Arizona Department of Administration
Arizona Strategic Enterprise Technology Office (ASET) IT Project Oversight

ASET has provided insufficient oversight of IT projects, decreasing its ability to identify projects at risk of failing and hindering critical State agency functions, and did not always ensure that high-risk IT projects received independent third-party reviews, potentially jeopardizing their success

Performance Audit

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A Report to the Arizona Legislature

Lindsey A. Perry
Auditor General

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July 21, 2023

Members of the Arizona Legislature

The Honorable Katie Hobbs, Governor

Ms. Elizabeth Alvarado-Thorson, Director
Arizona Department of Administration

Transmitted herewith is the Auditor General's report, *A Performance Audit of the Arizona Department of Administration—Arizona Strategic Enterprise Technology Office (ASET) IT Project Oversight*. This report is in response to a December 17, 2020, resolution of the Joint Legislative Audit Committee. The performance audit was conducted as part of the sunset review process prescribed in Arizona Revised Statutes §41-2951 et seq. I am also transmitting within this report a copy of the Report Highlights to provide a quick summary for your convenience.

As outlined in its response, the Department agrees with all the findings and plans to implement or implement in a different manner all the recommendations. My Office will follow up with the Department in 6 months to assess its progress in implementing the recommendations.

My staff and I will be pleased to discuss or clarify items in the report.

Sincerely,

Lindsey A. Perry

Lindsey A. Perry, CPA, CFE
Auditor General

Report Highlights

Arizona Department of Administration

Arizona Strategic Enterprise Technology Office (ASET) IT Project Oversight

ASET has provided insufficient oversight of IT projects, decreasing its ability to identify projects at risk of failing and hindering critical State agency functions, and did not always ensure that high-risk IT projects received independent third-party reviews, potentially jeopardizing their success

Audit purpose

To determine whether ASET complied with its statutory responsibility to oversee State IT projects and make recommendations to the Information Technology Authorization Committee (ITAC) related to IT projects, as applicable.

Key findings

- The Department is statutorily responsible for State government IT functions and has assigned these responsibilities to ASET. ASET's responsibilities include reviewing, approving, or recommending ITAC approve agencies' IT projects; monitoring agencies' IT projects through expenditure and activity reports and conducting periodic reviews; temporarily suspending the expenditure of monies related to an IT project if it determines that the project is at risk of failing to achieve its intended results; and requiring agencies to contract for independent third-party reviews of IT projects with total costs over $5 million before recommending these projects to ITAC for approval.
- ASET's insufficient oversight of IT projects hampers its ability to assess whether IT projects are at risk of failure and whether they have met intended results, and some IT projects we reviewed had significant issues that hindered critical agency functions related to protecting children, the public, and citizens' sensitive information. For example, we found that ASET closed IT projects with unresolved issues and for 20 IT projects we reviewed, ASET did not:
  - Consistently receive or document its review of status reports for 15 projects.
  - Consistently track project start and end dates for 14 projects.
  - Consistently corroborate or receive IT project expenditure information.
  - Evaluate or ensure that agencies evaluated project outcomes.
  - Take action to suspend IT projects.
- ASET did not ensure that agencies contracted for independent third-party reviews before recommending high-risk IT projects for ITAC approval, potentially jeopardizing their success. For example, 2 independent third-party reviews identified concerns and risks that were not considered during ASET's or ITAC's review and consideration of the IT projects' approval.
- ASET has not implemented some oversight and accountability mechanisms, such as policies, standards, or procedures, to ensure that it consistently meets its responsibilities for overseeing State IT projects and for ensuring that agencies contract for and obtain an independent third-party review prior to making recommendations to ITAC.

Key recommendations

ASET should:

- Develop and implement policies, procedures, and/or standards for reviewing status reports, maintaining complete and accurate IT project data, corroborating IT project expenditures, addressing IT project failure risks, evaluating IT project outcomes, and contracting for independent third-party reviews.
- Work with ITAC to develop a process for requiring that agencies obtain and provide ASET and ITAC with the initial results of independent third-party reviews.

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ASET has provided insufficient oversight of IT projects

ASET's insufficient IT project oversight hampers its ability to assess IT project success, and some IT projects we reviewed had significant issues that hindered critical agency functions related to protecting children, the public, and citizens' sensitive information

ASET has not implemented key IT project oversight and accountability mechanisms

Recommendations

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Consistent with law and industry standards, ASET must require agencies to contract for independent third-party reviews of IT projects with costs over $5 million before recommending these projects to ITAC for approval

ASET did not ensure that agencies contracted for and obtained an independent third-party review before recommending most IT projects to ITAC for approval

ASET's failure to require independent third-party reviews before recommending high-risk IT projects to ITAC for approval limits key information related to project concerns and risks for it and ITAC to consider and address, potentially jeopardizing these projects' success

ASET has not established accountability mechanisms related to the independent third-party review and reported that it does not require agencies to obtain the results of the independent third-party review before it recommends IT projects to ITAC for approval

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INTRODUCTION

The Arizona Auditor General has released the first in a series of 2 audit reports of the Arizona Department of Administration (Department) as part of the Department's sunset review. This performance audit determined whether the Department's Arizona Strategic Enterprise Technology Office (ASET) complied with its statutory responsibility to oversee State information technology (IT) projects and make recommendations to ITAC related to IT projects, as applicable (see textbox for more information on IT projects and other key terms used in this report). The second and final audit report will provide responses to the statutory sunset factors.

Key terms

Agency—A department, commission, board, institution, or other State agency receiving, expending, or disbursing State monies or incurring State obligations, including the Arizona Board of Regents but excluding the universities under the Arizona Board of Regents' jurisdiction, community college districts, and the legislative and judicial branches.[1]

ITAC—Information Technology Authorization Committee (see pages 2 and 3 for more information about ITAC).

IT—All computerized and auxiliary automated information processing, telecommunications, and related technology, including hardware, software, vendor support and related services, equipment, and projects.

IT project—A series of activities, events, and investments to develop and implement new or enhanced IT over a prescribed time period.

Expenditure and activity report—Standard project status summary that agencies use to report IT project progress and costs to ASET.

PIJ—Project investment justification (see page 2 for more information about PIJ documents).

Total project costs—IT development and implementation costs associated with an IT project.

[1] Statute and rule refer to agencies as "budget units."

Source: Auditor General staff review of A.R.S. §18-101 and AAC R2-18-101.

Department responsible for State government IT functions and has assigned these responsibilities to ASET

The Department is statutorily responsible for the State's government IT functions, including developing, implementing, and maintaining a coordinated State-wide IT plan. These responsibilities include adopting State-wide IT standards, serving as the State-wide coordinator for IT resources, and developing a State-wide disaster recovery plan.[1] The Department has assigned ASET to perform its State-wide IT responsibilities.[2]

[1] Arizona Revised Statutes (A.R.S.) §§18-101 through 18-106.

[2] Because the Department has assigned its statutory IT responsibilities to ASET, we refer to these statutory responsibilities as ASET's responsibilities throughout this report.

ASET's responsibilities include reviewing, approving, recommending for approval to ITAC, and monitoring agencies' IT projects

According to A.R.S. §18-104, ASET is statutorily responsible for evaluating agencies' IT projects and either approving or rejecting them or making recommendations to ITAC related to their approval. Specifically, ASET is required to:

- Evaluate and approve or reject agencies' IT projects with total costs of at least $25,000 but no more than $1 million.
- Evaluate and make recommendations to ITAC for agencies' IT projects with total costs exceeding $1 million.
- Require agencies to contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion, and overall feasibility of IT projects with total costs exceeding $5 million before making recommendations to ITAC.

To facilitate its evaluation of agencies' IT projects, Arizona rules require agencies to submit a PIJ document to ASET for any IT project with total costs of at least $25,000.[3] The PIJ document requires agencies to provide specific IT project information, such as a project description, justification of the project's value to the State, a tentative project schedule and budget, and project performance indicators. Based on ASET's or ITAC's review of the PIJ document, it can approve, conditionally approve, or reject an IT project. When ASET or ITAC conditionally approve a project, ASET or ITAC must identify the conditions that the agency must satisfy to proceed with the project.[4] The agency may then begin the IT project, with ASET monitoring, while in the process of satisfying the approval conditions.

Additionally, statute and rule require ASET to monitor IT projects with total costs greater than $25,000, including expenditure and activity reports and conducting periodic reviews, and to temporarily suspend the expenditure of monies related to an IT project if it determines that the project is at risk of failing to achieve its intended results or does not comply with statutory requirements.[5] According to ASET policy, ASET may also temporarily suspend the expenditure of monies when an IT project does not comply with project approval conditions.

ITAC responsible for approving IT projects with total costs exceeding $1 million

ITAC is statutorily required to approve or disapprove all proposed IT projects that exceed total costs of $1 million and to approve any project changes. Additionally, ITAC is required to hear and decide appeals made by agencies regarding ASET's rejection of their proposed IT plans or projects. Pursuant to A.R.S. §18-121, ITAC consists of 10 voting members and 6 advisory members (see textbox, page 3, for more information about ITAC's membership). Consistent with A.R.S. §18-104, ASET staff provide administrative support to ITAC.

Information security responsibilities transferred to Department of Homeland Security

Prior to September 2022, statute established the Statewide Information Security and Privacy Office within the Department as the strategic planning, facilitation, and coordination office for State-wide information security. The Statewide Information Security and Privacy Office's responsibilities included developing, implementing, maintaining, and ensuring compliance with a coordinated State-wide assurance plan for information security and privacy; monitoring and reporting agencies' compliance with State information security and privacy

[3] Arizona Administrative Code (AAC) R2-18-201.

[4] AAC R2-18-201.

[5] A.R.S. §18-104 and AAC R2-18-101 through R2-18-201.

protection policies, standards, and procedures; and coordinating State-wide information security and privacy protection awareness and training programs.

ITAC Membership[1]

Voting members:

- Four members from private industry knowledgeable in information technology, appointed by the Governor, or their designees.
- Two State agency directors, appointed by the Governor, or their designees.
- Administrative director of the Administrative Office of the Courts, or the director's designee.
- Two members from private industry or State government, appointed by the Governor, or their designees.
- State chief information security officer, or the officer's designee.[2]

Advisory members:

- One member of the House of Representatives, appointed by the Speaker of the House of Representatives.
- One member of the Senate, appointed by the President of the Senate.
- One local government member, appointed by the Governor.
- One federal government member, appointed by the Governor.
- Director of the Department, or the director's designee.
- Staff director of the Joint Legislative Budget Committee (JLBC), or the director's designee.

[1] ITAC members who are from private industry serve 2-year terms, and the remaining members serve at the pleasure of their appointing officers.

[2] According to A.R.S. §41-4252, the director of the Arizona Department of Homeland Security appoints the State chief information security officer.

Source: Auditor General staff review of A.R.S. §§18-121 and 41-4252.

Effective September 24, 2022, Laws 2022, Ch. 50, transferred the Statewide Information Security and Privacy Office and most of its responsibilities to the Arizona Department of Homeland Security and required the Department to evaluate IT projects in consultation with the Statewide Information Security and Privacy Office. Specifically, these laws require the Statewide Information Security and Privacy Office to consult with the Department for a security review of IT projects.

ASET's organization and staffing

As of May 2023, ASET reported having 83.5 filled full-time equivalent (FTE) positions and 10 vacancies. These FTE included the State chief information officer with the remaining FTE positions assigned to the following 3 sections:[6]

- **Business engineering (27 FTEs, 5 vacancies)—**According to ASET, this section's responsibilities include helping agencies develop their IT plans, managing the implementation of ASET IT projects, assisting agencies through the IT project review and approval process, and overseeing IT projects.
- **Enterprise operations (40.5 FTEs, 4 vacancies)—**According to ASET, this section's responsibilities include assisting agencies to design, build, and implement software applications; overseeing IT contracts and vendors, including a State-wide contract for telecommunication services and equipment; and providing support services to agencies, including an IT help desk.

[6] According to A.R.S. §18-103, the Department director is responsible for appointing a chief information officer for IT.

- **Enterprise programs and consulting (15 FTEs, 1 vacancy)—**According to ASET, this section's responsibilities include providing applications and services to help solve problems faced by all agencies and managing ASET's records, including updating policies, standards, and procedures.

ASET has provided insufficient oversight of IT projects, decreasing its ability to identify projects at risk of failing to meet their intended results and hindering critical State agency functions

ASET is responsible for overseeing agencies' IT projects

ASET and agencies have a joint responsibility to ensure the success of IT projects. Agencies are responsible for IT project planning, development, and implementation, either directly or through contractors, while ASET is responsible for overseeing IT projects, including monitoring projects through status reports, taking action when projects are at risk of failing, and ensuring project outcomes are evaluated. Specifically:

- **ASET is responsible for monitoring agency-prepared IT project status reports until the project is completed and closed—** Statute and rule require ASET to monitor agencies' IT projects with total costs greater than $25,000, including expenditure and activity reports, and to conduct periodic reviews.[7,8] Consistent with this requirement, ASET policy requires agencies to submit IT project status reports to it monthly or at intervals specified at project startup (see textbox for information that ASET requires agencies to include in status reports). Further, ASET policy and the State-wide project status reporting standard mandate that agencies report IT project status until ASET closes the IT project.[9]

Information ASET requires agencies to include in status reports

Update—General update on the status of an agency's progress in developing and implementing an IT project, including IT project tasks completed during the reporting period.

Financials—IT project budget information, including expenditures for the reporting period, expenditures to date, and remaining budget available to be spent.

Milestones—IT project significant points or events, such as completing software user testing. For each milestone, agencies should include information on its status, such as the milestone being behind schedule or complete, and its completion date.

Risks—IT project risks that could impact the IT project's completion and/or success, such as limited personnel available to work on the IT project. For each risk, agencies should include information on the potential impact, mitigation strategy, and status, such as whether the risk is open or has been mitigated.

Project health—IT project health indicated by color. Specifically, agencies report green for on track, yellow for at risk, or red for off track.

Source: Auditor General staff review of IT project status reports and ASET documents.

[7] A.R.S. §18-104 and AAC R2-18-101.

[8] AAC R2-18-101 defines an expenditure and activity report as a standard project status summary that agencies use to report progress and costs on IT projects.

[9] The State-wide project status reporting standard requires agencies to continue status reporting until notifying the Government Information Technology Agency (GITA) that the IT project is complete and GITA staff close the project. However, Laws 2011, Ch. 27, §57, transferred GITA's duties and responsibilities, including administrative matters, to the Department in 2011. Further, the project status reporting standard is referenced in ASET's PIJ policy, which it last updated in 2021, and as of March 2023, was still listed on ASET's website.

- **State accounting manual requires agencies to track IT project costs in State's accounting system, and statute authorizes ASET to require agencies to provide it with any information it needs to perform its IT responsibilities—**The State of Arizona Accounting Manual (SAAM) requires agencies to track IT project costs in the Arizona Financial Information System (AFIS), the State's accounting system, with specific accounting function codes that include the IT project's PIJ identifier.[10,11] ASET requires that agencies provide it with these codes when submitting a PIJ. Additionally, A.R.S. §18-104(C) authorizes ASET to require any agency to provide it with any information needed to carry out its statutory responsibilities.

- **Statute and rule require ASET to temporarily suspend IT projects at risk of failing or that do not comply with statutory requirements, and ASET policy authorizes it to temporarily suspend IT projects that do not comply with project approval conditions—**Statute and rule require ASET to temporarily suspend the expenditure of monies and related activities for IT projects if it determines that an IT project is at risk of failing to achieve its intended results or does not comply with statutory requirements.[12] Further, according to ASET policy, ASET may also temporarily suspend the expenditure of monies when an IT project does not comply with project approval conditions.[13]

- **State project status reporting standard requires ASET and agencies to evaluate project outcomes at IT project completion—**According to the State-wide project status reporting standard, at the time of IT project completion, ASET and agencies must evaluate changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State that resulted from the IT project.[14,15]

ASET has provided insufficient oversight of IT projects

Our review of ASET IT project files and data found that it has provided insufficient oversight of IT projects. Specifically, ASET staff:

- **Did not consistently receive or document reviewing IT project status reports for 15 of 20 IT projects we reviewed—**We reviewed 20 completed IT projects (consisting of a random sample of 19 completed IT projects ASET or ITAC approved in fiscal years 2018 through 2022 and 1 judgmentally selected IT project ITAC approved in 2017) and found that ASET did not consistently receive and/or review status reports for 15 of 20 IT projects (see Figure 1, page 7).[16] Specifically, our review found that these 15 IT projects had between 7 and 90 percent of required status reports missing and/or lacking a documented review. For example, ASET:

    - Did not receive a monthly status report for 9 months related to the Industrial Commission of Arizona's (ICA) Salesforce expansion project, an IT project that sought to eliminate duplicate data entry processes and reduce waste by integrating its Salesforce system with U.S. Department of Labor

[10] The SAAM contains the State's accounting policies and procedures and is published by the Department's General Accounting Office in accordance with statute.

[11] According to the SAAM, this requirement applies to IT projects with anticipated total costs greater than $25,000.

[12] A.R.S. §18-104(A)(5) and AAC R2-18-201(B).

[13] ASET and ITAC generally approve IT projects under the condition that if IT project expenditures exceed approved estimated costs by 10 percent or if there are significant changes to the proposed scope or implementation schedule, agencies must submit an amended PIJ to ASET and ITAC, as applicable, for review and approval prior to making further expenditures (see Introduction, pages 1 through 4, for more information on the IT projects ASET and ITAC are required to approve).

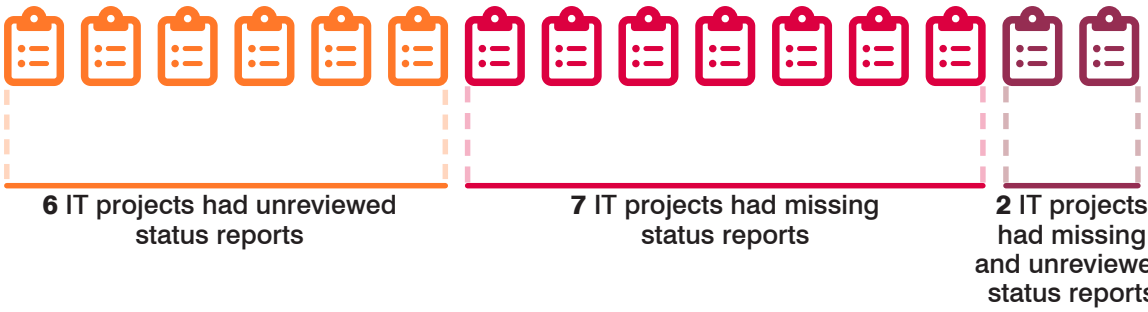
[14] The State-wide project status reporting standard requires GITA staff and agency staff to conduct this evaluation.

[15] According to ASET policy, standards are requirements associated with development, maintenance, use, and access to IT, which are based on generalized industry benchmarks and best practices.

[16] We reviewed a random sample of 19 of the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022. Additionally, we judgmentally selected and reviewed 1 IT project approved in fiscal year 2017 because of publicly reported implementation issues with the system.

systems (see Appendix A, pages a-1 through a-4, for summary information and descriptions for the IT projects we reviewed).[17,18]

Figure 1
15 IT projects had status reports missing and/or lacking a documented review



Source: Auditor General staff review of 20 IT projects' files.

- Did not document reviewing 8 of the 62 status reports submitted by the Department of Child Safety (DCS) for the child welfare management information system, Children's Information Library and Data Source (CHILDS), replacement project (see pages 8 through 10 for more information about this IT project).

- **Did not consistently track project start and/or end dates for 14 of 20 IT projects we reviewed—** These 14 IT projects had multiple start and/or end dates documented within ASET's IT project-tracking system. For example, 1 IT project had 2 different end dates recorded that differed by 181 days, more than 100 percent of the IT project's approved schedule.

- **Did not consistently corroborate or receive IT project expenditure information—**ASET did not corroborate agency-reported IT project expenditure information for 18 of 20 IT projects we reviewed, despite having the ability to do so by requesting supporting documentation or reviewing AFIS transactions.[19] For example, ASET relied solely on a phone call with an agency to determine that a $876,000 IT project was completed within budget and had no other information in its IT project-tracking system relating to the IT project's expenditures. Additionally, ASET did not receive any expenditure information for 31 of the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022. These 31 IT projects had a total approved development budget of approximately $5.4 million.

- **Closed IT projects with unresolved issues—**ASET closed IT projects that its IT project-tracking system indicated had outstanding risks and/or milestones. Specifically, of the 20 IT projects we reviewed, 2 IT projects had risks without a mitigating strategy, and 5 IT projects had milestones that were not reported as completed. For example, ASET staff closed:

  - DCS' CHILDS replacement project with 13 of 89 risks lacking a mitigation strategy (see pages 8 through 10 for more information about this IT project). These risks included incomplete deployment and not meeting the requirements for developing timely, accurate, and complete user training.[20]

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[17] The ICA administers the State's Workers' Compensation Act and other employee protections, such as laws related to occupational safety and health, minimum wage, unpaid wages, and youth labor. For example, ICA investigates discrimination or whistleblower complaints from employees who believe their employer has retaliated against them for exercising their rights under the Arizona Occupational Safety and Health Act.

[18] Salesforce is a customer relationship management system.

[19] ASET reviewed AFIS expenditures for 2 IT projects with development costs that were entirely supported by Automation Projects Fund monies. The Automation Projects Fund is administered by the Department and composed of monies appropriated by the Legislature for agencies to implement, upgrade, or maintain automation and IT projects.

[20] Deployment represents the mechanism through which applications, modules, and updates are delivered from developers to users.

- ICA's Salesforce expansion project with 4 of 9 milestones not reported as completed. These milestones included user training and final data migration.
- The Department's IT project related to protecting Arizona citizens' sensitive information by implementing 3 IT security controls with a canceled milestone. However, the canceled milestone may have been relevant to the project's success as it related to onboarding State agencies to 1 of the 3 security controls (see page 11 for more information about this IT project).[21]

Further, although the Department of Public Safety's (DPS) last status report for its IT project to upgrade applications within its Arizona Criminal Justice Information System (ACJIS) noted no outstanding milestones or risks at IT project completion, ASET had information saved in its IT project-tracking system from the IT project's independent third-party reviewer noting that DPS had incomplete documentation of how the system functioned at the IT project's completion (see pages 10 and 11 for more information about this IT project).

- **Had not taken action to suspend IT projects—**ASET staff could not identify an example of an IT project it had suspended because the IT project was at risk of failing to achieve its intended results, as required by statute and rule. Additionally, ASET's IT project-tracking system did not have an option for ASET staff to indicate IT project suspensions. Although we did not identify any IT projects that ASET had suspended, we identified IT projects that had significant implementation and post-implementation issues and/or did not meet some of their intended results (see next section).
- **Did not evaluate or ensure that agencies evaluated project outcomes, including changes in performance and benefits to the State, at IT project completion for all IT projects we reviewed—**None of ASET's files for the IT projects we reviewed included a documented evaluation of the change in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State after IT project completion, as required by the State-wide project status reporting standard.

ASET's insufficient IT project oversight hampers its ability to assess IT project success, and some IT projects we reviewed had significant issues that hindered critical agency functions related to protecting children, the public, and citizens' sensitive information

ASET not corroborating most expenditure information and insufficiently tracking project start and/or end dates may limit its ability to determine whether IT projects are at risk of exceeding or have exceeded their originally approved budgets and schedules. According to ASET's records, as of April 18, 2023, it was overseeing 103 active IT projects with a total development budget of $227 million. Further, ASET's insufficient oversight of IT projects hampers its ability to assess whether IT projects are at risk of failure and whether they have met intended results, which can hinder critical agency functions. Specifically, ASET could not demonstrate whether the IT projects we reviewed achieved their intended results because it lacked some IT project status reports, did not sufficiently track or corroborate IT project information, and did not evaluate or ensure agencies evaluated project outcomes. Additionally, at least 3 of 20 IT projects we reviewed had significant implementation and post-implementation issues and/or did not meet some of their intended results, hindering critical State functions. Specifically:

- **Project 1: DCS' CHILDS replacement system had programming and data migration errors, resulting in underpayments and overpayments to foster care providers and/or adoptive parents and noncompliance with federal requirements, and has outstanding limitations in functionality—**In fiscal year 2017, DCS initiated an IT project to replace its outdated child welfare management information system, CHILDS, with a new system, Guardian. DCS' child welfare management information system is used for key DCS functions, such as managing child welfare cases, foster-care provider management,

[21] Onboarding is a process that includes guiding new users to become familiar with and utilize a new product.

federal reporting, and making eligibility determinations for federal reimbursement of some foster care and adoption assistance expenditures (see textbox).

CHILDS Replacement/Guardian—DCS' outdated CHILDS system had numerous issues, including poor usability, inadequate mobile access for staff visits, limited reporting capabilities, and poor data quality and integrity. According to DCS' PIJ, Guardian would address these issues, increase services to Arizona's families and children in need, and support child safety specialists to execute DCS' mission.[1] Guardian's approved development budget was $86,088,076.

[1] DCS' mission is to "successfully engage children, parents, families and the community to ensure safety, strengthen families, and achieve permanency."

Source: Auditor General staff review of ASET documents and DCS' website.

According to our *Fiscal Year 2021 State of Arizona Single Audit Report*, during Guardian's implementation, DCS experienced numerous issues related to payments to foster care service providers and/or adoptive parents.[22] Specifically, in fiscal year 2021, DCS underpaid some foster care service providers because Guardian was not accurately programmed to calculate the correct payment rates. This programming error was not prevented, detected, or corrected during system development. As a result, foster care providers who were underpaid may have struggled to provide the appropriate level of services for children in their care. Additionally, in fiscal year 2021, DCS inadvertently overpaid foster care providers by $465,402 and adoptive parents by $113,575 due to data migration and programming errors related to Guardian's implementation. DCS management also forgave and wrote off overpayments totaling $331,896 and $92,702 for the foster care and adoption assistance programs, respectively.[23] Further, in May 2021 and in response to numerous phone calls DCS received related to Guardian implementation issues, the DCS director issued a public apology to caregivers for late and otherwise disrupted payments.[24]

In addition, significant deficiencies and problems with Guardian have persisted after ASET closed the IT project in April 2022, including system limitations that Guardian was intended to address. Specifically:

- 4 months after ASET closed the Guardian project, in August 2022, a federal agency reviewed the Guardian system and noted numerous deficiencies.[25] For example, Guardian did not comply with federal regulations related to data quality and timely and accurate reporting; allowing caseworkers to view information about pending casework, including notifications for when tasks are due or when deadlines are missed; and security and interface requirements, including system failure and disaster recovery/business continuity procedures.

- 7 months after the IT project was closed, in November 2022, DCS entered into a contract for Guardian's maintenance and operations that also included conducting 2 assessments for approximately $2 million to identify design and configuration improvements and enhance user experience with the Guardian system.[26] DCS stated that these assessments were needed, in part, due to its receipt of several hundred outstanding requests from system users related to optimizing Guardian's functionality; Guardian's highly segmented workflow, preventing it from seamlessly following a child welfare case; the absence of critical data within the system; and limited ability to correct data within the new system (see Figure 2, page 10, for more information on these Guardian implementation issues).

[22] Arizona Auditor General report *Fiscal Year 2021 State of Arizona Single Audit Report*.

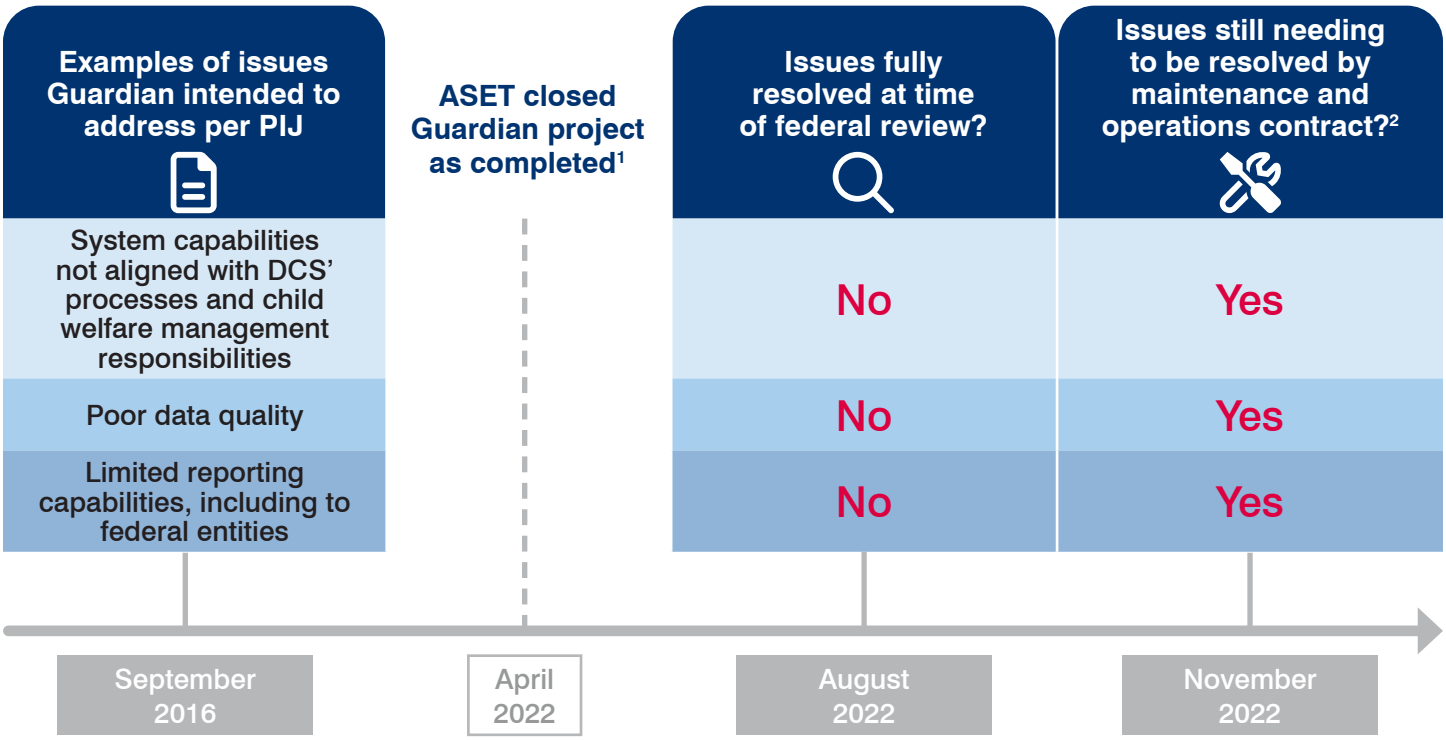
[23] These overpayments and write-offs resulted in a federal questioned costs audit finding. Questioned costs include federal monies that the State spent that did not comply with a major federal program's federal compliance requirements, and ultimately may need to be repaid.

[24] Caregivers are individuals providing care to children in the custody of DCS.

[25] The U.S. Department of Health and Human Services' Administration for Children and Families (ACF) completed a technical assistance monitoring review of Guardian in August 2022. Federal regulations require ACF to review, assess, and inspect the planning, design, development, installation, operation, and maintenance of comprehensive child welfare information system projects on a continuing basis to determine whether these projects meet federal regulations.

[26] These 2 assessments were listed as optional services in the contract.

Figure 2
Guardian implementation did not resolve some issues that it was intended to address



[1] DCS deployed Guardian in February 2021 prior to ASET closing the Guardian project in April 2022. Although ASET's closure of an IT project indicates that the IT project is complete and ends its oversight of the IT project, Guardian's subsequent federal review and maintenance and operations contract identified multiple unresolved issues that Guardian was intended to address.

[2] As previously reported, DCS entered into a contract for Guardian's maintenance and operations that included conducting 2 assessments to identify design and configuration changes to address several issues, including system capabilities and poor data quality.

Source: Auditor General staff review of ASET documentation, ACF's August 2022 technical assistance and monitoring review of Guardian, and DCS' November 2022 Guardian maintenance and operations contract.

- **Project 2: DPS' upgrade to ACJIS applications, necessary to disseminate important public safety and criminal justice information to law enforcement agencies and others, was delayed for over 1 year and had outstanding risks related to its long-term functionality—**In fiscal year 2018, DPS initiated an IT project to upgrade outdated ACJIS applications necessary to help protect public safety (see textbox). However, this IT project was completed more than a year later than originally scheduled. According to the IT project's independent third-party review, the IT project was delayed due to a variety of issues, including tight and unrealistic deadlines, inefficient communication between the project contractor and DPS, and inconsistent system functionality

ACJIS applications conversion—ACJIS is DPS' criminal justice information system that houses several databases, including records for wanted persons, protection orders, stolen vehicles, and criminal history records. Various law enforcement and criminal justice agencies use information contained in ACJIS to help make decisions that impact public safety, such as decisions regarding bail, plea bargains, and sentencing repeat offenders. DPS sought to upgrade outdated ACJIS applications because the applications used antiquated technology, which placed DPS at risk of not disseminating critical information to law enforcement agencies and others.

Source: Arizona Auditor General report 21-110 *Arizona Department of Public Safety—Central Repository of Criminal History Records*, and Auditor General staff review of ASET documents and DPS' website.

documentation. For example, the system did not function properly when tested because of inconsistent documentation related to how the system was required and designed to function. As a result of the IT project's delays, DPS continued to be at risk of not disseminating critical public safety and criminal justice information to law enforcement agencies and others.

Additionally, according to the IT project's independent third-party reviewer, at IT project closure, documentation related to how the system functioned still had not been updated and much of the system functionality was captured only within the system itself, which placed DPS at risk of not being able to support the upgraded system long-term.

- **Project 3: Department spent nearly all its approximately $3.1 million budget to implement security controls to protect Arizona citizens' personal, health, and financial information, but the IT project was not completed and had outstanding technical issues—**In fiscal year 2018, the Department initiated an IT project to help protect Arizona citizens' personal, health, and financial information, stored by agencies, from internal security vulnerabilities by implementing 3 security controls. According to the PIJ, the State did not have a comprehensive approach to address these vulnerabilities. Security controls are important for adequately protecting sensitive data or critical IT systems by identifying and reducing security threats, such as computer-assisted fraud, and for reducing and minimizing the impact of IT security incidents, such as a breach involving confidential information.[27] One of the 3 controls that the Department sought to implement was software for detecting and identifying security risks and threats by assessing internal users' behaviors. According to ASET documents, the software was to be housed within the State's data center.[28] According to ASET's IT project-tracking system, at project closure, the Department had spent 99.7 percent of the project's approximately $3.1 million development budget. However, although the control for assessing internal users' behaviors was reportedly deployed, the full scope of the IT project was not yet completed because the vendor responsible for this control followed poor project management and deployment practices, was unable to resolve technical problems with its product, and failed to onboard State agencies. At IT project closure, this vendor was reported to be engaging a third party to attempt to resolve the outstanding technical issues, and ASET reported that the control was not providing the value that the Department expected.

ASET has not implemented key IT project oversight and accountability mechanisms

ASET has not implemented some oversight and accountability mechanisms to ensure that it consistently meets its responsibilities for overseeing State IT projects. ASET reported that it provided its staff with high-level guidance, which it believes is sufficient given the individual uniqueness associated with every IT project. Yet, as previously reported, our review identified various inconsistencies and deficiencies with ASET's oversight of IT projects. Further, according to the U.S. Government Accountability Office (GAO), oversight and accountability mechanisms for staff, such as policies and procedures, help ensure that agency operations are consistently conducted in accordance with applicable laws and regulations.[29] However, ASET:

- **Has not implemented and/or developed oversight mechanisms for reviewing and documenting key information—**In February 2023, after we had completed most of our audit work, ASET provided us with written guidance outlining the process for ASET staff to review status reports and escalation steps for when ASET staff does not receive status reports, such as ASET contacting the agency's leadership 5 business days after a status report's due date. However, we found that ASET staff did not fully follow this guidance. For example, although 9 of 20 IT projects that we reviewed had missing status reports, ASET

[27] Arizona Auditor General report 18-104 *Arizona's Universities—Information Technology Security*.

[28] A data center is a physical facility that organizations use to house their critical applications and data.

[29] GAO. (2014). *Standards for internal control in the federal government*. Washington, DC. Retrieved 10/11/2022 from https://www.gao.gov/assets/gao-14-704g.pdf.

staff did not follow all escalation steps outlined in the guidance. Further, these guidance documents were not referenced and/or included in ASET's rules, policies, or standards.

Finally, ASET has not developed comprehensive policies, procedures, and/or standards for its staff that outline expectations related to tracking and maintaining accurate IT project data, including project start and end dates.

- **Has not developed and/or implemented key mechanisms to hold agencies accountable—** Specifically, ASET lacked:
    - **Expectations for agency status reporting—**ASET has not developed and implemented rules, policies, or standards that describe the information that agencies are expected to include in each section of their status reports. For example, according to ASET's internal status report review process, all IT project risks should have a mitigation strategy. However, ASET has not communicated this expectation to agencies through its rules, policies, or standards, and as previously reported, agencies are not consistently providing it with status report information. Similarly, ASET reported that since 2020 it has directed agencies to document IT project completion in their final status report. However, it has not established written criteria defining when an IT project is considered complete, such as when all risks and milestones have been closed/completed and all invoices have been paid. It has also not established what IT project completion summary information should be documented in the last status report, such as actual project start and end dates and total development expenditures.
    - **Processes to corroborate expenditure information for all IT projects—**Although not required by statute, ASET has a process to corroborate expenditures for Automation Projects Fund-supported IT projects through AFIS. However, the development costs of only 12 of the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022 were entirely supported by Automation Projects Fund monies, and ASET has not developed or implemented a similar process to corroborate expenditures for the other IT projects it oversees. GAO recommends that public agency management implements control activities to support the agency in achieving its objectives and addressing related risks.[30] These controls include verification and reconciliation activities related to important operational and compliance processes, such as verifying that agencies accurately and fully reported spending on IT projects that ASET is required to oversee.
    - **Process for closing IT projects—**ASET has not developed policies, procedures, and/or standards outlining the steps its staff should take to close out an IT project once the agency has reported the IT project completed. For example, it does not have a process for verifying that IT projects do not have outstanding issues, such as incomplete milestones.
    - **Process for taking action when IT projects are at risk of failing to meet their intended results—**As previously reported, we did not identify any IT projects that had been suspended by ASET. ASET reported that it instead focuses on managing relationships with agencies to address projects' progress, when necessary. However, ASET has not developed comprehensive criteria to determine whether an IT project is at risk of failure and should be suspended, and a process that outlines steps its staff should take to help address IT project failure risks, such as temporary IT project suspension.
    - **Processes for evaluating or ensuring that agencies evaluate project outcomes—**ASET has not implemented a process to ensure agencies and its staff comply with the State-wide standard that requires ASET and agencies to evaluate the change in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State after IT project completion.

[30] GAO, 2014.

Recommendations

ASET should:

1. Ensure agencies submit all required IT project status reports.
2. Ensure its staff review all agency-submitted IT project status reports to determine if they include all the required information.
3. Ensure that at IT project closure:
    a. All IT project milestones have been completed.
    b. All IT project expenditures have been reported.
4. Evaluate or ensure agencies evaluate and report to it project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State.
5. Take action if it determines an IT project is at risk of failing to meet its intended results, including temporarily suspending IT projects, as required by statute and rule.
6. Revise and implement its rules, policies, procedures, and/or standards to outline processes related to status reporting, including:
    a. Expectations for ASET staff and agencies on the specific information that should be included in each section of the status report.
    b. Expectations for ASET staff and agencies on the criteria that must be met for an IT project to be considered complete and the IT project completion summary information that should be documented in the IT project's last status report, such as actual project start and end dates and total development expenditures.
    c. Steps ASET staff should take to review status reports.
    d. Steps ASET staff should take when they do not receive agency status reports in a timely manner or when status reports do not include the required information.
7. Develop and implement processes, including written policies, procedures, and/or standards, to:
    a. Maintain complete and accurate IT project data, including actual project start and end dates.
    b. Corroborate expenditure data reported in status reports for all IT projects, such as requiring agencies to submit invoices and reviewing a sample of invoices or reviewing agency financial transactions in AFIS.
    c. Close IT projects, including ensuring that IT projects do not have outstanding issues at IT project completion, such as incomplete milestones.
    d. Assess and address IT project failure risks, including comprehensive criteria for determining whether IT projects are at risk of failure, steps staff should take to address IT project failure risks, and determining whether an IT project should be temporarily suspended.
    e. Evaluate project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State, as required by the State-wide project status reporting standard.

Department response: As outlined in its **response**, the Department agrees with the finding and will implement the recommendations.

ASET did not always ensure that high-risk IT projects received an independent third-party review, limiting key information related to project concerns and risks for it and ITAC to consider and address, potentially jeopardizing these projects' success

Consistent with law and industry standards, ASET must require agencies to contract for independent third-party reviews of IT projects with costs over $5 million before recommending these projects to ITAC for approval

According to A.R.S. §18-104, ASET must require agencies to contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion, and overall feasibility of IT projects with total project costs exceeding $5 million before making recommendations to ITAC.[31,32] This statutory requirement is consistent with credible IT industry standards, which refer to the independent third-party review process as independent verification and validation. For example, according to the Committee on National Security Systems (CNSS), independent verification and validation is a comprehensive review, analysis, and testing of IT software and/or hardware, performed by an objective third party.[33,34] This process confirms that IT system requirements are correctly defined and validates that an IT system correctly implements required functionality and security requirements. Further, according to the Institute of Electrical and Electronics Engineers (IEEE), independent verification and validation determines whether project activities related to system, software, or hardware products satisfy their intended use and user needs, and enhances management insight into project risks. Specifically, independent verification and validation provides early feedback about performance and quality improvements, which allows entities to modify their product in a timely manner and reduce overall project and schedule impacts, such as increased costs and schedule delays.[35,36]

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[31] As reported in the Introduction and according to AAC R2-18-101, total project costs are defined as development and implementation costs associated with an IT project. ASET refers to these costs as development costs.

[32] A.R.S. §18-104 requires agencies to submit a quarterly report from the independent third party to ITAC and JLBC regarding the progress of each ongoing project.

[33] CNSS. (2022). *Committee on National Security Systems Glossary*. Retrieved 2/13/2023 from https://www.cnss.gov/CNSS/issuances/Instructions.cfm.

[34] CNSS, a standing committee chaired by the U.S. Department of Defense, established a glossary of IT terms to remove inconsistencies and resolve differences in definitions used by the U.S. Department of Defense, intelligence community, and civil agencies such as the National Institute of Standards and Technology. The glossary uses authoritative sources for definitions of terms that have been vetted by subject matter experts.

[35] IEEE, Inc. (2017). *Standard for system, software, and hardware verification and validation*. New York, NY. Retrieved 3/17/2023 from https://ieeexplore.ieee.org/document/8055462.

[36] IEEE is a global technical professional organization dedicated to advancing technology that sets standards for conducting independent validations and verifications.

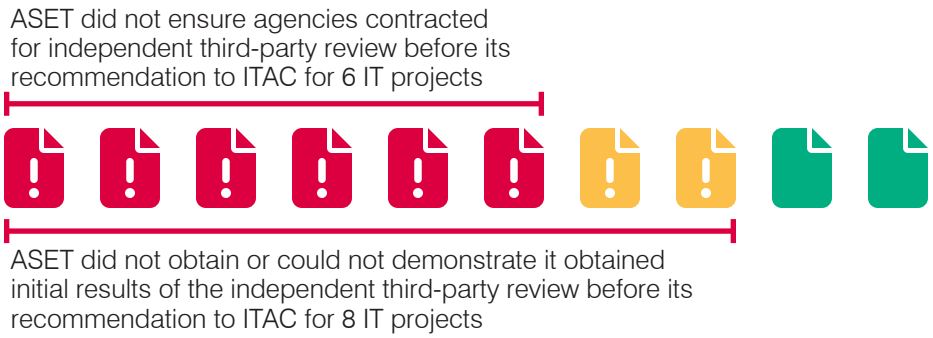
ASET did not ensure that agencies contracted for and obtained an independent third-party review before recommending most IT projects to ITAC for approval

ASET did not ensure that agencies contracted for an independent third-party review before making a recommendation to ITAC for 6 of the 10 IT projects with total project costs exceeding $5 million that ITAC approved in fiscal years 2018 through 2022. Specifically, although ASET records demonstrated that agencies had contracted for an independent third-party review for 4 IT projects before recommending them to ITAC for approval, for the remaining 6 IT projects, ASET:

- Did not require the agency to contract for an independent third-party review of 1 IT project.
- Recommended ITAC approve 2 IT projects before the agencies had contracted for an independent third-party review.
- Lacked documentation for 3 IT projects, such as contracts, demonstrating that the agencies had contracted for independent third-party reviews before recommending the IT projects to ITAC for approval.

Finally, for 8 of the 10 IT projects, ASET did not obtain or could not demonstrate that it had obtained the initial results of the independent third-party review prior to recommending the IT project to ITAC for approval (see Figure 3).[37] Further, for 3 of these 8 IT projects, ASET never obtained or could not demonstrate that it had ever obtained the initial results of the independent third-party review.

Figure 3
ASET did not always ensure that agencies contracted for and obtained initial results of independent third-party reviews for IT projects before it recommended them to ITAC for approval[1]



[1] See Appendix B, pages b-1 through b-3, for more information on the 10 projects we reviewed, including which specific projects did not receive an independent third-party review prior to ASET recommending them to ITAC for approval.

Source: Auditor General staff review of ASET documentation.

ASET's failure to require independent third-party reviews before recommending high-risk IT projects to ITAC for approval limits key information related to project concerns and risks for it and ITAC to consider and address, potentially jeopardizing these projects' success

IT projects that require an independent third-party review represent a significant financial investment for the State. For example, the 10 IT projects we reviewed had a total approved development budget of approximately

[37] These 8 IT projects include the project for which ASET did not require the agency to contract for an independent third-party review.

$128.7 million (see Appendix B, pages b-1 through b-3, for each IT project's approved development budget). Independent third-party reviews provide key project information that, if obtained early in the process, can help ASET and ITAC better ensure the success of these significant State investments, such as ensuring that key concerns and risks are addressed. For example, for 2 IT projects we reviewed for which ASET did not obtain or could not demonstrate that it obtained the initial results of the independent third-party review before making recommendations to ITAC, we found that the initial independent third-party reviews identified significant concerns and risks that were not considered during ASET's or ITAC's review and consideration of the IT project's approval. Specifically:

- **Initial independent third-party review of State's financial information system upgrade identified schedule and resource management risks with potential for project implementation delays 5 months after ASET recommended the IT project to ITAC for approval—**Five months after ASET recommended the Department's State-wide financial information system upgrade to ITAC for approval (see textbox for project description), the initial independent third-party review identified several schedule and resource management risks that could impact subsequent activities and cause delays. For example, the project did not meet Department-identified due dates for specific deliverables, such as the project plan and risk and issue management plans. Additionally, the project's staffing plan was incomplete, which the review indicated could result in delayed activities and overlooked tasks if key staff were not available during the right project phase. Although this project was still in progress as of April 2023, information indicating that the IT project lacked key deliverables, was potentially already behind schedule, and had risks of further delays was not available to ASET or ITAC when considering whether to recommend the IT project for approval or approve the project, respectively.[38] Had ASET obtained and considered the information within the independent third-party review before recommending the IT project to ITAC, it could have taken action to help better ensure the project's success, such as recommending that ITAC approve the IT project with a condition that the Department develop a plan to address the schedule and resource management concerns identified by the independent third-party review contractor.

  AFIS upgrade—A fiscal year 2022 IT project to implement major upgrades to AFIS, the State's official accounting system and record for fiscal information that State agencies use to process and record accounting data and activity.

  Source: Auditor General staff review of Department documents.

- **Initial time allocation concerns for Arizona Health Care Cost Containment System (AHCCCS) provider-management system identified by independent third-party review resulted in project delays and contributed to bypassing some quality review—**For 1 IT project we reviewed for which ASET could not demonstrate it had obtained the results of the initial independent third-party review prior to recommending the IT project to ITAC for approval, the independent third-party review contractor initially identified project staffing and allocation of time as an area of concern and recommended that AHCCCS gather a preliminary understanding of potential impacts to resource allocation and the overall timeline (see textbox for project description). Had ASET obtained and considered the information within the independent third-party review before recommending the IT project to ITAC, it could have taken action to help better ensure the project's success, such as recommending to ITAC that the IT project be approved with a condition that AHCCCS develop a plan to address the staffing and time allocation concerns raised by the independent

  Provider-management system update—A fiscal year 2019 IT project to replace AHCCCS's healthcare provider-management system and implement a web portal to eliminate manual, paper-based processes for AHCCCS provider registration.

  Source: Auditor General staff review of ASET documents.

[38] ASET lacked documentation to demonstrate that the Department contracted for an independent third-party review of the IT project before ASET recommended it to ITAC for approval and did not obtain the initial results of the independent third-party review until approximately 5 months after it recommended that ITAC approve this project.

third-party review contractor. Instead, AHCCCS had to extend the IT project's end date multiple times and significantly increased its original budget, including a $2.4 million increase in development costs. Further, at the end of the IT project, the independent third-party review contractor concluded that the aggressive implementation timeline contributed to several instances of bypassing quality review because the end date was set without regard for realistic task durations and led to the need for frequent fixes after the system was implemented.[39]

Conversely, our review identified some instances in which ITAC had considered information from the independent third-party review or requested to review specific information from a third party during its review and approval of IT projects. Specifically, for 1 IT project for which ASET obtained the results of the initial independent third-party review before making recommendations to ITAC, the initial independent third-party review identified several preliminary concerns, such as the agency not having requirements formally documented and instead having a high-level agreement with the project vendor about what would be delivered. As such, ITAC unanimously voted to approve the IT project with the condition that it receive written progress updates from the independent contractor. For another IT project we reviewed, although ASET did not ensure the agency contracted for an independent third-party review before making recommendations to ITAC, the agency had contracted with a consultant to conduct an assessment of and provide recommendations for project technology and implementation. During ITAC's review, some ITAC members had concerns regarding the IT project's overall feasibility, including the IT project's return on investment, and requested to review additional data from the consultant before they would be comfortable supporting the IT project. The specific information requested by these ITAC members was not provided at the ITAC meeting, and it resulted in some ITAC members voting against approving the IT project.[40]

ASET has not established accountability mechanisms related to the independent third-party review and reported that it does not require agencies to obtain the results of the independent third-party review before it recommends IT projects to ITAC for approval

ASET has not established mechanisms, such as policies and standards, to hold agencies and its staff accountable for ensuring that agencies contract for and obtain an independent third-party review prior to making recommendations to ITAC. For example, although the Department's rule and ASET's policies and standards outline requirements and processes by which ASET may approve or recommend IT projects to ITAC for approval, these documents do not include any information related to the independent third-party review required by statute. Specifically, they do not include requirements for obtaining and retaining independent third-party review documentation, such as copies of contracts and independent third-party review results, and time frames for when these reviews should be contracted. During the audit, in February 2022, the Governor's Office issued an executive memorandum assigning ASET responsibility for managing independent third-party review providers on IT projects costing $5 million or more for any projects presented to ITAC on or after March 2022. Although this change may help ASET ensure that agencies contract for independent third-party reviews prior to recommending IT projects to ITAC for approval, as of February 2023, ASET had not updated its policies or standards to include requirements related to the independent third-party review.

Additionally, for the 1 IT project ASET did not require the agency to contract for an independent third-party review, ASET did not require it because the PIJ was for an equipment purchase. However, neither statute nor rule exempt equipment purchases exceeding $5 million from the independent third-party review requirement.

Finally, ASET reported that it does not require agencies to obtain and provide it with the initial results of the independent third-party review before it recommends IT projects to ITAC for approval because it believes that statute does not require it to do so. Specifically, ASET reported that it believes statute requires only that

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[39] Although the document we reviewed did not list the specific impacts this project caused to AHCCCS' critical activities, we identified post-implementation issues with other IT projects we reviewed as part of our IT project oversight work (see Finding 1, pages 5 through 13).

[40] The majority of ITAC members voted to approve this project and, as such, the project was approved.

the independent third-party review contract be in place, not that the initial results be provided to it, before recommending an IT project to ITAC for approval. Additionally, ASET reported that it does not believe statute requires it to use independent third-party review results as part of reviewing and recommending IT projects to ITAC for approval. Further, ASET reported that agencies encounter many factors that can impact their preparedness in completing independent third-party review planning, and in these instances, ASET considers the potential impacts of delays when it recommends projects and conditions to ITAC for approval. However, not obtaining and reviewing the information in independent third-party review reports potentially lessens the value provided by these reviews and is inconsistent with industry best practices. Specifically, as previously reported, the independent third-party reviews contain key information, including early feedback on project risks and improvements and the overall feasibility of IT projects, which can help inform ASET's recommendations and ITAC's evaluation and decision on whether an IT project should be approved or approved with conditions, potentially reducing the risk of negative impacts to the project's success, such as cost and schedule overruns or functionality issues.

Recommendations

ASET should:

8. Comply with statute and ensure that for IT projects with total project costs exceeding $5 million, agencies contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion, and overall feasibility of the project before ASET makes IT project recommendations to ITAC.

9. Develop policies, procedures, and/or standards that outline steps that ASET staff and agencies must take to contract for the independent third-party review of IT projects with total project costs exceeding $5 million, including requirements for obtaining and retaining independent third-party review documentation and time frames for when it should be contracted.

10. Work with ITAC to develop a process, including written policies and procedures, for requiring that agencies obtain and provide ASET and ITAC with the initial results of independent third-party reviews, such as requiring that the independent third-party review be provided to ITAC at the time of project approval, or recommending that ITAC approve projects with conditions that the independent third-party review be provided for ITAC's review during a subsequent ITAC meeting.

Department response: As outlined in its **response**, the Department agrees with the finding and will implement or implement in a different manner the recommendations.

Auditor General makes 10 recommendations to ASET

ASET should:

1. Ensure agencies submit all required IT project status reports (see Finding 1, pages 5 through 13, for more information).

2. Ensure its staff review all agency-submitted IT project status reports to determine if they include all the required information (see Finding 1, pages 5 through 13, for more information).

3. Ensure that at IT project closure:

    a. All IT project milestones have been completed.

    b. All IT project expenditures have been reported (see Finding 1, pages 5 through 13, for more information).

4. Evaluate or ensure agencies evaluate and report to it project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State (see Finding 1, pages 5 through 13, for more information).

5. Take action if it determines an IT project is at risk of failing to meet its intended results, including temporarily suspending IT projects, as required by statute and rule (see Finding 1, pages 5 through 13, for more information).

6. Revise and implement its rules, policies, procedures, and/or standards to outline processes related to status reporting, including:

    a. Expectations for ASET staff and agencies on the specific information that should be included in each section of the status report.

    b. Expectations for ASET staff and agencies on the criteria that must be met for an IT project to be considered complete and the IT project completion summary information that should be documented in the IT project's last status report, such as actual project start and end dates and total development expenditures.

    c. Steps ASET staff should take to review status reports.

    d. Steps ASET staff should take when they do not receive agency status reports in a timely manner or when status reports do not include the required information (see Finding 1, pages 5 through 13, for more information).

7. Develop and implement processes, including written policies, procedures, and/or standards, to:

    a. Maintain complete and accurate IT project data, including actual project start and end dates.

    b. Corroborate expenditure data reported in status reports for all IT projects, such as requiring agencies to submit invoices and reviewing a sample of invoices or reviewing agency financial transactions in AFIS.

c. Close IT projects, including ensuring that IT projects do not have outstanding issues at IT project completion, such as incomplete milestones.

d. Assess and address IT project failure risks, including comprehensive criteria for determining whether IT projects are at risk of failure, steps staff should take to address IT project failure risks, and determining whether an IT project should be temporarily suspended.

e. Evaluate project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State, as required by the State-wide project status reporting standard (see Finding 1, pages 5 through 13, for more information).

8. Comply with statute and ensure that for IT projects with total project costs exceeding $5 million, agencies contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion, and overall feasibility of the project before ASET makes IT project recommendations to ITAC (see Finding 2, pages 14 through 18, for more information).

9. Develop policies, procedures, and/or standards that outline steps that ASET staff and agencies must take to contract for the independent third-party review of IT projects with total project costs exceeding $5 million, including requirements for obtaining and retaining independent third-party review documentation and time frames for when it should be contracted (see Finding 2, pages 14 through 18, for more information).

10. Work with ITAC to develop a process, including written policies and procedures, for requiring that agencies obtain and provide ASET and ITAC with the initial results of independent third-party reviews, such as requiring that the independent third-party review be provided to ITAC at the time of project approval, or recommending that ITAC approve projects with conditions that the independent third-party review be provided for ITAC's review during a subsequent ITAC meeting (see Finding 2, pages 14 through 18, for more information).

Summary of 20 IT projects we reviewed to assess ASET's oversight

Table 1
Summary information for 20 IT projects with a total combined development budget of $104.5 million that we reviewed to assess ASET's IT project oversight[1]
(Unaudited)

Agency	Project name	Project description[2]	Approved schedule (days)[3]	Approved development budget[4,5]
Arizona Health Care Cost Containment System	Asset verification system	Implementation of a software solution to comply with federal law to verify the assets of individuals aged 65 and older and individuals living with blindness or disability who are applying for or receiving Medicaid. This project was intended to help assist in determining Medicaid eligibility.	122	$351,480
Arizona Health Care Cost Containment System	LOCUS	Implementation of a solution for the behavioral health service delivery system that helps identify children and adolescents with complex needs in a uniform manner.	138	$167,787
Arizona Health Care Cost Containment System	Kiteworks	Implementation of an online file sharing service to securely share large data files with external parties.	56	$62,298
Department of Administration	Insider threat risk management	Implementation of 3 security controls with the intent to address and protect the State against insider threats, such as employees and/or contractors causing a data breach.	333	$3,108,227
Department of Administration	Digital mail	Purchase of an all-in-one scanner machine for the Department's mail room. The purchase of this scanner was intended to increase the mail room's scanning capabilities and eliminate manual processes.	184	$111,317

Table 1 continued

Agency	Project name	Project description	Approved schedule (days)	Approved development budget
Department of Administration	School financial transparency portal	Develop the school financial transparency portal to display school-level data. This portal was intended to improve transparency and accessibility to school-level data for charter schools, individual schools operated by a school district, and school districts.	364	$100,000
Department of Administration	Application modernization – web portal	Migration of a licensing application within the web portal to a new, secure server to address security risks from the application running on an unsupported server.	99	$39,680
Department of Child Safety	CHILDS replacement / Guardian	Replacement of the child welfare information system, CHILDS. This replacement was intended to increase service delivery to Arizona children and families and support child welfare staff responsibilities.	1,094	$86,088,076
Department of Corrections, Rehabilitation and Reentry	Automated telephone report system	Implementation of an automated telephone check-in system intended to streamline the check-in process for low-level offenders that have been released to the community.	91	$32,580
Department of Economic Security	Service desk replacement	Purchase and implementation of an IT service management solution to replace the help desk solution. This project was intended to streamline and automate IT service delivery.	108	$653,826
Department of Health Services	HANDS system transfer and eWIC implementation for Washington DC[6]	Expansion of the management information system for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to allow the District of Columbia to use this system.	365	$1,733,940

Table 1 continued

Agency	Project name	Project description	Approved schedule (days)	Approved development budget
Department of Housing	Homeowner Assistance Fund financial management system	Implementation of an automated application and payment process to streamline required implementation of the federal Homeowner Assistance Fund program.	67	$2,199,997
Department of Public Safety	ACJIS applications conversion	Upgrade ACJIS applications that used antiquated technology. ACJIS houses several databases, including records for wanted persons, protection orders, stolen vehicles, and criminal history records.	693	$7,513,514
Department of Transportation	Snowplow project	Installation of cameras equipped with Global Positioning Systems (GPS) into snowplows to be able to provide locations and real-time images of road conditions.	137	$108,602
Department of Transportation	GPS devices for State fleet vehicles	Installation of GPS into the State fleet vehicles to track vehicles and identify unauthorized use of vehicles, amongst other reported benefits.	422	$85,358
Industrial Commission of Arizona	Salesforce expansion	Enhancement of the Salesforce system to allow the compliance and whistleblower section to integrate with U.S. Department of Labor systems.[7] This integration aimed to eliminate duplicate data entry processes, reduce waste, and allow the Commission to move to a single IT system for all agency processes.	226	$699,367
Industrial Commission of Arizona	Legal system	Implementation of case-management software for the legal division using Salesforce.	277	$198,629

Table 1 continued

Agency	Project name	Project description	Approved schedule (days)	Approved development budget
Office of Economic Opportunity	Unemployment insurance data enhancement	Creation of a data repository that intends to contribute quarterly earnings information and unemployment benefits payment information to other data systems. These data systems help provide policymakers, researchers, and the public with key information on how courses and programs help people access employment and higher earnings.	56	$133,443
State Land Department	Salesforce improvements	Conversion of the paper application process for leasing State Trust land to an online process using its Salesforce system.	347	$585,640
State Land Department	Salesforce	Enhancement of the Salesforce system, including implementing an online billing process and document management solution.	202	$500,300

[1] We reviewed a random sample of 19 of the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022. Additionally, we judgmentally selected and reviewed 1 IT project approved in fiscal year 2017 because of publicly reported implementation issues with the system.

[2] To provide descriptions of the IT projects presented in Table 1, we summarized information provided by the respective agencies in their PIJ submissions to ASET and ASET documentation. We did not contact the agencies to obtain further details or clarifications.

[3] As reported in Finding 1, pages 5 through 13, ASET staff did not consistently document project start and/or end dates. Therefore, we were unable to determine the accurate number of days agencies took to complete all IT projects we reviewed. As a result, Table 1 presents the IT projects' approved estimated schedule reported in the PIJ.

[4] AAC R2-18-101 defines total project costs as the IT development and implementation costs associated with an IT project. ASET refers to these costs as development costs.

[5] As reported in Finding 1, pages 5 through 13, ASET staff did not consistently corroborate project expenditure information and relied on agency-reported expenditure information. Therefore, we were unable to confirm the actual cost of all completed IT projects we reviewed. As a result, Table 1 presents each IT project's approved development budget reported in the PIJ.

[6] WIC is a public health nutrition program administered by the U.S. Department of Agriculture. The Arizona Department of Health Services, which administers Arizona's WIC program, is the lead State agency in the Health and Nutrition Delivery System (HANDS) Consortium. The Consortium uses HANDS as the management information system to provide WIC participants with services and benefits through online electronic benefit transfers.

[7] Salesforce is a customer relationship management system.

Source: Auditor General staff review of ASET documentation for 20 IT projects.

Summary of 10 IT projects with project costs exceeding $5 million we reviewed to assess ASET's compliance with independent third-party review requirements

Table 2
Summary information for 10 IT projects with a total combined development budget of $128.7 million that we reviewed to assess whether ASET ensured agencies contracted for and obtained independent third-party reviews before recommending IT projects to ITAC for approval[1]
(Unaudited)

Agency	Project name	Project description[2]	Approved schedule (days)[3]	Approved development budget[4,5]	ASET ensured agency contracted for and obtained review results before approval recommendation[6]
Arizona Health Care Cost Containment System	Provider-management system update	Replacement of the healthcare provider-management system. This project was intended to implement a web portal to eliminate manual, paper-based processes for provider registration.	333	$8,614,013	Contracted: Yes Obtained: No[7]
Department of Administration	AFIS 4.0 upgrade	Implementation of major upgrades to AFIS, the State-wide accounting system that State agencies use to process and record accounting data and activity.	577	$9,702,000	Contracted: No[7] Obtained: No
Department of Administration	Business one stop	Development of a portal to provide citizens and businesses with a single online location to plan, start, grow, move, and close businesses in Arizona. The portal was intended to reduce duplicative data entry and lack of information sharing from other State agencies using separate processes.	364	$6,750,028	Contracted: No Obtained: No

Table 2 continued

Agency	Project name	Project description	Approved schedule (days)	Approved development budget	ASET ensured agency contracted for and obtained review results before approval recommendation
Department of Economic Security	ATLAS replacement	System replacement for case management and financial distribution of child support payments. This replacement was intended to provide an enhanced tracking system with secure information and improved customer service.	1,460	$58,738,364	Contracted: Yes Obtained: No
Department of Economic Security	Mainframe migration	Migration of a physical mainframe to a mainframe hosted by a vendor.[8] This project was intended to simplify cost and operational structures from an aging mainframe and help ensure long-term operations.	364	$6,251,900	Contracted: No[7] Obtained: No
Department of Economic Security	Equipment refresh—calendar year 2020	Upgrade of obsolete computer technology, including desktops, laptops, monitors, and printers.	332	$5,684,240	Contracted: No[9] Obtained: No
Department of Education	School finance payment system	Implementation of a new school finance payment system to manage and administer payments to educational and State entities, including staff and teacher salaries, educational program support, and additional fees. The new system was intended to automate processes for payments to these entities.	1,218	$9,000,000	Contracted: No Obtained: No
Department of Health Services	eLicensing system implementation	Implementation of a medical marijuana online licensing system to replace the paper-based processes for the Medical Marijuana Program.	269	$ 5,423,635	Contracted: No[7] Obtained: No[7]

Table 2 continued

Agency	Project name	Project description	Approved schedule (days)	Approved development budget	ASET ensured agency contracted for and obtained review results before approval recommendation
Department of Public Safety	ACJIS applications conversion	Upgrade of the ACJIS applications that used antiquated technology. ACJIS houses several databases, including records for wanted persons, protection orders, stolen vehicles, and criminal history records.	693	$7,513,514	Contracted: Yes Obtained: Yes
Department of Revenue	Technology infrastructure modernization	Modernization of infrastructure and replacement of hardware. This project was intended to continue transitioning data to the State data center, optimize taxpayer services, and accelerate processing times.[10]	364	$11,000,000	Contracted: Yes Obtained: Yes

[1] We reviewed all 10 IT projects ITAC approved in fiscal years 2018 through 2022 with total project costs exceeding $5 million.

[2] To provide descriptions of the IT projects presented in Table 2, we summarized information provided by the respective agencies in their PIJ submissions to ASET and ASET documents. We did not contact the agencies to obtain further details or clarifications.

[3] As reported in Finding 1, pages 5 through 13, ASET staff did not consistently document project start and/or end dates and, as of April 2023, some of the 10 projects we reviewed were in progress. As such, Table 2 presents the IT projects' approved estimated schedule reported in the PIJ.

[4] AAC R2-18-101 defines total project costs as the IT development and implementation costs associated with an IT project. ASET refers to these costs as development costs.

[5] As reported in Finding 1, pages 5 through 13, ASET staff did not consistently corroborate project expenditure information and relied on agency-reported expenditure information and, as of April 2023, some of the 10 projects we reviewed were in progress. As such, Table 2 presents each IT project's approved development budget reported in the PIJ.

[6] According to A.R.S. §18-104, ASET must require agencies to contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion, and overall feasibility of IT projects with total costs exceeding $5 million before making recommendations to ITAC.

[7] ASET lacked documentation, such as contracts or independent third-party reports, demonstrating the agency had contracted for and/or obtained the initial independent third-party review before it recommended the IT project to ITAC for approval.

[8] Mainframes are high-performance computers with large amounts of memory and processors.

[9] ASET did not require the agency to contract for an independent third-party review of this project.

[10] A data center is a physical facility that organizations use to house their critical applications and data.

Source: Auditor General staff review of ASET documentation for 10 IT projects.

Objectives, scope, and methodology

The Arizona Auditor General has conducted a performance audit of ASET's oversight of IT projects pursuant to a December 17, 2020, resolution of the Joint Legislative Audit Committee. The audit was conducted as part of the sunset review process prescribed in A.R.S. §41-2951 et seq.

We used various methods to address the audit's objectives. These methods included reviewing State statutes and rules, and ASET's policies, procedures, standards, and website; and interviewing ASET staff. In addition, we used the following specific methods to meet the audit objectives:

- To evaluate whether ASET oversaw IT projects in compliance with applicable statutory, rule, policy, and standard requirements, we reviewed a random sample of 19 of the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022. Additionally, we judgmentally selected and reviewed 1 IT project approved in fiscal year 2017 because of publicly reported implementation issues with the system. We also reviewed reports provided by ASET to JLBC and independent third-party reviews for some of these projects. Further, to determine whether ASET had complete IT project expenditure information, we reviewed ASET's project-tracking system expenditure information for the 269 IT projects that were complete as of December 2022 and that ASET or ITAC approved in fiscal years 2018 through 2022. Finally, we reviewed SAAM requirements related to IT projects and recommended practices from GAO.[41,42]

- To evaluate whether ASET met the statutory requirement to ensure that agencies contracted for an independent third-party review before recommending IT projects to ITAC for approval, we reviewed all 10 IT projects ITAC approved in fiscal years 2018 through 2022 with total project costs exceeding $5 million. Additionally, we reviewed independent third-party review contracts and/or task orders, and independent third-party review reports, and reports ASET provided to JLBC. Further, we reviewed information from CNSS and IEEE.[43,44]

- To provide information on IT project descriptions, approved schedules, and approved development budgets that are included in Appendices A and B, we reviewed ASET documentation, including PIJ documents.

- To obtain information for the Introduction, we reviewed ASET-prepared information regarding its organization, staffing, and vacancies as of May 2023. In addition, we reviewed session laws.

Our work on internal controls included reviewing ASET's statutes, rules, policies, procedures, and standards, and where applicable, testing its compliance with these statutes, rules, policies, procedures, and standards.

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[41] SAAM contains the State's accounting policies and procedures and is published by the Department's General Accounting Office in accordance with statute.

[42] GAO. (2014). *Standards for internal control in the federal government*. Washington, DC. Retrieved 2/5/2023 from https://www.gao.gov/assets/gao-14-704g.pdf.

[43] CNSS. (2022). *Committee on National Security Systems Glossary*. Retrieved 2/13/2023 from https://www.cnss.gov/CNSS/issuances/Instructions.cfm.

[44] IEEE. (2017). *Standard for system, software, and hardware verification and validation*. New York, NY. Retrieved 3/17/2023 from https://ieeexplore.ieee.org/document/8055462.

We reported our conclusions on applicable internal controls, including information systems controls, in Findings 1 and 2.

We selected our audit samples to provide sufficient evidence to support our findings, conclusions, and recommendations. Unless otherwise noted, the results of our testing using these samples were not intended to be projected to the entire population.

We conducted this performance audit of the Department in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We express our appreciation to the Department director and staff for their cooperation and assistance throughout the audit.

DEPARTMENT RESPONSE

Katie Hobbs
Governor

Elizabeth Alvarado-Thorson
Director

ARIZONA DEPARTMENT OF ADMINISTRATION

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July 5, 2023

Linsey A. Perry
Auditor General
2910 N. 44th Street, Suite 410
Phoenix, AZ 85018

Dear Ms. Perry,

Thank you for providing us with a revised final report draft of the performance audit of the Arizona Department of Administration-Arizona Strategic Enterprise Technology Office IT Project Oversight. We appreciate the opportunity to respond. Attached, please find our final response to the performance audit findings.

Please feel free to contact me with any questions.

Sincerely,

Elizabeth Alvarado-Thorson
Director

Finding 1: ASET has provided insufficient oversight of IT projects, decreasing its ability to identify projects at risk of failing to meet their intended results and hindering critical State agency functions

Recommendation 1: ASET should ensure agencies submit all required IT project status reports.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

With the shift in the state workforce and service delivery to more virtual environments, technology support has become more critical. The volume and complexity of projects ASET is tracking, monitoring, collaborating on, and leading has increased to match this demand. To keep up with this demand and meet all of our statutory and best practice obligations, ASET will be requesting additional resources in its fiscal year 25 budget. These additional resources will assist in mitigating many of the findings listed throughout the report.

ASET believes that regular status reporting is an essential tool for project management which allows agency leadership, project leadership, suppliers, and oversight parties to have regular, consistent understanding of project progress, identification of potential misalignment between project teams, risks monitoring and appropriate resourcing. ASET has multiple levels of project engagement that help to inform us of project status, to include formal Status Reports, attendance of project meetings by staff, informational reporting to ITAC and others. This information is also provided to several parties through ASET's own reporting on projects in its Quarterly Report submitted to OSPB and JLBC, which can only be accomplished when ASET staff have engagement with project team members and has included escalation of missing status reports, but the application of an escalation process has been inconsistent.

Cooperation among project stakeholders is essential for project success and ASET believes when Oversight is an open participant in such cooperation, projects have increased chances of meeting intended goals. ASET has consistently put in place expectations for agencies to submit status reporting. Currently, ASET requests that agencies:

1. Submit status reports based on monthly or quarterly reporting requirements set in project approval conditions.
2. Use a digital user interface to supply status reporting that incrementally walks the submitter through a process to identify the project health, update progress of milestones and add milestones, identify and report on risks, and submit project financial information.
3. An internal escalation process for encouraging agencies to meet reporting time frames and an ASET health indicator that considers status reporting as a criterion.

ASET believes a greater focus on status reporting quality and not strictly on submission timeliness will improve the ability to assist agencies with struggling projects and implement additional measures to improve status reporting quality. ASET will identify ways to regularly engage appropriate agency leadership regarding their compliance with reporting requirements and continue to inform OSPB and JLBC of compliance concerns. As with all partnerships,

transparency from agencies and cooperation from all stakeholders will be key to ensuring compliance is maintained and that counter measures are taken when necessary to promote project success. We will take the following actions:

1. ASET will improve upon and implement a formally documented procedure or policy to set criteria for establishing monthly or quarterly status reporting.
2. ASET will improve upon and implement additional agency guidance on minimally required information to be provided by submitting agencies.

Recommendation 2: ASET should ensure its staff review all agency-submitted IT project status reports to determine if they include all the required information.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET has many ways of documenting agency interaction during project development and implementation. However, improved use of the internal system functions through establishing specific procedures and ensuring consistent use will have improved benefits for increasing collaboration across stakeholders. ASET will continue its use of ITAC informational updates with agencies as appropriate, quarterly reporting on all ITAC approved projects and Automation Project Fund (APF) projects as well as providing those reports to JLBC and OSPB. Additionally, ASET will improve upon and implement:

1. Procedure or policy that sets processes for Status Report reviewing criteria for staff to include, but not limited to:
   a. An escalation path for projects with delinquent status reports that will include notification of ADOA and the submitting agencies leadership,
   b. Project health indicators impacted by reporting compliance,
   c. Action plans from agencies to ensure compliance, and
   d. Procedure for review of status reports and minimal documentation requirements.

Recommendation 3: ASET should ensure that at IT project closure:

Recommendation 3a: All IT project milestones have been completed.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET agrees that improved consistency in project closure documentation from the submitting agencies as well as from ASET regarding close out procedures is needed. Administrative documentation should reflect actual project outcome. ASET will work to create specific close out instructions for all projects, regardless of approval level. The additional resources ASET will be requesting will assist in the process improvements and accountability activities regarding the processes. Agencies will maintain the ability to collaborate with ASET on additions and modifications of milestones as appropriate and to ensure that all milestones are updated at

project closure. However, as the dynamic nature of IT development and implementation requires, ASET will continue its use of the change request process as appropriate.

Recommendation 3b: All IT project expenditures have been reported.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

While ASET agrees that maintaining appropriate controls over public funds is critical, it has also recognized the numerous oversight functions across state governments already in place to ensure financial controls to include work by the Auditor General's Office, ADOA General Accounting Office, internal agency policy and procedures, and federal oversight groups. ASET will identify additional means to ensure increased project expenditure reporting going forward. The additional resources ASET will be requesting will assist in ensuring the reporting is completed and accountability is improved upon.

Recommendation 4: ASET should evaluate or ensure agencies evaluate and report to it project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET agrees that the State will benefit greatly with more information regarding measures of achieving intended outcomes in projects. While ASET currently asks agencies to report in their PIJ documentation information regarding project benefits, ASET has not implemented specific policy or procedure to ensure the measures provided by the agency address specific areas of impact or meet minimal qualitative or quantitative requirements. ASET intends to produce such reporting requirements at PIJ submission, project closure and as a followup requirement. ASET does acknowledge there may be complications requiring agency compliance with reporting post project closure, but feels the process will provide valuable information to the agency and the state.

Recommendation 5: ASET should take action if it determines an IT project is at risk of failing to meet its intended results, including temporarily suspending IT projects, as required by statute and rule.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

The suspension of a project can have significant impact on an IT project, including increased costs from contractual disputes, supplier and state resource downtime and limitations in time for available funding. Therefore, any increased accountability action must be considered for all

unintended consequences. Increased enforcement action will not necessarily result in improved project delivery. Rather, increased collaboration between agencies and ASET, the Legislature and Executive leadership is more likely to improve transparency and problem solving.

ASET is working to identify increased collaborative requirements across stakeholder groups that can be gradually adopted/rolled out and increased in frequency to address IT project risks as well as reporting requirements. While these are not yet determined, they will include notifications from ASET to agency leadership, agency leadership participation in project governance, increased reporting frequency and increased reporting to Executive and Legislative leadership.

Recommendation 6: ASET should revise and implement its rules, policies, procedures, and/or standards, to outline processes related to status reporting, including:

Recommendation 6a: Expectations for ASET staff and agencies on the specific information that should be included in each section of the status report.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

As stated in earlier responses, ASET agrees that increased transparency and collaboration will be key in improving IT project outcomes. As a first measure in that process, ASET agrees that defining expectations, providing instructional material, and measuring compliance with expectations needs improvement.

As a first measure, in May of 2023, ASET reorganized its Business Engineering section to move the Oversight team members under the leadership of ASET's Project Management office. The change will improve cross collaboration of teams in assisting the adoption of ASET project management practices and procedures into the IT project status reporting requirements. Additionally, the increasing of resources discussed in previous responses will benefit ASET and agencies in the adoption of improved expectation setting and accountability.

Recommendation 6b: Expectations for ASET staff and agencies on the criteria that must be met for an IT project to be considered complete and the IT project completion summary information that should be documented in the IT project's last status report, such as actual project start and end dates and total development expenditures.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET has addressed this recommendation in our response to Recommendation 3. Specifically, policy and/or procedure will be developed to specify minimum expectations for project closure for both the submitting agency and for ASET staff. Currently, ASET has minimum expectations for information included in APF and ITAC closeout reports. ASET will formally set expectations with agencies and identify means to evaluate staff's compliance with the requirements.

Recommendation 6c: Steps ASET staff should take to review status reports.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

Our response to Recommendation 2 addresses our intended steps.

Recommendation 6d: Steps ASET staff should take when they do not receive agency status reports in a timely manner or when status reports do not include the required information.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

Our response to Recommendation 2 details our intended actions.

Recommendation 7: ASET should develop and implement processes, including written policies, procedures and/or standards, to:

Recommendation 7a: Maintain complete and accurate IT project data, including actual project start and end dates.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET agrees that accurate project data is important. We will work to improve internal controls to ensure data is entered timely, and accurately and that changes are appropriately reflected in the system of record. ASET will develop formal internal control procedures to guide staff and validate staff's adherence. Adding additional resources will allow staff to have reasonable workloads that allow for quality control improvements.

Recommendation 7b: Corroborate expenditure data reported in status reports for all IT projects, such as requiring agencies to submit invoices and reviewing a sample of invoices or reviewing agency financial transactions in AFIS.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET currently has reporting functions in its initial project investment justification process and project reporting processes. The projects funded via Automation Projects Fund appropriations have a rigorous process for reporting projected budgets, planned expenses, actual expenses and for requesting funding transfers. However, the process is not replicable in all projects approved by ASET or ITAC under current appropriations dedicated for IT Project Oversight.

ASET will identify additional means to increase project expenditure validation going forward. As ASET adds additional human capital resources to help manage its portfolio, we will be adding the capacity to perform the recommended expenditure validations.

Recommendation 7c: Close IT projects, including ensuring that IT projects do not have outstanding issues at IT project completion, such as incomplete milestones.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

Our response to Recommendation 3 details our intended actions.

Recommendation 7d: Assess and address IT project failure risks, including comprehensive criteria for determining whether IT projects are at risk of failure, steps staff should take to address IT project failure risks, and determining whether an IT project should be temporarily suspended.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

Our response to Recommendation 5 details our intended actions.

Recommendation 7e: Evaluate project outcomes, including changes in customer service, productivity, performance, cost savings, cost avoidance, and benefits to the State, as required by the State-wide project status reporting standard.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

Our response to Recommendation 4 details our intended actions.

Finding 2: ASET did not always ensure that high-risk IT projects received an independent third-party review, limiting key information related to project concerns and risks for it and ITAC to consider and address, potentially jeopardizing these projects' success

Recommendation 8: ASET should comply with statute and ensure that for IT projects with total project costs exceeding $5 million, agencies contract with an independent third party to review and guide the technology approach, scope, estimated cost, timeline for completion,

and overall feasibility of the project before ASET makes IT project recommendations to ITAC.

Department response: The finding of the Auditor General is agreed to, and a different method of dealing with the finding will be implemented.

Response explanation:

ASET acknowledges that independent third party evaluator contracts were not always in place at the time of ITAC approval and this fact was disclosed to the Auditors at the beginning of the audit process in 2022. Additionally, some of the contracts with signatures were not available to the auditors to determine if they were in place before ITAC approval. ASET believes there is great value in the third party evaluation services and worked with the Governor's Office in 2022 to increase involvement in the contracting and reporting of the evaluations. See Executive Memo, Change in Contracting Policy 3rd Party Independent Verification and Validation IV&V. Memo Link

ASET will work with policymakers to request statutory updates pursuant to best practices regarding 3rd Party IV&V. Updates should include clarifying that the evaluation activities start post ITAC approval, in order to reduce conflict between confidentiality of procurement activities, and conflict with federal requirements regarding IV&V activities. Additionally, ASET believes ADOA should have the ability to grant exceptions to 3rd Party IV&V in limited situations. Such as when ASET allowed the Department of Economic Security to move forward with a project that refreshed thousands of laptops and other workstation devices without 3rd Party IV&V. In certain circumstances, the value of such additional oversight is outweighed by the costs.

ASET will be requesting additional resources to expand its Executive Consulting services to all IV&V projects which will provide additional opportunity for assisting agencies in planning and delivering these critical information technology systems.

Recommendation 9: ASET should develop policies, procedures and/or standards that outline steps that ASET staff and agencies must take to contract for the independent third-party review of IT projects with total costs exceeding $5 million, including requirements for obtaining and retaining independent third-party review documentation and time frames for when it should be contracted.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

While ASET works with policy makers to consider modifications addressed in our response to Recommendation 8, ASET will improve upon setting, communicating, and enforcing 3rd Party IV&V contracting time frames.

Recommendation 10: ASET should work with ITAC to develop a process, including written policies and procedures, for requiring that agencies obtain and provide ASET and ITAC with the initial results of independent third-party reviews, such as requiring that the independent third-party review be provided to ITAC at the time of project approval, or recommending that

ITAC approve projects with conditions that the independent third-party review be provided for ITAC's review during a subsequent ITAC meeting.

Department response: The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

Response explanation:

ASET has previously provided ITAC with conditions, which it has adopted, for projects that are approved before a contract is awarded. Using this prior activity as a guide, ASET will work with ITAC to set clear expectations for agencies for the following circumstances:

1. Third-party IV&V contracts must be in place when not in conflict with Federal requirements,
2. Initial evaluation is due for a specific project, and
3. Any conditions ITAC wishes to impose on approval of the project.

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