Annual Report

OVERVIEW OF MAJOR INFORMATION RESOURCES PROJECTS REPORTED
TO THE QUALITY ASSURANCE TEAM

Quality Assurance Team

Comptroller of Public Accounts
Department of Information Resources
Legislative Budget Board
State Auditor's Office (Advisory)

December 2024

QUALITY ASSURANCE TEAM

♦ **Comptroller of Public Accounts** ♦ **Department of Information Resources** ♦

♦ **Legislative Budget Board** ♦ **State Auditor's Office (Advisory)** ♦

TO: Governor Greg Abbott
Lt. Governor Dan Patrick   Speaker Dade Phelan
State Senator Joan Huffman   State Representative Greg Bonnen
State Senator Brandon Creighton   State Representative Mary González
State Senator Lois Kolkhorst   State Representative Morgan Meyer
State Senator Charles Schwertner   State Representative Armando Walle

FROM: Glenn Hegar, Texas Comptroller of Public Accounts
Amanda Crawford**,** Executive Director, Department of Information Resources
Jerry McGinty, Director, Legislative Budget Board

DATE: December 2, 2024

SUBJECT: 2024 Quality Assurance Team Annual Report

Attached is the Quality Assurance Team Annual Report on monitored major information resources projects at Texas state agencies. Projects are assessed to determine whether they operate on time and within budget and scope. The Quality Assurance Team (QAT) provides this analysis pursuant to the Texas Government Code, Section 2054.1183. The QAT, which includes representatives of the Comptroller of Public Accounts, the Department of Information Resources, the Legislative Budget Board, and the State Auditor's Office (advisory member), oversees and assists with developing major information resources projects.

An electronic version of this report is available at https://qat.dir.texas.gov/pubs.htm. If you have any questions, please contact Brian Bowser of the Comptroller of Public Accounts at (512) 463-1138, John Hoffman of the Department of Information Resources at (512) 936-2501, Richard Corbell of the Legislative Budget Board at (512) 463-1200, or Michael Clayton of the State Auditor's Office at (512) 936-9500.

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OVERVIEW OF MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

The Quality Assurance Team (QAT) includes representatives from the Comptroller of Public Accounts (CPA), the Texas Department of Information Resources (DIR), the Legislative Budget Board (LBB), and the State Auditor's Office (SAO) (advisory member). The QAT oversees the state's major technology project portfolio, providing a single view of all the agencies' major information resources projects. QAT monitored 57 projects during the fourth quarter of fiscal year 2024 (June 1, 2024, to August 31, 2024). Of these projects, 11 projects were added to the project portfolio during the fourth quarter. Fifteen projects were completed in fiscal year 2024 (September 1, 2023, to August 31, 2024). Currently, five of the 57 projects have exceeded their initial budgets and schedules by more than 10.0 percent. See the Additional QAT Oversight Initiatives section for project performance indicators. See all projects on the QAT Dashboard at https://qat-dashboard.lbb.texas.gov.

A major information resources project is statutorily defined in the Texas Government Code, Chapter 2054. These projects typically include information technology (IT) projects that meet a certain dollar threshold and require a year or longer to reach operational status.

The QAT shares valuable process improvement strategies with the state entities responsible for overseeing various projects within the portfolio. This proactive approach includes consulting with relevant agencies, hosting informative training sessions, updating QAT's website (https://qat.dir.texas.gov/) to include training webinar resources for in-depth guidance on completing Project Delivery Framework documents, and distributing guidance and best practices to promote the efficient and effective management of all projects and support their successful delivery.

> **COMMON METHODOLOGIES FOR MAJOR INFORMATION RESOURCES PROJECTS**
>
> *AGILE METHODOLOGY*
> The agile methodology is a way to manage a project by dividing it into several phases. Agile methodology involves constant collaboration with stakeholders and continuous improvement at every stage. After the development begins, various teams cycle through a process of planning, executing, and evaluating.
>
> *WATERFALL METHODOLOGY*
> The waterfall methodology is a traditional approach to project management through which tasks and phases are completed in a linear, sequential manner, and each stage of the project must be completed before the next begins.

FACTS AND FINDINGS

- The state's major technology project portfolio includes 57 projects with an estimated total cost of $1.2 billion.

- Of the 57 projects, 39 currently are within 10.0 percent of their originally planned budgets and schedules.

- Historically, QAT has observed that projects with a development schedule of less than 28 months tend to meet their initial duration and budget estimates at a higher rate than projects with longer durations.

- Of the 15 projects completed during fiscal year 2024, two met their originally planned schedules and two ended within their originally planned budgets.

BACKGROUND

The QAT is an interagency workgroup established to provide ongoing oversight of "major information resources projects as defined in the Texas Government Code, Chapter 2054. All state agencies, including institutions of higher education, that are assigned additional monitoring pursuant to the Texas Government Code, Section 2261.258(a)(1), are subject to QAT oversight. Staff from the CPA, DIR, LBB, and SAO (advisory only) serve in a joint capacity on the QAT. The QAT reviews and monitors state agency major information resources projects; identifies potential major information resources projects from agencies' Biennial Operating Plans; monitors the status of major information resources projects; and provides feedback regarding agencies' framework deliverables. Agencies entering contracts for major information resources projects with an expected value of at least $10.0 million also must obtain a QAT review of the contract before execution. The QAT functions pursuant to the Texas Government Code, Chapter 2054, and the Eighty-eighth Legislature, General Appropriations Act (GAA), 2024–25 Biennium, Article IX, Sections 9.01 and 9.02. QAT is required to evaluate major information resources projects to determine whether the following goals are met:

- the projects are operating on time and within budget pursuant to the Texas Government Code, Section 2054.1181(d); and

- the risks associated with the project are being mitigated appropriately.

ROLES AND RESPONSIBILITIES

Collectively, the QAT contributes staff expertise in the specialty areas of its member agencies, including technology strategy, system development, project management, legislative reporting, budgeting, procurement, and contracting.

Pursuant to the Texas Government Code, Chapter 2054, the QAT has adopted an official *Policy and Procedures Manual* for agencies to consult in their efforts to comply with all requirements. The manual is available online at https://qat.dir.texas.gov/forms/ QAT_Policy_and_Procedures_v2.2_Final_Adopted_2023.pdf.

CPA staff review solicitation documents related to major information resources projects. They also provide input regarding project framework deliverables and guidance on issues that occur while agencies implement major information resources projects.

MAJOR INFORMATION RESOURCES PROJECTS

Pursuant to the Texas Government Code, Chapter 2054, a major information resources project is:

- any information resources technology project identified in a state agency's Biennial Operating Plan whose development costs exceed $5.0 million and that:
  - requires one year or longer to reach operations status;
  - involves more than one state agency; or
  - substantially alters the work methods of state agency personnel or the delivery of services to clients;

- any information resources technology project designated by the Legislature in the General Appropriations Act as a major information resources project; and

- any information resources technology project of a state agency designated for additional monitoring pursuant to the Texas Government Code, Section 2261.258(a)(1), if the development costs for the project exceed $5.0 million.

This definition includes any institutions of higher education or state agencies that receive a rating of Additional Monitoring Warranted in the State Auditor's Office Annual Report on Contract Monitoring Assessment at Certain State Agencies, pursuant to the Texas Government Code, Section 2261.258.

Agencies are required to use DIR's Texas Project Delivery Framework (https://dir.texas.gov/technology-policy-and-planning/digital-project-services/project-delivery-framework) during the delivery of major information resources projects as defined in the Texas Government Code, Chapter 2054, Information Resources, and for certain major contracts. DIR's framework includes the following phases:

- initiation;

- planning;

- execution;

- monitoring and control; and

- closing.

Texas Government Code, Section 2054.1181, requires DIR to provide "additional oversight services" for major information resources projects at all agencies designated by the SAO (advisory member) as "additional monitoring warranted." Details regarding these procedures and services, in addition to all agency required project management mandates, can be found in Texas Administrative Code, Title 1, Part 10, Chapter 216.

DIR's executive director, in coordination with the QAT and state agency information resources managers, is required to prepare the State Strategic Plan for information resources management for review and approval by DIR's governing board pursuant to the Texas Government Code, Section 2054.092(a). The State Strategic Plan is the standard for all Texas state agencies to follow when developing the IT components of their agency strategic plans.

LBB staff specify procedures for submitting, reviewing, approving, and disapproving agencies' Biennial Operating Plans and amendments, including guidelines for reviewing or reconsidering the LBB's disapproval. The LBB maintains an online project dashboard at (https://qat-dashboard.lbb.texas.gov/), which enables state leadership agencies and the public to view the details and progress of agencies' major information resources projects.

SAO recuses itself from making recommendations and participating in additional oversight initiatives related to contracts included in this report. This separation is necessary to ensure that SAO maintains its independence so that it can conduct subsequent audits of contracts and amendments overseen by the QAT in accordance with professional auditing standards.

The QAT's oversight includes requesting additional information from agencies to facilitate more comprehensive project analyses. For example, the QAT may request an updated version of a project plan from an agency to better understand a project's revised scope. Additionally, when the project is reviewed, the QAT may require an agency to submit third-party reports, including independent verification and validation reports. Such reports can provide insight to evaluate IT project risks.

Finally, QAT may request SAO to perform a non-audit service project for projects being monitored by the QAT. These non-audit service projects have provided valuable input to the QAT. SAO did not perform any non-audit service project reviews during the current reporting period.

PROJECT PERFORMANCE OBSERVATIONS AND TRENDS

QAT observations and trends are based on agencies' self-reported information. Information reported for ongoing projects may change as their implementation progresses.

Although the QAT provides oversight and support for major information resources projects, agencies ultimately are responsible for the successful delivery of their projects.

OBSERVATION: TIMEFRAME AND PROCUREMENT METHOD

The QAT has observed that projects with large procurements often are delayed for several months during the acquisition phase. A realistic procurement timeframe that considers the complexity of the procurement should guide the procurement strategy. Agency procurement staff should assist agency leadership and stakeholders to determine a reasonable timeline for the solicitation, which can be challenging, especially considering contract negotiations' unpredictability. However, relevant market research, critical input from stakeholders, and awareness of previous procurement timeframes can provide the project team with sufficient information to set reasonable timing expectations and avoid or minimize overrunning a project's schedule. Therefore, the timeline should consider the agency's procurement process and any required stakeholder or executive approval procedures for major purchases.

Additionally, the QAT recommends that agencies consider dividing major information resources projects with high costs and large, complex scopes into multi-biennia phases in their legislative requests. For example, the first phase may focus on market research, planning, and solution procurement(s), and additional phases may implement the solution(s) and any enhancements. The QAT has observed several instances in which the planned development and implementation of an agencywide, integral system development project during one biennium has extended into a project that spans multiple biennia. A more holistic approach to planning and funding for these integral systems that may require several years, vendor partners, or agencies to implement could help mitigate the trend of costly overruns and changes these types of projects typically encounter. Some agencies have begun to consider these overarching, agencywide system development efforts that qualify as major information resources projects as agency programs with their own governance structures that consist of multiple smaller projects.

A sound acquisition plan should outline the procurement strategy for acquisition management, pursuant to statutory and regulatory requirements and in support of the program's needs. Agencies should prepare a request for offer (RFO) consistent with state law and the *State of Texas Procurement and Contract Management Guide*, which is available online at https://comptroller.texas.gov/purchasing/publications/procurement-contract.php. An RFO is intended as the designated, primary purchasing method for procuring Automated Information Systems (AIS). It is recommended when factors other than price or cannot define objective criteria. Agency procurement staff should assist in determining a reasonable timeline for the solicitation and should consider the agency's evaluation process and required stakeholder and executive approval procedures for major purchases. For contracts estimated to exceed $10.0 million in value, agencies should notify QAT early in the process to prevent unnecessary delays during the final contract review. Agencies should evaluate the past performance and current financial status of vendors that bid on contracts. Depending on the contract, agencies should consider fully the costs and complexity of the transition and seek the inclusion of a strong vendor-supported comprehensive System Integration Plan as part of an RFP/Request for Offer (RFO). The agency should select the final vendor using the original approved selection criteria, including end-user feedback.

Data Center Services (DCS) agencies also should contact DIR's Shared Technology Services (STS) team for assistance before posting a solicitation. The STS team will assist agencies by developing language to offer a solution option that is hosted in a State Data Center, provide for better long-term network planning, and consult on DCS exemptions from the State Data Center, if necessary. DCS agencies that pursue contracts without consulting STS for assistance risk additional procurement delays, which could require renegotiating awards and delay projects. Contact the STS team at https://dir.texas.gov/shared-technology-services.

DIR established the Texas Risk and Authorization Management Program (TX-RAMP), a framework for collecting information about cloud services security and assessing responses for compliance with required controls and documentation. The Texas Government Code, Section 2054.0593, mandates that state agencies, as defined by Section 2054.003(13), may enter or renew only those contracts for cloud computing services that comply with TX-RAMP requirements.

Agencies should consider TX-RAMP requirements at the beginning of any solicitation for cloud computing services and ensure that all vendors have provided proof of appropriate TX-RAMP certification for their solutions. Cloud applications must be certified before contract execution to consider applications hosted on TX-RAMP-certified platforms compliant. For additional guidance, agencies are should contact DIR's TX-RAMP team at https://dir.texas.gov/information-security/texas-risk-and-authorization-management-program-tx-ramp.

ADDITIONAL QAT OVERSIGHT INITIATIVES

CONTRACT OVERSIGHT

Pursuant to the 2024–25 GAA, Article IX, Section 9.01, and the Texas Government Code, Section 2054.160, the QAT must review any contract for the development of major information resources projects with an expected value of at least $10.0 million before it can be executed by an agency. The QAT will review the contract to confirm that it follows the best practices established in the CPA's *State of Texas Procurement and Contract Management Guide* and all applicable rules and regulations. The guide is available online at https://comptroller.texas.gov/purchasing/publications/procurement-contract.php. The *Procurement and Contract Management Guide* provides guidance for state agencies regarding the full procurement cycle, and the QAT conducts contract reviews based on adherence to the practices within the guide and provides recommendations. The QAT may waive the review requirements for certain circumstances.

State agencies must notify the QAT regarding the solicitation and award of all contracts pertaining to major information resources projects. An agency must notify the QAT when it advertises a solicitation related to a major information resources project. The agency also must notify the QAT within 10 business days of when it awards a contract for any major information resources project, pursuant to Section 9.02(b)(3).

The QAT has fostered increased collaboration among oversight agencies, enabling DIR, CPA, LBB, and SAO to partner on training initiatives through CPA's procurement training and continuing education programs. QAT also has provided improved insight into statewide contracting issues, informing the focus of the Statewide Procurement Division's (SPD) continuing education offerings. The Procurement Oversight and Delegation team within SPD, which coordinates the Contract Advisory Team (CAT), has collaborated with the QAT to provide additional oversight of state agencies' adherence to contracting requirements.

Several requirements affect the amendment of a contract for the development of a major information resources project. A state agency must notify the QAT and the Governor, Lieutenant Governor, Speaker of the House of Representatives, the Senate Committee on Finance, and the House Committee on Appropriations before amending a major information resources contract when the expected total value of the amended contract would exceed the total value of the initial contract by 10.0 percent or more, pursuant to the 2024–25 GAA, Article IX, Section 9.01(d). Additionally, an amendment to a major information resources project development contract with a total value that exceeds $5.0 million must be reported to QAT when it meets the following criteria:

- the expected total of an element in the amended contract would exceed the total value of the same element in the initial contract by 10.0 percent or more; or

- the amendment would require the vendor to provide consultative services, technical expertise, or other assistance in defining project scope or deliverables, pursuant to the 2024–25 GAA, Article IX, Section 9.01(e).

PROJECT OVERSIGHT: PUBLIC DASHBOARD

Pursuant to the Texas Government Code, Section 2054.159, DIR, in consultation with the QAT, developed performance indicators in the areas of schedule, cost, scope, and quality for all major information resources projects. The QAT's public dashboard includes current project performance information to enable state leadership, state agencies, and the public to access details of major information resources projects online. The dashboard is updated quarterly and is available at https://qat-dashboard.lbb.texas.gov/.

The performance indicators for the areas of budget, schedule, scope, and quality reported from state agencies for each project are calculated in the following manner:

- Schedule performance index (SPI) – SPI is a standard project management measure of how close the project is to being completed compared to the project's schedule. For waterfall methodology projects, SPI is calculated by dividing the budgeted cost of work performed, or earned value, by the planned value. For agile methodology projects, SPI is calculated based on completed activities compared to planned activities. See the Common Methodologies for Major Information Resources Projects section for definitions of methodologies.

PROJECT SCHEDULE PERFORMANCE INDEX RATING	CORRESPONDING COLOR
0.90 or greater	Green
From 0.80 to less than 0.90	Yellow
Less than 0.80	Red

- Cost performance index (CPI) – CPI is a standard project management measure of the financial effectiveness and efficiency of a project. It represents the amount of completed work for every unit of cost spent. For waterfall methodology projects, it is calculated by dividing the budgeted cost of work performed, or earned value, by the actual cost of the work performed. For agile methodology projects, it is calculated based on completed activities' costs compared to the actual costs or hours completing those features.

PROJECT COST PERFORMANCE INDEX RATING	CORRESPONDING COLOR
0.90 or greater	Green
From 0.80 to less than 0.90	Yellow
Less than 0.80	Red

- Scope performance – This measure is derived from reviewing the effects to the budget of project scope increases during the preceding 12 months.

SCOPE PERFORMANCE INDEX	CORRESPONDING COLOR
10.0% or less	Green
Greater than 10.0% and less than or equal to 20.0%	Yellow
Greater than 20.0%	Red

- Quality performance – This measure is derived from a series of quality measures specific to each project and each project phase. Quality performance is measured using the agency's approved Quality Register as provided in its approved Project Plan. The QAT Project Plan is part of the Texas Project Delivery Framework, which is required for all major information resources projects. More details are available at https://dir.texas.gov/technology-policy-and-planning/digital-project-services/project-delivery-framework.

QUALITY PERFORMANCE INDEX	CORRESPONDING COLOR
Project has a Quality Register in place and is achieving its stated quality objectives.	Geen
Project has a Quality Register in place and is missing some of its quality objectives, requiring notification to agency management.	Yellow
Project does not have a Quality Register in place or is not achieving its quality objectives and requires intervention with agency management.	Red

Metrics are established in the Statewide Project Automated Reporting (SPAR) system to track and review projects. Agencies that are implementing major information resources projects enter project data into the SPAR system for QAT review. Additionally, the SPAR system tracks whether an agency has considered certain solution options and QAT best practices pursuant to the Texas Government Code, Section 2054.304. DIR provides training to agency staff through agency consultations, webinars, and DIR-sponsored forums to communicate all requirements associated with these projects and instructions for using the Project Delivery Framework, SPAR system, and public dashboard. Agencies may request trainings directly with DIR at projectdelivery@dir.texas.gov.

QAT and DIR are collaborating to produce several initiatives that will assist agencies in improving the delivery of projects. Figure 1 shows these improvement efforts.

FIGURE 1
QUALITY ASSURANCE TEAM AND DEPARTMENT OF INFORMATION RESOURCES PROJECT DELIVERY IMPROVEMENT INITIATIVES
FISCAL YEAR 2024

- The Department of Information Resources (DIR), in collaboration with QAT, developed and implemented in September 2024 its new Statewide Project Automated Reporting (SPAR) system for end users to input their QAT monitoring report information and Project Delivery Framework documentation. In conjunction with that rollout, the QAT provided training in August 2024 for SPAR administrators and end users. Training resources are available at https://qat.dir.texas.gov/trainings.htm.

- In May 2024, DIR published its *Agile Guide for Major Information Resources Projects (MIRPs)* to assist agencies in adapting an agile methodology to ensure compliance with all Texas statutory requirements for major information resources projects. The guide is available at https://dir.texas.gov/sites/default/files/2024-06/PM%20Essentials%20Agile%20for%20MIRPs%20Guide.pdf.

- The QAT and DIR emphasized incorporating best practices in modern information technology project management outreach and training with agencies using the following new methods: a robust QAT website including on-demand recordings to guide agencies, numerous individualized trainings, and in-person training.

- The QAT maintained and updated Standard Operating Procedures for completion of the Texas Project Delivery Framework, all of which are available on the QAT website's Publications page at https://qat.dir.texas.gov/pubs.htm. In addition, the *QAT Policy and Procedures Manual* is available at https://qat.dir.texas.gov/forms/QAT_Policy_and_Procedures_v2.2_Final_Adopted_2023.pdf.

- The QAT coordinated information-sharing with the Legislative Budget Board to identify potential new major information resources projects from agencies' funded 2024–25 Biennial Operating Plans.

- DIR and the QAT implemented Additional Monitoring practices by rule, as directed by Senate Bill 799, Eighty-seventh Legislature, Regular Session, 2021.

- DIR coordinated information-sharing among state agencies to disseminate technology and project management best practices, including consulting entities or agencies with the Project Delivery Advisory Board, which is a team consisting of representatives from various state agencies and institutions of higher education that develops guidance for standardized project delivery practices and frameworks for use statewide.

SOURCE: Quality Assurance Team (QAT).

THE TEXAS ADMINISTRATIVE CODE, TITLE 1, PART 10, CHAPTER 216, ADDITIONAL OVERSIGHT

Pursuant to Senate Bill 799, Eighty-seventh Legislature, Regular Session, 2021, DIR is required to provide additional oversight for agency projects designated for additional monitoring by the SAO and for any major information resources project designated by the Governor, Lieutenant Governor, or Speaker of the House of Representatives. DIR, in consultation with QAT and the state Project Delivery Advisory Board, developed an additional oversight matrix to guide the implementation of this requirement.

The QAT evaluates all major information resources projects within each agency that SAO designates for additional monitoring, and QAT reviews all agency self-reported data. SAO's May 2023 contract monitoring assessment report is available at https://sao.texas.gov/reports/main/23-028.pdf.

Figure 2 shows the project evaluation criteria the QAT applied to determine the level of additional monitoring warranted for designated agencies.

FIGURE 2
APPROACHES FOR QUALITY ASSURANCE TEAM'S ADDITIONAL MONITORING LEVELS

ADDITIONAL MONITORING LEVEL	APPROACH 1: USING PERFORMANCE INDICATORS ONLY (SCHEDULE, COST, SCOPE, QUALITY)	APPROACH 2: PERCENTAGE OVER BUDGET/BEHIND SCHEDULE
High	At least 1 red and 1 yellow for 2 consecutive reporting periods	50.0% over
Medium	2 yellow indicators for 2 consecutive reporting periods	10.0% over
Low	Up to 1 yellow in any reporting period	0.0% to 9.0% over

SOURCE: Quality Assurance Team.

Project evaluations consider all project factors to determine true project risk. A project's risk determination can originate from either Approach 1 or Approach 2, as determined by the QAT.

Figure 3 shows the potential QAT recommendations for projects based on risk-level assessment. QAT may choose any of these options, based on the areas of risk identified, or determine different recommendations as appropriate. Any costs incurred because of the additional resources or activities required are assigned to the additional monitoring agency, pursuant to the Texas Administrative Code, Title 1, Part 10, Chapter 216.

FIGURE 3
POTENTIAL QUALITY ASSURANCE TEAM RECOMMENDATIONS BASED ON PROJECT RISK ASSESSMENT

RISK	RISK MANAGEMENT	QA SERVICES	INDEPENDENT PROJECT MONITORING	PROJECT MANAGEMENT
High	• Establish an executive steering committee • Agency adopts/ procures/ implements enterprise risk management tools	• Hire quality assurance (QA) vendor or independent code testing	• Hire IV and V • Establish executive steering committee	• Hire additional project manager • Cost-benefit analysis → cancel project consideration
Medium	• Load individual risks into Statewide Project Automated Reporting (SPAR); QAT review of risks and agency walkthrough monthly or quarterly	• Regular updates to Quality Register or Quality Assurance Surveillance Plan (QASP) • Agency must follow up reporting with QAT	• Regular meeting with project management team • Survey of team members • At QAT discretion, IV and V	• Additional details for monthly monitoring report
Low	• Monthly Monitoring Report	• QASP or additional items in Quality Register	• Monthly Monitoring Report	• Monthly Monitoring Report

SOURCE: Quality Assurance Team (QAT).

ADDITIONAL MONITORING FOR 2024

Using the criteria shown in Figure 3, certain projects met the conditions to be considered for additional monitoring. For all of those identified projects, the following additional monitoring requirements were implemented during the 2024 reviewing period pursuant to the Texas Administrative Code, Title 1, Part 10, Chapter 216:

- establish an executive steering committee, including the agency and the QAT, to review project performance regularly, identify risk, and develop mitigation strategies to minimize the effects on outcomes;

- require monthly monitoring reports; and

- require acquisition plans for all major information resources projects.

BEST PRACTICES AGENCIES SHOULD FOLLOW

The Texas Government Code, Section 2054.304, directs state agencies to consider incorporating applicable best practices into their major information resources project plans. Based on reviews of project performance outcomes from entities across the public sector and at the federal level, the QAT identified the following best practices that contribute to the success of state agency information systems:

- Divide large projects into smaller, more manageable projects with schedules of less than 28.0 months and budgets of less than $10.0 million. For large legacy-replacement projects, consider strategies to migrate the legacy system incrementally, using a phased approach by replacing specific pieces of functionality gradually with new applications and services.

- Consider leveraging DIR's STS for project-delivery needs related to cloud, application development, maintenance, security, and other technology solutions. Participation in the STS program may enable an agency to meet evolving project needs while minimizing risk and maintaining project and business continuity.

- Combine agile development with user-centered design to enable the development team continuously to iterate toward solving and meeting end users' needs.

- Build IT systems using individual components that are not dependent on each other and that are connected by open and available application programming interfaces (API) to enable adaptable, sustainable systems that meet users' needs and cost less than traditional systems.

- Include security planning in the initiation phase of the project. Complete a security risk assessment for the project, include a secure code review and vulnerability testing, conduct a penetration test of the application, and remediate findings before moving to production. For cloud services, agencies are required to verify that engaged vendors have obtained TX-RAMP certification before contract execution. For more information, contact the DIR TX-RAMP team at tx-ramp@dir.texas.gov.

- Perform system categorization and determine the appropriate security control baselines for the information system based on confidentiality, integrity, and availability requirements.

- Consider agile procurement methodology.

- Assign a dedicated agency product owner to lead development efforts. The product owner is a different role from a project manager or program manager, who typically focuses on ensuring that the initiative runs well and delivers on time and within budget. Product ownership requires stage planning with users and stakeholders and refining any backlog, among other duties. The product owner should be empowered to make decisions based on feedback from stakeholders and users, business objectives, and priority of features to achieve the product vision.

The QAT identified strategies that agencies should use to ensure an appropriate methodology for project selection, control, and evaluation based on alignment with business goals and objectives. Figure 4 shows these strategies.

FIGURE 4
STRATEGIES FOR AN APPROPRIATE PROJECT METHODOLOGY
NOVEMBER 2024

- Provide adequate time for project procurement activities.
- Ensure the gathering of requirements has occurred before schedule and budget estimation to ensure that the defined scope can accommodate the customer's or agency's request.
- Consider the allowable funding for a biennium when planning a project and associated contracts.
- Include employee benefits costs as part of full-time-equivalent position costs when reporting project costs in monitoring reports.
- Consider accessibility requirements and standards in the Texas Administrative Code, Title 1, Part 10, Chapter 213, Electronic and Information Resources, during software analysis, development, and testing.
- Provide accurate, current information regarding the project's performance to the QAT and stakeholders. Submit QAT monitoring reports within 30.0 days after the end of each reporting period.

- Conduct a thorough analysis of resource availability before submitting a project to agency management for approval. Failure to adhere to this practice can lead to unrealistic expectations.
- Develop a repeatable and reliable method for delivery of information resources projects that solve business problems and deliver value to the state.
- Implement a documented single-reference source governing project management practices and project performance reporting.
- Include in the documentation a summary of lessons learned and retrospective activities throughout the project to facilitate continuous improvement.
- Review and update the project management policies and processes at least every two years to promote strategic and business objectives.

SOURCE: Quality Assurance Team.

APPROACHES TO DETERMINING PROJECT CLASSIFICATION AS A MAJOR INFORMATION RESOURCES PROJECT

Agencies may have difficulty determining whether a project is subject to reporting as a major information resources project. QAT has developed the following approaches to support agencies when planning new IT projects and facilitates compliance with statutory requirements.

A major information resources project may be identified in an agency's Biennial Operating Plan with costs greater than $5.0 million. They may include any of the following components:

- custom development of a new or replacement application;

- a cloud-hosted solution such as software as a service or platform as a service that must be customized to accommodate agency requirements;

- legacy data migration; and

- enhancements to an existing and operating application.

Total project costs are calculated using all costs associated with project implementation, including the following expenditures:

- planning costs;

- staffing costs, including staff augmentation and full-time-equivalent positions;

- informational costs;

- hardware purchases;

- software purchases, including new licenses;

- contingency costs; and

- ancillary costs.

A major information resources project may involve separation of effort among multiple vendors and purchase orders or demands as part of its implementation. The major information resources project status is based on the amount appropriated for the described project effort(s) in the agency's Legislative Appropriations Request (LAR). The agency and the QAT must evaluate all efforts associated with LAR funding for consideration as a major information resources project. If an agency cannot determine whether an effort qualifies as a major information resources project, it should contact the QAT for guidance at qat@dir.texas.gov.

CONCLUSION

Agencies retain the ultimate responsibility for project management and success. The QAT seeks to increase transparency and provide guidance to agencies executing major information resources projects. To this end, QAT provides recommendations to enhance an agency's ability to satisfy commitments made to state leadership. Although multiple factors contribute to a successful project, one key factor that increases the risk of failure for major state technology projects is a large, complicated scope that is not well-defined.

Other factors associated with project success include providing adequate time for procurement activities, aligning scope with approved budgets, confirming that cost and schedule estimates are accurate, and deferring new requirements until a later phase or until a new project can be initiated. The QAT will continue to collaborate with agencies and state leadership to execute effective project oversight projects.

CONTACT

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