



Enhancing Agency Digital Security

2021–23 Biennial Operating Budget Decision Package (DP)

Agency/Program Recommendation Summary

The Office of Superintendent of Public Instruction (OSPI) requests \$160,000 for the 2021–23 biennium to upgrade our Microsoft Office 365 licensing level from A3 to A5 for all agency accounts, and to maintain the new server and data backup application needed to support the new hardware installed as part of the State Data Center (SDC) move. OSPI provides shared service email to the following additional agencies: State Board of Education (SBE), Professional Educator Standards Board (PESB), Charter Schools Commission (CSC) and Financial Education Public-Private Partnership (FEPPP). This upgrade has been requested by the State CIO for upgraded security to support remote workforce.

Package Description

What is the problem, opportunity, or priority you are addressing with the request?

The State Chief Information Officer has requested state agencies to upgrade Microsoft Office 365 licenses from A3 to A5 for its enhanced security features. The Microsoft Office 365 A5 level of licensing includes artificial intelligence to learn and defend against new virus signatures. The enhanced, automated security features will reduce the chance that the Office of Superintendent of Public Instruction (OSPI) email accounts are compromised by the harvesting of credentials that could be used to access internal data systems, and thereby exposing protected student-level information. The A5 licensing level also includes data loss prevention to reduce the possibility of accidentally or intentionally sending student-level information or other personally identifiable information via unsecure email. In addition, the eDiscovery module, included in the A5 licensing level, will reduce the number of hours needed for public records or discovery requests by automating the search tasks; these are currently done manually by numerous different agency staff.

The move to the State Data Center (SDC) per RCW 43.105.375 required OSPI to upgrade hardware, resulting in the procurement of a new backup solution. The Legislature provided one-time funding for the 2019–21 biennium; however, OSPI needs continued funding to keep the agency in compliance with industry and WaTech best backup standards.

What is your proposed solution?

OSPI requests funding to support the upgrade of the agency's current Microsoft Office 365 licenses from A3 to A5 as requested by the State CIO, and as required to comply

with industry and WaTech standards. OSPI also requests funding to support continued use of the agency's current cloud-based server, application, and data backup and recovery solution. Additionally, both requests align with the state's 2017–21 Enterprise Technology Strategic Plan sections Enterprise Architecture and Security & Privacy.

This funding will allow OSPI to use the enhanced, automated security features available through the A5 license to better protect both agency and student-level information. The A5 license will also minimize the possibility of error and provide savings in terms of staff time when responding to public records request. In addition, the funding will allow OSPI to keep the high-quality cloud-based server and backup and recovery solution currently employed by the agency.

What are you purchasing and how does it solve the problem?

OSPI seeks funding for the difference in cost between OSPI's current Microsoft Office 365 A3 license and the A5 license. Without this additional funding, OSPI will continue to have a noncompliant Microsoft Office 365 A3 license.

OSPI requests continued funding for an agency subscription to the current cloud-based backup and recovery application a requirement of the State Data Center (SDC) move.

What alternatives did you explore and why was this option chosen?

The only option outside of upgrading Microsoft Office 365 from A3 to A5 is for the agency not to purchase an upgrade, against the recommendations of the State CIO. This would potentially introduce additional security concerns for the remote workforce and require current staff to continue to manually scan and review potential security vectors. Through human error, manual IT security efforts can result in missed security mitigations that would otherwise automatically be deployed.

In addition, the risk of agency staff erroneously sending federally protected student-level information and/or personally identifiable information is increased without the automated toolset.

Lastly, the included eDiscovery module will reduce significantly the number of staff hours required across the agency to address public records and discovery requests in a responsive and timely manner.

The alternative to funding the cloud-based backup and recovery server, application, and data solution would be to seek a less expensive and less comprehensive on-site solution that will require more staff time to configure and maintain. In addition, using a less automated solution could put OSPI's servers, applications, and data in jeopardy in the event of a disaster, or in the case that a full restoration is needed in response to a malware or ransomware attack. The existing cloud-based backup and recovery server

used by the agency extends into OSPI's Azure environment, while new on-site solution would require consulting services to configure the extension into the Azure cloud. Maintaining OSPI's current high-quality cloud-based backup and recovery solution minimizes the amount of staff time required to perform this function.

Both the Microsoft Office 365 upgrade from A3 to A5 and the backup and recovery solution are in alignment with the state's 2017–21 Enterprise Technology Strategic Plan Enterprise Architecture and Security & Privacy sections.

Performance Measures

Performance outcomes:

Funding the Microsoft Office 365 upgrade from A3 to A5 will reduce the security vulnerabilities for the agency's remote workforce, and better protect student-level and personally identifiable information.

OSPI will also see increased efficiency in the use of staff hours, as automated features of the A5 license will allow the agency to respond more quickly and accurately to public records and discovery requests.

Continued funding of the agency's cloud-based backup and recovery server, application, and data solution will allow a continuity of service, and allow OSPI to retain its high-quality system which already extends into OSPI's Azure environment. This will ensure savings around staff hours needed to respond to potential server breaches.

Specifically, Microsoft Office 365 A5 licensing:

- Zero incidents of successful phishing attempts.
- Zero incidents of unsecure transmission of personally identifiable information and/or student level data.
- Significant reduction in staff-hours to search for responsive records to both public records and legal discovery requests.

Backup and recovery solution:

- Automated weekly full backups and daily incremental application and data backups all stored in the Azure cloud.
- Automated full metal backup of servers.
- Applications and data restored in days versus weeks, if necessary.
- Servers recovered in minutes versus hours, if necessary.

Fiscal Details (Funding, FTEs, Revenue, Objects)

Operating Expenditures	FY 2022	FY 2023	FY 2024	FY 2025
Fund 001-1	80,000	80,000	80,000	80,000
Total Expenditures	80,000	80,000	80,000	80,000
Biennial Totals	160,000		160,000	
Staffing	FY 2022	FY 2023	FY 2024	FY 2025
FTEs	0	0	0	0
Average Annual	0		0	
Revenue	FY 2022	FY 2023	FY 2024	FY 2025
Total Revenue	0	0	0	0
Biennial Totals	0		0	
Object of Expenditure	FY 2022	FY 2023	FY 2024	FY 2025
Obj. E	80,000	80,000	80,000	80,000

Assumptions and Calculations

Expansion or alteration of a current program or service:

No funding has been provided for upgrading the Microsoft Office 365 licensing level from A3 to A5, as requested by the State CIO.

Regarding OSPI's cloud-based backup and recovery application, one-time funding was provided in the 2019–21 biennium, and this proposal continues funding of this maintenance-level service. This funding will continue the current solution.

Detailed assumptions and calculations:

The additional costs for the Microsoft Office 365 A5 licensing upgrade are based on vendor quotes.

The cost of continued funding for OSPI's cloud-based backup and recovery solution is based on current actual expenditures.

Workforce assumptions:

N/A

How is your proposal impacting equity in the state?

N/A

Strategic and Performance Outcomes

Strategic framework:

These funding requests align with the state's 2017–21 Enterprise Technology Strategic Plan of Enterprise Architecture and Security & Privacy and alignment with the state's cloud first strategy.

Other Collateral Connections

Intergovernmental:

None.

Stakeholder response:

The State CIO supports OSPI's upgrade of its Microsoft Office 365 license from A3 to A5.

The State CIO supports the agency's continued use of the existing cloud-based backup and recovery solution.

Legal or administrative mandates:

OCIO Policy 186 – Commonly Used Software Product Retirement Policy

Changes from current law:

None.

State workforce impacts:

None.

State facilities impacts:

None.

Puget Sound recovery:

N/A

Other Documents

Reference documents:

None.

Information technology (IT) addendum:

Does this decision package include funding for any IT-related costs, including hardware, software (including cloud-based services), contracts, or IT staff?

☐ No

☒ Yes

2021-23 IT ADDENDUM

NOTE: Only use this addendum if your decision package includes IT costs and DOES NOT relate to implementation of the One Washington project.

Part 1: Itemized IT costs

Please access the 2021-23 IT Fiscal Estimate Workbook imbedded in this document below. Agencies must itemize all IT-related costs, including hardware, software, services (including cloud-based services), contracts (including professional services, quality assurance, and independent verification and validation), or IT staff. When itemizing costs, please consider the total cost of the combined level of effort which includes: the associated costs, from planning through closeout, of state, vendor, or both, in order to purchase, acquire, gather and document requirements, design, develop or configure, plan or conduct testing, and complete implementation of enhancement(s) to an existing system.

Please itemize all IT cost associated with this request where you are not asking for additional funding. These costs are considered in-kind and provided through existing agency base. Detailed costs from existing agency base should be entered on the in-kind tab within the 2021-23 IT Fiscal Estimate Workbook.



Part 2: Questions that support the reuse of existing state resources

To ensure effective reuse of existing state resources, all IT investments — including project IT expenditures — are expected to comply with IT statutes and policies. The answer to these questions will help OCIO and OFM determine if the decision package will be funded.

- A. Does this investment provide for acquisition of, or enhancement to, an administrative or financial system? ☐ Yes ☒ No
- B. If Yes, has this decision package gone through the Administrative and Financial System review as required in [\(SAAM\) section 80.30.88?](#) ☐ Yes ☐ No

If Yes, attach the approval letter.

If No, do not submit the decision package. Recommendation will be "Do Not Fund".

- C. Does this decision package fund the acquisition or enhancement of equipment or facilities in any agency data centers? (See [OCIO Policy 184](#) for definition.) ☐ Yes ☒ No
- D. If yes, do you have an approved waiver to proceed with this proposed investment? ☐ Yes ☐ No
- If Yes, attach a copy of the waiver approval.
- If No, do not submit this decision package. Recommendation will be "Do Not Fund".
- E. For Health and Human Services agencies (HHS Coalition) DCYF, DOH, DSHS, HCA and Washington Health Benefit Exchange, has this project been screened for inclusion in the HHS Coalition portfolio? ☐ Yes ☐ No
- If Yes, this is part of the HHS Coalition portfolio, has this project received HHS Coalition project initiation approval? ☐ Yes ☐ No ☐ N/A
- If answer to the first HHS Coalition question is Yes (or N/A for second question), attach approved HHS Coalition Project Initiation Form.
- If No to either HHS question, do not submit the decision package. Recommendation will be "Do Not Fund".

Part 3: Maintenance and policy level decision packages

Answers to these questions will be used in part to determine if the decision package will be evaluated and ranked by the OCIO as required by RCW 43.88.092.

- A. Does this decision package fund the acquisition or expansion of computer hardware capacity? ☐ Yes ☒ No
- If Yes, where will the hardware solution be hosted? ☐ State Data Center
- ☐ External Cloud
- B. Does this decision package fund the development or acquisition of a new or enhanced software solution or service? ☐ Yes ☒ No
- If Yes, where will the software solution be hosted? ☐ State Data Center
- ☐ External Cloud
- C. If response to question B is Yes, do you expect this to solution to exchange information with the state financial system (AFRS) or the OneWA solution? ☐ Yes ☐ No

D. If response to question B is Yes, will this investment renew or procure facial recognition service? ☐Yes ☐ No

E. Does this decision package fund the continuation of a project that is, or will be, under OCIO oversight? (See OCIO Policy 121.) ☐Yes ☒ No

If Yes, name the project:

(Project name published on the [IT Dashboard](#))

If your decision package is maintenance and you answered "yes" to any of the above questions in Part 3, you must answer the questions in Part 4 below to finish the IT Addendum. All policy decision packages must answer question in Part 4.

Part 4: IT Investment Questions

Please provide a response to the following questions. Responses will be evaluated and ranked by the OCIO as required by [RCW 43.88.092](#). Chapter 10 of the operating budget instructions contains the criteria used to evaluate 2021-23 decision packages.

AGENCY READINESS

Due diligence

1. Summarize the feasibility or due diligence work completed in support of this decision package. Attach a copy of the feasibility study or other documentation of due diligence to the decision package.

Upgrade was at the request of the State CIO. In addition to the enhanced security features available in the Microsoft A5 licensing, the upgraded licensing also includes data loss prevention, insider risk management and an eDiscovery module. The data loss prevention module should minimize the possibility of transmitting personally identifiable information as well as student level information via unsecure electronic communications. The insider risk management module will allow for a more comprehensive view into elevated privileges access. The eDiscovery module should allow for a more centralized and comprehensive documents search across the entire domain thereby reducing the administrative burden of all agency individuals searching for relevant documents and email messages in response to both public records and legal discovery requests.

No feasibility study was completed for the requested continuation of funding for an existing backup and recovery application.

Governance and management

2. What governance processes will support this project? Examples of governance processes include appropriately placed executive sponsor, representative steering committee, resourced vendor/contract management, change control, and incorporating stakeholder feedback into decision making processes. Provide examples of how your proposed budget includes adequate funding and planning for governance processes, if applicable.

If funding is approved to move from Microsoft Office 365 licensing level A3 to A5, it will simply be activated and managed as part of our existing internal business processes.

If funding is approved for continued funding of OSPI's existing cloud-based backup and recovery application, nothing changes. If funding is not approved, a project will have to be started for the transition to a less capable product and associated impacts.

Planning and readiness

3. Describe how your agency will resource the project management of this project. Will in-house resources be used, or will resources be acquired? How has organizational change management been factored into planning and approach? Has the project requested a project management approach to be used for this project? Describe whether project and organizational change management resources are included in this request or will be provided by in-kind resources. Describe whether the proposed budget includes costs associated with independent quality assurance.

Will be handled via normal existing internal resources and processes by activating the key code for the Microsoft licensing upgrade or simply processing the invoice for the backup and recovery solution.

Technical alignment

Strategic alignment

4. Using specific examples, describe how this investment aligns with strategic elements of the Enterprise Technology Strategic Plan. Examples of strategic principles that tie back to tenets of the strategic plan include, but are not limited to: buy don't build, solutions hosted on modern hosting solutions, solutions promoting accessibility, early value delivery of functionality throughout the project, and modular implementation of project features.

Both the Microsoft Office 365 A5 license and cloud-based backup and recovery solution will both be purchased and are the most currently available in the marketplace today.

Both the Microsoft Office 365 A5 license upgrade and the continuation funding for the agency's backup and recovery solution align directly with the state's 2017-2021 Enterprise Technology Strategic Plan, specifically:

- Enterprise Architecture
 - Modernize infrastructure and applications. Both the Microsoft Office 365 A5 licensing and the agency's current backup and recovery solution are the most current versions available in the marketplace today. The agency's backup and recovery solution is shown in Gartner's magic quadrant.
- Security & Privacy
 - Proactively assess application security. The Microsoft Office 365 A5 license includes the insider risk management module that will allow for a more comprehensive view into elevated privilege access to restrict access to source code only to those needing it.
 - Continuously improve state defenses. The Microsoft Office 365 A5 security module provides for advanced threat protection and advanced message encryption that will increase security for a remote workforce. Additionally, the A5 license also bring artificial intelligence (AI) into threat assessment to provide earlier detection of potential virus signatures.
 - Provide agencies with tools to improve privacy practices. With the data loss prevention module included in the Microsoft Office 365 A5 license, it should minimize the possibility of transmitting personally identifiable information as well as student level information via unsecure electronic communications protecting Washingtonian's privacy.

Technical alignment

5. Using specific examples, describe how this investment aligns with technical elements of the Enterprise Technology Strategic Plan. Examples of technical principles that tie back to tenets of the strategic plan include, but are not limited to: technology reuse, data minimization, incorporating security principles into system design and implementation, publishing open data, and incorporating mobile solutions into systems.

The Microsoft Office 365 A5 licenses contain the most advanced security features offered by Microsoft in their Office 365 platform. Continued funding of the cloud-based backup and recovery application is continued use of an existing platform.

Both the Microsoft Office 365 A5 license upgrade and the continuation funding for the agency's backup and recovery solution align directly with the state's 2017-2021 Enterprise Technology Strategic Plan, specifically:

- Enterprise Architecture
 - Modernize infrastructure and applications. Both the Microsoft Office 365 A5 licensing and the agency's current backup and recovery solution are the most current versions available in the marketplace today. The agency's backup and recovery solution is shown in Gartner's magic quadrant.

- In the unlikely event of needing to restore business services after a major security incident, the backup and recovery solution will reduce the time to recover to days versus weeks using manual backups and manual restoration.
- Backup and recovery solution is cloud-based keeping with the enterprise technology strategic plan's cloud first strategy for new applications.
- Security & Privacy
 - Proactively assess application security. The Microsoft Office 365 A5 license includes the insider risk management module that will allow for a more comprehensive view into elevated privilege access to restrict access to source code only to those needing it.
 - Continuously improve state defenses. The Microsoft Office 365 A5 security module provides for advanced threat protection and advanced message encryption that will increase security for a remote workforce. Additionally, the A5 license also bring artificial intelligence (AI) into threat assessment to provide earlier detection of potential virus signatures.
 - Provide agencies with tools to improve privacy practices. With the data loss prevention module included in the Microsoft Office 365 A5 license, it should minimize the possibility of transmitting personally identifiable information as well as student level information via unsecure electronic communications protecting Washingtonian's privacy.

Reuse and interoperability

6. Does the proposed solution support interoperability and/or interfaces of existing systems within the state? Does this proposal reuse an existing solution or existing components of a solution already in use elsewhere in the state? If the solution is a new proposal, will it allow for such principles in the future? Provide specific examples.

Both the Microsoft Office 365 licenses and backup and recovery solutions are unable to be used by any other agency. Each agency is responsible for their own.

Business alignment

Business driven technology

7. What are the business problems to be addressed by the proposed investment? These business problems should provide the basis for the outcome discussion below. Describe how end users (internal and external) will be involved in governance and implementation activities.

The agency is seeking to increase our IT security posture to ensure the agency has the most secure applications available. OSPI provides oversight and governance of K-12 education affecting:

- 313 school districts
- 2385 schools
- 1,147,573 students
- 37,362 educators
- 9 educational service districts

Any significant compromise of agency business applications directly affects K-12 education in Washington. Both the Microsoft licensing upgrade and the agency's current backup and recovery solution will help protect the integrity of the agency's business applications and student data.

Measurable business outcome

8. Strategic and Performance Outcomes (Chapter 2 - 2021-23 Budget Instructions) of the decision package response will be used to identify how this proposed IT investment improves business outcomes within your agency. The description in the decision package should provide specific examples of business outcomes in use within your agency, and how those outcomes will be improved as a result of this technology investment.

Microsoft Office 365 A5 licensing:

- Zero incidents of successful phishing attempts.
- Zero incidents of unsecure transmission of personally identifiable information and/or student level data.
- Significant reduction in staff-hours to search for responsive records to both public records and legal discovery requests.

Backup and recovery solution:

- Automated weekly full backups and daily incremental application and data backups all stored in the Azure cloud.
- Automated full metal backup of servers.
- Applications and data restored in days versus weeks, if necessary.
- Servers recovered in minutes versus hours, if necessary.

Decision Package Urgency

9. Address the urgency of implementing the technology investment in this cycle and impacts to business if technology effort doesn't proceed as planned?

This funding also addresses the request by the State CIO to upgrade Microsoft Office 365 licenses to the '5' level. Agency license renewal will be September 2021 for the

Microsoft Office 365 licenses so funding will be needed by the beginning of the next biennium. Additionally, upgrading the Microsoft Office 365 license levels is in alignment with the state's 2017-2021 Enterprise Technology Strategic Plan of Enterprise Architecture and Security & Privacy as detailed above in the Technical Alignment section.

Agency license renewal will be October 2021 for the backup and recovery solution so funding will be needed by the beginning of the next biennium. The backup and recovery solution was required as part of finalizing the move into the state data center. Additionally, the backup and recovery solution is in alignment with the state's 2017-2021 Enterprise Technology Strategic Plan of Enterprise Architecture as detailed above in the Technical Alignment section.