

FY14 – FY17

IT BIENNIAL REPORT

TECHNOLOGY PERFORMANCE REPORT



Washington State · Office of the

Chief Information Officer

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EXECUTIVE SUMMARY

2017 TECHNOLOGY PERFORMANCE REPORT

Per [RCW 43.105.220](#), a Technology Performance Report from the Office of the Chief Information Officer (OCIO) is to be submitted each biennium. Overall, this report is intended to convey progress made towards the technology strategic plan. The RCW contains a number of required elements including:

- An analysis, based on agency portfolios, of the state’s information technology infrastructure, including its value, condition and capacity;
- An evaluation of performance related to information technology;
- An assessment of progress made toward implementing the state strategic technology plan, including progress towards electronic access to public information and enabling citizens to have two-way access to public records, information , and services;
- An analysis of success or failure, feasibility, progress, costs and timeliness of implementation of major IT projects, including but not limited to variance between planned and actual scope, schedule budget, performance outcomes and discussion of lessons learned.

This report incorporates 2013-15 biennial information and provides progress made implementing the state strategic information technology plan across two biennia covering the period from July 1, 2013 to June 30, 2017. A number of factors contributed to the creation of a report that spans two biennia. The report was not prioritized at the end of the 2013-15 Biennium. At that time, the merge of the OCIO with the Consolidated Technology Services agency was underway. In addition to the activities related to the merge, there were a number of competing areas of focus which stretched already constrained resources.

As you will note in throughout the report, there are a number of gap areas where improved business processes and data capture, a focus on performance management and/or increased analysis is needed. Addressing these gaps will support improvements in day-to-day operations and the quality and coverage of future biennial reports.

Having said that, there was progress made in a number of key strategic areas including major project oversight, open data, data center migration, accessibility, mobility and technology business management program. This report provides information on the progress made in these and other areas and highlights targeted areas for improvement.

The OCIO understands the importance and fundamental value of this biennial retrospective and intends to submit the report for the current biennium a timely manner.

INFORMATION TECHNOLOGY STRATEGIC PLAN:

The Office of the Chief Information Officer (OCIO) serves a unique role in state government that includes advising the Governor and Legislature on technology policy issues, establishing the state’s technology strategic direction, and setting enterprise-level technology policy. The OCIO provides information to state leaders so that they can make better, more informed decisions.

With OCIO strategy guidance from 2013-17, the state instituted activities to better address risks and enabled progression through the technology strategic plan. The OCIO engages the state’s technology community to understand business direction as input into priorities. The OCIO works closely with the Office of Financial Management (OFM) to ensure agency investments fit into the larger enterprise technology strategy. During this time, the state technology strategic plan was documented in several formats. Despite the format, emphasis was consistent over the years on:

- Securing government services and data through the use of technology
- Consolidating technology and services where appropriate
- Adoption of cloud technologies including platform-as-a-service and software-as-a-service
- Improving accountability and insight into technology investments
- Encouraging state agencies to systematically free up data for public consumption
- Inventory and plan for replacement of critical legacy IT system
- Enabling continuity after a disaster
- Study ways to attract and retain high skilled technology staff in state government

Included is an introduction to a new and improved one-page format of the Information Technology (IT) strategic plan for 2017-21.

INFORMATION TECHNOLOGY PORTFOLIO:

Since 2013, the state has enhanced and introduced solutions that improved tracking and transparency. Increased business intelligence and reporting support a shift towards data-driven decision making. Additionally improvements in the Technology Business Management (TBM) program provide an opportunity to better model and monitor ongoing IT investment throughout the state. The instituted enhancement supported technology assessments related to statewide investment of application/software, hardware, network and labor.

Grounded on agency data, IT spend ‘year over year’ increased from \$1.1 billion in 2015 to \$1.5 billion in 2017 with 52 percent of the investment dedicated to internal and external labor along with 18 percent

to central service agencies (i.e. outside services). Hardware and software captured 12 and 7 percent respectively with telecom (phones), facilities/power and other miscellaneous investments attracted the remaining investment dollars.

Agencies categorized investments by technology and report the highest percentage attributed to applications and end user support. Several percentage points lower was compute, network and IT management. The remaining was distributed across security, storage, data center.

In summary, the largest IT investment in the state is associated with labor in support of agency applications. Based on agency reported data, 59 percent of the state's applications are custom in-house built.

From a technology perspective, many state applications have the potential to carry "technical debt." Technical debt describes the backlog that occurs in technology and application development and operations, particularly when agencies think tactically rather than strategically about investments.

Historically, custom applications lack scalability making upgrades challenging. In many cases, changes to custom applications take more time to implement which can be problematic, especially when there is a need to change business rules quickly to adapt to fiscal and policy pressures.

Agencies identified 31 percent of their applications as having legacy traits and deemed mission critical or business essential. For reference, an application is determined to be legacy if it does not fully meet business needs for one or more of the following reasons:

- The system is not easily updateable due to complicated or unclear code, fragile interfaces or lack of useful documentation;
- Maintenance or modification of the system depends on expertise that is hard to find or prohibitively expensive;
- The system depends on software no longer supported by the vendor;
- Other risks identified by agencies, such as vendor instability, lack of alignment with enterprise architecture or lack of "bench strength."

As agencies submit funding requests to acquire new solutions and to modernize current systems, state leaders should give consideration to prioritizing replacement of mission/business systems identified as legacy applications whenever possible.

Within the state hardware portfolio, there was continued movement as agencies shifted from physical to virtual servers and cloud hosting services. Of note is the recent shift in spend on the type of hardware investment. More is now spent on end user hardware (desktop and mobile devices) than on application and network. This shift is also reflected in increases in end user support related to the proliferation of wireless network access to support a more mobile workforce. This trend will continue as newer applications integrate mobility with business systems.

As agencies adapt service delivery models to include mobility, there will be an increased demand for support of end user devices. The shorter lifecycle of mobile equipment will require more frequent investment than traditional desktops. Additionally, the continued upsurge in adoption of cloud technology and wireless connectivity has potential to increase pressure on the state security and network infrastructure during the next biennium.

INFORMATION TECHNOLOGY PERFORMANCE:

Between 2015 and 2017, there was increased emphasis on migration away from agency specific data centers to the State Data Center or external cloud environments. Accelerating the decommission of the outdated state data center in Office Building 2 (OB2) by three years saved the state over \$3 million annually in power costs and an estimated \$30.8 million in necessary operation upgrades to the OB2 fire suppression, electrical and mechanical systems. There was continued movement to get out of agency owned/leased data centers by June 30, 2019. As of the end of fiscal year 2017, 19 agencies were actively moving through their data center migrations and 26 agencies were completing development of their migration plans. All other agencies report compliance with policy requiring movement from agency specific data facilities.

The OCIO identified key critical success factors that resulted in improvements to major IT projects assessment practices. This activity also included work to identify and modify oversight process and procedures. These improvements position the state to gather improved project performance metrics in 2017-19 Biennium. Changes incorporated and showing value include:

- More clearly defined internal protocols that incorporated escalations and interventions through the Technology Services Board (TSB).
- Designed and implemented executive training for project sponsors, a key risk area.
- An updated project assessment tool that improves data about project risk areas whether the effort is under oversight or not.
- Requirement for a project readiness assessment prior to approval to ensure key risks have been proactively addressed.
- A gated approval process to ensure project health prior to moving to the next project stage.

Related to accessibility, the state continues taking steps to ensure that individuals with disabilities have full access to state programs and services. By 2017, the number of organizations who reported having an assigned accessibility coordinator increased to 98 percent. Seventy nine (79) percent of these same agencies have put an IT accessibility policy in place with the remaining 21 percent attesting to putting a policy by June 30, 2018.

There was an overall decrease in general government IT spending while higher education experienced a marked increase in spend as a result of the University of Washington's investment in an Enterprise Resource Planning system modernization project.

From an IT investment perspective, adoption of a standard technology cost reporting taxonomy has enabled Washington to bolster benchmarking capabilities thus allowing state leaders to compare and benchmark against peer agencies, government function, other governments and private companies.

IMPLEMENTING THE STRATEGIC PLAN:

Regardless of the format, there was continued progress towards achieving the strategic goals and priorities.

In the era of digital government, data protection has become paramount in an attempt to address such issues as online privacy protection and identity theft. Virtually every government service now involves the collection, processing and storage of citizen data. With growing threats in both volume and sophistication to individual privacy, infrastructure stability, and preserving the continuity of commerce

in the event of a cyberattack, protecting the state's digital infrastructure is both a national security and economic priority. Washington State created the Office of Cyber Security (OCS) in 2015 and the Office of Privacy and Data Protection in 2016 to address the ongoing threat. OCS respond to increasing threats to individual privacy, infrastructure stability and preserving the continued of commerce in the event of a cyberattack. The Office of Privacy and Data Protection ensures that state government protects citizen privacy.

Emphasis on security and privacy education helped strengthen the state portfolio. Based on assessment responses, state agencies are investing in privacy and security, and continued support of additional training on managing and protecting citizen data.

With citizens consuming data and services at all times of the day from all places in the world from a variety of devices, there was intensified emphasis, awareness and activities in support of improving access to public information and citizen self-service. As a result, agencies expanded citizen access to public information as witnessed by agency plans and increases in datasets posted to the state [Open Data site](#), and the Washington State Open Data Bridge. The percent of major agency applications accessible and optimized for mobile devices has gained momentum, with agencies reporting increases in overall accessibility and citizen self-serve.

A number of statewide practices were and improved through new or updated state technology policies. Policies are a critical component of the enterprise architecture. Policy and standards improve accountability by providing guidelines and clear expectations for state agencies, and help the state enterprise run more smoothly. New and/or updated policies reflect changes in the industry, the law, public expectations and advances in technology.

Servers have evolved from physical to virtual and that virtual progression is now extended to the cloud. Adoption of both private and public cloud Infrastructure as a Service (IaaS) has progressed at a measured pace. Software as a Service (SaaS) solutions have proliferated to cover the entire spectrum of business needs. The state has federated its enterprise identity management services to deliver a single sign-on user experience growing from 16 different SaaS environments in 2013-15 Biennium to over 190 environments in 2015-17.

State leaders have increased insight into technology spending. More questions can be answered quickly using data readily available through the TBM program. With the move to standards taxonomy and practices in 2016, the state is a recognized frontrunner in the public sector. Increasing numbers of state agencies now utilize the reporting and analysis capabilities to evaluate and manage spend.

In 2016, the OCIO reinstated the collection of a standard set of data about the statewide application portfolio. This data is analyzed in conjunction with spend data to help inform IT strategy moving forward. With this additional information, the state has trending information on the number of legacy applications in the portfolio as well as modernization efforts completed or in-flight to minimize technical debt. Highlighted in this report are 13 major IT modernization projects with estimated budgets totaling \$84 million and completed prior to the end of 2015-17 Biennium.

The state faces a 'silver tsunami' as the knowledge and skills of an aging IT workforce will be exiting state service in the coming year. As of 2015, nearly 50 percent of the state's technology workforce was eligible for retirement within the next five years. As a result, the state CIO prioritized workforce

development and recruitment within the state’s strategic plan. One of the results was a partnership with OFM’s State Human Resources office and the OCIO collaborating to initiate a job class study for IT classifications. The goal of this multi-year statewide job class study is to build a more modern, competitive job class structure to attract and retain talent. This is particularly urgent as the state is in competition with some of the biggest brand names in technology in the world including Microsoft, Disney, Amazon, etc. Published studies continue to report individuals joining the public workforce simply do not want to spend 40+ hours per week using outdated systems, contributing to turnover. This means that senior leadership needs to stop viewing technology as simply a cost and instead, think of properly managed IT as an investment in its overall vitality.

MAJOR TECHNOLOGY PROJECTS:

With a desire to support an evaluation, approval and monitoring process throughout a project’s lifecycle to ensure the success and transparency of all business-driven major IT investments, the TSB adopted an updated [Policy 121 IT Investments – Approval and Oversight](#).

The OCIO undertook a significant effort to identify critical project success factors for major projects based on lessons learned identified in project wrap up reports, input from firms and individuals who provided project quality assurance on many of these projects, and independent market research.

The resulting changes includes a significant update to the project quality assurance standard, earlier visibility to the Technology Services Board of projects, particularly those that are challenged, more active follow-up with agencies to ensure critical issues are resolved and the development of a new risk/severity assessment tool.

During the timeframe included in this report, there were a total of 143 major IT projects under OCIO oversight, with a budgeted investment of \$1.09 billion. Oversight consultants tracked each agency project through the project lifecycle routinely providing an independent assessment of the projects overall health using these categorizations:

- Green (Low risk - Area requires no action beyond project management tools already in place)
- Yellow (Elevated risk - Area requires assessment and action to address the risk)
- Red (High risk - Area requires immediate action to mitigate risk)

At project close, the oversight consultants provided a final project evaluation using the same health assessment categorization. The final rating is based on the overall status of the project at its closing. If the scope, schedule or budget differed from the approved investment plan, the project’s final overall assessment changed to yellow or red. Closing comments reflect the reasoning behind color designation. Of the 75 closed projects under OCIO oversight, 75 percent closed in green status, 21 percent in yellow and 4 percent in red. Included in the 75, are 40 IT Investment Pool projects.

This report highlights business outcomes of 14 significant projects and includes a listing of all projects completed during the timeframe of this report.

SECTION 1: ENTERPRISE INFORMATION TECHNOLOGY STRATEGIC PLAN

The OCIO is legislatively mandated to prepare and lead the implementation of a strategic direction for information technology in state government. The Office is responsible for:

- Providing enterprise architecture for state government
- Supporting standardization and consolidation of technology infrastructure
- Establishing standards and policies for efficient and consistent operations
- Creating and nurturing a cohesive operating technology community
- Providing technology expertise to improve the business of government
- Fostering innovation and experimentation to bring modern capabilities to government
- Educating and informing policy leaders about emerging technology
- Creating technology investment clarity and alignment, while identifying opportunities for savings and efficiencies in technology expenditures

The Technology Services Board (TSB) as described in [RCW 43.105.287](#), provides consultative and other support in the creation and realization of the strategic technology vision in a number of ways. The Board focuses on information technology (IT) strategic vision and planning, enterprise architecture, policy and standards, and major project oversight. Members include legislators, business leaders, agency directors, a local government and a labor representative.

Through the 2013-17 biennia, the state technology strategic plan was captured in multiple formats while retaining emphasis on:

- Securing Government Services
- Consolidating technology and services where appropriate
- Adoption of cloud technologies including platform-as-a-service and software-as-a-service
- Improving accountability and insight into technology investments
- Encouraging state agencies to systematically free up data for public consumption
- Inventory and plan for replacement of critical legacy IT system
- Enabling continuity after a disaster
- Study ways to attract and retain high skilled technology staff in state government

With continued emphasis on elements from the previous strategic plan, Figure-1 is an updated 2017-21 Enterprise Technology Strategic Plan published by the OCIO in July 2017.



State of Washington

Enterprise Technology

Strategic Plan: 2017 - 2021



Public facing services & information tailored to every constituent & to improve the effectiveness of staff, processes & systems.

Information technology (IT) is seen as a **strategic & dependable** partner to business leadership.

We **operate** in a way that builds trust with our authorizing environment & the customers we serve.

We believe **true innovation** comes from thoughtful experimentation & incremental development.

Efficient & Effective Government



Create opportunities for operational efficiency & **improve** constituent access to services

- Consolidate common technology & services
- Pursue brokered service options
- Maximize state's buying power
- Create constituent focused portals
- Develop accessible & responsive designs
- Increase access to open data

Accountable IT Management



Develop accountability & transparency while managing with **integrity**

- Evolve portfolio management and technology business management to support decision making
- Expand transparency dashboard
- Improve visibility into alignment
- Strengthen business driven governance
- Continuously improve technology lifecycle management
- Mature project management & related practices

IT Workforce



Recruit, develop & retain exceptional technology staff & leaders

- Create & maintain a competitive job classification structure
- Create an enterprise workforce development strategy
- Re-imagine management practices to foster employee empowerment & engagement
- Create mobility friendly facilities
- Implement mobility friendly work practices
- Enhance mobile device management

Enterprise Architecture



Identify strategic technology investments to support common business needs/functions

- Build EA program and discipline
- Evaluate options for shared solutions across the state or business "ecosystems"
- Identify common business practices that can be supported by shared solutions
- Increase capacity to manage & share information
- Modernize infrastructure and applications

Security & Privacy



Find & stop security risks while **increasing** privacy awareness

- Invest in top cybersecurity talent
- Proactively assess application security
- Continuously improve state defenses
- Improve policy & standards
- Build capacity for Washingtonians to protect their privacy
- Provide agencies with tools to improve privacy practices

July 2017

Figure 1 Strategic Plan 2017-2021

SECTION 2: INFORMATION TECHNOLOGY PORTFOLIO

Improving Portfolio Management

Technology Portfolio Management includes the ongoing review and assessment of current and planned technology investment to determine health and alignment to the strategic plan and priorities, the overall state architecture. The OCIO has responsibility for the statewide portfolio management program and agencies have responsibility for their internal practices.

Based on analysis during the 2013-15 Biennium, gaps identified in the state's technology portfolio profile revealed a low maturity across existing portfolio management practices. In an effort to mature the technology portfolio program, in 2015-17 Biennium, the OCIO instituted improvements within the Portfolio Management umbrella that improved tracking and transparency. Improvements in business intelligence and reporting support the shift towards data-driven decision making. These changes position the state to advance the statewide maturity level in future biennia. Portfolio Management enhancements include:

- Refining the [Enterprise Technology Strategic Plan](#)
- Analysis of new project investments through the [IT Project Assessment tool](#). This tool is used to identify major projects requiring OCIO approval and oversight
- Refined processes that support evaluation and assessment of future investments [IT Decision Packages](#)
- Improved monitoring and tracking of active projects on the [IT Project Dashboard](#)
- Increased transparency into statewide IT expenditures and investments through the [Technology Business Management \(TBM\) Program](#)
- Implementing annual Application Inventory data collection

Related to management of technology projects, the OCIO has established process and procedures which agencies follow to develop and implement projects within IT portfolios. The IT project oversight team evaluate projects to ensure risk factors are assessed and achieve desired business value. Additionally, each project is evaluated in the context of a statewide portfolio of projects to validate the projects are strategically aligned with the state's priorities. As a key change, project assessment data is now maintained in a central repository and available for analysis.

For a number of years the OCIO has used a multivariate decision-making framework to prioritize IT investments for the Governor and the Legislature to inform budget building activity. The

FACTS AT A GLANCE

WHAT IS UNDER THE PORTFOLIO MANAGEMENT UMBRELLA?

- Technology Strategic Plan
- Business Driven Governance practices
- Enterprise Architecture
- Evaluation of Proposed Investments
- Periodic Health Checks on Current Investments
- Analysis of Current and Proposed Investments
- Financial analysis as part of the Technology Business Management Program

OCIO will continue to work with the Governor’s office and the Legislature to evaluate and rank IT Decision Packages according to a set of strategic criteria.

Establishment of the TBM program provides opportunity to better model and monitor ongoing IT investments. This has resulted in greater insight into the state’s technology expenditures. Based on agency maturity, TBM analysis can be used to tie agency service improvements to targeted technology investment. For example, the Department of Licensing (DOL) used TBM to support statute fee study requiring detail on each component part. With this information, DOL was able to identify the technology cost to deliver each license type. Now the department can look for efficiencies in the delivery of various licenses to consumers.

Assessing Value, Condition and Capacity

Based on agency portfolio information submitted to the OCIO in the 2015-17 Biennium, agencies spent over \$2.9 billion on labor, hardware, software and other goods to support existing and new technology investments as represented in Table-1. The highest percentage of spend is related to labor “internal and external.”

2016-2017 STATE IT INVESTMENT				
Cost Pool	2016	2017	2016-2017 Total	% of Spend
Internal Labor	\$546,125,618	\$603,515,416	\$1,149,641,035	39%
External Labor	\$199,193,790	\$185,706,560	\$384,900,350	13%
Outside Services	\$261,370,920	\$265,227,419	\$526,598,339	18%
Hardware	\$170,892,325	\$189,613,823	\$360,506,148	12%
Software	\$99,017,739	\$116,420,937	\$215,438,675	7%
Other	\$71,195,446	\$59,418,066	\$130,613,512	4%
Telecom	\$59,074,968	\$50,507,511	\$109,582,479	4%
Facilities & Power	\$40,540,044	\$42,293,730	\$82,833,775	3%
Total	\$1,447,410,850	\$1,512,703,462	\$2,960,114,312	100%

Table 1 (NOTE: “Outside Services” contains agency spend to central service agencies)

Starting in 2016 the OCIO requested an inventory of all agency applications and software to get a better understanding of the state’s application portfolio. The application inventory request was the first time in several years that agencies were asked to submit a comprehensive list of their agency application portfolios. This application data is available to be used in conjunction with financial data.

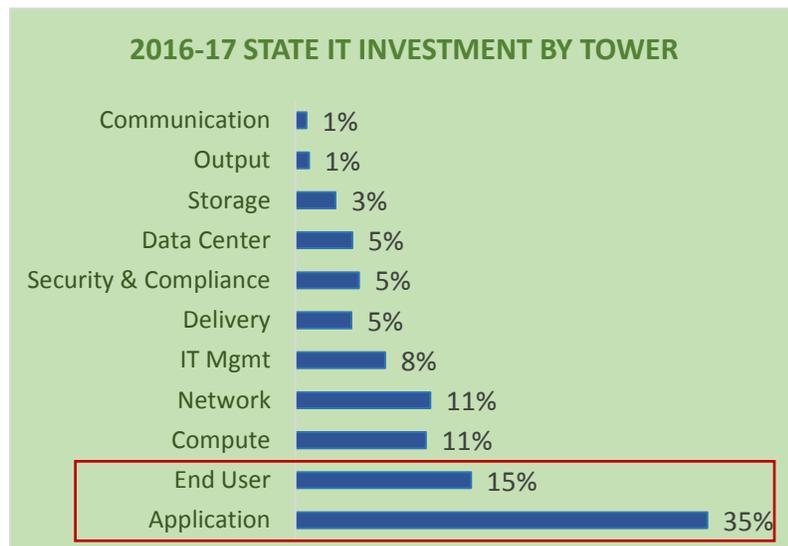


Table 2

The analysis of application and financial data shown in Table-2 revealed the majority of investments is attributed to applications and end user support.

Application/Software Assessment

From a technology perspective, applications have the potential to carry “technical debt.” Technical debt describes the backlog which occurs in technology and application development and operations, particularly when agencies think tactically rather than strategically about investments.

Imagine having a project that has two potential options; one is quick and easy and meets the burning need, but will require more modifications and upkeep in the future; the other has better design, but will take more time to implement. The quick and easy approach is often the chosen approach. The deferred work becomes technical debt. The more times the quick and easy option is chosen, the more the technical debt builds up.

In government, tight business-driven deadlines and funding cycles lead to building on top of existing application architecture to enable new capabilities, resulting in a mixture of different changes by different people. Over time, these systems become harder to sustain and may need investment or replacement. Many of these systems are categorized as legacy applications.

For the purposes of this report, agencies are asked to assess applications based on four criteria. Applications with one or more of the characteristics are considered to be legacy if:

- The system is not easily updateable due to complicated or unclear code, fragile interfaces or lack of useful documentation;
- Maintenance or modification of the system depends on expertise that is hard to find or prohibitively expensive;
- The system depends on software no longer supported by the vendor;
- Other risks are identified by agencies, such as vendor instability, lack of alignment with enterprise architecture or lack of “bench strength”

Legacy applications are assumed to be carrying technical debt and in need of investment to fully mitigate the legacy risk.

Based on agency submittals, the state 2016 Application Portfolio contains 3,790 applications.

Of these applications:

- 31 percent have legacy traits requiring remediation or replacement displayed in Figure-3.
- Over 59 percent were classified as Custom/In-House built as exhibited in Figure-4.

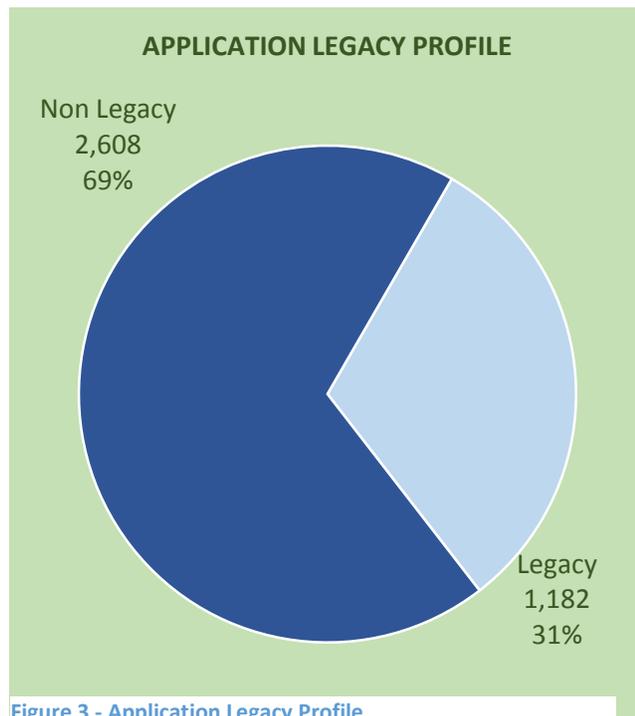


Figure 3 - Application Legacy Profile

- Further analysis reveals that 65% of the custom developed, legacy applications are considered mission critical or business essential to the organization. This represents significant risk to the state.

Historically, custom applications lack scalability making upgrades challenging. In many cases, developing or making change to custom applications take more time and money to implement and tend to be tightly coupled to the current business processes at the time of development. Custom built applications often suffer from a lack of documentation. As turnover occurs, the loss of institutional knowledge on the software and underlying technology can create significant issues with making even simple changes. Lack of investment in keeping underlying technology, such as database management systems or operating systems, is a common contributor to technical debt. All of this creates downstream problems when there is a need to change business rules quickly to adapt to fiscal, policy, organizational or other business pressures.

When making decisions around portfolio investments, decision makers must balance investments to modernize and extend current technology, including addressing legacy application needs, with investments in new technology solutions. When considering new technology investments, decision makers should also prioritize investments that promote 'evergreen' (routinely updated) platforms, solutions and products and enable reuse. Figure-5 compares the funding outcomes of legacy oriented funding requests with new technology funding requests. During this period, 13 percent of technology modernization requests received partial funding while 61 percent received no funding.

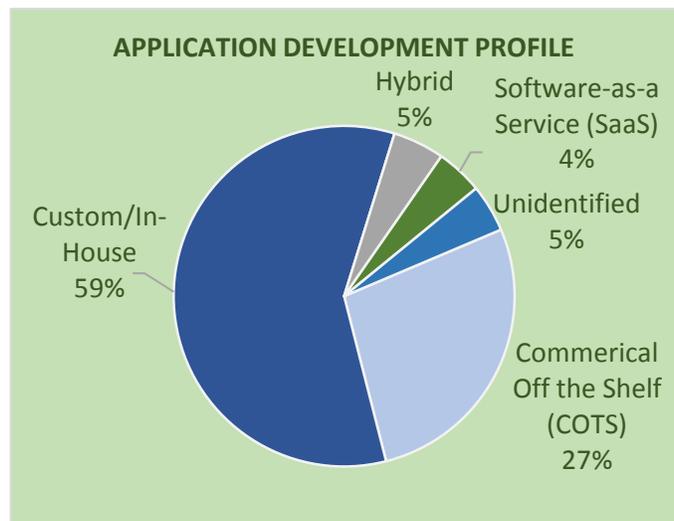


Figure 4 - Application Development Profile

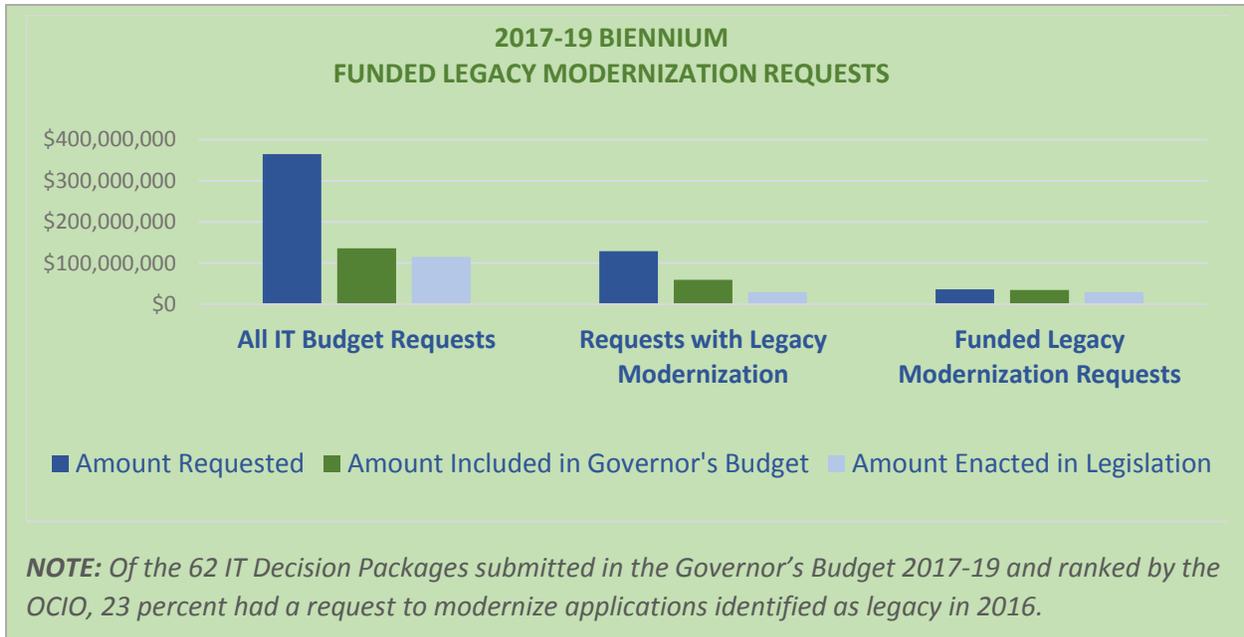


Figure 5 - 2017-19 Funding Profile

Hardware Assessment - Servers

During the report timeframe, servers evolved from physical to virtual and now to cloud based technology. With an eye on cost efficiency, agencies prioritized their server consolidation efforts, first through virtualization and subsequently with migration from agency specific data centers or facilities to cloud-based services and the state data center. By the end of 2015-17 Biennium, 19 agencies were actively moving through their data center migration and 26 agencies were completing development of their migration plans. All other agencies report completion of migration activity.

As a result of the rapid shifting hardware landscape, the OCIO did not ask agencies to submit a copy of their hardware inventory during the annual certification process. As a planned improvement, the OCIO will determine key performance measures related to hardware in the 2019-21 Biennium and improve data collection as indicated.

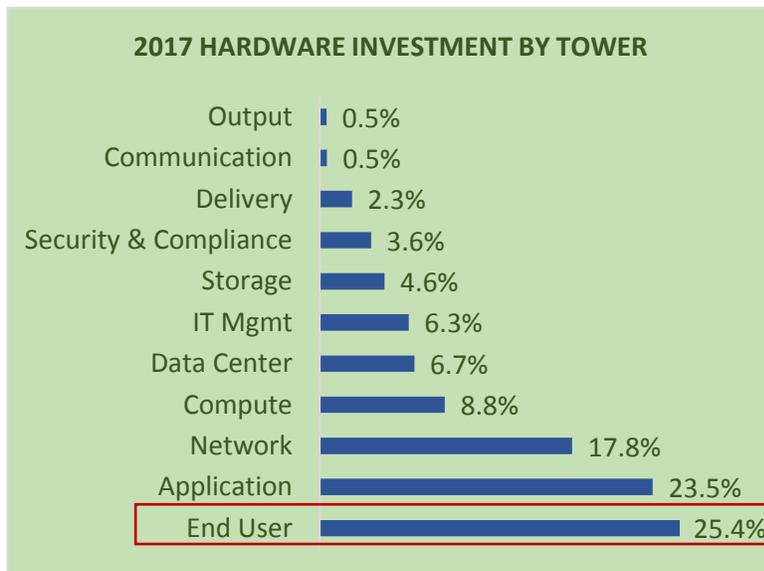


Figure 6 - Hardware Investment by Technology

As a planned improvement, the OCIO will determine key performance measures related to hardware in the 2019-21 Biennium and improve data collection as indicated.

Figure 6 provides information on hardware spending by tower. A key point is that investment in end user hardware (desktop and mobile devices) has now surpassed investments in hardware supporting application and networks.

With the proliferation of wireless network access, more workers are

moving from desktop workstation to mobile devices especially as newer applications integrate mobility with business systems. More employees can be productive while traveling from location to location.

Examples of agencies making investments in end user hardware to support a mobile working environment include the Department of Labor and Industries (LNI) and Washington State Patrol (WSP).

LNI made investment in their electrical inspections program that enable the worker to use mobile devices resulting in rapid delivery of inspection results along with increases in inspector productivity.

While WSP’s investment support the mobile office platform to ensure troopers have hardware in vehicles that meet modern law enforcement standards and support access to real time data exchanges with communications officers, other troopers, licensing, and criminal data bases to ensure officer safety.

When it comes to end user and their device(s), it is important to recognize the greatest investment is related to internal labor. This is highlighted in Figure 7.

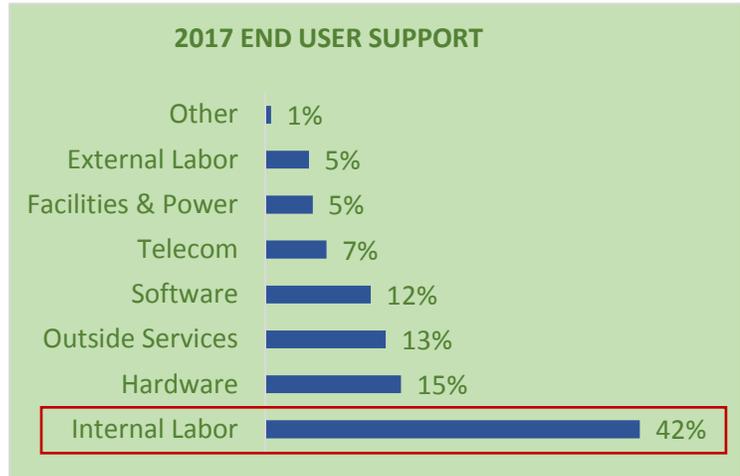


Figure 7 - End User Services

While desktop hardware has an average lifespan of 48-60 months, the lifespan of mobile devices is 24-36 months. This may drive increases as agencies respond to changes in service delivery and increased demand for mobile devices, investing in labor to support the end user will remain the primary investment.

Network Assessment

During the 2013-15 Biennium, the suite of enterprise level shared services expanded to include the Enterprise Network and Wireless (Wi-Fi as a Service). With adoption of cloud technology, wireless access and the convergence of voice and data, during this time, state agencies such as Department of Ecology (ECY), Department of Fish and Wildlife (DFW), Department of Natural Resources (DNR), and WSP made investment in their agency core networks to support the increased network traffic.

The continued upsurge in adoption of cloud technology and wireless connectivity will increase pressure on the state security and network infrastructure during the next biennium and we foresee investment requests to meet demand.

FTE Labor Assessment

As noted in Table 1 on page 12, internal and external labor make up 52 percent of the overall IT investment. While financial data is available for both internal and on external labor as reflected in Figure 8, additional data is not available to support deeper analysis on external labor, such as head count.

Using IT workforce reports we can identify trends over time:

- The IT workforce continues to makes up 5 percent of the state’s overall workforce.
- Between 2016 to 2017, the IT workforce increased by 3.3 percent to 3,370 FTEs.

- When assessing the distribution of the IT labor, application support dominates the workforce investment trailed by end user support, compute, network and other technologies.

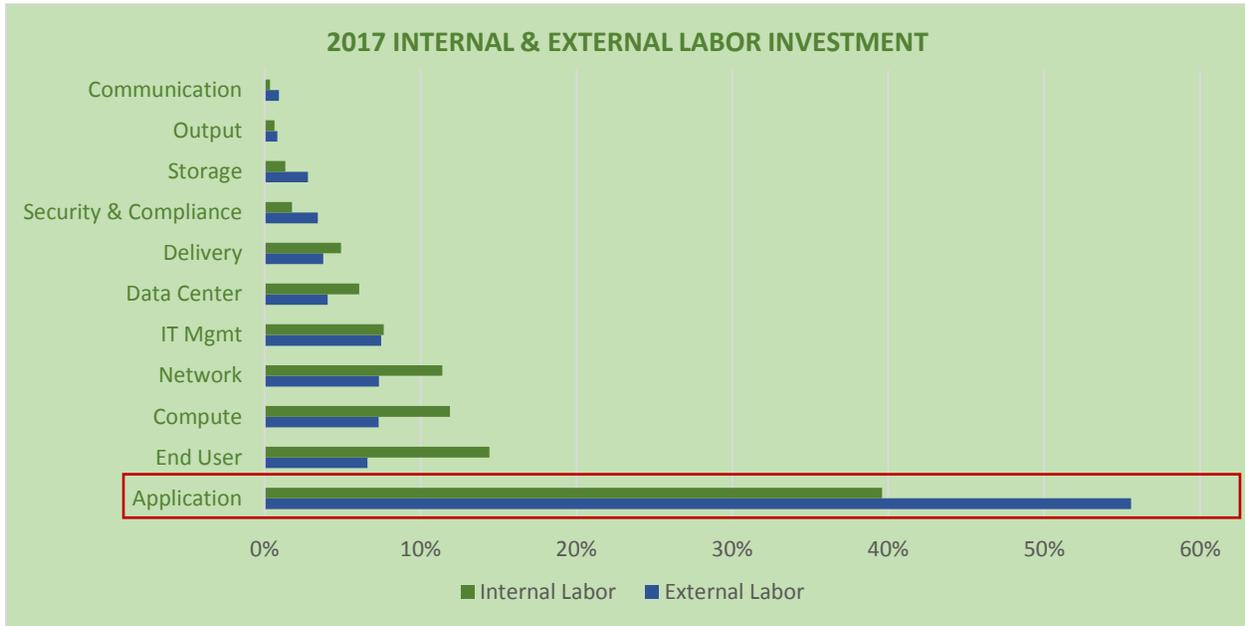


Figure 8 - Labor Investment

Based on the data, the majority of application IT labor is dedicated to Maintenance & Operations (M&O) as shown in Figure 9.

Attracting and retaining a highly skilled IT workforce has been a challenge in recent years due which resulted in an IT workforce classification study.

It remains to be seen the impact the IT classification study on trends and categorization of IT related labor will have on the workforce.

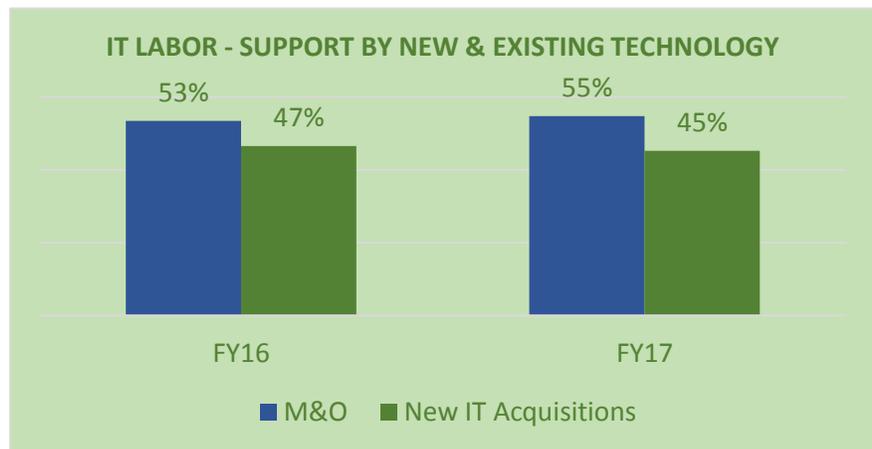


Figure 9 - Labor Investment for New and Existing Technology

Additional information on the classification study is captured in section 4 “IT Recruitment and Retention.”

In the current and upcoming biennia, the OCIO expects to make incremental progress towards a more holistic approach to Technology Portfolio Management. While ongoing emphasis on major projects and financial analysis of investments as enabled by the technology business management program will continue, other aspects of portfolio management are in need of more focus. Examples include development of a cohesive enterprise architecture, improvements technical oversight of proposed

investments, improvements assessment of the ‘value, condition and capacity’ of infrastructure, proactive management of legacy system risks, and improvements in performance management. Progress is dependent of availability of appropriate resources, including increased levels of appropriately skilled staff and acquisition of better technical tools to support data capture and analysis at the state and agency level.

SECTION 3: INFORMATION TECHNOLOGY PERFORMANCE

Capturing Performance

There are significant gaps capturing and reporting on performance metrics related to the statewide technology portfolio. OCIO lacks the ability to capture IT performance data from agencies and/or link performance to technology. OCIO is working to incrementally address this gap. The OCIO will work with agencies to develop standards that identify minimum datasets agencies are expected to capture and make available. The implementation of One Washington will also improve transparency to technology procurements, leading to improved analytics and intelligence.

The TBM program utilizes standard data elements to support reporting and analysis. The program supports benchmarking of spend.

The state has measurably increased access to public data through the Open Data Program and increases are tracked.

While major projects are a considerable focus of the OCIO, project information is reported and captured inconsistently based on the practice and maturity of the agency. Two gap areas are priorities: improved capture of lessons learned for analysis and redeployment and routine capture of business outcomes realized as a result of the technology investment. The OCIO will charter work efforts to improve reporting and analysis in these areas.

Three areas where performance metrics are routinely captured and used are discussed in the sections below. Additional information on advancements made in Open Data and privacy can be found in section 4 “Implementing the Strategic Plan.”

Financial Analysis

As industry standard taxonomies around technology expenditures have matured and are adopted for use in Washington, the state is well positioned to supply improved business intelligence about technology spend and performance, including benchmarking across the state government, by government function, other governments and/or against private sector.

Between 2015 and 2017, statewide IT expenditures increased 17 percent. As noted in Figure 10, while spend decreased in Government Operations, there was a sharp increase in Higher Education investments. The growth is attributed to modernization and replacement of Enterprise Resource Planning systems in higher education at the University of Washington. Figure 11 shows a corresponding upward trend in new IT acquisitions also associated with the higher education project.

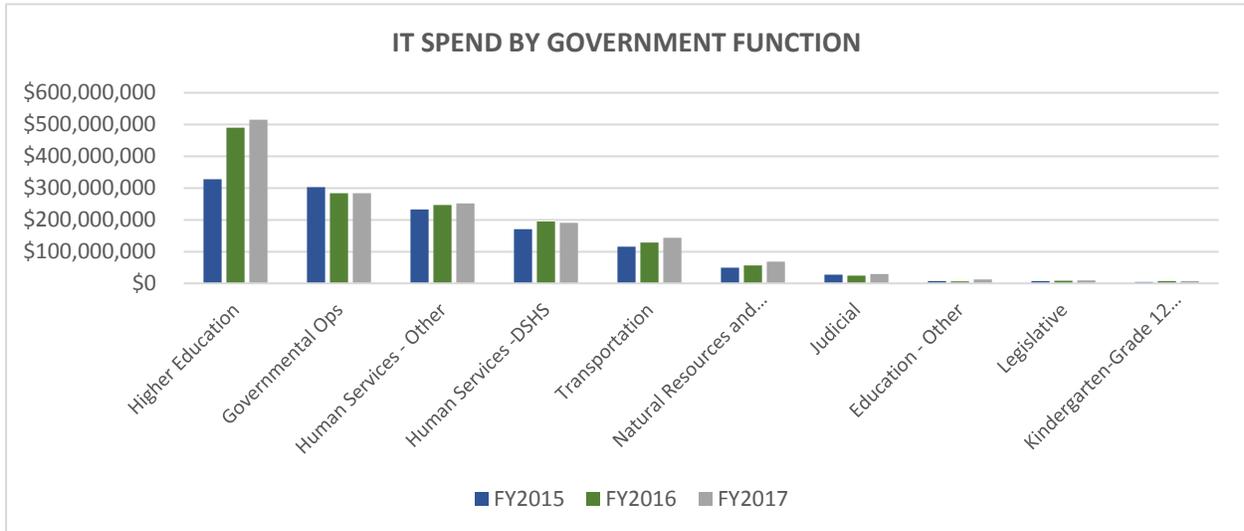


Figure 10

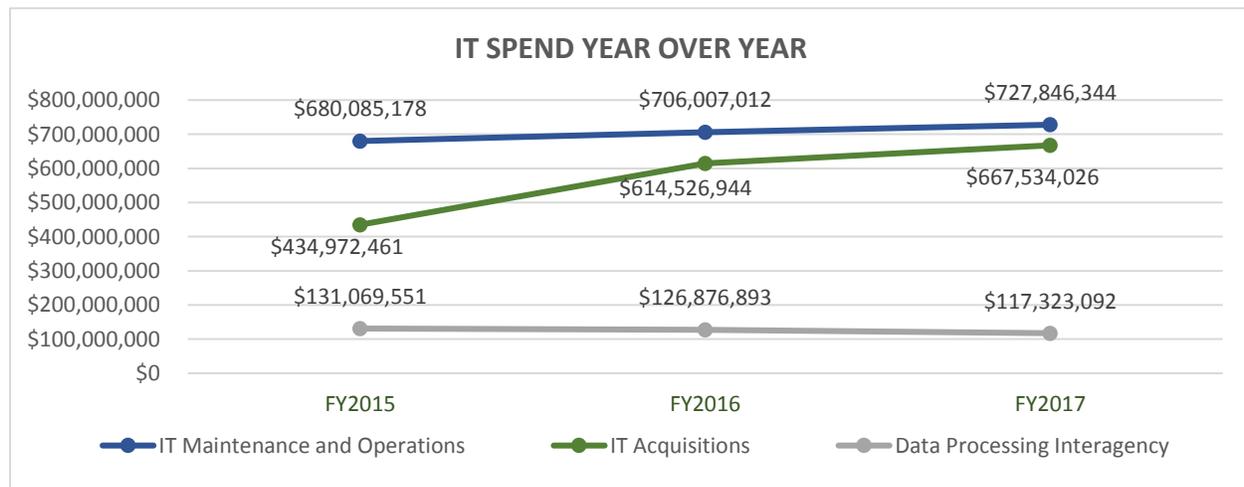


Figure 11

Benchmarking Government-to-Government

The TBM reporting software benchmarking of Washington’s investment performance against other government and non-profit organizations.

Completing a government-to-government comparison of the “IT spend as a percent of government operation expense calculations,” Figure 12 shows 2017 detail where the state of Washington invested 2.87 percent in IT as compared to an average of 6 percent invested by other North American governments and non-profits.

We will want to spend the future understanding the basis for the difference.



Figure 12 - Government-to-Government Benchmark (Rubin Worldwide)

Benchmarking Agency-to-Agency

The agency-to-agency benchmark report in Figure 13 shows the technology investment profile of the top 12 agencies reporting IT expenditures.

With this increased transparency into IT investment data and reporting, agency CIO's are now able to benchmark against peer agencies, analyze differences and make changes as a result. For example, based on agency-to-agency benchmark reports, one agency observed a variance in their security investment, which was significantly different from organizations of comparable size and complexity. Armed with this data, the agency performed additional analysis and made a business decision to make changes in their security program that improved the support model for the agency.

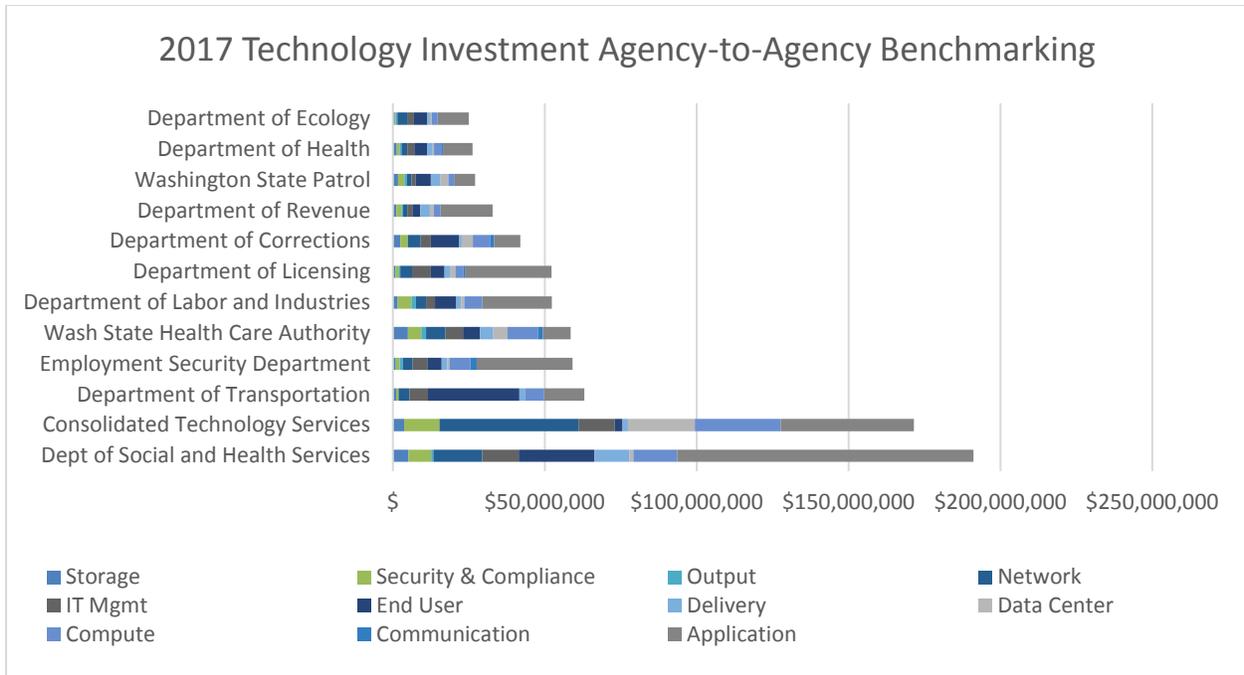


Figure 13 - Agency to Agency Benchmarking

Benchmarking Government-to-Private Sector

Leveraging benchmark data available through the TBM reporting tool (Apptio), there is the ability to access state investment performance against private sector organizations. Figure 13 highlights how state spending is higher than average for labor resources and lower than average on software when compared to private sector. More analysis will be needed to determine the cause and effect especially given the number of custom-built applications in the state portfolio and findings from the IT Class Study.

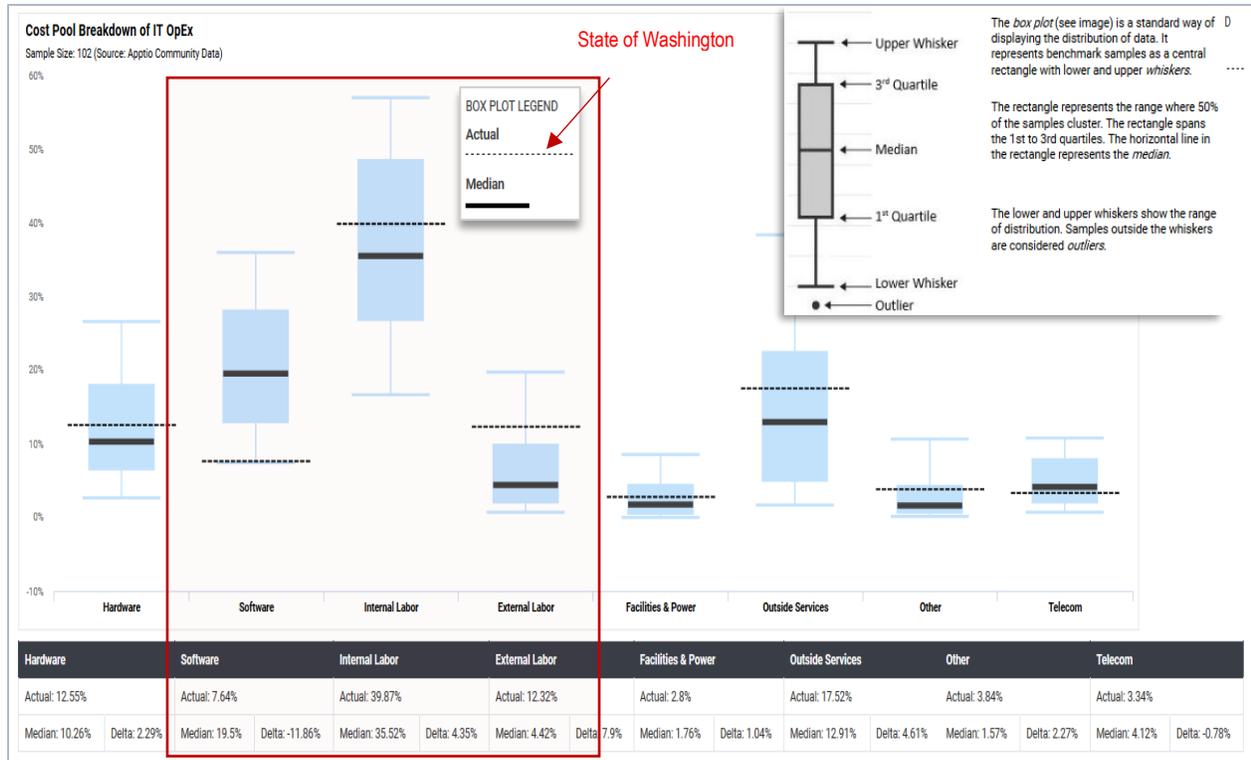


Figure 13 - TBM Industry Benchmark (Apptio Interactive Benchmarking)

Data Center Migration

Following the enactment of [RCW 43.105.375](#) – Use of the State Data Center, progress has been made to migrate away from agency specific data facilities. The outdated state data center in Office Building 2 (OB2) was decommissioned in 2015. Equipment migrated to the new, state of the art State Data Center (SDC). State agency and WaTech staff worked together to efficiently relocate all equipment, data and applications without disrupting state government services. Due to the high level of effort and collaboration, the plan to migrate to the SDC and decommission OB2 was accelerated by three years in order to save \$3 million annually in power costs and an estimated \$30.8 million in necessary operational upgrades to OB2 fire suppression, electrical and mechanical systems.

Agencies not in compliance with the statewide technology policy implementing the RCW are required to obtain a waiver from the OCIO. Waivers are plans for compliance. In this case, agencies have either asked for time to develop migration plans, based on their equipment refresh cycles or other factors or are in the process of migrating. By the end of 2015-17 Biennium, 19 agencies were actively moving through their data center migration and 26 agencies were completing development of their migration plans. All other agencies report migrations have been completed.

Tracking the performance of agency migration is monitored by the OCIO on a regular basis and publically available at <https://ocio.wa.gov/agency-data-center-migrations>.

Portfolio Management Practices Related to Projects

In the past, major projects were identified by a scoring strategy that gave greater emphasis to investments with higher cost and enterprise risk which increased vulnerability to other IT projects that

would benefit from some degree of oversight. Unless an agency self-assessment identified a project as major, the project or investment was not otherwise reported or tracked for analysis.

With these gaps in mind, the OCIO invested time in analyzing and readjusting the IT project investment process to better align practices to expand beyond high cost and enterprise risk.

Changes include:

- Require a project readiness assessment by independent quality assurance provider ahead of OCIO investment plan approval.
- A redesign of the project assessment tool to better identify projects needing oversight.
- Capture of assessment data in a repository allowing for improved analysis.
- Adoption of a gated approval process to ensure project health prior to moving to the next project stage.
- In recognition of the key, critical contributions of an engaged executive sponsor in a projects eventual success, the OCIO developed and regularly holds executive sponsor training.
- Internal escalation processes, including consultation with the TSB, were identified and implemented. This supports earlier interventions on projects that are encountering stress.

Given the changes in oversight practices that occurred at the end of 2015-17 Biennium, the OCIO foresees improved project performance metrics in 2017-19 Biennium.

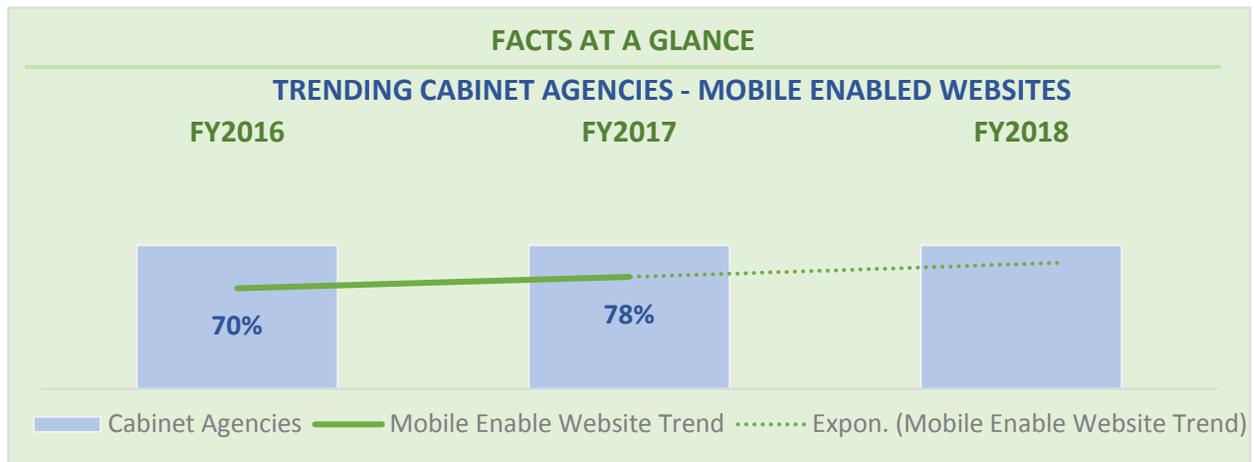
Mobile Access to Public information and Services

With citizens consuming data and services at all times of the day from all places in the world from a variety of devices, there was intensified emphasis, awareness and activities in support of improving access to public information and citizen self-service.

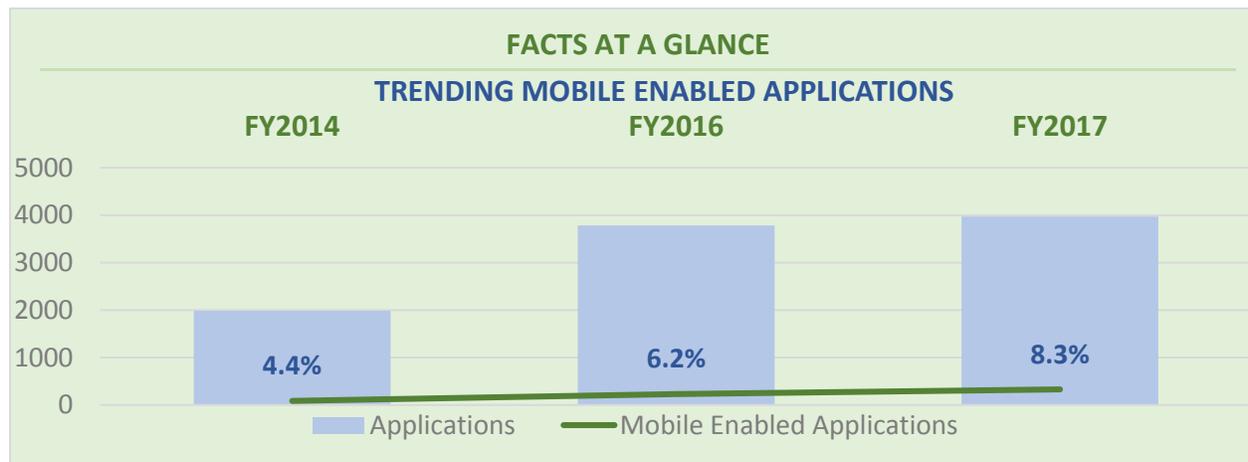
Agencies remain committed to providing access to public information and as a result, there was expanded citizen access as witnessed by increases in datasets posted to the state Open Data site, and the Washington State Open Data Bridge. The percent of major applications accessible and optimized for mobile devices has gained movement, with agencies reporting increases in accessibility and citizen self-serve.

Agencies that use technology to deliver services to the public are taking into consideration a need to make services accessible on all types of devices including tablets, smartphones and operating systems.

More agencies employ Responsive Web Design as an approach to permit webpage viewing on mobile devices where the webpage can be viewed in the size of the screen or web browsers used for viewing.



Along with mobile enabled websites, agencies have begun to extend Web Responsive Design to their applications and services where there is a business case to have it. The percent of major agency applications accessible and optimized for mobile devices has gained movement with agencies reporting increased accessibility between 2014 and 2017.



Moving forward, agencies report a continued emphasis to provide services in support of increased automation, accessibility and Citizen Self-Service while keeping Web Responsive Design in mind.

Increasing Accessibility for Those with Disabilities

Washington State is committed to making information technology accessible to all including those with disabilities. Agencies are taking steps to ensure people with disabilities have access and use of the same services and content that is available to persons without disabilities. By 2017, the number of organizations who reported having an assigned accessibility coordinator who is accountable for supporting change within the agency increased to 98 percent. To ensure new and existing services and technologies are accessible, seventy nine percent of these same agencies have put an IT accessibility policy in place with the remaining 21 percent intending to have a policy in place by June 30, 2018.

SECTION 4: IMPLEMENTING THE STRATEGIC PLAN

Stepping Through Strategic Plan Progress

There was continued movement through the state technology strategic plan over the last two biennia. This section highlights activities and work efforts taken to support advancement of the state technology strategic plan.

Securing Government Services through Cybersecurity

As core governmental functions, the state must protect the health and safety of its seven million residents, and ensure the economic security of the region. Increasingly, technology is at the center of supporting this effort.

In 2015, the Washington State Office of Cybersecurity (OCS) was created within the Office of the Chief Information Officer in response to ever-increasing cybersecurity threats. The office supports both proactive and defensive measures to increase the overall security posture of the state. The office completes security design reviews of new solutions before implementation. The office and its team of cybersecurity experts work 24 hours a day to detect, block and respond to cyberattacks on state networks. The office helps prevent and mitigate threats before they can cause significant damage. OCS also provides policy and technology leadership for state government, and promotes cooperation and coordination between regional and national governments and corporations.

Creating a modern and responsive approach to address cybersecurity and digital privacy is a top priority for the next biennium. Protecting Washington's digital infrastructure is both a national security and an economic priority. OCS has a strong history of partnering with universities, private companies, the public sector and cybersecurity professionals to build resiliency. The office will continue working with federal partners to build a national model for a coordinated response to cyber threats.

In recognition of the continued risk posed by cyberattacks, OCS built a framework for cybersecurity with the goal of protecting public safety and the continuity of commerce. OCS conducts security assessments for state agencies to identify security weaknesses, assists agency security incident response teams and implements statewide security initiatives that accelerate the state's ability to identify, prevent and respond to vulnerabilities. These activities significantly advance Washington's security posture and have helped establish an enterprise security baseline in areas such as awareness, benchmarking and administrative controls.

WA - OFFICE OF CYBERSECURITY 6-LAYER SECURITY FRAMEWORK

- Government IT Infrastructure
- Law enforcement
- Critical infrastructure
- Emergency response
- Economic development
- Education and research

Since the inception of OCS in 2015, they have provided support in the following areas:

Since the inception of OCS in 2015, they have

- Conducted 470 security reviews of state systems providing services to state citizens and businesses.
- In an effort to prevent and mitigate threats before they cause significant damage, provided over 1,500 security alerts to agencies during 2015 and 2016.

The office also works to educate security professionals in the public and private sector with regular training sessions and publishing the current [Cybersecurity level in Washington State](#). In addition, OCS promotes public awareness by giving talks at schools, providing cybersecurity tips on its website ([cybersecurity.wa.gov](#)) and holding events. In January 2016, for example, Washington hosted the first Governor’s Summit on Cybersecurity and Privacy that brought together government officials, state legislators, private sector leaders and academics, all with the common goal of exploring the latest ideas for maintaining the virtual and physical systems that enable the continuity of commerce.

Securing and Protecting Critical Data

The Office of Privacy and Data Protection was established within the OCIO in early 2016. The mission of the office is to ensure that state government protects citizen privacy and to serve as a resource to local government and the general public. The office has begun the critical work of identifying privacy best practices, organizing people who work on privacy and data through 90 state agencies and programs, and is working on initiatives to use technology to solve the difficult problem of how to build new products and services with privacy as a priority.

The office conducted a [Privacy Assessment](#) in 2016 to identify privacy and data management practices within state government. The assessment revealed that state agencies are investing in privacy and security, and they want additional training on managing and protecting citizen data.

More than 40 agencies and programs have joined a Privacy Working Group to coordinate best practices, and the group meets quarterly.

In November 2016, the office made available a beta test of [Privacy Modeling](#), a web-based application created to allow people to quickly determine whether federal and state privacy laws apply to their intended use of citizen data. The tool is continuing to be improved through this process and is expected to move out of development and into production in 2017.

Launched in 2016, [privacy.wa.gov](#) continues to promote privacy tips and tools for consumers, and helps them navigate difficult issues, such as online privacy protection and identity theft.

Virtually every government service now involves the collection, processing and storage of citizen data. In the era of digital government, data protection has become paramount. To that end, the Office of Privacy and Data Protection will continue to energetically pursue its mission and to work with a variety of stakeholders to make sure that Washington adopts and implements best practices for the state’s citizens. Improvements to [privacy.wa.gov](#) will continue.

PRIVACY AND DATA PROTECTION INITIAL PERFORMANCE MEASURES

- Training
- Outreach
- Coverage
- Privacy Modeling
- Open Data
- Broadband

Additional information related to the privacy program are published and available in the [Evaluating Performance of Privacy and Data Protection Report](#) located on the <https://privacy.wa.gov> website.

Consolidating Technology Services Where Appropriate

[ESSB5315](#) was enacted in 2015, this bill created a Consolidated Technology Services agency (commonly referred to as WaTech). This new agency builds on the consolidation progress made over the past years when five central IT organizations were combined. WaTech operates the state's core technology infrastructure—the central network and data center, and supports enterprise applications—and the OCIO is charged with setting the technology strategic direction and enterprise architecture for state government. Both are headed by the state's Chief Information Officer (CIO).

The model below is a conceptual enterprise technology framework. The model identifies there are a variety of ways to deliver technology services along a continuum, with highly centralized services at one end and highly decentralized services at the other. There is no one right answer and technology services will occupy different places on this spectrum. There is, and should be, ongoing management of the tension between the appropriate role of central service providers and separate or unique agency services. This may be driven by any number of factors, not the least of which is rapidly changing technology.

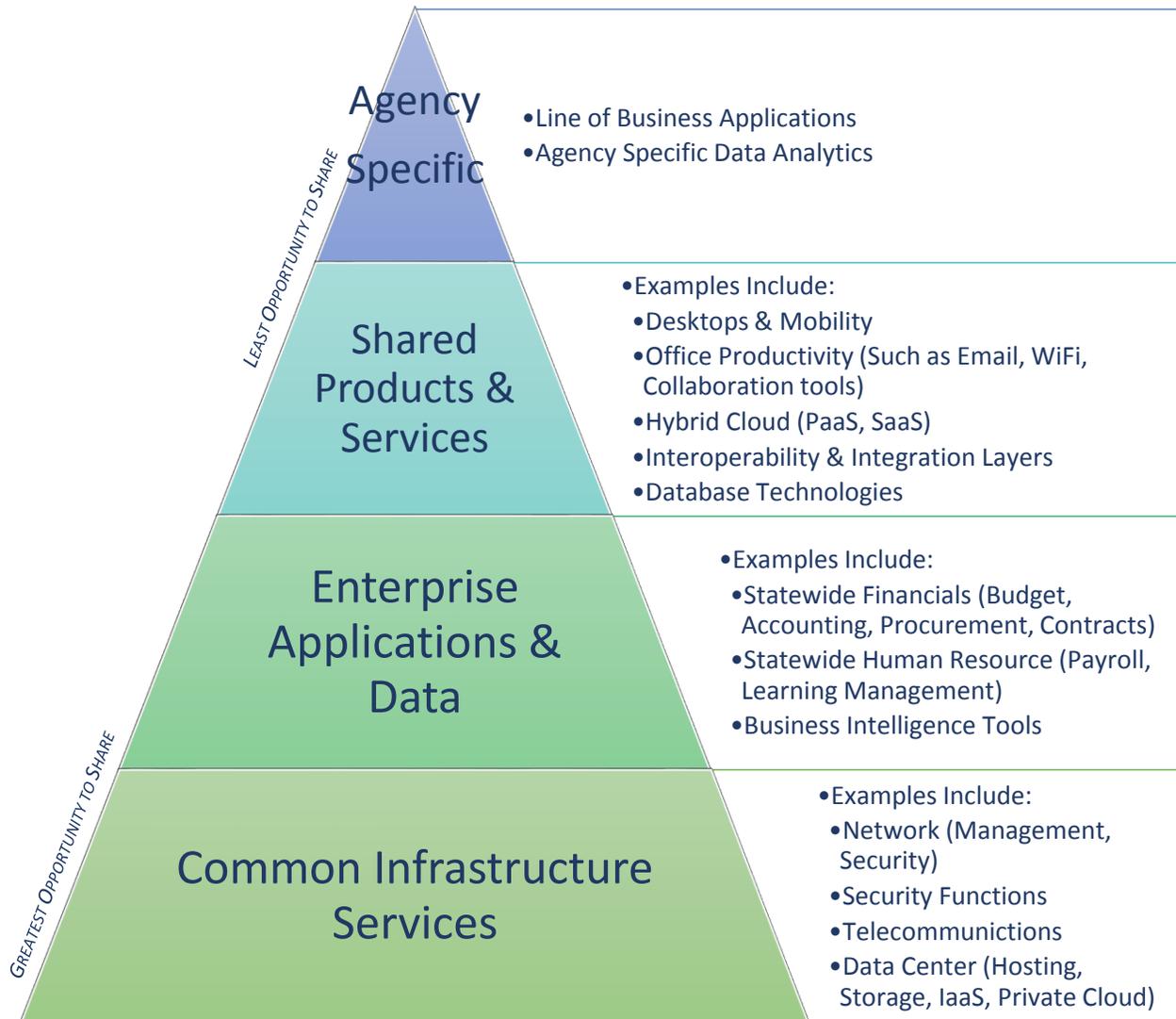


Figure 14 - Technology Strategic Framework

A primary vehicle for guiding centralized and agency service decisions is the state’s enterprise architecture.

Enterprise architecture is a disciplined practice by which the state can evaluate where common solutions should exist and/or existing resources can be reused to meet shared business or technology needs in order to achieve strategic priorities.

With an enterprise architecture, the state can also begin changing the conversation from Total Cost of Ownership (TCO) on an isolated investment to an enterprise Total Value of Ownership (TVO) philosophy. TVO looks beyond cost to identify the business value derived from investment and encompasses broader technology benefits, such as standardization, opportunities for reuse and other reductions in technical debt.

Policies and standards support and reinforce both the strategy and the architecture. They must be maintained to provide appropriate guidance and align agency actions and decisions with the enterprise strategy. In this way, architecture and policy become a primary lever for modernization and positive change, as well as defining statewide standards and supporting guidelines. Since the last biennial report, the OCIO hired staff to incrementally develop and document the enterprise technology architecture and to support the development of new maintenance of existing technology policies. The policy waiver process is a key tool for understanding agency variance from policy. The process is used to ensure steps are being taken to help agencies come into compliance and manage risk.

The OCIO continues to update statewide IT policies with a performance goal that includes 100 percent of [Statewide IT Policies](#) up to date and not past Sunset Review date by June 2020.

Using Enterprise Architecture for Consolidating Technology and Services

Among the key statutory functions of the OCIO is to lead the implementation of a strategic direction and enterprise architecture for state government and to establish a statewide enterprise architecture that serves as the organizing standard for state agencies.

To accomplish these functions, the OCIO is provided with several tools. The OCIO is authorized to establish policies and standards, create a statewide architecture to guide agency investments, evaluate and guide proposed investments from a statewide (as opposed to a siloed agency) perspective and establish or designate enterprise services that agencies are expected to use.

The 2015-17 biennial budget included a proviso requiring the OCIO to create a strategic architecture plan for several specified business process areas within the health and human service domain. These

HUMAN SERVICES ENTERPRISE ARCHITECTURE POTENTIAL REUSABLE COMPONENTS

- Client Portals
- Document and/or content management
- Rules engines
- Correspondence management
- Business intelligence
- Master data management

processes resulted in the development of a conceptual architecture for payment related processes as well as eligibility related processes.

The conceptual, modular payment architecture was used to support decision making by Department of Early Learning (DEL) and the Department of Social and Health Services (DSHS) in determining a shared strategic direction for provider time and/or attendance tracking and payment.

The modular approach allowed DEL to isolate attendance tracking needs which are unique to childcare, for early attention. This domain strategy will support broader scale strategy to manage or eliminate shadow systems or to streamline processing within and outside the domain. A key goal from this work is to reduce the amount of manual, paper-based processes associated with payment processing across the enterprise in favor of automated processes and electronic payment methods.

The conceptual architecture for eligibility related activities resulted in the DEL deciding to continue to use the existing DSHS solution rather than create a separate solution. A key strategy recommendation is the adoption of a client-centered approach rather than a program centered approach to eligibility. This shift can enable improved self-service options, better service integration and increased emphasis on coordination and collaboration to improve client outcomes in a holistic way. This strategy starts with

standardizing business processes and data to the greatest extent possible. The strategy also emphasizes horizontal integration of the program and promotes solution components that support reuse across programs and across agencies. A key opportunity to refine and deploy the strategies in this area will occur in conjunction with efforts to modernize the Automated Client Eligibility System (ACES) and related solutions.

An additional enterprise architecture activity starting in April 2017, include the administrative and financial system review process which promotes reuse and minimize additional shadow or similar systems that will be replaced by One Washington.

Consolidated Technology and Services Architecture Underway

With OCIO responsible for developing the strategic direction, work is underway to opportunistically develop the state’s technology architecture which includes increased partnerships with agencies to identify where reuse, shared services or enterprise activities are recommended. What makes Washington’s approach unique is its focus on sector-specific services and increased data sharing within sectors. This approach allows the state to address topics immediately relevant to state agencies. Efforts underway or recommended include:

- Developing a shared statewide strategy to complete migration to Internet Protocol version 6 (IPv6) by 2025.
- Adopting a single tenant strategy for the use of Office 365 and related cloud-based products and technologies. The core of this strategy is the recognition of the importance of a single identity store for internal users – the Enterprise Active Directory. As technology matures and adapts, the need for a ‘single source of truth’ for internal users will remain a key core part of the strategy.
- Developing a strategy and roadmap around management of common core person data as an enterprise asset.
- Developing a shared conceptual integration/interoperability architecture for state agencies.
- Developing a shared conceptual identity management architecture for state agencies (internal and external).
- Creating a review and approval process for administrative and financial systems. This effort is largely in support of the One Washington Program to develop processes to routinely evaluate existing and proposed systems with a goal of minimizing the number of shadow systems over time.
- Engaging in a strategy to converge statewide data, voice and video networks into a single IP infrastructure.

OFFICE 365 ADOPTION

STATEWIDE CHANGES

- ☑ Movement of Office Professional software licenses to an Office 365 subscription
- ☑ Email, Skype and SharePoint continue as statewide shared service after migration to O365 platform
- ☑ Hybrid integration of cloud and on-premise services to retain authority identity
- ☑ State’s central IT organization to administer single enterprise tenant

Consolidated Technology and Services In Use

Use of shared services provides an opportunity to combine resources and systems to improve cost effectiveness of delivery to customers. During the 2013-15 Biennium, the suite of enterprise level shared services expanded to include the Enterprise Network, State Data Center and Wireless (Wi-Fi as a Service).

FACTS AT A GLANCE

ENTERPRISE LEVEL SHARED SERVICES

- Email
- Enterprise Network
- Geographic Information System (GIS)
- Identity Management
- State Data Center
- Storage
- Telephony
- Wireless (WiFi as a Service)

Telephony continued as a statewide shared service and supports both digital and Voice over Internet Protocol (VoIP) services. Over the 2017-19 Biennium, telephony services will continue to evolve towards 100 percent VoIP.

The state prioritized its plan to consolidate data center and compute operations as noted in the [Washington State Data Center Update 2017](#). Consolidation efforts are managed through the waiver process, where the “waiver” serves as the agency’s plan and commitment to migrate, and ensures agencies are in compliance with state policies. Though agencies are required to migrate, waivers allow agencies to negotiate additional time to develop their migration strategy, based on agency circumstance, and weigh the schedule against other agency priorities. OCIO

publishes agency migration progress at [OCIO Dashboard - Agency Data Center Migrations](#).

Adoption of Cloud Technologies

Servers have evolved from physical to virtual and now to cloud environments.

Implemented within the State Data Center in 2016, the state’s Private Cloud 2.0 provides enhanced load balancing, replication and recovery services. The Washington State CIO’s recommended direction is, “think cloud first,” but cloud first does not mean cloud only. When analyzing business and technical requirements, public, private and hybrid cloud solutions are considered before traditional IT platforms. Custom, one-off solutions are generally the least desirable.

Software as a Service (SaaS) solutions and associated environments have proliferated to cover the entire spectrum of business needs. The state has federated enterprise identity management services using Active Directory Federated Services (ADFS) to deliver a single sign-on user experience to different SaaS vendors as demonstrated in Figure 15.

Adoption of both private and public cloud Infrastructure as a Service (IaaS) has progressed at a measured pace. Some smaller agencies, the Utilities and Transportation Commission, for example, have moved their entire data center into the state’s private cloud, improving agility and resilience and reducing overhead costs. Some larger

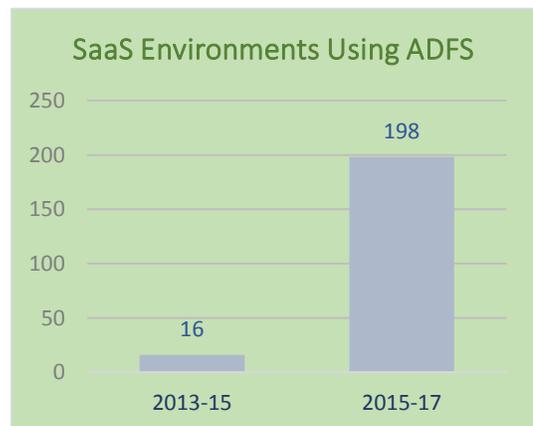


Figure 15

agencies use public cloud services to increase data center capacity. For example, the Department of Transportation uses public cloud servers to deliver traffic video during times of inclement weather when demand is unusually high. At least one public health agency is planning to move a significant portion of their data center to a secured public cloud environment and to use public cloud resources for a big data project.

With the current need to modernize and mobilize state systems, the overall cloud adoption rates are expected to accelerate in the next two years as the state builds a hybrid cloud environment. Private network connections, security and identity services will be extended to leading public cloud providers, creating high-performance access to secured virtual private clouds, integrated with on-premises services.

Improving Accountability and Insight into Technology Investments through Statewide Policy

The OCIO helps advance statewide best practices in part by setting and updating state technology policies, a critical component of the enterprise architecture. Standard policies improve accountability by providing guidelines and expectations for state agencies, and help the state enterprise run more smoothly. New and/or updated policies reflect changes in the industry, the law, public expectations and advances in technology. Key policies adopted over the past biennium include:

- **Business Application/System Governance.** This policy was implemented to support [Governor's Directive 16-01: Providing Accountability for State Systems Responsible for Critical Functionality](#). This policy requires that all business IT systems are to have accountable business owners and governance processes that support identification and prioritization of business needs. This directive was developed in collaboration between the OCIO and the Governor's office.
- **PC Procurement Policy.** Provides agencies guidance on defining a strategy to buy/lease desktops and laptops in a prudent, defensible way.
- **Commonly Used Software Retirement.** Defines requirement for agencies to retire specific software in a timely fashion and establishes advocacy and communication roles for state CIO to support agency needs.
- **Project Quality Assurance Policy.** Based on input from Quality Assurance (QA) partners and agency representatives, this major refresh provides standard expectations and minimum requirements for how project QA is conducted, stresses the need for independent QA and highlights the need for close relationship between the project governance entities and QA.
- **Technology Business Management Policy and Supporting Taxonomy Standards.** Creates a standard taxonomy for monitoring and reporting technology spend. This uniform approach ensures that spend data can be reported with integrity, supports decision-making and enables reporting of IT value to agency business.
- **Data Center Investments.** As part of statewide strategy to reduce redundant data center costs, this policy confirms for agencies that added investments in agency-specific data centers are not allowed. Agencies not in compliance were required to obtain waivers outlining compliance plans.
- **Open Data.** Requires agencies to create/maintain an open data plan and to periodically report progress against the plan. This policy has increased awareness and accountability.

- **IT Security Incident Communication.** Ensures that the scope and impact of state government IT security incidents are properly evaluated and mitigated, and that communication regarding incidents is contained so that vulnerabilities are not exposed to adversarial parties. In addition, this policy is intended to ensure that a coordinated, centralized approach is used to determine how and when to communicate notification of an incident within the state and when required by state law.
- **Establishing Enterprise Services.** Provides the CIO a mechanism to recognize standard business processes that should be supported by shared or common technology.
- **Accessibility.** Documents expectations for state agencies that people with disabilities have access to and use of information and data, and be provided access to the same services and content that is available to persons without disabilities unless providing direct access is not possible due to technical or legal limitations.

In addition to these new policies, the OCIO began the process of sunset reviewing existing policies. These actions included refresh of existing policies/standards where appropriate, and rescinding policies that served no useful purpose. The process will continue into the upcoming biennium with a goal of keeping all policies and standards in a current state by the 2019-21 Biennium.

Improving Accountability and Insight into Technology Investments

Improvements in the TBM program resulted in advancements that better model and monitor ongoing IT investment throughout the state. The program encourages collaboration among technology, business and financial decision makers in each agency — and across agencies — by collecting data about IT resources and reporting that data in multiple ways. Outcomes include better statewide IT management policies, guidelines related to technology spending and more consistent, defined, and consolidated IT cost standards.

State leaders now have insight into technology spending across the state and have the ability to answer questions using data captured in the program, rather than having to engage in the lengthy, inefficient process of having agencies respond to IT surveys. Reporting information from the program is available to state leaders during budget development.

With the move to standards taxonomy and practices in 2016, the state is a recognized frontrunner in the public sector and state agencies now embrace the reporting functionality resulting in improved governance, optimization, and opportunities for cost control.

Encouraging State Agencies to Free up Public Data

At the same time that citizen privacy must be protected, appropriate government data should be accessible. Part of the challenge in the area of open data is determining what data should be made publicly available.

By statute RCW 43.105.342, state agencies are to set priorities for making public records widely available electronically to the public. As of 2017, the state is on track with increasing the number of agencies reporting sustainable progress to open datasets.

- Twelve agencies appointed individuals charged with overseeing and reporting on open data.
- Fifteen agencies are in the process of assembling an inventory of their data assets which helps identify what data is publishable and how to make that data available.

- The OCIO Decision Package Prioritization Criteria process included an open data assessment. In 2015, five project proposals that scored well on open data were included in the Governor’s budget, and in 2016, sixteen projects included an open data component.
- The Open Data program held an internship program in partnership with local businesses and institutions to raise awareness and use of data visualization tools and techniques within agencies.

The OCIO monitors and publishes the state’s open data progress with the results available for public consumption at the following websites located on Results Washington:

- [Open Data Compliance](#) (Identifies agency open data plans received by OCIO)
- [Open Data Planning](#) (Annual tracking of agencies open data progress)
- [Open Data Maturity](#) (Reports on agencies open data maturity progress)

Public Access to Geographic Data and Technologies

Geographic data and technologies provide public policymakers and citizens with the tools to understand and solve complex environmental, land use and societal issues. The Geospatial Program Office helps mature the value of Location Based Services and Geographic Information Systems (GIS) technology in the state. When the state Legislature requested a project that would aggregate trails data in Washington, it was determined an aggregated trails database would allow citizens to view the trails and trailhead features for all federal, state, local and other Washington trails. This request included challenges regarding cost and acquisition of data from over 20 organizations across the state. Despite the challenges, the Washington State Trails Database became available in 2015 by using a group of volunteers, leveraging new cloud-based collaborative tools, to expand, accelerate and standardize the collection effort.

The resulting database represents close to 12,000 miles of trails following the federal data specification. This also produced the first prototype for collecting trailhead information—data like parking, associated facilities and pet-friendliness, which all are essential for outdoor enthusiasts.

Additionally, the number of state services providing electronic access to Geographic Data trended upward and as of 2017, agencies report over 47 percent of GIS applications accessed by the public. Figure 16 demonstrates the growth in the number of applications using location data.

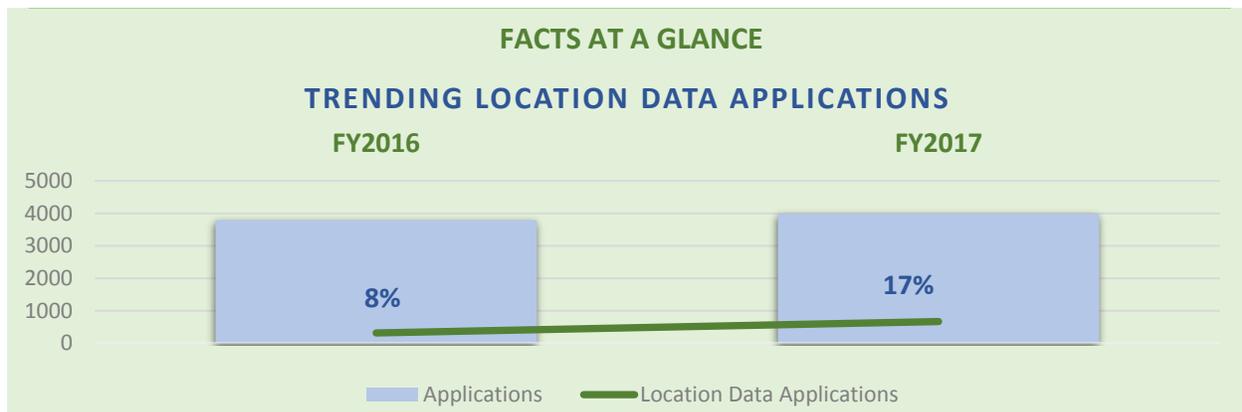


Figure 16 - Location Data Application Trends

Over the course of the next two years, we expect substantial GIS data to be hosted in the cloud which will allow smaller agencies to use and benefit from GIS technologies. We also expect increases in agency participation in Open GIS Data initiatives that support the Governor’s initiatives in government transparency. For more information on public access to statewide GIS data, see [Washington State Open Data Bridge](#).

EXAMPLES OF PUBLIC ACCESS TO DATA		
<p>FISCAL.WA.GOV</p> <ul style="list-style-type: none"> • Interactive Reports & Maps <ul style="list-style-type: none"> • StatewideOpen Checkbook • Historical Staffing trends • Enacted Bills & LEAP Lists • K12 - School District Data • Budget Bills & Documents <ul style="list-style-type: none"> • Budget Proposal • Enacted Bills & LEAP Lists • Legislative Publications 	<p>DATA.WA.GOV</p> <ul style="list-style-type: none"> • Department of Health - Health Care Provider Licensing • Department of Labor and Industries - Principal Tables from Agency Prevailing Wage System • Department of Revenue - Tax Preferences Visualization • Office of the Attorney General Consumer Protection Division Showing Prevalence of Complaints By Industry 	<p>GEO.WA.GOV</p> <ul style="list-style-type: none"> • Access to Agency Data & Maps • Department of Natural Resources - Geologic Information Portal • Department of Ecology - GIS Data • Department of Transportation Online Map Center

Collecting Statewide Application Inventory

To gain insight into the number of legacy applications in the state portfolio, an inventory was collected in 2014 from executive branch agencies that spend more than \$250,000 a year on IT. Agencies classified 31 percent of the inventory as legacy due to systems having technical risk or not meeting business needs.

Starting in 2016, the application inventory collection was expanded to include all agencies covered under OCIO statute. Figure 17 trends the states application portfolio profile.

Due to the pace of technology change, availability of skilled workforce and changing business needs, it is possible for systems not considered legacy this year to become legacy next year.

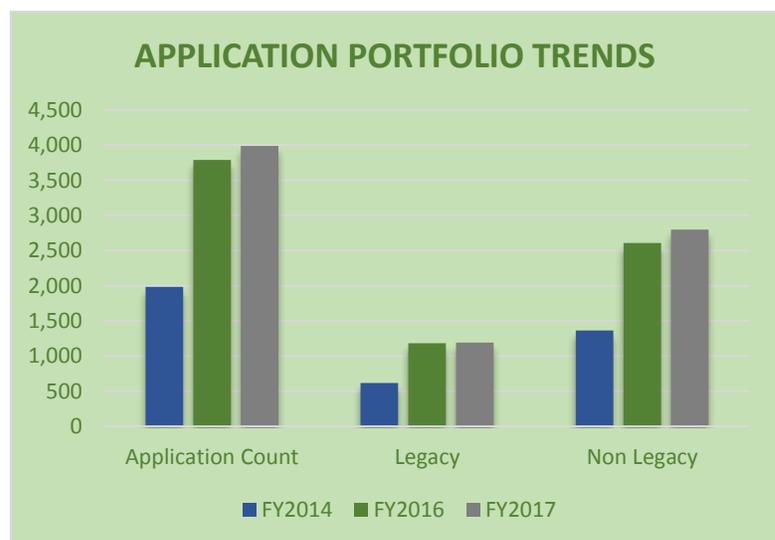


Figure 17

OCIO guidance to reduce the risk pool of legacy systems and prevent other systems from becoming legacy includes:

- Staying up-to-date on software versions
- Providing agency code developers with tools and training to identify potentially high-risk systems
- Improving documentation, capturing system information from departing staff, and incrementally rewrite or improve system code when possible
- Increased standardization across the enterprise when appropriate
- Identifying opportunities to migrate from legacy systems to shared or enterprise services including use of the centralized IT security services provided by the state cybersecurity office
- Consider migrating to Software-as-a-Service (SaaS) or commercial-off-the-shelf (COTS) deployment models
- Consider adoption of Platform-as-a-Service (PaaS) to increase ability to reuse within or among agencies
- Developing modernization projects that use an agile approach to deliver incremental value more quickly
- When modernization is appropriate, build a sound business case for modernization efforts to support funding requests
- Create a fund source for IT modernization and security improvements

Supporting Value-Added Statewide Application Modernization Efforts

The state focuses on both the value of applications and how they are built. Delivering value to the customer sooner, through incremental releases, is fast becoming the state model for application delivery. Agile development practices have been established as an essential requirement to speed time to delivery of new applications.

Over the last biennia, several state agencies actively engaged in application modernization efforts under the guidance of the state's Enterprise Technology Strategic Plan. Following are examples of 13 closed projects that demonstrate the states movement to modernize applications.

AGENCY NAME	PROJECT NAME	BUDGETED
Department of Ecology	Attendance Tracking Replacement System (eTime)	\$2,211,213
Department of Fish and Wildlife	Washington Internet Licensing Database System (WILD)	\$3,800,000
Employment Security Department	Unemployment Tax and Benefit (UTAB) System	\$43,662,000
Employment Security Department	CallTech (UI Claims Center Tech Upgrade)	\$3,848,849
Department of Labor & Industries	Crime Victims Case Management (CVCMS)	\$1,652,254
Department of Labor & Industries	Mobile Inspections	\$3,548,000
Department of Labor & Industries	My L&I	\$3,920,560
Department of Labor & Industries	Prevailing Wage Program	\$1,130,000
Department of Labor & Industries	Self-Insurance Risk Analysis System (SIRAS)	\$2,472,000
Department of Licensing	American Association of Motor Vehicle Administrators (AAMVA) modernization	\$800,000
Public Disclosure Commission	Customer Service Case Management System	\$99,950

Department of Social and Health Services	Critical Incident Tracking System (CITS)	\$15,067,016
Washington State Patrol	A Central Computerized Enforcement Service System (ACCESS) Replacement Project	\$2,390,296
TOTAL BUDGETED AMOUNT		\$84,602,138

Enabling Continuity after a Disaster

Washington’s Comprehensive Emergency Management Plan (CEMP) required by state law is based on the hazards that are present in the state and was updated in May 2016. There is a published schedule of required updates to various sections of the CEMP. Each agency is required by state law to complete a continuity of operations plan and exercise the plan annually.

State level mission critical functions are detailed in the CEMP Emergency Support Functions (ESFs) with appropriate assignments to state agencies. The Governor established a standing committee comprised of representatives of all agencies to cataloging essential functions and interdependencies amongst agencies.

Washington State is working with the First Responder Network Authority (FirstNet) to develop a state plan for the deployment of the Nationwide Public Safety Broadband Network (NPSBN). Development of the state plan includes outreach and engagement to the state’s public safety community. Activities in 2015 included the collection of data related to public safety communications, mapping of existing statewide broadband coverage, followed by delivery of the State Plan for Washington in June 2017.

Washington OneNet, the program office working on the FirstNet initiative, worked with state, local and tribal responder agencies and radio system operators to develop the Statewide Communications Interoperability Plan (SCIP). The plan was adopted by the State Interoperability Executive Committee (SIEC) as the official plan for the state.

The state Emergency Management Division conducts regular monthly training for functional activities, information technology divisions within agencies ensure critical systems back up per [Governor’s Directive 16-01](#), and all agencies are now required by law to conduct continuity exercises at least annually to ensure recovery of essential services is possible. The state Emergency Management Division operates an Alert and Warning center that operates 24/7/365.

Washington State will continue to be a leader in the First Responder communications realm with our pursuit of a state plan for deployment of the Nationwide Public Safety Broadband Network (FirstNet). This will provide emergency responders with the ability to quickly alert responders to an emergency and deploy necessary resources. The network will allow for data interoperability and voice communications between all levels of the incident command structure, providing unprecedented interoperability across jurisdictions and disciplines. The state Emergency Management Division coordinates an enhanced 911 system capable of providing emergency location information to first responders through the

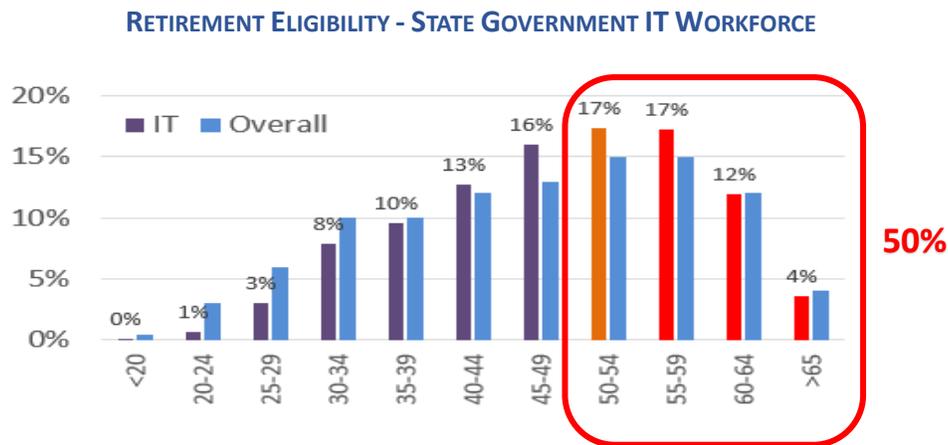


“Washington OneNet’s award winning films are powerful outreach tools to educate first responders and the public about the potential benefits of a data-enabled world where first responders have priority access to wireless networks and applications, like those that will be offered by FirstNet.”

state’s Public Safety Answering Points. This system is being upgraded to a digital based system (Next Generation 911).

Study Ways to Attract and Retain High Skilled Technology Staff in State Government

Attracting and retaining highly skilled technology personnel in a region that is home to some of the biggest software and aeronautics companies is a huge challenge for state agencies. The state competes for talent in a region that has some of the biggest brand names in technology in the world including Microsoft, Amazon, Disney, Expedia, Valve, Apple plus many more. The state is facing a “silver tsunami,” where nearly 50 percent of Washington agencies technology workforce is currently eligible for retirement within the next five years.



2014 Washington State workforce data and trends report

In 2015, the state CIO prioritized workforce development and recruitment, resulting in OFM’s State Human Resources office and the OCIO collaborating to initiate a job class study for IT classifications. The goal of this multi-year statewide job class study is to build a more modern, competitive job class structure.

Workforce remains a top priority. We can no longer expect individuals to spend their entire career with one or two organizations and individuals joining the public workforce simply do not want to spend 40+ hours per week using outdated systems. As a result, people are changing jobs more regularly. This means that senior leadership needs to stop viewing technology as a cost and instead, think of properly managed IT as an investment.

Acknowledging and adjusting for the generational differences that exist is vital. Given the improvements in travel and the ease of communication, today’s workforce is more mobile than those in the past and interested in flexible work options such as telecommuting or variable work schedules.

Work on the new compensation structure continues with a planned effective date of July 2019. OFM State Human Resources provides up to date information on the [IT classification and compensation restructure](#) website.

SECTION 5: HEALTH OF MAJOR TECHNOLOGY PROJECTS

Initial Assessment of Technology Project Funding Request

Formal technology project funding occurs on an annual basis, as part of the biennial and supplemental budget building activities. The OCIO influences technology investments through the mechanism of the budget decision process and uses a ranking methodology to support legislative decision making on technology funding requests. The process uses weighted criteria based on the existing technology strategy and statutory requirements.

Each year, the decision criteria for ranking agency requests for technology project funding is influenced by changes in strategy, policy and architecture. The Governor and the Legislature look to the OCIO to provide guidance on whether a project's technical approach is sound and consistent with the state's IT strategy, and to provide a ranked list of projects to guide policy decisions on the allocation of limited state funds. The OCIO and TSB establish ranking criteria with the idea to strategically support and fund those projects that promote the larger technology vision.

The OCIO continues to refine the process and analysis to improve the quality of input to the funding decision process. Assessing and ranking agency Decision Package request is established and published on an annual basis at [OCIO Decision Package Prioritization](#).

Technology investment approval and oversight, is conducted by a team of project oversight consultants and supported by enterprise architecture staff. There are currently five oversight consultants and one enterprise architecture positions within the OCIO supporting this work.

Project Oversight

In 2014, the TSB adopted an updated [Policy 121 IT Investments – Approval and Oversight](#) to establish the roles and responsibilities of the OCIO and state agencies in the planning and implementation of major IT investments. The policy established an evaluation, approval and monitoring process early in a project's lifecycle and was intended to ensure the success and transparency of all business-driven major IT investments. The policy extends to all projects including those identified in the IT pool that was established in the 2015-17 Biennium.

Agencies do an initial assessment of a major IT project prior to review by the OCIO. The OCIO oversight consultants dedicate an appreciable amount of time to assess the potential for success and the future value of each project, and evaluates each in the context of a statewide portfolio of projects strategically aligned with the state's priorities.

IT investments are assessed using an IT Project Assessment tool developed collaboratively with stakeholders across state government. The tool assesses risk based on a combination of industry best practices and documented critical project success factors. As a result of the assessment, an investment/project with greater inherent risk are determined to be 'major projects'. These projects complete an [investment planning process](#) that involves the agency project team, independent project quality assurance and the OCIO.

Plans, consultation and other activities the agency and state engage in are made transparent through the [IT Project Dashboard](#). Agency submitted investment plans must clearly articulate the goals, risks, mitigation strategies, outcomes and pathway to success for the projects and have a clear and specific link to business outcomes. The project support and oversight process is described online at [Starting an IT Project](#).

A total of 143 major IT projects received OCIO oversight over the prior two biennia. Each project was tracked through the project lifecycle using the following assessment ranking categorization:

- Green (Low risk - *Area requires no action beyond project management tools already in place*)
- Yellow (Elevated risk - *Area requires assessment and action to address the risk*)
- Red (High risk - *Area requires immediate action to mitigate risk*)

At project close, the oversight consultants provided a final assessment using the same categorization. The final rating is based on the overall status of the project at its closing. If the scope, schedule or budget differed from the approved investment plan, the project's final overall assessment changed to yellow or red. Closing comments reflect the reasoning behind color designation.

Of the 75 closed projects under OCIO oversight, 75 percent closed in green status, 21 percent in yellow and 4 percent in red. Included in the 75, are 40 IT Investment Pool projects.

The OCIO requires an independent and experienced Quality Assurance (QA) provider on all investments, beginning with a project readiness assessment. QA providers offer valuable insight into project and oversight activities. The QA provider helps project teams, sponsors and the OCIO anticipate risks and issues before they occur and support the realization of planned business value.

Identifying Lessons Learned and Critical Success Factors

When major projects complete implementation and move into regular operations, agencies complete a project wrap up report including lessons learned. Based on information shared in the lessons learned documents, common themes arose and with the following attributes cited by multiple projects.

- Strong Executive Sponsorship
- Effective governance and timely decision making
- Attention to Organizational Change Management
- Emphasis on contract/vendor management
- Strong business case development

FACTS AT A GLANCE

2014-2017 PROJECT OVERSIGHT

- 143 Projects: \$1.09 Billion Budgeted
 - Includes 40 IT Investment Pool Projects
- Project Status as of 2017
 - 75 Closed
 - 56 Still Active
 - 9 Cancelled
 - 3 On hold
- Project Status at Close of Project
 - 75% Green
 - 21% Yellow
 - 4% Red

TECHNOLOGY PROJECTS

CRITICAL SUCCESS FACTORS

- ☑ Engaged and appropriate sponsor
- ☑ Effective and timely governance
- ☑ Appropriately staff project management
- ☑ Organizational readiness
- ☑ Quality procurement and vendor management
- ☑ Independent quality assurance as trusted advisor

- Right size/right skilled Project Management
- Agency readiness to start the project
- Go live activities and support
- Transition to ongoing production support

Armed with these findings, in 2015, the OCIO undertook a significant effort to isolate critical project success factors for major projects. Staff interviewed a number of firms providing project quality assurance services to existing or recently concluded major projects. These interviews, as well as independent research, identified a number of critical project success factors. The OCIO is in the middle of a multi-phase effort to implement improvements based on this input. Completed work includes a significant update to the project quality assurance standard, earlier visibility to the Technology Services Board of projects, particularly those that are challenged, more active follow-up with agencies to ensure critical issues are resolved and the development of a new risk/severity assessment tool.

The OCIO is also working to develop and implement a modified, more nuanced oversight model that provides both general and targeted oversight and incorporates gated funding where appropriate, such as projects in the IT Investment Pool. For IT Investment Pool projects, the OCIO evaluates at the appropriate stage and notifies the authorizing environment when a project is certified to proceed with the next stage.

Recent changes to the project oversight process positions the OCIO to provide analysis and reporting that is more comprehensive in the next biennium. See [Appendix A](#) for a complete list of projects which completed or closed between 2014 – 2017 and under OCIO oversight.

Highlighting Projects Successes and Business Outcomes

With 75 percent of major projects receiving a green assessment from OCIO oversight consultant at project close, this section highlights business objective and benefits met as reported by the project executive sponsor of 14 projects.

HIGHLIGHTING - IT INVESTMENT POOL PROJECTS	
<p>Public Disclosure Commission CUSTOMER SERVICE CASE MANAGEMENT SYSTEM</p> <ul style="list-style-type: none"> • Replaced three legacy systems with a single shared system. • Moved to cloud-based, off-the-shelf solution. • Eliminated manual processes supporting public records request, compliance complaints, case investigations and help desk requests. 	<p>Health Care Authority PROVIDER ONE (PHASE 2) & STABILIZATION</p> <ul style="list-style-type: none"> • Moved Medicaid payment processing from legacy Social Service Payment System to ProviderOne. • Solution serves 3,200 residential facilities/home care agencies and 30,000 individual providers represented by Service Employees International Union.

HIGHLIGHTING - LICENSING APPLICATIONS

<p>Department of Licensing LEGACY APPLICATION REPLACEMENT</p> <ul style="list-style-type: none"> • Fuel Tax Prorate System: Replacement and launch in 2016 of the state's largest fuel tax revenue system. • DRIVES: Successfully deployed the vehicles phase of this project statewide in 2017. • Centralized Issuance System (CIS): New system launched in 2017 that allows efficient capture of customer data, image and signature that rapidly delivers a highly secure license or identification card to the customer. 	<p>Department of Revenue AUTOMATED TAX & LICENSING ADMINISTRATION SYSTEM (ATLAS)</p> <ul style="list-style-type: none"> • In 2016, delivered modern, web-based interface that supports 83.8 percent business license applications filed online and 92.6 percent business license renewals filed online. • Improved data accuracy and timeliness. • Reduced data inconsistency. • Enabled taxpayer self-service, reducing customer correspondence for support.
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HIGHLIGHTING - AUTOMATION AND CITIZEN SELF-SERVICE

<p>Department of Labor and Industries INFORMATION AUTOMATION</p> <ul style="list-style-type: none"> • Delivered Health Information Exchange project in 2015 - built on the state's investment in OneHealthPort. • Allows health care providers to share critical data with the department. • Speeds claim processing resulting in faster worker recovery and reduced cost to their employers. 	<p>Department of Transportation CITIZEN SELF-SERVICE</p> <ul style="list-style-type: none"> • Completed \$8.6M ferry vehicle reservation system. • Manages demand and spreads peak vehicle traffic. • Reduces passenger wait time. • Minimizes costly terminal and vessel expansion projects.
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HIGHLIGHTING - GEOGRAPHIC INFORMATION SERVICES

<p>Dept of Archaeology & Historic Preservation WISAARD</p> <ul style="list-style-type: none"> • Integrated and upgraded agency online GIS map tool for locating designated historical sites which are listed on the state and national register. • Information includes images of the property, a short summary description about the significance of each resource and a link to the nomination and/or inventory form. 	<p>Washington Technology Solutions WASHINGTON MASTER ADDRESSING SERVICES</p> <ul style="list-style-type: none"> • Set of tools that allow users to accurately format and locate an address. • Used by Department of Natural Resources during wildfire season to identify and evacuate at risk homes. • Department of Revenue uses it to calculate taxes and Washington State Courts uses it to set up jury pools in the counties.
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HIGHLIGHTING - PAPER REDUCTION AND MOBILITY

**Department of Natural Resources
AQUATICS CONTACTS DOCUMENT CENTER**

- Streamlines manual, paper-based process to include online approval and final lease document generation from over 1,000 templates.
- System tracks more than 140 unique pieces of information needed to generate an aquatic land lease.
- DNR estimates a 35 percent staff time savings per lease renewal.

**Department of Labor and Industries
MOBILE INSPECTION**

- Provides customers with real-time, accurate inspection information.
- Customer wait time for inspection results reduced from 24 hours to immediately.
- Inspectors can document and upload their inspections while still onsite.
- System incorporated trip routing so that are now pushed to each inspectors phone saving valuable time.

HIGHLIGHTING - CONSTITUENT FOCUSED PORTALS

**Department of Social and Health Services
WORKFORCE OPTIMIZATION**

- In 2015, launched solution that decreased number of callers reaching "Busy Message" when contacting the Community Services Division Customer Service Call Center.
- Improved productivity, utilization, and quality of customer service.
- Rolled out to Community Services Offices statewide.

**Health Care Authority
PROVIDER ONE CONTRACT COMPLIANCE**

- In 2016, deployed solution that enhances ability to effectively track, monitor, measure and report required managed care contract oversight activities.
- Created consolidated portal for all communication to/from Managed Care Plans.
- Addresses Corrective Action Plan identified in State Auditor's Performance Audit.

HIGHLIGHTING - GENERAL GOVERNMENT APPLICATIONS

**Office of Financial Management
ENTERPRISE RESOURCE PLANNING (ERP)**

- Comprehensive business transformation program to modernize and improve aging administrative systems.
- Performed preliminary planning and business process re-engineering in preparation for replacement of several components in the statewide Core Financial System, Human Resources, Payroll and Employee Benefits management applications.

**Education Research & Data Center
EDUCATIONAL DATA WAREHOUSE**

- The state's education longitudinal data system, (P20W) brings business intelligence capabilities to the entire education system from primary level through college.
- Allows policy makers to make data-driven education and policy decisions.
- Cross-jurisdictional effort has over 40 data feeds from 12 partner organizations representing approximately 350 organizations.

APPENDIX A – CLOSED IT PROJECTS WITH OCIO OVERSIGHT

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Archaeology and Historic Preservation, Department of (DAHP)	WA Information System for Architectural and Archaeological Records Data (WISAARD)	WISAARD integrated and upgraded the existing DAHP database into a single web-based, GIS-oriented application that incorporated the archaeological site form, survey, and environmental review process.	\$1,963,736	Closed	2	6/30/2016
Arts Commission, Washington State	My Public Art Portal	The creation of My Public Art Portal brings state's public art assets together in one place using an online, searchable database. My Public Art Portal is a read-only, web-based copy of ArtsWA's collections management database, hosting only intentionally, public-facing data. This project also allows ArtsWA to make a timely shift from an in-house database server to a more secure storage and backup platform.	\$305,000	Closed - IT Pool	1	6/30/2017
Corrections, Department of	E-Vault Costs from CTS	The DOC E-Vault project is paying for an increase in electronic storage which facilitates the ongoing work of the agency. Use of this technology provides open and transparent government response to public disclosure requests, supports a more modern solution for record retention, and supports increased security for archiving time, leave and attendance primary records.	\$852,000	Closed - IT Pool	1	6/30/2017
Corrections, Department of	OMNI off the Mainframe	This project moved the Offender Management Network Information (OMNI) system from the mainframe at WaTech onto virtual servers.	\$2,300,000	Closed	2	2/13/2014

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Early Learning, Department of	Early Childhood Education and Assistance Program Management System (ELMS - ESP20)	This project, funded through the US Department of Education’s Institution of Education Sciences (IES) grant program to develop Statewide Longitudinal Data Systems under the American Recovery Act, replaced the Early Childhood Education and Assistance Program (ECEAP) Management System (EMS). The EMS replacement focused on creating a modern, flexible, user-friendly system, as well as integrating with relevant DEL and external systems and is the subject of this investment plan.	\$2,682,433	Closed	2	12/17/2013
Ecology, Department of	Attendance Tracking Replacement System (eTime)	Ecology leveraged the state's investment in the WorkForce Software EmpCenter product to replace the agency’s obsolete time management systems. The solution reduces risk to Ecology by improving compliance with statutory, regulatory, and collective bargaining agreement rules and improve accuracy and efficiency in labor time reporting.	\$2,211,213	Closed	2	6/30/2017
Ecology, Department of	End of Life Upgrade to SharePoint 2013	Ecology's programs routinely use SharePoint to manage unstructured electronic content and collaborate with internal and external stakeholders to arrive at environmental decisions and related business solutions. This upgrade helps Ecology modernize and improve security, work more efficiently through collaboration, leverage enhanced search capabilities to respond more quickly to public records requests, and leverage expanded reporting tools.	\$795,800	Closed - IT Pool	1	6/30/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Ecology, Department of	Replace Core Technology Network	Replaces the aging network design and core hardware associated with the agency Local Area Network (LAN) and brings the core to industry standards which reduces network downtime and allow the strategic priorities of all of the environmental program areas to move forward according to the agency strategic plan.	\$700,000	Closed - IT Pool	1	6/30/2017
Employment Security Department	Next Generation Tax System (NGTS)	The Next Generation Tax System (NGTS) replaces the current mainframe Unemployment Insurance (UI) tax system and 14 ancillary systems and address 109 gaps identified in the current systems. NGTS will provide ESD with a modern Service Oriented Architecture based system on the Microsoft .Net platform that will account for and collect UI taxes within an architecture that will provide consistent application of business rules and flexibility to modify those rules to accommodate changes in the law, regulation, or business practice.	\$64,182,178	Closed	2	6/30/2015
Employment Security Department	Unemployment Tax and Benefit (UTAB) System	The Employment Security Department has an aging computer system that is costly, difficult to enhance and maintain, and increasingly unsuited to supporting the needs of a modern Unemployment Insurance (UI) program. The UTAB project is in Phase 2 of modernizing the UI Tax system, thereby leveraging existing technology platforms and workflows. In this way, the department will benefit from a single, integrated platform to support both the tax collection and benefit administration functions of the UI system.	\$43,662,000	Closed	3	10/1/2018

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Employment Security, Department	CallTech (UI Claims Center Tech Upgrade)	ESD has claims centers supporting statewide Unemployment Insurance (UI) payments. The claims centers were supported by legacy call processing and workforce management systems that were aging, expensive to maintain, and architecturally unsuited for ESD's business needs. This project replaced legacy platforms with a single, integrated, IP-based contact center software application, and upgraded infrastructure to support the new system.	\$3,848,849	Closed	2	6/30/2015
Employment Security, Department	WorkSource Integrated Technology (WIT)	Employment Security is the state partner in WorkSource, a joint venture of organizations dedicated to addressing Washington State's employment needs. On behalf of WorkSource, ESD manages Go2WorkSource.com, a system that helps workers find open jobs and helps employers find workers. ESD also manages the Services, Knowledge and Information Exchange (SKIES), a system that tracks services provided by WorkSource to job seekers. ESD will modernize these systems by replacing them with an off the shelf software or managed service offering available in the commercial marketplace.	\$4,800,000	Closed	2	9/16/2017
Financial Management, Office of	Facilities Portfolio Management Tool (FPMT)	OFM will acquire a Facilities Portfolio Management Tool to gather, validate, visualize, and store facilities inventory information for all state agencies, boards, commissions and higher education institutions.	\$408,000	Closed	2	6/30/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Financial Management, Office of	P20 Data Warehouse	American Recovery and Reinvestment Act (ARRA) funded grant to design and implement a P20 longitudinal data system. http://erdc.wa.gov/	\$8,400,000	Closed	3	10/30/2015
Fish and Wildlife, Department of	Fish Passage Barriers and Screening Data Collection Project	The WDFW is responsible for managing and maintaining inventory of Fish Barriers and Screening reported by a variety of owners and stakeholders. The information includes ownership, condition and other critical details about the barriers. The WDFW is required to document and report on the current statuses for all barriers in addition to resolving barriers we own or are responsible for managing. In addition, the WDFW was directed by legislation to develop strategies for management of the barrier inventory and to chair the Fish Passage Board. This project provided a means for end users to prepare, collect and submit inventory data to the WDFW.	\$150,000	Closed	1	10/31/2015
Fish and Wildlife, Department of	Maintaining Technology Access	The Washington Department of Fish and Wildlife (WDFW) faces increasing costs for mission critical technologies such as Microsoft software and support, data network infrastructure, and electronic records storage. WDFW requests additional funding to maintain these essential functions for daily operations, without compromising core agency activities.	\$856,000	Closed - IT Pool	1	4/5/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Fish and Wildlife, Department of	Radio over Internet	The Washington Department of Fish and Wildlife (WDFW) Law Enforcement Program maintains a dispatching center, known as “WILDCOMM” that serves as the telecommunications hub for the agency. The use of Radio over Internet Protocol (RoIP) is a critical technological capability that has been incorporated into WILDCOMM through a contract with the Washington Department of Nature Resources (DNR) since 2007. Additional network gateways were completed in 2014 which provided needed increased geographical coverage. As a result, maintenance costs have increased, which have raised the frequency fee of the inter-agency agreement with DNR. WDFW requests additional funding to maintain this essential communication function.	\$118,000	Closed - IT Pool	1	4/5/2017
Fish and Wildlife, Department of	Washington Internet Licensing Database System (WILD)	This project is to replace the WILD system. The WILD system is a mission critical part of Washington Department of Fish and Wildlife (WDFW) operations. Sales of recreational documents such as fishing and hunting licenses and permits through WILD represent approximately 25% of WDFW’s operating budget. These revenues are an essential part of conducting daily operations. In addition, the WILD system provides a key source of information about our constituents, helps to track and estimate harvest, helps enforce regulations, helps distribute harvest opportunity where opportunities are limited, and provides a way of promoting recreational opportunity to the diverse segments of the state’s population.	\$3,800,000	Closed	2	2/28/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Health Care Authority, Washington State	Continuity of Care	This project is a result of legislation (SSB6430) passed in the 2016 legislative session regarding the need to have effective re-entry programs for persons leaving confinement in state and local corrections environments. The legislation supports re-entry work ongoing by the agency and several other governmental and community-based partners. Includes method for users to inquire on the status of medical and/or mental health coverage for justice involved individuals and an ability to apply for Medicaid, connect with their managed care organization, and renew medical coverage whether incarcerated in a facility or enroll prior to releasing from a facility.	\$0	Closed	1	7/30/2017
Health Care Authority, Washington State	Procurement & Implementation of Decision Support & Analytics Tools (MDMT & DM)	The Analytics, Interoperability and Measurement (AIM) project provides a solution portfolio to build analytic and measurement capacity and develop a diverse tool set for data translation and visualization from multiple sectors into actionable information.	\$4,300,000	Closed	3	1/31/2017
Health Care Authority, Washington State	ProviderOne (Phase 2) and Stabilization	ProviderOne Phase 2 moved Medicaid payment processing from the legacy Social Service Payment System (SSPS) to ProviderOne. Phase 2 made Medicaid payments for eligible social service providers: residential facilities, home care agencies, and individual providers. The transition from SSPS to ProviderOne served two major provider groups with DSHS: 3,200 residential facilities/home care agencies and 30,000 individual providers represented by Service Employees International Union SEIU) #775.	\$31,506,794	Closed - IT Pool	3	6/30/2016

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Health Care Authority, Washington State	ProviderOne Contract Compliance Module	As a part of the HCA’s realignment from a Medicaid fee-for-service/payer organization to an active managed care purchaser, there is a need to expand and develop comprehensive monitoring and tracking mechanisms that will assist the HCA in effectively managing and overseeing the Medicaid managed care plans. This need was highlighted in the State Auditor’s report, Performance Audit on HCA’s Oversight of the Medicaid Managed Care Program; the tools requested here support the HCA’s Corrective Action Plan related to recommendations documented in that performance audit.	\$2,335,000	Closed - IT Pool	1	1/31/2017
Health Care Authority, Washington State	ProviderOne O&M Increase	Health Care Authority requests the funding for increased costs to continue to operate and maintain the current ProviderOne Medicaid Management Information System (MMIS).	\$6,074,000	Closed - IT Pool	1	6/30/2017
Health, Department of	Enterprise Content Management (ECM)	This project piloted ECM in the department. The pilot tested various components of an ECM including Workflow, Document Management, Records Management, Search, and Capture. The solution addressed the following business problems: 1) The exponential growth of the agency’s electronic content, 2) The increasing difficulty of complying with public record request requirements, 3) Findability of documents 4) The limitations of manual business processes, 5) Massive over-retention of electronic records, and; 6) Higher customer expectations from an increasingly technologically-oriented client base.	\$715,000	Closed	2	6/30/2016

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Health, Department of	Medical Marijuana Authorization System (MMJA)	The Medical Marijuana Authorization System (MMJAS) project is from SSB 5052 and DOH contracts with a third-party to create, maintain, and administer and system/database that has the ability to allow MMJ retailers enter patient information and print patient authorization cards. The system also allows the ability for authorized entities to query the system for patient validation and provide reporting to DOR for tax purposes. The project team worked closely with WSP, DOR and LCB to ensure all requirements outlined in the bill are met.	\$2,207,470	Closed	2	7/31/2017
Labor and Industries (L&I), Department of	Ask L&I - Enterprise Knowledge Management	Labor & Industries received funding for an enterprise Knowledge Management system to gather and build a library of pertinent information to improve service delivery and the speed of problem resolution for customers. The system was designed and developed to retrieve knowledge assets in current applications and selected external sources for decision making by L&I's staff. This new solution replaced the aged On Line Reference System (OLRS) previously in use by L&I and laid the foundation for other agency lines of business to include their knowledge through future projects.	\$2,000,000	Closed	2	6/30/2015
Labor and Industries, Department of	Crime Victims Case Management (CVCMS)	The CVCMS project is the installation, configuration, integration and implementation of a commercial, off the shelf, web based method of case management for Crime Victims in Washington State	\$1,652,254	Closed	2	6/30/2017
Labor and Industries, Department of	Data Warehouse - Phase 2	The project updated the agency's Workers Compensation data warehouse by capturing data in a timely manner, capturing historic data, and enabling easier querying.	\$1,030,000	Closed	2	6/30/2015

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Labor and Industries, Department of	Data Warehouse Enhancement Ph3 (DWEPE)	The data warehouse is the "agency's key knowledge repository" which provides operational data patterns and insights. This project expanded information relationships to allow deeper data analytics for management to continue to optimize business insights.	\$3,094,265	Closed	2	6/30/2017
Labor and Industries, Department of	Disaster Recovery	The project is implementing Disaster Recovery as a Service (DRaaS) to cover key business processes that will be hosted in a Windows-based computing environment.	\$1,340,000	Closed	1	6/30/2017
Labor and Industries, Department of	ECORR2	eCorr 2 is the follow-on project to the electronic correspondence effort completed in the 2011-2013 Biennium. This effort expanded the use of electronic documents to additional business areas.	\$1,900,000	Closed	2	6/30/2015
Labor and Industries, Department of	Electronic Benefit Payments	Benefit payments mailed to injured workers and victims of crime are an inconvenient and inefficient payment method. As an alternative to sending paper warrants, L&I implemented two new electronic benefit payment methods: 1) direct deposit into the person's personal bank account, and 2) prepaid debit cards. These changes improved customer access to their money, add convenience, reduce risk, avoid check cashing fees, and reduced L&I cost to produce paper warrants.	\$3,654,358	Closed	2	6/30/2015
Labor and Industries, Department of	Independent Medical Examinations	The Independent Medical Examination (IME) Project delivered an application to reduce hand tracking of appointments and provide a fair and equitable way to distribute appointments across the provider pool providing care.	\$1,856,185	Closed	2	6/30/2015

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Labor and Industries, Department of	Mobile Inspection	The Electrical program depends on technology to carry out their mission of ensuring public safety. The proposed solution results in a new Mobile Inspection application that increases the inspectors’ productivity while speeding up the delivery of inspection results by taking advantage of technologies now available.	\$3,548,000	Closed	2	6/30/2017
Labor and Industries, Department of	My L&I	The “My L&I” project was the first project effort to begin the long journey of moving L&I towards the e-Government vision. This project effort implemented a set of technical components, user features, and a redesigned user interface based upon User-Centered Designs theory. The goal of this initial effort was to enhance the L&I external web sites with several technical components that align to L&I’s architecture standards. The My L&I project’s new on-line web solution set (external web site uplift) saves businesses, medical providers, contractors, and injured workers both time and money. The redesigned UI offers “one” online destination where services and content are tailored to individual customer (persona-based) needs. My L&I also enables customers to access L&I information through My Account, the new business web portal designed to be a “one stop” for businesses. This portal is part of L&I’s e-Government initiative, which will be completed over three biennia.	\$3,920,560	Closed	2	8/31/2016

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Labor and Industries, Department of	Occupational Health Management System (COHE)	The Occupational Health Management System (OHMS) Project delivered a web-based solution to support care coordination activities and tracking of occupational health best practices to improve outcomes for injured workers. OHMS expanded Centers for Occupational Health and Education (COHEs), as well as implementation of other L&I initiatives to promote best practices. The OHMS system supports the COHE staff, L&I staff and medical providers involved in COHE and other best practice programs. This included integration with L&I core systems, as well as COHE, medical providers’ electronic medical records systems, and the state Health Information Exchange.	\$7,109,219	Closed	2	6/30/2015
Labor and Industries, Department of	Prevailing Wage Technology Enhancement	This project addresses additional needs of the Prevailing Wage Program’s computer system. Provides contractors a portal to access prevailing wage information and transact business, verify if subcontractors have filed forms, certified payrolls, and other information and ability to submit certified payrolls in bulk. For Public works agencies, provides portal to validate if contractors are “qualified bidders” and allows electronic submittal of “Notices of Completion”.	\$1,130,000	Closed - IT Pool	1	6/30/2017
Labor and Industries, Department of	Self-Insurance Risk Analysis System (SIRAS)	The Self-Insurance Compliance program is undergoing a complete transformation, transitioning from a cycle-based system to a risk-based system that will allow us to audit the right issue, at the right time, for the right reason. The Self-Insurance Risk Analysis System (SIRAS) collects and analyzes the data necessary to make this happen.	\$2,472,000	Closed	2	6/30/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Licensing, Department of	Prorate & Fuel Tax System Replacement	DOL replaced the Prorate and Fuel Tax (PRFT) computer systems. These systems are critical for the administration of interstate truck licensing and collection of fuel tax revenues that account for over \$1.2 billion supporting the Washington State transportation budget. Previous computer systems did not meet many PRFT business requirements or potential needs. Due to labor intensive manual processes using current systems, there was a high risk of data entry errors resulting in inaccurate or erroneous licensing and fuel tax data. The previous PRFT systems and supplemental information included: A vendor supplied system, 13 supplemental information technology applications supported by DOL, and 96 spreadsheets supported by DOL. The new system, through newer technology, is more flexible, results in more efficient fuel tax collection methods, accurate data, and minimizes revenue loss.	\$7,400,000	Closed	2	6/30/2016
Licensing, Department of	SOLAR 2	DOL currently licenses approximately 268,000 professionals and businesses across 44 professions, using mostly manual paper processes. This project will provide the ability for the majority of businesses and professionals overseen by DOL to apply for and renew their licenses online with the state of Washington.	\$1,754,000	Closed	2	6/30/2017
Licensing, Department of (DOL)	AAMVA Modernization	Updated five DOL components that share data with other states via the American Association of Motor Vehicle Administrators (AAMVA).	\$800,000	Closed	2	4/30/2015

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Licensing, Department of (DOL)	Commercial Driver’s License (CDL) Federal Compliance	DOL will make modifications to its computer system to comply with state and federal CDL and commercial licensing permit (CLP) regulations. The project will focus on four major areas of non-compliance: issuing CLPs as a separate document; American Association of Motor Vehicle Administrators (AAMVA) compliant endorsements and restrictions; updating CDL messaging to version 5.3.2.1 Commercial Driver License Information System (CDLIS); and computer system controls to prevent issuance to unqualified individuals.	\$418,380	Closed	2	11/30/2016
Liquor and Cannabis Board	Marijuana Seed to Sale Traceability System	RCW 69.50 (Initiative 502) required that the Washington State Liquor Control Board (WSLCB) create a tightly regulated, state-licensed recreational Marijuana System. The agency developed a Seed to Sale Inventory Tracking System, which is a vital tool for tracking and monitoring all marijuana plants from germination or cloning, through the growth cycle, processing and packaging, monitoring quality assurance lab test results, and retail transaction data by marijuana licensees through all stages of the supply chain to help prevent diversion, promote public safety, and collect tax revenue.	\$750,000	Closed	2	2/28/2015

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Lottery Commission, State	Gaming Vendor Replacement (GVR)	Washington’s Lottery will establish a new contract with a responsible and experienced vendor for the Lottery system. The new contract will require the vendor to provide a fully functioning on-line and instant ticket system, including the following services: hardware, software and communications, the installation of the new system, conversion of data from the old system and operation of the system. The expected time period for the new contract is July 1, 2016 through June 30, 2026, with the option to renew for up to ten (10) years in any number of extensions.	\$1,588,715	Closed	3	7/1/2016
Public Disclosure Commission	Customer Svc - Case Mgmt Syst	The PDC was using three different electronic systems and several manual processes to manage a wide array of customer interactions, from public records requests, customer help desk requests, compliance complaints, case investigations, to internal IT help desk requests. The agency switched to a cloud-based off the shelf system that consolidated all of these identified PDC functions into a single shared system.	\$8,000	Closed - IT Pool	1	6/30/2017
Public Disclosure Commission	PC Lease Program	The PDC transitioned from periodically purchasing computers to leasing them through WaTech. This allows the PDC to keep systems updated to current versions of software and security patches which is a requirement of the OCIO security standards (141.10) and the PDC agency security program.	\$6,000	Closed - IT Pool	1	6/30/2017

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Public Employment Relations Commission (PERC)	PERC Case Management System	PERC purchased a new case management system with new technologies such as e-filing for more efficient access to agency services and case processing. The new system allows the agency to implement process efficiencies that hadn't been possible with the previous technology. Modern applications are more mobile-friendly for staff with built in functionality allowing future improvements.	\$99,950	Closed	1	8/31/2015
Social and Health Services, Department of	Community Living Connections (CLC)	The Community Living Connections (CLC) Project was the implementation of a tool that provided DSHS, the Area Agencies on Aging (AAAs), and other stakeholders with a web-based statewide client management information system. The system integrates public self-assessments with resource information and includes all the appropriate security and privacy tools necessary for such data. Reports and measures are also included in this project to meet federal, state and local requirements.	\$1,084,083	Closed	1	4/30/2015
Social and Health Services, Department of	Critical Incident Tracking System (CITS)	The CITS project consolidated critical data from multiple systems into the Tracking Incidents of Vulnerable Adults (TIVA) system to track, trend, and report on critical incidents across individuals and settings (e.g., home, residential care facility, adult family home, etc.).	\$15,067,016	Closed	2	11/17/2014
Social and Health Services, Department of	Electronic Records Vault - Evault	DSHS employees create, send, and receive well over 250,000 emails every working day. DSHS email was migrated to the Vault. This request is to pay increasing costs to support storage and records management in the Electronic Records Vault.	\$608,000	Closed - IT Pool	1	6/30/2017

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
Social and Health Services, Department of	ESAR Consulting - Enterprise Architecture	The primary goal of the project is to document the “as-is” architecture, develop a “to-be” architecture that aligns with the statewide EA approach and create a transition plan to move from the “as-is” to the “to-be” architecture.	\$1,470,448	Closed - IT Pool	1	6/30/2017
Social and Health Services, Department of	ESAR Maintenance and Operations	ESA receives enhanced funding for maintenance and operations (M&O) of the eligibility services to support the Health Benefit Exchange’s Healthplanfinder system. This request supports the on-going M&O and Health Benefits Exchange Enhancement Change Request activities by both state and eligibility vendor staff.	\$10,807,036	Closed - IT Pool	1	6/30/2017
Social and Health Services, Department of	FamLink Performance Base Contracting & Family Assessment Response	Critical changes were implemented in the FamLink system to support the Performance Based Contracting (PBC) and Family Assessment Response (FAR) requirements.	\$6,728,040	Closed	2	2/9/2014
Social and Health Services, Department of	HBE Eligibility Services & ACES Remediation (ESAR)	DSHS developed the Eligibility Service component of the Health Benefits Exchange (HBE), Washington’s state-based health insurance exchange required by the Affordable Care Act (ACA). This work included development of an Eligibility Service to meet near-term HBE needs and remediation of the Automated Client Eligibility System (ACES).	\$23,852,875	Closed	3	12/31/2013

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Social and Health Services, Department of	IT Solutions Disaster Recovery Implementation	The Center for Medicare/Medicaid Services (CMS) requires the DSHS ESA to attest to having successfully executed at least one Automated Client Eligibility System (ACES) Disaster Recovery exercise per year and provide Disaster Recovery Plans. DSHS secured a vendor (IBM) to provide a disaster recovery solution for the DSHS ACES and supporting systems. This solution will include remote recovery site with active resources for storing images of ACES system configurations and data. This project will provide service continuity for ACES and supporting systems in the event of a disaster and backup.	\$9,054,535	Closed	2	8/30/2016
Social and Health Services, Department of	UNISYS Rehosting	DSHS requirement to procure a new hosting and support services vendor and migrate applications and databases to a new mainframe by June 30, 2016. Failure to meet completion date results in costs to extend the life of the existing mainframe are estimated at \$1,988,000 through Fiscal Year 2017.	\$27,612,489	Closed - IT Pool	2	10/31/2016

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Social and Health Services, Department of	Workforce Optimization	A comprehensive Workforce Optimization Solution that meets the management and business process requirements for DSHS’s Economic Services Administration’s Community Services Division. This acquisition included functionality for forecasting workload and scheduling resources for improved workforce management, call recording with encryption key management, quality monitoring and desk top analytics for performance evaluation and improvement, and speech analytics for matching customer needs to resource capability. This acquisition also included integration to existing applications, and delivery of educational, consulting, training services, and change management for implementation of the software in our production environment.	\$6,430,456	Closed	2	6/30/2015
State Patrol, Washington	Mobile Office Platform Continuation	The WSP mobile office platform ensures that WSP troopers have technology in vehicles that meet modern law enforcement standards. This includes access to real time data exchanges with communications officers and other troopers, and access to numerous law enforcement, licensing, and criminal data bases to support law enforcement and ensure officer safety. In car video and video capture are also supported. The project fully implemented both mobile computing and video for the remaining unequipped troopers.	\$333,000	Closed - IT Pool	1	6/30/2016

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
State Patrol, Washington	P25 Narrowband Project	The Washington State Patrol (WSP) narrowband project to convert existing WSP radio systems to comply the Federal Communication Commission (FCC) “narrowband” rules. The primary project goals are: comply with the FCC narrowband mandate; interface the WSP radio system with the U.S. Department of Justice (USDOJ) radio infrastructure through an inter-zone link for shared radio operations; increase operational capability in the Puget Sound region; upgrade WSP’s dispatch computer systems; improve WSP’s emergency system audio logging systems; and prepare the agency for greater radio frequency efficiency by using trunking technology.	\$41,409,000	Closed	3	12/27/2016
State Patrol, Washington	Sergeant Mobile Laptop Computers	Sergeants play a critical role in support and supervision of troopers in the field. This investment provided sergeants with mobile computing with access to WSP law enforcement operations and records applications, which enables them to spend more time in the field in support of troopers and augment law enforcement operations.	\$60,000	Closed - IT Pool	1	6/30/2016
State Patrol, Washington	State Data Center Migration	WSP migrated their agency data center into the state data center managed by CTS. The move included creating a facility within SDC that meets CJIS and state security requirements consistent with WSP operations and data, building a new network core to manage increasing statewide network traffic, designing a data replication environment that will support remote data replication, and migrating all of WSP’s communication and business applications to the new data center.	\$2,430,000	Closed	2	8/31/2016

Agency Name	Project Name	Description	Budget	Project Status	Risk/ Sev	Project Approved End Date
State Patrol, Washington	A Central Computerized Enforcement Service System (ACCESS) Replacement Project	Replace the existing, non-supported ACCESS message switch that supports all law enforcement and criminal justice agencies in Washington. The ACCESS switch allows criminal justice agencies to exchange all-points bulletins, criminal history, driver and vehicle information.	\$2,390,296	Closed	2	8/31/2016
Superintendent of Public Instruction, Office of the	Educator Certification System	The Educator Certification e-Certification project replaced the previous manual system with an online certification application system that results in: 1) An easier online self-service process for educators to submit required documents and fees to obtain certification; 2) a reduction in the processing time for educator certificates; 3) a reduction in the number of emergency and temporary permits currently issued because of the processing backlog; 4) efficient collection of educator data including professional development credits and transcript data that are not collected today; and 5) the connection of existing and new educator data with other databases for analysis.	\$994,352	Closed	2	8/31/2014

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Superintendent of Public Instruction, Office of the	State Longitudinal Data System	K12/Student Longitudinal Data Warehouse provides longitudinal data to K12 schools and interfaces with the P20 Data Warehouse. It addresses RCW 28A.300.500 which authorizes OSPI to establish a longitudinal student data system, for and on behalf of school districts in the state. The primary purpose of the data system is to better aid research into programs and interventions that are most effective in improving student performance, better understand the state's public educator workforce, and provide information on areas within the educational system that need improvement.	\$5,941,887	Closed	2	5/31/2015
Superintendent of Public Instruction, Office of the	WINS - Child Nutrition	OSPI replaced the legacy child nutrition system with a modern, commercial off the shelf solution.	\$2,912,900	Closed	2	12/31/2015
Superintendent of Public Instruction, Office of the	Direct Cert - School Meal	The Direct Certification Project is a federally funded grant project to upgrade the identity brokering process that automatically matches and enrolls students in free and reduced lunch programs.	\$1,161,249	Closed	2	5/31/2015
Transportation, Department of (DOT)	Ferries Vehicle Reservation System (VRS)	DOT designed a ferry vehicle reservation system to manage demand, spread peak vehicle traffic, improve asset utilization, reduce wait times, and minimize costly terminal and vessel expansion projects.	\$8,640,000	Closed	3	12/31/2017
University of Washington (UW)	Enterprise Document Management System (EDMS)	UW procured an enterprise-scale document management System (EDMS).	\$6,297,510	Closed	2	1/2/2017

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Utilities and Transportation Commission (UTC)	Cases	This UTC replaced the Lotus Notes-based Records Management System (RMS) with a SharePoint 2013-based application, using internal development resources and supported by consulting services in an advisory role. The RMS tracks the UTC's cases and their assignments, events, final documents, status, and resulting compliance items. While this is an internal application for agency use, most of the data are made available on the agency's website, for use by the public and the regulated companies.	\$338,500	Closed	2	7/4/2014
Veterans Affairs, Department of	Enterprise Veterans Case Management System (EVCMS)	Implement a case management system to support multiple programs servicing the needs of veterans transitioning to civilian life. DVA operates 15 programs service veteran needs including the homeless, mental health counseling, employment services, etc. DVA has no enterprise system to service constituents this project implements an enterprise CRM system and migrates all program specific data.	\$785,000	Closed - IT Pool	2	6/30/2017
Washington Technology Solutions	Business One-Stop (BizHub) - Phase 1	The Washington Business Hub - Phase 1 provided a single, web-based place where businesses go to conduct business with the state and receive information that is tailored to them and their particular industry. The long-term vision, incorporating one or two additional phases, is to offer businesses a single, seamless experience with government so they can identify and conduct all their business transactions.	\$737,114	Closed	3	6/30/2015
Washington Technology Solutions	Business One-Stop (BizHub) - Phase 2	The Washington Business Hub - Phase 2 will continue to provide a single, web-based place where businesses go to conduct business with the state and receive information that is tailored to them and their particular industry. Features will include a dashboard and unified business registration.	\$1,660,000	Closed	2	7/11/2017

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Washington Technology Solutions	Identity and Access Management Project (IAM)	Today's increasing demand for seamless identity management across enterprise applications and cloud service providers creates a challenge due to the current state of Enterprise Active Directory. This project establishes a new enterprise identity management service to enable state agencies to use cloud services.	\$889,000	Closed	2	6/30/2017
Washington Technology Solutions	State Data Center Move (Phase 1)	This investment refreshes, installs, and moves equipment operating in the Office Building 2 (OB2) data center into the State Data Center (SDC). This will reduce the cooling problem in the OB2 data center and utilize the state's new state-of-the-art data center.	\$5,069,541	Closed	3	6/30/2015
Washington Technology Solutions	Web Platform Service	A new website management service for agencies delivered through WaTech/e-gov that would include primarily Drupal websites. The service is intended to provide agencies a quick and cost-effective way to obtain mobile, accessible, and secure public websites...	\$0	Closed		