One Washington

Program Blueprint version 2

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Deliverable Overview

The One Washington Program Blueprint deliverable provides a plan for a comprehensive business transformation program. The Program will modernize and improve aging administrative systems and related business processes common across the state government. The Program Blueprint is designed to be a comprehensive, phased implementation plan for an enterprise resource planning (ERP) system. This plan will provide details on the supporting technology and non-technology based initiatives necessary for implementation for each phase.

The Program Blueprint contains guiding principles and foundational assumptions for future program direction and will be developed in an iterative process throughout 2017 and 2018. The Program Blueprint version 1, completed in September of 2017, was used for developing the supplemental budget request for the 2018 legislative session. It included foundational assumptions for Washington's enterprise ERP direction with specific detail devoted to the implementation of Finance and Procurement functional scope. It also included schedules to execute non-technical and technical initiatives for Finance and Procurement for FY19, as well as supporting documentation for the implementation of Finance and Procurement initiatives for FY20-23.

This is the Program Blueprint version 2 which will be used for communication purposes during the 2018 legislative session. Version 2 is a refinement and elaboration of version 1. It includes assumptions for Washington's enterprise ERP direction for Finance, Procurement, Budget and HR/Payroll, as well as plans, schedules, and estimates to execute non-technical and technical initiatives for Finance, Procurement, Budget and HR/Payroll for FY19-26. Version 2 also provides the organizational change management strategy and a high-level timeline for procurement and implementation of a Business Intelligence solution.

The Program Blueprint version 3, to be completed in June 2018, will include all details of the components of the program with all budget estimates by component, including additional details and refinements to the schedule and budget estimates for Finance, Procurement, Budget and HR/Payroll. Version 3 will also include details of the Business Intelligence solution. The Program Blueprint version 3 will represent the final Blueprint for the One Washington program to guide implementation in the years to come.

The 2014 Business Case was a fundamental input to the development of this document. The assessment work provided great insight into the work ahead and after further analysis, new information clarified some of those initial assumptions.

From the Business Case we learned:

- to approach business transformation incrementally
- to show value as we go
- refinement of Chart of Accounts is key
- this will be a multi-year effort with significant financial investment
- the importance of organizational change management

Since the Business Case we have learned:

- the technology market is changing rapidly
- the flexibility to alter course will be crucial as we move forward
- we will learn as we go
- best practice is to lead with a financial system implementation
- great business value can be achieved by deploying Finance and Procurement at the same time

Since the 2014 Business Case was developed some planning details have changed and key program directions have progressed. This progress will be discussed in the corresponding sections throughout the Program Blueprint. The detailed implementation plan contained in the subsequent sections of this Blueprint signifies the movement of the One Washington program from the strategy phase to the design phase.

1.1 Executive Summary

What is the One Washington program?

One Washington is a comprehensive business transformation program to modernize and improve aging administrative systems and related business processes that are common across state government. Over the next eight years, One Washington will examine the state's business functions and implement initiatives so these functions are connected, consistent, and managed in a unified manner to provide reliable data and enable high performance.

One Washington consists of two elements: transformation of business processes and selection and implementation of an enterprise resource planning system (ERP) to support those business processes. ERPs are defined as common business practices across the enterprise and the technology that support them. ERPs pull together data on an organization's main resources – its people, money, information, and assets – and combine it into information that decision makers use to guide and manage. By implementing an ERP and transforming the processes that support the state's business, One Washington will help ensure decision makers have access to data that is accurate and timely, standardize common business processes across agencies, and enable improvements to citizen service delivery.

The scope of One Washington includes the Finance, Procurement, HR/Payroll and Budget functions of the state. Washington currently relies on many manual and time consuming financial processes with an antiquated financial infrastructure. Failure of that old infrastructure means the state risks potential loss or degradation of financial information, with a commensurate loss of transparency and credibility – in other words, it could result in, at minimum, a significant loss of public trust. Additionally, there are disparate procurement functions and systems across the state, a complicated budgeting infrastructure which limits transparency, and an HR/Payroll system over 10 years old.

The Program Blueprint is the design for the next eight years. It defines the initiatives to accomplish the implementation plan and schedule and also identifies the benefits for these initiatives. This work builds on the preceding activities from the 2014 Business Case and sets the stage for implementation.

How will the state benefit from One Washington?

Washington faces a situation common to most state governments, a constrained fiscal situation. Expectations for service are constantly changing with people expecting higher quality, faster interactions, greater and easier access to services, and better outcomes. The costs to deliver services are rising faster than revenues. Navigating a course between these pressures is the central challenge of those charged with governing our public institutions. Successful navigation requires effective tools that provide up-to-date information so that the state can make informed decisions and get the most out of every dollar that it spends.

In Washington, the administrative system tools in place are aging, are not well integrated with one another, do not readily produce needed information, and require heroic efforts by staff to maintain and function. In short, the state is trying to meet 21st century challenges with a 20th century operating strategy, business processes, and information systems. These aging systems and limited capabilities inhibit the state's ability to meet the changing expectations of the people of Washington and maximize state resources.

An ERP is the strategic tool that organizations need in order to successfully navigate the challenges they face. With a new ERP system and redesigned business processes enabled by integrated technology systems, Washington will receive the following benefits:

- Business value delivered incrementally and continually over the course of the program
- Accurate and timely data for decision makers
- Reduced risk of major system failure
- More staff time devoted to delivering the mission rather than maintaining systems
- Critical capabilities maintained without having to own all the technology
- Process efficiencies as routine tasks are automated

History of the One Washington Program to Date

In the 2013-15 Biennium, the legislature funded the One Washington program to produce a Business Case to develop the strategy for business transformation, replacing the state's aging financial system, and implementing an enterprise Procurement system. Working with 16 agencies and Accenture, One Washington developed the business case and defined the costs and mission impacts for three hypothetical ERP deployment scenarios. The scope of this Business Case was limited to Finance and Procurement and it provided the basis for making the business decision to proceed with implementing One Washington.

Based on the findings of the One Washington Business Case, the 2015-17 Biennium consisted of readiness activities designed to prepare for the implementation of an ERP. There were six workstreams of readiness activities:

- One Washington created a Strategic Partner Competitive Procurement process and selected Accenture as the Strategic Partner.
- Chart of Accounts (COA) work was completed to streamline expenditure coding, begin refinement of the COA, and establish data governance for the COA.
- The Procurement community defined common procurement business processes, data elements and procurement terms.
- One Washington collaborated with WSDOT on integration with the state ERP.
- One Washington implemented a Facilities Portfolio Management tool as a successful first effort in implementing a statewide SaaS solution.
- Budget system improvements and stabilization were implemented to facilitate the One Washington timeline.

This work, from 2013 to present, will continue to be the foundation of the current and future success of One Washington. The Business Case lays out the benefits of the program for the entire state, and the readiness activities have prepared Washington to get the most value from the coming transformation across the Finance, Procurement, HR/Payroll and Budget areas. As the One Washington program further develops the Program Blueprint and makes detailed plans for implementation, success will continue to rely on the outstanding help, support, and leadership of dedicated participants and stakeholders from across state government.

Executive Summary of One Washington Blueprint

Scope and Methodology

The One Washington Program Blueprint is the detailed and comprehensive plan to guide the coming phases of work. Additionally, the Program Blueprint will serve as a record of direction agreed upon throughout this planning phase and will serve as a guide for the implementation of these efforts in coming fiscal years, enabling the state to reference back to original goals to ensure that future work aligns to the guiding principles. The Program Blueprint is being developed iteratively in three versions. Version 1 of the Program Blueprint, served to both outline the document and support the supplemental budget request for FY19. This version contains information on all four functions to be implemented, namely, Finance, Procurement. Budget and HR/Payroll. This version also describes the organizational change management strategy and a high-level description of the Business Intelligence solution.

To develop this Program Blueprint, the Program has conducted a series of activities to identify both technology and non-technology dependent initiatives, and define the detailed work needed to implement them. The Program has

conducted interviews, working sessions, and large workshops with One Washington stakeholders, including business owners and data experts from a representative group of state agencies. These outcomes were analyzed to create a cost estimate for each initiative, a budget, and a staffing plan for the Program Blueprint.

The plan for development of all three Program Blueprint versions, as well as the accompanying Integration Strategy and Plan, is depicted in Figure 1.1 below.

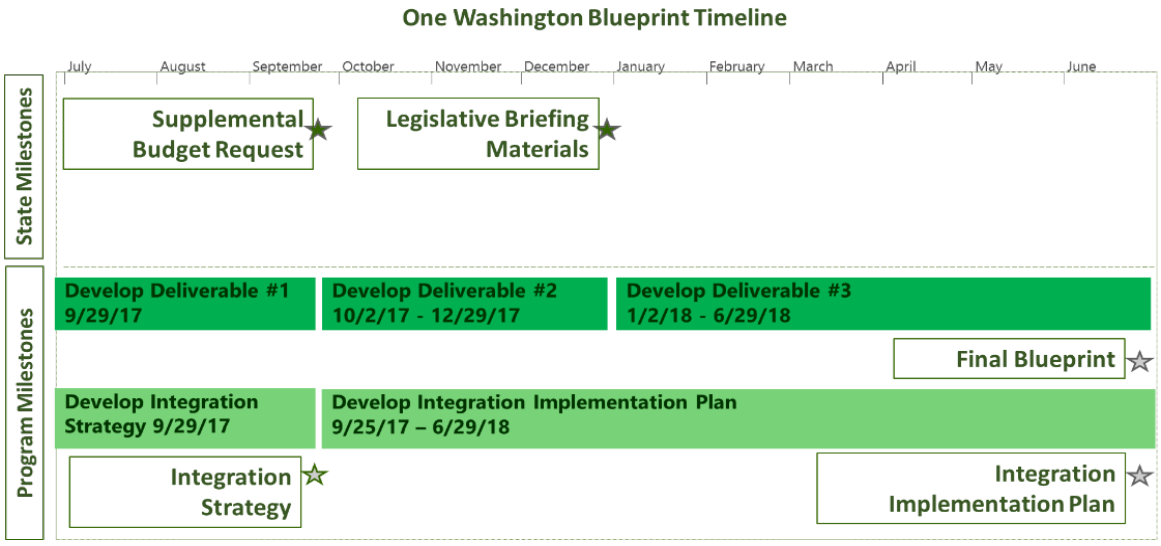


Figure 1.1: One Washington Blueprint Timeline July 2017 – June 2018

One Washington Implementation Schedule

One Washington has determined key dates for executing the technology and non-technology initiatives to support the business transformation and ERP over the next eight years. Key dates are listed below, with a more detailed schedule in Section 3.4.

- Initial functionality for Finance and Procurement will roll out in three waves of agencies, at the beginning of FY22, middle of FY22, and beginning of FY23.
- Expanded functionality for Finance and Procurement will roll out to all agencies at the beginning of FY24.
- Budget functionality will roll out statewide on January 1, 2026.
- HR/Payroll functionality will roll out statewide on January 1, 2026.
- Business Intelligence roll out will be aligned with every go-live of the four business functions.
- The schedule also includes time to select and procure software for each function.
- Supporting non-technology dependent business improvement initiatives will be executed before and throughout most of the technology rollout, beginning in FY19 and continuing through FY24.

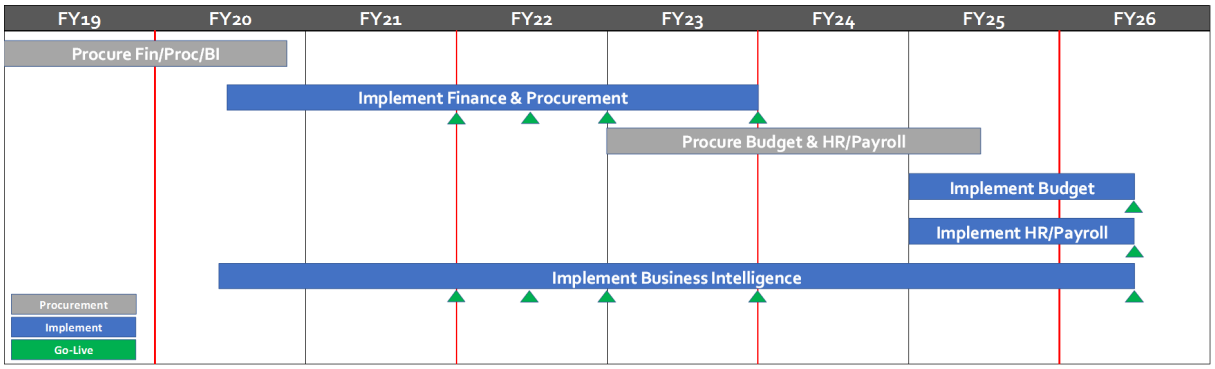


Figure 1.2: One Washington Program Implementation Timeline FY19-26

Guiding Principles for the One Washington Program

The following sections summarize the One Washington guiding principles, the many component approaches and assumptions determined by the work of the Program and the input of key stakeholders from across the state. These principles define the high-level plan for the work ahead and summarize the rationale and resulting downstream affects these principles will have.

Unified vs. Best-of-Breed Strategy

One Washington will consider a unified approach (i.e. a single software product suite) for selecting and implementing the initial functionality of the Finance and Procurement systems. One Washington will maintain the option of selecting different software (best-of-breed) for specialized functionality in the future for Finance and Procurement (designated as expanded functionality). One Washington will also consider a unified approach for selecting and implementing the functionality of the Budget and HR/Payroll systems. In coming to this conclusion, the state considered the factors for each deployment model as shown in Table 1.1 below.

Table 1.1: Distinguishing factors for unified and best-of-breed approach

Unified Considerations	Best-of-Breed Considerations
An organization implements and supports a single instance of a suite of software modules for each functional area from a single vendor	An organization implements and supports a compilation of different vendors and products, each based on specific needs in specific functional areas
Provides functionality for common capabilities across the various functional areas, with a common data model, data base, and user interface	Allows for very precise capabilities in various functional areas
Integration is relatively less complex (all components in single-vendor environment), with integration provided “out-of-the box” by the vendor	Integration is relatively more complex (typically multiple vendor environments involved), requiring dedicated efforts on integrations, some of which may be delivered by the vendors
Relatively less change management to train end users on a common application	Relatively more change management to train end users on different applications

Relatively slower to implement because single-vendor integration means more comprehensive design required, but less complexity to future changes and upgrades as part of the same application	Relatively faster to implement because fit-for-purpose modules can be 'plugged in' to core system, but adds complexity to future changes and upgrades e.g. testing
Sample vendors include Oracle, Workday, SAP, CGI, Infor, etc.	Sample vendors include Salesforce, Round Corner (Grants Management), Periscope, Coupa, Amazon (eCatalog and Reverse Auctions), etc.

Other key benefits of unified approach include a more streamlined vendor management, ease of implementing future upgrades as well as a greater likelihood of custom prioritization of functions.

Detailed discussion on the rationale behind this principle is in Section 2.1.

Technology Deployment Model

The One Washington program has selected a Software as a Service (SaaS) approach, also described as a "cloud" approach, to technology deployment. This approach was selected over a more traditional on-premises deployment model, wherein the state would buy perpetual license for its ERP software which would reside within the state's data center. Instead, the state will subscribe to shared ERP software, with its relatively lower cost to implement and a quicker implementation cycle, as well as long term benefit of reduced need for support staff. Some of the differences, relative advantages and drawbacks of these concepts are shown in Figure 1.3 below.

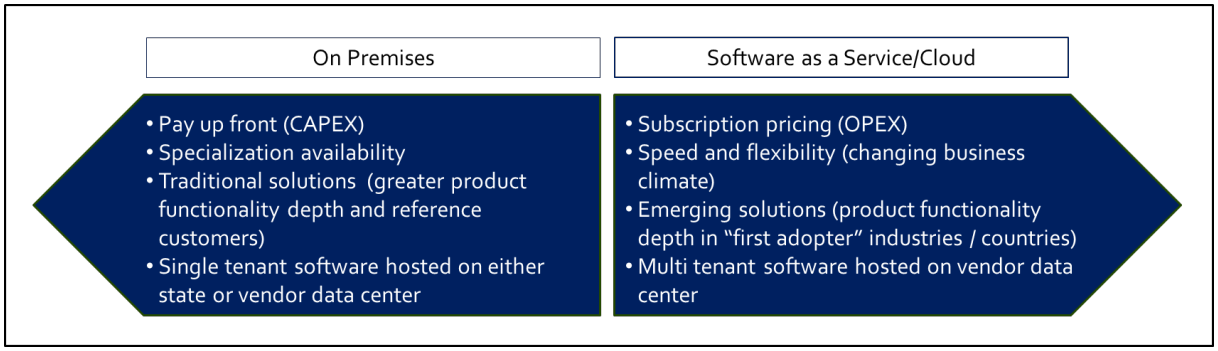


Figure 1.3: On-Premises and SaaS/Cloud models.

Detailed discussion on the approach the Program used and the rationale behind it is in Section 2.2.

Scope of Business Functions

Based on the unified approach and SaaS deployment model, the Program will select one vendor to provide as many business capabilities in a cloud-based solution as possible for Finance and Procurement functionality. As a result of the research completed by the Program so far, several major providers of ERP solutions have been identified in the market. The overall solutions have some technical and functional differences between vendors but these are designed to fulfill the same business capabilities.

Since software selection for Budget and HR/Payroll functionality is scheduled for FY23, it is in the best interest of the state to consider the unified approach while keeping options open for selecting software from the same or different vendors. In the meantime, the software available in the market is likely to become increasingly more robust and mature. One Washington will conduct additional market research. In FY23, One Washington will conduct an evaluation and make the decision whether to acquire software from the Finance and Procurement vendor. This decision will be

informed by the performance of the vendor, the fit to Budget and HR/Payroll business capabilities and technical specifications, cost, and experience of other states. At that time, if One Washington determines that it is in the best interest of the state to seek alternative solutions, a competitive procurement process may be conducted.

The Finance, Procurement, Budget and HR/Payroll business functions in scope for One Washington and the software to be acquired and implemented with a unified strategy are defined below in Table 1.2.

Table 1.2: Finance, Procurement, Budget and HR/Payroll software to be acquired and implemented with the unified strategy

Finance	Procurement	Budget	HR/Payroll
Initial Release Functionality	**Initial Release Functionality**	**Initial Release Functionality**	**Initial Release Functionality**
General Ledger Accounting	Requisitions and purchase orders	Operating, Transportation, and Capital budget	Payroll
Specialized accounting, e.g. project accounting, cost accounting, grantee accounting, Federal Highway accounting	Contract management	Revenues and expenses	Primary HR functions e.g. hire, exit management, update employment data
Budgetary control, e.g. encumbrances, commitment control	Receiving	Scenario planning and forecasting	Benefits administration*
Asset management and accounting	Sourcing, e.g. RFP, RFQ, RFX	Publishing the budget book	Position classification
Accounts payable	Supplier Relationship management	Master data	Time and attendance
Accounts receivable	Category management	Allotments and spending plans	Compensation planning
Travel and expense	Catalog purchasing	Budgetary transfers	Recruitment
Cash management, e.g. local banking and cash control	Master data, e.g. suppliers, commodities	Linkage to performance measures	Development
Master data, e.g. chart of accounts, payees, suppliers	Reporting and Business Intelligence	Reporting and Business Intelligence	Labor relations
Reporting and Business Intelligence			Performance evaluation
			Health and safety
			Master data, e.g. positions, job descriptions

Finance	Procurement	Budget	HR/Payroll
			Leave & Absence Management
			Employee/Manager Self Service
			Competency Management
			Reporting and Business Intelligence
Expanded Release Functionality	**Expanded Release Functionality**	**Expanded Release Functionality**	**Expanded Release Functionality**
Grantor management	Inventory management		

*Benefits administration is in scope for integration purposes only

Detailed discussion, including the list of likely software modules, is in Section 2.3.

Implementation/Phasing Approach

Finance and Procurement functionality will roll out in a phased agency/phased functionality approach (see Table 1.3 below). This plan represents the best balance of project risk with achieving business benefits. It includes a realistic schedule to accomplish selection and procurement of the software solution, non-technology dependent business improvement initiatives (i.e. business process redesign), and technology implementation. It also aligns with Washington business cycles (i.e. fiscal year end for Finance and, to the extent possible, the current timelines for Budget and calendar year end for HR/Payroll).

Table 1.3: Principles to match agencies to waves for Finance and Procurement

Implementation Wave	Detail
Initial Release - Wave 1	• Agencies engaged by invitation, allowing One Washington to control size and mix for affordability • Engage agencies that account for >50% of the budget to show adoption • Engage a mix of agencies that will use most of the initial functionality to help design the baseline configuration and common business rules • Engage a mix of small, medium, and large agencies to demonstrate that the solution works for agencies of all sizes • Engage a mix of agencies that use general fund, special revenue funds, capital funds, and internal service funds to demonstrate that the solution works for all fund types
Initial Release - Wave 2	• One Washington will work with agencies to schedule them into this wave, allowing One Washington to control size and mix for affordability
Initial Release - Wave 3	• All other agencies
Expanded Release - Wave 4	• During development of version 2 of the Program Blueprint, we engaged in selective interviews and/or meetings to confirm which agencies require expanded functionality to meet their business needs

Agencies will be matched to implementation waves using the criteria listed in Table 1.4 below.

Table 1.4: Agency Selection Criteria

Criteria	Description
Contributes to Baseline Configuration	Accounts for 80% of the common workflows, enterprise wide business rules, and master data.
Fund Type	Includes General Funds, Special Revenue Funds, Capital Funds, and Internal Service Funds.
Technical Readiness	Considers network infrastructure, cloud connectivity, and end-user devices.
Executive Buy-In and Support	Addresses degree of willingness and support for design and adoption of the One Washington program and resource capacity.
Business Buy-In and Support	Addresses degree of willingness and support from Finance and Procurement business community.
Technical Imperatives	Addresses agency needs, for example, broken Financial systems, non-existent Procurement systems, agency systems at end of life.
Business Imperatives and Connectivity to Other Agencies	Addresses agency needs, for example, new business capabilities and common business capabilities among a group of similar agencies.

The timelines for procurement and implementation of Finance, Procurement and Business Intelligence is summarized in Figure 1.4.

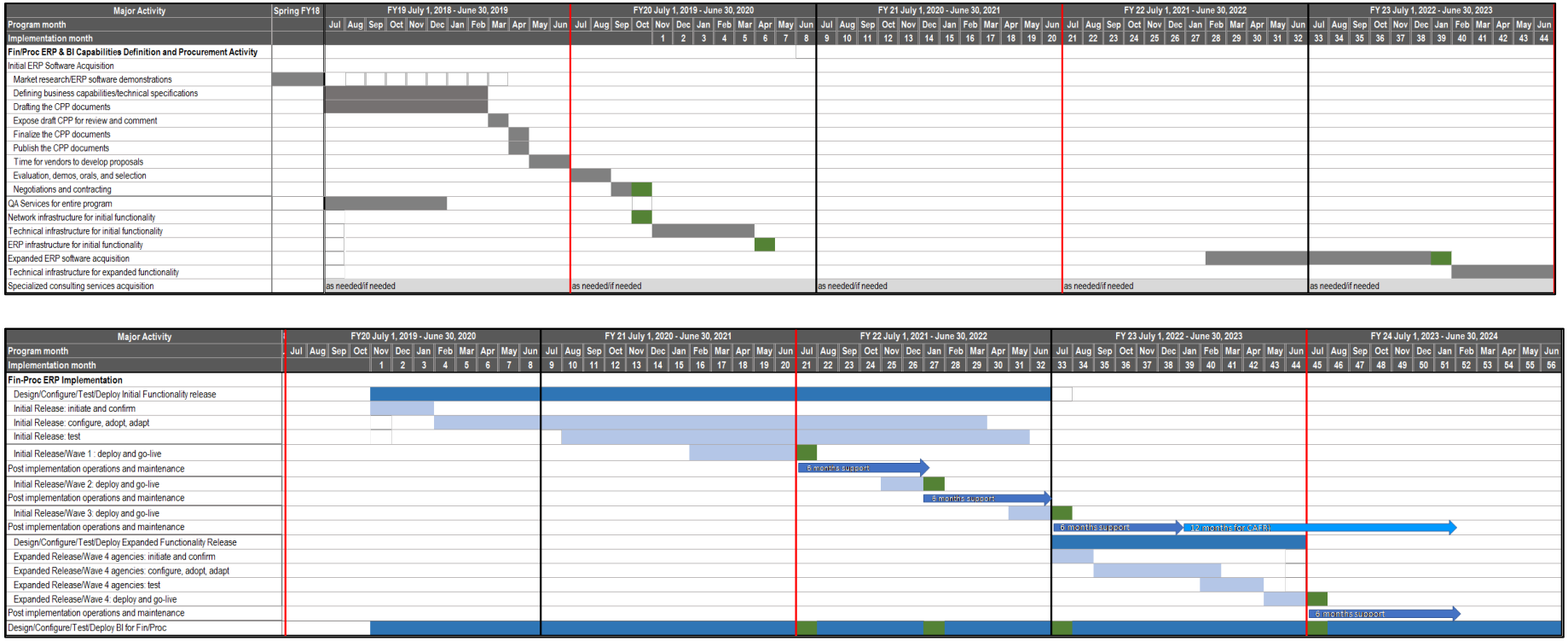
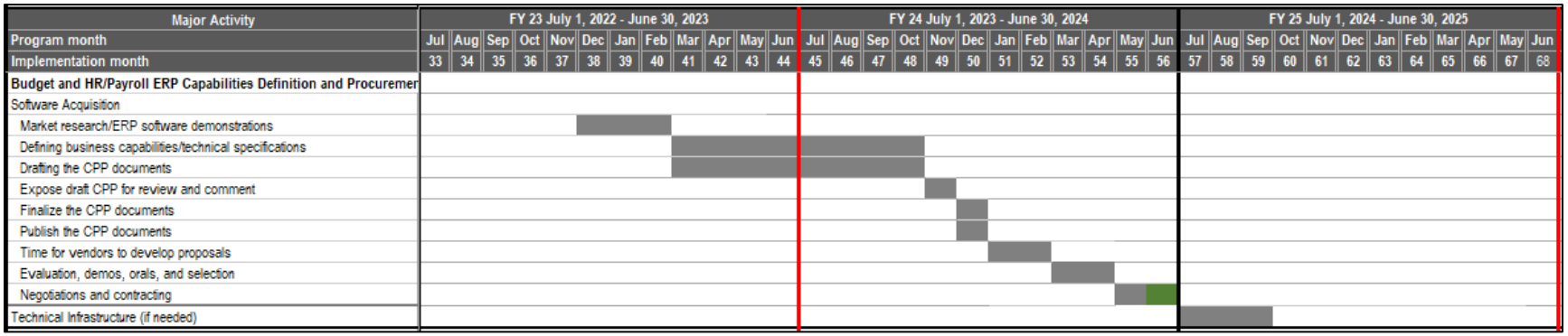


Figure 1.4: Timelines for Finance, Procurement and Business Intelligence (to be further defined in the implementation plan after software is selected).

The timelines for procurement and implementation of Budget, HR/Payroll, and Business Intelligence is summarized in Figure 1.5 below.



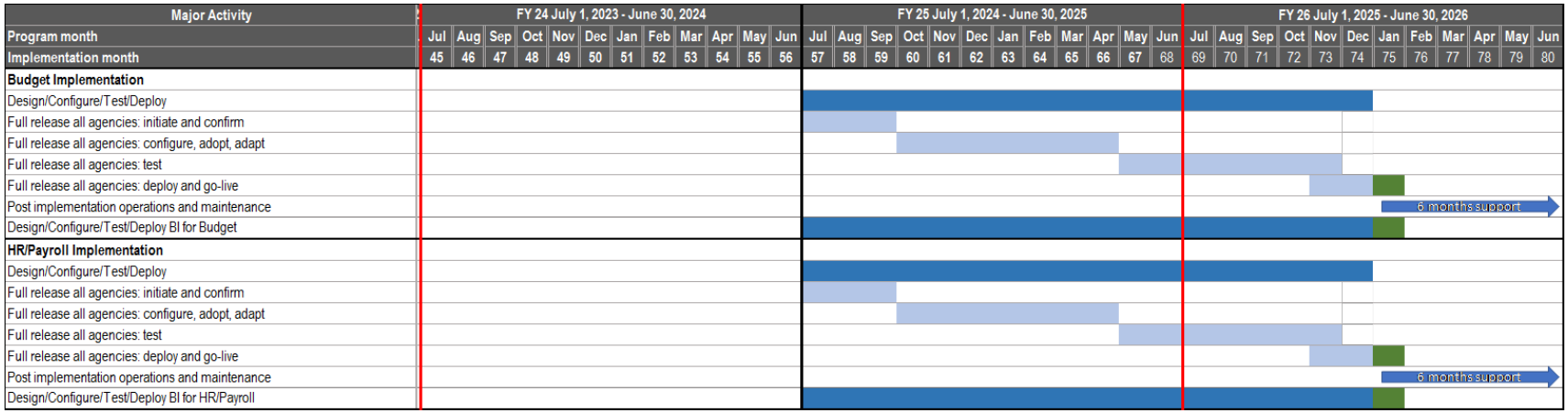


Figure 1.5: Timelines for Budget, HR/Payroll, and Business Intelligence Implementation

Detailed discussion on the rationale behind this principle is in Section 2.4.

Integration Approach

The integration approach defines the overall interface approach between the state's new ERP application(s) and numerous other systems with which the state's application(s) will interface. The interfacing system also includes other state management systems, systems from various state agencies and external partner systems. The full integration approach is included in a separate document from this Blueprint, the One Washington Integration Strategy. That document includes the following sections:

- Data conversion approach
- Integration methodologies
- Interface development process

This current version of the Integration Strategy includes an initial draft in all these areas. Subsequent versions will provide more detail.

For the integration strategy, the finance and procurement data will be converted in waves, i.e. data for the agencies is converted during the wave to which they are assigned. Completion of the first wave will be followed by the next wave. This will require temporary interfaces until all agencies are fully implemented, converted, and integrated with One Washington. Figure 1.6 depicts the wave strategy.

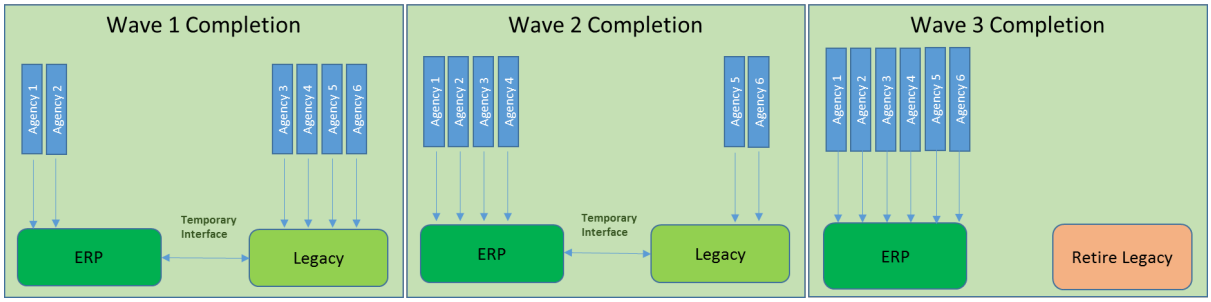


Figure 1.6: The Integration Strategy supports temporary interfaces during the implementation waves.

Detailed discussion on the rationale behind this principle is in Section 2.5.

Master Data Management

The Master Data Management (MDM) strategy identifies the nature of data required for enterprise purposes that must be defined, managed, and stored in enterprise systems. The strategy also defines the governance and decision making process for enterprise master data, shared master data, and local master data (see Figure 1.7). Strong governance is key to the successful implementation of a complex program.

Figure 1.7: Master Data Management Strategy

The MDM governance model will consist of four groups (see Figure 1.8):

- Agency managers and end users who may make requests to create/read/update/delete master data.
- A committee, to review and make recommendations on these requests.
- Four executive oversight committees (Finance, Procurement, Budget, HR/Payroll), each chaired by the business owner relevant to the request. The oversight committee also sets master data management policies and standards for their respective domains.
- An implementation group. This group will execute the master data changes to the appropriate systems and data repository pursuant to standards and policies.

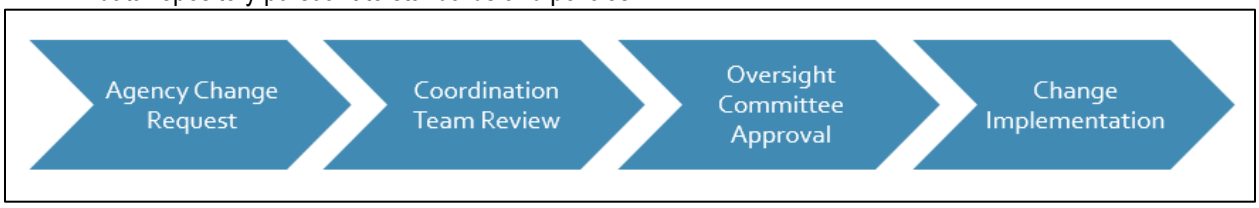


Figure 1.8: Master Data Management Governance Model

Detailed discussion, including the approach to executing MDM using this governance model, is in Section 2.6.

Data Conversion

The One Washington data conversion strategy will ensure the conversion of accurate data, minimize business disruption, process inefficiencies and support issues after the completion of the conversion. The strategy defines the overall approach for data conversion from the legacy systems into the ERP system. It consists of the following elements:

- Assumptions
- Conversion methodology
- Data cleansing strategy
- Data conversion validation and reconciliation
- Roles and responsibilities
- Finance and Procurement data conversion scope
- Budget and HR/Payroll data conversion scope
- Other considerations that may impact the data conversion strategy and approach
- Assumptions used in determining the data conversion methodologies

This current version of the Program Blueprint outlines approaches One Washington will follow. Subsequent versions will provide more detail as the team analyzes the detailed systems and data to be converted. Figure 1.9 depicts the data conversion implementation approach for One Washington.

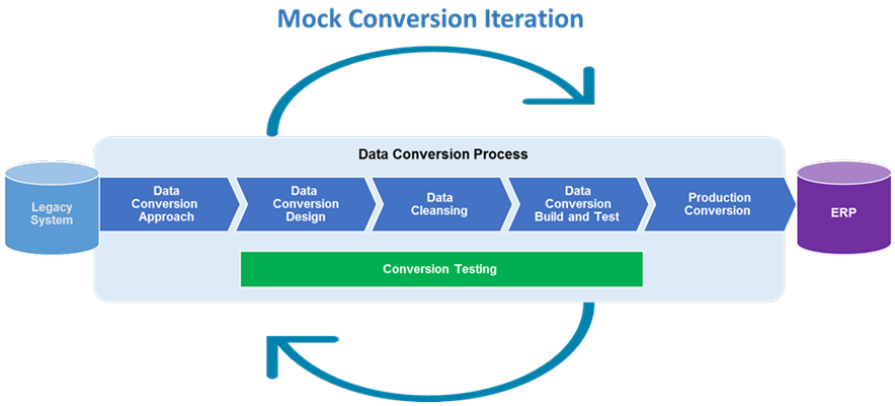


Figure 1.9: Data Conversion Implementation Approach

Detailed discussion on each of the sections above is in Section 2.7.

Reporting Capabilities

The reporting capabilities need to support a wide range of business needs, from daily detailed transactional reports to executive-level dashboards with roll-up indicators supporting drilling down to lower levels of detail. There are a wide variety of potential tools available to support the broad range of reporting needs. The various reporting needs are depicted in Figure 1.10 below. The reporting approach for One Washington will use the delivered reporting capabilities of the selected ERP as a starting point. The detailed reporting strategy will also need to be integrated with the Business Intelligence strategy the state is preparing, demonstrating a cohesiveness approach between the Program Blueprint and the Business Intelligence strategy.

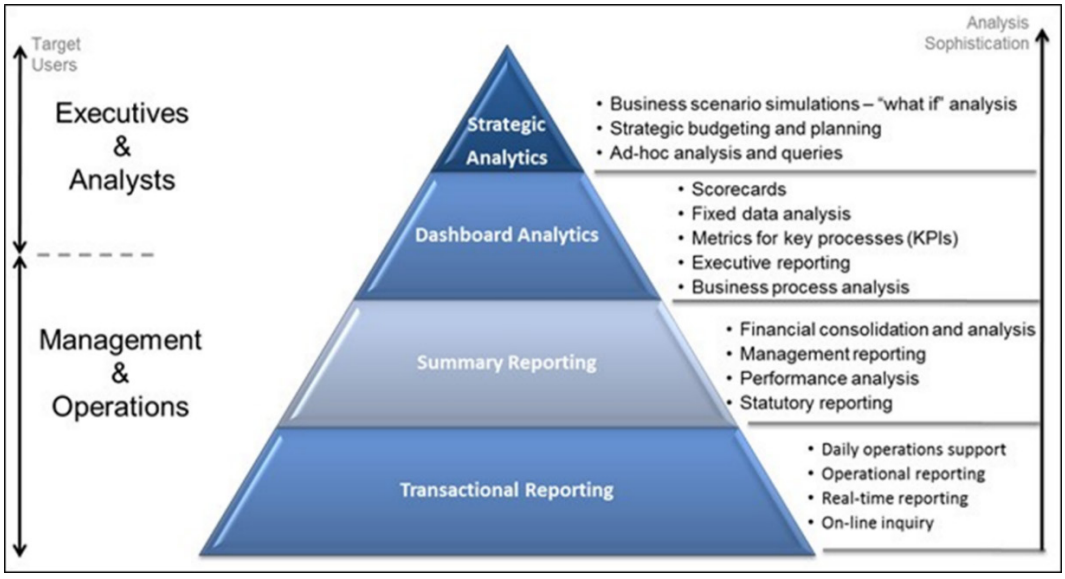


Figure 1.10: Reporting Capabilities

A modern ERP will provide added capabilities that will address current reporting challenges for the state. These challenges are the result of having multiple applications and system of records. The capabilities are summarized below.

Table 1.5: ERP Capabilities

Capability	Description
Leveraging delivered functionality	Many report requests can be met using the capabilities delivered within the ERP.
Transparency of complex calculations	ERPs give transparency to complex calculations and make that data available through reporting and dashboards.
Real-time data	ERPs provide reporting capabilities and dashboards that allow data analysis in real time.
Drilldown capabilities	ERP reporting tools allow users to easily move from a higher-level view to a more detailed view of the data being analyzed.
Ad-hoc reporting capabilities	ERPs provide for flexibility and easy access for users to build their own queries.

Detailed discussion is in Section 2.8.

Security Approach

The security approach for One Washington combines delivered ERP security functionality with well-defined security processes and existing state security mechanisms. In compliance with existing Washington State policy, the security approach will combine infrastructure, data and application-level security to ensure data is accessible to those authorized to view it and protected from unauthorized access. The One Washington program will adhere to the state's policy of mandatory security reviews throughout planning, implementation and post implementation support.

Embedding security design, configuration, and testing into the project lifecycle greatly reduces risk for the delivery of a secure system. The security configuration for the One Washington implementation will focus on three areas:

- Infrastructure Security – Configuring the infrastructure in such a way that users can easily access what they need to, but remain secure throughout the entire communication process.
- Data Security – Securing data such that only appropriate users have access to the appropriate data required for their job roles.
- Application Security – Configuring the system such that only the appropriate users can gain access through trusted authentication services. This is a critical step towards protecting the perimeter of the applications. Extending that configuration to appropriate authorizations that restrict users to only the data and transactions that they need to do their day-to day jobs completes the application security model.

The following security considerations need to be further analyzed for adherence to state and agencies' security policies and standards:

- ERP Authentication
- File Transfer Security
- Logging and Monitoring
- Firewall
- Digital Certificates

- Virtual Private Network (VPN)
- Secure Access Washington
- File Data Encryption
- Authorization
- Maintaining Security
- Security Design Review

Detailed discussion is in Section 2.9.

Organizational Change Management Strategy

The organization change management strategy provides an approach for change management for the One Washington program overall and for each of its major phases. The strategy is based on data derived from the 2014 Business Case and OCM practices for complex multi-year transformations. It also includes the approach for improving readiness levels across the organization and fostering transformation adoption through:

- Stakeholder Identification and Engagement
- Communications
- Training
- Business User Engagement & Business Readiness

The goal of the strategy is to follow an established change model and approach to bring all One Washington transformation stakeholders along the change journey, and to arrive at a state of change commitment and adoption to fulfill the objectives of the Program.

Detailed discussion is in Organization Change Management Strategy and summarized in Section 2.10.

FY19 Activities

There are three initiatives planned for FY19, to be included in the supplemental budget request for the year. These initiatives will increase the state's readiness, deliver rapid business value and expedite the One Washington implementation. For each initiative, the component activities are shown in the list below in Table 1.6.

Table 1.6: Initiatives beginning in Fiscal Year 19

Initiatives		
Procurement of Finance and Procurement Software	**Assess Procurement Organizational Strategy**	**Assess Finance Organizational Strategy and Readiness**
• Work with stakeholders to gather business capabilities and technical specifications • Work with WaTech to ensure infrastructure readiness • Facilitate software demos	• Assess current business processes in relation to Procurement organizational strategy • Conduct review of laws, regulations, and policies in readiness for a new Procurement system	• Assess current business processes with Finance organizational strategy • Consolidate statewide master payee and customer files • Conduct a review of laws, regulations, and policies in readiness for a new financial system

• Evaluate and select software • Continue to coordinate change readiness activities	• Launch strategic sourcing assessment for a select group of categories	• Review business processes that could be improved with existing technology • Standardize accounting practices and data in preparation for a new system

Detail on each of these initiatives, and the other initiatives in the entire program, are included in Section 3.0.

Program Staffing

The staffing and supporting resources plan includes state employees and contractors, and accounts for all initiatives, i.e. non-technology and technology dependent. It will start in July 2019 and conclude in June 2026. Table 1.7 below shows the summary of staffing for the One Washington program.

Table 1.7: State vs Vendor Resources by Fiscal Year

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
State	62%	53%	53%	59%	61%	69%	58%	57%
Contractor	38%	47%	47%	41%	39%	31%	42%	43%

Details on staffing are included in Section 4.0.

Program Budget

The One Washington program budget was an iterative process based on Accenture estimating tools and staffing plans reviewed and adjusted according to stakeholder feedback and previous experience. Other inputs from programs of similar scope and size were considered, including different cost factors like length of the deployment schedule, appropriate staffing number and duration on project, and the estimate of change orders and state turnover costs. Cost factors were weighed against the risks to the Program. Based on the implementation schedule and guiding principles described above, the One Washington program is estimating total costs for the program at $303.9m. The annual estimated costs are summarized below in Table 1.8:

Table 1.8: Estimated Annual Program Costs

Cost Summary	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Total Annual Costs	$ 5,256,406	$ 26,440,966	$ 51,857,228	$ 57,869,862	$ 33,786,748	$ 24,745,057	$ 54,027,555	$ 49,977,291
Total Program Costs	$ 5,256,406	$ 31,697,372	$ 83,554,600	$ 141,424,462	$ 175,211,210	$ 199,956,267	$ 253,983,822	$ 303,961,114

These costs include estimates for One Washington state employee salaries and benefits, professional services, SaaS software subscription estimated costs, facilities and training costs, state staff turnover and replacement, and changes, amendments and adjustments to contractor resources.

The costs presented here are estimated values for the One Washington program only, these costs do not include cost of implementation to agencies.

The scope of One Washington program includes Finance, Procurement, Budget, HR/Payroll and Business Intelligence.

For comparisons purposes, the 2014 Business Case cost estimates ranged (depending on scenarios) from $242m to $284m for the implementation of Finance and Procurement only. One Washington also looked at other recent implementation costs for other states. Wisconsin recently implemented an ERP solution for Finance, Procurement, HR/Payroll and Business Intelligence for a total cost of $280m.

More details for the budget, including assumptions and methodology, are provided in Section 5.0.

WSDOT Integration with One Washington

WSDOT needs to upgrade their aging financial system in the next five years, primarily due to technical obsolescence. WSDOT and One Washington will continue to work together to perform analysis and gather data necessary to make an informed decision on whether WSDOT should utilize the One Washington statewide ERP or upgrade TRAINS to the most current version of Advantage.

- A 2-day workshop was conducted and the following topics were discussed:
  - Overview of the One Washington program
  - A discussion of WSDOT specific requirements
  - Wisconsin DOT case study
  - A review of 25 WSDOT critical systems and impact due to the implementation of an ERP

- Mutual agreement that an ERP, whether statewide or WSDOT specific, would provide functionality and capability to meet WSDOT business needs

- WSDOT expressed needs regarding ERP governance, during and post implementation, in order to ensure an integrated system meets their business needs

Next Steps

In the coming months, the One Washington program will continue to develop additional detail to support the Program Blueprint. Version 3 of this Blueprint will also include further technical details regarding infrastructure readiness, master data management, data conversion, reporting and security.

1.2 Introduction

This section describes the scope (organizational and functional) and the methodology used to develop the Program Blueprint.

1.2.1 *Scope*

One Washington worked with the following 15 agencies in a series of focused interviews and workshops (further described below). Agency participants included business owners and technology staff. The functional areas covered in the interviews and workshops were Finance and Procurement.

- Department of Transportation
- Department of Corrections
- Department of Enterprise Services
- Department of Health
- Department of Ecology
- Office of Financial Management
- Department of Labor and Industries
- Department of Natural Resources
- Office of State Auditor
- Office of State Treasurer
- Superintendent. of Public Instruction
- Washington State Patrol
- Health Care Authority
- Department of Social and Health Services
- Department of Revenue

Similarly, for Budget and HR/Payroll, One Washington worked with the following 18 agencies in a series of focused interviews and workshops (further described below). Agency participants included business owners and technology staff.

- Department of Transportation
- Department of Corrections
- Department of Enterprise Services
- Department of Licensing
- Department of Early Learning
- Department of Health
- Department of Social and Health Services
- Department of Natural Resources
- Legislative Evaluation and Accountability Program (LEAP)
- State Board of Community and Technical Colleges
- Office of Financial Management
- Superintendent. of Public Instruction
- Health Care Authority
- Lottery Commission
- Washington Technology Services
- Washington State Patrol
- Department of Ecology
- Higher Education Institutions

1.2.2 *Methodology*

For Finance and Procurement, One Washington started by first identifying the stakeholders and preparing an exhaustive list of non-technology and technology dependent initiatives by using Accenture's expertise and prior experience with similar programs in other states. This list was further refined and customized for specific business needs of the agencies in scope for the state of Washington by actively engaging with One Washington, business and technology staff in interviews and workshops. Finally, the prioritized list of initiatives for both Finance and Procurement, along with a defined implementation timeline, was developed by conducting a collaborative workshop with stakeholders from all the agencies and higher education institutions. List of participants of all workshops and interviews are provided in the Appendix.

The following activities were undertaken to review and prioritize the non-technology dependent initiatives:

- *Identifying list of relevant Finance and Procurement business process initiatives:* A broad list of a total of 149 initiatives (78 Finance and 71 Procurement) was identified and then further refined to filter out the initiatives that are less relevant to Washington business processes or highly technology dependent. From this refined list, a final set of non-technology dependent initiatives for business process improvements for both Finance and Procurement was prepared.

- *Rating Finance and Procurement business process initiatives:* Value opportunity hypotheses were developed and distributed to the relevant stakeholders from 15 state agencies for each of the identified non-technology dependent Finance and Procurement initiatives. Separate interview sessions were then scheduled and conducted to gain insight into the value that agencies saw for each initiative and assessment of the relative effort needed. These were then used as inputs in the analysis to estimate the relative benefits for each initiative.

- *Assessing the priorities for the non-technology dependent business process initiatives:* Workshops were conducted for both Finance and Procurement where the attendees included One Washington, and business and technology staff from several different agencies. Workshop attendees were divided into two breakout groups where they discussed relative importance of these initiatives based on the specific needs of their agencies. The attendees then regrouped and discussed the results and rationale with the larger group. This resulted in a prioritized list of initiatives and concurrence on a joint implementation timeline of these initiatives by fiscal year.

Below are the activities that were undertaken for technology dependent initiatives:

- *Selecting deployment model (on premises vs. software as a service; best-of-breed vs. unified):* Workshops were conducted to discuss the pros and cons of different deployment models, gather inputs from state agency stakeholders and gain consensus across the board. Workshop participants were One Washington core members as well as representatives from agencies. Based on best practice, past program experience, and current industry trends, the program made recommendations and gathered feedback on these recommendations from the participants.

- *Technology workshops (integration, master data management, data conversion, reporting/Business Intelligence, security):* Based on the program's knowledge of best practice, as well as experience in similar state programs, preliminary recommendations and approaches were designed for each portion of the technical workstream. These approaches were socialized in an iterative review and feedback process with state agency stakeholders and One Washington. One Washington incorporated the feedback and Washington-specific technical considerations into the recommendations to further refine the approaches for the technical workstreams.

For Budget and HR/Payroll, One Washington identified stakeholders to contribute their knowledge and expertise to the formulation of the Program Blueprint. These key stakeholders were invited to a kickoff workshop to review and provide guidance on in-scope business process areas. This was followed by a series of interviews. At these interviews, One Washington asked them a standard set of questions. These questions identified areas of strength and areas for improvement. The stakeholders often brought a team of people to participate in these interviews. The stakeholders were very engaged and actively participated in this process. The response from each interview was documented, analyzed and summarized to ascertain common trends and challenges. The stakeholders participated in a concluding workshop where One Washington summarized the data collected and insights gained as a result of the interviews. Participants at this meeting also provided feedback and guidance on potential non-technology dependent initiatives. The information discussed in this workshop is provided in the Appendix.

Budget stakeholders included budget managers and staff from 12 state agencies, 2 higher education institutions, the Legislative Evaluation and Accountability Program (LEAP), legislative staff, and business owners from the Office of Financial Management and Washington Technology Services (WaTech). Based on the Budget stakeholder interviews and the analysis of the responses collected, the key themes are summarized below:

- Lack of an integrated/unified system is the root cause for many business challenges. Data does not migrate from one version/step in the process to the next, causing data reconciliation and duplicate data entry.

- Separate systems also cause many challenges, with analysts spending significant time acquiring data rather than analyzing data. Complex systems and integrations breed user errors and necessitate additional training and support.

- Different data definitions and level of detail (granularity) cause complexity and extra work. Agencies frequently need to “translate” data used to manage operations into definitions used to develop the state budget, and outcomes of the budget need to be “re-translated” to data the agencies use for operational management purposes. Meanwhile, the Legislature does not have easy access and visibility into the information it needs for policy makers.

- Inconsistent linkages between performance/outcome measures to funding requests cause misunderstandings and extra work. The lack of accessible data creates urgent requests and labor intensive processes to gather the data to satisfy additional data requests, while perceived non-value-added work, such as the activity-based budget and 10-year recast, compete with a variety of other Budget priorities.

HR/Payroll stakeholders included HR/Payroll managers and staff from 14 state agencies/agency sections, 4 higher education institutions, and business owners from the Office of Financial Management (OFM), Department of Enterprise Services (DES) and Washington Technology Services (WaTech). Based on the HR/Payroll stakeholder interviews and the analysis of the responses collected, the four key observations are summarized below:

- Lack of an integrated/unified system is the root cause for many business challenges. Data does not migrate from one system to the next, causing data reconciliation and duplicate data entry.

- Separate systems also cause many challenges, with analysts spending significant time acquiring data rather than analyzing data. Complex systems and integrations breed user errors and necessitate additional training and support.

- Different data definitions and level of detail (granularity) cause complexity and extra work. OFM does not have easy access and visibility into the information they need for statewide reporting obligations.

- Significant delegation to agencies cause misunderstandings and extra work. Employees moving between agencies cause multiple W-2 and 941 reporting and do not carry the full and accurate employee history. Agency interpretations cause inconsistent implementation of collective bargaining agreements and civil service rules.

To evaluate the technology dependent initiatives, One Washington invited both Budget and HR/Payroll stakeholders to a workshop to review and provide input on the deployment model (on premises vs. software as a service; best-of-breed vs. unified). At this meeting, the group discussed the pros and cons of different deployment models. Based on best practice, past program experience, and current industry trends, the program made recommendations and gathered feedback on these recommendations from the participants.

The conclusions derived from the results of these activities form the basis of the plan for a comprehensive business transformation program, detailed in the ensuing sections and comprising the One Washington Program Blueprint deliverable. In addition, selected quotes from the stakeholder interviews have been included in the Program Blueprint wherever applicable.

2.0 Guiding Principles

This section describes the foundational guiding principles relevant to the One Washington implementation, along with the rationale of why these principles are the appropriate choice for the State of Washington, based on current Washington State business processes and technology environment in comparison to leading industry practice, as appropriate. These guiding principles are for planning purposes and may be re-assessed at periodic 'gates' throughout the course of the program. We acknowledge that any changes to these guiding principles will add risk to the program, adding time and cost. Considerations to revisit these gates may include changes in the technology market, evolving security requirements, or other external decisions that would affect the successful implementation of systems by this program.

Each of the principles listed below will include a relevant introduction and background information, along with the rationale behind the principles and a brief description and outcomes of the quantitative and qualitative activities conducted to support the guiding principles. These guiding principles are:

- Unified vs. best-of-breed strategy
- Technology deployment model
- Scope of business functions
- Implementation/phasing approach
- Integration approach
- Master data management
- Data conversion
- Reporting capabilities
- Security approach
- Organizational change management strategy

2.1 Unified vs. Best-of-Breed Strategy

2.1.1 *Background and Introduction*

> *"My agency wants to emphasize shared business systems and processes."*
>
> *-Agency Procurement Manager*

One of the foundational assumptions which will impact the future direction of the One Washington program is the deployment strategy for Finance, Procurement, Budget, and HR/Payroll ERP software. One strategy is to select a single software product for all business functions (i.e. a unified approach) and the other is to select different software products for each business function (i.e. a best-of-breed approach). This concept is depicted in Figure 2.1.1 below.

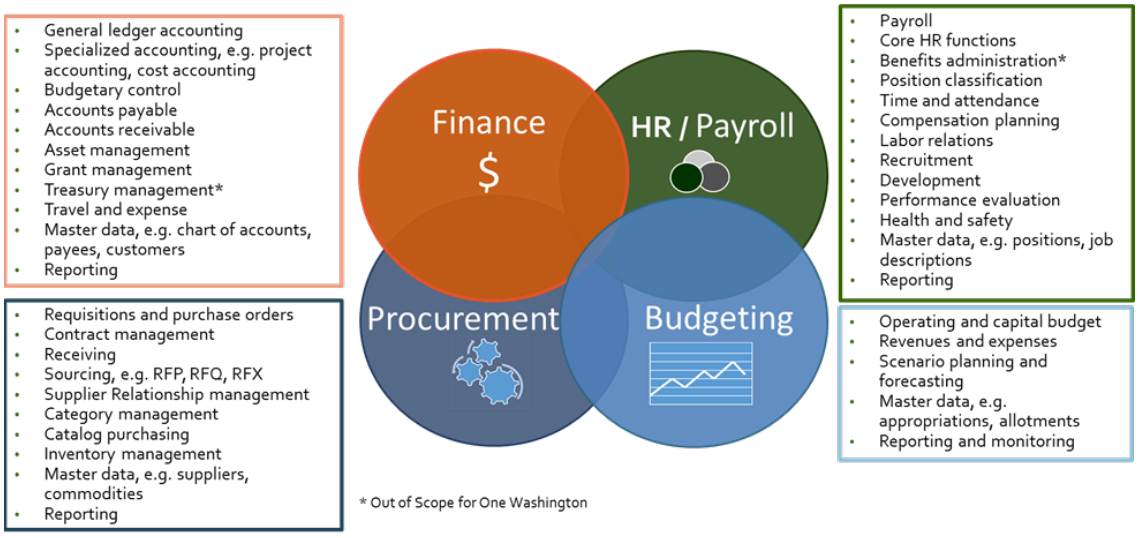


Figure 2.1.1: In the unified approach, one software product will deliver all business functions. In a best-of-breed approach, a different software could be selected for each business function.

The State of Washington evaluated the relative advantages of these different approaches before. In the 2014 Business Case effort, the unified approach was discussed as "Scenario 1." The best-of-breed approach was discussed as "Scenario 2."

Guiding Principle

1. *One Washington will consider a unified approach (a single software product suite) for selecting and implementing the initial functionality of the Finance and Procurement systems.*
2. *One Washington will maintain the option of selecting different software (best-of-breed) for expanded Finance and Procurement functionality in the future (designated as 'expanded functionality').*
3. *One Washington will also consider a unified approach for the functionality of the Budget and HR/Payroll systems.*
4. *Since software selection for Budget and HR/Payroll functionality is scheduled for FY23, it is in the best interest of the state to consider the unified approach while maintaining options for selecting software from the same or different vendors.*

2.1.2 *Supporting Activities*

This guiding principle was evaluated through the following activities:

- For Finance and Procurement, the unified vs. best-of-breed strategy was discussed in a workshop with 13 stakeholders representing both technical and functional owners. At this workshop, the stakeholders concurred on a unified strategy for the initial Finance and Procurement functionality. This group also agreed to maintain options for the possibility of selecting different software with expanded functionality in the future (for example,

different software may be better for certain expanded Finance functionality such as grantor management, and certain expanded Procurement functionality such as inventory management).

- For Budget and HR/Payroll, 12 business and technical stakeholders participated in a workshop to discuss the unified vs. best-of-breed strategy. At this workshop, the stakeholders agreed it is in the best interest of the state to consider the unified approach while maintaining options for selecting software from the same or different vendors. In the meantime, the software available in the market is likely to become increasingly more robust and mature. One Washington will conduct additional market research. In FY23 One Washington will conduct an evaluation and make the decision whether to acquire software from the Finance and Procurement vendor considering: the performance of the vendor, the fit to Budget and HR/Payroll business and technical capabilities, cost, and experience of other states. At that time, if One Washington determines that it is in the best interest of the state to seek alternative solutions, a competitive procurement process may be conducted.

- The results of the workshops, and the direction to plan for a unified strategy was reviewed and validated by the One Washington Executive Steering Committee.

2.1.3 *Rationale and Recommendation*

The guiding principle for the State of Washington is a unified approach for selecting ERP software. In coming to this conclusion, the state considered the following factors as shown in Table 2.1.1 below.

Table 2.1.1: Distinguishing factors for unified and best-of-breed approach

Unified Solution Considerations	Best-of-Breed Considerations
An organization implements and supports a single instance of a suite of customizable software modules for each functional area from a single vendor	An organization implements and supports a compilation of different vendors and products, each based on specific needs in specific functional areas
Provides functionality for common capabilities across the various functional areas, with a common data model, data base, and user interface	Allows for very precise capabilities in various functional areas
Integration is relatively less complex (all components in single-vendor environment), with integration provided “out of the box” by the vendor	Integration is relatively more complex (typically multiple vendor environments involved), requiring dedicated efforts on integrations, some of which may be delivered by the vendors
Relatively less change management to train end users on a common application	Relatively more change management to train end users on different applications
Relatively slower to implement because single-vendor integration means more comprehensive design is required, but there is less complexity to future changes and upgrades as part of the same application	Relatively faster to implement because fit-for-purpose modules can be ‘plugged in’ to core system, but adds complexity to future changes and upgrades
Sample vendors include Oracle, Workday, SAP, CGI, Infor, etc.	Sample vendors include Salesforce, Round Corner (Grants Management), Periscope, Coupa, Amazon (eCatalog and Reverse Auctions), etc.

Other key benefits of unified approach include a more streamlined vendor management, ease of implementing future upgrades as well as a greater likelihood of custom prioritization of functions.

The stakeholders who participated in the workshops confirmed the direction of adopting a unified ERP strategy for the purposes of formulating the Program Blueprint. In reviewing this issue, the stakeholders agreed that the unified approach balances considerations of cost, benefits, speed, and risk. Other important considerations and discussion points raised by stakeholders as the rationale for this direction included the following:

> *"Over the years I've heard 'It's really easy - it's on a master contract.' But in reality, I have to navigate through 5 different links to determine what part Washington is on the contract. It's very hard to quickly get answers. When I write a PO, it is hard to know if there is a template to use? Or if there is a second-tier competition?"*
>
> *-Agency Procurement Professional*

- Recent decisions made by other states in similar circumstances. For initial functionality, similar states have adopted this strategy.
- A unified procure-to-pay process (which is most easily delivered if the Finance and Procurement systems are unified) is a key capability to deliver full potential value with a new ERP system.
- Business capabilities may ultimately necessitate new assumptions regarding the approach that best meets enterprise needs, thus the Program Blueprint should reflect some flexibility.
- More conversations may be needed for expanded functionality (i.e. grantor management and inventory management).
- Good governance and change management are critical to the success of the program. This could be simpler and more standardized with a unified strategy.

Table 2.1.2 below indicates functionalities for which software will be initially procured and deployed under the unified strategy. (Note: functionality labeled "expanded" reflects the possibility of selecting a different software for certain expanded functionalities in the future.)

Table 2.1.2: Finance, Procurement, Budget and HR/Payroll software to be acquired and implemented with the unified strategy

Finance	Procurement	Budget	HR/Payroll
Initial Release Functionality	**Initial Release Functionality**	**Initial Release Functionality**	**Initial Release Functionality**
General Ledger Accounting	Requisitions and purchase orders	Operating, Transportation, and Capital budget	Payroll
Specialized accounting, e.g. project accounting, cost accounting, grantee accounting, Federal Highway accounting	Contract management	Revenues and expenses	Primary HR functions (e.g. hire, exit management, update employment data)
Budgetary control, e.g. encumbrances, commitment control	Receiving	Scenario planning and forecasting	Benefits administration*

Finance	Procurement	Budget	HR/Payroll
Asset management and accounting	Sourcing, e.g. RFP, RFQ, RFX	Publishing the budget book	Position classification
Accounts payable	Supplier Relationship management	Master data	Time and attendance
Accounts receivable	Category management	Allotments and spending plans	Compensation planning
Travel and expense	Catalog purchasing	Budgetary transfers	Recruitment
Cash management, e.g. local banking and cash control	Master data, e.g. suppliers, commodities	Linkage to performance measures	Development
Master data, e.g. chart of accounts, payees, suppliers	Reporting and Business Intelligence	Reporting and Business Intelligence	Labor relations
Reporting and Business Intelligence			Performance evaluation
			Health and safety
			Master data, e.g. positions, job descriptions
			Leave & Absence Management
			Employee/Manager Self Service
			Competency Management
			Reporting and Business Intelligence
Expanded Release Functionality	**Expanded Release Functionality**	**Expanded Release Functionality**	**Expanded Release Functionality**
Grantor management	Inventory management		

*Benefits administration is in scope for integration purposes only

2.2 Technology Deployment Model

2.2.1 *Background and Introduction*

This section details the rationale that supports the guiding principle of a Software as a Service (SaaS) model of technology deployment for the One Washington program. It also describes the detailed process by which this principle was determined.

The selection of the deployment model for the One Washington program can be summarized as a consideration between an on premises and a SaaS approach (also described as a "cloud" approach) to technology deployment. The key differences between these strategies is the degree to which the state would own or share the core code of the ERP software. If the state were to determine it wanted to buy the complete code for its ERP software, then the software would reside on the premises of the State of Washington. However, if the state were to determine it wanted to lease shared ERP software code, with all the relative advantages and drawbacks of sharing the software, it would be subscribing to a SaaS model of technology deployment and the software would reside "in the cloud." Some of the differences and relative advantages and drawbacks of these concepts are depicted in Figure 2.2.1 below.

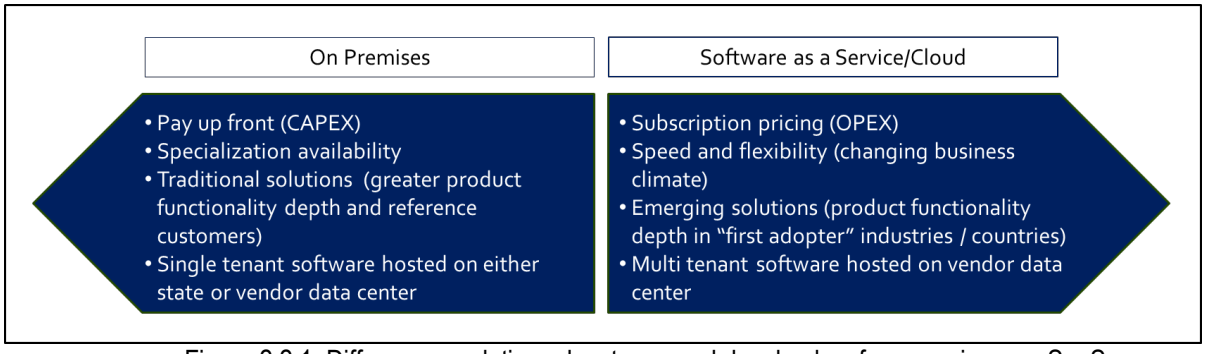


Figure 2.2.1: Differences, relative advantages and drawbacks of on premises vs. SaaS

Some stakeholders are already familiar with the key distinctions between these two models. In 2014, the Business Case examined at a high level many of the same considerations relating to technology deployment that are addressed in this section. The 2014 work familiarized the stakeholders with the generally available technology deployment options at the time and examined the feasibility of three scenarios. Scenario 3 of the 2014 work examined the feasibility of an implementation of "Best-of-Breed eProcurement with (SaaS) ERP Financials." While the selection of a unified approach to the technology deployment precludes the best-of-breed scenario for One Washington (refer to section 2.1 above), the principles of a SaaS implementation generally remain the same. However, one key difference since the 2014 assessment is that vendors in 2014 lacked implementation experience with SaaS solutions for state government. As a result, the 2014 description of Scenario 3 examining the implications of implementing a SaaS solution lacked specific phasing, timeline guidance and estimates.

In the past three years, vendor experience in the state government SaaS ERP market has grown and matured. With the guiding principle of a SaaS solution defined for One Washington, the program can proceed to plan for the deployment of a SaaS solution for future bienna with the benefit of the detailed phasing and implementation planning described in the rest of this document.

Guiding Principle

1. *SaaS strategy will be used for the One Washington Finance and Procurement implementation.*
2. *For planning purposes, SaaS strategy is assumed for Budget and HR/Payroll.*

2.2.2 *Supporting Activities*

The development of this component of the Program Blueprint was based on following activities:

- This analysis is based primarily on workshops conducted to discuss the on premises vs. SaaS strategy with both business and technical stakeholders. At these workshops, the stakeholders concurred on a SaaS strategy for the One Washington functionality. Important drivers acknowledged by stakeholders during the workshop for the above conclusion included:
    - SaaS strategy avoids up-front capital investments and allows for lower costs to change software in the future.
    - A SaaS model may meet more business capabilities, but should still consider the limited flexibility to customize.
    - Software companies in our market are investing their R&D funds into their SaaS products, they are not investing in their on premises solutions, if we want best in class we should choose SaaS.
    - State security experts should weigh in on data privacy considerations for this decision.
    - If there are elements that will require a hybrid approach, it would be important to reflect the potential that the solution may not be 100% cloud-based in the budget estimate.
    - Recent decisions made by other states were considered in the discussion.
- This guiding principle, for a SaaS strategy, was reviewed and validated by the One Washington Executive Steering Committee.

2.2.3 *Rationale and Recommendation*

One Washington developed a conceptual model to describe the on premises and SaaS strategies, as well as list of considerations for each, which was reviewed by business and technical stakeholders (Table 2.2.1 below). After considering advantages and disadvantages of the two options, the stakeholders concurred on a SaaS strategy for the One Washington implementation.

"Recently, states like MA, NV and ID and universities like UW and WSU have chosen SaaS for their ERP implementation."

Table 2.2.1: On Premises vs. Software as a Service Considerations

On Premises Considerations (Buy)	SaaS Considerations (Lease)
Allows **significant organizational freedom** to shape the software to business capabilities	Software **customization is limited to non-existent**, but the solutions are generally **highly configurable**
This model allows for **flexibility to perform technical hosting** activities (such as managing the application servers, etc.) either internally or outsourced to a service provider	**Software is not locally installed or owned**; it is accessed through the web or mobile applications
Fixed pricing model - customers pay a license fee and on-going maintenance charges	**Variable pricing model** - customers pay subscription fee per user and module
Enhancement patches and release upgrades must be done by the customer or a third party with specialized technical skills	The vendor releases patches, functionality enhancements, or full upgrades, so that the **customer solution will be automatically updated**
Requires dedicated staff with **technical and business knowledge** of the software	Requires dedicated staff with **business knowledge** to work with software vendor

Higher implementation cost, longer implementation cycle, longer cycle time between major functionality additions	**Lower implementation cost**, quicker implementation cycle, more frequent additions of new software functionality
Business capabilities not satisfied by the software can be addressed via **software customization** (though not recommended), or business process redesign	Business capabilities not satisfied by the software **cannot be met with direct changes to vendors' baseline code**, but can be addressed via Platform as a Service, on premises middleware, or business process redesign

The program also summarized other considerations that were relevant for the business and techncial stakeholders to make an informed selection on the appropriate deployment model. This included the following:

- An assessment of what other comparable states were choosing to implement.
- Industry guidance from Gartner (Magic Quadrant for Enterprise Integration Platform as a Service (IPaaS), 30 March 2017), which states: "*It is expected that the service-based approach for IT will become the preferred option over the software-based approach over time, as end-user organizations look to downsize the operation side of their IT portfolios*."

Based on the above rationale, the stakeholder groups recommended a SaaS strategy for the One Washington implementation. This was later validated by the One Washington Executive Steering Committee.

2.3 Scope of Business Functions

2.3.1 *Background and Introduction*

This section details the recommended scope of Finance, Procurement, Budget, and HR/payroll functions included in the One Washington program. This section also connects the business functions with the software modules to be implemented by the One Washington program. At this point, before vendor selection, the software is described with brand-agnostic descriptions of existing software modules available in the ERP market sold by major vendors. The modules may have some technical and functional distinctions across vendors, but are designed to fulfill the same function.

> *"We would love to have the ability to select a new hire and have the new hire onboarded from recruitment, furthermore, get them started and signed up for their learning/required trainings within an integrated system."*
> *– Agency HR Professional*

The State of Washington evaluated the scope of Finance, Procurement and Budget functions during the 2014 Business Case but only Finance and Procurement was included in the recommendations. The Program Blueprint considers all business functions including Finance, Procurement, Budget and HR/Payroll. Technology has advanced since the 2014 business case, offering complete systems that covers the One Washington enterprise business functions, and making it possible to consider all areas for the program.

2.3.2 *Supporting Activities*

The development of this component of the Program Blueprint is based on the following activities and analysis:

- Conclusions of a workshop to define the business process areas in scope. At this workshop, 30 stakeholders (representing both Finance and Procurement) reviewed the Accenture Business Process Models. A similar workshop was conducted with 18 stakeholders representing the Budget business functions and another workshop was conducted with 17 stakeholders representing the HR/Payroll business

functions. The business process areas identified as in scope are included as an Appendix to this Blueprint document.

- Survey of available ERP products in the market and Accenture experience in ERP implementations in other comparable states.
- Staff site visits to the states of Wisconsin, Arizona, and New York, who have all recently completed a successful ERP implementation.
- Collaboration with the University of Washington and Washington State University as they work to implement their ERP solutions.

2.3.3 *Rationale and Recommendation*

In Tables 2.3.1-2.3.4 below, the business processes areas that can be supported by business function specific ERP software modules are noted with a generic title in the "Functional ERP Software Module" column. Some business process areas in scope for the One Washington Blueprint do not necessarily depend upon a specific ERP software module. For example, many Finance, Procurement, Budget, and HR/Payroll business process areas will rely on data, information, and automated workflow generated by an ERP system overall, but not a specific module. These are marked with an "N/A" in the "Functional ERP Software Module" column. Further explanation of how the business process area can be supported is provided in the "Notes" column where appropriate.

The ERP architecture for Budget differs slightly from the other three functions described in this section; there is a framework in which one can develop dimensions or models, similar to Business Intelligence. One model would be for the Operating budget, a second for the Transportation budget, and a third for the Capital budget

2.3.4 *Out of Scope Business Functions*

Based on the results of the Finance stakeholder workshop, the following Finance functions related to Tax and Treasury areas were deemed not in scope for the One Washington program:

- Revenue Cycle Management - Tax.
- Investment Management
- Debt Management

These business functions were excluded because they are more agency line of business processes rather than enterprise processes that are common and shared across the agencies of state government.

Based on the results of the HR/Payroll stakeholder workshop, the following function was deemed not in scope for the One Washington program:

- Benefits Administration

Benefits administration is not in scope because the Health Care Authority and Department of Retirement Services have unique needs beyond the enterprise needs. One Washington understands that these two systems are under review for possible upgrade or replacement and will continue to collaborate with the two agencies and integrate with the systems.

Table 2.3.1: Finance Functions in Scope for One Washington & Corresponding Software Modules Where Applicable

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Enterprise Mission & Strategy	In conjunction with enterprise strategic planning, this includes the alignment of the Finance function to the overall mission and strategy of the organization. The strategy is usually manifested in laws, regulations, policies and procedures. Example strategies might include business partner, administrator, regulator, controller, or a combination.	No	N/A	Informed by Business Intelligence
Enterprise Performance Planning and Management	On behalf of the enterprise, this includes Finance's role in the overall strategic planning and performance management process including development and adoption of strategic plans, the establishment, management, and reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest determined by the enterprise. For example, in the US, the Governmental Accounting Standards Board describes this as Service Efforts and Accomplishment reporting. The establishment, management, and reporting of metrics might be unique to an individual business unit or standardized across the enterprise	No	N/A	Informed by Business Intelligence
Enterprise Budget Development	On behalf of the enterprise, this includes the promulgation of policy and process guidance to develop budget requests, the analysis and recommendations pertaining to such requests, and the decision making and approval of budgets. For example, it includes all types of budgets (i.e. operating and capital). It may also include financial forecasting and budget monitoring activities.	Yes	Planning and Budgeting	Informed by Business Intelligence
Enterprise Value Architecture & Realization	On behalf of the enterprise, this includes the identification of opportunities to generate additional value for the benefit of the organization. This includes both "hard dollar" value (e.g. revenue increases and other captured value which can help offset expense of implementing an enterprise program) and "soft dollar" value (e.g. process efficiencies, process optimization, quality, customer	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	satisfaction, etc.). This also includes projects and programs to harvest the value for identified opportunities.			
Audit & Compliance Management	This includes external audits of a financial, compliance, and reporting nature, such as the cognizant federal agency approving indirect cost rates (for example, in the US, the Government Accountability Office (GAO)), as well as audits by separately elected public officials. For example, risk assessment activities for the targeting of audits are part of this business process.	Yes	Governance, Risk, and Compliance (GRC) Management	
Internal Controls	This includes the development and management of internal control plans with defined control objectives and activities, which are developed often using Committee of Sponsoring Organizations (COSO), Generally Accepted Government Auditing Standards (GAGAS), or other external authoritative guidance. For example, each department and the enterprise completes an internal control plan to assure segregation of duties.	Yes	Governance, Risk, and Compliance (GRC) Management	
Fraud & Abuse	This includes strategies and procedures to detect, prevent, and mitigate situations that lead to fraud and abuse. For example, each department and the enterprise has security measures (i.e. role based security and passwords) to control access to resources and systems.	Yes	Governance, Risk, and Compliance (GRC) Management	
Risk Management	This includes processes, policies, and tools used to identify, mitigate, and manage risks to safeguard assets. For example, departments and the enterprise has controls to prevent unauthorized use or theft of tangible and intangible assets.	Yes	Risk Management	
Finance Org. Management	This includes the organizational structure, management processes, and policies of the organizational units that provide leadership and management to all aspects of the Finance function. Provision of automated systems and digital capabilities is part of this process area. Organizational units at both the department and enterprise-wide levels might include accounting,	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	budgeting, auditing, performance management, and treasury operations.			
Finance Performance Management	This includes the establishment, management, and reporting of key performance indicators (e.g. metrics) for each of the constituent business process areas (as defined by level 4 in the business process model) within the overall Finance function. Often this is approached with a continuous improvement philosophy. The establishment, management, and reporting of metrics might be idiosyncratic to an individual business unit or standardized across the enterprise.	No	N/A	Informed by Business Intelligence
Finance Value Arch & Realization	For each of the constituent business process areas (as defined by level 4 in the business process model) within the Finance function, this includes the identification of opportunities to generate additional value for the benefit of the organization. This includes both “hard dollar” value (e.g. revenue increases and other captured value which can help offset expense of implementing an enterprise program) and “soft dollar” value (e.g. process efficiencies, process optimization, quality, customer satisfaction, etc.). This also includes projects and programs to harvest the value for identified opportunities.	No	N/A	Informed by Business Intelligence
Budget Execution	This includes the mechanisms, at both the department and enterprise-wide levels, to manage and control actual operations to conform to the approved budget. For example, the ability to predict and prevent budgetary overruns is part of this business process.	Yes	Budgetary Control and Encumbrance Accounting	
General Accounting	This includes the definition of the chart of accounts, payee file, and customer file and the accounting of transactions to the general ledger for each department and the enterprise as a whole.	Yes	Financial Management	
Project Accounting	This includes the specialized accounting for projects (which could be related to various contracts, interdepartmental work orders, capital projects, etc.). For example, the ability to set up and	Yes	Project Financial Management	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	account for specialized data fields is part of this business process. In some agencies (e.g. transportation), grants are accounted for using project accounting.			
Cost Accounting & Controlling	This includes another form of specialized accounting for various categories of cost. For example, allocations of overhead, equipment, labor and other costs across projects of other dimensions of the chart of accounts, as well as, analysis, monitoring, and optimizing direct/indirect spend (e.g. Smart Spend, activity based costing, cost variability and profitability analysis)	Yes	Profitability and Cost Management	
Accounts Payable	This includes the review and approval of requests for payment. For example, the matching of purchases to receipt to invoicing for vendors and approval for payment and disbursement.	Yes	Payables and Receivables	
Revenue Cycle Management – Non-Tax	For all types of revenue from sources other than taxes (e.g. fees, fines, rents, sales, assessments, gifts, grants, reimbursements, interagency transactions, etc.), this includes the chain of activities from the revenue event (i.e. determination of amount), through accounts receivable, billing, collections, or write off from both external entities (from customers) and internal entities (from other departments). Typically, this process is decentralized to multiple agencies.	Yes	Payables and Receivables	
Grants Management	This includes the departments and enterprise acting as both grantee (apply for and receiving grants) and grantor (receiving applications and making grants). For example, applying, receiving, managing, reporting, and closing federal grants.	Yes	Grants Management	
Asset Management	This includes the management and accounting of fixed and capital assets. For example, land, buildings, and equipment.	Yes	Maintenance, Inventory, and Real Estate Management	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Travel & Expense	This includes the chain of activities from request for travel authorization, through travel arrangement, to payment/reimbursement of the travel expense	Yes	Travel and Expense Management	
Cash & Banking Management	This includes the inflows and outflows of banking accounts. All depository and disbursement accounts, centralized and decentralized, are included. For example, use of electronic mechanisms such as Electronic Funds Transfer (EFT) is part of the business process. This also provides visibility to future cash flow for analysis and optimization (e.g. interest income).	Yes	Treasury Management and Cash Management	
Enterprise Statutory Reporting	This includes financial reporting required by law or other covenants. For example, in the US, the Comprehensive Annual Financial Report (CAFR) and Bond Offering Statements, enterprise financial statements, regulatory reports (e.g. Schedule of Expenditures of Federal Awards (SEFA),"Checkbook" disclosures required by transparency legislation, etc.	No	N/A	Informed by Business Intelligence
Enterprise Performance Reporting & Decision Support	On behalf of the enterprise (i.e. more than just the Finance function) this includes the reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest determined by the enterprise as well as the development of decision options and impact analysis. Often this involves the correlation of: goals and objectives established in strategic or annual plans, to budgets, to actual costs, and to actual outputs and outcomes. For example, in the US, the Governmental Accounting Standards Board (GASB) describes this as Service Efforts and Accomplishment reporting. The establishment, management, and reporting of metrics might be unique to an individual business unit or standardized across the enterprise.	No	N/A	Informed by Business Intelligence
Finance Performance Reporting & Decision Support	For just the Finance function this includes the reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest as well as the development of decision options and impact analysis. Often this involves the correlation of:	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	goals and objectives established in strategic or annual plans, to budgets, to actual costs, and to actual outputs and outcomes.			
Enterprise Analytics	On behalf of the enterprise (i.e. more than just the Finance function), this includes the creation and ongoing management and operations of the analytics strategy and analytics capability for the enterprise. This is complementary to other types of reporting described in other parts of the business process model (i.e. statutory and performance reporting). The analytics strategy and capability could include both financial and non-financial of a descriptive, predictive, and prescriptive nature.	No	N/A	Informed by Business Intelligence and Analytics
Enterprise Data Governance & Architecture	On behalf of the enterprise, this includes the policies and procedures to define, change, and access financial and performance data. Examples include establishing the definition and use of enterprise level chart of accounts, enterprise vendor data elements, enterprise customer data elements, and enterprise performance data elements. This also includes the policies and procedures for the structure and location of financial and performance data including establishing and managing the system of record for authoritative financial reporting, establishing and managing internal data warehouse and/or data marts, and establishing and managing external transparency or other data repositories. Often organizations allow individual business units to define and govern additional data elements germane to the respective business unit.	No	N/A	Informed by Business Intelligence, Analytics, and possibly supported by GRC
Enterprise Info. Creation & Distribution	On behalf of the enterprise, this includes the management and operations to support both internal and external reporting. This is the operational provisioning of the other types of reporting (i.e. statutory, performance, analytics) described elsewhere in the business process model.	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Technology Strategy & Blueprint	On behalf of the enterprise and/or for an individual business unit, this includes the leadership and management of stakeholders to define how digital and technology enabled systems, applications, and tools would be used to support the business process areas within Finance. For example, collaboration between the CFO and CIO for alignment of the entities strategic plan for Finance with the entities strategic plan for Information Technology.	No	N/A	
Service Management	On behalf of the enterprise and/or for an individual business unit, this includes the day to day operation and management of digital and technology enabled systems, applications, and tools that support the business process areas within Finance. Support may be provided by internal resources or outsourced. Examples include operating the help desk, managing the applications, and managing the supporting technical infrastructure.	No	N/A	Informed by Business Intelligence
Platform, Integration & Process Architecture	On behalf of the enterprise and/or for an individual business unit, this includes the activities to design and develop digital and technology enabled systems, applications, and tools that support the business process areas within Finance. A typical example is a shared software platform such as an Enterprise Resource Planning (ERP) system with interoperability and data exchange to separate and specialized applications that support individual business units. This also includes alignment of the business process model with the inventory of digital and technology enabled systems, applications, and tools.	No	N/A	Informed by Business Intelligence

Table 2.3.2: Procurement Functions in Scope for One Washington & Corresponding Software Modules Where Applicable

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Procurement Mission & Strategy	On behalf of the enterprise, this includes Procurement's role in contributing to the overall strategic planning process. This includes development of procurement targets and investment priorities. This also includes the enterprise wide mission statement to let stakeholders know the long-term direction that Procurement is driving towards and the strategy to get there, for example insourcing versus outsourcing.	No	N/A	Informed by Business Intelligence
Procurement Portfolio Management	On behalf of the enterprise, Procurement creates and maintains a 3-year plan that effectively manages the portfolio of projects to optimize use of resources and continuity of supply. The plan is a Blueprint that is coordinated across multiple dimensions, for example contracts due to expire, new sourcing opportunities, and catalog enablement. The plan is the basis for annual savings estimates	Yes	Strategic Sourcing, Procurement	
Procurement Business Strategy	In conjunctions with enterprise strategic planning, this includes the alignment of the Procurement function to the overall mission and strategy of the organization. The strategy is usually manifested in laws, regulations, policies and procedures. Example strategies might include Procurement in the role of business partner, administrator, regulator, controller, or a combination.	No	N/A	Informed by Business Intelligence
Internal Stakeholder Management	This includes measuring and managing internal customer satisfaction, e.g., planning and training between the Procurement organization and the departments is part of this business process.	No	N/A	Informed by Business Intelligence
Supplier Relationship Strategy	This includes segmentation of the universe of suppliers into major groupings and the development of the strategy for each group. Usually strategies cover developing relationships to optimize value through innovation, risk mitigation and growth throughout the relationship life cycle, from solicitation thru creation of contracts, thru performance. For example, the determination of the strategy	Yes	Supplier Relationship Management, Procurement	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	for social and/or economic preference programs for various grouping of suppliers is part of this process.			
Procurement Function Management	This includes the organizational structure, management processes, and policies and budgets of the units that provide leadership and management to all aspects of the Procurement function. This also, includes talent management activities related to competency models and job descriptions, recruitment, career and personal development, and retention. For example, it includes capability development & training which defines the skills needed in each organizational role and provides employees with training options to effectively build and maintain these skills.	No	N/A	Informed by Business Intelligence
Procurement Performance & Risk Management	This includes the establishment, management, and reporting of key performance and risk indicators (e.g. metrics) for each of the constituent business process areas (as defined by level 4 in the business process model) within the overall Procurement function. This includes legal analysis and support for terms and conditions in contracts. The establishment, management, and reporting of metrics might be unique to an individual business unit or standardized across the enterprise.	No	N/A	Informed by Business Intelligence, Analytics, and possibly supported by GRC
Procurement Value Architecture & Realization	For each of the constituent business process areas (as defined by level 4 in the business process model) within the Procurement function, this includes the identification of opportunities to generate additional value for the benefit of the organization. This includes both “hard dollar” value (e.g. revenue increases and other captured value which can help offset expense of implementing an enterprise program) and “soft dollar” value (e.g. process efficiencies, process optimization, quality, customer satisfaction, etc.). This also includes projects and programs to harvest the value for identified opportunities.	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Category Management	This includes the segmentation of procurement into major categories to define buying channels. Steering users to the appropriate buying channel helps drive down the total costs of targeted goods and services with solutions that meet customers' business needs through proactive strategies and creation of contracts.	Yes	Catalog Management, Procurement	
Demand Management	This includes ways to lower total cost of ownership and streamline procurement processes with existing suppliers by rationalizing / standardizing specifications, utilizing substitute goods and services, examining life cycle cost, and reducing consumption.	Yes	Strategic Sourcing, Procurement	
Inventory Management	This includes the management of warehouses and the ordering, storage and use of goods and materials used to support agency operations. For example, depots with maintenance materials for highways and warehouses for food and other goods supporting facility based operations.	Yes	Inventory Management	Possibly include Finance functions like Inventory (materials and goods) Management, Asset Management, Real-Estate Management
Strategic Sourcing	This includes the development and implementation of a structured and prioritized approach for sourcing goods and services to realize and sustain lower total cost of ownership in partnership with the appropriate customers and supplier base.	Yes	Strategic Sourcing, Procurement	
Compliance Management	This includes how the organization is performing against published standards and metrics, provides insight of adherence to policies, and identifies areas of opportunity to drive value through process efficiencies. It includes measuring and managing department compliance to department and enterprise-wide procurement policies and standards.	Yes	Governance, Risk, and Compliance Management	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Supplier Relationship Management	This includes systematic management of supplier relationships and the tactical activities with managing suppliers per their segmentation. This includes monthly meetings, collecting data, issuing RFPs, score carding, diversity supplier management/growth. An example is the supplier diversity approach which might include recruiting, certifying, matchmaking, and reporting for suppliers meeting diversity criteria.	Yes	Supplier Relationship Management, Procurement	
Internal Spend and Buying Analysis	This includes both detailed and summarized information on expenditures across the enterprise to support strategic sourcing decision making, category management, and other procurement processes. For example, analysis of past and future spending (including transaction information from P-Card providers) when creating a profile of a category for sourcing.	Yes	Strategic Sourcing, Procurement	Informed by Business Intelligence and Analytics
eRFx Support	This includes support in developing and conducting all forms of solicitations, tendering activities, and auction events. While different organizations use various nomenclature, this includes Request for Information, Request for Proposals, Request for Quotes, Invitation to Negotiate, etc.	Yes	Procurement	
External Market Analysis	This includes research to understand market conditions, trends, supply base, constraints, and pricing structure to support various procurement processes. For example, analysis of past and future market conditions when creating a profile of a category for sourcing.	No	N/A	Informed by Business Intelligence
Contract Support	This includes tracking, monitoring, and updating contracts throughout their lifecycle to proactively manage supplier and user adherence to negotiated terms and conditions. Developing and management contract templates and boilerplates, including terms and conditions, is part of this process.	Yes	Procurement Contracts, Procurement	
Requisition & Purchase Order Processing	This includes the policies and procedures for the chain of activities from identifying appropriate buying channels, through issuing and managing a purchase order with the supplier, to matching	Yes	Procurement	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	purchase orders with receipt, and handoff to accounts payable. It also includes requisitions that become purchase orders, the issuance of legally binding orders to suppliers, and submission of paper or electronic invoices. It also Include P-Card as a buying channel.			
Helpdesk Services	This includes the management and delivery of procurement and sourcing customer support to users and suppliers.	Yes	Help Desk	
Catalog Enablement	This includes the establishment and maintenance of supplier catalogs to facilitate the purchase of goods or services from contracted suppliers to decrease requisition cycle time and drive use of established contracts.	Yes	Catalog Management, Procurement	
Receiving & Receipt Processing	This includes the tracking, receiving, inspection, and creation of receipts for goods and services. It also includes checking and confirming that goods and services received match what was ordered. It also includes reconciling goods and/or services received when acquired via P-Cards.	Yes	Supply Chain Management, Procurement	
Spot Buy	This supports purchasing of goods or services that do not require the full sourcing process. For example, incidental purchases below the organizations mandatory sourcing/competitive bidding threshold.	Yes	Spot Buy, Procurement	
Statutory Reporting	This includes reporting required by the organization's laws or regulations. An example is a report of actual performance compared to goals for procurement associated with socio-economic programs.	No	N/A	Informed by Business Intelligence
Procurement Reporting	This includes all forms of routine and ad hoc reporting related to all aspects of procurement for departments and the enterprise. For example, both automated and manual reports.	Yes	Procurement Analytics	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Procurement Performance Reporting and Decision Support	For just the procurement function this includes the reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest. Often this involves the correlation of goals and objectives established in strategic or annual plans, to budgets, to actual costs, and to actual outputs and outcomes. An example is a balanced scorecard.	No	N/A	Informed by Business Intelligence
Enterprise Procurement Data Governance and Architecture	On behalf of the enterprise, this includes the policies and procedures to define, change, and access procurement data. This includes establishment and management of standard data definitions, for example, supplier and item master information. This also includes the policies and procedures for the structure and location of procurement data. Examples include establishing and managing the system of record for authoritative procurement reporting, establishing and managing internal data warehouse and/or data marts, and establishing and managing external transparency or other data repositories. Often organizations allow individual business units to define and govern additional data elements germane to the respective business unit.	No	N/A	Informed by Business Intelligence, Analytics, and possibly supported by GRC
Enterprise Procurement Information Creation and Distribution	On behalf of the enterprise, this includes the management and operations to support both internal and external reporting. This is the operational provisioning of the other types of reporting (i.e. procurement, statutory, performance,) described elsewhere in the business process model.	No	N/A	Informed by Business Intelligence
Technology Strategy and Blueprint	On behalf of the enterprise and/or for an individual business unit, this includes the leadership and management of stakeholders to define how digital and technology enabled systems, applications, and tools would be used to support the business process areas within Procurement. For example, collaboration between the CPO and CIO for alignment of the entities strategic plan for Procurement with the entities strategic plan for Information Technology.	No	N/A	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Service Management	On behalf of the enterprise and/or for an individual business unit, this includes the day to day operation and management of digital and technology enabled systems, applications, and tools that support the business process areas within Procurement. Support may be provided by internal resources or outsourced. Examples include managing the applications and managing the supporting technical infrastructure.	No	N/A	Informed by Business Intelligence
Platform, Integration, & Process Architecture	On behalf of the enterprise and/or for an individual business unit, this includes the activities to design and develop digital and technology enabled systems, applications, and tools that support the business process areas within Procurement. A typical example is a shared software platform such as a Procurement system with interoperability and data exchange to the financial system. Technology applications provide support for spend analysis, savings tracking, supplier management, sourcing management, good and services procurement, contract management, content management, spot buy managements, invoice management, and expense management. This also includes the creation and ongoing management of the agreed upon business process model.	No	N/A	Informed by Business Intelligence

Major ERP providers offer unified and integrated public-sector planning and budgeting systems that address the challenges identified by the Budget community. Agency budget analysts have security to create budget "versions" and decide which "versions" are visible to others. Data is organized in a relational data base, optimized for queries and modelling, and can be imported electronically from financial, payroll, and procurement systems. Unique public-sector requirements are supported, such as mass changes and position-based budgeting. Systems are user friendly and intuitive, with spreadsheet functionality. Table 2.3.3 below shows the Budget functions in scope for One Washington.

Table 2.3.3: Budget Functions in Scope for One Washington & Corresponding Software Modules Where Applicable

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
Enterprise Mission & Strategy	In conjunction with enterprise strategic planning, this includes the alignment of the Budget function to the overall mission and strategy of the organization. The strategy is usually manifested in laws, regulations, policies and procedures. Example strategies might include business partner, administrator, regulator, controller, or a combination.	No	N/A	Informed by Business Intelligence
Enterprise Performance Planning and Management	On behalf of the enterprise, this includes Budget's role in the overall strategic planning and performance management process including development and adoption of strategic plans, the establishment, management, and reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest determined by the enterprise. For example, in the US, the Governmental Accounting Standards Board describes this as Service Efforts and Accomplishment reporting. The establishment, management, and reporting of metrics might be unique to an individual business unit or standardized across the enterprise	No	N/A	Informed by Business Intelligence
Enterprise Budget Development	On behalf of the enterprise, this includes the promulgation of policy and process guidance to develop budget requests, the analysis and recommendations pertaining to such requests, and the decision making and approval of budgets. For example, it includes all types of budgets (i.e. operating and capital). It may also include financial forecasting and budget monitoring activities.	Yes	Operating, Capital, and Transportation Budget Planning	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
Enterprise Value Architecture & Realization	On behalf of the enterprise, this includes the identification of opportunities to generate additional value for the benefit of the organization. This includes both “hard dollar” value (e.g. revenue increases and other captured value which can help offset expense of implementing an enterprise program) and “soft dollar” value (e.g. process efficiencies, process optimization, quality, customer satisfaction, etc.). This also includes projects and programs to harvest the value for identified opportunities.	No	N/A	Informed by Business Intelligence
Budget Organization Management	This includes the organizational structure, management processes, and policies of the organizational units that provide leadership and management to all aspects of the Budget function. Provision of automated systems and digital capabilities is part of this process area.	No	N/A	Informed by Business Intelligence
Budget Execution	This includes the mechanisms, at both the department and enterprise-wide levels, to manage and control actual operations to conform to the approved budget. For example, the ability to predict and prevent budgetary overruns is part of this business process.	Yes	Operating, Capital, and Transportation Budgetary Control	
Enterprise Statutory Reporting	This includes reporting required by law or other covenants. For example, in the US, the Comprehensive Annual Financial Report (CAFR) and Bond Offering Statements, enterprise financial statements, regulatory reports (e.g. Schedule of Expenditures of Federal Awards (SEFA),"Checkbook" disclosures required by transparency legislation, etc.	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
Enterprise Performance Reporting & Decision Support	On behalf of the enterprise (i.e. more than just the Budget function) this includes the reporting of key performance indicators (e.g. metrics) for programs, priorities, or any other areas of interest determined by the enterprise as well as the development of decision options and impact analysis. Often this involves the correlation of: goals and objectives established in strategic or annual plans, to budgets, to actual costs, and to actual outputs and outcomes. For example, in the US, the Governmental Accounting Standards Board (GASB) describes this as Service Efforts and Accomplishment reporting. The establishment, management, and reporting of metrics might be unique to an individual business unit or standardized across the enterprise.	No	N/A	Informed by Business Intelligence
Enterprise Analytics	On behalf of the enterprise (i.e. more than just the Budget function), this includes the creation and ongoing management and operations of the analytics strategy and analytics capability for the enterprise. This is complementary to other types of reporting described in other parts of the business process model (i.e. statutory and performance reporting). The analytics strategy and capability could include both financial and non-financial of a descriptive, predictive, and prescriptive nature.	No	N/A	Informed by Business Intelligence and Analytics
Enterprise Data Governance & Architecture	On behalf of the enterprise, this includes the policies and procedures to define, change, and access financial and performance data. Examples include establishing the definition and use of enterprise level chart of accounts, enterprise vendor data elements, enterprise customer data elements, and enterprise performance data elements. This also includes the policies and procedures for the structure and location of financial and performance data including establishing and managing the system of record for authoritative financial reporting, establishing and managing internal data warehouse and/or data marts, and establishing and managing external transparency or other data repositories. Often organizations allow individual business units to	No	N/A	Informed by Business Intelligence, Analytics, and possibly supported by GRC

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
	define and govern additional data elements germane to the respective business unit.			
Enterprise Info. Creation & Distribution	On behalf of the enterprise, this includes the management and operations to support both internal and external reporting. This is the operational provisioning of the other types of reporting (i.e. statutory, performance, analytics) described elsewhere in the business process model.	No	N/A	Informed by Business Intelligence
Technology Strategy & Blueprint	On behalf of the enterprise and/or for an individual business unit, this includes the leadership and management of stakeholders to define how digital and technology enabled systems, applications, and tools would be used to support the business process areas within Finance. For example, collaboration between the CFO and CIO for alignment of the entities strategic plan for Budget with the entities strategic plan for Information Technology.	No	N/A	
Service Management	On behalf of the enterprise and/or for an individual business unit, this includes the day to day operation and management of digital and technology enabled systems, applications, and tools that support the business process areas within Budget. Support may be provided by internal resources or outsourced. Examples include operating the help desk, managing the applications, and managing the supporting technical infrastructure.	No	N/A	Informed by Business Intelligence
Platform, Integration & Process Architecture	On behalf of the enterprise and/or for an individual business unit, this includes the activities to design and develop digital and technology enabled systems, applications, and tools that support the business process areas within Budget. A typical example is a shared software platform such as an Enterprise Resource Planning (ERP) system with interoperability and data exchange to separate and specialized applications that support individual business units. This also includes alignment of the business process model with	No	N/A	Informed by Business Intelligence

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
	the inventory of digital and technology enabled systems, applications, and tools.			

Table 2.3.4: HR/Payroll Functions in Scope for One Washington & Corresponding Software Modules Where Applicable

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Workforce & Competency Planning & Strategy	This is designing and planning the workforce necessary to support the business strategy of the organization. It includes all types of workforces, e.g. roles performed by full-time, part-time, and contracted employees, roles outsourced to vendors, and roles performed by automation. It also includes identifying the capabilities and competencies needed by the workforces and role descriptions that define skills or behaviors and performance metrics needed to meet the business strategy. Part of this process is identifying competency and/or proficiency gaps, and creating plans to address gaps. For example, assessing proficiency levels within a category of role descriptions.	Yes	Core HR, Performance Management, Competency Management, Analytics and/or Business Intelligence	
Talent Planning & Strategy	This is defining the strategy to acquire the talent to fulfill the roles in the workforces. This includes identifying gaps between current and future state and strategies to address gaps. This includes developing the employee value proposition that attracts/fosters/retains the best talent and periodic surveys. This also includes identifying high performers and future leaders and strategies to retain and nurture them.	Yes	Recruiting, Succession planning, HR Analytics and/or Business Intelligence	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Organization, Culture, and Change Planning & Strategy	This establishes where and how work is performed based on organization structure and value models. Culture includes assessing and understanding the as is and defining the to be culture to align with the business strategy. For example, the development of strategies and programs for diversity and inclusiveness and establishing mechanisms to meet or exceed target performance indicators for minorities, veterans, LGBT, etc. This also includes the role of HR in assessing the organization's change capability and design of the change journey. For example, the commitment to a cloud implementation, continuous improvement, or other types of change initiatives.	Yes	Core HR Analytics and/or Business Intelligence	
Enterprise HR Technology Vision & Strategy	On behalf of the enterprise and/or for an individual business unit, this includes the leadership and management of stakeholders to define how digital and technology enabled systems, applications, and tools would be used to support the business process areas within HR. It includes collaboration between the CHRO and CIO for alignment of the entities' strategic plan for HR with the entities' strategic plan for Information Technology. The HR technology strategy defines and builds the infrastructure to support the HR operating model. It also includes applying digital technologies and innovations to deliver a differentiated employee experience.	Yes	ERP Self Service	
Learning & Development Planning & Strategy	This is designing the development and learning strategy to address gaps between required enterprise knowledge, skills, and competencies and the current knowledge, skills, and competencies of the workforce This also includes assessing training needs for the enterprise that are required to meet existing and future skill requirements, defining the training approach (i.e. cost, effectiveness, efficiency, schedules, and delivery including build vs. buy), designing solutions, training approaches, and assessment of approaches.	Yes	Learning Management, HR Analytics and/or Business Intelligence	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
HR Org Management	This is the design and management of the HR service delivery model. It includes the catalog of HR services and the model by which those services are delivered. It also includes managing the HR function itself including supervision of HR staff, budgeting, managing vendors, and establishing and managing the guidelines and processes to assure compliance to laws and policies.	No	N/A	HR Analytics and/or Business Intelligence
HR Performance Management	This includes the development of goals, objectives, and key performance metrics related to each business process area within the HR; as well as understanding industry standards and applying them across the function. Produces quantifiable measures of efficiency and effectiveness of strategies and operational services. In some cases, these measures are used to evaluate the efficacy of organizational performance, such as a shared service operating model.	No	N/A	HR Analytics and/or Business Intelligence
Sourcing, Selection and Deployment	This process identifies organizational talent needs, impacting those needs, and uses that information to develop a sourcing strategy and associated programs. Includes developing and implementing sourcing programs/pipelines, utilizing and managing sourcing channels/talent pools, and evaluating sourcing effectiveness. Encompasses the employment life cycle process, including creating role posting through sourcing channels, sourcing/interviewing/screening/evaluating candidates, hiring, designing and presenting offer package, deploying candidate, and on-boarding. Also includes the determination of compensation upon hiring to ensure gender and other forms of parity.	Yes	Recruiting and Onboarding	
Competency Management	This is the execution of the workforce and competency strategy described in a separate process. It includes the assessment of knowledge, skills, behaviors and experience against role/objectives requirements and competency models, to create individual development plans that increased capability to perform and potential for career progression.	Yes	Core HR, Classification & Compensation, Competency Management, HR Analytics and/or	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
			Business Intelligence	
Classification & Compensation	This includes the definition of individual jobs and job families and the associated compensation so that position descriptions have consistency of definition and compensation across business units within the enterprise. Also manages requests for reclassification.	Yes	Classification & Compensation, HR Analytics and/or Business Intelligence	
Performance Evaluation	Encompasses all aspects of performance management: objective setting, feedback, and assessment. Includes establishing goals and objectives, programs and techniques to accomplish those goals with mechanisms such as feedback and measurement, periodic review and rating. This also includes identifying high performance employees and designing approaches to optimize their contribution to the enterprise business strategies.	Yes	Performance Management	
Employee Recognition	This includes programs to define, develop, and manage employee engagement using recognition to achieve a higher performing workforce. For example, monetary and other forms of rewards to incentivize desired performance.	Yes	Core HR, Classification & Compensation, Talent Management	
Development and Learning	This is the execution of the learning strategy described in a separate process. It includes the design, deliver, and ongoing assessment and improvement of employee development and learning events. For example, this includes managing the training registration, delivery, and post evaluation.	Yes	Learning Management	
Succession Planning	Identification of a succession pipeline or pool of suitable candidates for critical roles in the organization's value chain and key leadership roles.	Yes	Core HR, Succession Planning, HR Analytics and/or Business Intelligence	
Employee Mobility	This includes the policies and processes to initiate, match, relocate, and transfer employees. This also includes developing policies and	Yes	N/A	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	standards for employees to work remotely and equipping an employee to work remotely.			
Employee Help Desk	This includes support desk and administrative activities to address inquiries related to Human Resources/Benefits/Payroll from employees, supervisors, agencies, or others. For example, the departments and the enterprise have various "customers' and other stakeholders who request and require services related to HR.	Yes	Help Desk, Portal	
Employee, Government, Labor Relations	Includes services to assist in prevention and resolution of workforce issues that arise out of or affect work situations; to investigate allegations of misconduct; and identify appropriate measures to ensure compliance. Also, manages activities between labor unions or work councils and management to foster cooperative labor management relations. Includes union contract negotiations, collective bargaining, employee grievances, settling of workplace disputes under various employment-related statutes, assisting in the settlement of collective agreements, arbitration, mediations, work stoppages and strikes.	Yes	Labor Administration	
Exit Management	The coordination of a series of actions required when employment ends (voluntary, retirement, leaves, involuntary, and/or death). Includes steps to ensure distribution of final pay, updating of employment data and records, collection of the organizations assets, and revocation of access and privileges.	Yes	Core HR, Payroll	
Work, Health and Public Safety Info	This includes supporting the workforce with prevention, management and measurement of occupational health and safety issues to assist in maintaining a safe and incident free workplace and drive workplace productivity. For example, identify a hazard/incident, analyzing the incident, initiating workers' compensation. This could also include the administration of a flu vaccine as a benefit.	Yes	Health & Safety	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Leave & Absence Management	Encompasses the regulated or unregulated programs that provide employees extended time for personal events by assisting employees and managers with eligibility determination, time off pay, benefits and leave expiration administration. Includes the establishment of policies and procedures for requesting, reviewing, approving and compensating employees for paid time off. This also includes mechanisms to anticipate, mitigate and track unscheduled absences.	Yes	Absence Management	
Time Administration	This includes time, attendance and leave reporting that feeds payroll. For example, attendance and various forms of absence such as vacation and sick time. Also includes communicating expectations to staff on the entities' policies for accurate time reporting.	Yes	Time and Attendance	
Payroll	This includes the administration and processing of employee earnings, audit activities and providing the payroll cost to the financials systems. For example, calculation of gross, deductions, and net pay. It also includes calculation and paying appropriate taxes for employees.	Yes	Payroll	
Statutory Reporting	Includes HR reporting required by law or other covenants. For example, in the US regular reporting is required on demographic characteristics of the workforce, equal employment opportunity, and compliance with State and Federal laws such as the Fair Labor Standards Act. It also includes reports required for transparency or other mandated reports.	Yes	Core HR and/or HR Analytics	
HR Reporting and Analytics	Provide reporting capabilities to the organization including development and support of standard reporting, ad-hoc reporting, and analytic capabilities. Defines data architecture to maintain organization wide HR Data to support reporting and analytics. Includes providing performance reporting capabilities within the organization, including analytics requirements and development, standard and ad-hoc reporting	Yes	Core HR and/or HR Analytics	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	support, and development. Includes creating a reporting catalogue and running and distributing reports (e.g. both automated and manual reports).			
HR Performance Reporting	This includes creating the metric framework, a process that links business strategy to talent and organizational imperatives. It includes identification of HR related metrics and indexes and includes defining, collecting and collating the data points required for the metrics. This also includes the reporting platform to monitor talent metrics and conduct multi - dimensional and predictive analysis (e.g. balanced scorecard).	Yes	Core HR and/or HR Analytics	
Enterprise HR Data Governance and Architecture	On behalf of the enterprise, this includes the policies and procedures to define, change, and access HR data. Examples include establishing the definition and use of enterprise level position descriptions, job descriptions, employee identification, and other HR master data elements. This also includes the policies and procedures for the structure and location of HR data. Examples include establishing and managing the system of record for authoritative HR reporting, establishing and managing internal data warehouse and/or data marts, and establishing and managing external transparency or other data repositories.	Yes	Core HR, HR Analytics and/or Business Intelligence, SAP Organization Management (OM)	
Enterprise HR Information Creation & Distribution	On behalf of the enterprise, this includes the management and operations to support both internal and external reporting. This is the operational provisioning of the other types of reporting (i.e. HR, statutory, performance) described elsewhere in the BPM.	Yes	Core HR, HR Analytics and/or Business Intelligence	
Enterprise HR Technology Platform, Integration, and Process Architecture	On behalf of the enterprise and/or for an individual business unit, this includes the activities to design and develop digital and technology enabled systems, applications, and tools that support the business process areas within HR. A typical example is a shared software platform such as a Human Resource Information System (HRIS) with interoperability and data exchange to separate and specialized applications that support individual business units. This also includes alignment of the Business Process Model with	No	N/A	ERP

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	the inventory of digital and technology enabled systems, applications, and tools.			
Enterprise HR Technology Service Management	This includes the day to day operation and management of digital and technology enabled systems, applications, and tools that support the business process areas within HR. Support may be provided by internal resources or outsourced. Examples include managing the applications and managing the supporting technical infrastructure.	No	N/A	

2.4 Implementation/Phasing Approach

2.4.1 *Introduction and Background*

A critical guiding principle for the Program Blueprint is the phasing and timeline approach that will deliver the functionality for the Finance, Procurement, Budget, and HR/Payroll business process areas and related Business Intelligence capabilities. This Blueprint describes an implementation plan for the One Washington program, including activities in the pre-implementation stage (i.e. procurement strategy), the implementation stage (i.e. business improvement initiatives that are not dependent on technology as well as initiatives that are dependent on technology), and the post implementation operation and maintenance stage.

In the 2014 Business Case, three scenarios were evaluated. One scenario was to implement Finance and Procurement functionality together in a managed service deployment model. The second was to implement Procurement separate (and first) followed by Finance, again in a managed service deployment model. The third was to implement Finance and Procurement functionality together in a cloud/SaaS deployment model. Each of these scenarios had different phasing and timelines.

Beginning in Fall 2016, Facilities Oversight partnered with R&K Solutions to configure and implement a new statewide facilities inventory system, the Facilities Portfolio Management Tool. This implementation is expected to result in increased accuracy of data, more tools for reporting, and updating of records in real time. It went live on June 30th 2017 and the change effort was successfully managed statewide by effective communication and diverse training to all state agencies.

In the same timeframe, OFM and WaTech collaboratively started the Budget Systems Modernization project to replace the Budget Development System with modern technology and functionality that will allow the agencies to submit their operating budget electronically. The new system will improve budget development efficiency and communication of critical budget data and information between OFM, the Legislature and the state agencies. Target completion date of the project is June 2018.

> *"Replacement of BDS is a big deal for us and will make our job easier. The existing system is very clumsy!"*
>
> *-Agency Budget Manager*

In July 2017, One Washington started developing the Program Blueprint for a comprehensive transformation effort for modernizing and improving aging systems. The Program Blueprint is based on the foundational assumption that the state has decided to implement Finance and Procurement functionality together, followed by Budget and HR/Payroll functionality, with all functionality in a cloud/SaaS deployment model. The work done between 2013 and present, described above will continue to guide and be the foundation for the future success of One Washington.

While there are some similarities between 2014 and 2017, there are many differences. A major difference is that the ERP software market has matured. In 2014, it was uncertain if any ERP software provider could deliver functionality to satisfy the business capabilities for a state like Washington in a SaaS model. In 2017, based on Accenture's work with numerous public sector entities, the ERP software providers have added functionality to satisfy over 90% of most state government business capabilities with baseline configuration. Another major difference is the evolution of ERP implementation methodology, from a traditional waterfall approach to a more agile approach. A third difference is the scope as the One Washington program now includes Budget, HR/Payroll and Business Intelligence functionality. The net result is that the plan for phasing and timelines in this Blueprint will deliver more functionality, in a faster timeline, and better mitigate the risk of uncertainty, than in 2014.

Guiding Principle

1. *One Washington will consider a phased agency / phased functionality approach for implementation of the Finance and Procurement integrated software.*

2. *One Washington will consider an all agency/full functionality approach for the Budget and HR/Payroll software implementation.*

2.4.2 *Supporting Activities*

This section of the Program Blueprint was developed based on the following activities and has taken into consideration the following:

- Based on state input and Accenture's professional judgment, Finance and Procurement functionality will roll out in a phased agency/phased functionality approach. Budget and HR/Payroll will roll out in a full agency/full functionality approach. This determination was based on iterative conversations and analysis of options, including the advantages and disadvantages of each option, with One Washington and the Finance, Procurement, Budget, and HR/Payroll stakeholder groups.
- This approach delivers incremental and concrete success within the 7.5-year implementation timeframe for the One Washington program but the overall timeframe, including post implementation support (after the HR/Payroll deployment), is eight years.
- This approach creates business value that balances cost, benefits, speed, and risk.
- This approach provides a realistic schedule to accomplish procurement activities, non-technology dependent business improvement initiatives (i.e. business process redesign), and technology implementation.
- This approach aligns with Washington business cycles, i.e., fiscal year end for Finance (to the extent possible), the current timelines for Budget and calendar year end for HR/Payroll.
- Adopting this phasing approach affects several other components of the Program Blueprint, specifically the scope of functionality, the integration strategy, the staffing strategy, and the budget.

2.4.3 *Rationale and Recommendation*

The phasing approach has a very large number of activities. We have detailed the following major activities, below, in the following pages:

- Procurement Activities (for Finance, Procurement, Budget, HR/Payroll and Business Intelligence)
- Non-Technology Dependent Initiatives (focusing on preparation for system implementation and business improvement activities)
- Technology Dependent Initiatives (system implementation)
- Summary

2.4.3.1 Procurement Activities

One of the major questions to be answered is the approach to sourcing and/or procuring the various elements of the overall One Washington program. State ERP projects typically involve multiple sourcing and procurement activities as illustrated below. However, because the State of Washington has already made certain procurement decisions (specifically obtaining the consulting services of North Highland and Accenture) and foundational assumptions (specifically a unified ERP with a cloud/SaaS deployment model), fewer procurements are remaining and One Washington will need to conduct a fewer number of procurements compared to other states. The narrative below describes the typical sourcing/procurement activities other states undertake and whether and how that activity is relevant to One Washington.

- **Consulting services to help develop business capabilities, create the Competitive Procurement Process (CPP) documents for ERP application software, and assist in the management of the CPP and the ensuing ERP software vendor selection and contracting process.** These types of services are often referred to as Third Party Advisory (TPA) services. One Washington has already conducted a procurement for the services of North Highland and Accenture. Within the boundaries of the state's procurement policies, these partners could help in the development of business capabilities, provide advice and support in the creation of CPP documents for ERP application software, and assist in the CPP process. A dedicated state employee group, augmented by North Highland and Accenture resources, effectively eliminates the need for a TPA procurement.
- **Specialized consulting services to augment and complement state employees with the One Washington program.** One Washington has already conducted a procurement for specialized consulting services and engaged North Highland for project management assistance. One Washington has also already conducted a procurement and engaged Accenture as strategic partner, and obtain specialized consulting assistance from Accenture to support the non-technology dependent initiatives, if needed. In the event One Washington wants additional specialized consulting services in other areas, for example specialized legal assistance for the contracting process with the selected ERP software vendor contracting process, an additional procurement would be necessary. As circumstances dictate, One Washington would use the state's normal sourcing process to obtain additional, specialized consulting services.
- **Quality Assurance (QA) professional services.** To acquire QA, One Washington would use OFM's convenience contract or other state procurement processes. This procurement would be done in FY18 with continued QA services for the program duration.
- **ERP application and Business Intelligence software.** There are several major vendors who should be encouraged to compete in this area, for example Oracle, SAP, CGI, Workday and Infor. Consistent with One Washington guiding principle regarding a unified versus best-of-breed approach. One Washington will conduct procurement and contracting of the Business Intelligence software during FY 2019 along with the procurement of both initial and expanded functionality of Finance and Procurement ERP application software. (Note: the distinction between initial and expanded functionality is described in section 2.1 of the Program Blueprint). Conducting this procurement, and the ensuing ERP software vendor selection and contracting process, will be a major activity during FY19.
- **Specialized application software.** Consistent with One Washington guiding principle regarding a unified versus best-of-breed approach, it is possible the state may want to acquire certain specialized application software from vendors to meet needs that the ERP cannot provide. If decided, an additional procurement for specialized functionality would be needed. One Washington would use the state's normal sourcing process to obtain specialized application software.
- **Infrastructure management services to provision the data center and host the ERP application.** One Washington has made the planning assumption for a cloud/SaaS deployment model. This effectively eliminates the need for an infrastructure management services procurement.
- **Application management services to operate and maintain the ERP application.** One Washington has made the planning assumption for a cloud/SaaS deployment model. This effectively eliminates the need for an application management services procurement.
- **Technical infrastructure and hardware.** Notwithstanding the planning assumption for a cloud/SaaS deployment model, it is likely that the state will need to enhance its current technical architecture. This might include network connectivity, middleware such as an enterprise service bus and new end user access devices (i.e. computers with internet connectivity). If needed, One Washington would use the WaTech sourcing process to obtain additional technical infrastructure and hardware.
- **Systems integration/implementation consulting services.** One Washington has already conducted a procurement for a strategic partner and engaged Accenture. This scope of services includes systems integration/implementation. This effectively eliminates the need for a systems integration/implementation procurement.

Table 2.4.1 below summarizes the types of procurements planned in FY19

Type of procurement	Comments
Specialized consulting services to augment and complement state employees with the One Washington program	If needed, One Washington would use the state's normal sourcing process to obtain additional, specialized consulting services.
QA professional services	Quality Assurance services are required. One Washington would use OFM's convenience contract or other state procurement process to procure these services.
ERP application and Business Intelligence software	Conducting this procurement and the ensuing ERP software vendor selection and contracting process will be the major FY19 activity.
Specialized application software	If needed, One Washington would use the state's normal sourcing process to obtain specialized application software.
Technical infrastructure and hardware	If needed, One Washington would use the WaTech sourcing process to obtain additional technical infrastructure and hardware.

The major effort in FY19 will be the procurement of ERP application software. This procurement has many aspects, including the definition of business capabilities and technical specifications, market research, writing the CPP document (i.e. the RFP and evaluation scoring criteria), evaluating ERP software vendor proposals (including vendor demos), and selecting, negotiating, and contracting with the vendor with the best value proposal.

The traditional approach to definition of business capabilities and technical specifications is to spend several months defining literally thousands of detailed capabilities. Experience indicates that most capabilities (80-85%) are the same from state to state. The traditional approach is used when developing code, but not in the use of a SaaS program, where solutions are configured to meet customer business capabilities rather than developed or "hard coded". A forward-looking approach is to focus on required business outcomes, which would result in a few hundred business capabilities rather than a few thousand business capabilities. For the Program Blueprint, we assume the business outcome approach and plan eight months to complete and document business capabilities and technical specifications.

Capabilities that are unique to Washington pertain to specific definitions of master data and reports needed for business and policy purposes. Many of these have been already identified from prior work, and will be factored into the definition of business capabilities and technical specifications. Some examples include the requirement to report retroactively on taxonomy (10 year recast), the requirement of reporting utilization of master contract by non-state agency participants, etc. Other capabilities unique to Washington relate to business rules and workflows. We have included time in the plan to define these capabilities.

When staff conducted site visits to the states of Wisconsin, Arizona and New York, who had all recently completed a successful ERP implementation, they learned each state's perspective on what made their implementation successful and what they would change based on how the projects unfolded. We have included those states lessons learned into our process.

Market research and writing of the CPP document (i.e. the RFP), can be started in FY18. One Washington can invite the major ERP software vendors to demonstrate capability, providing the state with a useful exposure to modern ERP software use and capabilities. Concurrently, the writing of the CPP document and definition of business capabilities and technical specifications can begin. Examples and templates from similar RFPs can be

used to jumpstart the process. For the Program Blueprint, we assume this approach and plan to complete and publish the CPP document in eight months.

Another leading practice is to expose a draft CPP in a "Request for Information" process. One Washington can share its intent on scope, deployment model, phasing and timelines, and similar matters and ask the ERP application software providers to provide reaction and comment. In this process, One Washington can also ask the ERP application software providers certain questions, for example the required technical infrastructure needed to operate their software. The information obtained via this process can be used to refine the CPP document. For the Program Blueprint, we assume this approach and plan one month for vendor review and comment to the draft CPP.

The next step is for vendors to develop proposals. Some states allow a relatively short timeframe like one month; others allow a more extended timeframe like three months. For the Program Blueprint, we plan two months for this activity.

The evaluation process includes the creation of the evaluation team, review and scoring of the business, technical, and cost proposals, conducting oral interviews and software demonstrations, and final scoring to determine the apparently successful vendor. We plan two months for this process.

The final step is negotiation and execution of the contract. For the Program Blueprint, we plan two months for this process.

The result of these activities, assume a start of July 1, 2018, will be a contract for Finance/Procurement ERP application software by October 30, 2019.

If the state determines that it needs specialized software that the ERP software does not provide, additional procurement activity will be needed. This option is consistent with the guiding principle for a unified versus best-of-breed approach. If an unmet business capability is identified, this procurement should be planned after the initial ERP application software is chosen, in FY20. This does not compromise the overall One Washington timeline since deployment of expanded functionality is later in the schedule.

The procurement for the technical infrastructure and hardware is dependent on the decision for ERP application software. This procurement needs to be scheduled and conducted as soon as possible after ERP software selection.

The procurement of QA services for the entire program needs to be scheduled and conducted starting in FY18. For specialized consulting services, the nature and timing of such procurements, will be determined on an as needed basis.

The high-level plan for activities related to procurement of the Finance, Procurement and Business Intelligence functionality is depicted in Figure 2.4.1 below.

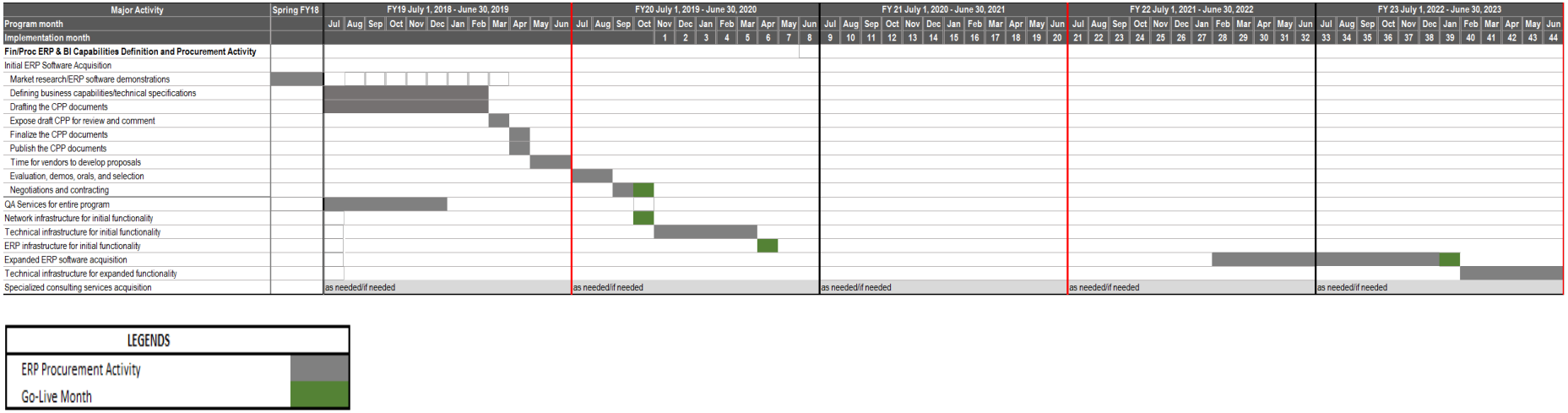


Figure 2.4.1: Procurements needed to acquire Finance, Procurement and Business Intelligence functionality

The One Washington program plans to procure Budget and HR/Payroll functionality later in the schedule. This procurement process will be similar to the steps described above for Finance and Procurement and is depicted in Figure 2.4.2 below:

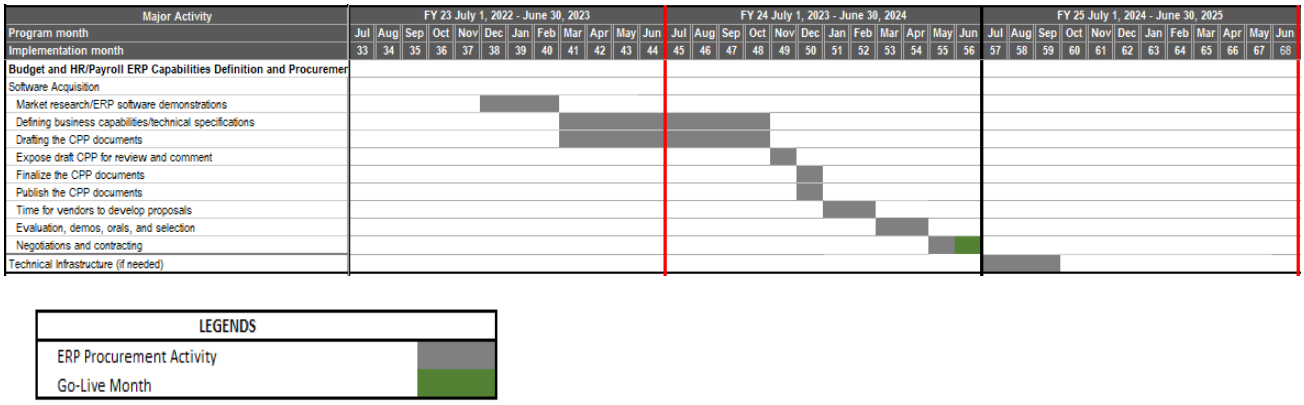


Figure 2.4.2: Procurements needed to acquire Budget and HR/Payroll functionality

2.4.3.2 Non-Technology Dependent Initiatives

The phasing plan for Finance, Procurement, Budget, and HR/Payroll includes activities in the implementation stage for business improvement initiatives that are not dependent on new technology. These are initiatives that focus on business process redesign, empowering the workforce, and updating policies and procedures, and are complementary to the technology implementation.

The list of initiatives provided below will continue to be refined through version 3. These initiatives, described in detail in section 3 of the Program Blueprint, are summarized below:

- Management of the One Washington program. This includes communicating a compelling business case and delivering successful incremental projects to earn the support of the Governor and Legislature.
- Assess Procurement organizational strategy. This includes a review of laws, regulations, and policies, launching strategic sourcing and developing an organizational strategy.
- Finance organizational strategy and readiness. This includes consolidating statewide master payee and customer files, review of laws, regulations, and policies, improving and standardizing accounting practices, developing an organizational strategy, and reviewing selected business process areas for standardization and improvement.
- Assess Opportunities to Simplify and Improve Budget Processes
- Review HR/Payroll Statutes and Business Processes
- Assess the Feasibility for Creating a Center of Excellence for HR/Payroll
- Assess the Ability to Intercept/Offset Delinquent Debt
- Define and Implement Procurement Key Performance Indicators. This includes measures and metrics on key aspects of the Procurement function.
- Launch Finance Readiness Workgroup
- Launch Grants Management Workgroup
- Launch Enterprise Solicitation Processes Workgroup
- Launch Supplier Relationship Management Workgroup
- Launch Non-Tax Revenue Workgroup
- Launch Indirect Cost Allocation Review Workgroup

The phasing approach for these business improvement initiatives for the FY19-FY26 timeframe is depicted in Figure 2.4.3. Please refer to the attached document for detailed information.

Non Tech Summary Gantt

Program management and non-technology dependent initiatives

Major Activity	Spring FY18	FY19 July 1, 2018 - June 30, 2019	FY20 July 1, 2019 - June 30, 2020	FY 21 July 1, 2020 - June 30, 2021	FY 22 July 1, 2021 - June 30, 2022	FY 23 July 1, 2022 - June 30, 2023	FY 24 July 1, 2023 - June 30, 2024	FY 25 July 1, 2024 - June 30, 2025	FY 26 July 1, 2025 - June 30, 2026
Executive Program Management and Quality Assurance.									
Assess Procurement Organizational Strategy									
Assess Finance Organizational Strategy and Readiness									
Assess Opportunities to Simplify and Improve Budget Processes									
Review HR/Payroll Statute and Business Processes									
Assess the Feasibility of Creating a Center of Excellence for HR/Payroll									
Assess the Ability to Intercept/Offset Delinquent Debt									
Define and Implement Procurement Key Performance Indicators									
Launch Finance Readiness Workgroup									
Launch Grants Management Workgroup									
Launch Enterprise Solicitation Processes Workgroup									
Launch Supplier Relationship Management Workgroup									
Launch Non-Tax Revenue Workgroup									
Launch Indirect Cost Allocation Review Workgroup									

LEGENDS	
Non-tech initiatives	

Figure 2.4.3: Business improvement initiatives complementary to technology initiatives

2.4.3.3 Technology Dependent Initiatives

Phasing Approach

For the implementation of new technology to deliver Finance and Procurement functionality, the phasing approach is to incrementally rollout both functionality and agencies. This conclusion is based on the following factors:

- The largest states (e.g. California, Texas, New York, Florida and Illinois) and, peer states (such as Virginia and Massachusetts) have taken this approach. Washington is one of the largest, and more complex states.
- This phasing approach allows time for organizational change management, including the definition and adoption of standardized master data, workflows, and business processes. Given Washington's federated operating model and culture, allowing sufficient time for business process redesign and organizational change management is fundamentally important.
- This approach allows more time for designing, testing, and implementing the One Washington data conversion process and integration architecture. This is important as Washington has a complicated ecosystem of systems to be replaced and/or interfaced, with over 200 existing systems that will be impacted for just Finance and Procurement.
- The timeline will take advantage of continuing advances in ERP software maturity. All the major ERP software providers have a roadmap for ongoing software enhancements. These major ERP software providers have stated their intent to increase the robustness and functionality of their ERP software for state governments within the timeframe of the recommended One Washington phasing.
- The Finance solution will replace multiple accounting systems, and there is no current statewide Procurement system, making this a more challenging undertaking. This phasing approach mitigates both technical and business risk factors.
- A fundamental principle of One Washington is to build confidence with a series of incremental, affordable, and successful initiatives. This phasing approach best supports this principle.

For Budget and HR/Payroll functionality, the phasing approach is to rollout full functionality to all agencies. Washington has enterprise systems for Budget and HR/Payroll. Transitioning from a single enterprise system to a new enterprise system does not have the same degree of complexity as is the case for Finance and Procurement.

From a functionality perspective, ERP is a suite of related software modules, each of which support certain business process areas. For example, the financial suite is comprised of multiple software modules for general ledger, accounts payable, accounts receivable, grants management, cash management, etc. Similarly, the Procurement suite is composed of modules for purchasing, strategic sourcing, supplier registration, etc. There are phasing options within a suite, for example the various modules within the financial suite. Also, there are phasing options across the suites, for example Financial followed by Procurement. Typically, functionality is phased into releases. As an example, within the financial suite there could be a release of foundational financial modules (e.g. general ledger, accounts payable, accounts receivable, etc.), followed by a second release of "expanded" financial modules (e.g. grantor management, etc.).

From an agency perspective, states select agencies that will cut over to the new software on a phased basis. These are often referred to as waves. For example, a small group of agencies might be in the initial wave, followed by additional agencies deploying the new software in a second wave, with the rest of the agencies of the government adopting the new software in a third wave. Usually agencies selected in the initial wave are the ones most critical to demonstrate an early success, with other agencies grouped in subsequent waves based on agreed upon criteria.

We examined the advantages and disadvantages of four options for phasing aligned to two dimensions, phasing by functionality (i.e. software module) and phasing by entity (i.e. agency). This analysis supports the conclusion depicted in Figure 2.4.4 below.

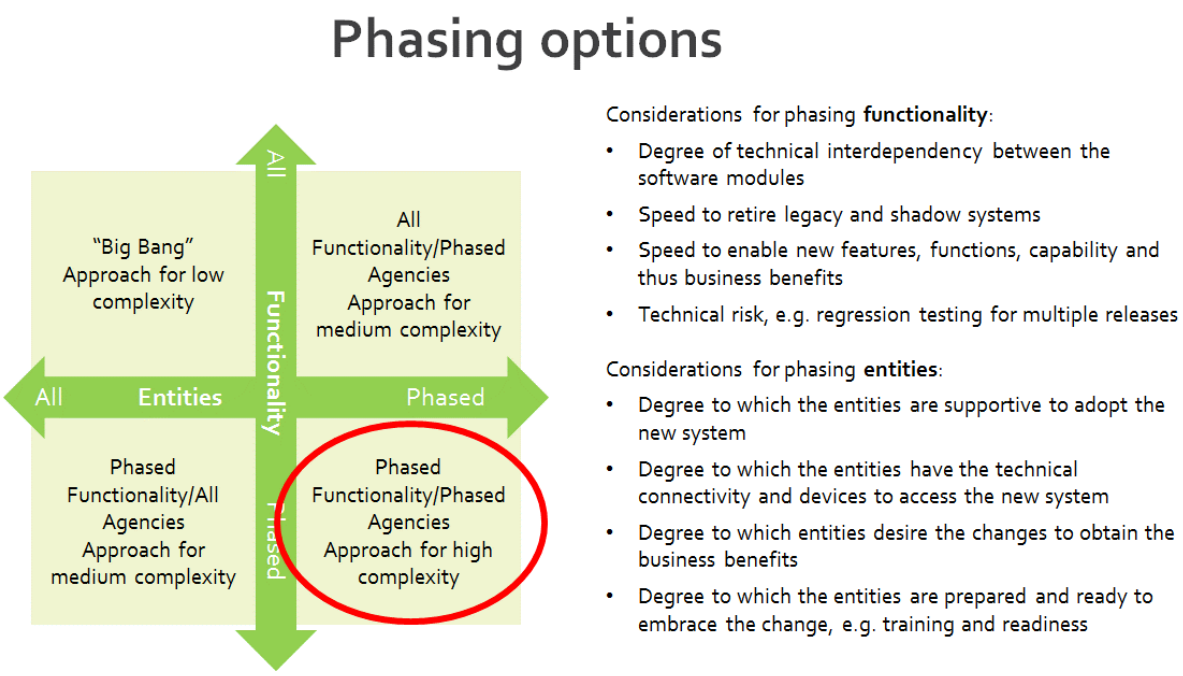


Figure 2.4.4 Phasing options

Functional Scope

From the perspective of ERP software, there are certain software modules which are inherently interdependent. In other words, all the major ERP software suites are designed so that foundational software modules will not operate in the absence of related software modules. However, the major ERP software suites intentionally design some software modules for implementation as "expanded" functionality. Foundational software modules must be implemented initially and together and "expanded" software modules can be phased and implemented at later times.

One Washington plans to implement the business process areas and functionality for Finance and Procurement together. A leading practice is to channel end users to preferred sources of supply and to efficiently integrate the procurement functions with the Finance functions in a holistic "procure-to-pay" chain of activities. This approach for channeling end users and seamless integration between Finance and Procurement is illustrated in Figure 2.4.5 below.

"Automating the Procure-to-Pay process is the single biggest benefit to my agency."
-Agency Finance Professional

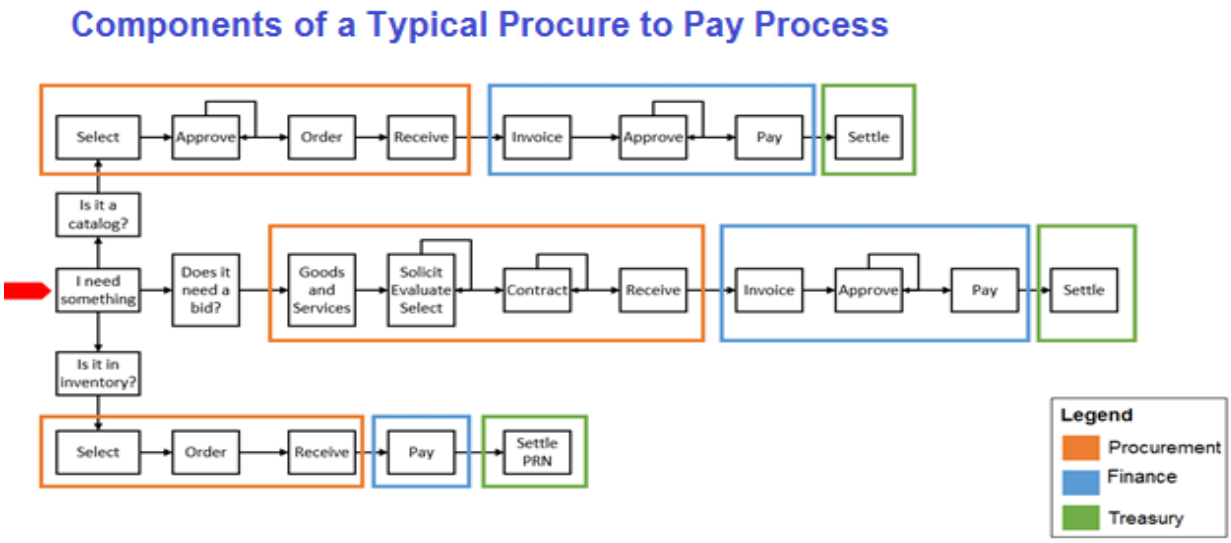


Figure 2.4.5: Integrated Procure-to-Pay process flow

One Washington plans to implement the business process areas for Budget after the implementation of Finance and Procurement because the Budget system is highly dependent on aspects of the Finance system, such as the chart of accounts. One Washington plans to implement the business process areas for HR/Payroll towards the end of the program. The current HR/Payroll system is relatively modern (compared to the other Washington systems), so the other systems are scheduled for implementation ahead of it.

Organizational Scope

The implementation of initial Finance and Procurement functionality will be rolled out to agencies in four waves. The determination of which agencies go-live in which wave will be based on data and analysis of the following agency attributes:

- Proportion of the budget
- Number of AFRS users
- Number of procurement users
- Agency business capabilities
- Use of fund types, e.g. General Fund, Special Revenue Funds, Capital Funds and Internal Service Funds
- Agency inventory of reports, interfaces, conversions, workflows, and forms (RICWF)
- Technical readiness for cloud connectivity and end user devices
- Degree of willingness and support for the design and adoption of the One Washington program
- Budgetary capacity to engage in the design and implementation
- Both business and IT resource capacity to engage in the design and implementation
- Agency technical imperatives, e.g. broken financial systems, non-existent procurement systems, and agency systems at end of life
- Agency business imperatives, e.g. new business capabilities and common business capabilities among a group of similar agencies

This data will be collected in the next version of the Program Blueprint. A graphical representation of this matrix of agency attributes is included in the Appendix.

Based on this analysis, agencies will be matched to implementation waves using the criteria listed in Table 2.4.3 below.

Table 2.4.3: Agency Selection Criteria

Criteria	Description
Contributes to Baseline Configuration	Accounts for 80% of the common workflows, enterprise wide business rules, and master data.
Fund Type	Includes General Funds, Special Revenue Funds, Capital Funds, and Internal Service Funds.
Technical Readiness	Considers network infrastructure, cloud connectivity, and end-user devices.
Executive Buy-In and Support	Addresses degree of willingness and support for design and adoption of the One Washington program and resource capacity.
Business Buy-In and Support	Addresses degree of willingness and support from Finance and Procurement business community.
Technical Imperatives	Addresses agency needs, for example, broken financial systems, non-existent procurement systems, agency systems at end of life.
Business Imperatives and Connectivity to other Agencies	Addresses agency needs, for example, new business capabilities, and common business capabilities among a group of similar agencies.

At the current time, individual agencies have not been scheduled to a specific wave. This will be planned in later versions of the Program Blueprint. Table 2.4.4 shows the principles that will guide the planning for matching agencies to waves.

Table 2.4.4: Principles to match agencies to waves for Finance and Procurement

Implementation Wave	Detail
Initial Release - Wave 1	• Agencies engaged by invitation, allowing One Washington to control size and mix for affordability • Engage agencies that account for >50% of the budget to show adoption • Engage a mix of agencies that will use most of the initial functionality to help design the baseline configuration and common business rules • Engage a mix of small, medium, and large agencies to demonstrate that the solution works for agencies of all sizes • Engage a mix of agencies that use general fund, special revenue funds, capital funds, and internal service funds to demonstrate that the solution works for all fund types
Initial Release - Wave 2	• One Washington will work with agencies to schedule them into this wave, allowing One Washington to control size and mix for affordability.
Initial Release - Wave 3	• All other agencies.

Implementation Wave	Detail
Expanded Release - Wave 4	• During development of version 2 of the Program Blueprint, we engage in selective interviews and/or meetings to confirm which agencies require expanded functionality to meet their business needs

The implementation for expanded Finance and Procurement functionality will be for all agencies in wave 4.

The implementation of Budget functionality will be for all agencies in a single wave.

The implementation of HR/Payroll functionality will be for all agencies in a single wave.

The implementation for Business Intelligence will occur with Finance and Procurement and be extended to Budget and HR/Payroll.

Recommended Phasing Timeline and Activities

Each wave addresses defined functionality and agencies. It takes time to design, configure, test, and deploy modern ERP systems. If not enough time is planned, the risk of errors and re-work increases. If too much time is planned, money is wasted and business benefits are delayed. Based on experience from other states, there is a range of timing parameters ranging from relatively short (i.e. aggressive) to relatively long (i.e. conservative). As described above, to determine the optimal timeline for the One Washington program there are many factors to be considered.

The net result of analyzing these factors for the One Washington program is a set of timelines that is in the middle of the range, compared to experience in other state governments and organizations. These timelines are neither especially short (i.e. aggressive) nor especially long (i.e. conservative). While these phasing and timeline assumptions are the basis for planning the Program Blueprint, the phasing and timeline approach is subject to change and elaboration as additional data and analysis is developed over time.

The timeline for implementation of Finance, Procurement and Business Intelligence is summarized in Figure 2.4.6.

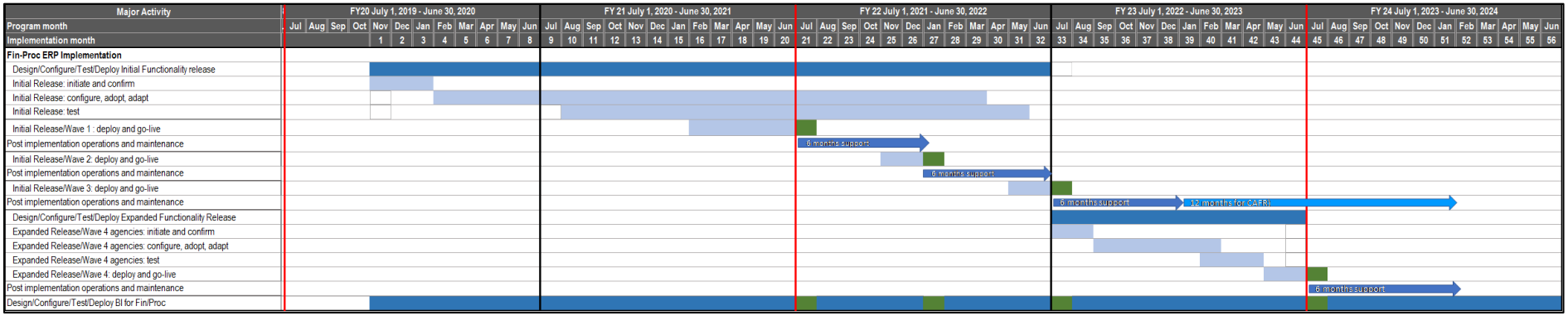


Figure 2.4.6: Timelines for Finance, Procurement, and Business Intelligence implementation (to be further defined in the implementation plan after software is selected).

The timeline for implementation of Budget and HR/Payroll is summarized in Figure 2.4.7 below. (Note: The gap between the end of Finance deployment and start of Budget and HR/Payroll implementation is depicted in Figure 2.4.2: Procurements needed to acquire Budget and HR/Payroll functionality.)

Major Activity	FY 25 July 1, 2024 - June 30, 2025												FY 26 July 1, 2025 - June 30, 2026											
Program month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Implementation month	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Budget Implementation																								
Design/Configure/Test/Deploy																								
Full release all agencies: initiate and confirm																								
Full release all agencies: configure, adopt, adapt																								
Full release all agencies: test																								
Full release all agencies: deploy and go-live																								
Post implementation operations and maintenance																			6 months support					
Design/Configure/Test/Deploy BI for Budget																								
HR/Payroll implementation																								
Design/Configure/Test/Deploy																								
Full release all agencies: initiate and confirm																								
Full release all agencies: configure, adopt, adapt																								
Full release all agencies: test																								
Full release all agencies: deploy and go-live																								
Post implementation operations and maintenance																			6 months support					
Design/Configure/Test/Deploy BI for HR/Payroll																								

LEGENDS
Go-Live Month
ERP Implementation overall timelines
Implementation - waves

Figure 2.4.7: Timelines for Budget and HR /Payroll Implementation

A planning assumption within each wave is to employ an agile-like implementation methodology. The initiate and confirm phase includes mobilizing the project, confirming detailed business capabilities, and bringing a pre-configured instance (prototype 0) of the solution. The configure-adopt-adapt phase builds upon the initial prototype and includes detailed design for adopting the solution functionality as delivered, or adapting business processes to the solution. Additional prototypes are configured. The testing phase includes all types of testing, including integration and user accpetance. The deploy and go live stage includes final user and technical readiness and cut-over to the new system. This iterative approach is illustrated in Figure 2.4.8 below.

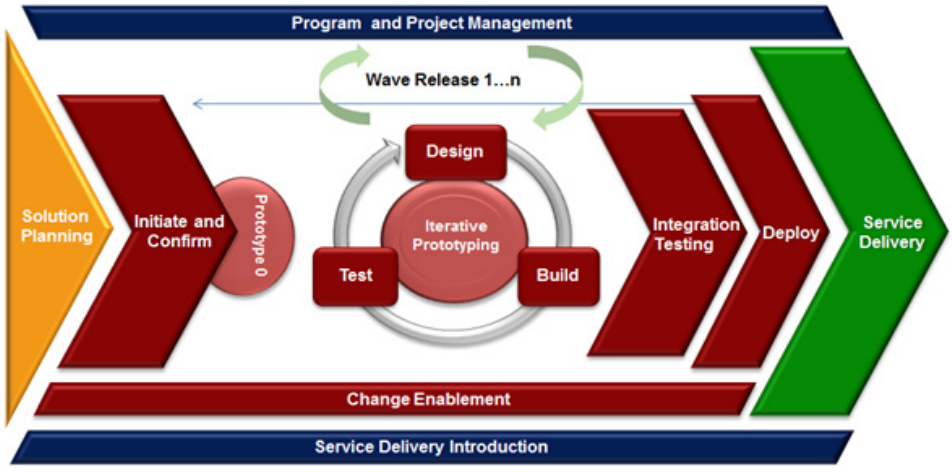


Figure 2.4.8: Agile methodology for implementation

Summary

We include in this section two summary views of the recommended timeline – a table (Table 2.4.5) showing major activities by date, and a high-level Gantt chart. Using July 1, 2018 as the starting point, this is a 7.5-year (90 month) program to accomplish full implementation of Finance, Procurement, Budget, and HR/Payroll functionality.

Table 2.4.5: Major Activities by date

Activity	Date
Develop business capabilities, conduct Finance/Procurement/Business Intelligence software acquisition and related procurements	July 1, 2018 – October 30, 2019
Go live with initial Finance and Procurement functionality and Business Intelligence for wave 1	July 1, 2021
Go live with initial Finance and Procurement functionality and Business Intelligence for wave 2	January 1, 2022
Go live for initial Finance and Procurement functionality and Business Intelligence for wave 3	July 1, 2022
Go live with expanded Finance and Procurement functionality and Business Intelligence for all agencies	July 1, 2023
Decommission AFRS and TRAINS and One Washington becomes the system of record	July, 2023
Develop business capabilities and conduct Budget and HR/Payroll software acquisition and related procurements	December 1, 2022 - June 30, 2024
Go live with full Budget functionality and Business Intelligence for all agencies	January 1, 2026
Go live with full HR/Payroll functionality and Business Intelligence with full functionality for all agencies	January 1, 2026
Decommission legacy Budget systems and HRMS and One Washington becomes the system of record	January, 2026

The figure below shows the summary of the master Gantt chart.

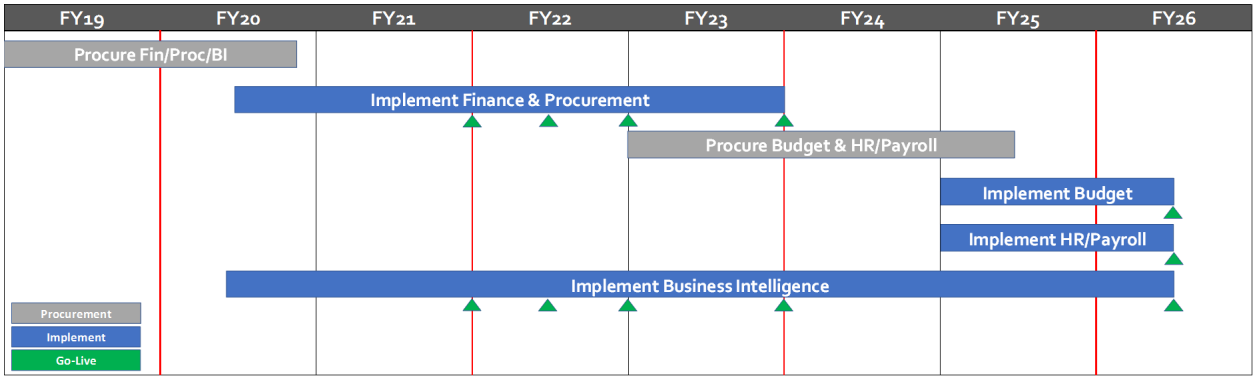


Figure 2.4.9: Summary of the Gantt Chart

2.5 Integration Approach

2.5.1 *Executive Summary*

The integration approach defines the future-state interface approach between the One Washington Finance, Procurement, HR/Payroll, and Budget applications and other systems with which the program will interface. Interfacing systems may include other state enterprise systems, systems managed by the various state agencies, and external systems.

While this section defines the future-state, it also serves as the foundation for the development of the Integration Implementation Plan which will detail the expectations for agencies, roles and responsibilities, implementation methodologies and expectations of effort between the One Washington program and other state agencies. Further details of the integration strategy for the One Washington program are described in the Integration Strategy deliverable.

2.5.2 *Background and Introduction*

> *"If the data is already there, why should someone have to enter it again? The information should flow from procurement to accounting to inventory to asset retirement without having to re-enter anything."*
>
> *-Agency Accounting Director*

This section outlines the high-level integration approach and guiding principles for interfaces between One Washington (Finance, Procurement, HR/Payroll, and Budget) and other systems with which One Washington will interface. To facilitate the development of the Integration Implementation Plan, this strategy will discuss the following topics:

- High-level approach and guiding principles
- Integration methodologies
- Data conversion approach

One Washington's integration strategy will design an open architecture approach that facilitates data exchange and application interoperability with multiple legacy and external systems while supporting multiple technologies. Current

state systems are not well integrated with one another, rely on aging technologies, and require extensive effort by staff to maintain and function.

The final objective of the Integration Approach is to support the guiding principle of providing a unified system of record for Finance, Procurement, Budget, and HR/Payroll. A unified system of record is a term that describes an information storage system that is the authoritative data source for a given set of data. ERP solutions provide a unified system of record and provide the following benefits:

- Accurate and timely data for decision makers
- Reduced risk of major system failure
- More staff time devoted to delivering the mission rather than maintaining systems
- Critical capabilities maintained without having to own all the technology
- Process efficiencies as routine tasks are automated

The Integration Approach was developed by the One Washington program based on a review of existing documentation and discussions with technical groups and agency staff which included:

- Applicable Policies – such as "Securing Information Technology Assets" – Policy: 141
- Current Capabilities – such as Informatica (one of several middleware software solutions currently used by the state) and Business Objects (described in section 2.8)
- Current state of infrastructure

2.5.3 *Supporting Activities*

To finalize the Integration Implementation Plan, the One Washington program will work with agencies to identify and document current interfaces, interfacing systems, and specifications. This information will be used to determine the level of effort and remediation required during implementation. Remediation considerations will include data conversion, data clean-up, and other technology specifications.

After the procurement of a specific software solution is complete, One Washington will work with agencies to finalize the interface types, standards and formats. The One Washington program will include limited functional SMEs, developers and testers to work with agencies throughout implementation. During implementation, agency resources will be required to provide test files to or from the ERP. Further details on roles, responsibilities, and other considerations will be described in the Integration Implementation Plan.

2.5.4 *Rationale and Recommendation*

The integration approach is based on the principle of leveraging service-oriented architecture (SOA) to provide automated real-time interfaces. SOA would allow agencies to send and receive data in a variety of formats and methods that support standard specifications. The standard specifications for integrations with the ERP will be further defined during the implementation design phase of the One Washington program. The integration plan will also need to support multiple implementation waves for Finance and Procurement. There will be one release for Budget and HR/Payroll. One Washington will plan for the availability of temporary interfaces between the ERP and legacy systems until all agencies are migrated to the ERP (see figure 2.5.1).

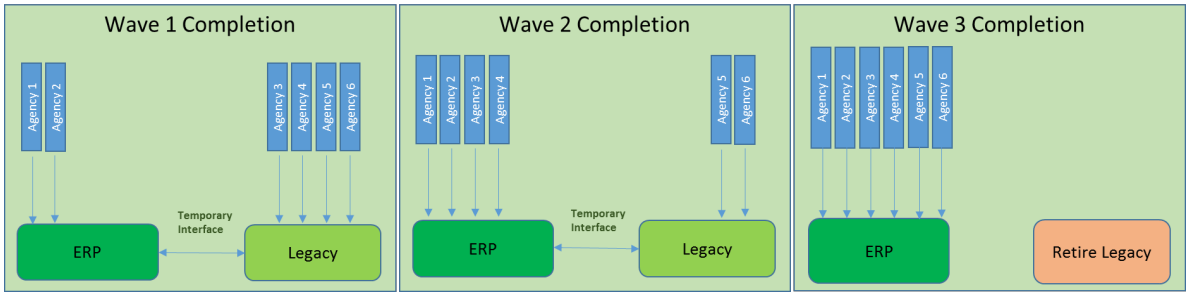


Figure 2.5.1: Implementation Waves

Integration with Inbound (to One Washington) Interfaces

The preferred method of integration with the ERP is leveraging a SOA solution which provides the greatest flexibility. One Washington may also support direct and indirect interfacing methods with the ERP system, but only when middleware cannot be used. The list provided below is in the order of preference

1. Interface with middleware: Middleware involves using a secondary application which will connect an agency's line of business application to the ERP and act as an "interface layer".
2. Interface directly: Direct interfacing involves direct communication with the ERP application. There are no middle systems to filter or pre-process data sent to or from the ERP application.
3. Interface indirectly: Indirect interfacing involves using another application in conjunction with the ERP application or middleware. This application acts as a "middleman" to the middleware from the legacy system. Indirect interfacing is essentially the exceptions process in the event a system cannot utilize middleware or interface directly.

Integration with Outbound (from the One Washington) Interfaces

The integration strategy will support capabilities and specifications to send outbound files to external systems. During the development of the integration implementation plan, the following analysis will be completed to determine the interface type:

1. Review the capabilities of the external system
2. Review the specifications of the external system
3. Apply the same interface methods described in the prior section: "Integration with Inbound Interfaces"

Data Conversion

Data conversion is a key component of the Integration Implementation Plan. The data conversion approach is to convert data in waves:

- The initial functionality for Finance and Procurement will occur in three waves. In each wave, a set of state agencies will be implemented and converted.
- Budget and HR/Payroll will follow the Finance and Procurement rollout, and each of these business function will have one planned release.

Both data conversion and interface implementation are required for successful transition to the new ERP solution. Once all agencies are migrated, the ERP will be the single system of record for the corresponding business function. Further details on data conversion, including methodologies, are documented in the Program Blueprint data conversion section.

2.6 Master Data Management

2.6.1 *Background and Introduction*

The One Washington Master Data Management (MDM) strategy will build on recent and successful examples and experiences. In fact, the major principles and elements of the MDM strategy already exist and are currently in operation. This section of the Program Blueprint describes at a high level how the MDM strategy will be expanded and formalized over the course of the One Washington program.

> *"We collaborated with OFM to map data elements from our new system to the state HR database of OFM…this took 10 hours and was successful."*
> *-Higher Ed HR Professional*

The concepts of MDM were discussed in the 2014 ERP Assessment and Business Case. These concepts, while not called MDM at that time, specifically arose in business process redesign approach and were exemplified with recommendations to undertake a chart of accounts redesign, the development of a reporting strategy, an initiative to rationalize payee files, and a similar initiative to rationalize customer files. These four recommendations are all examples of master data management. In 2015-16, chart of accounts work was completed to streamline expenditure coding and begin refinement of the COA, which serves as a great example of the MDM principles and approach that will be carried forward in the One Washington Blueprint. More recently, the state has launched other initiatives, including the Procurement Readiness workgroup, which provides a solid example and base of experience for the MDM strategy that will be carried forward. Another example underway is developing a Business Intelligence strategy. These experiences provide both the foundation and momentum for the One Washington MDM strategy to be expanded and formalized.

> *"Our data is not the same "shape and size". This causes a lot of rework for our data to match statewide reporting requirements. We should be able to complete our business processes without doing a lot of manual work."*
> *-Higher Ed HR Professional*

The One Washington Master Data Management strategy enables the consistency, accuracy, stewardship, and accountability of the core information for the Finance, Procurement, Budget, and HR/Payroll functionality that will be in the new ERP. The strategy has several benefits:

- Provides a single, authoritative version of the truth (i.e. system of record)
- Enables an integrated data warehouse and information delivery to other applications such as Business Intelligence
- Creates operational efficiencies such as reduced data redundancy, data flows that are predictable, repeatable, and more accurate; data that is acquired, processed, published, and managed in a uniform way across the enterprise; and reduced costs in maintaining data (fewer duplicates, reduced infrastructure redundancy, and less re-work)
- Facilitates application interoperability (e.g. integration is extensible to other applications inside the state and to outside entities, such as vendors)
- Enhances compliance (e.g. data standards are documented, applied and enforced, roles and responsibilities are defined, and processes are repeatable, sustainable and practical)

The MDM strategy impacts several other components of the Program Blueprint. It is not a strategy that can be executed in a stand-alone fashion or completed once and not revisited or updated. For example, the MDM strategy influences the reporting and Business Intelligence approach, the data conversion approach, several business improvement initiatives (such as rationalizing the payee files), the phasing plan, and the design and implementation of Finance, Procurement, Budget, and HR/Payroll functionality in the new ERP. The Program Blueprint emphasizes the importance of MDM as it is the foundation of the state's information strategy, and improving access to quality,

accurate, comprehensive, and meaningful information is one of the primary justifications for the One Washington program.

2.6.2 *Rationale and Recommendation*

The Program Blueprint establishes the design of the MDM strategy, and will be further expanded upon over the course of the ensuing version of the Program Blueprint.

1. The MDM strategy identifies the nature of the data and defines the governance and decision-making process for enterprise master data, shared master data, and local master data. As demonstrated by the experience in the chart of accounts effort, there will be data that is required for enterprise purposes that must be defined, managed, and stored in enterprise systems. There will also be data required for a group of agencies sharing common business needs, which for convenience and efficiency, could be defined, managed and stored in enterprise systems. There could even be data required for single agency business needs, which for convenience and efficiency, could be defined, managed, and stored in enterprise systems. The MDM strategy will provide the decision-making process essential to sort through these issues in Washington's federated operating model and culture. The requirement to balance the needs of the enterprise with the needs of the agencies is a central feature of the One Washington MDM strategy, as illustrated in Figure 2.6.1.

Figure 2.6.1: The MDM strategy will address global, shared, and local master data

The decision-making process engages multiple stakeholders in a governance process. This includes:

- Agency managers and end-users. This applies to both centralized, control agencies as well as line of business, operating agencies, and institutions of higher education. These stakeholders can make requests to create/read/update/delete master data. These are the people who best know their business and information needs.
- A coordinating team to review and make recommendations on these requests. This is both a business and technical function.
- Four executive oversight committees (Finance, Procurement, Budget, HR/Payroll), each chaired by the business owner relevant to the request. For example, Statewide Accounting is the business owner for master data requests pertaining to Finance. The oversight committee reviews requests and makes decisions. The oversight committee also sets master data management policies and standards for their respective domains.

This is primarily a business function. If the master data is owned by more than one domain (for example master data that goes between Finance and Budget), each respective committee will need to be engaged.

- An implementation group. This group will execute the master data changes to the appropriate systems and data repository pursuant to standards and policies. This is a technical function.

This process is represented in Figure 2.6.2 below.

Figure 2.6.2: MDM governance and decision making process

In the initial phase of the One Washington program, the focus is on Finance and Procurement. The participants in the process described above will be primarily representing the interests and needs of the Finance and Procurement communities. As the One Washington program evolves to include greater focus on the Budget and HR/Payroll areas, those communities will be engaged.

2. The MDM strategy is an ongoing activity. As mentioned earlier, many aspects are already underway. During the pre-implementation stage of the One Washington program, the emphasis is on planning and preparation. Steps taken in this stage will simplify and expedite the subsequent implementation of the new ERP. The immediate focus is on Finance and Procurement as that functionality is the priority.

   During the implementation stage, the strategy will be followed to guide the process to identify and set direction on master data that will be converted and/or created to design and configure the Finance and Procurement functionality in the new ERP. Special attention will be paid to reporting and the information needs of the multiple stakeholders, and the emphasis is on populating the new ERP with data to rapidly enable enhanced information and reporting. This process will continue as the program shifts to the Budget and HR/Payroll areas.

   The MDM work, such as the outreach to stakeholders and activities with the governance/decision-making process, will be highly active in this timeframe.

   During the post-implementation stage, there will be a need to occasionally update master data. Requests to create/read/update/delete master data will be managed pursuant to the governance and decision-making process and record retention.

3. The MDM strategy is inclusive and proactively engages stakeholders. Several techniques will be used to foster inclusiveness and engagement. For example, one technique employs the principles of design thinking to identify parties with an interest in master data. This technique identifies stakeholders where each stakeholder is a target for outreach.

A technique to be used in the outreach process is to ask stakeholders what questions they cannot get answered now which often provides insight to the nature of the required master data to address such questions. This technique was very successful in the chart of accounts effort, an example of which is in Table 2.6.1.

Table 2.6.1: Examples from the chart of accounts effort of questions that helped to identify master data elements

Financial Management Focus Area	Use Case	COA Element(s) Involved in Addressing Use Case	Comments
Budget Management	How quickly can actual expenditures be recorded and compared to budgeted amounts?	Activity Account Fund Expenditure Program Organization Project	Actual versus budget expenditures can be compared as often as the current data is posted within the General Ledger.
	How does an agency crosswalk its technical budget structure to conform to the overarching policy direction of the Governor or the agency itself?	Program Organization	
	How can spending be measured against performance outcomes or results delivered?	Primary structural elements: Government Service Unit Account Fund Expenditure Authority Program Organization Project	All structural elements involved; performance outcomes can be associated to statistical information within the structural elements.
	What information is necessary to develop a budget? What information is unused in the process?	Selected structural elements: Government Service Unit Expenditure Authority Organization	Budgets can be developed through analysis of actual spend associated to the structural elements; results would then be populated to the appropriate budget units in the budget subsystem.
	How are revenues, expenses, appropriations, allotments, cost allocation, cash flow, variances, budgets, and history managed and tracked?	Primary structural elements: Government Service Unit Account Fund Expenditure Authority Program Organization Project	Results can be managed and tracked through the association of all the structural elements to actual and budget data types.
	How is capital budgeting associated with bond accounts, investment types, and performance?	Not applicable	

Financial Management Focus Area	Use Case	COA Element(s) Involved in Addressing Use Case	Comments
	How can appropriation cash flow funding be compared to full project cash flow funding?	Selected structural elements: Expenditure Authority Program Organization Project	The structural elements can support appropriation cash flow funding to full project cash flow funding.
	How can anomalies in data (e.g., vacancy savings) be determined?	Primary structural elements: Government Service Unit Account Fund Expenditure Authority Program Organization Project	Anomalies can be determined through all structural coding elements by leveraging available reporting tools' drilldown-and-drill back techniques.
COA Governance	How can audit capabilities become aligned with chart of accounts data in a manner that reduces the amount of manual work required for an audit?	Primary structural elements: Government Service Unit Account Fund Expenditure Authority Program Organization Project	Audit capabilities would have to be specifically tied to the structural elements.
	What detective or predictive reports can determine fraudulent data? Unnecessary data?	Primary structural elements: Government Service Unit Account Fund Expenditure Authority Program Organization Project	Structural elements may partially support predictive analytics.
	How can statewide compliance with the intended use of the chart of accounts be attained? How can consistent use be enforced and tracked?	All structural elements	A centralized governance process and clear policies regarding use of the structural elements would be required.
	What are the new categories of risk and how would this affect the chart of accounts? What controls need to be put in place for the new categories of risk?	All structural elements	Access controls to the maintenance of the structural elements within the COA would be required. In addition, clear change policies and procedures implemented through a centralized governance process would be required to ensure the ongoing integrity of the COA.

Financial Management Focus Area	Use Case	COA Element(s) Involved in Addressing Use Case	Comments
	How can agencies achieve the ability to organize data at various levels in the data hierarchy?	All structural elements	Data would be organized by reporting hierarchies for any of the structural elements.
	How can agencies link their data requirements to those of the Legislature? How can agencies achieve and maintain transparency with the Legislature?	All structural elements	Legislative data can be associated to structural elements or descriptive data elements within the COA. If the required data are Financial in nature, they are more likely to be associated through the ERP system than within the COA structure.
	How can an agency or the state compare to benchmarks or standards within state government? Is there a means by which to compare certain agency activities to similar activities at other agencies?	All structural elements	Agency activities can be defined and tracked either in a structural element or in an activity defined in a project sub ledger.
Disclosure Data Management	How can confidence in data and underlying disclosures be increased?	All structural elements	Confidence can be maintained by creating consistent classifications of structural elements within the new COA and maintaining uniform governance standards regarding maintenance of new coding elements.
	How can disclosures become part of the system of record?	Selected structural elements depending on specific agency business capabilities	Disclosures can be included in the system of record using a separate disclosure system that is integrated with the financial system and specific structural elements.
	How can the preparation of bond offering statements be supported?	All structural elements	Structural elements support the reporting of actual transactions required for bond offering disclosures.

Financial Management Focus Area	Use Case	COA Element(s) Involved in Addressing Use Case	Comments
	How can asset inventory be tracked?	Selected structural elements: Account Organization	Inventory can be tracked using an asset subsystem associating the Account structural element to specific assets in the inventory.

Through this outreach process, the needs for master data will be identified and brought forward to the program for appropriate consideration and disposition with the governance/decision-making process. As previously mentioned, some of this outreach and engagement has already occurred, and more is planned in FY19. As the program approaches the implementation stage, additional research will be done to gather MDM specifications. This includes a review of current data systems, data dictionaries, data models, and documentation from AFRS and other relevant systems.

4. The One Washington MDM strategy is consistent with industry leading practices, as illustrated in Table 2.6.2 below.

Table 2.6.2: The One Washington MDM strategy aligns to industry leading practices

Master Data Management Leading Practices	One Washington MDM Strategy
• Defining the full lifecycle of master data – from data creation to data retirement – across all applicable systems	✓
• Recognizing, articulating and enforcing approval and validation procedures for creating, reading, updating and "deleting" master data	✓
• Assessing and updating data processes regularly – to improve efficiencies, increase data quality or adapt processes to new business needs	✓
• Defining master data specifications and standards by considering both short and long-term application, transactional and reporting needs	✓
• Putting a comprehensive data quality program in place to profile, cleanse, and monitor data on an on-going basis (data quality is a subset of master data management)	✓
• Utilizing technology solutions (Business Process Management Tools, Portals, and Master Data Management Toolsets) to facilitate/expedite data update processes, enforcement of standards, and master data harmonization and/or consolidation	✓
• Documenting, publishing and actively maintaining an enterprise data model	✓
• Defining and assigning roles and responsibilities for resources to make key, critical business decisions regarding data and assigning resources to carry out those decisions (data governance is a subset of master data management)	✓

An effective One Washington MDM strategy with strong governance is key to a successful implementation. For example, decisions made by the MDM governance body on re-used versus new master data would determine the degree to which conversion of existing master data, or creation and manual entry of new master data, is needed. As another example, there must be a clear designation of the system of record for each master data element. If the new ERP is designated as the system of record, then no other action is needed. However, if the ERP is not designated as the system of record for a master data element, additional processes would be needed to synchronize the master data in the ERP with the designated system of record. This relationship between MDM and the implementation activities is illustrated in Figure 2.6.3.

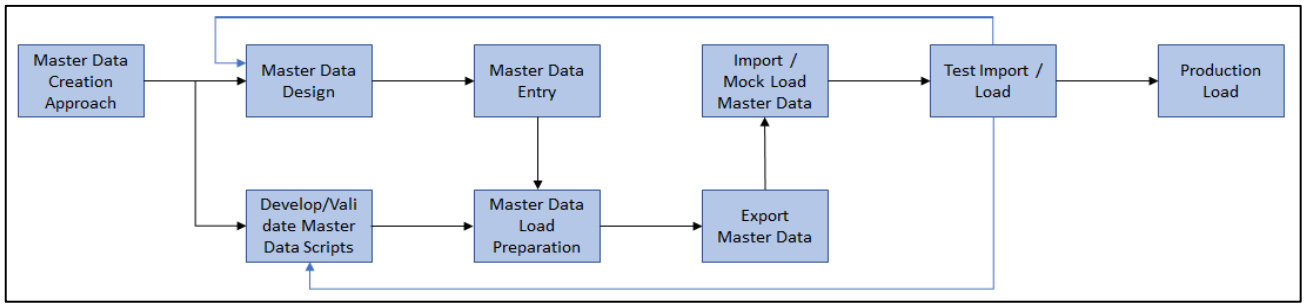


Figure 2.6.3: Process flow of master data into the One Washington system

There are two approaches to loading master data into the new system:

1) Automated loading via data conversion. This approach would be used when master data in existing systems is confirmed to continue to exist in the new ERP, and thus can be migrated via the conversion process. In this approach, master data would undergo the same processes as other data conversions (e.g. extraction, cleaning, translation, loading, etc.). Please refer to the Appendix for the full description of data conversion. The conversion and testing of master data will happen in one of two timelines. One option is that it occurs concurrently, but sequenced first, with other data conversion. Sequenced first allows other conversion data that refers to master data elements to complete the validation steps without failure. The other option is to schedule a load of master data alone. This option has the advantages of allowing manual data entry and more realistic test data in the new system, but the disadvantage of two conversion and testing cycles. The selection of the preferred option will be made during the design and configuration phases of the ERP software implementation.

2) Manual creation and entry. This approach would be used when there is new master data. In this case, the new master data would need to be created by the functional team per the decisions of the oversight committee referred to earlier. Considering the age of current Washington systems and the absence of a statewide procurement system, it is likely that several elements of new master data will need to be created. Manual creation and entry of master data to the new ERP would be the responsibility of the functional team. There are three methods. One is manual data entry. This method is best for master data that has complex requirements or serves as a control element to other data. The second is to enter the data to a file specified by the ERP and then upload that file to the ERP. This method works well when consolidating master data from many decision-making sources. This method would allow different agencies to add master data into a file following a specified format and then load all the master data to the ERP at the same time. The third is to enter the data to a uniquely created file and then upload it to the ERP. This process could be used if master data is held by a system other than One Washington (for example the system of record for the master data will not be the ERP). Further analysis would be needed to determine if this approach would be required for the program.

In summary, the master data can be loaded in the new ERP system either by automated loading process via data conversion or by manual creation and entry. The preferred approach for loading master data will depend on whether the existing data is confirmed to continue in the new ERP system or if any new master data needs to be added. The approach will be defined during the implementation phase.

2.7 Data Conversion

2.7.1 *Background and Introduction*

This section of the Program Blueprint gives a high-level description of the overall approach for data conversion from the legacy systems into the ERP systems for Finance, Procurement, Budget and HR/Payroll. This section defines the scope of conversion, the methods to be used, the general timeframe over which the conversion is planned to occur, data cleansing specifications, and data validation.

The scope of data conversion for Finance, Procurement, Budget and HR/Payroll described in this section will be further refined during the implementation design phase. Decisions will need to be made regarding how much data needs to be converted. While there may be a desire to convert all applicable legacy data, it may not always be the best approach. The strategies discussed in this section are also applicable to master data. Detailed information on master data can be found in the 'Master Data Management' section 2.6.

Details of data conversion approach and the scope for different functional areas for the state can be found in Appendix *Data Conversion*.

2.7.2 *Scope of Data Conversion*

Data elements for Finance, Procurement, Budget and HR/Payroll functions that are deemed relevant for data conversion were defined by combining subject matter expertise with a series of interviews and workshops involving state and agency technical as well as functional staff. These are listed and discussed in more detail in the Appendix. This list is not exhaustive and may change based on further discussions and analysis during the design phase of the program. As the program approaches implementation, further research will be done to gather data conversion specifications. Relevant stakeholders will be actively engaged in these discussions and their inputs will be considered during analysis and in finalizing the scope.

> *"We need modern systems but we cannot lose access to historical data."*
>
> *-Legislative staff*

2.7.3 *Assumptions*

Table 2.7.1 below outlines the major assumptions made in the development of the data conversion approach. These are critical to both the approach and the indicative timeframes.

Table 2.7.1: Assumptions for Data Conversion

Assumption
1. The conversion plan includes three mock conversions for each module per wave.
2. Agencies will follow best practices for data conversions and extracts from legacy systems to maintain consistency.

Assumption	
3.	Configuration data, like workflow and approval data (except for Master Data such as department, location, vendors, customers, chart of account elements, purchasing categories, position identifiers, employee identifiers, etc.), will not be populated via the data conversion process. These tables will be populated by the One Washington program functional teams and will need to be executed prior to converting data.
4.	Whenever possible, the ERP solutions recommended conversion program(s) will be leveraged.
5.	Prior to implementation and conversion activity, agencies will perform legacy system data clean up, reconciliation and the data extract required for conversion.
6.	When data clean-up specifications and issues are discovered and reported during conversion, all data clean-up activities will be performed by state legacy system resources within the legacy systems. These resources will be required to perform one of two possible actions: 1) Clean up the identified data within the legacy database and provide an updated extract with which the process can be repeated. 2) Determine the data quality is of an acceptable level to begin the conversion process.
7.	The One Washington program will work with agencies to resolve data content issues.

2.7.4 *Rationale and Recommendation*

In this section, the data conversion methodology is discussed and the key activities to be performed during conversion are defined. Converting data into One Washington's Finance, Procurement, HR/Payroll, and Budget systems is a multi-step process.

The steps involved in a typical data conversion process are listed below:

1. **Data Conversion Approach**: Define data conversion approach and identify data that needs to be converted
2. **Data Conversion Design**: Design an automated data conversion program
3. **Data Cleansing**: Begin cleaning the data to ensure it is ready for conversion
4. **Data Conversion Build and Test**:
    a. Build the automated data conversion program
    b. Unit test the automated data conversion program
5. **Mock Conversion**:
    a. Assess the results of the mock conversion and:
        i. Refine the automated data conversion program
        ii. Further clean the data within the legacy system
        iii. Repeat steps above several times or until mock conversions yield results that indicate that the legacy data and the automated data conversion program are ready for final conversion into the production environment
6. **Production Conversion**: Conduct final data conversion in the production environment

Detailed description of major components of these steps is included in the Appendix. Figure 2.7.1 is included as a visual representation of the end-to-end data conversion process.

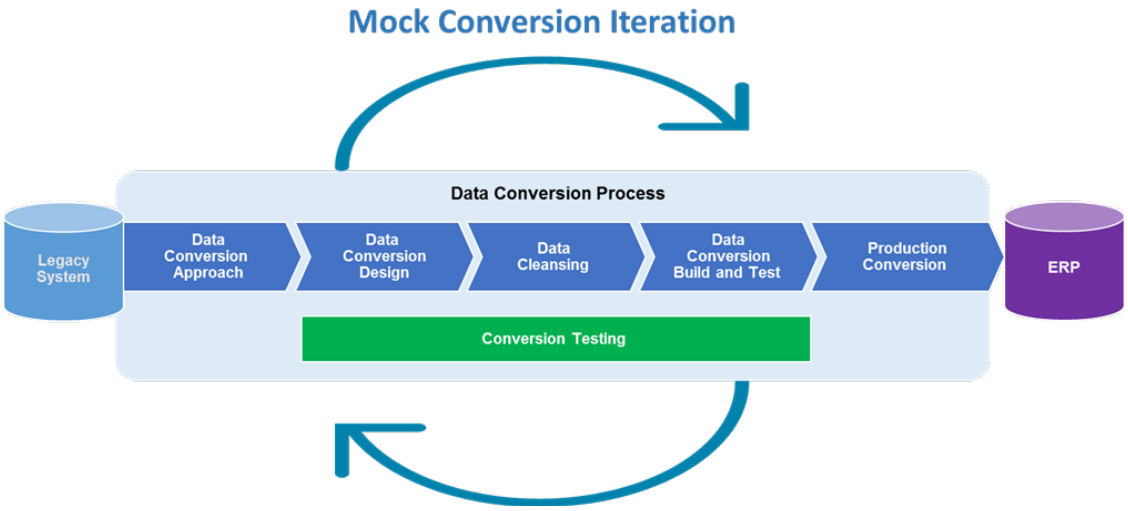


Figure 2.7.1: End-to-end data conversion process

2.8 Reporting Capabilities

2.8.1 *Background and Introduction*

> *"We are frequently asked to produce reports on spend data, especially related to minority and women-owned businesses, and it's difficult to get accurate data without a lot of manual work…"*
>
> *-Agency Procurement Professional*

The development of reporting capabilities will build upon some aspects of the state's Chart of Accounts effort conducted in 2014. During that work, leadership from across the state identified use cases where better data would help them conduct business more effectively. The development of reporting capabilities is the first step to enable the State of Washington to answer key questions for business as identified by financial and procurement leadership from across state agencies, such as "Can expenditures be tracked by type of business (e.g., woman-owned, minority-owned, etc.)?" and "Can specific business' expenditures be tracked?" as well as use cases for advanced, predictive reporting such as "How can forecasted and actual revenues be compared more accurately?". Developing reporting capabilities will also help the Legislature get reports with real time information as well as year-end projections of revenue, expense and fund balances for special revenue funds. These reports can be can at summary level or detailed by revenue source, expenditure type, organization unit or program.

> *"It is hard to extract information at a level that is understandable to management, no titles associated with revenue, raw data, no analysis tools, no forecasting tools drawn against expenditure and revenues."*
>
> *-Agency Contracts and Procurement Professional*

By implementing a reporting capability as part of the One Washington program, the state ensures the authorizing environment and leadership have the data they need to make better informed decisions.

This section defines reporting capabilities for the One Washington implementation. A solution for the state is most effective when enabled with synchronized reporting capabilities across different agencies and departments. Improved access to data in simplified reports will enable the authorizing environment and leadership across the state to benefit from the integrated system, better understand the daily operations of organizations, and make better informed business decisions.

2.8.2 *Scope of Reporting Capabilities*

This approach will cover the reporting mechanisms that are already used by the state and can be leveraged by the selected ERP application as well as those delivered by the ERP solution themselves. While Business Intelligence reporting is a portion of the overall reporting strategy, ERP systems generally provide relatively limited capabilities in Business Intelligence reporting compared to add-on reporting tools and products developed specifically to provide robust Business Intelligence reports. A parallel Business Intelligence strategy workstream is underway to determine the overall Business Intelligence approach and will be integrated with the Program Blueprint version 3.

2.8.3 *Assumptions*

Table 2.8.1 below outlines the major assumptions made in the development of the reporting approach

Table 2.8.1: Assumptions informing the reporting capabilities

Assumptions
1. The delivered reporting tools from the selected ERP will be leveraged as much as possible for reporting in the ERP applications.
2. Washington stakeholders need to keep the current reporting tools active as a reporting tool.
3. The Business Intelligence strategy will be developed in a parallel effort.
4. Not all disparate systems will be retired with the implementation of the ERP application(s).
5. Not all data will be converted with the implementation of the ERP application(s).
6. Washington's selection of ERP application software will consider the suitability of the software's Business Intelligence capability and/or the capability to fully integrate with add-on Business Intelligence applications.

2.8.4 *One Washington Reporting Capabilities*

Table 2.8.2: Washington's current reporting capability

Functional Area	Current State of Reporting
Finance	Finance functions are comprised of disparate systems across the state with most data aggregated into the AFRS system. A very limited amount of reporting happens in the current AFRS system. There is very niche reporting that only is used by a few specific areas within the state. Some reporting is done from the disparate systems themselves. Reporting from AFRS was discontinued in favor of using the AFRS data warehouse and the reporting capability offered with Business Objects. Department of Transportation uses the Transportation Reporting and Accounting Information System (TRAINS).
Procurement	Procurement functions are disparate processes or systems across agencies with no aggregation. Procurement data is maintained within different agencies and no standard reporting approach has been adopted.
Budget	Budgeting applications are disparate across state agencies and therefore budget reporting capabilities are complex. Budget reports utilize data that are accumulated by integrating various sources of budget data from budget applications and financial data from the AFRS data warehouse. Multiple reporting tools, including Business Objects, are used to create budget reports for enterprise and state agencies consumption.

Functional Area	Current State of Reporting
HR	HR functional areas across the state currently use an SAP ERP. HR reports are being delivered out of the SAP interface. A new HR/Payroll data warehouse is scheduled to be completed in January 2018.

Reporting Approach

Based on the current state of reporting in Washington (see Table 2.8.2 above), including several existing report types currently used by agencies to execute their business functions, the ERP reporting approach for the One Washington program is as follows:

- Leverage the delivered reporting capabilities of the selected ERP as much as feasible. The capabilities of delivered reporting tools are robust enough to serve most specifications that the state may have. This would be the case for procurement as this is the first-time enterprise data for procurement will be available. With aggregate data in the ERPs, instead of data in disparate systems, the ERP reporting solutions provide a means by which data can be reported efficiently and in real-time.
- Supplement the delivered reporting capabilities of the selected ERP with custom reports based in the ERP system, either by modifying delivered reports or by creating new reports (refer to section 2.8.5.2 on custom report development below).
- Continue to use current reporting capabilities for reporting on historical data and transactional data in systems that are not converted or integrated into the ERP.
- Coordinate with the Business Intelligence strategy to use add-on Business Intelligence reporting capabilities to perform descriptive analytics (what happened and why) and predictive analytics (what will happen next).

It is not recommended that an add-on reporting tool be obtained and used to perform the same or similar enterprise wide reporting that ERPs deliver. Business Intelligence reporting capability may be added in the future to meet the state's Business Intelligence reporting needs, as discussed in section 2.8.5.4.

2.8.5 *Rationale for Reporting Capabilities*

A modern ERP will provide added capabilities that will address current operational reporting challenges for the state. These challenges are the result of having multiple applications and systems of records. The capabilities are summarized in the below Table 2.8.3

Table 2.8.3: ERP Capabilities

Capability	Description
Leveraging delivered functionality	Many report requests can be met using the capabilities delivered within the ERP.
Transparency of complex calculations	ERPs give transparency to complex calculations and make that data available through reporting and dashboards.
Real-time data	ERPs provide reporting capabilities and dashboards that allow data analysis in real time.
Drilldown capabilities	ERP reporting tools allow users to easily move from a higher-level view to a more detailed view of the data being analyzed.
Ad-hoc reporting capabilities	ERPs provide for flexibility and easy access for users to build their own queries.

2.8.5.1 Operational Reporting versus Business Intelligence

To set the context for how the state defines its reporting approach, it is important to understand the difference between operational reporting and Business Intelligence. Operational reporting supports the day-to-day operations of an organization. Every modern ERP comes with delivered reports for operational reporting, and these delivered reports form the basis of the One Washington reporting approach. In contrast, Business Intelligence enables business performance improvement by providing actionable information for decision making and is typically delivered separate from an ERP system. Business Intelligence can be segmented into descriptive analytics (what happened and why) and predictive analytics (what will happen next). Operational reporting is usually best consumed by individuals close to the business process, while Business Intelligence reports show the "bigger picture" and are usually consumed by senior leadership and executives. Operational reporting and Business Intelligence reporting will be developed as complementary tools as they provide distinctly different advantages, often leveraging the same data sources. It is critical that values presented in operational reports correspond directly with values contained in Business Intelligence tools.

Primary distinctions and functions of operational reporting and Business Intelligence are summarized in Table 2.8.4 below:

Table 2.8.4: Operational Reports versus Business Intelligence

Transactional Reporting	Business Intelligence
• Typically delivered as a pre-built tool with ERP software • Facilitate daily business transactions with customers, suppliers and agencies • Enable real-time reporting to support operational decision-making • Produce static reports in standard formats with limited ability to interact with the data • Provide straight-forward aggregation and calculations • Provide data elements and structure which can be leveraged for related Business Intelligence reports	• Typically delivered as add-on software which builds on ERP capability and data structure • Show aggregated or summarized business performance trends over time • Produce highly interactive reports to support analytical decision making • Facilitate investigative and detailed ad-hoc reporting • Support different presentation formats and allow users to dynamically move from a summarized view to a more detailed view through drill downs and guided navigation • Perform complex calculations and data aggregation

Figure 2.8.1 below illustrates how the different types of reporting build upon each other to provide a full range of capabilities to different audiences. Typically, Business Intelligence functions begin at the Summary Reporting level in the figure below and end at the Strategic Analytics level. Operational reporting begins at the Transactional Reporting level and typically includes some of the Summary Reporting functions.

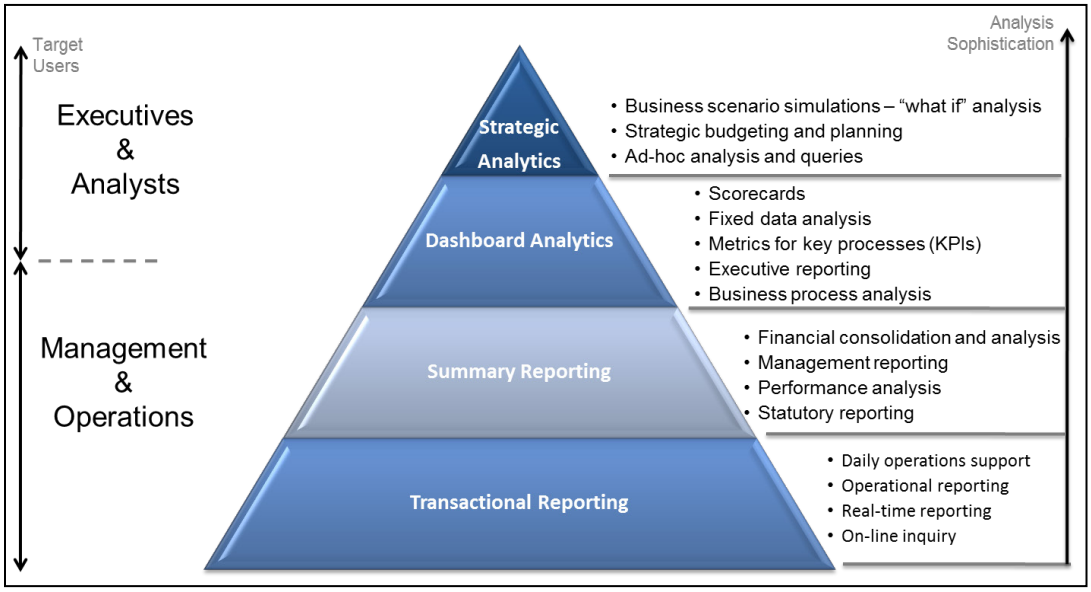


Figure 2.8.1: Operational reporting provides the basis for Business Intelligence

The details of the specific Business Intelligence strategy for Washington will be part of a separate initiative and the outcome of the Business Intelligence strategy development will be incorporated into the Program Blueprint when finalized. The chosen ERP application must deliver the capability to run Business Intelligence or fully integrate with add-on Business Intelligence applications (refer to sixth assumption in section 2.8.3 above).

2.8.5.2 Developing Custom Reports

For reporting specifications not met by the delivered operational reports in the ERP, custom reports may be developed. Development of custom operational reports will generally follow the process described below:

- Functional leads and SMEs from the implementation partner and Washington gather and document report specifications. Functional leads and SMEs also receive report examples directly from agencies.
- Using the report specifications, the functional teams perform a fit/gap analysis to align to delivered functionality. At this point, out of scope reporting specifications may be identified, and would be provided to the business owners for reassessment and prioritization within their resource capacity.
- Once all the gaps are identified, the functional teams propose gap solutions to meet the specifications. The reporting specifications identified as approved gaps will be added to the RICEFW (Reports, Interface, Conversion, Enhancements, Forms, Workflow) Inventory.
- The RICEFW report items are prioritized for development based on the established and ordered reporting categories. Typical reporting categories are:
    - Statutory/Regulatory (Priority 1)
    - Integral to Business Process (Priority 2)
    - Process Supporting/Analysis (Priority 3)
    - Monitoring/Post Audit (Priority 4)
    - Ad-hoc/User-specific (Priority 5)

Options for meeting the reporting specifications can include modification of a delivered report or development of a new report. In the future, reporting specifications may be met through an add-on reporting solution. The reporting specifications focus on operational, management, and executive level reports in addition to those required by statute. Many reports will require discussion to evaluate several criteria (e.g., audience, performance) and determine the appropriate solution. After gathering and refining, reporting specifications will be translated into functional and technical design.

Report Alignment

The functional team will coordinate an assessment of the reporting specifications and align them to the appropriate place to develop. This could be in the ERP, an add-on reporting tool or current reporting capabilities (see section 2.8.5.3 below).

The tool that will be used to identify the appropriate place to develop reports using specific criteria is the Report Classification Matrix (Table 2.8.5 below). The Report Classification Matrix consists of six criteria used to "score" reporting specifications to determine what type of reporting (operational or analytical) they are and thus what application would be the best fit for development.

Table 2.8.5: Report Classification Matrix

Criteria	Description
Leveraging delivered functionality	Many report requests can be met using the capabilities included within the standard ERP delivered reports and should be utilized whenever possible. The functional SMEs should make future users aware of which reports will be available to them. In most cases, a fit to a delivered report functionality is preferred over a custom solution.
Nature of the report: strategic versus tactical	Reports that are strategic in nature are a better fit for other reporting solutions like an add-on Business Intelligence reporting tool, and reports that are more tactical in nature are a better fit for the ERP environment. Strategic reports typically use aggregated or calculated data. They can often be represented using graphs, and examples including trend reports. Tactical or operational reports typically use granular data. They will often be represented using a table that will include many rows. An example would be a table that displays all open requisitions for a given month.
Complexity of calculations and impact on system performance	The more complex the calculations being performed, the larger the impact on performance the querying process will have. The impact of the performance on other functions of the system should be considered.
Real-time data	Other reporting tools pull data from other source systems and store them in a de-normalized database. The data loading schedule can vary but the data stored in the other reporting tools is not available in real time (data created in the transactional system is not available in the other reporting tool until a data load is executed). If real-time data is needed to meet the reporting specifications being analyzed, the timing of dependent data sources should be considered.
Drilldown capabilities	Drilldown capabilities can be setup in some reporting tools to allow users to easily move from a higher-level view to a more detailed view of the data being analyzed. By clicking on a specific value, a user can go from looking at a yearly aggregated value to quarterly aggregated data. If the user then wishes to look at details for a given quarter, he/she can click on the

Criteria	Description
	appropriate quarter value and 'drilldown' to the monthly details. Many reporting technologies do not support this, so this may require an external reporting tool.
Ad-hoc reporting capabilities	To meet some of the reporting specifications, users may need the flexibility to build their own queries. For example, if a specification is to monitor issues in the requisition approval process, this specification may be met by a combination of a strategic report (report showing the average number of days for a requisition to be approved) and ad hoc querying. For example, if a manager notices that the average number of days for a requisition to be approved is not meeting standards, they will need to do a deeper dive into the data to understand the cause of the delay by creating/using ad-hoc queries. These queries allow the manager to track down the source of the issue by allowing him to view data from multiple perspectives.

2.8.5.3 Leveraging the State's Existing Reporting Capabilities

As previously discussed, the State of Washington currently employs a set of reporting tools such as Business Objects as the enterprise reporting tool for both Finance, Budget and HR/Payroll. Business Objects is currently utilized for all reporting needs and was developed as a solution because the current Financial and Budgeting systems did not have robust reporting capabilities. Business Objects also enables the aggregation of data from disparate systems. Figure 2.8.2 below depicts the current Business Objects landscape for the State of Washington's reporting.

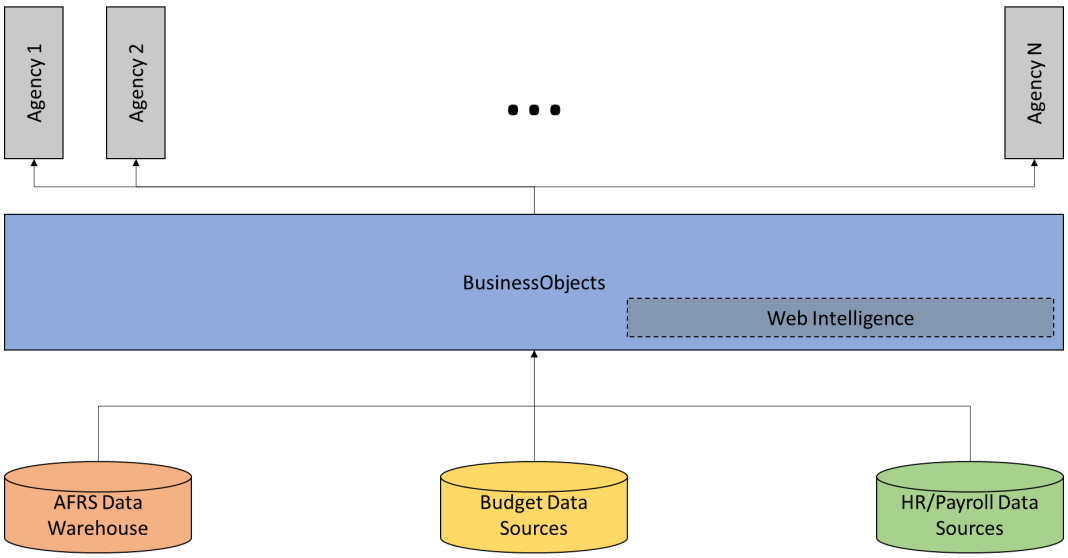


Figure 2.8.2: Current Business Objects landscape

Business Objects integrates with many data sources and aggregates that data into one area. Agency systems connect with Business Objects and use the delivered functionality of Web Intelligence (Webi) and other reporting functionality to retrieve the data they require. The solution is not currently a real-time solution because data must be loaded into the de-normalized databases before the newer data can be used. Business Objects also does not contain standard reports for any function; all reports must be developed within the tool.

For the purposes of the One Washington reporting capabilities, Business Objects will provide operational reporting for historical data and transactional data in systems that are not converted or integrated to the ERP. In addition, the One Washington program can continue to leverage the Business Objects reporting tool by pointing the Business Objects reporting tool to the new ERP data, as is the case with the legacy systems. There are three major reasons to continue to use the Business Objects reporting tool:

1. Doing so allows the Business Objects reporting tool to function as it does now, so the method of data reporting will remain the same, meaning minimal change for users.
2. Not all disparate systems will be replaced with the implementation of an ERP, and legacy systems that are retained will have data that must be aggregated with the ERP data.
3. Most importantly, warehoused data can continue to be accessed from Business Objects. Not all data may be converted during the implementation, so the capability for users to access the warehoused data is an option to fill in those gaps.

Business Objects is one of the current reporting tools used by the State of Washington. In future, the state may consider using a different reporting/Business Intelligence solution. The One Washington program will leverage existing reporting tools for operational reporting on data not converted or integrated with the ERP.

2.8.5.4 Add-on Reporting Products

Most reports that come delivered with ERPs are transactional, with some summary reports as well (refer to above figure 2.8.2 above). Most major ERPs and their delivered reports integrate with add-on reporting products such as Business Intelligence products. Examples of add-on reporting products are included in Table 2.8.6 below.

Table 2.8.6: Examples of add-on reporting products

Vendor	Add-on Reporting Product
SAP	Crystal Reports is a reporting tool which can integrate with ERPs like PeopleSoft
Java	Business Intelligence Report Tool (BIRT) which can integrate with Workday
Oracle	Oracle's Business Intelligence Enterprise Edition (OBIEE) which can integrate with many ERPs

2.8.6 *Other Reporting Considerations*

2.8.6.1 Report and Data Governance

One Washington must establish well-defined report and data governance and communicate process and expectations thoroughly statewide. Report and data governance is necessary both during the program implementation as well as in post-implementation operations. Listed below are a few key considerations in establishing report and data governance:

- One Washington will create a governance process to define the strategic direction for reports. The governance process should have representation from IT and business functions, including representatives from across state agencies and from each business function (e.g. Finance, Procurement, Budget and HR/Payroll). The process should also represent the interests of different audiences including executive, legislative, management and operational levels. By having a diverse group involved in the governance process, One Washington will develop and operate a reporting solution that provides the most possible value for users' varied needs across the enterprise.
- For each report or reporting area, define the system of record or authoritative data source and a single report owner. By having a clear understanding of the report source and a single owner/point of contact for a report, One Washington can facilitate questions or requests for changes more efficiently. For

manually produced reports, defining the owner can prevent different parts of the business from creating and/or distributing similar reports.

- Report owners need to provide clear definitions for business rules in order for report consumers to have a consistent understanding of the information contained in the report (e.g. cash basis vs. accrual basis). On most reports, it is important for relevant parts of these definitions to exist as footnotes on the report as it is distributed throughout the agencies.
- End user governance is needed to establish the security guidelines and privileges (e.g. report creation or publication) for end users. Defining processes to grant access, provide support and validate ad hoc reports are other components of end user governance that One Washington needs to address.

2.8.6.2 Report Access, Distribution, and Retention

Insightful reports provide little value without the right access and distribution mechanisms in place. Successful reporting relies on easy access to information. If users have a difficult time accessing their reports, they can quickly become disenfranchised and start looking for alternative ways to get information, including reverting to asking others to manually provide it or creating their own shadow reporting system.

The ERP functional and technical teams will evaluate the various audiences and determine their specifications for viewing reports. As often as possible, One Washington should promote a "pull" method to report distribution where report consumers retrieve the reports when necessary. This differs from the "push" method where many reports are delivered to report consumers. The pull approach often leads to higher engagement of the report consumer and eliminates unnecessary distribution to individuals who don't use the reports.

Specifications may dictate scheduling of ERP reports that are used on a regular basis (e.g. daily, monthly) and use of a report repository (e.g. Microsoft SharePoint) to store reports where consumers can retrieve the reports. Across the functions, reports are currently distributed in various ways:

- Reports are generated, either directly in the source system or manually prepared, then posted to a website or emailed to a distribution list.
- Reports are directly executed in the source system by the end users on demand.
- Reports are batch processed in the source system and posted to agency-specific network drives for users to log in to retrieve.

Individual report distribution decisions can be decided once specifications are identified, indicating a need to serve the ERP reporting audience with a different distribution mechanism.

Specifications may also dictate the need to retain selected reports for a period of retention as defined by the state's records retention policies. These retention specifications will be included in the detailed report design specifications.

2.8.7 *Security and Transparency*

The One Washington program will implement reporting with a view towards transparency. With many ERP implementations, people want to limit the number of users who can access the data. This approach typically makes the most sense if users can edit data or if the data is sensitive or legally protected. However, from a reporting perspective, being unnecessarily protective of data can limit its value. Transparency and availability of data can foster business improvement by enabling agencies to compare performance with other agencies. Transparency enables management to see the same reports that executives view to manage their business.

Washington's Open Data policy states that data should be publicly available to increase "government transparency, effectiveness, and accountability, allowing government agencies as well as citizens to browse, interpret trends, and draw attention to issues with greater efficiency." The One Washington program will interface with the state's existing

Open Data program. However, when considering Open Data with regard to the ERP, there are several policy and procedural questions that need to be addressed by One Washington.

Most, but not all, of the data generated by the ERP will be determined as appropriate for public disclosure as "open data". However, some of the data generated by the ERP may be determined as not appropriate to public disclosure, for example personally identifiable information, data protected by HIPPA, and data that is deemed by the state to be confidential. One Washington will need to use a data governance and decision making process to determine what data generated by the ERP is appropriate for disclosure as open data and what data is not. These policy issues would be addressed within the context of Washington's Open Data policy. One Washington will also need to create procedural mechanisms to implement the policy decisions. This will provide the guidance to the staff operating the ERP as to what reports (and data on reports) are to be made public, and what data queries (e.g. reporting databases) are to be made public. There are many options to consider regarding the design of procedural mechanisms.

Transparency in data must be balanced with concerns for security. There are exceptions to the transparency approach for any data that is deemed sensitive or legally protected. Reporting access should be limited to those with a business need for the access they receive. For example, a user in the Finance group, likely does not have a need for HR reporting and their access should be restricted accordingly. However, in keeping with the principle of transparency, the Finance user should not necessarily be restricted within the set of Finance reports or limited (e.g. by agency, division, etc.) in the data that is returned in the report. Users should use a filter to return the necessary data and not have it imposed by the system. A further benefit of these broader security roles within the transparent approach is that the system security roles are less costly to implement and more efficient to maintain.

2.9 Security Approach

2.9.1 *Introduction*

The purpose of this section is to define the strategy for the security approach of the One Washington program's ERP implementation and the rationale behind it.

> *"We have lots of home grown systems that are a security risk."*
>
> *-Agency HR/Payroll Manager*

2.9.2 *Assumptions*

The table below outlines the major assumptions used in the development of the security approach.

Table 2.9.1: Assumptions Used in Development of Security Approach

Assumptions
1. One Washington will implement a SaaS model.
2. VPN tunnels will be used to connect to the SaaS provider.
3. The program will comply with Washington state security policies.

2.9.3 *Security Approach Model*

Security is integral to protecting the critical Finance, Procurement, Budget, and HR/Payroll data in an ERP system. While a SaaS model can provide enhanced performance efficiency and collaboration, it also poses security challenges when the applications are hosted in the cloud and data interfaces with users and applications located elsewhere.

As shown in Figure 2.9.1 below, there are three primary tenets of security architecture: availability, confidentiality, and integrity. Development of an effective security architecture requires these three tenets to be balanced. Access to data needs to be sufficiently controlled to maintain compliance and confidentiality, while maximizing accessibility to authorized system users in a manner that facilitates productivity. The security approach for the overall One Washington program is a combination of delivered security functionality with well-defined security processes and existing state mechanisms to address these specifications.

Figure 2.9.1: Focus on the proper balancing of the three tenets of security to provide high security and user productivity.

Embedding security design, configuration and testing in the project lifecycle greatly reduces risk and facilitates delivery of a secure system. The security configuration for the One Washington implementation will focus on three areas:

1. Infrastructure Security – Configuring the infrastructure in such a way that users can easily access the data they need, but remain secure throughout the entire communication process.
2. Data Security – Securing data such that only appropriate users have access to the appropriate data required for their job roles.
3. Application Security – Configuring the system such that only the appropriate users can gain access through trusted authentication services. This is a critical first step towards protecting the perimeter of the applications. Extending that configuration to appropriate authorizations that restrict users to only the data and transactions that they need to do their day-to day jobs completes the application security model.

Securing individual areas will provide layers of protection. Each area will overlap, support and enhance each other.

2.9.4 *On premises vs SaaS Security*

On premises systems and SaaS systems have different infrastructure and security specifications. Some security elements will apply to on premises systems but will not apply to SaaS systems and vice versa. A full discussion of the system types is provided in section 2.2 Technology Deployment Model.

2.9.4.1 On premises security considerations

On premises systems are physically located within the organization's location or within the system owner's control. In an on premises system, the organization must determine the security specifications for all areas like infrastructure, data and application security. The organization is also responsible for implementing those specifications. The One Washington program has a guiding principle of implementing a SaaS model. However, on premises systems should still be discussed, as supporting systems can be on premises.

2.9.4.2 SaaS security considerations

SaaS systems are hosted, managed and operated by the vendor of the software. In SaaS systems, the responsibility of maintaining the infrastructure, and, to a certain extent, managing the data is done by the vendors. This does not absolve the One Washington program of any of the responsibilities of securing infrastructure or data. Those tasks still need to be performed, but with different supporting infrastructure, such as VPN and single sign-on.

2.9.5 *Infrastructure Security*

The following sections provide the high-level methodologies and preliminary considerations for securing an enterprise system. Further analysis and discussions will be required to align these considerations to the state security policies and standards.

> *"A recent Cyber security presentation stressed the importance of application security and modernizing systems because of the risks in legacy systems."*
>
> *- State CISO*

2.9.5.1 ERP Authentication

Basic authentication includes integrating the solution to the in-house identity and access management solution, active directory (AD), as specified by section 6.3.2.1 "Type 7 – Internal" authentication in "Securing Information Technology Assets" – Policy: 141. Integration with AD is a common solution among ERP systems. The application and infrastructure administrators simply configure the ERP system to direct authentication services to Microsoft active directory, which is a lightweight directory access protocol (LDAP) compliant directory.

By using a centralized authentication store like AD, One Washington can streamline security tasks such as deactivating users or resetting passwords. This also allows One Washington to centrally administer security policies like password complexity and user access expiration. The state's user base gets further benefit by eliminating the need for separate credentials. Having a single credential across systems throughout an organization reduces an organization's exposure to risk because it is easy for users to remember a single set of credentials. Users that are tasked with leveraging additional sets of credentials are more likely to use poor security practices such as writing down credentials. Detailed specifications aligning to Washington policies will be developed during the security design implementation phase.

2.9.5.2 File Transfer Security

Data files that are processed by, loaded into, or generated by the ERP applications, legacy or external systems are often sensitive in nature. Therefore, securing files and their transport are crucial steps in securing the overall ERP system architecture. Files are often transmitted to and from ERP applications and it is important to protect them from any unauthorized access.

There are various methods to transfer files, the most common is using an FTP (file transfer protocol) program where files can be downloaded or uploaded directly to an FTP server. The file transfer process can be configured in a way that secures these files. This involves the use of secure FTP programs and secure FTP servers.

SFTP (FTP over Secure Shell 'SSH') is the recommended file transfer mechanism. Some of the functions and features include, but are not limited to:

- SSH Encryption – Secures the connection.
- User ID/Password authentication – The standard authentication method for connecting via FTP.
- Public key authentication – Use of a generated Public key to access the FTP. This is particularly useful for automation compared to the User ID/Password method. When using the User ID/Password authentication for automation, developers would have to hardcode the User ID/Password information into the automation process, which defeats the purpose of security. This method allows

authentication based on the installation and configuration of a public key, making automation possible without sending across credentials. Any entity without the public key will be denied access.
- Single Port Easy firewall connection because it only requires one port for connection.

WaTech currently provides a SFTP solution that is fully compliant with the state's security policies, called SFT (secure file transfer). The SFT solution is a web based file transfer solution. However, it needs further examination as the development of the Program Blueprint continues to determine if it can connect with other transfer methods like third-party SFTP programs and if key authentication can be implemented.

2.9.5.3 Logging and Monitoring

Logging in the context of systems refers to the act of recording events that happen in the system in a log. Events can include, but are not limited to:

- Authentication attempts
- System failures
- System reboots

Monitoring is the act of viewing and/or reviewing resources and performance. Some activities that may be subject to monitoring can include, but are not limited to:

- Reviewing logged events
- System resources
- Reviewing access logs
- Performance
- Resource utilization

Logging and monitoring are recommended services to maintaining a secure infrastructure. It is important for security purposes to know when users attempt to log into the system, when a system goes down, or if performance has been degraded. Possible intrusion attempts could be the cause of many of those problems and often, if performance is degraded, logs and monitors may reveal possible causes.

Logging and monitoring for on premises systems and SaaS systems differ slightly. Typically, SaaS solutions require a small subset of the logging and monitoring activities necessary for on premises systems.

- On premises systems require much more logging and monitoring resources than SaaS systems because there is more hardware and infrastructure in on premises system. The logging and monitoring process should monitor all hardware in the system, as well as the network connecting all the hardware and software components, including infrastructure.
- SaaS solutions require considerably less logging and monitoring. SaaS vendors monitor their own systems and provide very limited data related to log information for clients to view. However, the organizational side should monitor and log any integration events, performance issues with network and connectivity, and other systems necessary to connect to the SaaS provider like Active Directory and the VPN tunnels.

For the One Washington implementation, monitoring and logging is recommended to be set up for all on premises systems like Informatica, if it has not already been set up. Through input received in technology workgroups sessions, the State of Washington currently has challenges with performance, latency and throughput. Network and infrastructure monitoring should be implemented to validate the stability of the ERP SaaS system. WaTech currently has services in place that provides this service to other agencies. The One Washington program will leverage this service.

2.9.5.4 Firewall

Unauthorized access to networks and systems contained within those networks is a major concern for many organizations. It is particularly of concern for many ERP systems that contain sensitive data. Therefore, it is necessary to secure data wherever and whenever possible.

Firewalls are among the most crucial elements of securing traffic in and out of a network. They protect networks from unauthorized access and malicious attacks. They also act as the gatekeeper for the flow of network traffic and what data travels through it.

During the One Washington implementation, additional firewalls may need to be implemented and configured for on premises systems. For example, if a new and separate SOA solution is implemented to support the new ERP applications, a firewall would be required to protect the system. Whether the firewall will be an existing firewall that can be applied to the SOA solution or a brand new one, a firewall will be necessary to protect the data and network for the SOA solution. Firewalls are also necessary to support connectivity to the state's data centers that connect to the vendor to prevent unauthorized access to the SaaS systems. WaTech currently provides managed firewall services that should be leveraged because configuration and setup of firewalls will be necessary to provide connectivity between the state's integration points, the SaaS vendor, and other systems like FTP.

2.9.5.5 Digital Certificates

Web security is another important aspect of security. With internet connectivity, it is often necessary to secure the connection between the end user and data they are viewing online. This is achieved via the use of digital certificates. Digital certificates provide an encryption mechanism for the connection and acts as an electronic "key" to the data. This is standard security technology that enables encrypted communication between a web browser and a web server, and are utilized to decrease the risk of sensitive information (e.g. credit card numbers, usernames, passwords, emails, etc.) from being stolen or tampered with by unauthorized users.

To create a secure connection, a digital certificate is installed on a web server and serves two functions:

- It authenticates the identity of the website (this guarantees visitors are not on a malicious site)
- It encrypts the data that is being transmitted

> *"We are very concerned about cybersecurity as we have had close calls, in terms of enterprise systems."*
> *-Agency Deputy Director*

For the One Washington implementation, it is highly recommended that all internet traffic be secured using digital certificates. For SaaS solutions, the vendor provides, obtains, and configures their systems with the necessary digital certificates. For on premises systems, any web server, such as those servers used to access some SOA solutions, is required to secure access. WaTech currently provides a certificate service that may be leveraged, depending on the ERP and supporting application needs.

2.9.5.6 Remote Access

Remote access is the ability to access a network or system without physically being near the network or system. Remote access capabilities must be secure for the security of the ERP applications.

Virtual Private Network (VPN)

For basic connection into the State of Washington's network, strong two-factor authentication is recommended. Two-factor authentication typically involves two forms of authentication to be able to access the system. The first factor is typically a user's credential. The second factor is typically something that is very specific to the user such as a secure key fob in combination with PIN. This helps reduce the risk that unauthorized users will access the network. Currently, the state employs a two-factor approach to access the network remotely. This solution should be leveraged to access the network connecting to the ERP applications.

Secure Access Washington (SAW)

SAW is a web portal that provides self-administered single sign-on access to multiple applications. Some benefits of SAW are that it shields online services and allows access to known users. The SAW system currently employs nonstandard multi-factor authentication and knowledge based authentication schemes and is single sign-on capable, making it a solution for accessing the ERP.

The initial authentication method is by user credential, which is the first level of protection. At this point, a user has access to the SAW portal from which to navigate. When a user attempts to access sites within SAW that are classified as category 3 or 4 (confidential or confidential with special handling respectively), the other authentication factors come into play.

The multi-factor authentication schemes should be leveraged for the One Washington program's ERP implementation. It should be used to access the ERP applications and used for its single sign-on capabilities. For other portals, like a vendor portal, multi-factor authentication may not be needed but is still recommended for use in SAW to control basic authentication.

2.9.6 *Data Security*

2.9.6.1 File Data Encryption

ERP systems can store or process data in many media types and formats. Stored data can take many forms, and in most cases, are file-based. This data is stored and used by the ERP applications or transmitted to other systems. Often, these files contain data that is considered sensitive in nature and thus needs to be secured.

Operating systems typically provide the first layer of security for data files, whether they are reports or interface files. If files are at rest in an FTP server, the FTP server provides another layer of security. Despite the security that restricts access, people who normally should not have access to the data in the file may still be able to view that data. For example, a technical user who is responsible for uploading interface files to external servers, but should not have access to information like benefits data for HR, would have access to that file and data prior to upload. This may not have been the intent of the technical user's role and security processes, but that security weakness exists.

File encryption addresses the security weakness above. Encrypting the interface file before having the technical user upload it to the external server prevents the unauthorized user from viewing the data in the file. Essentially the technical user would be sending an unreadable file if the user were to open it. File encryption provides an additional security measure protecting files resting in servers. The interface architecture solution would require robust encryption of interface files on FTP servers to guard against data exposure.

It is recommended that One Washington use file encryption for sensitive data for ERP data. As development of the Program Blueprint continues, the One Washington program will need to identify encryption software currently owned by the State of Washington, and possibly to select appropriate software if needed to address system specifications.

2.9.6.2 On Premises Data

Data in storage is protected by multiple layers of security throughout the technology architecture, including:

- Application security (first level of data protection): users authenticate to the application. Their authorizations only allow them to see appropriate functionality and data based on their role. This type of security is typically delivered in ERP software. Other than security configuration tasks, no other action is necessary for the One Washington program before, during, or after the ERP implementation to ensure application security.

- Database security (second level of data protection): databases provide their own level of authentication. Typical users will not have direct database access. Only the ERP application itself and authorized administrators would have direct access to data at the database level. Auditing of direct database access (through logging and monitoring) can be performed. In a SaaS solution, the database administrative tasks and access are maintained only by the vendor, but databases still maintained by the State of Washington (such as the data warehouses) would need to be governed by the state and follow all applicable rules and policies.
- System security (third level of data protection): to access raw database files, for example, it would be necessary to gain access to the operating system. Typical ERP application users would only access the system through their web browser, so they would not have access to log in to any actual hardware. Without this access, it would not be possible to access raw files. Permission to log into a server is maintained either centrally or on each server with tight process controls to prevent unauthorized access. Furthermore, the database files themselves are protected by file-level permissions, limiting data file access to the database system itself and the database administrators. The system administrators in the State of Washington would be responsible for setting this security for each system in the ERP implementation to allow access to those who require it.
- Network security (fourth level of data protection): is present throughout the technology architecture. Each tier would be physically placed within the datacenter according to its function. Typically, only a web server will be exposed to traffic from the outside. Any communication with the application server or database would need to come through the web server. This specification reduces the possibility of unauthorized data access. For the SaaS solution, the State of Washington would only need to maintain network security in regards to the connection between the SaaS vendor and the network infrastructure. For on premises systems that support the ERP applications, the network security should be configured by the State of Washington to be able to integrate with the SaaS ERP and other supporting applications.

2.9.7 *Application Security*

2.9.7.1 Authorization

Access to the ERP is critical to the functionality of the ERP application. The approach to grant access uses delivered ERP security features in conjunction with the State of Washington's enterprise offerings, including:

- Identity Management: One Washington will leverage the state's enterprise standard for identity management, which is currently Active Directory. One Washington will need to define any new access roles, rules, approvals, and workflows that may be required for the ERP system. Additionally, One Washington would integrate the ERP with the Active Directory to enhance end user experience with a single sign-on solution.
- Delivered ERP Authorization: Security Administrator functionality within the application allows administrators to grant access to specific areas, data records, and data element values. By tying these granular permissions to the information provided by the identity management solution, One Washington would be able to centralize security authorizations via one solution, Active Directory.

One Washington can leverage existing investments and continue in the direction of centralization, while taking advantage of the ERP's extensive authorization solutions. The approach would leverage the state's central identity management system, Active Directory, for tasks such as user provisioning, approval workflow, auditing, etc. The ERP's security configuration will then provide the actual authorization into the system.

2.9.7.2 User Administration

Securing the system from the end user perspective is another important consideration. If a user has access to more data and functions than is required, it is a potential security issue. Likewise, if a user does not have enough access, the utility of the system for that user will be inhibited.

User administration is the combination of authorization and authentication. Authentication is the process by which a user gains access to the ERP. Authorization is the process of validating what a user has access to. By allowing a user into a system and then giving them the rights to execute transactions, control can be exercised over the entire system. ERPs authorize user access to stored data in the system through two basic controls:

- User Profile: A user profile is a definition that signifies one user. Each user is unique and the user profile specifies user attributes, data, and access rights.
- Access Rights: Configuration that assigns access privileges and rights to access a certain functions or locations within the ERP. These rights are then assigned to users.

Utilizing the security capabilities of the ERP application, the One Washington program will be able to design during the implementation phase robust security schemes to control access into the ERP. By combining these security components in a thoughtful and well-designed manner, One Washington is provided with a flexible yet protective security solution.

2.9.8 *Maintaining Security*

Security maintenance is another important aspect of ERP application security. If an employee is terminated, the former employee will need their access revoked from the system, otherwise they will continue to be able to access the data contained in the ERP. The security maintenance approach includes implementing and following effective Data Protection Standards, holistic security Risk Management approaches and established state policies. Maintenance of security focuses on managing the users and system interaction rather than updating configuration settings.

To effectively maintain the security of any system, appropriate policies (new or established) and processes should be implemented and regularly monitored for adherence. The One Washington program will be required to set those policies and processes. The team will be required to develop a security policy that includes, but is not limited to:

- New hires
- Terminations
- Job change
- Functional role to ERP mapping

When those policies have been set, a process by which those security policies can be enforced and adhered to, needs to be developed, such as how to request or revoke access.

2.9.9 *Security Design Review*

The overall health of the security design is best determined by an objective review. Security reviews should routinely be performed to ensure that the ERP, supporting systems and infrastructure are compliant with the State of Washington's policies and standards. The state's Office of Cyber Security currently requires mandatory security reviews, as specified in sections 1.2.1 "Design Review" and 1.3 "IT Security Assessment" in Policy 141.10 (Securing Information Technology Assets Standards). The One Washington program will coordinate these reviews during planning, implementation and post implementation, and WaTech will be the agency to conduct the reviews. Having a security review before the implementation allows One Washington to identify and address any security weaknesses. It may be necessary to add products or services, so periodic reviews of the security, during the implementation, would be helpful in securing the applications early on. Finally, a full security review after the implementation is needed to confirm adherence.

2.10 Organizational Change Management Strategy

> *"Change management needs to come in early."*
>
> *-Agency Deputy Director*

The One Washington change management strategy refreshes the change management approach which was developed as part of the 2014 Business Case. It sets the foundation for key organizational change management activities which will support the One Washington program during this multi-year implementation. The strategy will define what the change initiatives will look like and how we will work together to navigate the change, with special emphasis on the communications strategy.

2.10.1 *Key Question*

The change management strategy addresses the following question:
"What are the methods and approaches the One Washington program will develop to manage, communicate and enable the organizational change needed to successfully transform business processes and move to a modern enterprise system for Finance, Procurement, HR/Payroll and Budget?"

2.10.2 *Key Considerations and Assumptions*

The strategy takes into consideration the following:

- The 2014 Business Case change management approach that was developed from the outcomes of the Organizational Readiness Assessment. Organizational readiness was evaluated as of May 5, 2014.
- The high-level stakeholder analysis conducted in October-November 2017 that included interviews of 22 agencies.
- Resources to support One Washington's organizational change management (OCM) activities are included in Section 4 and 5 of the Program Blueprint. The estimate is calculated at 18% of total program costs. An overview of the proposed change management team organization and roles can be found in the Organizational Change Management Strategy document.
- The strategy includes business transformation and ERP change management for the period of 01/2018 – 06/2026
- The expectation that the strategy will be updated and expanded to a more detailed change management plan once the actual enterprise resource planning ('ERP') software solutions for One Washington are identified. This detailed work will be done according to the timelines below:
    - Finance & Purchasing: 11/2019 – 07/2023
        - Wave 1 (Initial Functionality): 11/2019 – 07/2021
        - Wave 2 (Initial Functionality): 07/2021 – 01/2022
        - Wave 3 (Initial Functionality): 01/2022 – 07/2022
        - Wave 4 (Expanded Functionality): 07/2022 - 07/2023
    - Budget: 07/2024 – 01/2026
    - HR /Payroll: 07/2024 – 01/2026
    - BI (across all implementations): 11/2019 – 01/2026
- This strategy assumes legislative support and funding to complete the Program.

2.10.3 *Summary*

Change management ensures that the right resources and processes are in place so that an organization effectively transitions to the desired future state. The strategy provides an approach for change management for the One Washington program overall and for each of its major phases. The strategy has been developed with consideration given to:

- Transformation of business processes
- Implementation of software solutions (including on-premises, best of breed, SaaS)
- Impacts of the Washington environment and culture (including the history of past enterprise transformation programs), and the desired behaviors to achieve change commitment
- Influence of other factors that could impact change adoption (like leadership transitions and the degree of agency change capability) throughout the length of the Program

The strategy is based on data derived from the 2014 Business Case and OCM practices for complex multi-year transformations. It also includes the approach for improving readiness levels across the organization and fostering transformation adoption through:

- Stakeholder Identification and Engagement
- Communications
- Training
- Business User Engagement & Business Readiness

The goal of the strategy is to follow an established change model and approach to bring all One Washington transformation stakeholders along the change journey, and to arrive at a state of change commitment and adoption to fulfill the objectives of the Program. Details of the strategy are provided in the Organizational Change Management Strategy document.

3.0 Initiatives and Phasing

The Initiatives and Phasing section provides summaries for the 20 initiatives identified and prioritized as offering business value to the State of Washington in the form of incremental and complementary projects. Section 3.1 covers six technology dependent initiatives that include the procurement and implementation of application software in the areas of Finance, Procurement, HR/Payroll, and Budget. Section 3.2 discusses three non-technology dependent initiatives that consist of foundational activities and executive program management that will complement the implementation of a new Finance and Procurement system. Section 3.3 discusses eleven non-technology dependent initiatives to be considered at a future date following the deployment of an integrated Finance/Procurement ERP system including two each for Budget and HR/Payroll functionality. A Gantt chart depicting phasing can be found in Section 3.4.

3.1 Technology Dependent Initiatives

This section discusses the six technology dependent initiatives for the One Washington program, including an overview of major sub-activities. The section also describes the outcomes and benefits of an integrated ERP system, important factors for successful implementation, and rationale for why these activities are the best choice for the State of Washington. These initiatives consist of the software procurement efforts for each of the major functional areas (Finance, Procurement, HR/Payroll, and Budget) and the implementation of the software. Section 2.4 contains a more detailed overview of the steps and considerations involved in implementing an integrated ERP system. The technology dependent initiatives for One Washington are:

- Finance/Procurement and Business Intelligence Software Procurement Activity
- Finance/Procurement and Business Intelligence System Implementation
- HR/Payroll Software Procurement Activity
- HR/Payroll and Business Intelligence System Implementation
- Budget Software Procurement Activity
- Budget System and Business Intelligence Implementation

By implementing these initiatives, One Washington will enable unified business processes across programs and agencies, applications that work together and exchange data across systems, and operational efficiencies from standardized data, improved workflows, increased productivity, decreased cycle time, and reduced errors. Tables 3.1.1 – 3.1.6 explain the detailed components, implementation considerations, and rationale for each initiative.

Table 3.1.1: Finance/Procurement and Business Intelligence Software Procurement Activity Detail

Initiative	Finance/Procurement and Business Intelligence Software Procurement Activity
Overview and Components	Procure Finance/Procurement and Business Intelligence software. There are several major vendors who should be encouraged to compete in this area including Oracle, SAP, CGI, Workday and Infor. Consistent with the guiding principle by One Washington for a unified software deployment approach One Washington will conduct procurement and contracting of the Business Intelligence software during FY 2019 along with the procurement of initial and expanded functionality of Finance and Procurement ERP application software. (Note: the distinction between initial and expanded is described in Section 2.1 of the Program Blueprint). Conducting this procurement and the ensuing software vendor selection and contracting process will be major activities during FY19.
	Procure Finance/Procurement expanded application software. Consistent with guiding principle by One Washington for a unified software deployment approach, it is possible the state may want to acquire certain expanded ERP application software from vendors other

	than the main ERP software vendor. In this case, an additional procurement for such expanded functionality will be needed. As circumstances dictate, One Washington will use the state's normal sourcing process to obtain expanded ERP application software.	
	Procure technical infrastructure and hardware. The planning assumption for a SaaS deployment model is that the state will need to enhance its current technical architecture. This might include network connectivity, middleware like an enterprise service bus, or new end-user access devices. As needed, One Washington will use the WaTech sourcing process to obtain additional technical infrastructure and hardware.	
	Procure quality assurance (QA) professional services. To acquire QA, One Washington will use OFM's convenience contract or other state procurement processes.	
Implementation Considerations	People	The people who will be considered when selecting and procuring an enterprise software package include business owners (i.e. OFM and DES), agency leadership, state technical experts (i.e. OCIO and WaTech), business customers, and functional SMEs. One Washington will also consider the impact on other stakeholders including employees, members of the Budget community, beneficiaries, suppliers, and citizens.
	Process	Software procurement will conform to current state procurement business processes. Since the state has already engaged the services of a strategic partner for the implementation, the procurement will be focused on selecting initial and possibly expanded software, technical infrastructure, and any additional professional services.
	Technology	The successful procurement of application and Business Intelligence software, expanded application software, technical infrastructure, and quality assurance professional services is not constrained by the state's existing technology.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of a workstream within both the Finance and Procurement organizational strategy assessment initiatives. These workstreams will ensure that state policy is consistent with the full use of an integrated ERP system. This includes coordination of the One Washington Business Intelligence strategy with the future business capabilities for Budget and HR/Payroll.
Summary Rationale	The State of Washington is currently supporting a 35 year-old statewide Finance system, does not have a statewide Procurement system, and seeks improvement for statewide Business Intelligence capabilities. The procurement and implementation of an integrated procure-to-pay system, with the improved overall functionality provided by a modern ERP for Finance, Procurement and Business Intelligence, will bring immense benefits to state operations, data quality, and decision-making.	

Table 3.1.2: Finance/Procurement and Business Intelligence Implementation Detail

Initiative	Finance/Procurement and Business Intelligence Implementation	
Overview and Components	Design, build, test, and deploy initial release functionality to wave 1 agencies. In Finance, this functionality includes general ledger accounting, specialized accounting, budgetary control, asset management, accounts payable, accounts receivable, travel and expense, cash management, master data, and reporting. In Procurement, this includes requisitions and purchase orders, contract management, receiving, sourcing, supplier relationship management, category management, catalog purchasing, master data, and reporting. This also includes design, build, test and deployment of the initial release of the enterprise-wide Business Intelligence solution.	
	Design, build, test, and deploy initial release functionality to wave 2 agencies. This includes the same Finance/Procurement/Business Intelligence functionality listed above.	
	Design, build, test, and deploy initial release functionality to wave 3 agencies. This includes the same Finance/Procurement/Business Intelligence functionality listed above.	
	Design, build, test, and deploy expanded release functionality to all relevant agencies. In Finance, this consists of grantor management, and in Procurement, it includes inventory management.	
Implementation Considerations	People	Changes in enterprise technology, as well as integration and retirement of agency-specific systems, can entail a significant disruption to agency operations if not paired with sufficient organizational change management and training initiatives.
	Process	To effectively transition to the use of a new enterprise-wide Finance and Procurement system, many current business processes and manual workarounds will require study and redesign to ensure alignment between business needs and technology.
	Technology	Beyond the many technology considerations when implementing the ERP, the impact of the new system on all supporting external systems, software, and hardware must also be considered.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of a workstream within both the Finance and Procurement organizational strategy assessment initiatives. These workstreams will ensure that state policy is consistent with the full use of an integrated ERP system. This includes coordination of the One Washington Business Intelligence strategy with the future business capabilities for Budget and HR/Payroll.
Summary Rationale	The State of Washington is currently supporting a 35 year-old statewide Finance system, does not have a statewide Procurement system, and seeks improvement for statewide Business Intelligence capabilities. The procurement and implementation of an integrated procure-to-pay system, with the improved overall functionality provided by a modern ERP for Finance, Procurement and Business Intelligence, will bring immense benefits to state operations, data quality, and decision-making.	

Table 3.1.3: HR/Payroll Software Procurement Activity Detail

Initiative	HR/Payroll Software Procurement Activity	
Overview and Components	Procure HR/Payroll application software. There are several major vendors who should be encouraged to compete in this area, for example Oracle, SAP, CGI, Workday and Infor. Conducting this procurement and the ensuing software vendor selection and contracting process will be major activities during future years when HR/Payroll functionality is required.	
	Procure technical infrastructure and hardware. The planning assumption for a SaaS deployment model is that the state will need to enhance its current technical architecture. This might include network connectivity, middleware like an enterprise service bus, or new end-user access devices. As needed, One Washington will use the WaTech sourcing process to obtain additional technical infrastructure and hardware.	
	Procure quality assurance (QA) professional services. To acquire QA, One Washington will use OFM's convenience contract or other state procurement processes.	
Implementation Considerations	People	The people who will be considered when selecting and procuring an enterprise software package include business owners (i.e. OFM and DES), agency leadership, business customers, state technical experts (i.e. OCIO and WaTech), and functional SMEs. One Washington will also consider the impact on other stakeholders including employees, beneficiaries, suppliers, institutions of higher education, and citizens.
	Process	Software procurement will conform to current state procurement business processes. Since the state has already engaged the services of a strategic partner for the implementation, the procurement will be focused on selecting initial and possibly expanded software, technical infrastructure, and any additional professional services.
	Technology	The successful procurement of application software, expanded application software, technical infrastructure, and quality assurance professional services is not constrained by the state's existing technology.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of a workstream within an HR/Payroll organizational strategy initiative. This workstream will ensure that state policy is consistent with the full use of an integrated ERP system.
Summary Rationale	By the time the state has completed implementation of an integrated Finance and Procurement system and enterprise wide Business Intelligence capabilities, the current state HR system will need review of its continued viability. Whether through a unified ERP or a separate offering, the procurement and implementation of an integrated HR/Payroll system could bring immense benefits, including process efficiencies and more accurate, timely, and complete information for planning and decision-making.	

Table 3.1.4: HR/Payroll and Business Intelligence Implementation Detail

Initiative	HR/Payroll and Business Intelligence Implementation	
Overview and Components	Design, build, test, and deploy the HR/Payroll system. This implementation will consist of one wave that includes payroll, general HR functions, benefits administration, position classification, time and attendance, compensation planning, recruitment, development, labor relations, performance evaluation, health and safety, master data (e.g. positions, job descriptions), and reporting. This also includes design, build, test and deployment, leveraging the enterprise-wide Business Intelligence solution.	
Implementation Considerations	People	Changes in enterprise technology, as well as integration and retirement of agency-specific systems, can entail a significant disruption to agency operations if not paired with sufficient organizational change management and training initiatives.
	Process	To effectively transition to the use of a new enterprise-wide HR/Payroll system, many current business processes and manual workarounds will require study and redesign to ensure alignment between business needs and technology.
	Technology	Beyond the many technology considerations when implementing the ERP, the impact of the new system on all supporting external systems, software, and hardware must also be considered.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of a workstream within an HR/Payroll organizational strategy initiative, ensuring that policy is consistent with the full use of an integrated ERP system.
Summary Rationale	By the time the state has completed implementation of an integrated Finance and Procurement system and enterprise wide Business Intelligence capabilities, the current state HR system will need review of its continued viability. Whether through a unified ERP or a separate offering, the procurement and implementation of an integrated HR/Payroll system could bring immense benefits, including process efficiencies and more accurate, timely, and complete information for planning and decision-making.	

Table 3.1.5: Budget Software Procurement Activity Detail

Initiative	Budget Software Procurement Activity
Overview and Components	Procure Budget application software. There are several major vendors who should be encouraged to compete in this area, for example Oracle, SAP, CGI, Workday and Infor. Conducting this procurement and the ensuing software vendor selection and contracting process will be major activities during the future years when Budget functionality is required.
	Procure technical infrastructure and hardware. The planning assumption for a SaaS deployment model is that the state will need to enhance its current technical architecture. This might include network connectivity, middleware like an enterprise service bus, and new end-user access devices. As needed, One Washington will use the WaTech sourcing process to obtain additional technical infrastructure and hardware.

	Procure quality assurance (QA) professional services. To acquire QA, One Washington will use OFM's convenience contract or other state procurement processes.	
Implementation Considerations	People	The people who will be considered when selecting and procuring an enterprise software package include business owners (i.e. OFM), agency leadership, business customers, state technical experts (i.e. OCIO and WaTech), and functional SMEs. One Washington will also consider the impact on other stakeholders including employees, the Legislative Evaluation and Accountability Program (LEAP), beneficiaries, suppliers, and citizens.
	Process	Software procurement will conform to current state procurement business processes. Since the state has already engaged the services of a strategic partner for the implementation, the procurement will be focused on selecting initial and possibly expanded software, technical infrastructure, and any additional professional services.
	Technology	The successful procurement of ERP application software, expanded application software, technical infrastructure, and quality assurance professional services is not constrained by the state's existing technology.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of an eventual non-technology dependent workstream within Budget. This workstream will ensure that state policy is consistent with the full use of an integrated ERP system.
Summary Rationale	The state infrastructure supporting the Budget function (both capital and operating) is complex and requires duplicate and manual data entry to multiple sub-systems. The procurement and implementation of a modern and integrated Budget system and enterprise-wide Business Intelligence capabilities will reduce the risk of error, and enable staff to spend time on data analysis instead of data aggregation.	

Table 3.1.6: Budget and Business Intelligence Implementation Detail

Initiative	**Budget and Business Intelligence Implementation**	
Overview and Components	Design, build, test, and deploy the Budget system. This implementation will consist of one wave that includes all of Washington's budgets, including operating, supplemental, special revenue (e.g. Transportation), and capital budgets. Each form of budget includes revenues and expenses, scenario planning and forecasting, publishing the budget book, master data, and reporting. This also includes design, build, test and deployment, leveraging the enterprise-wide Business Intelligence solution.	
Implementation Considerations	People	Changes in enterprise technology, as well as integration and retirement of agency-specific systems, can entail a significant disruption to agency operations if not paired with sufficient organizational change management and training initiatives.
	Process	To effectively transition to the use of a new enterprise-wide Budget system, many current business processes and manual workarounds will require study and redesign to ensure alignment between business needs and technology.

	Technology	Beyond the many technology considerations when implementing the ERP, the impact of the new system on all supporting external systems, software, and hardware must also be considered.
	Policy	The alignment of policy guidance and technical solutions is essential, and will be the subject of an eventual non-technology dependent workstream within Budget. This workstream will ensure that state policy is consistent with the full use of an integrated ERP system.
Summary Rationale	The state infrastructure supporting the Budget function (both capital and operating) is complex and requires duplicate and manual data entry to multiple sub-systems. The procurement and implementation of a modern and integrated Budget system and enterprise wide Business Intelligence capabilities will reduce the risk of error, and enable staff to spend time on data analysis instead of data aggregation.	

3.2 Non-Technology Dependent Initiatives

This section discusses business transformation initiatives that will complement the implementation of new systems. These initiatives were refined and prioritized over the course of a series of interviews and working sessions with Finance and procurement experts from several agencies. These three initiatives consist of foundational activities that offer organizational alignment and business process efficiencies that provide a valuable basis to support changes to technology in the functional areas of Finance and Procurement, namely:

- Assess Procurement Organizational Strategy
- Assess Finance Organizational Strategy and Readiness
- Program Management and Communications with Authorizing Environment

Tables 3.2.1 – 3.2.3 describe the detailed components, outcomes and benefits, implementation considerations, and rationale of each of the initiatives mentioned above. Initiatives planned for FY19 will help prepare for the ensuing implementation of Finance and Procurement system functionality.

Table 3.2.1: Assess Procurement Organizational Strategy

Initiative	Assess Procurement Organizational Strategy
Overview and Components	Assess alignment of current business processes with Procurement organizational strategy. This initiative would leverage an integrated operating model approach to statewide procurement strategy, and would include identifying DES and agency leaders to develop the vision and objectives, conducting surveys and interviews to assess alignment, collecting data to assess areas of opportunity for improvement, and building the vision and strategy for a future-state operating model.
	Conduct a comprehensive review of laws, regulations, and policies in readiness for a new enterprise-wide procurement system. This activity would consist of both identifying outdated and irrelevant guidance in the area of procurement, as well as considering any guidance which must be created to support changes to the procurement operating model and the implementation of new systems.
	Launch strategic sourcing assessment for a select group of enterprise-wide categories to enhance current strategic sourcing efforts through continuous evaluation of program effectiveness, new and emerging best practices, ongoing policy reviews, coordination with supplier diversity initiatives, and continuous investment in professional development.

Outcomes and Benefits	**Process efficiencies** resulting from streamlined policy guidance and expansion of strategic sourcing principles. **Increased customer satisfaction** due to a more efficient, timely, and responsive operating model that places the customer at the center. **Risk mitigation** from ensuring the state is adhering to all rules and regulations that govern procurement across the enterprise, and that all rules and regulations are up to date to reflect current realities across the state. **Hard dollar benefit** from improvements in the sourcing of goods and services through vendor rationalization, spend aggregation, and total cost of ownership analysis.	
Implementation Considerations	People	An undertaking to assess the organizational strategy and operating model will involve many individuals across the procurement function in both management and personnel roles. Their input and willingness to contribute is crucial to the successful completion of the initiative.
	Process	Processes used to undertake this initiative will reflect best practices in assessments of organizational design and strategic sourcing.
	Technology	These activities are not dependent upon new technology or systems.
	Policy	Current policy will be a primary focus of the engagement, and therefore will not be a constraint on the initiative, beyond ensuring that all state procurement laws and regulations are adhered to.
Summary Rationale	This initiative could be wide-ranging and high effort, but would offer an opportunity to reshape statewide procurement strategy in a way that would form the basis for effectively implementing a new system.	

Table 3.2.2: Assess Finance Organizational Strategy and Readiness

Initiative	Assess Finance Organizational Strategy and Readiness
Overview and Components	Assess alignment of current business processes with Finance organizational strategy. This initiative would leverage an integrated operating model approach to statewide Finance strategy, and would include identifying OFM and agency leaders to develop the vision and objectives, conducting surveys and interviews to assess alignment, collecting data to assess areas of opportunity, and building the vision and strategy into a future-state operating model.
	Consolidate and clean up statewide master payee and customer files. This activity would consist of identifying the universe of statewide and agency-specific databases maintaining payee and customer profiles, confirming the process for adding and updating enterprise versus line-of-business data, performing updates to ensure consistency with the centralized files, and finalizing a governance model and management structure.
	Conduct a review of laws, regulations, and policies in readiness for a new enterprise-wide Finance system. This activity would consist of both identifying outdated guidance, as well as considering any guidance which could be created to support changes to the Finance operating model and the implementation of new systems.
	Review selected business processes and assess people, process, and policy changes that could be implemented with existing technology in the areas of data entry and manual

	workflows, possibly in coordination with the state's Lean efforts. Processes for analysis would likely include the procure-to-pay, record to report, and revenue to cash cycles.	
	Create a project to standardize and improve accounting practices and associated data enterprise-wide in preparation for a new system. This initiative would be led by the Statewide Accounting Office, and would include an assessment to identify specific areas of improvement and employee development efforts.	
Outcomes and Benefits	**Process efficiencies** from improved accounting practices and policy review that aims to simplify and streamline Finance operations. **Reduced error rates** in the procure-to-pay, record to report, and revenue to cash cycles. **Increased customer satisfaction** requiring fewer redundant communications to internal and external stakeholders from more accurate master data. **Improved information for decision making** with more accurately classified spend transactions and a focus on reporting that advances business value.	
Implementation Considerations	People	An undertaking to assess the organizational strategy and operating model will involve many individuals across the Finance function in both management and personnel roles. Their input and willingness to contribute is crucial to the successful completion of the initiative.
	Process	Across the many activities composing this greater initiative to promote Finance readiness, there will be a significant focus on current business processes and ways that they can be adjusted to a future state for increased performance. As a result, process will be a major consideration and will likely require change management efforts to fully implement recommendations.
	Technology	These activities are not dependent upon new technology or systems.
	Policy	This initiative will ensure greater alignment between state Finance functions and relevant laws and policies. Activities such as pursuing greater centralization of master data elements (e.g. payee and customer files) must be consistent with state policies around sensitive data.
Summary Rationale	Similar to the Procurement organizational strategy assessment, this initiative would require the successful coordination of Finance stakeholders in OFM and agencies to align their strategy and business model with concurrent technology-focused initiatives, forming the basis for effectively implementing a new statewide Finance system.	

Table 3.2.3: Program Management and Communications with Authorizing Environment

Initiative	Program Management and Communications with Authorizing Environment
Overview and Components	Perform activities to achieve authorization and funding for the continuation of the One Washington program. These ongoing activities include communicating a compelling business case and delivering successful incremental projects to earn the support of the Governor and Legislature.
Summary Rationale	The continued engagement of One Washington leadership, resources to support program management, and creation of supporting material will allow for coordination and oversight of

	concurrent initiatives throughout all phases of technology and non-technology related workstreams.

3.3 Non-Technology Dependent Initiatives for Future Consideration

This section discusses business transformation initiatives that will complement the implementation of new systems. These initiatives were refined and prioritized over the course of a series of interviews and working sessions with Finance, Procurement, Budget and HR/Payroll experts from several agencies. These initiatives offer business value that will require, or would be greatly supported by, the improved access to data and technical functionality resulting from the implementation of new systems. The list provided below will continue to be refined through version 3.

- Assess Opportunities to Simplify and Improve Budget Processes
- Review HR/Payroll Statute and Business Processes
- Assess the Feasibility for Creating a Center of Excellence for HR/Payroll
- Assess the Ability to Intercept/Offset Delinquent Debt
- Define and Implement Procurement Key Performance Indicators
- Launch Finance Readiness Workgroup
- Launch Grants Management Workgroup
- Launch Enterprise Solicitation Processes Workgroup
- Launch Supplier Relationship Management Workgroup
- Launch Non-Tax Revenue Workgroup
- Launch Indirect Cost Allocation Review Workgroup

Table 3.3.1 describes the detailed components, outcomes and benefits, implementation considerations, and rationale of the Budget initiative planned for FY20.

Table 3.3.1: Assess Opportunities to Simplify and Improve Budget Processes

Initiative	**Assess Opportunities to Simplify and Improve Budget Processes**	
Overview and Components	Review selected budget development and management processes and assess potential people, process, and policy changes that could be applied to promote business outcomes. As ERP software for Budget will be implemented to align with all current statutory requirements of the Budget and Accounting Act, this assessment seeks to complement the benefits from new systems by analyzing potential areas for improved operations and the impact that any adjustments to processes or guidance would provide. This initiative would also aim to identify opportunities to simplify and ensure that all tasks and artifacts continue to fulfill the needs of stakeholders, including agencies, legislative partners, and the public.	
Outcomes and Benefits	**Process efficiencies** from simplified budget development procedures, specifically by evaluating the efficacy of requirements for the biennial budget that are produced and compiled, but may not continue to add value to executive and legislative stakeholders. **Increased customer satisfaction** from more accurate master data requiring fewer redundant communications to internal and external stakeholders. **Improved information for decision making** with more timely sharing of essential budget data between agencies, business owners, and legislative partners.	
	People	A review of business processes and policies will involve many individuals across finance, accounting, HR, and budget functions in both management

Implementation Considerations		and personnel roles. Their input and willingness to contribute is crucial to the successful completion of the initiative.
	Process	Across the multiple activities comprising this initiative, there will be a significant focus on current business processes and ways that they can be adjusted to a future state for increased performance. As a result, process will be a major consideration and may require change management efforts to fully implement recommendations.
	Technology	These activities are not dependent upon new technology or systems, nor will new systems be dependent upon changes recommended by this initiative.
	Policy	This initiative will promote greater alignment between state budget processes, relevant statute and policies, and the requirements of internal and external stakeholders.
Summary Rationale	While the procurement and implementation of a new budget system is currently planned for several years in the future, the budget community has an opportunity to assess the potential for simplified and improved processes and policy, ultimately supporting alignment between a future operating model and the most up-to-date needs of the budget community's diverse group of stakeholders.	

Tables 3.3.2 – 3.3.3 describe the detailed components, outcomes and benefits, implementation considerations, and rationale of each of the HR/Payroll initiatives mentioned above. The HR/Payroll initiatives planned for FY20 will help prepare for the implementation of HR/Payroll system functionality.

Table 3.3.2: Review HR/Payroll Statue and Business Processes

Initiative	**Review HR/Payroll Statute and Business Processes**	
Overview and Components	Conduct a review of laws, regulations, and policies in readiness for new enterprise-wide HR/Payroll system. This activity would consist of both identifying outdated guidance, as well as considering any guidance which could be created to support changes to the HR/Payroll business processes and procedures and the implementation of new systems.	
	Review selected business processes and assess people, process, and policy changes that could be implemented in coordination with changes to statutes (RCW, WAC, CBA's and civil service rules). An assessment of the HR/Payroll processes would aim to identify opportunities to simplify and ensure that all tasks and artifacts continue to add value to stakeholders, including agencies, elected officials, and the public.	
Outcomes and Benefits	Process efficiencies resulting from more consistent data quality across the enterprise and simplified and streamlined procedures targeting elements without a clear purpose/outcome. Increased customer satisfaction from more accurate master data requiring fewer redundant communications to internal and external stakeholders. Improved information for decision making and timelier sharing of essential HR/Payroll data between agencies, business owners, labor unions, and legislative partners.	
Implementation Considerations	People	A review of business processes and statutes related to HR/Payroll will involve many individuals across HR/Payroll, Benefits, and Retirement functions in both management and personnel roles, as well as Higher Education

		representatives. Their input and willingness to contribute is crucial to the successful completion of the initiative.
	Process	Across the multiple activities composing this initiative to promote HR/Payroll readiness, there will be a significant focus on current business processes and ways they can be adjusted to a future state for increased performance. As a result, process will be a major consideration and will likely require change management efforts to fully implement recommendations.
	Technology	These activities are not dependent upon new technology or systems.
	Policy	This initiative will ensure greater alignment between state HR/Payroll functions, processes, and relevant laws and policies.
Summary Rationale	While the procurement and implementation of a new HR/Payroll system is currently planned for several years in the future, the HR/Payroll community must align its efforts to simplify business processes and have clarity in statutes to move forward with the implementation of the new system.	

Table 3.3.3: Assess the Feasibility for Creating a Center of Excellence for HR/Payroll

Initiative	**Assess the Feasibility for Creating a Center of Excellence for HR/Payroll**	
Overview and Components	Study and assess the feasibility for creating a formal HR/Payroll group of professionals with deep and specialized knowledge of all the State of Washington's systems, processes, and procedures. Employing the concept of a Center of Excellence (CoE), this group of professionals would serve as the single point of contact to the line agencies. The expectation is that questions asked by agency staff would either be answered directly by this group or referred to the appropriate subject matter expert. This potential CoE would promote collaboration, standardization, and use of best practices around all aspects of the HR/Payroll business processes and procedures. This initiative would include a review and an investigation to the root causes of HR/Payroll business challenges and the costs and benefits of a CoE to address those business challenges.	
Outcomes and Benefits	Process efficiencies resulting from more consistent data quality across the enterprise and one point of contact for line agencies to refer to for HR/Payroll issues. Increased customer satisfaction from greater cross-branch coordination in determining authoritative guidance, by having a uniform understanding and application of the laws, rules, and bargaining agreements. Improved information and decision making by addressing the inconsistent use of system fields and data.	
Implementation Considerations	People	The success of a formalized point of contact such as a CoE is dependent upon the value that it provides to the HR/payroll community of practitioners. Communication and content must evolve to reflect the needs of members and the organization, as evidenced by its prioritization by HR/Payroll stakeholders.
	Process	The process for establishing a formalized point of contact such as a CoE would need to be agreed upon, as this CoE would be the “front door” for inquiries that involve the subject matter expertise currently resident in several

		agencies. Entities that would need to agree and coordinate include State HR at OFM, recruitment and learning at DES, and benefits at HCA and DRS.
	Technology	Existing technology can support the implementation of a formalized point of contact such a CoE, and will support its launch in the form of a website and other HR/Payroll-specific applications or modules.
	Policy	Current policy does not present an obstacle to the creation of a HR/Payroll CoE. However interagency agreements, in the form of a memorandum of agreement or similar document, would be created to memorialize the roles and responsibilities of the new CoE.
Summary Rationale	An enterprise CoE can serve as the one HR/Payroll point of contact for the agencies to go to and obtain answers and clarifications to their HR/Payroll questions whether it relates to policies, processes and/or system related best practices.	

Tables 3.3.4 – 3.3.11 describe the detailed components, outcomes and benefits, implementation considerations, and rationale of each of the Finance and Procurement initiatives mentioned above. These initiatives are planned for future fiscal years and are intended to optimize the business benefits associated with Finance and Procurement functionality, and will be reconsidered at the appropriate time.

Table 3.3.4: Assess the Ability to Intercept/Offset Delinquent Debt

Initiative	**Assess the Ability to Intercept/Offset Delinquent Debt**	
Overview and Components	Study and assess dependencies to expand intercept/offset practices to enhance the collection of delinquent receivables and reduce the amount of uncollected accounts. This initiative would be enabled by the cleanup and greater standardization of the master payee and customer files, which would allow for a full-scope view of receivables and payments by vendors, and the implementation of a new Finance system. A legal review of relevant laws and policies is also necessary, as current state laws prevent the full implementation of this initiative.	
Outcomes and Benefits	**Process efficiencies** from payments which are automatically intercepted, as opposed to current processes which requires manual searching through disparate agency systems. **Enhanced accountability and transparency** from a full-scope picture of payments to vendors with delinquent debts and improved compliance by payees. **Hard dollar benefit** as a result of improved collection efforts, leading to an increase in revenues collected by state agencies.	
Implementation Considerations	People	Agency Finance personnel in both payables and receivables would be most impacted by an initiative of this nature. It will also have an impact on payees with delinquent debt who will now be subject to a formal program of payment interception.
	Process	A detailed State Auditor's Office report indicated that as of 2014, Washington is one of 10 states that do not have an intercept/offset program in place. Participation in the US Treasury Offset program is a well-standardized process that would allow the state to expand collections to include payments from other state governments. Implementing the state's own internal intercept/offset program will require a greater degree of

		planning, but will largely consist of automating an incomplete manual process.
	Technology	Implementing an intercept/offset program would be supported by a new statewide Finance system, but may also require additional functionality or configurations to intercept and offset payments.
	Policy	Current state law does not enable an intercept/offset program, and will require review before moving forward with implementation of the program.
Summary Rationale	Employing an intercept/offset program will allow the state to achieve increased collection in delinquent receivables, but it would be best supported by the implementation of a new statewide Finance system.	

Table 3.3.5: Define and Implement Procurement Key Performance Indicators

Initiative	Define and Implement Procurement Key Performance Indicators	
Overview and Components	Define key performance indicators in order to continuously measure important qualitative and quantitative metrics to support continuous improvement of the procurement organization. After identifying the most important metrics based on procurement best practices and state-specific needs, this initiative would identify the sources of relevant information and confirm the process for collection and collation of data. Once these steps have been completed, the ongoing process for review and validation of reports needs to be defined and established.	
Outcomes and Benefits	**Process efficiencies** from ensuring metrics are aligned with key business processes that provide a basis for continual improvement. **Increased customer satisfaction** by directly measuring aspects of the procurement process which are essential to stakeholders, and tying performance objectives with the metrics that are tracked. **Improved information for decision making** due to improved data quality and ensuring that agency and statewide leadership are provided with an accurate picture of state Procurement operations.	
Implementation Considerations	People	The procurement organization includes many specialists across DES and individual agencies, and by extension, customers throughout state government and political subdivisions. An initiative to prioritize and apply key performance indicators would rely on the input of stakeholders ranging from agency leadership and procurement professionals to critical customers.
	Process	Many frameworks provide procurement key performance indicators relevant to the public sector, such as a balanced scorecard approach, but the metrics chosen must reflect the guiding principles of the state, extending beyond what is statutorily required.
	Technology	In the absence of a statewide Procurement system to provide consistent data, this initiative would be very difficult to successfully implement without significant time and effort required of constituent agency personnel.

	Policy	Defining, tracking, and sharing important data elements is contingent upon compliance with all policies related to data sharing between state agencies.
Summary Rationale	Defining key performance indicators will be enabled by the technical functionality that allows for the collection of standardized procurement data in a statewide enterprise system, and must incorporate both objectives of the organization and the ability of the system to provide complete, accurate metrics.	

Table 3.3.6: Launch Finance Readiness Workgroup

Initiative	Launch Finance Readiness Workgroup	
Overview and Components	Create a workgroup that offers resources, knowledge sharing, and technical assistance in project accounting, cost accounting, asset management, statutory reporting, and analytics, especially as they relate to new systems that are implemented. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.	
Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on challenging scenarios encountered by community members. **Reduced error rates** through centralized access to job materials and other resources. **Increased customer satisfaction** by extension of improved accuracy and speed of finance transaction processing. **Improved information for decision making** from more accurately classified transactions and improved analytics.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by Finance stakeholders, a workgroup of this nature has their initial support.
	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other finance-specific applications.
	Policy	Current policy does not present an obstacle to the creation of a Finance workgroup.
Summary Rationale	A Finance workgroup provides a means to continue the progress of the Finance organizational strategy and readiness activities by keeping a group of interested Finance professionals across agencies engaged with each other; it will provide another element of internal support as the state transitions to a new statewide enterprise system.	

Table 3.3.7: Launch Grants Management Workgroup

Initiative	Launch Grants Management Workgroup	
Overview and Components	Create a workgroup that offers resources, knowledge sharing, and technical assistance in grant eligibility/application, cost-benefit analysis and decision-making, as well as reporting and tracking the implications of new and changing requirements. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.	
Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on common scenarios related to grant application and management. **Reduced error rates** through centralized access to materials related to state and federal assistance processes. **Increased customer satisfaction** by focusing more time during the grants process on program objectives as opposed to administrative requirements. **Hard dollar benefit** from opportunities to increase federal funding for programs that fit the mission of one or more state agencies.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by Finance stakeholders, a workgroup of this nature has their initial support.
	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other finance-specific applications.
	Policy	Current policy does not present an obstacle to the creation of a grants management workgroup.
Summary Rationale	A grants management workgroup will formalize collaboration between agency experts in the areas of grant administration, staying up to date with changes in grants policy, and ensuring that the state's grant-focused technology module will provide full value.	

Table 3.3.8: Launch Enterprise Solicitation Processes Workgroup

Initiative	Launch Enterprise Solicitation Processes Workgroup
Overview and Components	Create a workgroup that offers resources, knowledge sharing, as well as technical assistance in solicitation & purchase order processes and relevant enabling systems to help procurement professionals and agencies choose the most advantageous solicitation method. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.

Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on challenging scenarios encountered by community members. **Increased customer satisfaction** by ensuring that an appropriate solicitation method is used, leading to more efficient procurements with less rework. **Enhanced accountability and transparency** by providing central resources and the opportunity for standardization across the state, while respecting the procurement delegation and needs of individual agencies.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by procurement stakeholders, a workgroup of this nature has their initial support.
	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other procurement-specific applications.
	Policy	Current policy does not present an obstacle to the creation of a solicitation processes workgroup.
Summary Rationale	A workgroup for solicitation processes will allow agency procurement professionals to assist each other with complicated solicitation scenarios, while providing DES business owners with the ability to provide up-to-date content on changes in the solicitation landscape.	

Table 3.3.9: Launch Supplier Relationship Management Workgroup

Initiative	Launch Supplier Relationship Management Workgroup	
Overview and Components	Create a workgroup that offers resources, knowledge sharing, and technical assistance in supplier relationship management, including procurement preferences, educational/mentoring programs, and capacity building efforts. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.	
Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on elements of supplier relationship management. **Increased customer satisfaction** by ensuring specifications that meet their needs through constant engagement with the marketplace.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by procurement stakeholders, a workgroup of this nature has their initial support.

	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other procurement-specific applications.
	Policy	Current policy does not present an obstacle to the creation of a supplier relationship management workgroup.
Summary Rationale	A workgroup for supplier relationship management will allow agency procurement professionals to remain on top of successful practices from their peers, as well as accomplishing targets for key statewide initiatives in the areas of business diversity, green procurement, and technology that supports engagement with the supplier community.	

Table 3.3.10: Launch Non-Tax Revenue Workgroup

Initiative	Launch Non-Tax Revenue Workgroup	
Overview and Components	Create a workgroup that offers resources, knowledge sharing, and technical assistance for agencies and employees that work with non-tax revenue (e.g. fees, fines, licenses, rents, and permits), including business processes, and pricing to support the objective of fair pricing for cost recovery. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.	
Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on challenging scenarios encountered by community members. **Improved information for decision making** from centralized information on pricing and business processes across agencies. **Hard dollar benefits** through the periodic review and optimization of non-tax revenue pricing.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by Finance stakeholders, a workgroup of this nature has their initial support.
	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other finance-specific applications.
	Policy	Current policy does not present an obstacle to the creation of a non-tax revenue workgroup.
Summary Rationale	A workgroup provides a vehicle to advance collaboration related to non-tax revenue management, an area which by its nature is decentralized and line-of-business-centric, yet includes various common elements across revenue-generating agencies.	

Table 3.3.11: Launch Indirect Cost Allocation Review Workgroup

Initiative	Launch Indirect Cost Allocation Review Workgroup	
Overview and Components	Create a workgroup that offers resources, knowledge sharing, and technical assistance in indirect cost allocation, including assessments of opportunities to standardize and ensure that indirect costs have been fully allocated at programs funded by special revenue and federal grant funds. Key elements of launching and sustaining a workgroup include identifying a leadership sponsor, defining the vision and scope, collating relevant materials into a centrally-managed location, and providing valuable content in the form of e-mail communications, guest speakers, and discussions.	
Outcomes and Benefits	**Process efficiencies** resulting from shared practices and collaboration on challenging scenarios encountered by community members. **Enhanced accountability and transparency** of program costs, which accurately reflect the indirect costs of personnel, fringe benefits, and general-fund activities that support non-general fund programs. **Hard dollar benefits** through decreased general fund subsidy of activities supported by federal and special revenue funds, as well as through greater awareness when negotiating federal indirect cost plans.	
Implementation Considerations	People	The success of a workgroup is dependent upon the value that it provides to its members. Communication and content must evolve to reflect the needs of members and the organization, but as evidenced by its prioritization by Finance stakeholders, a workgroup of this nature has their initial support.
	Process	The process for establishing a workgroup is generally agreed upon and will not require any changes to current operating procedures.
	Technology	Existing technology can support the implementation of a workgroup, and will support its launch in the form of a website and other finance-specific applications.
	Policy	Current policy does not present an obstacle to the creation of an indirect cost allocation workgroup.
Summary Rationale	By forming a workgroup on indirect cost allocation, agency experts will be able to share knowledge and achieve greater standardization on indirect cost allocation, leading to improvement in the form of rates which reflect the true costs of administering all programs.	

3.4 Gantt Chart

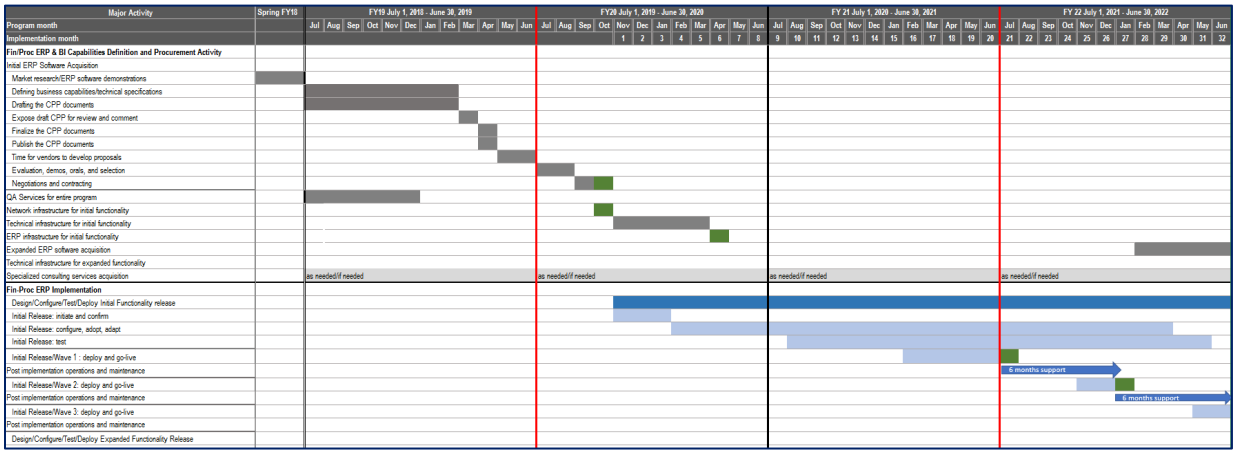
The Gantt chart below provides an overview of the timeline for the technology dependent and non-technology dependent initiatives for One Washington program.

The technology dependent timelines are split into different phases (as shown in the table below) to show monthly progress on the ERP Procurement activities followed by the implementation activities for Finance, Procurement, Budget and HR/Payroll.

LEGENDS	
ERP Procurement Activity	
Go-Live Month	
ERP Implementation overall timelines	
Implementation - waves/ Non-tech initiatives	

The detailed non-technology dependent timelines are in a different section beneath the tech-initiatives timelines. Please refer to the embedded master Gantt chart document for details.

MasterGantt (with summary Gantts)



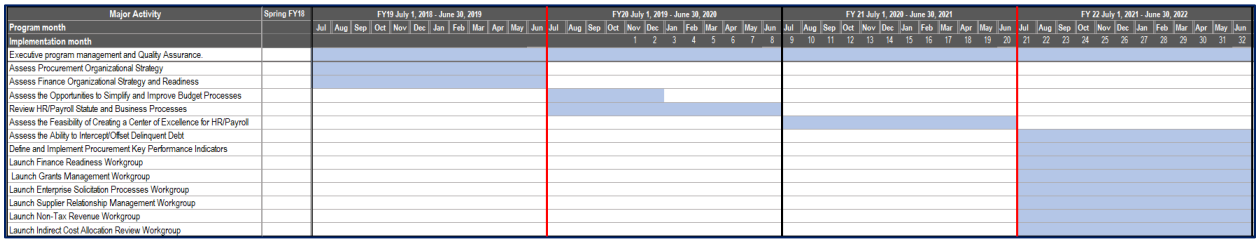


Figure 3.4.1 above is a partial screenshot of the overall timeline for technical and non-technical initiatives

Note: Please refer to the embedded document above for details. The timelines will be further defined in the implementation plan after software is selected.

4.0 Recommended Staffing & Supporting Resources

4.1 Introduction

This staffing and supporting resources plan includes state employees and contractors, and accounts for all initiatives (i.e. non-technology and technology dependent) as set forth in the Program Blueprint. The program staffing plan is reconciled to the program budget. It will start in July 2019 and conclude in June 2026. The staffing was vetted by 37 stakeholders across all functional areas. Adjustments to this plan are possible, as the Program Blueprint is refined in version 3, with additional input from ongoing stakeholder meetings.

4.2 Overview

The staffing plan by year is shown below in Table 4.1, designated as state and contractor employees. A best practice in planning the respective initiatives is to have an integrated team, with Washington employees and contractor employees working in a cohesive manner. The staffing plan aligns to this best practice.

Table 4.1: State vs. vendor resources by fiscal year

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
State	62%	53%	53%	59%	61%	69%	58%	57%
Contractor	38%	47%	47%	41%	39%	31%	42%	43%

The staffing plan by year, detailed by technology and non-technology initiatives, is shown below in Table 4.2. Beginning in FY 19, One Washington will focus on planning, procurement, and preparation. As the Finance and Procurement technology project deploys in FY 20, resources shift to the technology implementation. FY24 is a year when the Finance, Procurement and Business Intelligence functionality has been deployed, and resources shift to procurement of Budget and HR/Payroll. In FY25-26 the Budget and HR/Payroll functionality is deployed and the staffing plan reflects the technology implementation for these areas.

Table 4.2: Staffing on technology vs. non-technology initiatives

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Technology	0%	61%	78%	76%	40%	18%	70%	75%
Non-Technology	100%	39%	22%	24%	60%	82%	30%	25%

4.3 Methodology

The staffing plan was developed by initiative. There are three technology dependent initiatives; the implementation of Finance and Procurement functionality, Budget functionality, and HR/Payroll functionality. Business Intelligence capabilities will be deployed throughout the initiative implementations. These three initiatives account for the majority of the staffing.

There are three procurement initiatives consisting of Finance and Procurement software, HR/Payroll software and Budget software. Business capabilities definition and procurement activities for the Business Intelligence software will occur concurrent with business capabilities definition and procurement activities for the Finance and Procurement ERP software.

There are several non-technology dependent initiatives, two planned for FY19 and the rest in later fiscal years. There is one additional initiative for program management for the duration of the program.

5.0 Program Blueprint Budget Estimates for Program Costs

5.1 Introduction

The purpose of the budget estimates for program costs is to display all costs for the One Washington program and each of its composite technology and non-technology dependent initiatives. The costs presented here are estimated values for the One Washington program only, and does not reflect agency costs for implementation.

The program budget starts on July 1, 2018 and continues through June 30, 2026. This 96-month (8 year) timeframe includes:

- Program planning
- Software procurement
- Business transformation activities
- Implementation of Finance and Procurement software
- Implementation of Budget software
- Implementation of HR/Payroll software
- Implementation of Business Intelligence
- Post implementation support

Costs are displayed with summaries by object of expense and fiscal year with supporting detail for each initiative.

5.2 Overview

The Program Blueprint has a total estimated budget of $303.9m. The annual estimated costs are summarized below in Table 5.1:

Table 5.1: Estimated Annual Program Costs

Cost Summary	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Total Annual Costs	$ 5,256,406	$ 26,440,966	$ 51,857,228	$ 57,869,862	$ 33,786,748	$ 24,745,057	$ 54,027,555	$ 49,977,291
Total Program Costs	$ 5,256,406	$ 31,697,372	$ 83,554,600	$ 141,424,462	$ 175,211,210	$ 199,956,267	$ 253,983,822	$ 303,961,114

The program budget includes estimates for the following:

- One Washington state employee salaries and benefits
- Professional services costs
- ERP and Business Intelligence software costs
- Facilities and training costs
- State staff turnover and replacement costs
- Change orders, amendments and adjustments

For comparisons purposes, the 2014 Business Case cost estimates ranged (depending on scenarios) from $242m to $284m and included the implementation of Finance and Procurement only. One Washington also looked at other recent implementation costs for other states. Wisconsin recently implemented an ERP solution for Finance, Procurement, HR/Payroll and Business Intelligence for a total cost of $280m.

5.3 Methodology

The One Washington program budget was an iterative process based on Accenture estimating tools and staffing plans reviewed and adjusted according to stakeholder feedback and previous experience. Other inputs from programs of similar scope and size were considered, including different cost factors like length of the deployment schedule,

appropriate staffing number and duration on project, and the estimate of change orders and state turnover costs. Cost factors were weighed against the risks to the program.

5.4 Key Assumptions

Table 5.2 below lists the assumptions used to derive the costs.

Assumption
1. Estimates for ERP software are based on the One Washington phasing strategy, ERP software modules in scope, and user counts. The amount of application software cost was derived from information provided by major ERP software providers. This includes a 3% inflation factor.
2. Estimates for integration and Business Intelligence software are based on One Washington's understanding of typical pricing in the marketplace.
3. Accenture's Cloud ERP estimator model was used to develop SaaS implementation estimates. This includes implementation of initial SaaS software. This also includes implementation of interim updates (which consist of 2 major updates per year, plus quarterly minor updates, and monthly fixes).
4. State labor rates are assumed to increase at a 2% rate per year.
5. Contractor labor rates are assumed to increase at a 4% rate per year.
6. Offshore resources are included for development and system test. This accounts for approximately 5% of the total implementation effort.
7. Estimates for reports are based on the labor to create 50 custom reports for Finance, 50 custom reports for Procurement, 50 custom reports for HR/Payroll, and 50 custom reports for Budget/Planning.
8. Estimates for implementation of Business Intelligence are based on Accenture's and North Highland's understanding of resources used for programs of similar scope and size.
9. Project team training is based on $300k for Finance/Procurement, $300k for HR/Payroll, and $150k for budget/planning.
10. In addition to executive program management, an additional roles for Project Management (PM) and a Project Management Office (PMO) are included across all deployments. These teams appear in the "Program Management" tab within the cost and staffing spreadsheets.
11. Estimate assumes labor to assess current-state interfaces for Finance/Procurement, Budget, and HR/Payroll.
12. Additional development/integration resources were added to account for potential Platform as a Service (PaaS) development.
13. The implementation estimates assume that WSDOT will utilize the One Washington solution.
14. State resource benefits are based on annual estimates provided by WA State HR.
15. Labor rates for state staff are based on estimates from WA State HR.
16. Each FTE incurs a $1000 per month cost to account for facilities.
17. This estimate includes the WA budget assumption that state FTEs incur a $1000 per month cost to account for "Goods and Services" (i.e. state-issued cell phone, WaTech subscriptions, etc.).
18. This estimate includes an amount of $100,000 to cover the start-up cost of hiring 25 net-new, external state employees.
19. Contractor resources for the implementation of Business Intelligence/Analytics software are assumed to have their responsibilities transitioned to state resources by the implementation of Budget/HR/Payroll
20. Estimate for organizational change management, communications and training consists of 18% of Accenture and state labor cost for system implementation. This will be revisited and replaced in V3.

Assumption
21. Every wave/deployment includes 6 months of post-production support with two Accenture and two State resources. Accenture will support for 18 months after the last initial functionality Finance/Procurement go-live (wave 3) to help produce the first CAFR in the new system.
22. Estimate does not include labor costs for post-implementation maintenance and operations team. These costs are assumed to be already funded.
23. The cost of expanded identity and access management (IAM) is not included in the estimate.
24. The cost of expanded master data management (MDM) is not included in the estimate.
25. Costs for expanded connectivity infrastructure are not included in the estimate.
26. Costs for the implementation of an FTP Server are not included in the estimate.
27. Costs for additional encryption protocols are not included in the estimate.
28. All end users are assumed to have proper devices to use the new system and costs for additional devices are not included in the estimate.
29. Costs associated with decommissioning/remediating agency systems are not included in the estimate.
30. Costs for WA agency resources contributed “in-kind” are not included in the estimate.
31. Costs for WaTech resources contributed “in-kind” are not included in the estimate.
32. Estimate does not include agency backfills (i.e. subject matter experts working on One Washington).
33. All onshore resources will be co-located in Olympia, WA.
34. Estimate includes allocation for state staff turnover and replacement, as well as change orders, amendments and adjustments to contractor resources.

6.0 Activities Planned for Future Blueprint Versions

The next step is to develop version 3 of the Program Blueprint, to be completed in June 2018. Version 3 of the Program Blueprint will include all details of the components of the Program with all budget estimates by component, including additional details and refinements to the schedule and budget estimates for Finance, Procurement, Budget, and HR/Payroll. Version 3 will also include additional details of organizational change management.

Areas of focus for Program Blueprint version 3:

- An agency matrix will be created that aligns agencies to specific deployment waves and will inform the final phasing plan
- Appropriate sections of the Blueprint will be aligned with the Integration Implementation plan and Business Intelligence strategy
- Additional details for organizational change management will be added
- Additional ongoing activities include implementation phasing, assessment of cloud connectivity, integrations, master data management, data conversion, and security. Relevant sections will be updated based on the activities listed below:
    - Conduct agency integration interviews to assess legacy systems and gather the list of interfaces and data conversions for each legacy system
    - Conduct discussions to determine system of record for Finance, Procurement, Budget and HR/Payroll
    - Assess the feasibility of using Informatica as middleware for the One Washington program
    - Conduct workshops with participants from the Office of Cyber Security to align the One Washington Program Blueprint with the state security guidelines

7.0 Appendices

7.1 Data Conversion

Appendix Data Conversion.docx

7.2 WSDOT Integration with One Washington

Appendix WSDOT Integration with On

7.3 Business Process Models

BPM Procurement.pdf

BPM Finance.pdf

BPM Budget.pdf

BPM HR_Payroll.pdf

7.4 Report Back Presentations for Budget and HR/Payroll

Budget Report Back Deck.pdf

HR_Payroll Report Back Deck.pdf

7.5 Implementation Phasing Criteria Matrix

agency matrix v1.xlsx

7.6 Workgroups Participant List

Appendix Workgroups Particip

8.0 Key Terms/Glossary

Term	Definition
RFP	Request for Proposal
The Program	Refers to the One Washington program
On Premises	Software that is installed and run onsite
SaaS	Software as a Service
Comms	Communications
OCM	Organization change management
SME	Subject matter expert
UAT	User Acceptance Testing
ERP	Enterprise Resource Planning
BI	Business Intelligence
CAPEX	Capital Expenditure
OPEX	Operational Expenditure
IPaaS	Integration Platform as a Service
COSO	Committee of Sponsoring Organizations
GAGAS	Generally Accepted Government Auditing Standards
RFQ	Request for Quote
RFX	Request for "X" (catch all for all request for types)
MDM	Master Data Management
VPN	Virtual Private Network
R&D	Research and Development
EFT	Electronic Funds Transfer
CAFR	Comprehensive Annual Financial Report
GASB	Governmental Accounting Standards Board
GRC	Government, Risk and Compliance
BPM	Business Process Model
CPP	Competitive Procurement Process
TPA	Third Party Advisory services
SOA	Service-Oriented Architecture
COA	Chart of Accounts
RICEF	Reports, Interface, Conversion, Enhancements, Forms, Workflow
AD	Active Directory
SFTP	Secure File Transfer Protocol
FTP	File Transfer Protocol
CoE	Center of Excellence
IAM	Identify and Access Management