for product, performance, and user acceptance testing. ▪ Serve as a liaison to the business community. Participate in a user and task analysis to maintain the business community's perspective.	▪ Business process design and analysis ▪ Experience in requirements gathering ▪ Ability to develop test conditions and expected results based on the ERP applications requirements

Role / Resource	Description of Responsibilities	Skills Required
Change Management Lead **(State / Vendor)**	▪ Manage the Change Management Team ▪ Oversee identifying users and scheduling education sessions ▪ Oversee definition of training needs ▪ Oversee the training design, development, and delivery ▪ Coordinate the selection and scheduling of trainers and coaches ▪ Oversee the project communications and organization/readiness activities ▪ Manage flow, quality, and timely submission of team deliverables ▪ Report status to project management ▪ Help prepare the support teams to sustain and support the processes, organization, culture and system after implementation of the solution ▪ Identify, develop, and implement leadership interventions, including supporting materials ▪ Promote/encourage knowledge transfer activities	▪ Deep knowledge of change management principles ▪ Understanding of business process analysis fundamentals ▪ Coordination skills ▪ Strong communication skills ▪ Ability to drive to decision making ▪ Experience with implementing ERP projects
Change Specialist **(State / Vendor)**	▪ Develop and maintain the Change Management Plan and desired outcomes ▪ Work with the deployment lead to determine which messages to communicate. ▪ Develop and maintain a communications plan. ▪ Plan and execute communication events and processes. ▪ Participate in quality management reviews by examining training, performance support, and communication work products to help confirm that they meet requirements and standards and accomplish their objectives while enabling the application stakeholders. ▪ Continually align key messages with the changing business context.	▪ Change Management strategy ▪ Business case realization / drivers ▪ Sponsorship and executive coaching ▪ Communications planning, message development, and execution ▪ Training planning, development and execution ▪ Change Impact analysis ▪ State/Agency functional experience and roles

Role / Resource	Description of Responsibilities	Skills Required
Change Specialist **(State / Vendor)** **(Continued)**	▪ Collect and follow up on any communications feedback coming from a centralized point of contact (e.g., a project e-mail box). ▪ Develop scorecards and reporting processes tied to business case realization ▪ Work with Business Readiness team members to collect feedback and compile into scorecard ▪ Work with Change Agents to understand user concerns and feedback and compile into scorecard ▪ Assess the root cause of gaps between planned and actual user readiness, identify risks, and identify approaches to address those risks ▪ Create monthly / bi-monthly (per budgeting assumptions) Change Management scorecard ▪ Capture and maintain a library of change impacts at the end-user level of detail ▪ Assist with development of materials for sponsors	▪ Note: skills required listed in previous row
Code/ Configuration Migration Lead **(Vendor)**	▪ Approve code/ configuration migration requests. ▪ Partner with the development lead to schedule code/ configuration migration windows. ▪ Create code/ configuration migration checklist. ▪ Help confirm migration team adheres to code/ configuration migration procedures. ▪ Create code/ configuration migration validation procedures. ▪ Provide status to Project Management on a regular basis.	▪ Deep knowledge of code/ configuration migration tools ▪ Custom development experience

Role / Resource	Description of Responsibilities	Skills Required
Configuration Manager **(State / Vendor)**	▪ Identify configuration items (CIs) to be managed under Configuration Management (CM) processes. ▪ Appoint members to the change control board. ▪ Create, manage, maintain, and communicate the Configuration Management Plan and any CM standards and procedures to all stakeholders. ▪ Help confirm that all project team members involved in CM receive training on their roles, how to perform their activities, and how use CM tools. ▪ Make updates to the Configuration Management Plan, as appropriate and only after approval by the change control board. ▪ Help confirm that any updates to the Configuration Management Plan are communicated to appropriate project team members. ▪ Establish a project schedule for CM activities with the project manager. ▪ Form and manage a CM team (if necessary). ▪ Conduct performance reviews for members of the CM team (if necessary). ▪ Create products from the CM library as authorized by the change control board. ▪ Process and track change requests and subsequent updates to the CM library. ▪ Coordinate reviews of configuration item change requests (CICRs) with the change control board. ▪ Help confirm that the integrity of all CIs is maintained by monitoring the status of all CIs and tracking problem reports associated with them. ▪ Conduct audits of CM activities as planned, including performing a baseline audit prior to closing baselines. ▪ Track, report, and communicate CM status and audit reports to the project manager and client director. ▪ Help confirm that CICRs and problem reports for all configuration items are initiated, recorded, reviewed, approved, and tracked according to the procedure documented in the Configuration Management Plan. ▪ Work with the technical architect to create and manage, including the security and the CM library tool(s). ▪ Help confirm that project team members have the appropriate access to the CM library.	▪ Knowledge of fundamental CM concepts ▪ Experience implementing or utilizing a software CM process

Role / Resource	Description of Responsibilities	Skills Required
Configurator **(State / Vendor)**	▪ Assist in the design of the packaged software configuration and customization to meet the business process design and application requirements. ▪ Develop an application prototype and conduct a conference room pilot to validate the configuration design and explore gap resolution options. ▪ Translate functional requirements into technical terms relevant to the packaged software to coordinate and assist with the detailed technical design tasks. ▪ Configure the system to match the design. ▪ Component test the system configuration. ▪ Complete the Configuration Rationale documentation. ▪ Participate in additional testing, including assembly test of RICEFW work units and system test. ▪ Complete all appropriate documentation required by the developers, testers, deployment team, and application management team that will maintain the application.	▪ Knowledge of the ERP applications functionality ▪ Configuration skills within the ERP applications
Database Administrator **(State / Vendor)**	▪ Generate, configure, and optimize the performance of the databases. ▪ Support the efforts of the test lead and deployment lead to plan, manage, and deploy the application. ▪ Update logical and physical database designs with changes. ▪ Document benchmarks and procedures needed to optimize performance. ▪ Help confirm that all guidelines are followed. ▪ Provide input on any design decisions for interfacing or integrating databases. ▪ Work with the configuration manager to determine change control and impact analysis for the databases. ▪ Plan disaster recovery and execution activities.	▪ Technical skills related to architecture and infrastructure capabilities (integration architecture, data architecture, data warehousing infrastructure, data delivery infrastructure, etc.) ▪ Deep database skills and experience

Role / Resource	Description of Responsibilities	Skills Required
Deployment Lead **(State / Vendor)**	▪ Work with the architects and the service introduction lead to define deployment requirements. ▪ Develop and manage all aspects of the deployment effort, including the plans, interdependencies, schedule, budget, tools, and required personnel. ▪ Define the work plan, schedule, budget, and required personnel for deployment. ▪ Provide technical leadership to project resources and the client to meet deployment deadlines and objectives. ▪ Assess application and training readiness for application deployment. ▪ Work with the test lead to monitor and evaluate the pilot results. ▪ Plan and evaluate simulations and pilots. ▪ Work with the training administrator to schedule and execute application training. ▪ Help confirm adherence of deployment activities to all quality management plans and standards. ▪ Participate in quality management reviews as outlined in the Validate Task Overview. ▪ Manage cross release, cross unit ownership of deployment issues and interdependencies. ▪ Help confirm organizational readiness and sponsor commitment for deployment.	▪ Understanding of functional and technical components of ERP applications in scope ▪ Strong project management skills ▪ Ability to document and communicate the status of deployment progress against plans ▪ Knowledge of risk and issue management processes
Deployment Specialist **(State / Vendor)**	▪ Assist in the release of an application. Assist the deployment lead in all deployment tasks. ▪ Work with other deployment specialists to help confirm that the components interact to meet performance goals. ▪ Work with the deployment lead to identify and resolve ownership and deployment issues. ▪ Document and communicate deployment status, including risks and issues	▪ Ability to consult with technical resources for approaches, procedures, and standards used for deployment ▪ Knowledge of risk and issue management

Role / Resource	Description of Responsibilities	Skills Required
Developer **(State / Vendor)**	▪ Perform the detailed design of application and technical architecture components. ▪ Develop common test data. ▪ Configure, build, and test the application or technical architecture components. ▪ Work with other developers, designers, and architects to make sure that the configuration and custom components meet application requirements and performance goals. ▪ Follow good security coding practices to help confirm the application is free of most common coding vulnerabilities. ▪ Participate in code reviews. ▪ Inform the technical architect and project manager of any issues that may affect any other areas of the project. ▪ Participate in transitions of the application or technical architecture components to the testers. ▪ Fix any defects and performance problems discovered in testing. ▪ Document the application to facilitate maintenance.	▪ Ability to work independently with minimal assistance ▪ ERP software development/programming experience ▪ Ability to logically break down a problem into smaller manageable parts to solve ▪ Knowledge of how to develop other aspects of the selected applications

Role / Resource	Description of Responsibilities	Skills Required
Integration Solution Architect **(State / Vendor)**	▪ Acts as an application architect, with responsibilities on both the application and technical architecture teams. ▪ Define and communicate the "big picture" in terms of the overall integration solution (both functional and technical components) and break it down into smaller manageable work units. ▪ Use the business process design to drive out the full set of application requirements: functional, quality, integration, and security. ▪ Work with the application designer to create a high-level design of an end-to-end integration solution by: 1) defining the flow of data between the applications that must be integrated, 2) mapping business process activities to the applications that support them, and 3) drafting a data object model that provides a common structure for mapping the data between the applications. ▪ Analyze the use cases and activity diagrams to identify any additional integration requirements. ▪ Based on the activity and data flow diagrams, create an inventory of all cross-application interactions or interfaces, also referred to as business events or messages. ▪ Assess the impact of the integration requirements to the technical architecture and specify the integration service requirements. ▪ Validate that the application requirements meet overall business process needs, are within the project scope, and are internally consistent. ▪ Validate that the integration solution and integration architecture designs utilize the integration architecture components appropriately.	▪ Experience implementing enterprise integration architectures ▪ Integration solutions design ▪ Deep knowledge of the ERP applications integration architecture components ▪ Understanding of the concepts of re-use and when to apply ▪ Data modeling skills ▪ Familiar with user experience best practices

Role / Resource	Description of Responsibilities	Skills Required
Integration Solution Designer **(State / Vendor)**	▪ Extend the conceptual design of the overall integration solution by developing the process, data, and application integration components into a functional design. ▪ Design the workflow user interface(s) for each business process activity requiring human interaction. ▪ Design the implementation of each process to be automated within a business process management (BPM) or enterprise application integration (EAI) tool. ▪ Work with the project manager to define the roles and responsibilities assigned to each team responsible for participating in the implementation (design, build, test, and deployment) and review of a specific interface between two or more applications. ▪ Design the flow and sequencing of events within the integration solution across applications. ▪ Identify commonalities in the interfaces across systems and application components. ▪ Identify cross-team dependencies early in the project life cycle. ▪ Facilitate Joint Application Design sessions with the interfacing application teams to help confirm cross-team communication and collaboration. ▪ Identify cross-team issues, and communicate them to the integration solution architect and the appropriate team leads. ▪ Validate that the integration functional designs meet the overall business process integration requirements and are consistent with the Integration Conceptual Design. ▪ Understand that this role performs more detailed technical analysis than the application designer role.	▪ Experience implementing an enterprise integration architecture solution and cross-application business processes ▪ Knowledge of the ERP applications integration architecture components ▪ Basic understanding of object oriented analysis and design concepts ▪ Basic knowledge of the Unified Markup Language (UML) preferred for design documentation ▪ Understanding of how the required functionality would be supported by the ERP applications technology

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Role / Resource	Description of Responsibilities	Skills Required
Performance Test Lead **(State / Vendor)**	▪ Develop and manage all aspects of the testing effort, including plans, interdependencies, schedule, budget, tools, and required personnel ▪ Work with the application and technical architecture teams to plan performance test. ▪ Determine performance test environment requirements and tools. ▪ Document and communicate the status of testing progress against plans, taking corrective action as necessary ▪ Manage performance testers' work throughout test plan development and test execution to help confirm that testing is on time and within budget. ▪ Measure and monitor progress during each test to help confirm that the application is tested, validated, and piloted on time and within budget, and that it meets or exceeds expectations. ▪ Help confirm that the team follows the testing standards, guidelines, and testing methodology as specified in the testing approach. ▪ Review test, validation, and pilot results to help confirm that they meet the entry and exit criteria.	▪ Strong project management skills ▪ Experience in metrics and performance reporting ▪ Knowledge of performance testing tools ▪ Risk and issue management ▪ Appropriate knowledge of the ERP applications
Performance Tester **(State / Vendor)**	▪ Develop test scripts, test conditions, input test data, and expected results for performance test. ▪ Execute test scripts. ▪ Record problems and issues in accordance with the project's problem and issue management plans. ▪ Work with the application team and performance tuning DBA to resolve any issues that arise out of the testing process. ▪ Validate product fixes. ▪ Inform the test lead of any issues that may affect the schedule, budget, or quality of the product or the testing process.	▪ Detail oriented: able to document and follow detailed instructions within test scripts as well as defects tracking documents ▪ Understanding of performance testing concepts and overall project life cycle ▪ Knowledge of performance testing tools ▪ Appropriate knowledge of the ERP applications
Performance Tuning DBA **(State / Vendor)**	▪ Support the efforts of the performance test lead ▪ Address performance issue encountered during performance test by configuring and optimizing the performance of the databases. ▪ Update logical and physical database designs with changes. ▪ Document benchmarks and procedures needed to optimize performance. Confirm that all guidelines are followed. ▪ Provide input on any design decisions for interfacing or integrating databases.	▪ Technical skills related to architecture and infrastructure capabilities ▪ Deep database skills and experience ▪ Appropriate knowledge of the ERP applications

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Role / Resource	Description of Responsibilities	Skills Required
PMO Lead **(State / Vendor)**	▪ Conduct PMO assessment and define PMO approach. ▪ Support the control and administration activities performed by the program manager. ▪ Coordinate all program-level measurement and reporting; aggregate and publish inputs from financial management, quality management, value measurement, resource management, individual projects, etc. ▪ Maintain program-wide approaches, plans, policies, and procedures. ▪ Coordinate program communications, both internal and external. ▪ Identify and provide program-wide administrative functions in order to best leverage economies of scale across the program.	▪ Program, project management and administration ▪ Experience in Work Plan management ▪ Metrics and reporting ▪ Strong oral and written communication skills ▪ Ability to work with all levels of client and internal resources ▪ Management of material, financial, and personnel resources
PMO Specialist **(Vendor)**	▪ Set up and configure MS Project Server and Project Web Access. ▪ Support Work Plan generation. ▪ Support Status Report generation. ▪ Track actuals on a weekly basis, including timesheet creation, timesheet completion compliance, and timesheet approval compliance. ▪ Maintain Work Plan. ▪ Perform weekly metrics reporting at the project and team-level. This includes Earned Value, Budget Analysis, Schedule Variance, Variance at Completion, Cost Performance Index, and Schedule Performance Index. ▪ Track and consolidate status of project progress against plans. ▪ Track and consolidate metrics defined by the project and the organization. ▪ Complete trend analysis. ▪ Perform resource reporting such as roll-on, roll-off, overtime, and resource utilization. ▪ Complete month end Time and Expense reconciliation to Work Plan actuals.	▪ Knowledge of MS Project Server and Project Web Access ▪ Work Plan maintenance ▪ Strong metrics and reporting skills ▪ Experience in project administration

Role / Resource	Description of Responsibilities	Skills Required
Process and Solution Quality Assessor **(Vendor)**	▪ Serve as the subject matter expert on delivery excellence. ▪ Provide coaching and mentoring on process improvement. ▪ Share best practices and knowledge capital with project. ▪ Conduct/facilitate all required QPI training. ▪ Conduct best practices reviews and quality reviews of required project documentation. ▪ Document and communicate the results of the reviews. ▪ Validate and help analyze monthly metrics. ▪ Collect artifacts and best practices from the project. ▪ Coordinate with QA directors on QA results, and coach the project on correcting non-conformance items. ▪ Conduct Process and Product Quality Assurance (PPQA) reviews of five core management plans: Project Plan, Project Measurement Plan, Risk Management Plan, Configuration Management Plan, and Quality Management Plan.	▪ System integration and/or application outsourcing delivery experience ▪ Program and project management experience ▪ Prior project experience with multiple phases of the system development life cycle ▪ Communication and stakeholder management

Role / Resource	Description of Responsibilities	Skills Required
Process Team Lead **(State / Vendor)**	▪ Define opportunities to create business value for the sponsoring organization. ▪ Identify and define high-level business requirements. ▪ Define the business solutions and structures needed to realize these opportunities. ▪ Work with the other architects to explore specific solutions and define the scope of the project. ▪ Help define the performance goals and metrics for the proposed solution. ▪ Review prototypes, solution blueprints, and project scope to confirm that the needs of the business are being met. ▪ Design the packaged software configuration and procedures required meet the business process design and product requirements. ▪ Use the business process requirements to drive out product requirements and metrics. ▪ Transform customer requirements into a workable design at the functional and/or technical levels. ▪ Translate functional requirements into technical terms relevant to the packaged software to coordinate and assist with the detailed technical design tasks. ▪ Assist in defining and reviewing requirements for the application. ▪ Validate the design with the stakeholders to help confirm that the design satisfies the requirements. ▪ Supervise other designers or developers in completing designs. ▪ Inform the technical architect and project manager of any issues that may affect other areas of the project. ▪ Participate in quality management reviews, as outlined in the Verification and Validation Overview, ensuring the application design and related work products satisfy the requirements. ▪ Develop an application prototype and conduct conference room pilot to validate the configuration design and explore gap resolution options. ▪ Conduct packaged software training for conference room pilot participants. ▪ Participate in transitioning the designs to the developers, and help confirm a clear and complete understanding of the designs.	▪ Familiarity with business process design concepts and principles ▪ Knowledge of the ERP applications functionality ▪ Facilitation experience for conducting user design and review sessions and running stakeholder agreement meetings ▪ Familiarity with Joint Application Design (JAD) session, Conference Room Pilot (CRP), and similar approaches and principles ▪ Deep functional knowledge of the ERP applications. Configuration/development experience is not necessary, but knowledge of how functionality can be supported through the technology is needed

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Role / Resource	Description of Responsibilities	Skills Required
Process Team Lead **(State / Vendor)** **(Continued)**	▪ Help confirm that other team members on their team have the information they need to successfully complete their work. ▪ Complete all appropriate documentation required by the developers, testers, deployment team, and application management team that will maintain the application. ▪ Develop a high-level entity relationship diagram to be used in technical detailed design. ▪ Understand that this role is more focused on the overall process flow and user experience than the integration solution designer role. ▪ Provide status to project management regarding the process area.	▪ Note: skills required listed in previous row
Project Lead **(State / Vendor)**	▪ Be accountable for the delivery of project capabilities and business results. ▪ Set overall direction for the project team. ▪ With the change architect and change lead, develop sponsorship/support for project (at the executive level) within affected organizations, and establish a governance organization. ▪ Monitor progress to help confirm project objectives are delivered on time and within budget, and business results are realized. Be the final point of approval for contingency plans and scope changes. ▪ Determine the impact of project changes on the business case, and re-forecast value creation. ▪ Monitor stakeholder expectations. Take corrective action to address gaps. ▪ Monitor project timelines, milestones, and resource usage. ▪ Address scope changes escalated by the management team. ▪ Resolve issues escalated by the management team. ▪ Monitor project-level risks and mitigation. ▪ Provide project performance information to project sponsors per the schedule defined in the performance reporting process. ▪ Monitor the delivery of business results assigned to the project. ▪ Overall executive responsibility for delivery of State ERP Implementation solution ▪ Provide deep State ERP industry experience	▪ Change management ▪ Experience in journey management ▪ Stakeholder management ▪ Project management ▪ Risk and issue management ▪ Business case management ▪ Financial management ▪ Knowledge of quality management practices and processes ▪ State and Utility industry knowledge ▪ Delivery experience with selected ERP

Role / Resource	Description of Responsibilities	Skills Required
Project Manager **(State / Vendor)**	▪ Determine the project approach, staffing, responsibilities, and schedule. ▪ Develop and/or review estimates and estimating assumptions for the project's schedule, effort, and cost using established estimating models, best practices, and past experience. The resulting estimates account for all activities in the project scope, including project management and application development tasks, software quality assurance reviews, and vendor and contract management activities. ▪ Define team member roles and expectations, and help confirm timely feedback. Help confirm that project resources receive any necessary training and are used effectively. ▪ Define, implement, and maintain project process guidance (e.g., project plan and subordinate plans), tailoring organizational processes as needed ▪ Manage all aspects of the project, including providing overall guidance and direction to the project and overseeing financial management activities. ▪ Manage the success of metrics defined by the project and the organization. ▪ Review, and be responsible for, the overall development and integration of requirements. ▪ Measure and monitor progress at clearly defined points in the process to help confirm that the project is delivered on time, within budget, and that it meets or exceeds expectations. Balance scope, schedule, budget, quality, and risks. Make adjustments as necessary. ▪ Define the project iterations strategy. Manage and evaluate iterations. ▪ With other leads, develop, implement, and maintain the Project Plan, including the configuration management, risk management, project measurement, and quality management plans. ▪ Help confirm that all requirements, project plans, and changes to commitment are communicated to all affected team members. ▪ Document and communicate the status of project progress against plans, taking corrective action as necessary.	▪ Project management ▪ Strong metrics and reporting skills ▪ Financial management ▪ Risk and issue management ▪ Ability to develop project team members (e.g., skills, career, etc.) and conduct performance reviews

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Role / Resource	Description of Responsibilities	Skills Required
Project Manager **(State / Vendor)** **(Continued)**	▪ Participate in quality management reviews as outlined in the Manage Quality task. ▪ Review and manage all changes to the requirements through a formally defined scope change process. ▪ Review ongoing and proposed projects to identify opportunities for reuse and process improvement. ▪ Help confirm that the end product fulfills the contract and meets the sponsor's expectations.	▪ Note: skills required listed in previous row
Quality Assurance Director **(Vendor)**	▪ Be accountable for verifying proper delivery methods are used in the project. ▪ Review and approve methods tailor and waiver decisions. ▪ Participate in the Quality Assurance (QA) review meeting. ▪ Discuss key project elements (e.g., scope, budget, resources, and timeline). ▪ Identify any issues or action items. ▪ Identify project risks. ▪ Provide counsel/guidance, as needed. ▪ Document the QA review meeting, and forward to the project manager as soon as possible.	▪ Delivery quality review process ▪ Knowledge of client and industry ▪ Contracting and legal issues
Service Introduction Lead **(State / Vendor)**	▪ Develop and manage all aspects of the service introduction effort, including plans, interdependencies, schedule, budget, tools, and required personnel ▪ Coordinate the review of all application development deliverables to help confirm application operability. ▪ Determine how the new application impacts the application management organization. ▪ Manage all service introduction tasks and resources, providing timely feedback. ▪ Review and be responsible for the overall development and integration of support requirements for the application. ▪ Help confirm that all requirements, service introduction plans, and commitment changes are communicated to all affected team members. ▪ Document and communicate the progress against plans, taking corrective action as necessary ▪ Resolve issues, escalating to senior management as appropriate. ▪ Obtain buy-in from unit and service management for all key service plans and commitments. ▪ Help confirm that the application management organization can fulfill the contract and meet the sponsor's expectations.	▪ Project and resource management skills ▪ Experience in work plan management and reporting ▪ Knowledge of risk and issue management processes

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Role / Resource	Description of Responsibilities	Skills Required
Solution Architect **(Vendor)**	▪ Develop the Solution Plan, including solution, scope, estimates, contingency, costs, schedule, delivery model, resource/sourcing plan, assumptions, and risks. ▪ Where the lead overall solution architect and delivery lead are different, transition the Solution Plan to the delivery lead, as appropriate, by ensuring their understanding and agreement of the documented solution.	▪ Experience in estimation and planning ▪ Knowledge of value creation

Role / Resource	Description of Responsibilities	Skills Required
Technical Architect **(Vendor)**	▪ Work with the customer and end users to define application and technical requirements. Help confirm that these requirements tie back to the established customer requirements and performance goals and that the technical direction is consistent with the client's long-term strategy. ▪ Fully understand the capabilities and limitations of the technical environments that come with any packaged software used by the project. ▪ Provide technical leadership on client engagement, including serving as a resource to the project team and the client by evaluating and proposing technical alternatives for resolving business and technology issues. ▪ Review and integrate all application requirements, including functional, security, integration, performance, quality, and operations requirements. Review and integrate the technical architecture requirements for the development, execution, and operations environments. Make all final decisions regarding hardware, network products, system software, and security. ▪ Lead the application and technical architecture analysis, design, and implementation, and help confirm that the product fulfills the requirements. When applicable, work with the integration solution architect on these tasks. ▪ Identify, clarify, and resolve system development and maintenance activity issues and risks, escalating them as needed. ▪ Work with the support unit to determine how the application is supported in production, including back-ups, disaster recovery, system performance, and project management. ▪ Obtain stakeholder buy-in for application and technical designs. ▪ Review application and technical architecture deliverables throughout development to help confirm quality and requirement traceability. ▪ Identify and communicate any cross-area or cross-release issues that affect other project areas. ▪ Validate the design with the stakeholders to help confirm that the design satisfies the requirements. ▪ Own the design, build, and test of all technical architecture components/solutions (e.g., development, execution, and operations environment solutions).	▪ Strong technical leadership skills ▪ Ability to develop ERP applications architecture as new requirements arise ▪ Ability to define the complete technical infrastructure environment ▪ Ability to maintain current knowledge of all relevant technology developments and seek opportunities to deploy new technologies that benefit the client ▪ Ability to create architecture scope, definition, construction, and execution ▪ Ability to map customer requirements to technology capability ▪ Ability to identify gaps and omissions in the end-to-end solution ▪ Knowledge of risk and issue management processes

Role / Resource	Description of Responsibilities	Skills Required
Technical Designer **(State / Vendor)**	▪ Assist in defining and reviewing the technical requirements for the application, including security, integration, performance, quality, and operations requirements. ▪ Design individual technology components of the application development, execution, or operations architecture. ▪ Work with other designers and the technical architect to make sure that the architecture components interact to fulfill the requirements and meet performance goals. ▪ Develop application prototype and conduct conference room pilot to evaluate solution options. ▪ Complete technical designs that are in line with the technical requirements, following the applicable design standards and ensuring that those designs are functionally and technically sound and integrate with other related system components. ▪ Participate in quality management reviews as outlined in Verification and Validation Overview to help confirm adherence to all quality management plans and standards. ▪ Participate in transitioning the designs to the developers to help confirm a clear and complete understanding of the designs.	▪ Experience in technical design and standards ▪ Strong requirements management skills ▪ Knowledge of risk and issue management processes
Technology Operations Support Specialist **(State / Vendor)**	▪ Assist in assembling and configuring new personal computer hardware (i.e., system units, monitors, expansion boards, network interface cards, modems, printers, etc.) when it is received from vendors. ▪ Install and configure commercially licensed PC application software along with various required system files and utilities according to approved specifications standards and procedures. ▪ Perform asset management functions for all computer-related assets according to current policies and procedures. ▪ Provide support for hardware, software, and/or network connectivity problems. ▪ Maintain problem status for each problem ticket assigned according to current standards and specifications. ▪ Obtain patches, fixes, and product updates with appropriate hardware and software vendors through telephone contact, bulletin boards, and/or Internet services. ▪ Provide on-call support outside normal business hours as needed.	▪ Knowledge of technology architecture, configuration and deployment ▪ Project management ▪ Quality management processes ▪ Experience in performance testing ▪ Office services specialization ▪ Service assessment and design

Role / Resource	Description of Responsibilities	Skills Required
Test Lead **(State / Vendor)**	▪ Work with the application and technical architecture teams to plan one or more of the following: component, assembly, product, performance, user acceptance, and technical architecture tests. ▪ Develop and manage all aspects of the testing effort, including plans, interdependencies, schedule, budget, tools, and required personnel. ▪ Determine all testing environment requirements and tools. ▪ Document and communicate the status of testing progress against plans, taking corrective action as necessary. ▪ Review the development process to help confirm that defect tracking (identification, fixing, re-testing and migration of defects) is properly addressed. If not, define the defect tracking process and incorporate it into the overall development process. ▪ Measure and monitor progress during each test to help confirm that the application is tested, validated, and piloted on time and within budget, and that it meets or exceeds expectations. ▪ Help confirm that the team follows the testing standards, guidelines, and testing methodology as specified in the testing approach. ▪ Review test, validation, and pilot results to help confirm that they meet the entry and exit criteria. ▪ Participate in quality management reviews as outlined in Verification and Validation Overview to help confirm adherence to all quality management plans and standards.	▪ Experience in testing effort phases ▪ Ability to define, implement, and maintain project process guidance related to testing ▪ Strong technical leadership skills ▪ Ability to consult with and develop technical resources for methods, procedures, and standards to use during testing ▪ Knowledge of performance testing tools
Tester **(State / Vendor)**	▪ Develop test scripts, test conditions, input test data, and expected results for one or more test plans, including component, assembly, product, performance, user acceptance and technical architecture tests. ▪ Develop, update, and maintain testing standards and procedures. ▪ Execute test scripts. ▪ Record problems and issues in accordance with the project's problem and issue management plans. ▪ Participate in the release control process (when the application is transferred from the build team to the test team) to help confirm that solutions meet business requirements. ▪ Validate product fixes.	▪ Detail oriented; able to document and follow detailed instructions within test scripts as well as defects tracking documents (i.e., steps to recreate the problem) ▪ Understanding of testing concepts and how testing fits in with the overall project life cycle ▪ Knowledge of performance testing tools

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Role / Resource	Description of Responsibilities	Skills Required
Training and Performance Support Developer **(State / Vendor)**	▪ Define the to-be skills/knowledge requirements for the affected workforce and the characteristics of the current workforce. ▪ Design, develop, deploy, and evaluate the training and performance support materials. ▪ Evaluate the effectiveness of the training and performance support materials.	▪ Training and performance support development ▪ Procedures development ▪ Knowledge of risk and issue management
Training and Performance Support Lead **(State / Vendor)**	▪ Define the appropriate change initiatives to manage the impacts of the change and change risk mitigation options. ▪ Provide input to the Change Plan based on additional information identified during later stages in the project. ▪ Design and conduct a Skills Assessment to measure the baseline skills of the affected workforce, and create a plan to close the gap between current and required skills if required. ▪ Determine the Training and Performance Support. Strategy and Training and Performance Support Plan. ▪ Design, develop, deploy, and evaluate the training and performance support materials. ▪ Building Executive Leadership and Commitment. ▪ Define a Behavior Change Plan enabling the new behaviors.	▪ Understanding of change management principles and strategy ▪ Strong coaching and meeting facilitation skills ▪ Training and performance support design and development ▪ Capability and skills assessment
Training Delivery Specialist **(State / Vendor)**	▪ Work with training development team to review, validate and provide input to training materials. ▪ Participate in pilot training sessions and train-the-trainer activities. ▪ Deliver training to end users. ▪ Compile parking lot items and questions from training conducts. ▪ Distribute and consolidate course evaluations ▪ Update Learning Management System as required with training completion, track projected trainees versus actuals. ▪ Generate training delivery reports as required.	▪ Content knowledge of training materials, processes and tools ▪ Good understanding of business roles and responsibilities ▪ Excellent facilitation skills ▪ State/Agency functional experience and roles

C. Appendix C: Post-Implementation Support Roles and Responsibilities

#	Service Description	State	Vendor
1	**Application Development Services**		
1.0	**Small Enhancements**		
1.0.1	Define & document functional specification for the Enhancement Request	X	
1.0.2	Review Enhancement Request, including the functional specification, for clarity		X
1.0.3	Provide initial work effort estimate		X
1.0.4	Review and approve Enhancement Request	X	
1.0.5	Create Test Plan & Objectives	X	
1.0.6	Create Technical Specification for the Enhancement Request		X
1.0.7	Conduct design Reviews		X
1.0.8	Provide application design sign-off, approve Functional Specification and Technical Specification	X	
1.0.9	Configure and build the application in accordance to approved Technical Specification		X
1.0.10	Approve Test Specifications	X	
1.0.11	Approve Test Results	X	
1.0.12	Create Test Summary Report		X
1.0.13	Fix Test Defects		X
1.0.14	Define Test Approach & Objectives		X
1.0.15	Define Test Conditions and Expected Results		X
1.0.16	Define Test Cycles		X
1.0.17	Create Test Specifications / Scripts		X
1.0.18	Update Common Product Test Data		X
1.0.19	Execute Tests		X
1.0.20	Manage the testing process		X
1.0.21	Define UAT Approach and Test Specifications	X	
1.0.22	Execute UAT Scripts	X	
1.0.23	Gather User Feedback	X	
1.0.24	Analyze User Feedback	X	
1.0.25	Identify and document UAT Defects	X	
1.0.26	Create Training Materials	X	
1.0.27	Execute Training	X	
1.0.28	Launch Communication Effort	X	
1.0.29	Update Business Processes	X	
1.0.30	Assess Technical Deployment Readiness		X
1.0.31	Assess Organizational Deployment Readiness	X	
1.0.32	Prepare Plan for Migration		X
1.0.33	Authorize Deployment	X	
1.0.34	Solution migration to Validation/QA environment		X
1.0.35	Solution migration to Production environment		X
1.0.36	Installation Verification Results and Validation Documentation (Technical checks)		X
1.0.37	Disposition Issues List		X
1.0.38	Update Configuration Verification Analysis Results		X
1.0.39	Create / Update Production Support Plan		X
1.0.40	Complete SCR		X

#	Service Description	State	Vendor
2	**SERVICE MANAGEMENT**		
2.0	**Application Service Management**		
2.0.1	Receive Support Requests, monitor and report progress to business		X
2.0.2	Prioritize and approve Support Requests, following definitions in the contract	X	
2.0.3	Maintain prioritization of Support Requests		X
2.0.4	Provide application Service Level reporting		X
2.0.5	Monitor and report application Service Levels		X
2.0.6	Develop and document application Service Levels		X
2.0.7	Develop Annual Application Run Service plan		X
2.1	**Infrastructure Service Management**		
2.1.1	Receive Support Requests, monitor and report progress to business		X
2.1.2	Prioritize and approve Support Requests	X	
2.1.3	Maintain prioritization of Support Requests		X
2.1.4	Develop and document infrastructure service levels		X
2.1.5	Monitor and report infrastructure service levels		X
2.1.6	Overall accountability for infrastructure service management		X
2.2	**Service Desk Support Services**		
2.2.1	**User Support (Level 1)**		
2.2.1.1	Answer user "how-to" questions	X	
2.2.1.2	Deliver end-user refresher training	X	
2.2.1.3	Accenture discovered incidents reported to help desk		X
2.2.1.4	Capture and log enhancement requests	X	
2.2.2	**Provide Level 1 Help Desk support functions**		
2.2.2.1	Develop and maintain Level 1 Help Desk problem escalation procedures	X	
2.2.2.2	Trouble shoot, manage, track & report user reported Incidents	X	
2.2.2.3	Escalate incidents to the Level 2/3 Support Team, if the Incident can't be resolved by the Help Desk, Super Users, or Process Owners	X	
2.2.2.4	Communicate Incident status to reporting user	X	
2.2.2.5	Overall accountability for Level 1 Incident management	X	
2.2.3	**Provide Level 2 & 3 technical support functions**		
2.2.3.1	Develop and maintain technical Incident escalation procedures		X
2.2.3.2	Trouble shoot, manage, track & report Level 2 & 3 technical Incidents		X
2.2.3.3	Communicate Incident status to the Level 1 Help Desk		X
2.2.3.4	Provide 24X7 [on call] support for critical priority Incidents		X
2.2.3.5	Analyze and apply correction to resolve incident		X
2.2.3.6	Escalate Incidents as necessary according to defined procedures		X
2.2.3.7	Coordinate migration of changes to Production Environment		X
2.2.3.8	Overall accountability for Level 2 technical Incident Management		X
2.3	**Problem Management**		
2.3.1	Analyze incident trends to determine problems		X
2.3.2	Assess request criticality, effort required and approvals required	X	
2.3.3	Escalate problems as necessary		X
2.3.4	Determine problem resolution or work-around solution		X
2.3.5	Initiate problem resolution - prioritize, assign resources		X
2.3.6	Test problem resolution		X
2.3.7	Communicate resolution status - closure notification		X
2.3.8	Log, track activities and generate/disseminate reports from tracking database		X
2.3.9	Correspond with appropriate vendors for problem resolution		X
2.4	**Change Management**		
2.4.1	Overall governance/accountability for system change management activities		X
2.4.2	Application Environment Coordination and Planning	X	
2.4.3	Control System Changes and Activities		X
2.4.4	Change Advisory Board	X	
2.4.5	Perform Change		X
2.4.6	Coordinate and Document Change Schedule - Release Management		X
2.4.7	Implement Standard Procedures and Methods for Change	X	
2.4.8	Report Status of Scheduled Changes		X

#	Service Description	State	Vendor
3	**Asset Ownership & Maintenance Responsibility**		
3.0	**Asset Ownership & Maintenance Responsibility**		
3.0.1	Desktops/Workstations	X	
3.0.2	Desktop Applications and OS Software	X	
3.0.3	LAN Hardware - LAN & RAS Servers, Hubs, routers, cables, etc,	X	
3.0.4	Network Operating System software	X	
3.0.5	LAN Management Software	X	
3.0.6	Application and Database servers and all peripherals		X
3.0.7	Application software license ownership (including batch processing & service management tools)	X	
3.0.8	Operations support tools & licenses		X
3.0.9	Maintain inventory of application software	X	
3.0.10	Maintain inventory of hardware, systems s/w & equipment - for in scope servers		X
3.0.11	Execute licenses addendum or agency agreements for 3rd party access/operation	X	
4	**Core System Administration Tasks**		
4.0	**System Startup and Shutdown**		
4.0.1	Define application startup/shutdown schedule		X
4.0.2	Perform starting and stopping of Application and components		X
4.0.3	Perform starting and stopping of the Database		X
4.0.4	**Restart Application after failure**		
4.0.4.1	Restart disk subsystem, O/S, network components		X
4.0.4.2	Restart application		X
4.0.4.3	Restart database		X
4.1	**Database Backup/Restore Management**		
4.1.1	Develop and implement backup and restore procedures		X
4.1.15	Define requirements for backup times and schedules		X
4.1.2	Prepare system for backup processes		X
4.1.3	Perform backup functions and processes		X
4.1.11	Restore from backup & archive as appropriate		X
4.1.13	**Validate integrity and consistency of restored information**		
4.1.13.1	Validate integrity and consistency of restored information at Database layer		X
4.1.13.2	Validate integrity and consistency of restored information at application layer		X
4.1.13.3	Validate integrity and consistency of restored information at OS layer		X
4.1.13.4	Perform business level validation of integrity and consistency of restored information	X	
4.1.14	Notification to Run Support team and IM Liaison that restoration has been completed		X

#	Service Description	State	Vendor
4.2	**Database Management**		
4.2.1	Perform Database sizing		X
4.2.2	Gather business requirements for new applications, increase in users, increase in business activity, or other business change that will impact database sizing or growth		X
4.2.3	Determine database sizing requirements based on business requirements and communicate to infrastructure team		X
4.2.4	Increase network, disk sub-system, operating system and filesystems as necessary based on new requirements		X
4.2.5	Extend database as necessary		X
4.2.6	Monitor table and tablespace usage, database performance, specific database jobs, critical space issues, other key database areas		X
4.2.7	Provide all key parameters for database monitoring including areas to monitor, criticality levels, thresholds, notification type and recipient, etc.		X
4.2.8	Define all key parameters in non-application monitoring tool		X
4.2.9	Define all key parameters in application monitoring internal tool		X
4.2.10	Alert Accenture support team as defined based on defined thresholds		X
4.2.11	Respond to alerts, investigate and resolve issues		X
4.2.12	Manage next extent size		X
4.2.13	Perform database profile modifications		X
4.2.14	Determine and perform database reorganizations		X
4.2.15	Resolve database Incidents related to the logical database layer (SQL queries, etc.)		X
4.2.16	Resolve database Incidents related to the physical database layer (database patching, backups, table space, etc.)		X
4.2.17	Perform database imports/exports		X
4.2.18	Perform database upgrades and patches		X
4.2.19	Creation of indexes		X
4.2.20	Schedule Database specific related jobs (RUNSTATS)		X
4.2.21	Perform DB copies and application database refreshes		X
4.2.22	Database administration using application tools		X
4.3	**OS Administration**		
4.3.1	Resolve Operating System related Incidents		X
4.3.2	Work with HW/SW vendor to resolve OS Incidents		X
4.3.3	Apply patches to OS		X
4.3.4	Perform OS upgrades		X
4.3.5	Create file systems and/or logical volumes		X
4.3.6	Monitor file systems		X
4.3.7	OS programming (Lenox scripting & Cron jobs to support non-application and non-database functions)		X
4.3.8	Plan, manage, and coordinate OS upgrades and patches		X
4.4	**Application Technical Patches and Packaged Code Updates**		
4.4.1	Determine overall technical patch and packaged code update approach and workplan		X
4.4.2	Implementation of application-specific technical patches and packaged code updates		X
4.4.3	Execute technical and functional operations to resolve application conflicts		X
4.4.4	Test support package and kernel updates - application testing		X
4.4.5	Test application technical patches and packaged code updates - business testing	X	
4.4.6	Manage, plan, coordinate support pack implementations		X

#	Service Description	State	Vendor
5	**Batch - Job Control and Scheduling**		
5.0	**Batch - Job Control and Scheduling**		
5.1	Define batch schedule		X
5.2	Maintain batch schedule definition		X
5.3	Implement batch schedule		X
5.4	Execute batch schedule		X
5.5	Monitor batch schedule		X
5.6	Triage batch schedule halts		X
5.7	Resolve batch schedule halts caused by environment/scheduler faults		X
5.8	Escalate batch schedule halts caused by application faults		X
5.9	Resolve batch schedule halts caused by application faults		X
5.10	Restart batch schedule		X
5.11	Terminate / cancel jobs per requests or pre-defined procedures		X
6	**Technical Task Level Operations**		
6.0	**System Performance Tuning**		
6.0.1	**Application performance and tuning**		
6.0.1.1	Application performance and tuning as related to application layer code, database configuration and layout, objects and configuration		X
6.0.1.2	Determination and definition of performance and tuning requirements that are related to operating system configuration and layout, disk sub-system configuration and layout, or network configuration and throughput. Communicate to infrastructure.		X
6.0.1.3	Implementation of performance and tuning requirements as related to operating system configuration and layout, disk sub-system configuration and layout, and network configuration and throughput		X
6.0.2	**Database layer performance and tuning**		
6.0.2.1	Database performance and tuning as related to database configuration and layout, table reorganizations, index reorganizations, trigger and code tuning		X
6.0.2.2	Determination and definition of performance and tuning requirements that are related to operating system configuration and layout, disk sub-system configuration and layout, or network configuration and throughput. Communicate to infrastructure.		X
6.0.2.3	Database performance and tuning as related to operating system configuration and layout, disk sub-system configuration and layout, and network configuration and throughput		X
6.0.3	Operating System performance and tuning		X
6.0.4	Disk subsystem performance and tuning		X
6.0.5	Network WAN and LAN performance and tuning		X
6.1	**System Monitoring**		
6.1.1	**Application monitoring**		
6.1.1.1	Define application monitoring requirements - availability, performance, critical issues or faults such as database locks, massive abends, update suspension, massive application locks, extremely poor performance, database errors, etc.		X
6.1.1.2	Configure and execute application monitoring requirements in application and/or native application monitoring tool		X
6.1.2	**Database monitoring**		
6.1.2.1	Define database monitoring requirements - availability, performance, critical issues or faults such as database locks, massive abends, extremely poor performance, database errors, etc.		X
6.1.2.2	Configure and execute database monitoring requirements in database and/or native database monitoring tool		X
6.1.3	**Operating system monitoring**		
6.1.3.1	Define operating system monitoring requirements - availability, performance, critical issues or faults, extremely poor performance, etc.		X
6.1.3.2	Configure and execute operating system monitoring requirements		X
6.1.4	**Disk sub-system monitoring**		
6.1.4.1	Define disk sub-system monitoring requirements - availability, performance, critical issues or faults, extremely poor performance, etc.		X
6.1.4.2	Configure and execute disk sub-system monitoring requirements		X
6.1.5	**Network monitoring**		
6.1.5.1	Define network monitoring requirements - availability, performance, critical issues or faults, extremely poor performance, etc.		X
6.1.5.2	Configure and execute network monitoring requirements		X
6.2	**Application Connectivity to Remote Support Environments**		
6.2.1	Define and communicate connectivity requirements to remote support environments		X
6.2.2a	Initial network connectivity and setup - State's LAN	X	
6.2.2b	Initial network connectivity and setup - Data center connectivity to State's LMAN		X
6.2.3a	Configuration of connection in application - ERP end		X
6.2.3b	Configuration of connection in application - Workstations and LAN, etc.	X	
6.2.4	Application remote connection enabling/disabling in the application		X
6.2.5	Application problem submission, querying and download		X
6.3	**Capacity Planning**		
6.3.1	Servers, peripherals and disk-subsystems		X
6.3.2a	LAN and WAN Infrastructure - excluding Data Center connectivity and Data Center network	X	
6.3.2b	LAN and WAN Infrastructure - Data Center and connectivity from Data Center to State's LMAN		X
6.3.3	Desktops	X	

#	Service Description	State	Vendor
7	**Security and Controls**		
7.0	**System Data Security**		
7.0.1	Administer Database security practices and procedures		X
7.0.2	Administer operating system security		X
7.0.3	Provide application-specific security access to Accenture for standard application management activities		X
7.0.4	Create new OS users as necessary		X
7.0.5	Administer **Data Center** firewalls		X
7.0.6	Provide OS support for annual audit		X
7.0.7	Provide database and Application support for annual audit		X
7.1.1	Defines security policy	X	
7.1.2	Implement security policy in application		X
7.1.3	Setup initial passwords for user administrator and application specific delivered users		X
7.1.4	**Maintain/Reset passwords**		
7.1.4.1	Maintain/Reset passwords for Production	X	
7.1.4.2	Maintain/Reset passwords for development and test		X
7.1.5	New / Modified User Identification and approval	X	
7.1.6	Identify and define specific security roles for new / modified users	X	
7.1.7	Coordinate business approval for new / modified users	X	
7.1.8	**Create / Modify / Delete users based on fully approved request**		
7.1.8.1	Create / Modify / Delete Production users based on fully approved request	X	
7.1.8.2	Create / Modify / Delete development users based on fully approved request		X
7.1.9	**Reset Users**		
7.1.9.1	Reset users for production only if users are locked due to incorrect logins	X	
7.1.9.2	Reset users for production if users are locked by system manager	X	
7.1.9.3	Reset users for development and test		X
7.1.9.10	**Maintain user roles or profiles**		
7.1.9.10.1	Provide requirements for new / updated / deleted user roles or profiles	X	
7.1.9.10.2	Create / Modify / Delete user roles or profiles based on fully approved request		X
7.1.9.11	Migrate security modifications through to Production based on change management procedures		X
7.1.9.12	**Test and communicate status to user**		
7.1.9.12.1	Test user security to ensure accurate implementation and communicate to user		X
7.1.9.12.2	Test security changes to ensure business usage functionality		X
7.2.1	Define access privileges	X	
7.2.2	Assign user accounts	X	
7.2.3	Define procedure to provide access keys	X	

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#	Service Description	State	Vendor
8	**Site Management and Architecture**		
8.0	**Server Storage Management**		
8.0.1	Overall accountability for installation, configuration, maintenance and execution of server storage management functions		X
8.0.2	**Develop Storage Management architecture (Raid, EMC, Striping, IXOS, etc)**		
8.0.2.1	Gather business requirements for system changes, new users, new apps, etc.	X	
8.0.2.2	Define requirements for application and database layout		X
8.0.2.3	Utilize requirements to define and create system architecture, file system and database layout, etc.		X
8.0.2.4	Utilize requirements to define and create architecture, filesystem management and disk management standards		X
8.0.3	Manage architecture, disks, volume groups, file systems, etc. per standards		X
8.1	**Data Center Physical Site Management**		
8.1.1	Test environmental/regulatory control plans periodically		X
8.1.2	Manage Physical Site		X
8.3	**Disaster Recovery for Hardware and Application**		
8.3.1	Overall accountability for installation, configuration, maintenance and execution of disaster recovery functions		X
8.3.2	Develop scope of D/R		X
8.3.3	Develop disaster recovery plan		X
8.3.6	Determine disaster recovery requirements based on SLAs		X
8.3.7	Determine the application data to be recovered in a disaster		X
8.3.8	Perform business risk vs. cost and benefit analysis	X	
8.3.9	Determine key business users who will access recovered application	X	
8.3.11	Review disaster recovery plans with management		X
8.3.12	Develop and maintain IT disaster recovery plan and procedures		X
8.3.13	Recover system data and reinstall in a disaster		X
8.3.14	Recover/configure/test application in a disaster		X
8.3.15	Coordinate disaster recovery testing		X
8.3.16	Perform disaster recovery testing		X
8.3.17	Report test results		X
8.4	**LAN/WAN Systems Management**		
8.4.1	Provide/maintain Data Center LAN network connectivity to Application servers		X
8.4.2	Monitoring for Data Center LAN network connectivity to Application servers		X
8.4.3	Provide/maintain WAN network connectivity between Application State's and Application servers		X
8.4.4	Monitoring for WAN network connectivity between Application State's and Application servers		X
8.4.5	Provide, Maintain & Monitor State's LAN connectivity	X	
8.4.6a	Manage network security - State's LAN	X	
8.4.6b	Manage network security - Data Center network and connectivity from Data Center to State's LMAN		X
8.5	**Desktop Management**		
8.5.1	Overall accountability for desktop management	X	

#	Service Description	State	Vendor
9	**Documentation Management**		
9.0	**Creation and Modification of Application Documentation**		
9.0.1	Overall accountability for management of documentation		X
9.0.2	Maintaing and Update existing documentation as required		X
9.0.3	Create new application documentation for Enhancements		X
9.0.4	Create user documentation for Enhancements		X
9.0.5	Create technical documentation for Enhancements		X
9.0.6	Creation of documentation to address existing gaps in documentation		X
10	**End-User Training**		
10.0	**End User Training**		
10.1	Overall accountability for creation, modification and delivery of training to end-users	X	
10.2	Creation and maintenance of training materials	X	
10.3	Employee training for new employees, delta training for new functionality	X	

D. Appendix D: Staffing Org Charts

The attached PowerPoint presentation contains the staffing organizational charts for Scenarios 1 and 2.