One Washington Program Blueprint

ONE WASHINGTON

A Business Transformation Program

June 2018

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Note: To promote clarity, the state's enterprise-level administrative business domains are differentiated from agency-level domains, where possible, by means of capitalization. For example, Finance, Procurement, HR/Payroll and Budget refer to enterprise business domains. When referencing agency-level domains, or general business functions, these domains read as finance, procurement, HR/payroll and budget.

1.0 Overview

The One Washington Program Blueprint provides a plan for comprehensive business transformation. The Program Blueprint describes a phased implementation plan to modernize and improve the state's aging administrative systems and related business processes common across state government. Detail is included on the supporting technology and non-technology based initiatives necessary for implementation of each phase.

The Program Blueprint contains guiding principles and foundational assumptions for future program direction and was developed in an iterative process throughout 2017 and 2018. Program Blueprint version 1, completed in September 2017, was used for developing the supplemental budget request for the 2018 legislative session. It included foundational assumptions and direction for Washington's core administrative systems 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.

Program Blueprint version 2 was used as a communication tool during the 2018 legislative session, and was a refinement and elaboration of version 1. It included assumptions for an enterprise resource planning system (ERP) for Washington's Finance, Procurement, Budget and HR/Payroll systems, 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 introduced the organizational change management (OCM) strategy and a high-level timeline for procurement and implementation of a Business Intelligence (BI) solution.

This is Program Blueprint version 3. This iteration details the components of the Program with all budget estimates by component, including additional detail, refinements to the schedule and budget estimates for Finance, Procurement, Budget and HR/Payroll. Also included are details of the BI solution. Program Blueprint version 3 represents the final Blueprint for the One Washington program and will 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 the state's Chart of Accounts (COA) 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 is discussed in corresponding sections throughout the Program Blueprint. The detailed

implementation plan contained in 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 the state's 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, standardized 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 ERP to support those business processes. ERPs are defined as common business practices across the enterprise and the technology that supports them. A complete ERP system combines data on an organization's main resources – its people, money, information and assets – and provides decision makers with real time, enterprise information. 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, Budget and BI 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, at minimum it could result in 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 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?

Common among state governments, Washington faces 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.

Washington's enterprise administrative system tools 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. 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

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 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 the state for an ERP implementation. There were six workstreams of readiness activities:

- One Washington created a Strategic Partner Competitive Procurement process and selected Accenture as the Strategic Partner.
- 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 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 Software as a Service (SaaS) statewide.
- 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 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 navigates the timeline, success will continue to rely on the outstanding help, support and leadership of dedicated participants and stakeholders across state government.

Executive Summary of the 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 the planning phase and as a guide for the implementation of these efforts in coming fiscal years, enabling the state to refer back to original goals to ensure that future work aligns to guiding principles. The Program Blueprint was 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. Version 2 consisted of information on all four functions to be implemented, namely, Finance, Procurement, Budget and HR/Payroll. It also described the OCM strategy. Program Blueprint version 3 represents the final version and will guide the implementation of new enterprise systems in the years to come.

To develop this Program Blueprint, the Program conducted a series of activities to identify both technology and non-technology dependent initiatives, and defined the detailed work needed for implementation. 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.

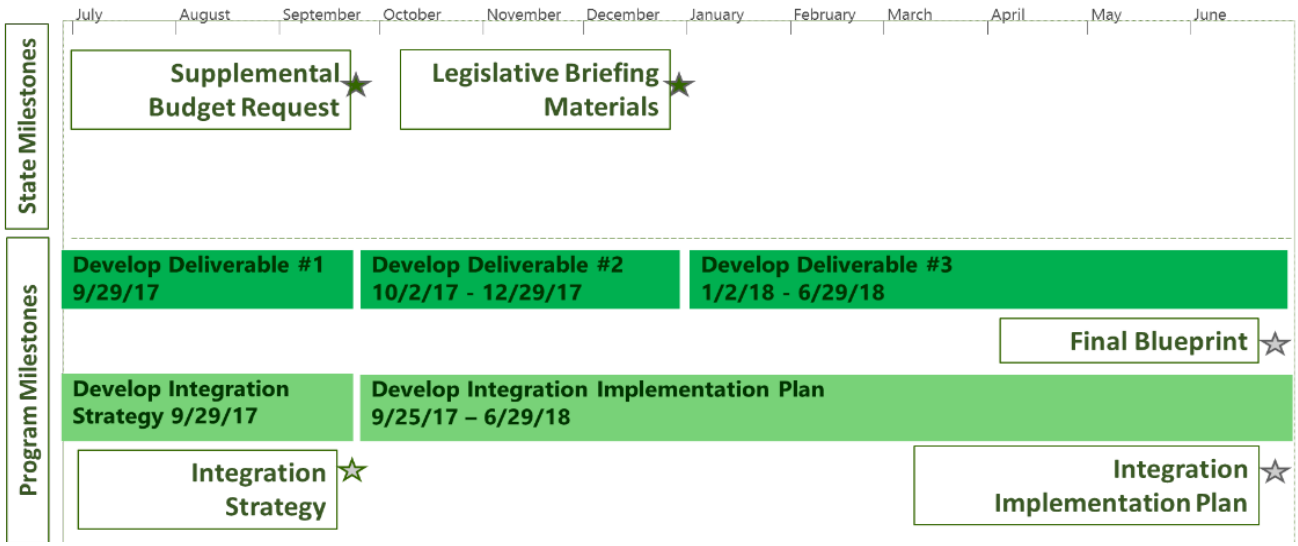


Figure 1.1: One Washington Blueprint Timeline July 2017 – June 2018.

One Washington Implementation Schedule

One Washington determined key dates for executing technology and non-technology initiatives to support business transformation and the implementation of enterprise systems over the next eight years. These dates are below with more detail in Section 3.4.

- Go-live for initial functionality for Finance and Procurement will roll out in two waves of agencies, at the beginning 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.
- BI 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.

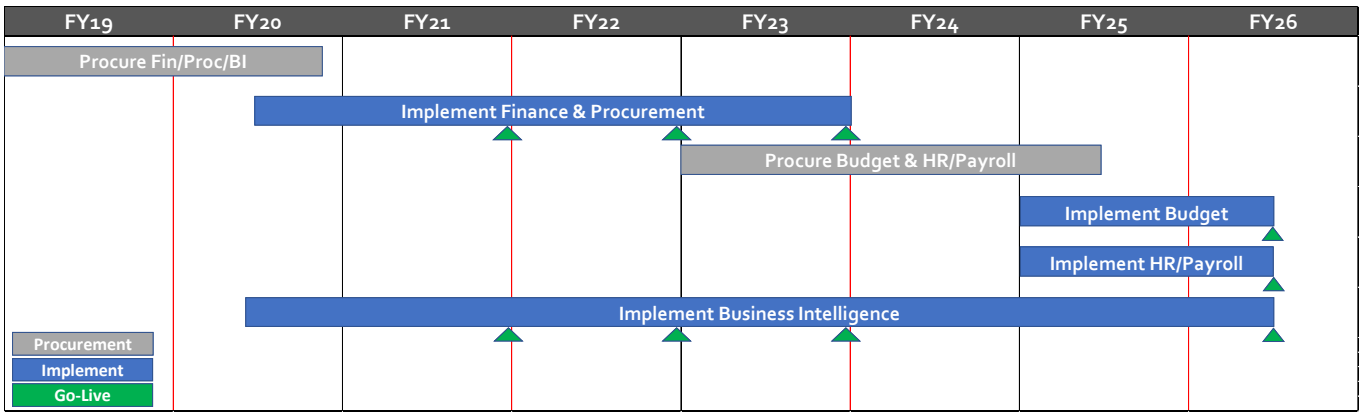


Figure 1.2: One Washington Program Implementation Timeline FY19-26.

Guiding Principles for the One Washington Program

The following sections summarize One Washington's 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. The principles define the high-level plan for the work ahead, summarizing the rationale and resulting downstream effects 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 Finance and Procurement business capabilities not met by the enterprise software solution. 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

Unified Considerations	Best-of-Breed Considerations
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 CGI, Infor, Oracle, SAP, Workday, etc.	Sample vendors include Salesforce, Round Corner (Grants Management), Periscope, Coupa, Amazon (eCatalog and Reverse Auctions), etc.

Other key benefits of a unified approach include 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 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 a 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.

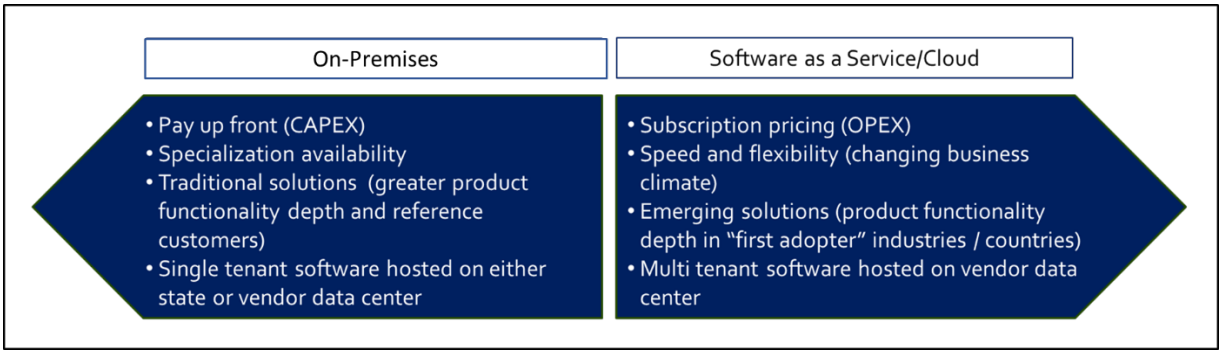


Figure 1.3: On-Premises and SaaS/Cloud Models.

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 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 budgets	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 BI	Reporting and BI	Labor relations
Reporting and BI			Performance evaluation
			Health and safety

Finance	Procurement	Budget	HR/Payroll
			Master data, e.g. positions, job descriptions
			Leave & Absence Management
			Employee/Manager Self Service
			Competency Management
			Reporting and BI
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 while 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: Wave Detail for Finance and Procurement.

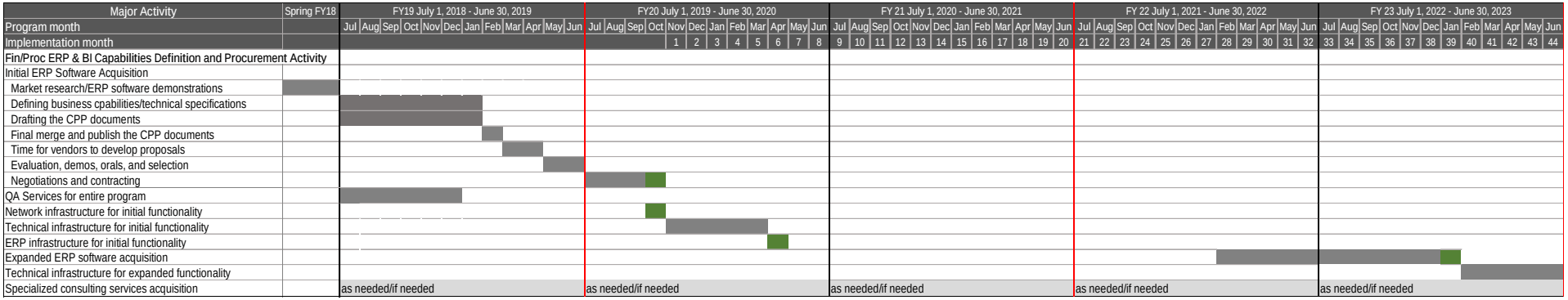
Implementation Wave	Detail
Wave 1 Initial Release	• DES (+ small agencies except for Payroll only) • DOC • DOH • Office of the Governor • OFM • Services for the Blind • Treasurer • UTC • UW (Integration only) • WaTech
Wave 2 Initial Release	• All other agencies
Wave 3 Expanded Release	• During development of Program Blueprint version 2, the Program engaged in selective interviews and/or meetings to confirm which agencies require expanded functionality to meet their business needs

Agencies are matched to implementation waves using the criteria listed in Table 1.4 below. For the initial wave the approach was to have all of these criteria covered by the selected agencies.

Table 1.4: Agency Selection Criteria.

Criteria	
Accessibility Services	Large Capital Budget
Business Process Owner (i.e. Procurement)	Proprietary Accounting
DES Small Agency Accounting	Provider 1 Integration
Distributed Purchasing	Revenue / Fee Collecting
Federal Grants	Separately Elected
Internal Service Agency	Transportation Budget

The timelines for procurement and implementation of Finance, Procurement and BI are summarized in Figure 1.4.



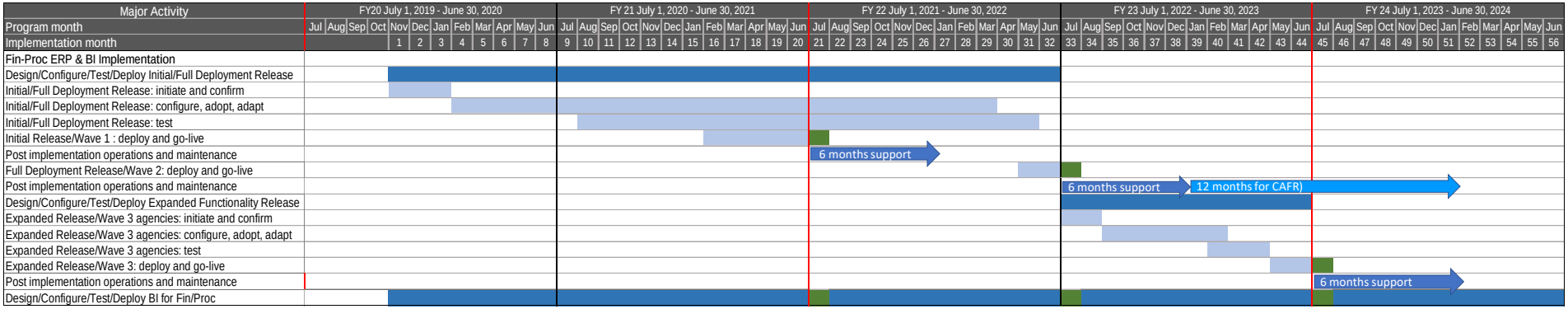


Figure 1.4: Timelines for Finance, Procurement and BI (to be further defined in the implementation plan after software is selected).

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

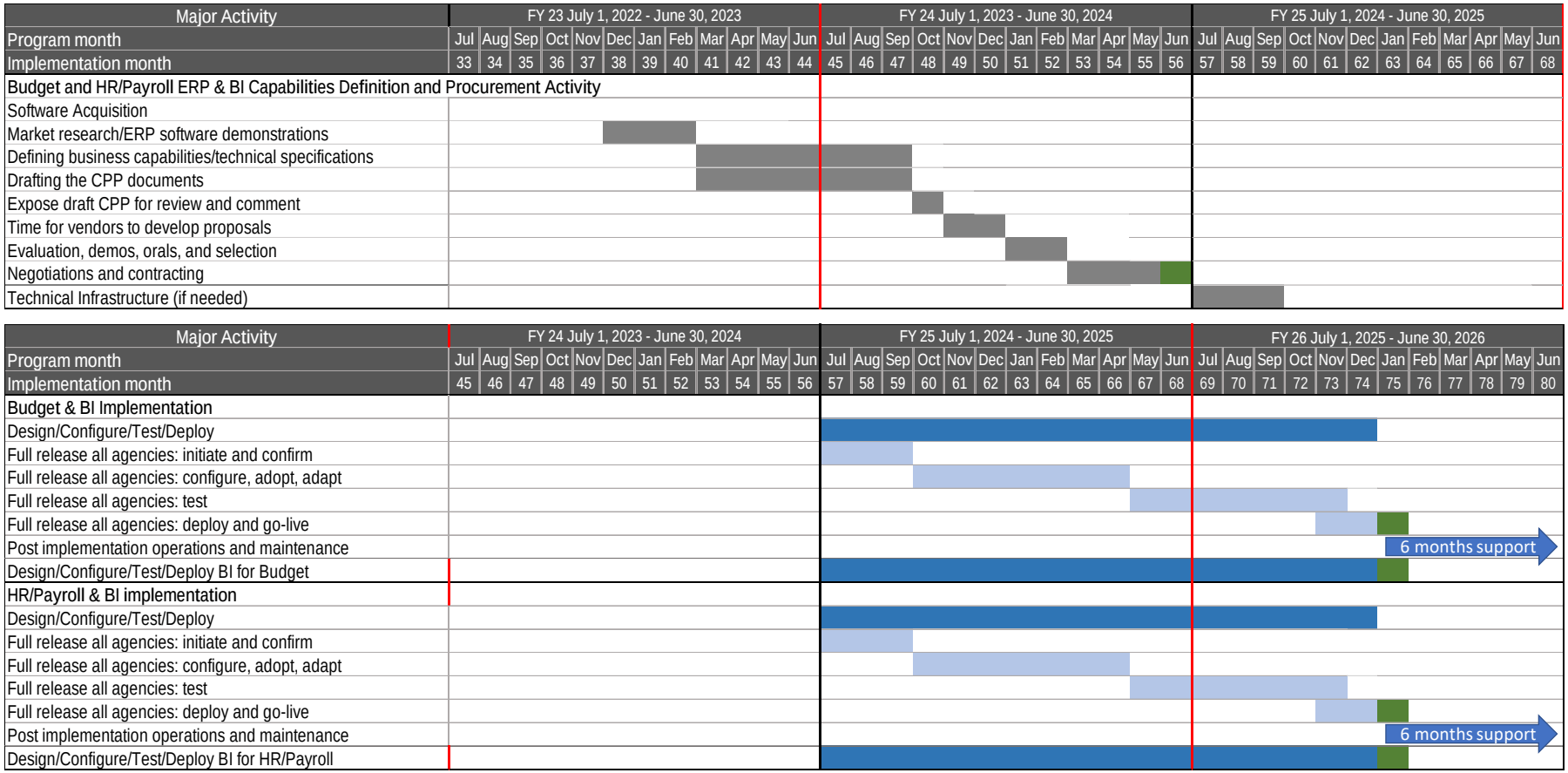


Figure 1.5: Timelines for Budget, HR/Payroll and BI Implementation.

Detailed discussion on the rationale behind this principle is in Section 2.

Integration Approach

The integration approach defines the overall interface approach between the state's new enterprise applications and numerous other systems with which the state's applications 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

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. AFRS will continue to be the system of record for financial data until all agencies are live in the ERP. This will require temporary interfaces until all agencies are fully implemented, converted and integrated with One Washington. Figure 1.6 depicts the wave strategy.

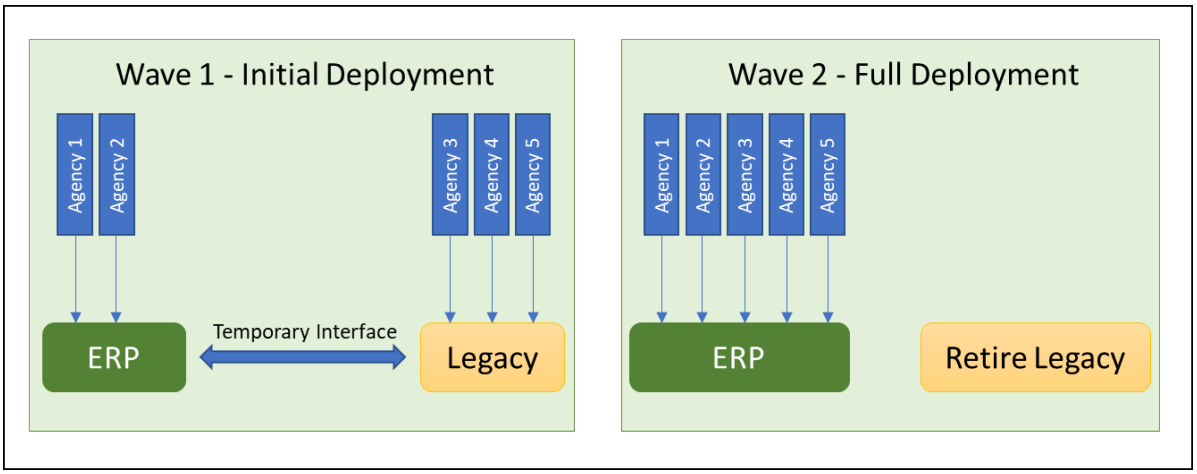


Figure 1.6: The Integration Strategy Supports Temporary Interfaces During Implementation Waves.

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 involve five groups overseeing the following process (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.
- Five advisory committees (Data Governance, Finance, Procurement, Budget, HR/Payroll), each chaired by the business owner relevant to the request. These advisory groups also sets master data management policies and standards for their respective domains.
- An implementation 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 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

The Program Blueprint outlines approaches One Washington will follow. Figure 1.9 depicts the data conversion implementation approach for One Washington.

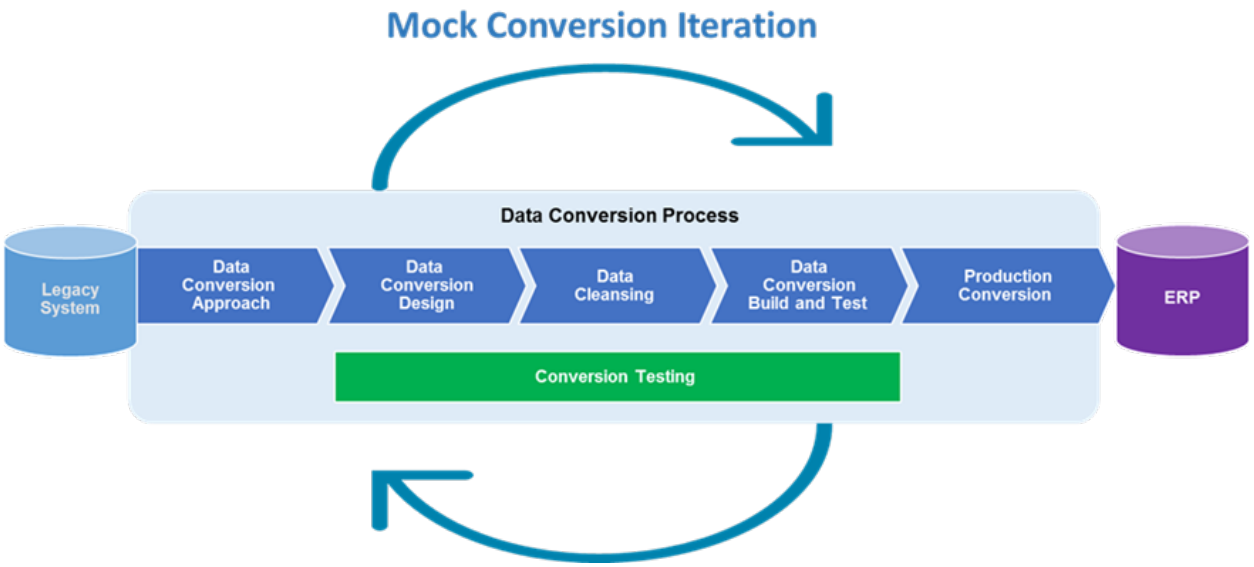


Figure 1.9: Data Conversion Implementation Approach.

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

Reporting Capabilities

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 integrate with the BI strategy, demonstrating a cohesiveness approach between the Program Blueprint and the BI strategy.

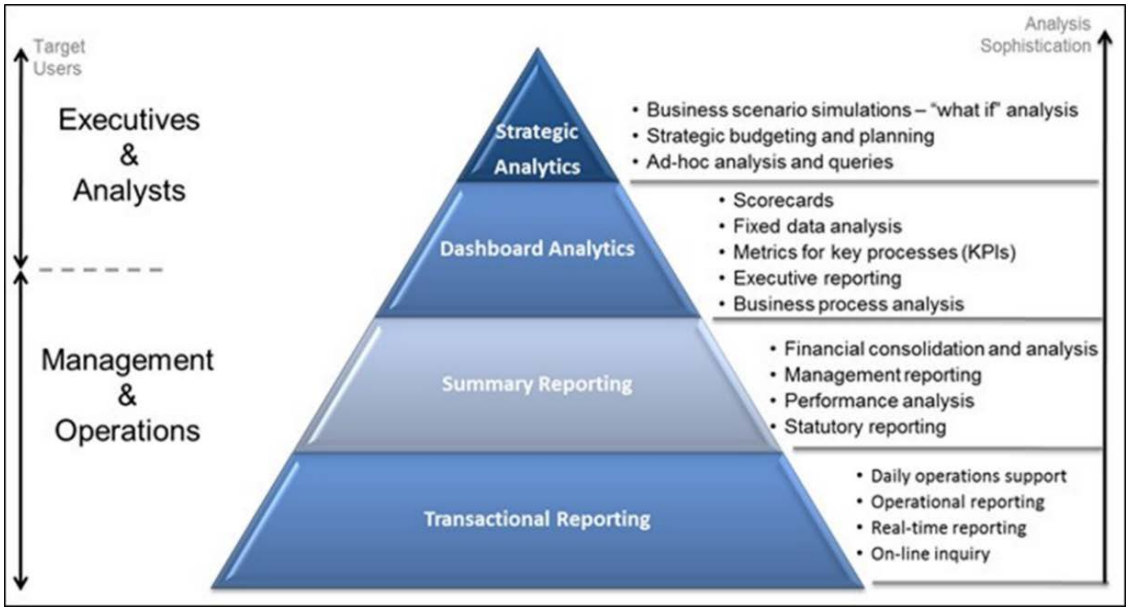


Figure 1.10: Reporting Capabilities.

Modern enterprise systems 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.

Business Intelligence

The BI Strategy enhances the reporting inherent from the ERP solution with additional capabilities to transform data into purposeful intelligence and to facilitate strategic decision making. It provides an actionable set of initiatives which

will enable enterprise-wide, data-driven insights and decision making. BI will be deployed across the four enterprise business functions of Finance, Procurement, Budget and HR/Payroll depicted in Figure 1.11 below.

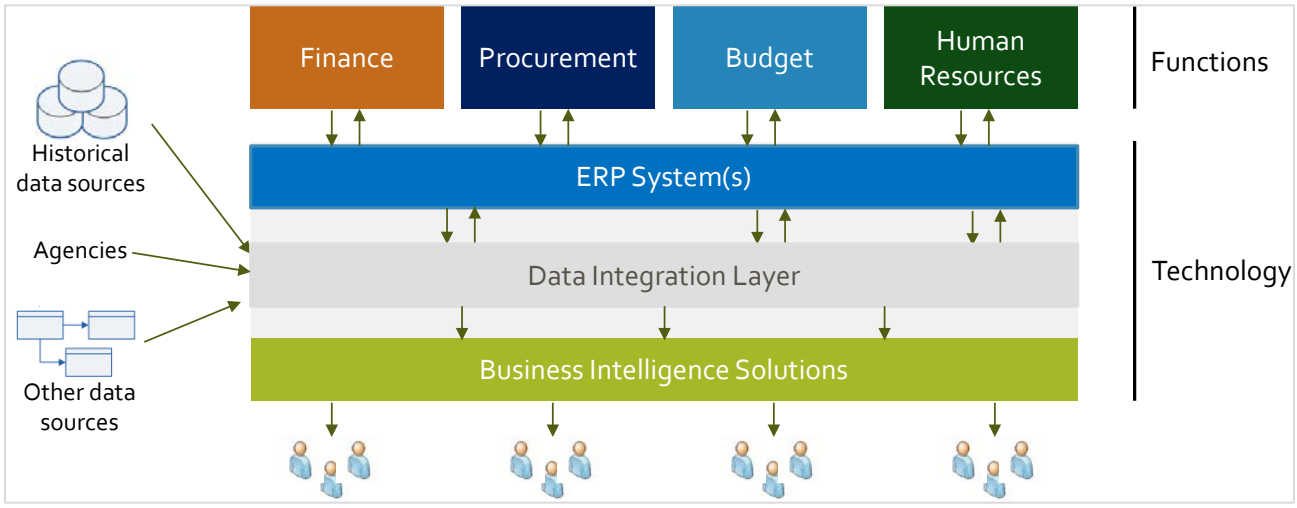


Figure 1.11: Business Intelligence Future State.

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 – Includes connectivity, data, and enterprise software platform.
- Data Security – Appropriate users have access to the appropriate data required for their job roles.
- Application Security – Users can only gain access through trusted authentication services.

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 (SAW)
- File Data Encryption
- Authorization

- Maintaining Security
- Security Design Review

Detailed discussion is in Section 2.9.

Organizational Change Management Strategy

The OCM 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 and 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.

The Organization Change Management Strategy contains detailed discussion and is summarized in Section 2.10.

Performance Measures

One Washington will develop both program-level and operational performance measures to assess the overall success of the Program. Program measures of success during implementation consist of typical project metrics such as schedule, budget, scope as well as other key areas prioritized by the ESC, such as data accuracy and improved services. Operational measures will measure the ongoing improvements after implementation. One Washington worked with business stakeholders to draft a preliminary list of metrics across each process area of Finance, Procurement, Budget and HR/Payroll. These measures will be further developed and refined by the business owners and advisory groups during implementation.

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 One Washington's implementation. For each initiative, the component activities are shown in the list below in Table 1.6.

Table 1.6: Initiatives Beginning in FY19.

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	• Assess current business processes in relation to Procurement organizational strategy	• Assess current business processes with Finance organizational strategy • Consolidate statewide master payee and customer files

• Work with WaTech to ensure infrastructure readiness • Facilitate software demos • Evaluate and select software • Continue to coordinate change readiness activities	• Conduct review of laws, regulations and policies in readiness for a new Procurement system • Launch strategic sourcing assessment for a select group of categories	• Conduct a review of laws, regulations and policies in readiness for a new financial system • 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 state and vendor 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, estimated SaaS subscription 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 BI.

For comparison 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 BI for a total cost of $280m.

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

Funding and Financing

Selecting the best funding and financing approach is an important part of the One Washington Program. There are many interrelated factors that need to be analyzed to determine the best approach for the state. These factors include:

- Timeframe and phasing (pre-implementation, implementation, or post-implementation)
- Nature of the costs (state, contractor, technology)
- Nature of the ERP software (on-premises vs. Software as a Service)

One Washington examined over a dozen examples to understand the range of options. These options are represented in the logical model illustrated in Figure 1.12 and described in greater detail in Section 6.0 of the Program Blueprint.

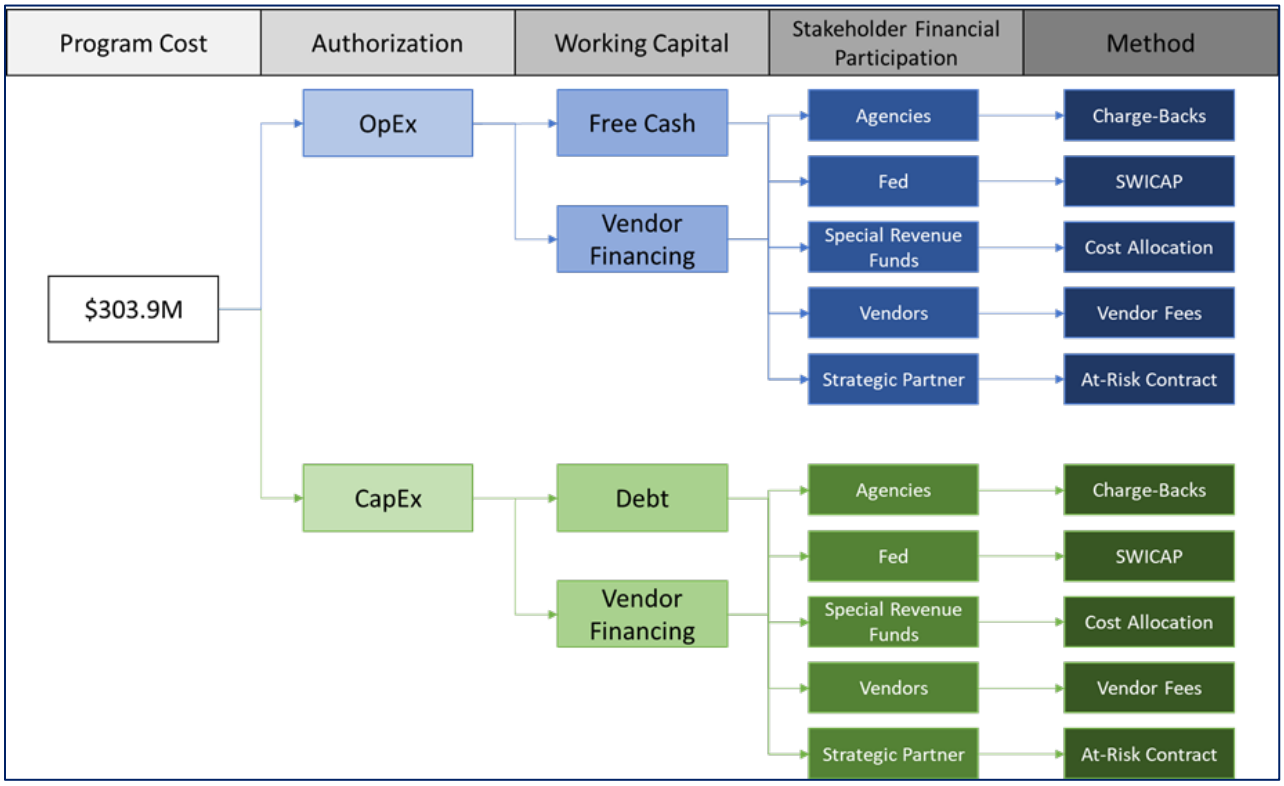


Figure 1.12 Range of Funding and Financing Options Derived from Other States.

As a component of the May 2018 ERP Experience sessions, the Program met with representatives of each presenting software vendor to discuss financing options for SaaS implementations. The Program goal was to explore financing options available to state government for project deployment costs when implementing a non-tangible asset as in a Cloud-based offering. Each of the four vendors that the Program met with offer a third-party financing option, similar to what is available in private financing. Most of the financing options were shorter term than traditional bond financing. Options varied on what integration and implementation costs could be included in the financing package.

Risk Management

Risk management involves identifying, assessing, mitigating and managing a program's risks. The Risk Management Approach will enable One Washington to create strategies that effectively address potential barriers to the success of the Program. Decisions and actions taken to address a given risk may impact other areas of the Program including the Program Blueprint, Integration Strategy and Plan and BI Strategy. Risk management will be implemented at all levels within the Program to ensure that the risks are mitigated at appropriate levels. Risks will be first managed at the team level, and then escalated, as appropriate, to the Program leadership or the Executive Steering Committee. One Washington program risks can be found on the OCIO website.

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 OFM have concluded that it is in the best interest of the state for WSDOT to participate in One Washington and use enterprise systems.

Based on a high-level analysis of WSDOT specific business requirements completed to date, WSDOT and OFM have agreed that the State has a tremendous opportunity to implement one financial system for the entire state.

We are moving forward with the assumption that WSDOT will decommission TRAINS and make use of the One Washington statewide ERP. To understand how the current business processes, interact with TRAINS, the One Washington program worked with WSDOT SMEs to perform assessment of how four major business programs use TRAINS. The assessment focused on Work Order, a major cost center data element, that WSDOT used to capture WSDOT financial activities.

In the next fiscal year, WSDOT will expand the assessment to other business program in WSDOT. When these assessments are completed and business processes have been identified for transformation, the findings will inform WSDOT's implementation of the One Washington statewide ERP, the governance model required to address and maintain WSDOT's specific needs, as well as integration to WSDOT unique business systems.

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 the State Auditor
- Office of the 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 Solutions (WaTech)
- 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 the 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 a deployment model (on-premises vs. SaaS; 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/BI, 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 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, two higher education institutions, the Legislative Evaluation and Accountability Program (LEAP), legislative staff, and business owners from the Office of Financial Management and Washington Technology Solutions (WaTech). Based on the budget stakeholder interviews and the analysis of the responses collected, key themes were distilled and 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 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, four higher education institutions, and business owners from the Office of Financial Management (OFM), Department of Enterprise Services (DES) and Washington Technology Solutions (WaTech). Based on the HR/Payroll stakeholder interviews and the analysis of the responses collected, 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 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 needed for statewide reporting obligations.

- Significant delegation to agencies causes misunderstandings and extra work. Employees moving between agencies causes multiple W-2 and 941 reporting obligations which may not carry a 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. SaaS; 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. In addition, selected quotes from 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 the 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
- OCM 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, HR/Payroll and BI 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.

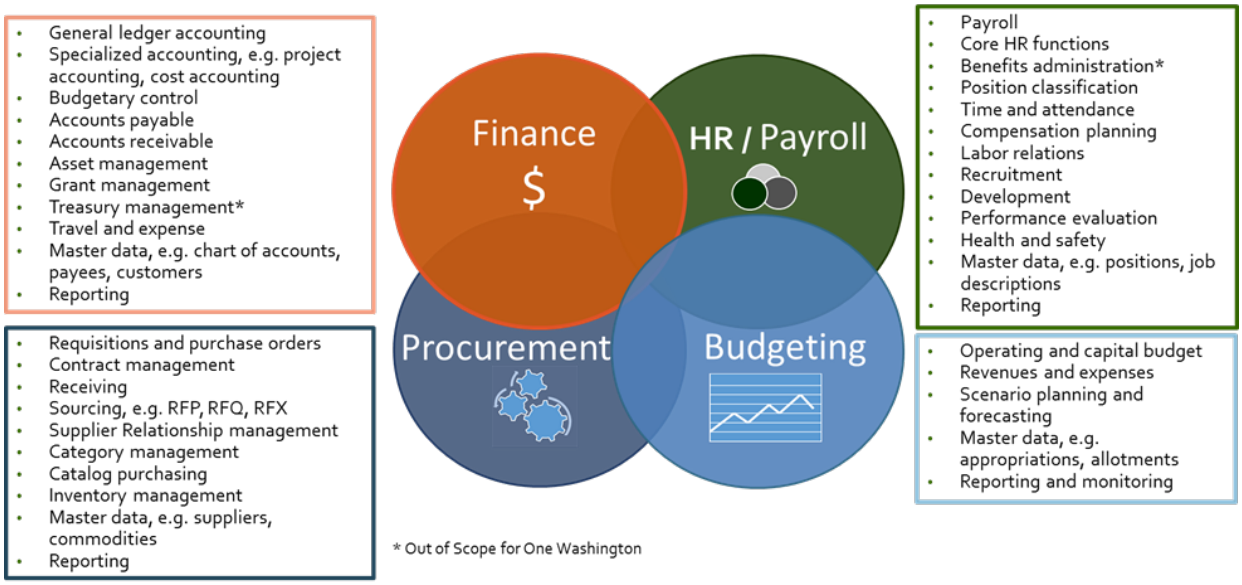


Figure 2.1.1: In a Unified Approach, One Software Product Delivers All Business Functions. In Best-of-Breed, Different Software Could be Selected for Each Business Function.

The state has evaluated the relative advantages of these approaches. 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 Finance and Procurement business capabilities not met by the enterprise software solution.*

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.

2.2 Technology Deployment Model

2.2.1 *Background and Introduction*

This section details the rationale that supports the guiding principle of a 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.

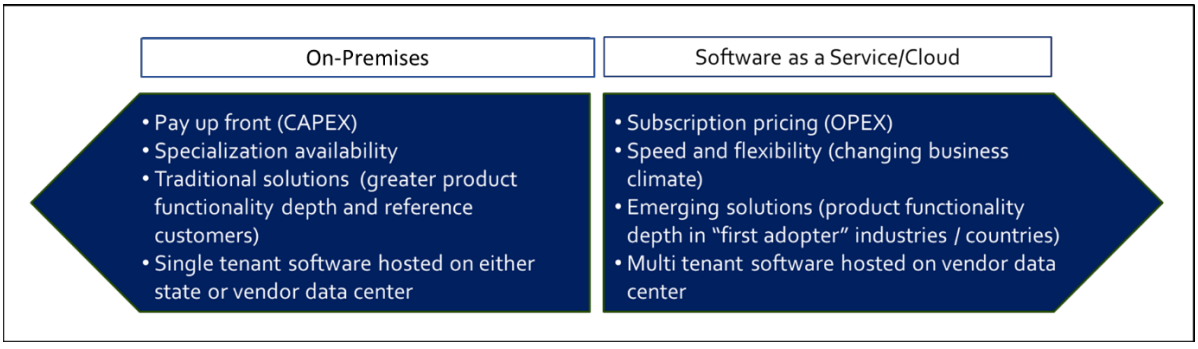


Figure 2.2.1: Differences, Relative Advantages and Drawbacks of On-Premises vs. SaaS.

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 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 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 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 a 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, 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. SaaS 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 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 [SaaS] 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, 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 nonetheless 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 were included in the recommendations. The Program Blueprint considers all business functions including Finance, Procurement, Budget, HR/Payroll and BI. Technology has advanced since the 2014 business case, offering complete systems which cover 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.
- 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, which 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 process 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, 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 as 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 BI. 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 state enterprise.

HCA is currently in the process of selecting a new Benefits Administration system. It is possible that HCA's timeline may overlap or precede One Washington's timeline to procure the state's HR/Payroll solution. HCA and One Washington will continue to coordinate planning efforts to see if a common solution would be feasible.

Based on the results of meetings with DES and WSDOT on their public works and infrastructure management systems (see Table 2.3.1), it was determined that an ERP system does not offer these capabilities. One Washington will integrate with these systems.

Table 2.3.1: Public Works and Infrastructure Management.

Functionality not met by an ERP
Project Planning and Scheduling
Construction Management
Maintenance Management
Bridge Management
Fleet Management
Equipment and Supplies Management
Unique/Specialized Workflows and Business Rules
Unique/Specialized Data and Reporting

Table 2.3.1: Finance Functions in Scope and 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 BI
Enterprise Performance Planning and Management	On behalf of the enterprise, this includes the role of Finance 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 BI
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 BI
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.	No	N/A	Informed by BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	process efficiencies, process optimization, quality, customer 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, e.g. 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 have 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	No	N/A	Informed by BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	part of this process area. Organizational units at both the department and enterprise levels might include accounting, 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 BI
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 the 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 BI
Budget Execution	This includes the mechanisms, at both the department and enterprise 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	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
General Accounting	This includes the definition of the COA, payee file and customer file and the accounting of transactions to the general ledger for each department and the enterprise.	Yes	Financial Management	
Project Accounting	This includes 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 account for specialized data fields is part of this business process. In some agencies (e.g. the Department of Transportation), grants are accounted for using project accounting.	Yes	Project Financial Management	
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 COA, 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	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
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	
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, 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 BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
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, 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 BI
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: goals and objectives established in strategic or annual plans, to budgets, to actual costs, and to actual outputs and outcomes.	No	N/A	Informed by BI
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 BI 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 an enterprise level COA, enterprise vendor data	No	N/A	Informed by BI, Analytics and possibly supported by GRC

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	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.			
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 BI
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 entity's strategic plan for Finance with the entity's 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 business process areas within Finance. Support may be provided by internal resources or outsourced. Examples include operating the help desk, managing applications, and managing supporting technical infrastructure.	No	N/A	Informed by BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
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 BI

Table 2.3.2: Procurement Functions in Scope and 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 mission statement to let stakeholders know the long-term direction that Procurement is driving toward and the strategy to get there, for example insourcing vs. outsourcing.	No	N/A	Informed by BI
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 conjunction 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 BI
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 BI
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,	Yes	Supplier Relationship Management, Procurement	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	thru performance. For example, the determination of the strategy 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 and 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 BI
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 BI, 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 BI

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	Yes	Governance, Risk and Compliance Management	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	department compliance to department and enterprise Procurement policies and standards.			
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 BI and Analytics
eRFx Support	This includes support in developing and conducting all forms of solicitations, tendering activities and auction events. 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 BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
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 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 Includes P-Card as a buying channel.	Yes	Procurement	
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 an organization's mandatory sourcing/competitive bidding threshold.	Yes	Spot Buy, Procurement	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Statutory Reporting	This includes reporting required by an 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 BI
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 BI
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 BI
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 BI, 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.	No	N/A	Informed by BI

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	Procurement, statutory, performance,) described elsewhere in the business process model.			
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 entity's strategic plan for Procurement with the entity's 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 Procurement. Support may be provided by internal resources or outsourced. Examples include managing applications and managing the supporting technical infrastructure.	No	N/A	Informed by BI
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 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, goods and services procurement, contract management, content management, spot buy management, 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 BI

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 and 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 BI
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, 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 BI
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 BI
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 BI

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
	satisfaction, etc.). This also includes projects and programs to harvest the value for identified opportunities.			
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 BI
Budget Execution	This includes the mechanisms, at both the department and enterprise 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, 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 BI

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, 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 BI
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 BI 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 an enterprise level COA, 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	No	N/A	Informed by BI, Analytics and possibly supported by GRC

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
	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.			
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 BI
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 entity's strategic plan for budget with the entity's 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 applications, and managing the supporting technical infrastructure.	No	N/A	Informed by BI
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.	No	N/A	Informed by BI

In-Scope Function	Description	Function Supported by Specific Model(s)?	Functional ERP Software Model(s)	Notes
	This also includes alignment of the business process model with the inventory of digital and technology enabled systems, applications and tools.			

Table 2.3.4: HR/Payroll Functions and 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 BI	
Talent Planning & Strategy	This is defining the strategy to acquire the talent to fulfill the roles in the workforce. 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, future leaders and strategies to retain and nurture them.	Yes	Recruiting, Succession planning, HR Analytics and/or BI	

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 business strategy. For example, 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 BI	
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 entity's strategic plan for HR with the entity's 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 BI	

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 BI
HR Performance Management	This includes the development of goals, objectives and key performance metrics related to each business process area within 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 BI
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	Yes	Core HR, Classification & Compensation, Competency	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	development plans that increased capability to perform and potential for career progression.		Management, HR Analytics and/or BI	
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 BI	
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, delivery 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 BI	
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 organization's 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 to 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 entity's policies for accurate time reporting.	Yes	Time and Attendance	
Payroll	This includes the administration and processing of employee earnings, audit activities and providing payroll cost to the financials systems. For example, calculation of gross pay, 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, 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 HR data to support reporting and analytics. Includes providing performance	Yes	Core HR and/or HR Analytics	

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
	reporting capabilities within the organization, including analytics requirements and development, standard and ad hoc reporting 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 to 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 BI, 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 other types of reporting (i.e. HR, statutory, performance) described elsewhere in the BPM.	Yes	Core HR, HR Analytics and/or BI	
Enterprise HR Technology Platform,	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	No	N/A	ERP

In-Scope Function	Description	Function Supported by Specific Module?	Functional ERP Software Module	Notes
Integration, and Process Architecture	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 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 applications and managing the supporting technical infrastructure.	No	N/A	

2.3.5 *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.

Unified Solution	Best-of-Breed
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 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 CGI, Infor, Oracle, SAP, Workday, etc.	Sample vendors include Salesforce, Round Corner (Grants Management), Periscope, Coupa, Amazon (eCatalog and Reverse Auctions), etc.

Other key benefits of a 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 are functionalities by software category, procured and deployed under a 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 a 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. COA, payees, suppliers	Reporting and BI	Reporting and BI	Labor relations
Reporting and BI			Performance evaluation

Finance	Procurement	Budget	HR/Payroll
			Health and safety
			Master data, e.g. positions, job descriptions
			Leave & Absence Management
			Employee/Manager Self Service
			Competency Management
			Reporting and BI
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

2.4 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 BI 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 was expected to result in increased accuracy of data, more tools for reporting and updating of records in real time. It went live on June 30, 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 the new Agency Budget System (ABS which will streamline budget development efficiency and communication of critical budget data between OFM, the Legislature and the state agencies. The first release is scheduled for June 11 (just in time for agencies to prepare 2019-21 budget requests) followed by another release with added features in early August.

> *"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, 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 BI 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.*

3. *One Washington will provide a unified system of record (SOR) for Finance, Procurement, Budget, and HR/Payroll.*

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 BI)
- 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 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 of other states 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 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 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 has engaged an independent contractor for project management assistance. One Washington has also already conducted a procurement and engaged Accenture as the strategic partner, and will 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. One Washington conducted a competitive procurement for QA professional services and has engaged Bluecrane for developing a QA plan and conducting a readiness assessment. Bluecrane will provide QA services throughout the duration of the Program.
- ERP application and BI software. There are several major vendors who should be encouraged to compete in this area, for example CGI, Infor, Oracle, SAP and Workday. Consistent with the One Washington guiding principle regarding a unified vs. best-of-breed approach, One Washington will conduct procurement and contracting of the BI software during FY2019 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 the One Washington guiding principle regarding a unified vs. 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: 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 has procured these services from Bluecrane.
ERP application and BI 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 requirements 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 we are calling business capabilities, which would result in a few hundred business capabilities rather than a few thousand business requirements. 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, which 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 was started in FY18. One Washington invited the major ERP software vendors to demonstrate capability, providing the state with a useful exposure to modern ERP software use and capabilities. The ERP Experience accomplished the following goals:

- Created awareness for state leaders on what is possible in an ERP solution and what One Washington transformed business processes will be like.
- Allowed top vendors in the public sector to showcase integrated, business functionalities and how they can support our vision.
- Identified key functionalities and specifications to include in the procurement process beginning July.
- Provided WSDOT and WaTech an opportunity to understand how software solutions could meet their specific technical and business needs.

For the Program Blueprint, we assume eight months to complete and publish the CPP document.

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, and assuming 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 vs. 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 occurs 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.

One Washington has conducted procurement of QA professional services and has engaged Bluecrane for developing the QA plan and conducting a readiness assessment.

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 BI functionality is depicted in Figure 2.4.1 below.

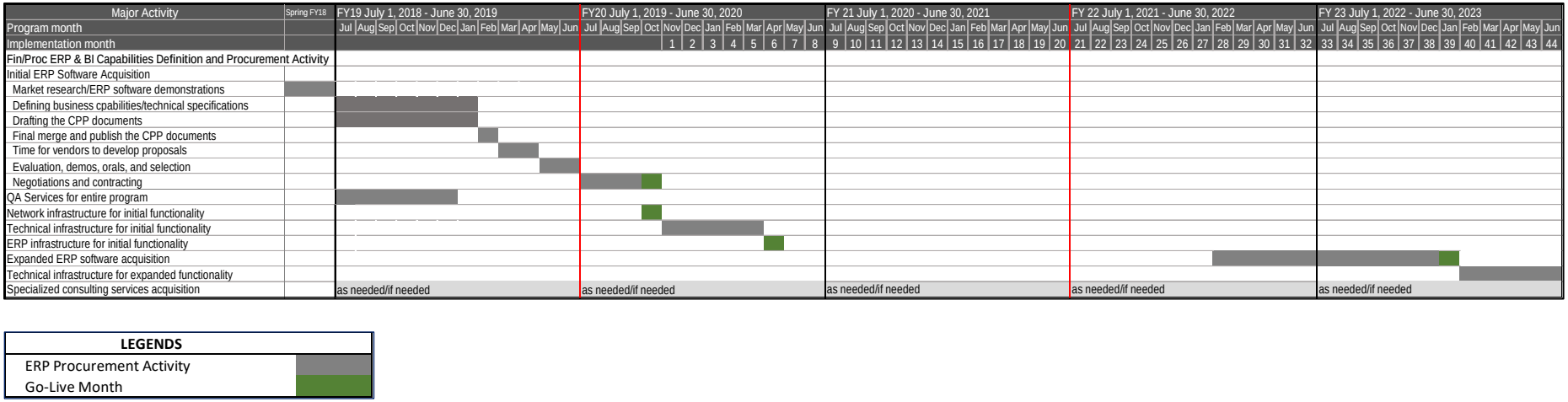


Figure 2.4.1: Procurements Needed to Acquire Finance, Procurement and BI Functionality.

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:

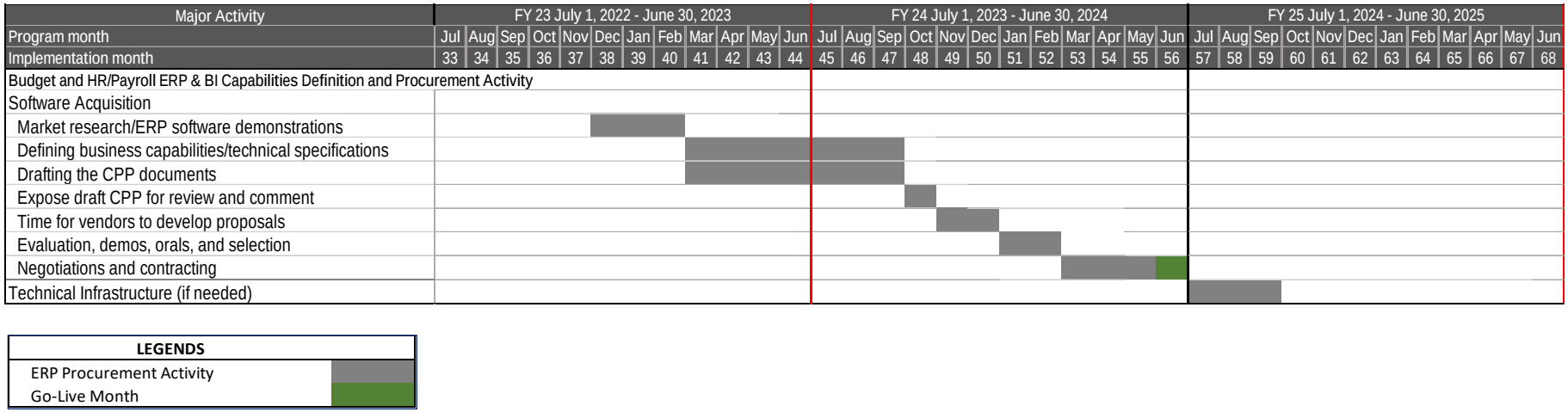


Figure 2.4.2: Procurements Needed to Acquire Budget and HR/Payroll Functionality.

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.

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 demonstrating incremental business value 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 non-technology Summary Gantt in the appendices for detailed information.

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 functionality and onboard 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 OCM, 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 OCM 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.

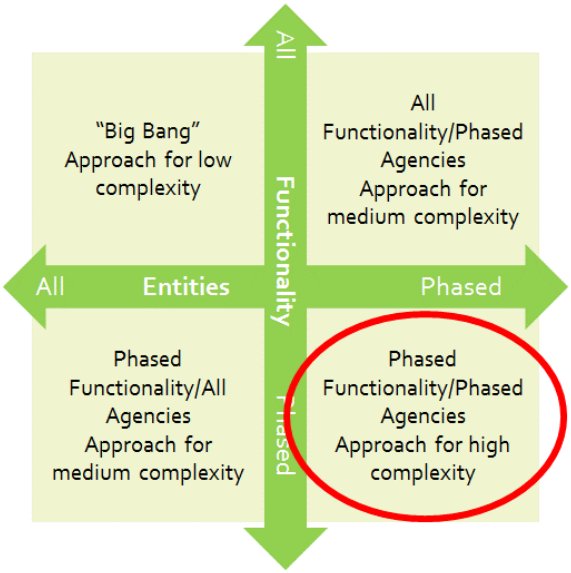
For Budget and HR/Payroll functionality, the phasing approach is to rollout full functionality to all agencies. Washington has enterprise systems for Budget and HR/Payroll. Transitioning from a single enterprise system to a new enterprise system does not have the same degree of complexity as is the case 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 Finance 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 transition 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 remaining agencies in a second wave, with a final wave for agencies requiring expanded functionality to meet unique business processes. 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.

Phasing options



Considerations for phasing **functionality**:

- Degree of technical interdependency between the software modules
- Speed to retire legacy and shadow systems
- Speed to enable new features, functions, capability and thus business benefits
- Technical risk, e.g. regression testing for multiple releases

Considerations for phasing **entities**:

- Degree to which the entities are supportive to adopt the new system
- Degree to which the entities have the technical connectivity and devices to access the new system
- Degree to which entities desire the changes to obtain the business benefits
- Degree to which the entities are prepared and ready to embrace the change, e.g. training and readiness

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

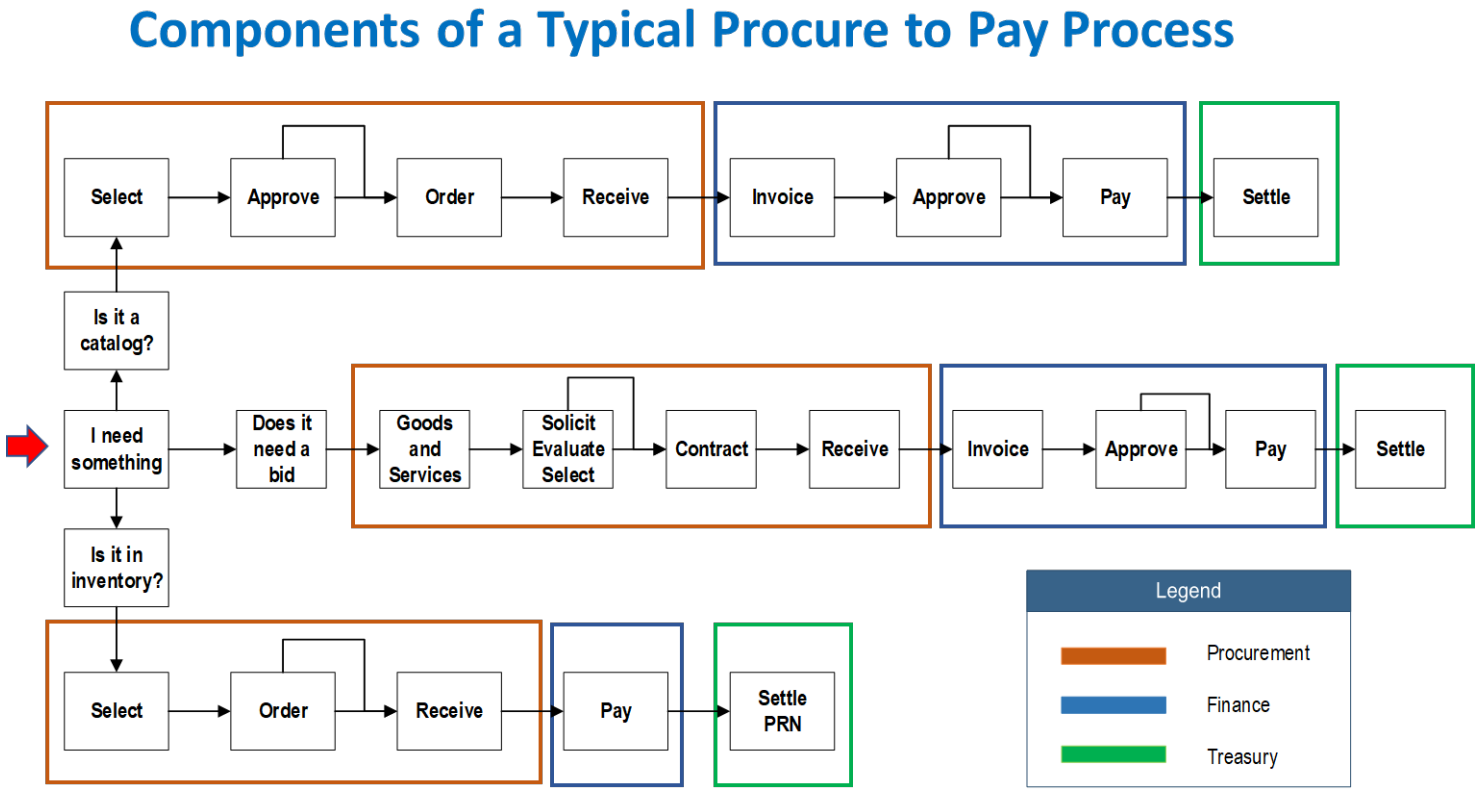


Figure 2.4.5: Integrated Procure-to-Pay Process Flow.

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 COA. 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 Finance and Procurement functionality will be rolled out to agencies in three waves: an initial release (Wave 1), a full deployment release (Wave 2) and an expanded functionality release (Wave 3). The determination of the initial agencies was based on data and analysis of the criteria defined in Table 2.4.3. One Washington developed the criteria to ensure a sampling across the state line of businesses, to include internal service agencies, revenue and fee collecting agencies, offices of separately elected officials, federal grant recipients and agencies that have diverse geographic locations. Along with the criteria, the program chose agencies with established interactions from previous Program work in the Business Case and the Chart of Accounts framework.

Table 2.4.3: Agency Selection Criteria.

Criteria
Accessibility Services
Business Process Owner (i.e. Procurement)
DES Small Agency Accounting
Distributed Purchasing
Federal Grants
Internal Service Agency
Large Capital Budget
Proprietary Accounting
Provider 1 Integration
Revenue / Fee Collecting
Separately Elected
Transportation Budget

Wave 1 consists of a limited number of agencies and Wave 2 consists of all other agencies. This will lower technical risks, provide a longer runway for organizational change management efforts for complex agencies, and decrease the risk to target go-live dates. Table 2.4.4 shows the list of agencies that have been selected for the waves. The considerations and rationale for selecting agencies in Wave 1 are detailed in Table 2.4.5.

Table 2.4.4: Wave Detail for Finance and Procurement.

Implementation Wave	Detail
Wave 1 Initial Release July FY22	• DES (+ small agencies except for Payroll only) • DOC • DOH • Office of the Governor • OFM • Services for the Blind • Treasurer • UTC • UW (Integration only) • WaTech
Wave 2 Full Deployment July FY23	• All other agencies
Wave 3 Expanded Release July FY24	• Agencies that require expanded functionality to meet their business needs

The implementation for expanded Finance and Procurement functionality will be for all agencies in Wave 3.

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 BI will occur with Finance and Procurement and be extended to Budget and HR/Payroll.

Table 2.4.5: Wave 1 Agency Considerations.

Agency	Considerations
DES (+ non-payroll only small agencies)	Will be on the forefront to support governance and organizational change management efforts. The business owner for enterprise procurement services. They bring all the small agencies with them.

Agency	Considerations
DOC	A large agency with large general fund and spend. Going in Wave 1 will allow DOC to get the visibility they require. Not overly complex. Sends payments via Provider 1 (will serve as a pilot for the integration strategy for Provider 1 and DSHS/HCA). Decentralized so we will get that diversity of change management. Very much like DSHS with spread out field offices.
DOH	Heavily federally funded with deep grants management expertise.
Office of the Governor	OFM provides finance and accounting services to the Governor's Office and will provide leadership for organizational change management efforts.
OFM	Sponsor agency for One Washington. Will be on the forefront to support governance and organizational change management efforts. Business owner for Finance and Accounting.
Services for the Blind	Ensures accessibility is prioritized in the implementation.
Treasurer	Separately elected official. Complex integrations for cash management (needed for Wave 1). Strongly expressed desire to refine business processes.
WaTech	OFM's IT service provider and business partner. Manages the state's network connectivity/infrastructure and will support integration services between the new ERP and interfacing systems. Will also provide support to enable business intelligence capabilities.
UTC	A transportation agency, few financial users, will create diversity without complexity.
UW	Projected go-live aligns with One Washington Wave 1. Ideally, we would have them integrate directly with the new ERP vs. AFRS. This would alleviate them from having to build a temporary integration to AFRS to be replaced by the integration to the new ERP.

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 aggressive to relatively conservative. As described above, to determine the optimal timeline for the One Washington program there were 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. 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.

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

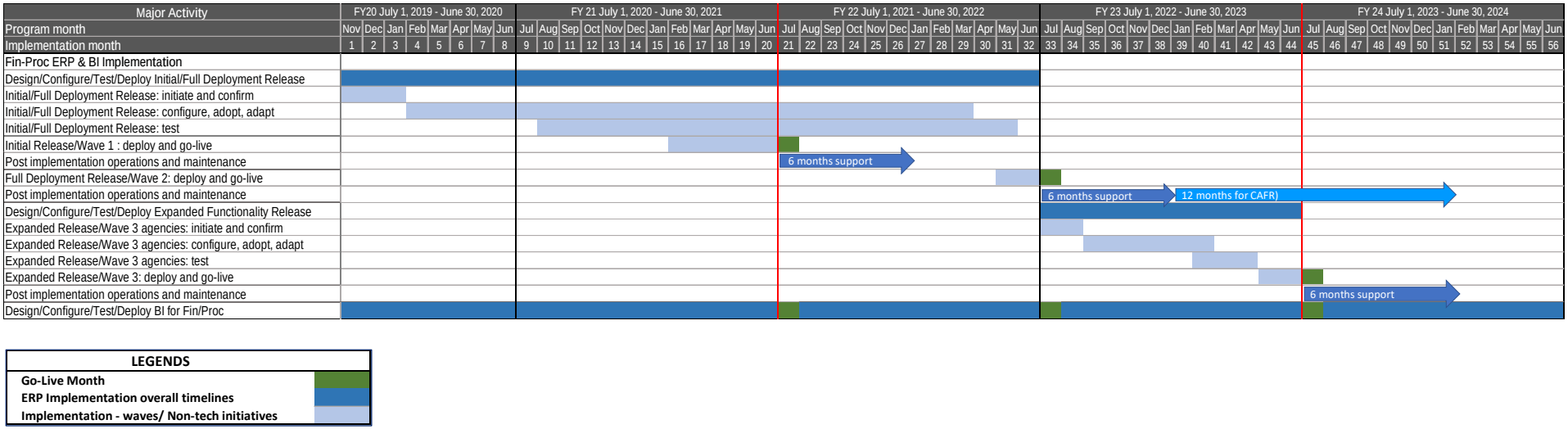


Figure 2.4.6: Timelines for Finance, Procurement and BI implementation (to be further defined in the implementation plan after software is selected).

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.)

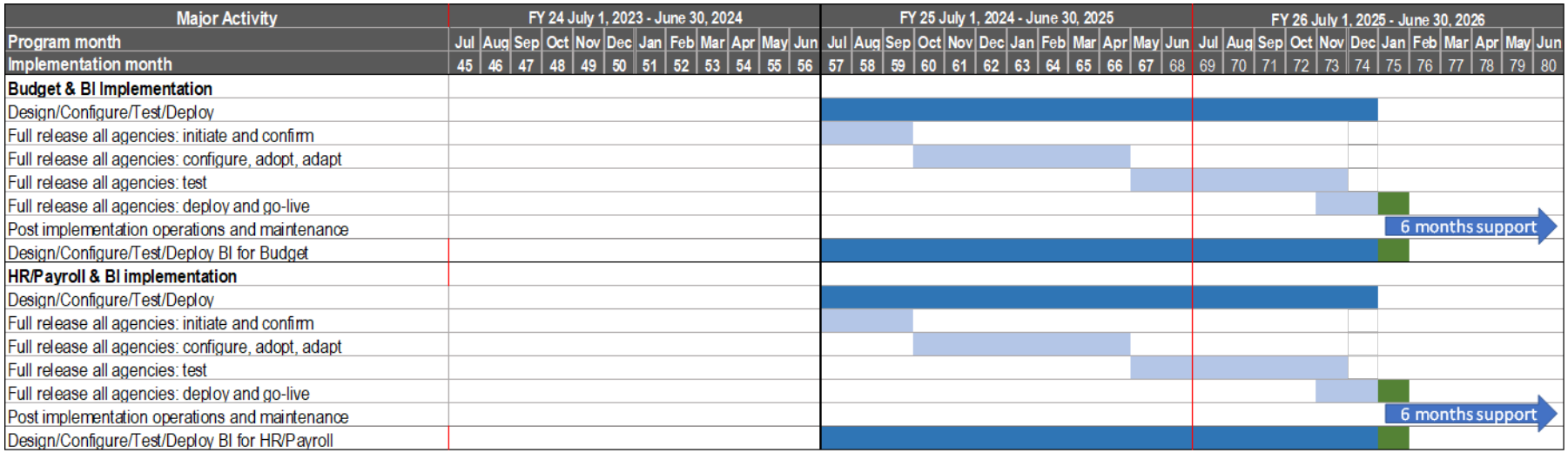


Figure 2.4.7: Timelines for Budget and HR/Payroll Implementation.

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.

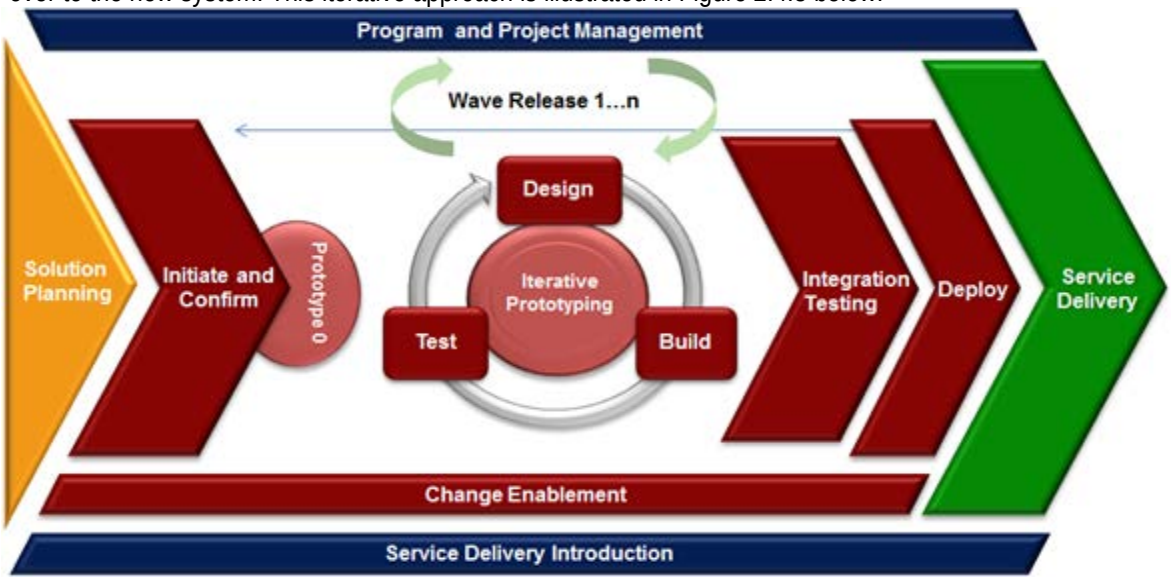


Figure 2.4.8: Agile Methodology for Implementation.

Summary

We include in this section two summary views of the recommended timeline – a table (Table 2.4.6) 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 2.4.6: Major Activities by Date.

Activity	Date
Develop business capabilities, conduct Finance/Procurement/BI software acquisition and related procurements	July 1, 2018 – October 30, 2019
Go live with initial Finance and Procurement functionality and BI for Wave 1	July 1, 2021
Go live for initial Finance and Procurement functionality and BI for Wave 2	July 1, 2022
Go live with expanded Finance and Procurement functionality and BI for all agencies (Wave 3)	July 1, 2023
Decommission AFRS and TRAINS and One Washington becomes the system of record	July 2023

Activity	Date
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 BI for all agencies	January 1, 2026
Go live with full HR/Payroll functionality and BI 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.

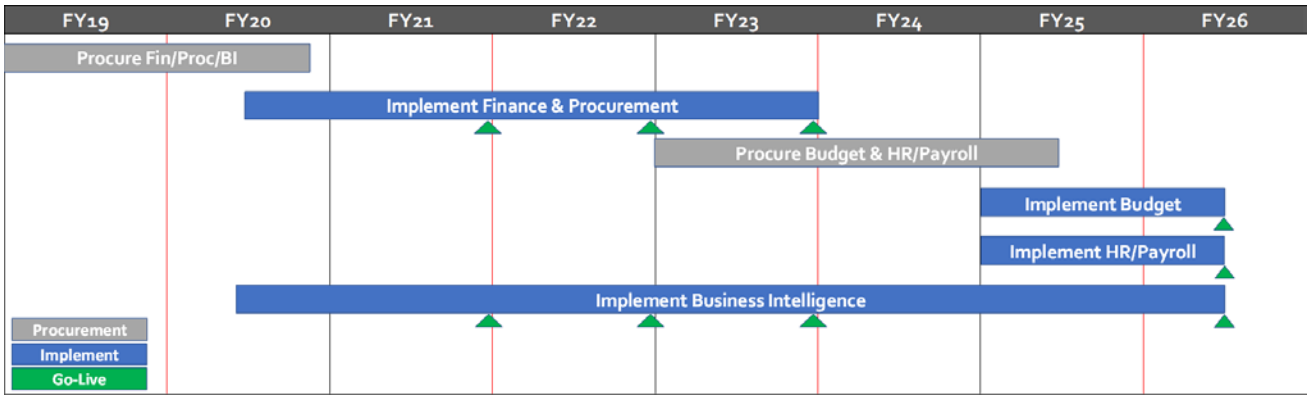


Figure 2.4.9: Summary of the Gantt Chart.

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 support ongoing 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 worked 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).

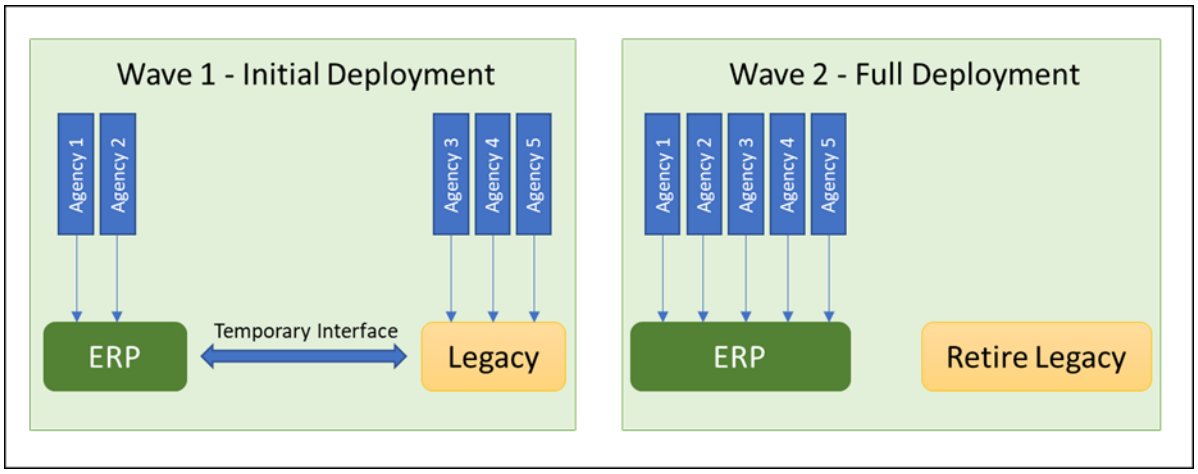


Figure 2.5.1: Implementation Waves.

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 functions 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. Since Finance and Procurement ERP implementation will take place in waves, AFRS will continue to be the system of record for financial data until all agencies are live in the new ERP. Further details on data conversion, including methodologies, are documented in the Program Blueprint data conversion section.

2.6 MDM

2.6.1 *Background and Introduction*

> *"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*

Effective MDM is an essential component for a successful One Washington program. Master Data is an organization's single source of basic business data used across multiple applications and processes. For example, consider the data field called "agency". When the term "agency" is used, it must have a common defintion across the functions of Finance, Procurement, HR/Payroll and Budget. The ability to process individual transactions and the effectiveness of reports relies upon Master Data. MDM refers to the process by which which business and IT work together to ensure the uniformity, accuracy, stewardship, semantic consistency and accountability of the enterprise's official shared master data elements.

The One Washington MDM strategy will build on recent and successful examples and experiences. 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.

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 COA 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, COA 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 recently completed is the development of a BI strategy. These experiences provide the foundation and momentum for the One Washington MDM strategy to be expanded and formalized.

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 BI strategy, the Data Conversion strategy, several business improvement initiatives (such as rationalizing the payee files), the Program's implementation 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 *Current State of MDM*

Interviews were conducted with relevant experts and business owners to gather an understanding of current master data processes, challenges and data elements that are managed by the state. These interviewees included representatives from OFM Statewide Accounting, OFM Budget, DES, OFM Statewide HR, Higher Ed institutions and WaTech. Attendees across the four ERP functional areas (Finance, Procurement, Budget and HR/Payroll) were asked a standard set of questions regarding the important data elements that are currently used, data governance and recommendations for the future. A similar interview addressing MDM for BI was also conducted with representatives from WaTech. The sections below summarize interview findings by functional area and provide input to the MDM strategy as the Program moves towards the implementation phase.

Finance

Within Finance, master data management processes primarily relate to AFRS, where system constraints have been the main limiting factor on improved business processes. Many of the master data elements related to Finance are mandatory reference data. For example, data elements and definitions such as appropriation, fund and account result from legislative action. As the One Washington program approaches the implementation phase, an updated analysis will be conducted of data elements and definitions mandated by statute. Notwithstanding the fact that some master data is defined by law, there are numerous examples where master data is defined by administrative rules and can be changed by administrative action.

The Statewide Vendor/Payee Services unit (SVPS) within WaTech maintains a central payee file for Washington State agencies to use when processing vendor payments through AFRS. Before 2010, all agencies managed their own payee files. Although SVPS manages approximately 100,000 active payees, several agencies still manage a considerable amount of payees outside of this centralized file. While it is unlikely that the state will move to a 100% centralized payee/customer file, greater consolidation of this file will lead to efficiencies. Movement to a more consolidated centralized payee/customer file is also necessary to support potential business value opportunities such as increased use of electronic funds transfer (EFT) and offsetting payments of delinquent debt. Further, expansion of the state's online vendor registration functionality, a major step in developing a more consolidated centralized payee/customer file, would benefit both internal and external stakeholders by providing consistent data and reducing the amount of interaction needed between SVPS, agencies and suppliers. In addition, cleansing the current payee file will simplify the data conversion to the new system, saving time and money. The Blueprint includes a project in FY19 to further standardize and consolidate the central payee file, a good example of the master data management strategy at work.

OFM Statewide Accounting's efforts to redesign the COA (that began in 2015) serves as a foundational step towards improving the state's ability to categorize expenditure transactions. These efforts also provide a prime instance of MDM processes and governance that will be considered as a model for future MDM initiatives. Through this effort, Statewide Accounting identified several challenges:

- Decentralized data with incomplete understanding of source systems for master data
- Architectural inadequacies that keep users from linking, sorting, or filtering information effectively across agencies
- Limited data warehouse controls resulting in questionable data quality, with duplicate and stale data
- Lack of comprehensive data dictionary
- Lack of recognized statewide data owners and accountability
- Analysts focus on manual report generation and data scrubbing
- Inability to talk the same data definition language
- Exposure to potential compliance, security and legal issues

Addressing the list of challenges and preparing data and business processes for a new ERP system required the creation of a lean and well-governed statewide SubsubObject (SSO) table. With the participation of pilot agencies, Statewide Accounting realized a 94% reduction of the state's SSOs, removing redundancies and combining codes to transition from over 30,000 unique SSOs to approximately 2,600. As one example, the team consolidated 113 unique records into a single "Postage and Parcel" SSO. The definition of guiding principles and the establishment of a governance framework were both critical to the original effort and to sustaining the effort's benefits toward the initiative's broader objectives. The MDM strategy for One Washington is exemplified in the guiding and design principles used in the SSO project:

- An SSO is about what was purchased, not where, how, who, etc.
- Don't break anything
- Document everything
- 'Living document'
- Dialogue/Teamwork

When changes are requested to the SSO structure, they are considered via a well-understood process. An end-user, typically an agency business owner, communicates the need to the agency's COA lead, who submits a request via a standardized form. The agency's Statewide Accounting (SWA) consultant reviews the request for completeness and accuracy in preparation for the Data Governance advisory board's consideration. The advisory board, chaired by the OFM Assistant Director of Accounting, reviews and makes a recommendation on SSO requests before issuing a final decision.

Other important insights and considerations identified by interviewees include:

- The authority to incentivize proper management of master data and hold agencies accountable is essential to the success of the MDM strategy
- Given separate systems and unique needs, it is important to consider how information from political subdivisions and universities will integrate with the Finance system of record

The Blueprint includes an initiative in FY19 (called Assess Finance Organizational Strategy and Readiness) that will continue these types of MDM-related activities.

Procurement

As the state currently does not have a statewide procurement system, central management of master data for procurement is limited in comparison to other functional areas. For procurement master data, there is no single, reliable source today. As a result, decision makers largely rely upon incomplete, self-reported data that is requested from agencies or suppliers on an as-needed basis or as part of an annual collection.

Contracts and suppliers are the main data elements that most use consistently today. DES manages vendor registration and solicitation posting for all bids above the informal bid limit through the Washington Electronic

Business Solution (WEBS). Also, the Enterprise Contract Management System (ECMS), a secure web application for managing, reporting and tracking agency contract information, is currently used by 24 of 115 agencies. However, among the agencies that use ECMS, activity ranges from maintaining a full inventory of agency-held contracts to listing a single contract. Since there is currently no means to track annual spend by contract, DES instead must ask each supplier for the volume of its business with the state and other political subdivisions to inform negotiations and determine the appropriate contract administration fee.

Given the highly federated nature of procurement in Washington, the state made significant progress towards building an MDM foundation with the work of the Procurement Readiness group consisting of professionals from several state agencies. When the readiness workgroup first met, it was immediately apparent that definitions and understanding of various types of procurements were not in alignment. Although agencies differ in function and service delivery, the exercise of identifying basic procurement steps was used to set the stage for shared enterprise processes. During this process, several agencies pointed out specialized procurements which require processes to include client delivery needs, vendor specifications and contract obligations.

The Procurement Readiness group agreed on definitions, process steps and data elements in preparation for an enterprise procurement system. While the workgroup focused on process steps, outstanding questions regarding but not limited to data governance, policy decisions and contractual management still need discussion.

Other important insights and considerations identified by interviewees included:

- There is a need to establish policies to determine which agency should be considered the data owner when confidental procurement data is shared between agencies (e.g. in the event of a confidental contract)
- There is a need to track and report out on spend with special category vendors (e.g. P-Card spend with women and minority owned businesses)

The Blueprint includes an initiatve in FY19 (called Assess Procurement Organizational Strategy) that will continue the work of the Procurement Readiness workgroup, thereby furthering the MDM strategy.

HR/Payroll

Today, HR/Payroll master data is sourced from many systems. HRMS is the enterprise system for organizational, personnel and payroll data. There are separate systems for other HR-related business processes such as recruitment, learning, benefits administration and retirement. In some cases, these separate systems have a limited or nonexistant integration with HRMS. The segmented nature of HR/Payroll master data prevents the state from having a clear, holistic view of the employee lifecycle. This causes reporting difficulties and a reliance on redundant manual entry.

During the HRMS implementation, there was no use of common data definitions at the enterprise level. While agencies initially liked the added flexibilty this gave them when inputting data, reporting at the enterprise level quickly became a major concern. In an effort to resolve this issue, the HRMS Data Stewards group was established a couple years ago and its work has been well received.

> *"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*

Since the implementation of HRMS, business owners have established several other informal governance groups, including, the Personnel/Payroll Association (PPA Committee) and the HRMS Priority group, which includes subject

matter experts and managers. These groups are tasked with providing a comprehensive and predictable structure to data governance decisions. These committees follow a governance process to review, approve, and eventually implement changes resulting from software updates, state and federal policy changes and agency requests. As owners of the enterprise Applicant Tracking (recruitment) and Professional Development (learning) systems, DES follows a similar MDM governance process. Although all these organizations follow similar MDM governance processes, they operate in silos. Thus, data governance, as well as reporting, at the enterprise level is difficult and time consuming.

Other important insights and considerations identified by interviewees include:

- There is a need to implement a master data strategy and governance plan earlier in the implementation
- The state must continue to build on the existing data advisory groups, committees and activities currently in place
- It is important to define which system is the system of record source when HR data is owned by systems outside the ERP (i.e. health care and pension benefits managed by Health Care Authority and the Department of Retirement Systems)
- Relevant HR/Payroll stakeholders must be included in enterprise level governance committees and work groups

Budget

Current statewide budget systems are primarily used for supporting the submission of the operating, capital and transportation budgets. The majority of preparatory work is conducted outside of the formal enterprise budget systems. The various systems that constitute the Budget Development System and the Agency Budget System act as a means to ensure that agencies with vastly different structures adhere to a common framework for Executive and Legislative review of proposed budget.

Like procurement, current data elements which could be considered master data are created and managed primarily by agencies. Examples of these data elements include activities and performance measures. As part of the budget development process, agencies are required to identify the major activities that the proposed budget will support. Agencies must also populate the Results through Performance Management System (RPMS) with relevant performance measures.

Agencies work with their assigned OFM Budget analyst to finalize their list of activities and performance measures. Since these data elements are agency-defined, there is no uniformity in nomenclature (i.e. if two agencies perform the same activity, each will have a unique description). An informal initiative was undertaken by the OFM Budget team to identify opportunities to consolidate activities and performance measures that were essentially the same, but it was not part of a recurring program. With the potential to better track budget vs. actuals in a new system, improved data standardization will help improve the ability of policymakers and the public to understand where the state spends its money.

Other important insights and considerations identified by interviewees include:

- OFM Budget's strong partnership with LEAP has greatly improved data sharing and budget processes; this continued partnership and cross-branch input are critical to the success of Budget MDM processes
- Finance and Budget use many of the same terms – such as program and functional area – but in general terms can have very different meanings; speaking one language will improve collaboration and understanding in these interrelated areas

BI

As part of the data gathering process the One Washington program met with representatives from WaTech to discuss the current state of master data and master data governance in BI. Currently, master data used for BI reports are owned by the respective business areas, and there is no specific data governance set up for master data in BI. Although data governance processes currently exist for each business area, each governance process operates in a silo. One Washington's master data management for BI will align with governance established for the respective functional area's system of record. Governance committees discussed in the sections above will have representation from the BI community to ensure that BI reporting needs are met.

Example Master Data Elements by Functional Area

The following table contains a short, preliminary list of master data categories that business owners identified over the course of interviews. This llist serves as a starting point for a more expansive definition of the state's master data elements as a necessary step prior to implementation of a new ERP.

Table 2.6.1: Preliminary List of Master Data Categories.

Finance	Procurement	Budget	HR/Payroll
Account	Amendment	Activity	Absence/Leave
Appropriation	Commodity	Expenditure Authority	Benefits
Functional Area	Contract	Functional Area	Compensation
Fund	Delegation of Authority	Funding Source	Employee
Funding Source	Funding Source	Performance Measure	Enterprise Structure
Geography (City/County)	Item	Program	Funding Source
Gov. Service Unit	MWBE/Small Business	Revenue Source	Job
Object of expenditure	Organization		Learning
Payee	Policy		Position
Program	Program		Program
Revenue Source	Service		Recruitment
	Solicitation		Retirement
	Statement of Work		
	Vendor		

2.6.3 *Rationale and Recommendation*

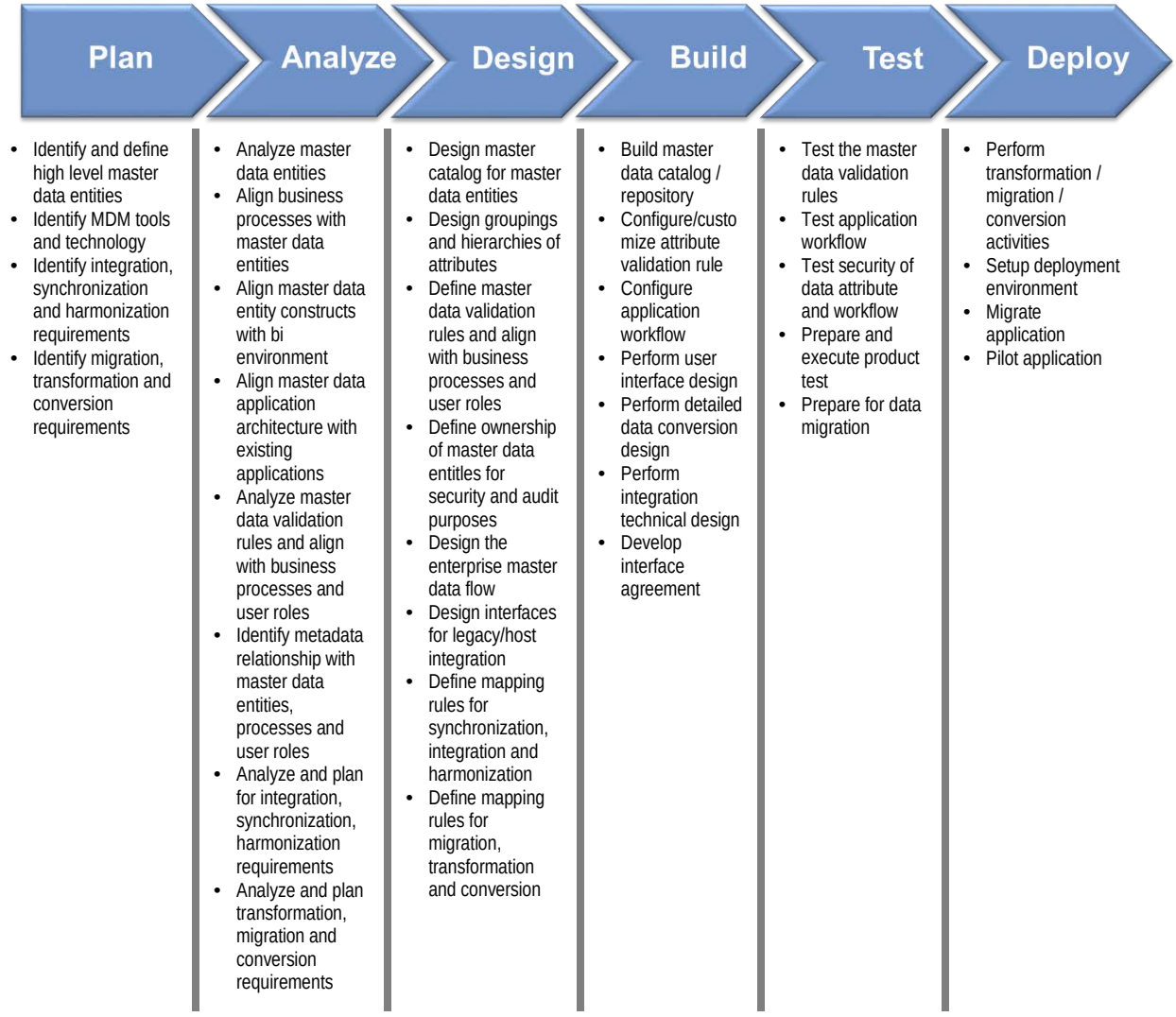
The One Washington Master Data Management strategy enables the consistency, accuracy, stewardship, and accountability of the core information for the Finance, Procurement, Budget and HR/Payroll functionality that will be in the new ERP. The strategy has several benefits as outlined below:

- 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 BI solution
- Creates operational efficiencies such as:
    - Reduced data redundancy as well as more accurate, predictable and repeatable data flows
    - Consistent methods of acquiring, processing, publishing and managing data across the enterprise
    - Reduced costs of maintaining data due to 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)
- Increases collaboration within and across different domains

- Enhances compliance (e.g. data standards are documented, applied and enforced, roles and responsibilities are defined, and processes are repeatable, sustainable and practical)

After software selection, the focus of the Program's MDM strategy will shift to comparing the preparatory MDM work to the baseline master data structure contained in the selected software solution. One Washington will perform gap analysis to identify instances where the state's statutes, policies, and essential business processes deviate from the selected software's baseline master data. This analysis will inform the decisions to adopt the master data structure of the selected software or adapt the software to the extent required. Implementation of the MDM strategy will follow the Accenture Delivery Methodology MDM Playbook, which is summarized in Table 2.6.2 below. During implementation, this methodology will be further defined.

Table 2.6.2: Accenture Delivery Methodology MDM Playbook.



There are four major components of the One Washington MDM strategy:

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 COA 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 Addresses 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.
- Five advisory committees (Data Governance, 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 will review requests and make 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. Recurring meetings with all committees will also be needed to discuss enterprise wide decisions (for example: BI reporting.)
- 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.

One Washington's master data management for BI will align with governance established for the respective functional areas' systems of record. Governance committees discussed in the sections above will have representation from the BI community to ensure that BI reporting needs are met.

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 in this section, 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 first to be implemented.

   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.

   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.

3. 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 COA redesign effort. 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 2.6.3 below.

Table 2.6.3: 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 vs. 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 for a specific data element, then no other action is needed. However, if an external system (interfacing to the ERP) is 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.

The MDM strategy includes 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 timeline 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 timeline is to schedule a load of master data alone. This option has the advantage 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 master data is interfaced to 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 decided 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.

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

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.

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.

Assumptions	
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.
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.

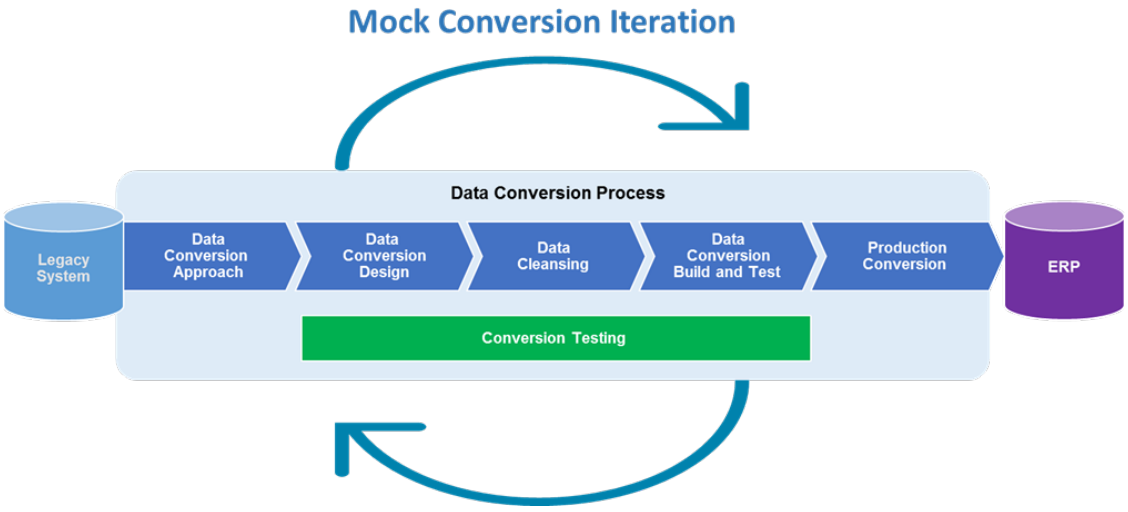


Figure 2.7.1: End-to-End Data Conversion Process.

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 COA 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 BI reporting is a portion of the overall reporting strategy, ERP systems generally provide relatively limited capabilities in BI reporting compared to add-on reporting tools and products developed specifically to provide robust BI reports. A parallel BI strategy workstream is underway to determine the overall BI 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 That Inform Reporting Capability.

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 BI 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 BI capability and/or the capability to fully integrate with add-on BI 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

Functional Area	Current State of Reporting
	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.
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).
- Provide access for reporting on historical data in systems that are not converted or integrated into the enterprise system
- Coordinate with the BI strategy to use add-on BI 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. BI reporting capability may be added in the future to meet the state's BI 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.

Capability	Description
Ad hoc reporting capabilities	ERPs provide for flexibility and easy access for users to build their own queries.

2.8.5.1 Operational Reporting vs. BI

To set the context for how the state defines its reporting approach, it is important to understand the difference between operational reporting and BI. 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, BI enables business performance improvement by providing actionable information for decision-making and is typically delivered separate from an ERP system. BI 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 BI reports show the bigger picture and are usually consumed by senior leadership and executives. Operational reporting and BI 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 BI tools.

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

Table 2.8.4: Operational Reports vs. BI.

Transactional Reporting	BI
• 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 BI 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, BI 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.

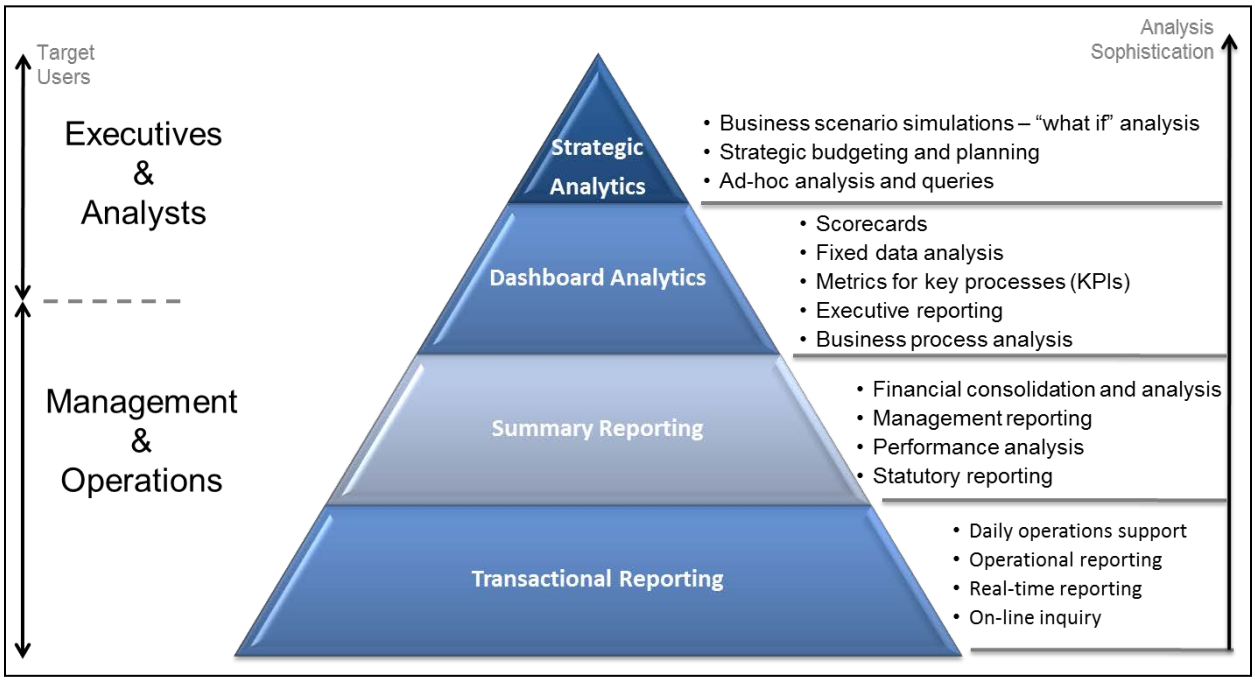


Figure 2.8.1: Operational Reporting Provides the Basis for BI.

The details of the specific BI strategy for Washington will be part of a separate initiative and the outcome of the BI strategy development will be incorporated into the Program Blueprint when finalized. The chosen ERP application must deliver the capability to run BI or fully integrate with add-on BI 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 vs. tactical	Reports that are strategic in nature are a better fit for other reporting solutions like an add-on BI 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

Criteria	Description
	wishes to look at details for a given quarter, he/she can click on the 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 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 budget 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.

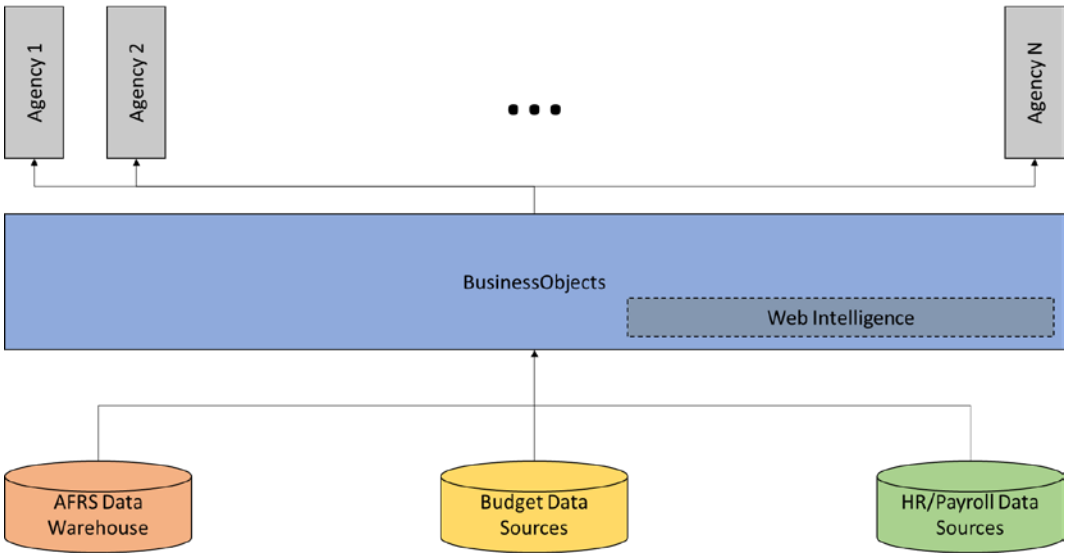


Figure 2.8.2: Current Business Objects Landscape.

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/BI 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 BI 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	BI Report Tool (BIRT) which can integrate with Workday
Oracle	Oracle's BI 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.

- Statewide reports for OFM and LEAP as well as the budget monitoring report will continue to be ran out of AFRS and AFRS data warehouse until all agencies are brought onto the new ERP.
- 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 Business Intelligence

2.9.1 *Introduction and Background*

The BI strategy provides the One Washington program with an actionable set of initiatives which will enable enterprise-wide, data-driven insights and decision making. Aligned with the Program Blueprint, the BI initiatives included as part of this strategy have been defined to build required capabilities, identify technology needs and ensure required resources are identified and available.

To support One Washington's goal of achieving BI best practices, the Enterprise Information Management (EIM) Model, shown in Figure 2.9.1, was used throughout the creation of the BI Strategy to guide the assessment and identify the recommended strategic initiatives.

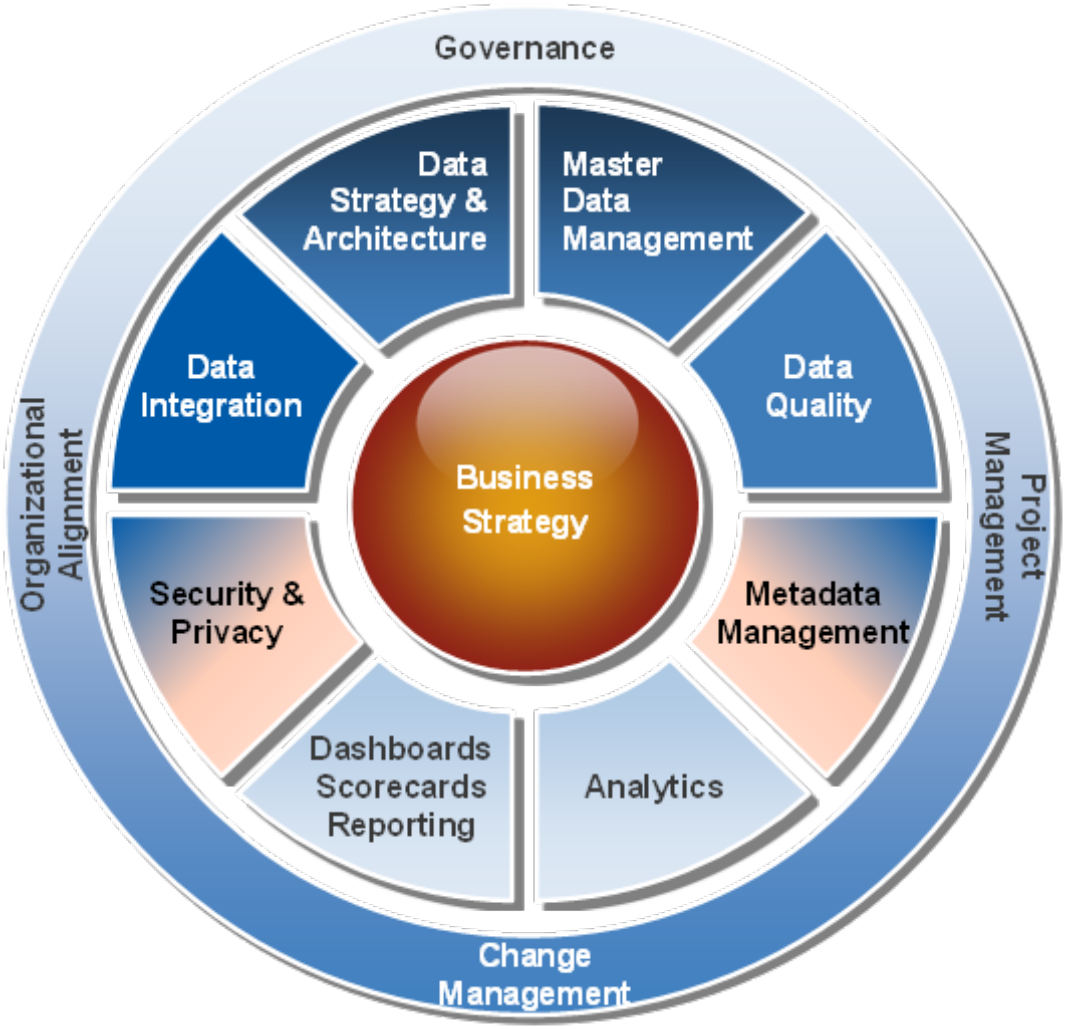


Figure 2.9.1: Enterprise Information Management (EIM) Model

To complete One Washington's BI Strategy, the team conducted a series of assessment and planning activities. These activities were conducted in three distinct work efforts:

- Current State Discovery
- Future State
- Strategy

In Current State Discovery, the team worked with stakeholders to evaluate the current state of BI capabilities and identify the business needs for data and reporting. Additionally, needs and desires for the future state were identified. This resulted in a set of gaps between the current BI capabilities and the future envisioned by One Washington.

As part of the Future State work effort, a set of strategic initiatives were identified to close the gaps. Alternatives, costs, risks and opportunities were examined, and the initiatives were evaluated against BI best practices.

In the final work effort, Strategy, the initiatives were prioritized and aligned with the overall ERP timeline and evaluated for resource needs and costs. Upon completion of this work effort, the BI Strategy articulates the "what,

why and when" of the BI initiatives and how they will help achieve the Program's vision for data availability, accuracy and timeliness.

2.9.2 *Current State*

The findings from the current state analysis identifies challenges that must be addressed to achieve the BI objectives of the One Washington program. This information is organized and documented according to the operational and execution elements of the EIM model described in Figure 2.9.1. Each EIM component has been evaluated across the dimensions of people, process and technology. Detailed information on the current state of BI can be found in section 1.0 of the Business Intelligence Appendix 8.7.

2.9.3 *Future State*

The future state conceptual model for BI is represented in Figure 2.9.2. It was designed to achieve the goals of the One Washington program and reflects the anticipated ERP transformation across the four enterprise processes of Finance, Procurement, Budget and HR/Payroll. The design supports one or multiple ERP solutions. Integration is expected to be accomplished within a data integration layer. The data integration layer would also be utilized to integrate information from legacy applications and historical data on an as-needed basis. Detailed information on the future state recommendation for BI can be found in section 2.0 of the Business Intelligence Appendix 8.7.

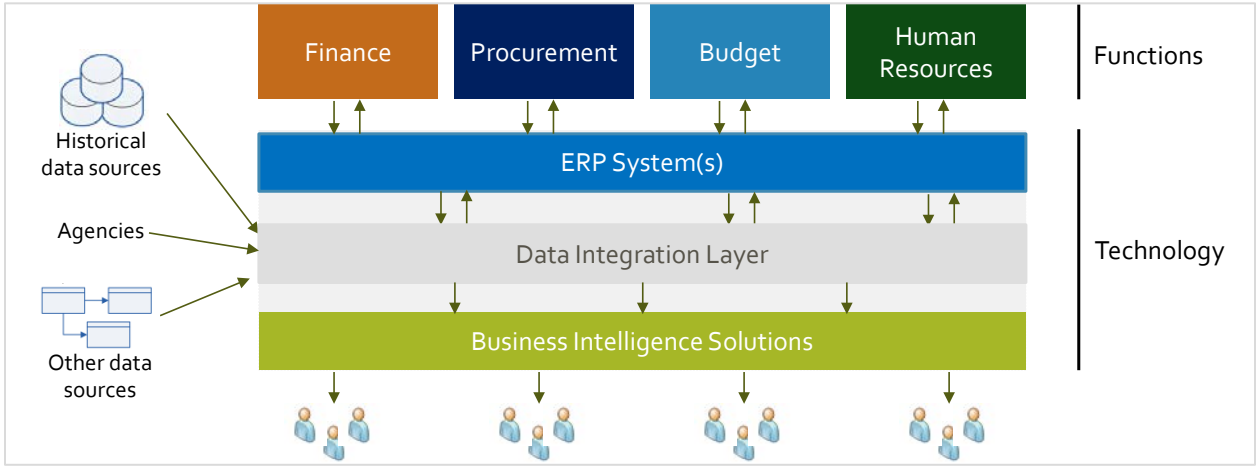


Figure 2.9.2: Future State Conceptual Model for BI

2.9.4 *Action Plan*

In order to bridge the gap between the State of Washington's current BI capabilities and the future state needs, an action plan in the form of a prioritized set of initiatives and deployment phases have been planned over a multi-year timeline coinciding with the ERP implementation.

2.9.4.1 Phased Deployment

- BI capabilities will be built and deployed according to the following timeline:
  - Operationalizing BI capabilities for Finance and Procurement in three waves during fiscal year 2022.
  - Expanding BI Finance and Procurement capabilities at the beginning of fiscal year 2024.
  - Enhancing BI capabilities to include Budget and HR/Payroll in Fiscal year 2026.

- Figure 2.9.3 contains the comprehensive, actionable set of initiatives for BI solution and BI capability development for the state of Washington and the timeline upon which they should be executed.

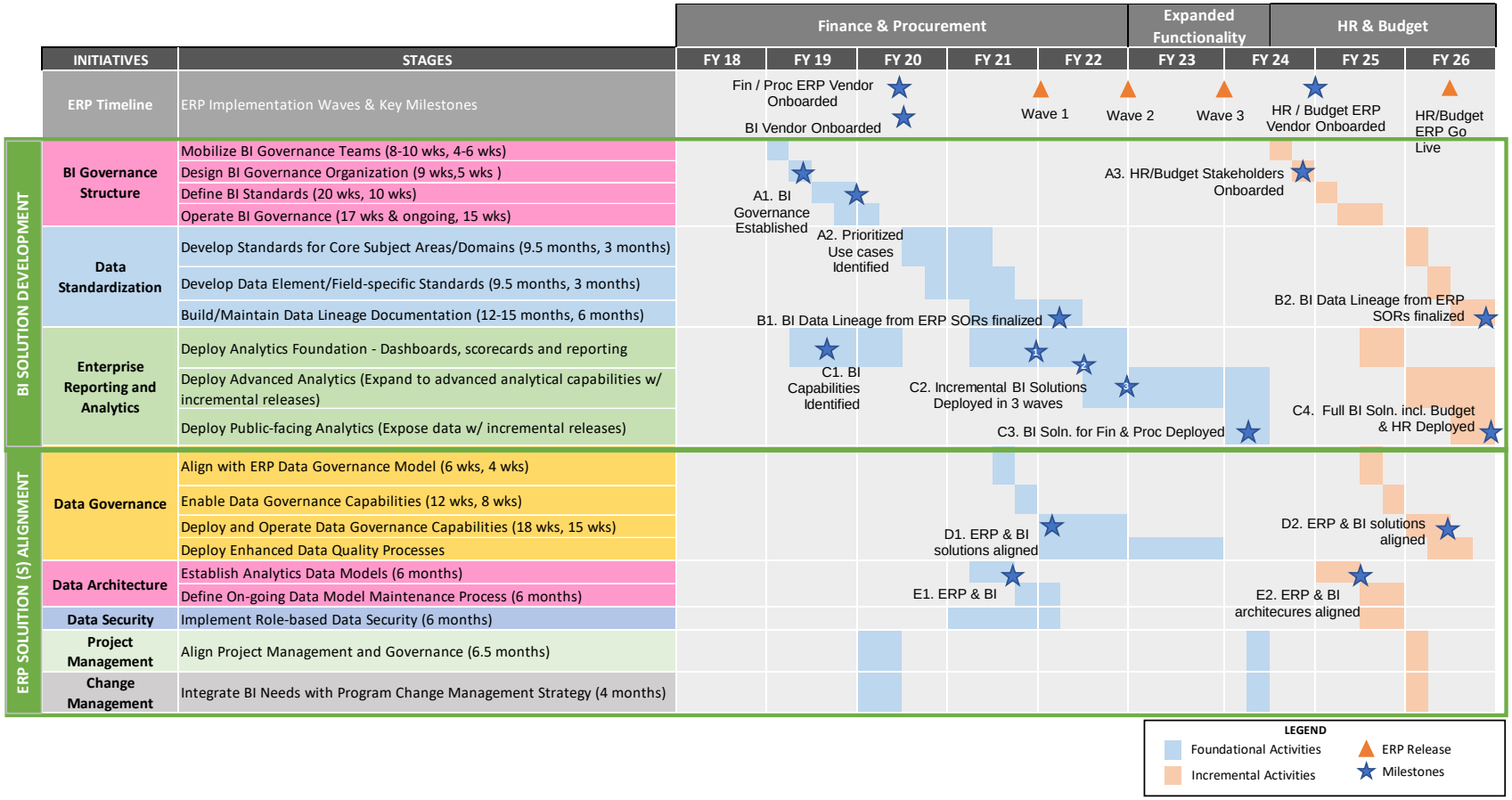


Figure 2.9.3 BI Action Plan Initiatives Timeline FY19 – FY26

- The incremental rollout of ERP as defined by the Program Blueprint requires the BI functionality to be deployed in three phases. The definition of the three BI phases is included below:
  - Finance and Procurement deployment: this BI phase builds the sustainable foundation for the BI solution using Finance and Procurement data. During this time, the BI solution is expected to operate in parallel with the legacy environment, as AFRS will still be the system of record for all financial data until Wave 2 has gone live. The BI team will establish a BI governance structure, standards and processes along with basic reporting, dashboards, scorecards and advanced analytic capabilities for Finance and Procurement using data from agencies implemented in Wave 1.
  - Expanded functionality deployment: As additional Finance and Procurement data becomes available and more agencies migrate to the Finance and Procurement ERP in 2`, the BI team will expand the BI solution to include advanced analytical capabilities accordingly. Between FY23 to FY24, Finance and Procurement users will fully migrate to the new BI solution and legacy systems will be retired. All remaining gaps in data and BI reporting capabilities with legacy applications will be addressed in this time-period.
  - Budget and HR/Payroll deployment: BI capabilities are incrementally expanded in FY25 and FY26 to include the new Budget and HR/Payroll ERP systems. The set of initiatives follow a similar set of activities conducted for Finance and Procurement but reflect the additional resources, processes, and technical activities required to integrate Budget and HR/Payroll data into the BI solution. The BI initiatives defined here assume that all new ERP functionality will adhere to previously established guidelines, processes and standards without significant differences.
- A detailed resource plan to execute the BI Action Plan initiatives resides in the Program Blueprint as part of the Program's Staffing Plan.

2.9.4.2 Strategic Initiatives

This section outlines the initiatives and their timelines that are necessary for the Program to achieve the vision that was laid out in the future state recommendation. The tables below give an overview of the initiative, it's stages and milestones that correspond to figure 2.9.3.

Table 2.9.1: Governance Structure Strategic Initiative.

Initiative	Governance Structure
Overview	Establish and operationalize a BI governance structure to support a business-value driven analytics culture. This initiative focuses on establishment of the BI governance organization structure, executive alignment, roles and responsibilities and initial BI governance processes and procedures.
Stages	• Mobilizing the BI governance team • Designing the BI governance structure • Defining BI standards • Operating the BI governance structure
Milestones	• A1: established BI capabilities • A2: identification of a BI Lead • A3: Budget and HR/Payroll stakeholders are active members within the BI governance structure

Table 2.9.2: Data Standardization Strategic Initiative.

Initiative	Data Standardization
Overview	Drive standardization of metadata and the data quality processes to increase clarity and understanding of data available for analytics and decision-making. This initiative focuses on identifying prioritized use cases, defining common business data definitions, business rules, data lifecycles and metadata management needs.
Stages	• Developing standards for primary subject areas and or data domains • Developing data element and or field-specific standard • Building data lineage documentation
Milestones	• B1: completion of data lineage documentation for the Finance and Procurement business process areas • B2: completion of data lineage documentation for the Budget and HR/Payroll business process areas

Table 2.9.3: Enterprise Reporting Analytics Strategic Initiative.

Initiative	Enterprise Reporting Analytics
Overview	Implement foundational and advanced enterprise reporting as well as analytics capabilities to drive better informed decision-making. This initiative focuses on the implementation of a rationalized set of reports, dashboards and scorecards.
Stages	• Deployment of initial dashboards, score cards and reporting for foundational capabilities • Deployment of advanced analytics to advanced capabilities as part of the ERP incremental releases.
Milestones	• C1: Definition of critical use cases and the business capabilities and technical specification for Wave 1 • C2: Full deployment of the BI solution is achieved incrementally after Wave 3 • C3: Deployment of the BI solution for Budget and HR/Payroll business functions

Table 2.9.4: Data Governance Strategic Initiative.

Initiative	Data Governance
Overview	Align the BI implementation activities with the greater One Washington data governance efforts to ensure consistent sourcing and use of high quality and reliable data. This initiative focuses on putting in place formal lines of communication, cross-functional collaboration, data quality decision-making, and any other strategies to improve the state's trust in its data.
Stages	• Alignment of BI data governance with the ERP data governance model • Enabling data governance capabilities • Deployment and enhancement of data governance capabilities • Deployment of enhanced data quality processes

Table 2.9.5: Data Architecture Strategic Initiative.

Initiative	Data Architecture
Overview	Establish a well-defined BI data architecture that proactively accounts for current and future business and technology needs. This initiative focuses on improving the availability and management of BI-related data throughout the data lifecycle and ensures it is in alignment with the ERP deployment.
Stages	• Establish analytic data models • Define model maintenance processes
Milestones	• E1: Establish a shared analytical foundation across the Finance and Procurement business functions • E2: Extension of shared analytical foundations to the Budget and HR/Payroll business functions

Table 2.9.6: Data Security Strategic Initiative.

Initiative	Data Security
Overview	Ensure role-based security is put in place to control access to Category 3 and 4 data. This will reduce data risk to the four key enterprise business functions and increase the availability of insightful data to the right people. This initiative focuses on compliance with data access, retention, role based security and data lifecycle management.

Table 2.9.7: Change Management Strategic Initiative.

Initiative	Change Management
Overview	Please see the One Washington Change Management Strategy for BI-specific change management activities and approaches.

2.10 Security Approach

2.10.1 *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

2.10.2 *Assumptions*

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

Table 2.10.1: 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.

2.10.3 *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 2.10.1 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 2.10.1: Proper Balancing of the Three Tenets of Security.

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 – Includes connectivity, data, and enterprise software platform.
2. Data Security – Appropriate users have access to the appropriate data required for their job roles.
3. Application Security – Users can only gain access through trusted authentication services.

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

2.10.4 *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?"

2.10.5 *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.

2.10.5.1 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.

2.10.5.2 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.

2.10.6 *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*

2.10.6.1 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.

2.10.6.2 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 an 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.

2.10.6.3 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.

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.

2.10.6.4 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.

2.10.6.5 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.

2.10.6.6 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.

2.10.7 *Data Security*

2.10.7.1 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.

2.10.7.2 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 regard 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.

2.10.8 *Application Security*

2.10.8.1 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.

2.10.8.2 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.

2.10.9 *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.

2.10.10 *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.

2.11 OCM 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 OCM 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.

2.11.1 *Key Considerations and Assumptions*

The strategy takes into consideration the following:

- The 2014 Business Case change management approach developed from the Organizational Readiness Assessment. Enterprise organizational readiness was evaluated as of May 5, 2014.
- High-level stakeholder analysis conducted in October-November 2017 that included interviews of 22 agencies. Agencies and individuals interviewed are in Appendix 9.3.
- Resources to support One Washington's OCM activities are included in sections 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 section 7.
    - The strategy includes business transformation and enterprise resource planning (ERP) and BI change management for the period of 01/2018 – 06/2026
- The strategy will be updated and expanded to a more detailed change management plan as actual ERP and BI software solutions are identified. Current timelines for in scope systems:
    - Finance and Procurement: 11/2019 – 07/2023 – 07/2026
        - Wave 1 (Initial Deployment): 11/2019 – 07/2021
        - Wave 2 (Full Deployment): 01/2022 – 07/2022
        - Wave 3 (Expanded Functionality): 07/2022 – 07/2023
    - Budget: 07/2024 – 01/2026
    - HR/Payroll: 07/2024 – 01/2026
    - Business Intelligence (aligns to each of the ERP deployments): 11/2019 – 01/2026
- This strategy assumes legislative support and funding to complete the Program.

2.11.2 *Summary*

Change management ensures that the right resources and processes are in place so that an organization effectively transitions to the desired future state and at the planned pace. The strategy provides the approach to change

management overall and for each of the Program's 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, Software as a Service - SaaS).
- Impacts of Washington's enterprise 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) for the duration 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 and business readiness

The goal of the strategy is to follow an established change model and approach to bring One Washington transformation stakeholders along the change journey.

2.12 Performance Measures

2.12.1 *Background and Introduction*

This section of the Program Blueprint provides a description of the overall approach the Program will take to establish and monitor performance measures. One Washington will develop both program-level and operational performance measures to assess the overall success of the Program.

The One Washington team will use this section of the Blueprint as a guide to create a performance measurement plan for One Washington and its stakeholders to continually evaluate the Program's strategy and vision, ensure that the correct targets and metrics are being measured, and identify improvement opportunities.

During the implementation phase, program management will further refine the plan to include the following:

- Cutoff dates and times for collection of data for each metric
- Specific data elements to be used by the metrics and their source and frequency of collection
- Program resources required to collect data
- Guidance on how to calculate and report each metric
- List of stakeholders who will be involved in the analysis and reporting of each metric
- Specific processes and tools needed to collect, analyze and report each metric
- Distribution list for the metric results

The details of the measures identified in the plan will include (if relevant):

- Name
- Description of use type and category
- Baseline measures

- Unit of measure
- Source
- Formula
- Target
- Range

Baseline measurements will be established so that future state comparisons and analysis can be conducted. In cases where baseline measurements are not available, measurement of continuous improvement will be conducted on a period-over-period basis.

2.12.2 *Methodology*

One Washington chose to establish two sets of measures. One set, called "program measures" to measure the success of the Program during implementation. And the other set, called "operational measures" to measure the ongoing improvements after implementation of the Program.

A recommended list of program-level performance measures was developed by One Washington with guidance provided by OCIO. This list was then reviewed and validated by the Executive Steering Committee. Along with the mandatory measures on schedule, scope and budget, the committee identified their priority program-level performance measures (highlighted in the table below).

In addition, a preliminary list of operational performance measures was compiled based on Accenture's Logical Operating Model for High Performing Governments, similar programs at the University of Washington and the State of California, and input from OCIO. This preliminary list of operational measures was reviewed by the business owners in Finance, Procurement, Budget and HR/Payroll who then selected and provided a sampling of performance measures for their respective functions. This is not a definitive list and will continue to be refined as the Program progresses. Operational measures will be transitioned to the respective business advisory groups during implementation for further analysis and rationalization. OFM functional business owners will own and operationalize the final list of measures.

The list of program and operational-level performance measures are also referenced within the One Washington Program Investment Plan document.

2.12.3 *Performance Outcomes – Program-Level*

One Washington has come up with the following preliminary list of program-level performance measures to determine the success of the Program. Targets for each measure will be further defined during implementation.

Category	Program Benefit/Outcome	Measure
Schedule	*Meet Go-live and major milestones as scheduled*	Project management tracking
	Deliver capabilities based on the defined business scope	Number of new capabilities
Scope	*Increase customer satisfaction of business functionality delivered*	Satisfaction scores through surveys
	Number of modules deployed vs. number planned (will provide targets)	Percentage value
	Manage all Risk and Issues	100% of identified risks and issues
Budget	*Actual implementation costs for overall project and major initiatives come in under budget*	Project management tracking
Data access and transparency	Define enterprise business capabilities for each business area	Number of users trained Number of users in the system Satisfaction scores through surveys
Data accuracy	*Reduce the number of shadow systems*	Reduce by x percentage
	*Implement enterprise data governance process **	Satisfaction scores through surveys To what degree standards are implemented
Improve services	*Standardize vendor interactions with the state*	Number of vendors using the vendor self-service portal
	Standardize state interactions with other governments	Internal satisfaction scores through surveys
	Deliver new capabilities (i.e. self-service, mobile)	Actual number of new capabilities
	Implement common business processes across the state	Actual number of common business process
OCM	Number/percentage of users trained of those identified	Percentage value
	*Deliver quality training **	Satisfaction scores through surveys
	Improved Change readiness	Percentage increase over baseline
	*Availability of training prior to go live **	Number of days prior to go live
Security	*Reduce security risks **	Reduce by x percentage (use the SAO Cyber Security Audit as a baseline)
Statewide solution	Number of agencies deployed	Percentage value (based on agency matrix criteria)
	Number of systems retired or integrated	Percentage value

*Performance Measures identified by the Executive Steering Committee as the top priorities

2.12.4 *List of Performance Measures by Business Function Area*

One Washington, with the input from business stakeholders, compiled the following list of operational-level performance measures. This is a preliminary list that will be further reviewed and refined by business owners and advisory groups during implementation.

Finance/Budget:

- Percentage of accounts payable transactions that were executed in compliance with a bill-paying policy (e.g. 2% discount is paid in 10 days, net payment in 30 days, and 0 late penalty interest)
- Percentage of accounts receivable transactions that were executed in compliance with bill-paying policy (e.g. billed within 30 days, collected within 30 days of billing/invoice, etc.)
- Percentage of employee payroll, employee expense and vendor payments that were made via EFT
- Percentage of agencies that have a documented and approved strategic plan used to monitor and report performance
- Percentage of all payees that are managed in a centralized and unified payee file
- Percentage of all customers that are managed in a centralized and unified customer file
- Percentage of actual indirect costs that are recovered through approved cost allocation plans
- Percentage of cost allocation plans that are subject to post facto adjustment as identified via audits
- Percentage of agencies meeting each deadline in the budget development process
- Percentage of "high risk" transactions that are monitored regularly by fraud and abuse tools
- Percentage of agency allotments received and reviewed within 90 days of the enactment of a new budget
- Percentage of performance measure actuals updated within 30 days
- Percentage of all projects that report overages or overruns compared to initially approved project budget
- Percentage of grants where actual amount expended by grantee to accomplish the grant purpose is within 95% of initial estimate
- Percentage recovery of overpayments
- Percentage of senior leadership decision-making supported by effective Finance/Budget dashboards

Procurement:

- Percentage of agencies that have a documented and approved strategic plan that addresses the procurement component that is used to monitor and report performance
- Percentage of delivery by suppliers within specified delivery timeframe
- Percentage accomplishment of the annual social and/or economic preference targets
- Percentage of procurement business processes that have metrics which are reported on and monitored regularly by operational unit leads and management personnel
- For procurement performance metrics trending in an adverse direction, a percentage of such metrics that are subject to a specific follow up and corrective action plan
- Percentage of contracts that are "active" and have been used within 12 months
- Percentage of total spend that is visible and reportable via spend management and/or reporting tools
- Percentage accomplishment of the state's annual strategic sourcing savings goal
- Percentage on-time completion of the sourcing process vs. the approved schedule
- Percentage purchasing from pre-arranged contracts

Procurement:

- Annual inventory carrying costs
- Percentage inventory accuracy
- Percentage of eligible spend that is accomplished via Purchasing Cards (P-Card)
- P-Card volume and rebate revenue as a percentage of annual estimates and plans
- Percentage of replacement contracts that are in place before current contract expires
- Number or dollar value of emergency and/or unplanned repairs
- Number or dollar value of assets reported as stolen or missing
- Percentage of purchase orders that are issued using a modern eProcurement system
- Percentage of invoices accepted and processed for payment via electronic rather than paper format
- Number of days in average cycle time from received requisition to approved requisition
- Percentage use of the prescribed buying channel
- Percentage of spend that relates to purchase orders
- Percentage of receiving accomplished within 5 business days of supplier delivery
- Percentage of receiving events that are recorded electronically
- Percentage of purchase orders that are created before the receipt of an invoice
- Percentage compliance that spot buys conform to the organization's policies with zero fraud, waste, abuse or audit findings
- Percentage of all services that are created via an electronic catalog
- Percentage of supplies that are created via an electronic catalog
- Percentage of internal customers reporting "satisfied" or "highly satisfied" when surveyed on procurement performance
- Percentage of external suppliers reporting "satisfied" or "highly satisfied" when surveyed on procurement performance
- Number of duplicate vendors in the master supplier table
- Percentage of accuracy by end users when classifying non-catalog line items in requisitions using approved spend category taxonomy
- Percentage of senior leadership decision-making that is supported by effective procurement metric dashboards
- Percentage of critical procurement data sources that are covered by a comprehensive data management plan, which describes, for each dataset, the data owner, users and steward
- Percentage of service management operations that are covered by enforceable service level agreements (SLAs)

HR/Payroll:

Plan and Align Workforce:

- Number and percentage of permanent and non-permanent employees
- Number and percentage of full-time and part-time employees
- Median length of service
- Number and percentage of overtime eligible and overtime exempt employees

HR/Payroll:

- Number and percentage of union-represented employees
- Number of unions by agency
- Number and percentage of Human Resources employees
- Number and percentage of WMS employees
- Number and percentage of managers
- Number and percentage of WMS employees by Management Type – "Management," "Policy," "Consultant," and "Not Assigned"
- Number and percentage of employees with current position descriptions that accurately reflect their job duties
- Number of employees required to have current position descriptions

Hire Workforce:

- Number and percentage of appointments by type and the total number of appointments
- Number of voluntary and involuntary separations from state service during probationary, trial service, transition and WMS review periods

Deploy Workforce:

- Number and percentage of employees with current performance expectations and individual development plans completed in "Part 1" and "Part 2" of their performance development plan
- Number of employees required to have performance expectations and individual development plans
- Average monthly comp time hours worked of those eligible for overtime
- Average monthly percentage of employees receiving comp time of those eligible for overtime
- Average monthly overtime hours used of those eligible for overtime
- Average monthly percentage of employees receiving overtime of those eligible for overtime
- Total cost of overtime
- Average monthly sick leave hours used
- Average monthly sick leave hours balance
- Number of non-disciplinary grievances filed (represented employees)
- Rate of non-disciplinary grievances filed (represented employees)
- Number of non-disciplinary appeals filed
- Number and percentage of non-disciplinary appeal outcomes by category

Develop Workforce:

- Number and percentage of employees with current individual development plans

Reinforce Performance:

- Number and percentage of employees with a current annual performance evaluation
- Number of disciplinary actions taken by type – dismissal, demotion, suspension
- Number of disciplinary grievances filed (represented employees)
- Rate of disciplinary grievances filed (represented employees)
- Number of disciplinary appeals filed

HR/Payroll:
• Number and percentage of disciplinary appeals outcomes Ultimate Outcomes: • Number and percentage of employees who left state service • Total number of separations • Average retirement age • Number and percentage of employees who moved between agencies • Number and percentage of employees by diversity groups • Median age • Percentage of employees by age group for all employees • Percentage of WMS employees by age group

Next Steps

One Washington will continue to work closely with stakeholders and business owners to refine and implement the finalized set of operational performance measures.

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 consisting 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. See Section 3.4 for an illustration.

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 BI software procurement activity
- Finance/Procurement and BI system implementation
- HR/Payroll Software procurement activity
- HR/Payroll and BI system implementation
- Budget software procurement activity
- Budget system and BI 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 BI Software Procurement Activity Detail.

Initiative	Finance/Procurement and BI Software Procurement Activity
Overview and Components	Procure Finance/Procurement and BI software. There are several major vendors who should be encouraged to compete in this area including CGI, Infor, Oracle, SAP and Workday. Consistent with the guiding principle by One Washington for a unified software deployment approach One Washington will conduct procurement and contracting of the BI software during FY2019 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

Initiative	Finance/Procurement and BI Software Procurement Activity	
	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 BI 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 BI 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 BI 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 BI, will bring immense benefits to state operations, data quality and decision-making.	

Table 3.1.2: Finance/Procurement and BI Implementation Detail.

Initiative	Finance/Procurement and BI 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 BI solution.	
	Design, build, test and deploy initial release functionality to Wave 2 agencies. This includes the same Finance/Procurement/BI 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 OCM 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 BI 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 BI 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 BI, 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 CGI, Infor, Oracle, SAP and Workday. 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 BI 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 BI Implementation Detail.

Initiative	HR/Payroll and BI 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 BI 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 OCM 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 BI 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 CGI, Infor, Oracle, SAP and Workday. 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 BI 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 BI Implementation Detail.

Initiative	Budget and BI 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 BI 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 OCM 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 BI 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 the 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 vs. 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 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.

- 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.	
Implementation Considerations	People	A review of business processes and policies will involve many individuals across Finance, Accounting, HR/Payroll and Budget functions in both management 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, CBAs 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 and 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.	

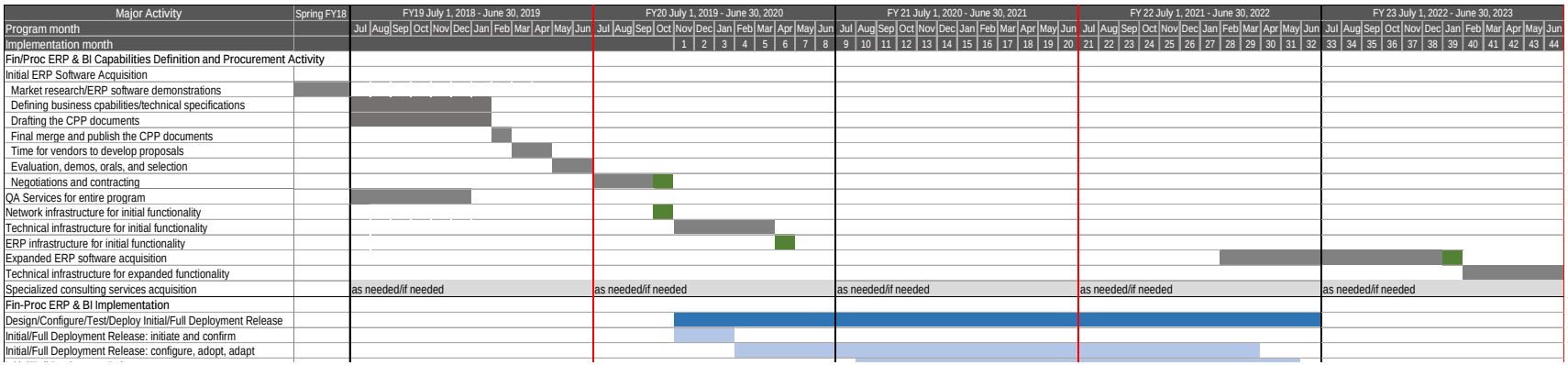
3.4 Gantt Chart

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 Master Gantt document in the appendices for details



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
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					

Figure 3.4.1 Partial Screenshot of the Overall Timeline for Technical and Non-Technical Initiatives

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

4.0 Recommended Staffing and 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 FY19, One Washington will focus on planning, procurement and preparation. As the Finance and Procurement technology project deploys in FY20, resources shift to the technology implementation. FY24 is a year when the Finance, Procurement and BI 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. BI 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 BI 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 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 BI
- 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.

Summary	Description	Total	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Salaries/Wages	State staff costs	$ 32,697,287	$ 1,037,327	$ 3,458,708	$ 5,923,147	$ 6,961,897	$ 3,722,013	$ 1,204,577	$ 5,481,359	$ 4,908,259
Benefits	State staff benefits	$ 15,654,868	$ 382,677	$ 1,545,306	$ 2,772,734	$ 3,225,576	$ 1,941,117	$ 829,215	$ 2,624,982	$ 2,333,260
Professional Services Contracts	Contract staff costs	$ 175,428,743	$ 3,466,027	$ 16,024,767	$ 31,179,594	$ 37,864,911	$ 23,337,535	$ 7,255,388	$ 29,956,361	$ 26,344,160
Goods and Services	Includes hardware, software, facilities and training	$ 80,180,216	$ 370,376	$ 5,569,482	$ 8,452,841	$ 8,866,685	$ 8,150,054	$ 15,033,541	$ 17,008,256	$ 16,728,982
		$ 303,961,114	$ 5,256,406	$ 26,598,265	$ 48,328,315	$ 56,919,069	$ 37,150,720	$ 24,322,720	$ 55,070,958	$ 50,314,661

The program budget includes estimates for the following:

- One Washington state employee salaries and benefits
- Professional services contracts and staffing costs
- Goods and Services including ERP and BI software costs, facilities and training costs

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 BI 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.

Table 5.2: Cost Assumptions.

Assumptions	
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 BI 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 BI 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.

Assumptions
10. In addition to executive program management, an additional role 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 $1,000 per month cost to account for facilities.
17. This estimate includes the WA budget assumption that state FTEs incur a $1,000 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 BI/Analytics software are assumed to have their responsibilities transitioned to state resources by the implementation of Budget/HR/Payroll
20. Every wave/deployment includes six months of post-production support with two Accenture and two state resources. Accenture will support for 18 months after the second initial functionality Finance/Procurement go-live (Wave 2) to help produce the first CAFR in the new system.
21. Estimate does not include labor costs for post-implementation maintenance and operations team. These costs are assumed to be already funded.
22. The cost of expanded identity and access management (IAM) is not included in the estimate.
23. The cost of expanded master data management (MDM) is not included in the estimate.
24. Costs for expanded connectivity infrastructure are not included in the estimate.
25. Costs for the implementation of an FTP Server are not included in the estimate.
26. Costs for additional encryption protocols are not included in the estimate.
27. 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.
28. Costs associated with decommissioning/remediating agency systems are not included in the estimate.
29. Costs for WA agency resources contributed "in-kind" are not included in the estimate.
30. Costs for WaTech resources contributed "in-kind" are not included in the estimate.
31. Estimate does not include agency backfills (i.e. subject matter experts working on One Washington).
32. All onshore resources will be co-located in Olympia, WA.
33. Estimate includes allocation for state staff turnover and replacement, as well as change orders, amendments and adjustments to contractor resources.

6.0 Funding and Financing Strategy

6.1 Introduction and Background

Selecting the best funding and financing approach is an important part of the One Washington Program Blueprint. There are four key factors to address.

1. What approach meets the requirements and expectations of the Governor and Legislature to authorize this large undertaking, and to assure the execution of the One Washington program operates in a manner consistent with that authorization.
2. What approach facilitates the ability to manage the Program efficiently, with access to resources in a manner that is timely, sufficient and predictable, with cash flows available to achieve desired outcomes.
3. What approach correlates the benefits received by the stakeholders (i.e. agencies, the federal government, suppliers) to an appropriate obligation to share in funding the Program.
4. What approach is most economical, maximizes the return on investment, and provides the highest likelihood of achieving the project goals documented in the Blueprint.

The budgeted expenses for the One Washington program (described in detail in Section 5 of the Blueprint) amount to $303.9M. This budget encompasses an 8-year timeframe. The budget is organized into phases, to help understand the component activities and their timing:

- Expenses related to pre-implementation activities. This part of the budget includes costs for readiness initiatives and business process redesign initiatives to generate immediate business value that simplify and accelerate the implementation work, thus saving time and money. This also includes the resources to accomplish ERP software selection.
- Expenses related to implementation activities. This is the largest part of the budget. It includes costs of the ERP software as well as costs to design, configure, test and implement the software. Also included are non-technology initiatives that improve business processes, policies and performance. These expenses are organized into the four functional domains, i.e. Finance, Procurement, Budget and HR/Payroll.
- Expenses related to post-implementation operations and management activities. This includes the ongoing subscription costs for the ERP software and labor costs (both state employees and contractors) for ongoing system operation. Post-implementation costs that fall within the 8-year timeframe are included in the $303.9M budget.

The nature and timing of costs across these three phases influences the analysis of different funding and financing options.

The One Washington budget is also itemized by the nature of the costs. The budget itemizes costs for:

- State employees (i.e. salaries, fringe benefits and other employee related support costs).
- Contractors and consultants, to support and perform activities across all phases
- ERP software and related information technology costs, such as technology infrastructure.

Again, the nature of these costs significantly affects the analysis of different funding and financing options.

Key assumptions in the One Washington Program Blueprint also affect the analysis. Examples of key assumptions, documented in the Blueprint, include the following:

- Scope of functionality, i.e. Finance, Procurement, Budget and HR/Payroll
- Implementation phasing

- Mix of state employees and contractor resources
- Nature of the ERP software acquisition and deployment, i.e. perpetual license for an on-premises deployment versus Software as a Service (SaaS) in a Cloud deployment
- Degree of business process reengineering and organizational change management

All these variables influence the analysis. To develop the best approach, we will consider:

- When costs are incurred
- Which costs are eligible and appropriate to be financed over time vs expensed annually
- What is the most economical combination of options

In the past a popular approach to funding and financing ERP programs like One Washington, has been to treat the entire program as a capital project. States would make a multi-year capital appropriation, usually for the entire program budget. Then states would issue tax exempt debt, with the concept that the ERP system was a capital asset that could be financed. The proceeds of the debt would be the source of working capital, thereby assuring access to resources in a timely and predictable manner. The repayment of the debt, after the system was in production, would be funded, in part, by the stakeholders receiving benefits (i.e. the agencies, the federal government and the suppliers). This overall approach, with numerous variations, has been used by many states. However, the evolution of the ERP industry, and introduction of SaaS and Cloud products, creates new issues for this model. In a SaaS/Cloud model, the state technically does not own the complete system; rather it is paying for use of the software on an annual subscription basis. If the state does not own the complete system, what costs, if any, are appropriate to be treated as a capital project creating a capital asset financed by tax exempt debt? This question is being examined by experts in the industry. The Governmental Accounting Standards Board has a project underway to determine if revised accounting guidance is needed. Until there is updated authoritative guidance, Washington state is not alone in exploring other financing options.

6.2 Options

As described above, states and other public-sector entities have explored numerous options for funding and financing programs like One Washington. The Blueprint team examined examples to understand the range of options. With the change in technology and no change in accounting practices, there is not a single “right answer”. We found different combinations of options applied to the unique local circumstances. To understand this range of options we created the logical model illustrated in Figure 6.1.

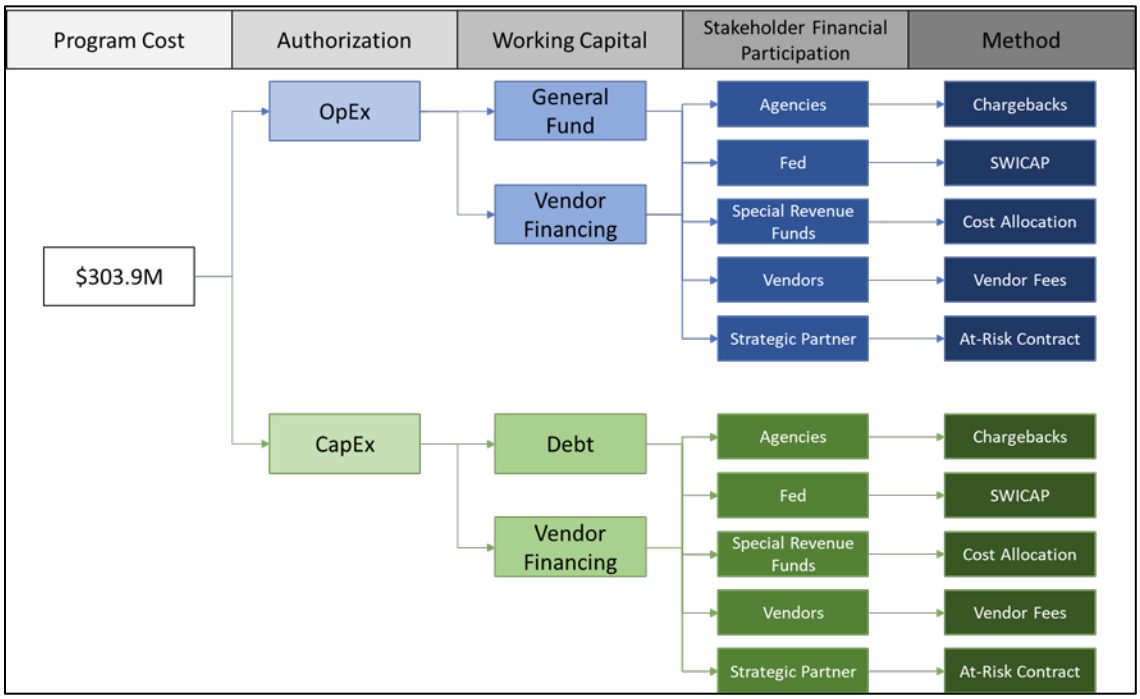


Figure 6.1: Range of funding and financing options derived from other states

Budget Authorization for the Program to incur obligations, Are typically in one or more operating budgets, either Operating Expenditure (OpEx) or Capital Expenditure (CapEx). CapEx is money expended or appropriated out of the capital fund or budget. OpEx is money expended or appropriated out of the operating budget or general fund.

The advantage of a single authorization/appropriation for the entire program budget, either OpEx or CapEx, is to provide timely and predictable access to resources. The advantage of multiple authorizations/appropriations, again either OpEx or CapEx, is to increase control over the Program. Some states have sought to maximize both advantages by making a single authorization but conditioning the release of funds on successfully achieving specific milestones or gateways with performance being reviewed by a designated authority.

Working Capital is the portion of the authorization available for current usage. It is important that access to working capital be timely and predictable for the One Washington program to be implemented efficiently.

In the context of an authorization from the operating budget, the source of working capital is the General Fund. The advantage of this option relates to the economics, as the foregone interest income that could be generated from investing General Fund dollars in the short term is more favorable than the interest expense from issuing debt. Another option for the source of working capital, in the context of an authorization from the operating budget, could be from a third party. Many vendors, such as ERP system implementers and ERP software providers, are willing to provide degrees of financing for working capital. This is usually done by deferring fees, which smooths cash flow needs over a multiple year timeframe. The advantage of this option to the state is to smooth and/or minimize near-term and potentially large cash outflows. The disadvantage is that third parties will charge an interest expense that is typically larger than both the interest expense from debt and the foregone interest income from investing General Fund dollars.

In the context of an authorization from the capital budget, the source of working capital is the proceeds from a debt issuance. Most often this is in the form of tax exempt debt, for example short term bonds, notes, or certificates of

participation. Taxable debt may also be an option, although typically the interest expense will be 50-150 basis points higher than tax exempt debt. The advantage of debt financing is that it provides the Program with timely and predictable access to resources. Also, since repayment of debt can be amortized over a long timeframe, this option allows the state to match repayment of the debt with realization of the longer-term financial savings and other benefits. One disadvantage of debt is the interest expense. Also, not all types of costs are appropriate for debt financing. This decision is dependent on the relationship of the cost type to the creation of the asset. Like the description under OpEx, vendors can also provide working capital in the context of CapEx. The advantages and disadvantages are also similar.

Stakeholder Financial Participation refers to having entities that enjoy the benefits from the ERP program participate in reimbursing the costs of the Program. The underlying theory is that stakeholders using the new ERP system, and thereby sharing in the benefits of the system, should also participate in the funding of the system. There are many forms and examples.

- Financial participation by the state agencies. The One Washington program will deliver numerous business benefits to all the agencies of state government that use the new ERP system. This includes all agencies, except for the institutions of higher education (who have separate systems that will interface data to One Washington). This option is typically operationalized by user fees, often referred to as chargebacks. Chargebacks usually commence after the new system is put into operation (i.e. chargebacks for Finance/Procurement would occur upon go-live of that functionality and chargebacks for human resources/payroll and budgeting would occur upon go-live of that functionality). There are several methods to calculate the amount of the chargebacks, for example by dollar volume, by transaction volume, by FTE user counts, etc. Washington currently uses a chargeback approach to offset the cost of AFRS and other enterprise systems, so the approach going forward would be to replace the current chargebacks with a new chargeback approach and a newly calculated amount. The precise details for determining agency chargebacks should be determined when related implementation details (i.e. precise go-live dates) are confirmed. The advantage of financial participation by the state agencies is that it correlates the degree of agency benefit commensurate with the degree of the chargeback and as a result gives them an ownership stake in the new system. The disadvantage, is that developing the chargeback methodology and achieving agency buy-in will be time consuming. This will be complicated to the extent that agencies feel they cannot achieve and capture financial savings that are adequate to pay the charges especially if they are higher than what is charged currently.

- Financial participation by the federal government. The One Washington program will deliver numerous business benefits to programs with federal funding using the new ERP system. Federal participation is typically operationalized by cost allocation directly to the federally funded program or indirectly through the statewide cost allocation plan (SWICAP). The cost allocation is typically implemented after the new system is put into operation (i.e. seeking federal financial participation for Finance/Procurement would occur upon go-live of that functionality and federal financial participation for human resources/payroll and budgeting would occur upon go-live of that functionality). There are several methods to calculate the amount of the cost allocation, which are defined by federal guidance published in Title 2 of the Code of Federal Regulations 200.416 – Cost Allocation Plans and Indirect Cost Proposals, often referred to as the “super-circular”. The precise details for determining financial participation by the federal government should be determined when related implementation details (i.e. precise go-live dates) are confirmed. The advantage of financial participation by the federal government is that it links the degree of benefit for a federally funded program to the degree of funding. The disadvantage is that federal guidance must be followed and federal approval must be achieved to ascertain exactly what timing, amounts and basis of allocation will be acceptable.

- Financial participation by special revenue funds. To the extent that programs operated by state agencies are funded by special revenue funds (i.e. funds other than the General Fund or the federal government), these programs also receive benefits from One Washington, so these special revenue funds could also be assessed a portion of the costs. Like federal financial participation, this option is typically operationalized by a cost allocation directly to the special revenue fund program or indirectly through a cost allocation plan. The cost allocation is typically implemented after the new system is put into operation. The basis for calculating the amount of the cost allocation would be defined by state guidance. Again, the precise details for determining financial participation by special revenue funds should be determined when related implementation details (i.e. precise go-live dates) are confirmed. The advantage of financial participation by special revenue funds is that it links the degree of benefit for programs with a dedicated funding source to the degree of funding. The disadvantage is that the special revenue fund might have conflicting priorities and limited resources.

- Financial participation by vendors. In certain cases, the One Washington program will deliver business benefits to vendors. Typical examples include the ability for vendors to electronically register, make available and sell their goods and services to state agencies, ability to invoice and receive payments electronically, and ability to interact with the state in a more digital and less manual manner. This option is typically operationalized by the vendors paying fees, which result in revenue to the state that could be used to offset the cost of the One Washington program. The implementation of the fee structure would be coincident with the go-live of new functionality. Washington currently employs certain vendor fees, so the approach going forward would be to review and revise the fee structure. The precise details for determining a revised fee structure should be determined when related implementation details (i.e. precise go-live dates) are confirmed. The advantage of financial participation by vendors is provides another revenue source for the state. The disadvantage is the vendors might raise their fees and prices, thereby negating the net economic benefit.

- Financial participation by the strategic partner. This option is a variation of the vendor provided working capital described earlier. The One Washington program will deliver tangible and measurable business benefits in the form of both “hard dollars” and “soft dollars”. This raises the possibility for the strategic partner to enter into a so-called “benefits funded” or “fees at risk” commercial arrangement. In this option, the strategic partner would defer fees until the realization of mutually agreed upon business benefits, then be paid those fees from a portion of the business benefits. This is often referred to as a gainsharing relationship. The advantage of this option is that it ties the timing and amount of costs to the actualization of business benefits, thereby decreasing the need for upfront working capital. The disadvantage is that the partner would need to increase the potential gain share to account for the timing and risk of payments.

States have adopted various combinations of these options. It is important to note that any one of these options must take into consideration the fairness in proportion to participation by the respective stakeholders. In particular, the federal government will look to confirm the methodology allocates cost fairly to the federal government. For example, they would look for any assessment that allocates costs to federal funds use the same methodology and metrics to assess cost to the general fund and look to ensure any cost assessed on vendors are appropriately credited to the cost before charges are allocated to federal funds.

As a component of the May 2018 ERP Experience sessions, the Program met with representatives of each presenting software vendor to discuss financing options for SaaS implementations. The Program goal was to explore financing options available to state government for project deployment costs when implementing a non-tangible asset as in a Cloud-based offering. Each of the four vendors that the Program met with offer a third-party financing option, similar to

what is available in private financing. Most of the financing options were shorter term than traditional bond financing. Options varied on what integration and implementation costs could be included in the financing package.

One Washington is also exploring another option called 'Everything as a Service' (XaaS). In this model, a single vendor provides a service to the state that includes the software, platform, infrastructure, onboarding and operations as well as future innovation. A fixed price and terms of service (including length of time) is defined in the procurement and contracting process. The vendor will be the single point of accountability for the ongoing delivery and maintenance of the ERP platform. This will enable the state to redirect executive focus to service delivery, agency readiness and enablement rather than technology implementation.

6.3 Next Steps

Based on this analysis, and using the logical model presented earlier, the state will finalize the One Washington funding and financing approach to align with the next phase of budget planning. Over the next six months there are many parties to be consulted, for example:

- Within the Executive branch: the Office for Financial Management, the Department for Enterprise Services, and the Office of the Governor
- The Legislature, including the Legislative Evaluation and Accountability Program (LEAP)
- State agencies
- The federal government, specifically the federal cognizant agency for cost allocation
- The Office of the State Treasurer and bond counsel
- Vendors, and
- The strategic partner

The One Washington program will launch a proactive outreach and communication process, with a strong emphasis on the One Washington governance model. Each of the stakeholder groups will have interests that will be addressed in the governance model and factored into the funding and financing approach. For example, state agencies will want to understand the basis of chargebacks and their role in the ongoing conduct of the Program. As another example, the federal government will require compliance with guidance for federal financial participation and prior approval for cost allocations. Vendors would seek to understand the business case that correlates their fees to benefits. The One Washington program management office will organize and conduct these discussions. These discussions should focus on the four key factors that are listed in the introduction section.

The conclusions from these discussions will inform the Governor's next biennium budget proposal (December 2018) and the Legislative review and approval process (January-June 2019).

Current funding and financing for One Washington carries through June 30, 2019. The next round of funding and financing needs to be decided in time for the July 1, 2019 – June 30, 2021 biennium.

7.0 Risk Management Approach

7.1 Introduction

Risk management involves identifying, assessing, mitigating and managing a program's risks. All large ERP projects such as One Washington, are exposed to certain risks. Based on Accenture's experience with other government ERP implementations, risks can be organized into four broad categories:

- Project risks: Issues within the project that are obstacles to success
- Business risks: Negative business outcomes if the project is not successful at launch
- Technology risks: Technology to support the new functionality is not adequate or delivered on time
- External risks: Issues in the surrounding environment that can interfere with success

The Risk Management Approach will enable One Washington to create strategies that effectively address potential barriers to the success of the Program. Decisions and actions taken to address a given risk may impact other areas of the Program including the Program Blueprint, Integration Strategy and Plan, and BI Strategy.

Risk management will be implemented at all levels within the Program to ensure that the risks are mitigated at appropriate levels. Risks will be first managed at the team level, and then escalated, as appropriate, to the Program leadership or the Executive Steering Committee. This section describes the risk management approach and outlines the key activities and steps employed by the One Washington program.

7.2 Methodology

The One Washington program used a risk management framework based on Accenture's Delivery Methodology relevant to program planning. The approach will be updated as the Program moves into the implementation phase. For example, risks related to business operations in the Finance, Procurement, Budgeting and HR/Payroll business areas will be documented as we enter the implementation phase.

The program risks are documented and maintained in a 'Risk and Issue Log' stored on the One Washington SharePoint. These risks are reviewed and discussed in weekly project meetings. All identified risks are quantified by calculating the Risk Exposure. This quantification helps guide the priority and degree of attention that must be given to managing the risk. Risk Exposure is calculated as a function of the probability of the risk occurring and the impact if the risk occurred:

Risk Exposure = Probability x Impact

One Washington leadership team assigns Probability and Impact scores from 1 to 3 (1 = low, 2 = medium, 3 = high). The higher the Risk Exposure, the higher the risk priority. Risks that are rated 'high' are actively managed. Mitigation plans are developed for each risk with a greater emphasis on the high priority risks. High priority risks are also reviewed with the Program's Executive Steering Committee for additional input and guidance. Risks that are rated 'medium' or 'low' are placed on a watch list and periodically reviewed.

One Washington's risk mitigation strategy is to proactively reduce the impact or probability of risk occurrence. The strategy covers three characteristic actions for risk mitigation:

- Acceptance (retention) – Generally applies to the risk factors that may directly affect the success of the Program but are not in direct control of the Program. These risks are categorized as 'External' and must be

anticipated, planned for and monitored. Some examples of external risks are economic uncertainty and unexpected changes to laws, policies or budgets.

- Avoidance (elimination) – Typically occurs during the Program definition and planning phases where objectives, scope, schedule, work breakdown and program outputs are defined. For example, risk reduction is one of the key drivers in developing the One Washington phased agency/phased functionality implementation approach.
- Reduction (mitigation) – Implements control-based strategies to manage risk. The strategy identifies risk mitigation actions or activities that are incorporated into the Program plan. For example, one of the strategies to mitigate the risk of "agency change fatigue" is to develop a robust OCM plan.

The risk management process is a continuous cycle performed initially during program planning and continually refined throughout the Program. New risks may arise from a variety of sources, including:

- Identifying those previously missed or unforeseen
- Arising from major issues
- Initiated from the investigation of current risks
- Outcome or consequence of an external event (For example: new laws, policies, etc.)

Program risks as of publication date are summarized below in Table 7.1 (a current version of the risk log can be found on the OCIO website:

Table 7.1: Program Risks Ordered by Risk Exposure.

No.	Risk Description	Impact	Probability	Risk Mitigation Description	Risk Exposure
1	There is an interpretation of RCW 43.88.160 (5e) that limits the state's ability to pay for subscriptions for more than one year at a time. This may limit the state's negotiating leverage.	2	3	Part of Financing plan and strategy	6
2	Funding options may be limited in a SaaS model if the interpretation is that there are no assets for using Bond funding. Without capitalizing the implementation costs, the only option may be to finance it pay as you go.	2	3	Part of Financing plan and strategy	6
6	A Program with a long duration (8 years) has a high likelihood for stakeholder or staff turnover.	2	3	Knowledge (documentation) transfer Coordinating with existing HR teams	6
3	The Program may not secure funding at the level requested.	2	2	Provide comprehensive communication plan	4

No.	Risk Description	Impact	Probability	Risk Mitigation Description	Risk Exposure
				and updates to the Legislature	
9	The Program will compete for resources against other mission critical projects in the enterprise.	2	2	Comprehensive OCM plan (communication and updates to all stakeholders) Executive Steering Committee support	4
13	With a Program of this size, scope control will be challenging.	2	2	Program management (project management discipline), enterprise governance and OCM	4
15	There are many unknowns regarding technology/infrastructure scope, cost and time to implement that are outside the control of the Program (e.g. state network capacity).	2	2	Program management (project management discipline), enterprise governance and OCM	4
4	Specialized laws, regulations and policies that cause exceptional handling, reporting and/or work (i.e. 10-year recast) increase the complexity of the Program.	1	3	Will be part of Finance readiness group scope	3
10	The initial assessment of OCM readiness across the enterprise showed that many agencies do not currently staff/prepare for OCM to support a Program of this magnitude.	1	3	Comprehensive OCM plan (communication and updates to all stakeholders)	3
5	A Program with a long duration (8 years) has a higher likelihood of organization change fatigue.	1	2	Addressed in comprehensive OCM plan	2
7	With such a large group of impacted external stakeholders, there will be conflicting interests and high expectations.	1	2	Comprehensive OCM plan (communication and updates to all stakeholders)	2
8	Risk of success is inherently lower in a Program with significant business	1	2	Comprehensive OCM plan (communication	2

No.	Risk Description	Impact	Probability	Risk Mitigation Description	Risk Exposure
	process transformation impacting many users.			and updates to all stakeholders)	
11	Agencies have expressed concerns due to experiences with prior major administrative system implementations	1	2	Program management (project management discipline), enterprise governance and OCM	2
12	Due to the number of start and stops of prior enterprise modernization efforts, there is a lack of confidence that this time is real.	1	2	Comprehensive OCM plan (communication and updates to all stakeholders)	2
14	Resistance to the unfamiliar may lead stakeholders to want the new system to duplicate existing inefficient processes.	1	2	Program management (project management discipline), enterprise governance and OCM	2
16	Long term dependence on vendors could increase the cost to the state.	1	2	Two in the box approach to reduce reliance Knowledge (documentation) transfer	2
17	The proposed model for SaaS has not yet been implemented in another state.	1	2	Rely on other examples and lessons learned (counties, cities, organizations)	2
18	The SaaS providers may not be able to meet state security requirements.	2	1	We will coordinate with OCS to ensure the RFP clearly states security requirements	2
19	Ability to hire skilled state staff to fill program positions	1	2	Develop resource staffing plan including OCM	2
21	Incomplete or inaccurate data conversion and interfaces	1	2	Integration Implementation plan	2

No.	Risk Description	Impact	Probability	Risk Mitigation Description	Risk Exposure
20	Lack of coordination between technical and business operations	1	1	Technology (WaTech) included in project meetings	1

8.0 Appendices

8.1 Data Conversion

Appendix Data Conversion.docx

8.2 WSDOT Integration with One Washington

WSDOT Integration with One Washington

8.3 Business Process Models

BPM Procurement.pdf

BPM Finance.pdf

BPM Budget.pdf

BPM HR_Payroll.pdf

8.4 Report Back Presentations for Budget and HR/Payroll

Budget Report Back Deck.pdf

HR_Payroll Report Back Deck.pdf

8.5 Workgroups Participant List

Appendix Workgroups Particip

8.6 Wave 1 Agency Considerations

Appendix wave 1 considerations.pdf

8.7 Business Intelligence

Appendix Business Intelligence.docx

8.8 Master Gantt

MasterGantt (with summary Gantts).xlsx

8.9 Non-technology Summary Gantt

Non Tech Summary Gantt

9.0 Key Terms/Glossary

Term	Definition
AD	Active Directory
BI	Business Intelligence
BPM	Business Process Model
Budget	When capitalized refers to the enterprise business function
CAFR	Comprehensive Annual Financial Report
CAPEX	Capital Expenditure
COA	Chart of Accounts
CoE	Center of Excellence
COSO	Committee of Sponsoring Organizations
CPP	Competitive Procurement Process
EFT	Electronic Funds Transfer
ERP	Enterprise Resource Planning
FTP	File Transfer Protocol
Finance	When capitalized refers to the enterprise business function
GAGAS	Generally Accepted Government Auditing Standards
GASB	Governmental Accounting Standards Board
GRC	Government, Risk and Compliance
HR/Payroll	When capitalized refers to the enterprise business function
IAM	Identify and Access Management
IPaaS	Integration Platform as a Service
MDM	Master Data Management
OCM	Organization change management
On Prem /On-premises	Software that is installed and run onsite
OPEX	Operational Expenditure
Procurement	When capitalized refers to the enterprise business function
R&D	Research and Development
RFP	Request for Proposal
RFQ	Request for Quote
RFX	Request for "X" (catch all for all request for types)
RICEF	Reports, Interface, Conversion, Enhancements, Forms, Workflow
SaaS	Software as a Service
SFTP	Secure File Transfer Protocol
SME	Subject matter expert
SOA	Service-Oriented Architecture

The Program	Refers to the One Washington program
TPA	Third Party Advisory services
UAT	User Acceptance Testing
VPN	Virtual Private Network