

South Carolina Department of Administration

South Carolina's Annual IT Data Collection Effort



NASCIO STATE IT RECOGNITION AWARDS INFORMATION

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NASCIO State IT Recognition Award Submission

South Carolina's Annual IT Data Collection Effort

EXECUTIVE SUMMARY

South Carolina is currently engaged in a process designed to transition the state's information technology (IT) resources from a historically decentralized approach to one in which the larger statewide perspective is considered. This decision is fundamentally transforming the way in which IT is acquired, consumed and managed by the state's 70+ agencies in order to provide citizens with services in the most secure, efficient and cost-effective manner possible.

Before this decision, most agencies operated in their own individual silos. No governance existed requiring agencies to report their full IT operational costs. A 2014 study determined South Carolina had a higher cost of government IT than did comparable states, primarily due to duplication of costs and IT resources. However, even that study was unable to gather cost data from all agencies. Without knowing how much is being spent, on what it is being spent, and who is spending it, it is impossible to view IT from a statewide perspective, and ultimately economies of scale are virtually unattainable.

In an effort to help obtain a better understanding of the state's IT related expenditures, [Section 11-35-1580](#) of the South Carolina Code of Laws was enacted by the South Carolina Legislature. In addition to a variety of other IT-related measures, this regulation calls for the [South Carolina Department of Administration](#) (Admin) to assess the need, use and management of IT resources in the state. This assessment is carried out through the use of an annual Information Technology Data Collection Effort.

Admin's Program Management Office (PMO) leads the mandated effort, which provides the opportunity to better understand the state's current and future IT spend across all state agencies with a view toward improving overall IT cost effectiveness. Review of the data — collected through the development and implementation of a secure, web-based IT Data Collection and Planning System — allows the state to evaluate opportunities to leverage resources collaboratively and take advantage of potential cost savings and efficiencies. Insight is collected through the system for technology-related aspects of inventory, fiscal spend and planning, personnel planning and forecast, project forecast and IT planning.

South Carolina has benefited tremendously from the results of the IT Data Collection Effort in its previous iterations across a wide range of areas. Benefits resulting from this effort include:

- ▶ Comprehensive understanding of IT expenditures.
- ▶ Overall status of IT resources across the state.
- ▶ Increased transparency of current and future IT spending.
- ▶ Availability of dashboards for agencies showing IT cost details.
- ▶ Greater visibility into the entire purchasing cycle of IT goods and services.
- ▶ Development of Statewide IT Standards based on common platforms seen in the data.
- ▶ Increase in purchasing power for IT-related devices.
- ▶ Simplified IT provisioning.
- ▶ Estimated \$2,200,000 in contract savings resulting from standardization of computing devices.

South Carolina has made significant advancements in its efforts to view IT from a statewide perspective. The annual IT Data Collection Effort has played a critical role in this success so far. Going forward, the data collected will produce additional benefits as it is utilized to support IT decision-making.

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PROJECT NARRATIVE

South Carolina is currently engaged in a process designed to transition the state's information technology (IT) resources from a historically decentralized approach to one in which the larger statewide perspective is considered. This decision is fundamentally transforming the way in which IT is acquired, consumed and managed by the state's 70+ independent agencies in order to provide citizens with services in the most secure, efficient and cost-effective manner possible.

Previous Decentralized Approach

Before this transition, South Carolina's IT was highly decentralized. In most cases, agencies operated in their own individual silos which resulted in a variety of disadvantages, including:

- ▶ Difficulty in understanding the state's true technology costs.
- ▶ Duplication of efforts among state agencies.
- ▶ Economies of scale virtually impossible to achieve.
- ▶ Higher IT costs compared to peer states.
- ▶ Increased security risks.

Without know how much is being spent, on what it is being spent, and who is spending it, it is impossible to address IT costs at the enterprise level.

Guiding Legislative Directives

In an effort to help obtain a better understanding of the state's IT related expenditures, [Section 11-35-1580](#) of the South Carolina Code of Laws was developed by the South Carolina Legislature. In addition to a variety of other IT-related measures, this law calls for the South Carolina Department of Administration (Admin) to assess the need, use and management of IT resources in the state. This assessment is carried out through the use of an annual Information Technology Data Collection Effort.

Program Management Office Leads Effort

The South Carolina Department of Administration's Program Management Office (PMO) leads the mandated data collection effort, the purpose of which is to better understand the state's current and future IT spend across all agencies. Review of the data enables the state to evaluate opportunities to leverage resources collaboratively and take advantage of potential cost savings and efficiencies.

One of the primary goals of the PMO is to capture and provide the IT expenditures for over 70 independent agencies in South Carolina. The initial mechanism used to collect such information — which includes data related to personnel, hardware, software, planned large IT projects and IT spend forecast — was a spreadsheet-based workbook.

Providing, completing, collecting and combining over 70 complex spreadsheets in a secure manner was a laborious task for the state's agencies and the PMO. As a result, the PMO worked quickly to establish a new web-based IT data collection system, which also incorporated a legacy IT planning system.

New IT Data Collection and Planning System

In 2018, the PMO developed and implemented the IT Data Collection and Planning System, a secure, web-based tool developed using a commercial off-the shelf data management system. Agencies and higher-education institutions access the system and provide their data through its interface. The new system provides agencies with a secure, fresh, user-friendly design with enhanced functionality to meet

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their reporting requirements. Developed using a Hyland OnBase platform, the system offers a variety of previously unavailable tools and features. Such features include:

- ▶ Custom reporting
- ▶ Dashboard for agency use
- ▶ Role-based security
- ▶ Secure access to data
- ▶ Task-specific workflows
- ▶ Workflows to automate manual tasks
- ▶ Year over year data retention

This enhanced feature sets enables the PMO to view data from a variety of perspectives leading to better reporting and deeper understanding of the state's IT costs. In turn, this improves the value of the data collection effort for Admin, the Governor's Office and South Carolina Legislature.

User Training

To assist users in becoming familiar with the system, the PMO hosts a series of training classes at the beginning of the data collection cycle each year. These instructor-led classes provide participants — either in person or via WebEx video conferencing — with training on the IT Data Collection and Planning System and include example-based exercises designed to address each of the essential areas and required functions. A comprehensive user guide was also developed, providing step-by-step instructions and screenshots for each required step in the data collection process.

This guide is available electronically through the system, which provides multiple benefits. First, it allows updates to the guide to be published immediately, ensuring user access to the latest version. Secondly, it provides users with online, searchable assistance, thereby eliminating tedious document reviews.

System Enhancements

While the use of the IT Data Collection and Planning System was a welcomed addition for agencies, the need for enhancements in several areas was identified through agency feedback. The PMO worked with select agencies through the Agency Relationship Management (ARM) team, its agency outreach mechanism, to identify such needs and to validate the effectiveness of the enhancements.

Now in its second year of use, the Program Management Office has made a number of additional enhancements to the IT Data Collection and Planning System. These enhancements, identified through user feedback, were designed to streamline processing, improve system usability, user interface, data validation and workflow automation. Specific enhancements include the following:

- ▶ Ability to assign and link multiple fiscal plan item details to required budget forms.
- ▶ Ability to attach documentation in support of agency IT planning budget items.
- ▶ Feedback feature allows agencies to submit feedback directly from the application.
- ▶ Pre-submission validation allows the review of workbooks for errors/edits before submission.
- ▶ Split funding for IT planning entries allow agencies to classify funds as general, federal or other.
- ▶ User guide and workbook updates support simplified personnel responsibility entry.

System users applauded these changes when presented during the most recent training sessions.

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IT Data Collection Cycle

The IT Data Collection cycle takes place annually during the three-month period from late May to mid-September. This cycle includes several important dates and milestones, including:

- ▶ IT Data Collection and Planning System user training (late May)
- ▶ IT Data Collection go-live (early June)
- ▶ Agency Relationship Management team support to agencies (June-August)
- ▶ IT Data Collection information due (early August)
- ▶ Agency Relationship Management team validates responses (June-August)
- ▶ Agency budget plans due (Sept. 15)
- ▶ IT Budget Decision Package created and distributed to agencies and legislature.

Agency Participation and Support

Beginning each June, state agency representatives — including IT, human resource, procurement and finance directors — begin entering data from their respective areas through the web-based IT Data Collection and Planning System. Information is collected through the system for several areas, including the technology-related aspects of:

- ▶ Fiscal spending and planning
- ▶ Equipment and software inventory
- ▶ IT planning
- ▶ Personnel planning and forecast
- ▶ IT Project status and forecast

Throughout this process, members of the PMO's Agency Relationship Management (ARM) team serve as the liaison between Admin and individual agencies. In this capacity, the ARM team provides support for the IT Data Collection Effort and meets with system users to review and validate information, and finalizes any necessary updates or clarifications to the data entered through the system.

RESULTS

Yearly Budget Decision Package

The creation of the PMO was, in part, driven by the need to better understand the state's IT spending. The annual data collection process culminates in a validated accounting of IT hardware, software, personnel, project and future spending that was previously unattainable. In addition, planned new IT spending in the form of budget requests is now captured and evaluated on a yearly basis before agency submission to the legislature. This evaluation ensures alignment with South Carolina's [Statewide Strategic IT Plan](#) and allows aligned initiatives to be supported throughout the budget process, which includes review by agencies, the state legislature and the governor's office. While new budget requests were previously reviewed in an ad hoc fashion, the new system uses form generation, which allows agencies to create required forms directly from the system.

Development of Statewide IT Standards

One of the benefits arising from the annual IT Data Collection Effort is the decision to develop a series of statewide standards for several IT areas. Through the analysis of collected information, it became apparent that a lack of standardization in common IT-related areas resulted in unrealized cost savings opportunities. Had the state been able to use its increased purchasing power at the enterprise level,

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individual agencies would have saved money. The data collection also identified that agencies were forecasting purchases of large, expensive infrastructure systems. This presented an opportunity for Admin to use the state's IT governance process to develop an architectural standard around such systems with a view toward establishing state term contracts which would, in turn, achieve cost savings that had previously gone by the way.

The data also revealed that a majority of agencies were already using Microsoft's Exchange Online Software as a Service offering as their email platform of choice. This enabled the state's IT governance process to develop an architectural standard for email that enhanced the data security of a common communications platform without significant disruption to agency operations. Addressing email at the enterprise tier leveraged commonality among the agencies into cost savings through use of the state as the purchasing agent rather than the individual agency.

The creation of a common set of technology standards for all state agencies was unprecedented in South Carolina and served to redefine how agencies approach the design, procurement, implementation and use of specific technologies. Through a governance process made up of a group of agencies diverse in size and scope, statewide IT standards have been developed for the following technologies:

- ▶ **Electronic mail:** Software as a Service was established as the common email platform for the state, with Microsoft Exchange Online serving as the software of choice.
- ▶ **End-user computing devices:** Common standards and negotiated pricing levels were established for a variety of computing devices, including desktops, laptops and tablets.
- ▶ **Hyper converged infrastructure systems:** Technology requirements were established for hyper converged computing within the state's enterprise IT architecture, which can be leveraged to meet a host of business needs, including self-service capability.

The use of these common standards provides a wide range of benefits for the state as a whole, as well as for individual agencies. Such overarching benefits include the following:

- ▶ Elimination of costly redundant infrastructure
- ▶ Reduction in complexity and associated labor costs
- ▶ Improved security
- ▶ Increase purchasing power
- ▶ Increased reliability
- ▶ Optimization of system efficiency through consolidation.

As a prime example of the potential cost savings, an estimated \$2,200,000 in contract savings have been realized since the since the implementation of the End-User Computing Device Standard in 2018.

Improved General Ledger Coding

Part of the annual IT Data Collection Effort includes validating information technology spend, which is loaded into the system from the state's SAP-based enterprise resource planning application, the [South Carolina Enterprise Information System](#). To further improve the tracking of IT-related spend by agency, the Program Management Office has implemented a quarterly general ledger code review, which tasks agencies with examining how their IT spend is categorized. Since the implementation of these reviews, the state has made substantial progress in terms of its IT cost transparency. During this time, transparency and confidence in the data collected has increased, while the level of effort required to gather and interpret the data have decreased.

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Asset tracking Tool

One unexpected benefit of the annual IT Data Collection Effort has been the discovery that the IT Data Collection and Planning System has the ability to serve as an IT asset tracking tool. Inventory reporting is a key component of the annual data collection, and it is here this capability was revealed. Agencies use year-by-year inventory data to track assets through system-generated reports. This has produced a more comprehensive view into how agency inventories change over time while also providing critical data needed for effective asset management. The system's reporting capabilities also provides agencies and the state quick breakdowns of IT spending by inventory category with at-a-glance convenience.

Impact on South Carolina

South Carolina has benefited tremendously from the results of the IT Data Collection Effort in a wide range of areas. Benefits resulting from this effort include:

- ▶ A comprehensive understanding of IT expenditures.
- ▶ Overall status of IT resources across South Carolina's state government.
- ▶ Increased transparency of current and of proposed future IT spending.
- ▶ Availability of dashboards for agencies showing IT cost details.
- ▶ Greater visibility into the entire purchasing cycle of IT goods and services.
- ▶ Development of Statewide IT Standards based on common platforms seen in the data.
- ▶ An increase in purchasing power for IT-related devices.
- ▶ Simplified IT provisioning.
- ▶ Improved IT asset tracking and reporting
- ▶ Vastly improved General Ledger coding and tracking of IT spending.
- ▶ Estimated \$2,200,000 in contract savings resulting from standardization of computing devices.
- ▶ Improved email communication security and reduced cost.
- ▶ Budget decision package allows Admin input on new IT budget spend, which informs the governor's office and legislature during the annual appropriations and budget cycle.

CONCLUSION

The decision to transition South Carolina's IT resources from a decentralized model to one in which the entire IT enterprise is considered was historic in nature. It has provided the state and individual agencies with a variety of benefits and cost savings not previously possible. A key engine in realizing these benefits and savings has been the annual IT Data Collection Effort.

The IT Data Collection and Planning System represents a vast improvement over the previous spreadsheet model in successfully collecting, evaluating and reporting the state's annual information technology financial data. The implementation of the system to support and enhance this annual process has resulted in greater ease of use for agencies; a detailed and more trustworthy set of data; and an overall improved focus on maximizing IT value.

The annual IT Data Collection Effort plays a vital role in developing a more comprehensive understanding of the state of information technology in South Carolina and the state's true technology-related costs. Through this effort, the questions of how much is being spent, on what it is being spent, and who is spending are being answered, leading to better IT decision-making, cost effectiveness, and operational efficiency throughout South Carolina's government IT enterprise.