
New York State Central Accounting System Stakeholder Needs Analysis

**Prepared by the
Center for Technology in Government
Using Information in Government Program**

**For the
Office of the New York State Comptroller**



**Center for Technology in Government
University at Albany / SUNY**

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NEW YORK STATE CENTRAL ACCOUNTING SYSTEM STAKEHOLDER NEEDS ANALYSIS

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Executive Summary

The Central Accounting System (CAS) for New York State is operated and maintained by the Office of the State Comptroller (OSC). The CAS serves a wide variety of stakeholders who rely on it to conduct the business of their agencies. CAS stakeholders include state agencies which use the CAS for budgetary controls, accounting, and reporting; vendors and municipalities which require payments and payment information; and the Legislature, the Division of the Budget and the financial community which require cash and accrual accounting information.

Solid maintenance and enhancement of the system over time has allowed the CAS to keep pace with change in key areas including pre-audit and payment processing. However, there is an increasing gap between what the CAS can do and the accounting and financial management needs of State agencies and other stakeholders.

Today, all State agencies use the CAS for budgetary controls, accounting, and reporting.

OSC leadership recognized the enormity of the effort that would be required to address concerns about the CAS, but also understood the risk of rushing too quickly to a conclusion or a solution without developing a full understanding of the current situation, of potential solutions, and particularly, of the specific needs of CAS stakeholders. OSC therefore decided that the first, and potentially most critical step in their effort would be to develop a sound understanding of stakeholders' current and future needs. To guide this critical step, OSC established a partnership with the Center for Technology in Government to conduct a rigorous and objective Stakeholder Needs Analysis.

The Stakeholder Needs Analysis was successful in identifying a broad set of user needs, as well as a vision for financial management capabilities for State agencies. The major findings of the Stakeholder Needs Analysis include:

- ◆ Agencies are unable to access data directly for purposes of tracking, decision making, planning, and monitoring.
- ◆ Agencies cannot manage their financial information as effectively as desired due to a lack of data integration across business processes and systems.
- ◆ Agencies need a more user-friendly and intuitive system which is consistent with the interfaces, work styles, and knowledge of the current and future work force.
- ◆ Many agencies are faced with the resource drain of redundant processes, such as data entry.
- ◆ Conversion to paperless operation is difficult to achieve due to insufficient integration in areas such as business processes, workflows, information, and systems.
- ◆ Current agency-based Financial Management System efforts are not adequately filling the gap.

The overriding conclusion drawn from the findings is that the lack of a commonly developed and agreed upon set of business process standards and data standards currently limits and will continue to limit the ability of users to have access to financial information for tracking, managing, controlling, analyzing, and decision making. Access to financial information for these purposes is critical to the effective management of New York State's finances. The following recommendations provide a path for addressing the lack of underlying standards and integrated business processes as a first step in the development of the next generation CAS.

- ◆ Learn more about the fragmentation in existing business processes and workflows.
- ◆ Formally study how other organizations have dealt with the pressure on their central systems to provide new and extended functionality.
- ◆ Continue to develop relationships with agencies and seek opportunity for convergence of efforts.
- ◆ Continue to assist users in understanding the current CAS functionality and terminology.

Implementing these recommendations will move OSC forward in its effort to ensure that decisions about the future of the CAS are made with the fullest understanding of stakeholder needs, of the environment in the State for addressing those needs, and of possible strategies for developing an information and technology infrastructure that will meet those needs, now and into the foreseeable future.

The lack of a commonly developed and agreed upon set of business process standards and data standards currently limits and will continue to limit the ability of users to have access to financial information for tracking, managing, controlling, analyzing, and decision making.

Introduction

This report represents the first step taken by the Office of the State Comptroller (OSC) and the Center for Technology in Government (CTG) in establishing a formal understanding of the needs of stakeholders of the State's Central Accounting System (CAS). The report presents an overview of the current environment within which the CAS is operating and the factors within that environment which precipitated this study. It provides a description of the process that OSC engaged in to gather stakeholder needs and presents an analysis of the findings. The report concludes with a set of recommendations to OSC for proceeding with the development of the next generation CAS.

The Current Environment

The Central Accounting System (CAS) for New York State is operated and maintained by the Office of the State Comptroller (OSC). The CAS went into operation on April 1, 1982, and serves a wide array of stakeholders. A stakeholder is any organization or individual that can affect or is affected by changes to the CAS. Stakeholders under this definition are specifically those who rely on the CAS to conduct the business of their organizations. CAS stakeholders include agencies using the CAS for budgetary controls, accounting, and reporting; vendors and municipalities requiring payments and payment information; and the Legislature, Division of Budget, and financial community relying on cash and accrual accounting information.

The CAS supports the monitoring and controlling of State agency spending; issues local assistance, vendor and other payments; and processes and reports the State's financial transactions on cash, accrual and encumbrance bases. This mission-critical, statewide system issues 15,000 payments daily, tracks 80,000 State contracts and processes 17.5 million transactions annually. The highly reliable CAS is both workhorse and backbone of New York State's financial structure.

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The current CAS marked a major step forward for the State's financial management capabilities when it was implemented in 1982. It was developed to be GAAP (Generally Accepted Accounting Principles) compliant and to simplify the management of funds. The CAS also enhanced budget accountability considerably: it allowed for budgeting and appropriation of all funds, including federal funds. New York State then had a state-of-the-art accounting system in place which has served the State well in the four areas of accounting, reporting, planning, and controlling for almost two decades.

As we enter a new century there is an increasing gap between what the CAS can do and the accounting and financial management needs of State agencies.

Solid maintenance and enhancement of the system over time has allowed the CAS to keep pace with change over these two decades in the key areas of pre-audit and payment processing, and current users attest to the reliability and usability of the set of functions the CAS was designed to perform. However, as we enter a new century there is an increasing gap between what the CAS can do and the accounting and financial management needs of State agencies. Overall, OSC identified the following mounting pressures in the CAS environment:

- ◆ Growing recognition that the 20-year-old mainframe-based CAS is insufficient to support agency accounting and financial management needs.
- ◆ Growing pressure from State agencies to increase access to information currently stored in the CAS to support financial management needs.
- ◆ Growing pressure from State agencies to modify the processes by which they share information with the CAS.
- ◆ Growing pressure from State agencies to have more influence over the functionality of the existing CAS.
- ◆ Growing concern on the part of decision makers of the investments being made across State agencies in agency-based systems designed to address the gap between agency needs and CAS functionality.
- ◆ Growing recognition that the 20-year-old mainframe-based CAS may be insufficient to support OSC operations in the future.
- ◆ Growing recognition that technology has dramatically changed over the last 20 years so the CAS has to be re-evaluated in light of the new options.

The functionality necessary to support user manipulation of data, based on individual agency business needs and processes, was not within the scope of the original design of the CAS, nor has it ever been made part of the design of the CAS. Therefore, the increasing pressure to use data more directly in decision making and planning has led agencies to seek ways to overcome these emergent limitations of the CAS. Agencies began to support these needs through a variety of approaches ranging from basic data extraction and download to a desktop application, to, more recently, procurement of financial management systems. Over the years many agencies have evolved from their initial approach of periodic data extraction from CAS for use in agency-designed and managed desktop tools, to more sophisticated systems which were intended to provide the functionality to support agency data access and manipulation needs.

A number of factors have contributed to the evolution in agencies from their periodic use of data extraction to investment in third party financial management systems. These include increases in:

- ◆ Appreciation for the value of data as a resource to support decision making and planning.
- ◆ Pressure to provide cost-based measures of performance.

- ◆ Capability and ease of use of networked personal computers at lowered costs to support manipulation of large data sets.
- ◆ Knowledge of and comfort with the tasks of data manipulation.
- ◆ Knowledge of and comfort with the technologies which support data manipulation.

Unfortunately, the evolution in the use of financial data to support decision making and planning has played out in a very ad hoc, non-integrated way. Most agencies appear to have made independent decisions about how to address the gap between the functionality of the CAS and the agency need for financial data access and use. These decisions have been primarily driven by two concerns—lack of access to information and outdated work processes.

Information Access—Access to data in the CAS (sequential, mainframe files) is available using limited pre-programmed queries with no online transaction history. CAS users cannot access either aggregated transaction data or individual transaction detail in an ad hoc manner. Users and other stakeholders recognize that the CAS contains valuable information for managing New York’s resources for developing policy and for performance-based measures. However, they express frustration at the difficulty in accessing that information.

Work Processes—Many processes in New York State, such as budgeting, procurement, inventory control, and invoicing are very paper- and labor-intensive. For example, budgetary transactions are manually entered into the CAS from legislative bills and budget certificates. For many agencies, procurement involves typing paper documents for purchase requisitions, purchase orders, and vouchers, and re-entering corresponding transactions into the CAS before mailing these to vendors and OSC. These processes can be improved by rethinking and automating workflows among State agencies, minimizing the need for paper, and developing a central system that supports electronic commerce.

Other Limitations—The CAS was designed to support a specific set of accounting processes and work processes. The accounting processes have changed little over time, but the work processes have changed significantly. In many cases, these new work processes are not supported by the CAS. The CAS, for example, does not support the information needs of an agency that is engaged in performance-based measurement. It does not have the functionality required to track activities at the necessary level of detail.

OSC leadership recognized the enormity of the effort that would be required to address concerns about the CAS, but also understood the risk of rushing too quickly to a conclusion or a solution without developing a full understanding of the current situation, of potential solutions, and particularly, of the specific needs of CAS stakeholders. OSC decided that the first and potentially most critical step in their effort would be to develop a sound understanding of stakeholders’

OSC decided that the first and potentially most critical step in their effort would be to develop a sound understanding of stakeholders’ current and future needs.

current and future needs. To guide this critical step, OSC developed a partnership with the Center for Technology in Government. The Center contributed the expertise in stakeholder identification and needs analysis processes while OSC provided the expertise in the CAS and its use in New York State.

The Project

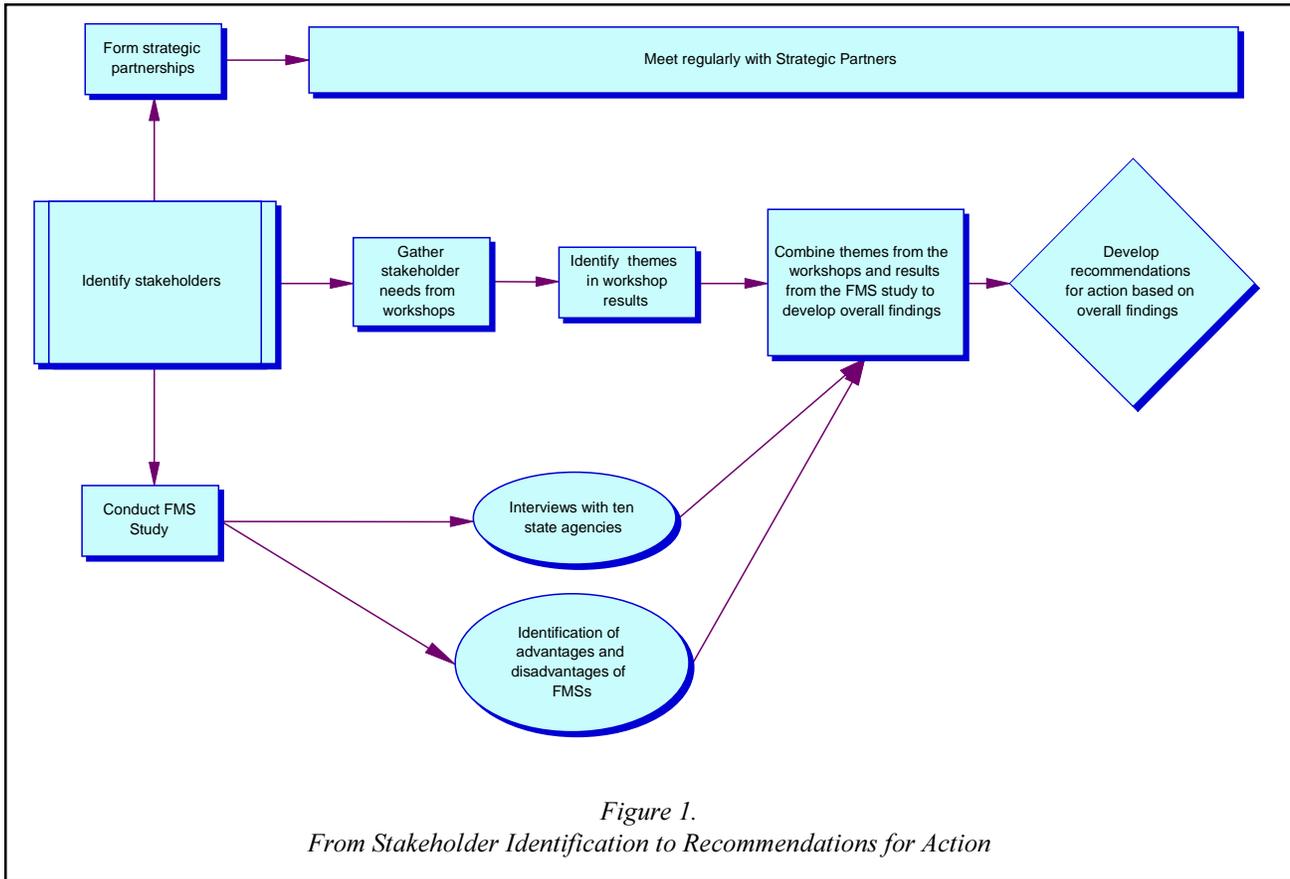
OSC initiated the Stakeholder Needs Analysis to clarify issues and find ways to answer the following questions:

- ◆ How do users and other stakeholders assess the capabilities of the current CAS system?
- ◆ What is the scope of, and what are the types of Financial Management Systems (FMSs) in use in New York State including options for available FMSs?
- ◆ How can the growing demands from state agencies and other parties for flexible, extended financial management capabilities best be addressed?
- ◆ To what extent are missing financial management capabilities related to emerging deficiencies in the existing CAS data structures?
- ◆ To what extent do the existing CAS processes preclude the effective implementation of desired and necessary financial management functionalities?
- ◆ What are the characteristics of a system that can address the current and future accounting and financial management needs of State agencies? What are the requirements, features, and benefits of this system?

The project team identified a set of activities, illustrated in Figure 1, that allowed them to begin to address these questions and to develop a set of recommendations for next steps in their consideration of the future of the CAS.

1. **Identifying CAS Stakeholders**—The team engaged in a rigorous effort to identify the stakeholders of the CAS. Through this process the team identified a set of organizations which could be considered “strategic partners” for the project. OSC defined strategic partners as those who have decision making authority over the project: the Legislature, Division of the Budget, and the Office for Technology. OSC recognized the need to keep these partners informed through the project and to seek feedback from them on project plans.
2. **Strategic Partners**—Regular meetings were conducted with strategic partners. These meetings focused on designing a system planning effort based on stakeholder business needs rather than available technology.

3. **The Financial Management System (FMS) Study**—This adjunct study focused on the experiences of agencies engaged in the development and use of FMSs.
4. **Workshop Series**—These workshops were designed to collect feedback from the primary set of CAS stakeholders, that is, agency users.



Identifying CAS Stakeholders

Perhaps no one State system impacts all levels of government, businesses, and citizens as directly as New York’s CAS. Understanding the needs, desires, resources and constraints of all these different stakeholders was seen as a way to start the investigation into options for the future of the CAS. Many large systems initiatives have failed due to assumptions made about the needs of stakeholders. The OSC team recognized the criticality of basing the future of the CAS on the needs of stakeholders, rather than moving forward with what they believed these needs to be. They decided to focus their efforts on identifying their stakeholders and

eliciting their specific needs. The time and effort spent on the stakeholder analysis was considered by the team to be an investment in future success by reducing the potential for disconnect between the needs of stakeholders and decisions made about the future of the CAS.

Analyzing stakeholder needs begins with identifying the stakeholders or constituencies. When looking at large numbers of constituencies or stakeholders, as is the case for most public organizations, the central question for stakeholder management, according to Mitchell et al. (1997)¹, is “Who and what really counts?” That is, not all stakeholders are equal in their capacity of influencing or being influenced by an organization’s actions.

The project team engaged in a series of meetings to identify potential stakeholders and to discuss the relative position of those stakeholders. The analysis identified many organizations, both public and private, who are stakeholders of the CAS. Clarifying the relative position of each stakeholder group became critical input into the selection of a core set of stakeholders invited to participate in the first round of the needs analysis. A particularly important finding from the stakeholder analysis was the identification of a set of agencies who are definitive stakeholders, those whose interests must be carefully reflected in decisions. The label “strategic partners” was applied to this set of definitive stakeholders. Other clear categories of stakeholders emerged quickly from the analysis. These categories are described below.

- ◆ **State Agencies**—The CAS is a “mission-critical” system which processes over 17.5 million transactions annually. It affects every State agency and some public authorities in New York, all of which have an interest in the CAS design, functionality, and reliability. State agency finance offices interact with this system more than any other stakeholder group, relying on it to process budgetary, procurement, and payment transactions and reports.
- ◆ **Governments**—Counties, cities, towns, villages, school districts, and other municipalities in the State rely on the system for timely local assistance and other payments. The Federal government allows the draw down of Federal grant monies based on CAS data and depends on the system for data to support, among other programs, the Federal Cash Management Improvement and Single Audit Acts.
- ◆ **Non-Governmental Entities**—Data integrity and data access also are critical issues to a host of non-governmental stakeholders. These include both for-profit and not-for-profit organizations that conduct business with the State and with local governments that receive State funding. Other stakeholders include banking institutions, credit-rating agencies, unions, pension plans, and outside auditors who rely heavily on the information generated by the CAS. Citizens, businesses, and taxpayer groups also have a keen interest in the integrity and accessibility of this system.

¹Mitchell, R.K., B.R. Agle, et al. (1997). “Towards a theory of stakeholder identification and salience. Defining the principle of who and what really counts.” *Academy of Management Review* 22(4): 853-866.

Strategic Partners

Strategic partners, or definitive stakeholders, are those who have a significant influence over the direction and scope of a project, and keeping strategic partners informed of the project progress is critical during the planning, development, and implementation phases. The following organizations were identified as strategic partners for this project:

- ◆ New York State Assembly
- ◆ New York State Senate
- ◆ Division of the Budget
- ◆ Office for Technology
- ◆ Office of the State Comptroller Executive Leadership

Strategic partner meetings were held monthly beginning in November 1999. During these meetings representatives from the partner organizations had the opportunity to participate in the identification of other stakeholders as well as provide input into the development of an approach to elicit needs from these stakeholders. These partners added insight into current agency activities and shared concern about the proliferation of independent FMSs in the State. Strategic partners reviewed the findings and resulting recommendations and provided guidance on moving the project forward.

Workshop Series

The stakeholder analysis identified several hundred agencies and private-sector organizations with a stake in the CAS. It was not possible to include participants from all these stakeholders. The team, together with the strategic partners, selected a group of agencies which were representative of the users of the CAS. This list was then organized into categories, which were used as the basis for invitations to workshops designed to elicit information regarding the needs of these groups. CAS users were categorized on their various uses of the CAS, see Table 1.

Invitations were sent to Deputy Commissioners of over 40 agencies requesting attendance of their appropriate staff at one of 13 workshops. The challenge the team faced was ensuring that the people most experienced in the agency's accounting processes were at the workshops. In an effort to secure these most experienced participants the invitation asked agencies to send "those who could answer questions about the transactional and informational accounting needs in their agency."

Of the 202 participants who attended the 13 workshops, 191 were from 41 State agencies and 11 were from 10 non-government organizations. (See the appendix for a full listing of participating organizations.) Teams

Table 1. Categories of CAS Users		
Agency type	Description	Example
Agencies with discrete subdivisions	Agencies that have multiple institutions, facilities, hospitals	Office of Mental Health Department of Transportation
Agencies performing state-wide functions	Agencies whose functions or services affect all of state government	Office of General Services Office for Technology Department of Law
CAS-Dependent Agencies	Agencies that rely primarily on the CAS for accounting entry and reporting	Division of Parole Division of State Police Office for the Aging
Agency-based Front End	Agencies that enter data into an internal system which generates a file that is bulk loaded into the CAS for processing	New York State Assembly Department of Civil Service Department of Labor
DOCS users	Agencies that use the Department of Correctional Services FMS as their front end system to the CAS	Division of the Budget Department of Agriculture and Markets Department of State
FMS-Dependent Agencies	Agencies using a proprietary FMS as their front end system to the CAS	Office of the State Comptroller Workers Compensation Board Department of Education
State-wide Analytical Agencies	Agencies using CAS data for analysis, projections, and trends	Division of the Budget Senate Finance Committee Assembly Ways and Means Office of Real Property Services
For-profit and not-for-profit organizations	Contractors, banks, and associations which engage in various transactions with New York, or use the information provided by the CAS	Fiscal Policy Institute Public Employees Federation Center for the Disabled Civil Service Employees Association W.W. Grainger, Inc.

of CTG and OSC staff facilitated the workshops. Each workshop followed the same agenda and information-gathering plan. A short presentation on the CAS was followed by facilitated exercises. The participants were asked to respond to questions about their agency’s informational and transactional accounting needs. Facilitators posed the following “complete-the-sentence” questions at each of the workshops:

- ◆ “An accounting system designed to meet the informational and information access needs for my agency would ideally...”
- ◆ “An accounting system designed to meet the transactional needs for my agency would ideally...”

During each workshop, the participants were asked to individually provide answers to each question. Each person's answers were posted on a wall for the group to see. In a group process guided by a facilitator, the individual contributions were moved into clusters of similar answers. After the clusters were created, the group developed names for them and then voted for the clusters they considered to be the "most important." This format was followed for both questions.

We expected the needs identified by users would vary across agencies depending on a variety of factors such as size, sophistication of current agency technologies and current practices, and the agency relationship with the CAS. However, this was not the case. The results were quite consistent across agencies. Large agencies with in-house technical expertise and local financial systems identified unmet needs and a vision for a future system that were very similar to those identified by agencies with no in-house technical expertise and complete dependency on the CAS. The top five clusters from each workshop are shown in the Appendix. Six themes dominate this array of high-priority stakeholder needs:

The stakeholder analysis identified several hundred agencies and private-sector organizations with a stake in the CAS.

1. **Data access and manipulation capabilities**—System users want increased flexibility in access to information and enhanced manipulation and reporting capability including trend analysis and projection capability through the development of integrated systems.
2. **Real time workflow support**—An improved CAS should provide workflow functionality resulting in real time processing of data and in the ability to track and change transaction status, and perform electronic approvals and other activities.
3. **Improvement in basic financial processes**—Improved processes for basic financial workflows are needed including control management, certification, and expenditure processing.
4. **Support for electronic business**—A future system should provide features and functionality to support the transition to electronic business, including electronic approvals, procurement, and payments.
5. **Usability**—CAS must become a user friendly, intuitive system supported by a comprehensive program of user support, including an accessible database of known experts, online reference materials, and process-oriented documentation.
6. **Consistency within and across related systems**—Accounting and financial management systems must be made more consistent through the use of standard data, forms, and workflows.

Table 2 shows the strength of support for these themes in terms of the number of workshops in which each theme was represented in the five most important issue clusters. The results are shown separately for the two key questions (user needs for informational purposes and user needs for transactional purposes).

Table 2. Dominant Themes from the Workshops				
	<i>Informational Use</i>		<i>Transactional Use</i>	
Theme	Number of workshops in which this theme was represented in the top five clusters	Percent	Number of workshops in which this theme was represented in the top five clusters	Percent
1. Data access and manipulation capability	13	100%	13	100%
2. Automated workflow support	8	62%	9	69%
3. Improvement in basic financial processes	8	62%	7	54%
4. Support for electronic business	6	46%	8	62%
5. Usability	7	54%	6	46%
6. Consistency within and across related systems	3	23%	4	30%

Recall that each workshop was organized to represent a particular stakeholder group. The most striking finding is therefore the great consistency across these groups in their assessment of user needs. This consistency holds true for both the informational and transactional perspectives.

- ◆ The need for flexible data access, manipulation, and reporting capabilities was among the top five themes in every workshop for both perspectives.
- ◆ Approximately two-thirds of the workshops ranked automated workflows in the top five for both informational and transactional uses.
- ◆ Roughly half or more ranked improvement in basic financial work processes, support for electronic business, and usability among the top five. Here there were some differences between the transactional and informational perspectives.
- ◆ Consistency within and across related systems was ranked in the top

five issues in about one-quarter of the workshops for both perspectives. Those users who perform statewide functions, those who have a statewide analytical responsibility, and those who have an agency-based front end expressed the greatest need for this consistency. DOCS users also expressed this need, but to a lesser extent.

The need for flexible data access, manipulation, and reporting capabilities was among the top five themes in every workshop for both perspectives.

Generally, the rank ordering of the themes from the two perspectives was consistent. The main difference is in the ranking and support for electronic business, which was understandably higher among transactional users.

Both perspectives recognized the need for consistency within and among agency systems in areas such as user interfaces, data entry processes, workflow, and data dictionaries, but it appeared in the “top 5” in only four of the thirteen workshops. One explanation for this is that not all participants recognized that the ability to provide increased access to information to perform cross program or cross budget analysis, for example, rests in the development and use of standards across these programs or budgets.

Overall, regardless of their current systems and relationship to CAS, informational users have the greatest interest in a system that will support their analytical uses of financial information and transactional users have the greatest interest in a system that will provide enhanced functionality in terms of their ability to improve the efficiency and effectiveness of transaction processing. All user groups want a system that is more accessible and flexible. There is strong support for a system that is easier to use, that supports work while it is in progress, and that helps agencies move toward electronic business models. While ranked lower among all user types, standards-based consistency within and among systems is also a highly desirable feature, especially among those users with statewide responsibilities. These findings provide deeper understanding of how users characterize their use of the CAS and identify the gaps that need to be addressed in the next generation CAS.

The Financial Management System Study

A critical addition to the project was a preliminary study of the current and projected plans of a selected set of agencies to address agency-based financial management needs. The goal of the study was to obtain an understanding from agency users and decision-makers about the reasons underlying the diversity in agency FMS plans and practices and to identify the conditions driving agency decisions. This study was, in part, a follow-up to a survey conducted by the Office for Technology (OFT) during 1997. The 2000 study was conducted in two parts: a series of interviews with ten State agencies and three facilitated group sessions. Agencies involved in the study were characterized as one of the following three types:

In order to update systems, changes in business practices are necessary.

1. Users of a system originally developed by the State University of New York Central Administration and customized by the Department of Correctional Services (DOCS).
2. Users of a combination of systems developed in-house along with small commercial packages.
3. Users migrating to a large commercial FMS.

The telephone interviews conducted with the agencies involved a variety of individuals. The positions held by the interviewees varied, but in all cases, an individual involved in the agency's FMS decisions was involved. Often, the conversations took the form of conference calls with two or three interviewees. The questions revolved around the current status of FMSs, the rationale for the decisions made, and short and long-term expectations regarding these systems. Details about the implementation were also collected. For a full list of interview questions please refer to the appendix. The themes that emerged from the interviews are listed below:

- ◆ No single IT solution currently meets all of any agency's needs.
- ◆ In order to update systems, changes in business practices are necessary.
- ◆ When contracting with vendors, agencies must spend time educating the consultants in the specifics of their business practices and systems.
- ◆ When contracting with vendors, agencies must monitor contract language carefully for clarity, precision, and definitiveness.
- ◆ When contracting with vendors, agencies must invest significant staff time to ensure smooth progress and eventual success of the project.
- ◆ When contracting with vendors there exists a trade-off between product customization and changes in internal business practices as a means to achieve functionality.
- ◆ Commercial product customization increases both current costs (in implementation) and future costs (upgrades, reduced flexibility).
- ◆ In order to ensure effective and efficient information management and retrieval, it is necessary to reduce system duplication and overlap.
- ◆ In order to facilitate drill-down/drill-up capabilities in FMSs, it is necessary to reduce or eliminate system and data fragmentation.

The second part of the study identified what agency users considered to be the advantages and disadvantages of FMSs. This was accomplished during three of the 13 workshops that included agencies from the above-mentioned three FMS-related categories. Each participant at these workshops was asked about the advantages and disadvantages of their current FMS. This information was collected and participants voted for the items they considered the greatest advantages and the greatest disadvantages. The top ranked items appear in Table 3.

The results from the FMS study are consistent with the other results from the workshops which indicate that the needs identified as being

unmet due to limitations in the CAS are also not being fully met by FMSs. Participants said that insufficient integration of systems does not allow for the kind of workflow processing and inquiry that they need. FMS users did identify the integration of most payment information and reporting flexibility to be among the top advantages to their use of the FMS. However, they also identified a lack of functionality to handle the full range of transactions as well as limited capacity to manipulate data among the disadvantages. Clearly there are inconsistencies in the functionality that FMSs are providing to users.

Table 3. Advantages and Disadvantages of Existing Financial Management Systems
Top Advantages of Financial Management Systems
Documents, such as vouchers, purchase orders, etc., are easier to process. For example, they do not require duplicate data entry .
Integration of most procurement information allows the user to find information about a transaction or about groups of transaction, to support such tasks as tracking a purchase order through payment.
Reporting flexibility allows the user to control formats and present information in a way that is consistent with organizational structure and function .
Top Disadvantages of Financial Management Systems
Some agencies reported slow turnaround. Bulk updates, for example, are done overnight. Therefore, a number of transaction types cannot go through FMS due to slow turnaround. Reports take three days to receive in some cases.
Some systems do not process all transaction types.
Systems are not as intuitive as expected.
Agencies invest significant effort into customizing software or in developing workarounds to fit needs. Most systems cannot be used as delivered.
Most systems offer a limited capacity to manipulate data.
Many systems prove incapable of producing timely and complete management reports.
Many systems require duplication of work in automated and manual form. Some agencies use multiple standalone FMSs.

Overall Findings

The information collected in the stakeholder identification process, the strategic partner activities, the workshop series, and the financial management system study were integrated to produce the overall findings from the Stakeholder Needs Analysis. These findings are presented below followed by the four recommendations that emerged from the analysis.

The Stakeholder Needs Analysis was successful in identifying a broad set of user needs, as well as a vision for financial management capabilities for State agencies. These findings provided insight into the status of the CAS from the users' perspective in terms of the gap between its current functionality and the functionality necessary to support current and future financial management needs of State agencies.

The top findings of the Stakeholder Needs Analysis are:

- ◆ Agencies are unable to access data directly for purposes of tracking, decision making, planning, and monitoring.
- ◆ Agencies cannot manage their financial information as effectively as desired due to a lack of data integration across business processes and systems.
- ◆ Agencies need a more user-friendly and intuitive system that is consistent with the interfaces, work styles, and knowledge of the current and future work force.
- ◆ Many agencies are faced with the resource drain of redundant processes, such as data entry.
- ◆ Conversion to paperless operation is difficult to achieve due to the insufficient integration of business processes, workflows, information, and systems.
- ◆ Current agency-based Financial Management Systems are not adequately filling the gap.

The Stakeholder Needs Analysis was successful both in identifying the needs of the selected set of stakeholders and in identifying those areas where there was insufficient participation to fully capture the needs of certain stakeholders. Future stakeholder needs analysis activities must be conducted with a specific focus on processes that were not fully addressed in the workshops such as fixed asset accounting, revenue management, and federal reporting.

These findings, described below, represent a complex and highly interconnected set of issues which directly impact the ability of agencies to effectively manage their finances. None of these findings can be viewed as independent of the others; they are presented separately only for explanatory purposes.

Agencies are unable to access data directly for purposes of tracking, decision making, planning, and monitoring.

The lack of integration of systems introduces a level of unnecessary complexity that prohibits the kind of querying and use that agencies need to make of their data. This complexity emerged in part due to the development of countless non-integrated, agency specific accounting workflows. This lack of integration is further compounded by a lack of standards, so in those cases where systems are not integrated, and the data has been organized in a non-standard way, the only way to draw information from the data is through manual efforts. The fragmentation of current systems must be addressed before the desired information access and manipulation capability is available.

The lack of integration of systems introduces a level of unnecessary complexity that prohibits the kind of querying and use that agencies need to make of their data.

Agencies cannot manage their financial information as effectively as desired due to a lack of integration of data across business processes and across multiple systems

Participants consistently stated that multiple systems have been developed to deal with different aspects of the accounting and financial management needs of agencies. Each system was designed with the most current knowledge of the time to solve or address a particular business need. Today there is increasing pressure on agencies to pull together data from multiple sources, for performance monitoring, decision making, and planning. Agencies have discovered that their data has not been structured to support these functions. Participants reported that they often need to print hard copy reports from multiple systems in order to reconcile a set of transactions. In some cases, they need to print a hard copy from one system and re-enter the data into a second system so that they may analyze the data in a comprehensive way. A recurring concern was the inability of the CAS to track the status of contracts, budgets, or encumbrances.

Agencies need a more user friendly and intuitive system which is consistent with the interfaces, work styles, and knowledge of the current and future work force.

As in any information system initiative, users were concerned about the user friendliness of the system and the support available from OSC. Participants expected that any CAS replacement would provide an intuitive graphical user interface similar to their desktop environments. They also identified the need for easier ways of extracting data from CAS for use in other systems.

Many agencies are faced with the resource drain of redundant processes, such as data entry.

Participants consistently identified redundant data entry as an issue in their agencies. Redundant data entry includes the need to enter data into CAS as well as into agency systems for both transactional purposes and for analyses to support decision making and planning.

Agencies are unable to pursue the goal of increasingly paperless operations due to the lack of integration of business processes, workflows, information, and systems.

Agencies are unable to pursue the goal of increasingly paperless operations due to the lack of integration of business processes, workflows, information, and systems.

For reasons of tradition as well as legal requirement, the current accounting system(s) are still based on paper records. Moreover, the paper-based business processes are fragmented and the embedded workflow frequently interrupted. With modern technology, workflows and business processes can be reintegrated and streamlined to an extent that was not possible in typical paper-based environments. The currently used electronic systems, however, mirror the flow of paper records within the accounting process but do not replace these records. Unfortunately, they also mirror the fragmentations and disruptions of the old paper-based processes. This puts a severe burden on the overall process. Since authentic and secure transactions have long become electronically available, participants raised concern about this cumbersome, lengthy, and error-prone process, and, instead, want a totally paperless operation as the norm.

Agency-based Financial Management System efforts are not necessarily the answer.

None of the agencies who participated in the Stakeholder Needs Analysis have implemented a full-scale FMS. Most are focused on the implementation of a single module or a single accounting process, such as purchasing, payables, or general ledger. No agency reported the use of a single system which met all their FMS needs. Collectively they identified a number of barriers to their success. These include:

- ◆ Lack of integration of workflows and systems resulting in system and data fragmentation.
- ◆ Agency tradeoffs between customization and changing business processes.
- ◆ Lack of full system cost estimates.
- ◆ FMS contractor issues.

Lack of integration of workflows and systems resulting in system and data fragmentation—Agencies expressed significant concern about the lack of integration of workflows. They recognized that the information access and manipulation capabilities they had hoped to realize by

investing in an FMS had not, in most cases, been realized. Further, they recognized that in order to achieve this level of information access and manipulation capability, significant investment in workflow analysis would be necessary. They recognized that without this investment, the development of the needed structures and standards would not occur.

Agency tradeoffs between customization and changing business processes—One of the barriers to the success of agency-based FMSs reported by the agencies is the effort involved in the reconciliation of existing agency business processes and the business processes that come resident in the FMS. In most cases agencies identified a need to make split decisions, they both paid for the system to be customized to their most complex and critical processes, and compromised to use the system-provided processes in their more basic processes. In either case, the time and effort associated with the decision process, and the time and money associated with the implementation of the decision—customize the system to reflect agency needs, or change agency working style to reflect the new system—was considered significant.

Lack of full system cost estimates—Agencies stated that they were unable to identify the expected full-system costs for their FMS efforts. Many had invested between \$1 and \$2 million, with the expectation that considerable additional investments would need to be made to achieve expected functionality. In some cases this original investment provided a working system, albeit with limited functionality. In others cases, this investment did not result in a working system.

Lack of understanding within state agencies of contract management and project management led to increased costs or decreased functionality.

FMS contractor issues—Agencies reported a host of issues faced in managing their relationships with contractors. These issues are not necessarily unique to FMS system providers or contracts. They specifically identified the challenges faced due to the notable lack of familiarity on the part of the contractor with public sector accounting practices. Across almost all agencies, the contractors, whose customer base is concentrated in the private sector, have come to projects lacking adequate familiarity with the public sector in general and with New York State laws and requirements, in particular. This fact, according to agencies, has cost them significantly in time and trouble to “train” the consultant and slowed the progress of projects in the process. Agencies reported barriers resulting from vague and unclear contract language. Lack of understanding within state agencies of contract management and project management led to increased costs or decreased functionality.

The research into the status of financial management systems in the State raised as many questions as it answered. Therefore, a plan is being developed to continue this research with a more comprehensive study of current FMS activities.

Recommendations

The findings of the Stakeholder Needs Analysis describe typical symptoms of an environment which has intra- and inter-organizational business process and information dependencies, but which also has information systems that have evolved or been developed without full recognition of these dependencies. They indicate that systems, both the CAS and systems developed to support agency-based financial management, have been developed without sufficient investment in the integration of business processes within and between agencies, without the use of cross-agency standards in terms of workflow and data, and with ad hoc development of agency data manipulation capability.

The systems as they are today are unable to meet the expressed needs of stakeholders for greatly enhanced reporting capability that reflects agency business processes. For example, they do not support the ability to view a single transaction from many perspectives, that is, from its specific detail, to its role in a larger class of transactions, to its role as part of budget expenditures. The ability to manipulate and view data from multiple dimensions and from any number of different levels of aggregation requires a consistent approach to organizing information across agencies.

The recommendations below lay out a path for addressing the lack of underlying standards and integrated business processes as a first step in the development of the next generation CAS.

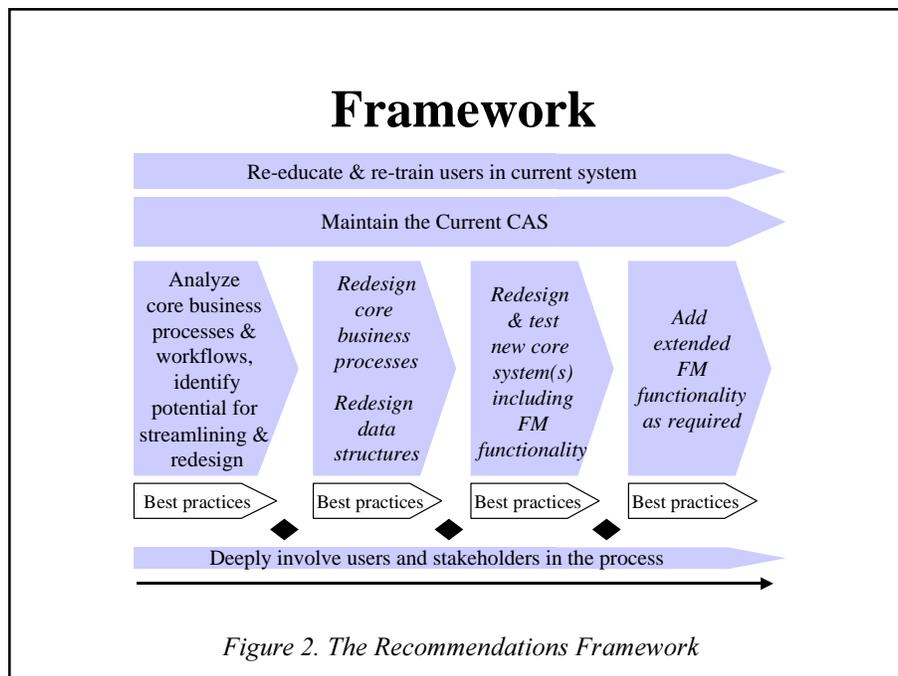
An overriding conclusion drawn from the findings is that the lack of a commonly developed and agreed upon set of business process standards and data standards currently limits and will continue to limit the ability of agencies to use financial information, both transactional and informational, for tracking, controlling, analyzing, and decision making. Access to financial information for these purposes is critical to the effective management of New York State's finances. Therefore, the recommendations below lay out a path for addressing the lack of underlying standards and integrated business processes as a first step in the development of the next generation CAS.

The Office of the State Comptroller entered into the Stakeholder Needs Analysis to ensure that their response to the mounting pressures for increased functionality in the CAS was based on a full accounting of stakeholders' needs. They partnered with the Center for Technology in Government to ensure an objective and rigorous process. The recommendations put forth below are the result of that effort. In general, this report recommends proceeding with the project phases identified in the framework shown in Figure 2. More specifically the recommendations are:

1. Learn more about the fragmentation in the existing business processes and workflows.
2. Formally study how other organizations have dealt with the pressure on their central systems to provide new and extended functionality.

3. Continue to develop relationships with agencies and seek opportunity for convergence of efforts.
4. Continue to assist the users in understanding current CAS functionality and terminology.

The framework, shown in Figure 2, illustrates the highly interdependent nature of these recommendations. It also illustrates that these recommendations have to do with both specific tasks to be accomplished and with who needs to be involved in those tasks. The framework presents at least a three-year timeline of activities. The recommendations presented here focus on actions that should be taken in the first phase to lay the groundwork for a successful large system initiative. As the framework illustrates, the first step must be a formal analysis of core business processes and workflows to determine the extent of and nature



of the challenge that will be faced in streamlining and integrating these processes. In parallel to this analysis the team must investigate the practices of other organizations involved in similar activities. By exploring the practices, both best and worst, of comparable organizations, or systems, the team can begin to identify what might work best for New York State as it designs the next generation information infrastructure to support financial management. In addition, efforts must be made to continue to maintain the current CAS. One of the ideal characteristics of this initiative is that the current system is still fully operational and users are very satisfied with the functionality it does provide. Ensuring users that the CAS will continue to be maintained as a mission-critical system may mitigate impatience and pressure for moving forward without adequate planning and analysis.

Critical to this initiative is the continued inclusion of stakeholders.

Critical to this initiative is the continued inclusion of stakeholders. Many agencies are engaged in projects addressing concerns about their financial management capabilities. A forum for coordination of these initiatives should be developed to ensure that convergence of efforts, where appropriate is possible.

The framework further illustrates the major decision points that serve as transition markers in this initiative. The first occurs after the analysis of the core processes and workflows and after a first series of related best practices research. This decision point should result in the identification of those business processes and workflows that are most appropriate to integrate across agencies and will form the foundation of the efforts to redesign those core business processes and the relevant data structures. Preliminary recommendations for standard processes and data structures should also emerge for consideration at this point. The second decision point occurs after this redesign has occurred and related best practices have been completed. This decision point should result in the identification of appropriate technologies to implement the redesigned processes and data structures to ensure the delivery of the necessary financial management functionality across agencies. The third and final major decision point in this initiative is the determination of what, if any, extended financial management functionality should be added. This decision point occurs after the initial design and testing of the new processes, structures, and technologies, and after a comprehensive review of best practices in providing extended financial management functionality across agencies.

The CAS team is committed to a solution that is fully informed by stakeholder needs. Therefore, the first decision may be to undertake significant change, no change, or something in between—depending on those needs.

These recommendations will move OSC forward in its effort to ensure that decisions made about the future of the CAS are made with the fullest understanding of stakeholder needs, of the current environment in the State for addressing those needs, of the gaps of unmet needs, and of possible strategies for developing an information and technology infrastructure that will fill those gaps, now and into the foreseeable future. Each of the recommendations is expanded below with an explanation as well as suggestions for implementation. We expect OSC will need some outside expertise for implementing the recommendations.

Recommendation 1. Learn more about the fragmentation in the existing business processes and workflows.

Over time the linking and interweaving of fragmented business processes has led to unnecessary system complexity. This makes effective system and IT support for the business increasingly difficult. In fact,

computerization of fragmented business processes makes matters worse, since it adds another dimension of complexity.

The streamlining and simplifying of business processes fosters the natural flow of work from initiation to completion of any given task. These efforts have the capacity to greatly improve organizational effectiveness in all four areas of financial management: accounting, reporting, planning, and controlling. To fully achieve the benefit of changes to business processes, some regulatory or statutory intervention may be necessary.

In terms of an implementation approach, we recommend establishing a cross-agency team under the direction of an OSC full-time project manager. This team would have complete project management and process analysis responsibility and would work with an expert in government business process analysis and improvement to conduct the analysis of selected core processes. This team's goal is to make implementation recommendations on the redesign of selected core business processes, core data structures, and core financial management functionality.

To fully achieve the benefit of changes to business processes, some regulatory or statutory intervention may be necessary.

The team should conduct an investigation into existing business processes asking questions about the related workflows such as *what are they, how are they different, why are they different, do they need to be different?* The team should focus on core business processes and workflows related to accounting, reporting, planning, and controlling within and across agencies. Its goal is to greatly simplify, standardize, and re-integrate these processes, and eliminate duplications. Key deliverables resulting from this recommendation are workflow standards which will lead to improved, generic business processes, and data standards which will lead to common data definitions and facilitate information access and use.

Recommendation 2. Formally study how other organizations have dealt with the pressure on their central systems to provide new and extended functionality.

Business processes have many common themes and similarities across organizations and even across state and national borders. Further, efforts to redesign these processes have many similar characteristics as well. Therefore, there is a wealth of knowledge and experience in both the public and private sector that can be brought to bear on these efforts. Identifying these current and best practices is mandatory in order to benefit from others' experiences and to avoid mistakes that others may already have made. OSC should focus on the identification of current practices in an effort to integrate complex multi-agency workflows, develop workflow and data standards across agencies to support the development of a common data structure, expand a chart of accounts to

support new requirements driven by new performance-based measurement models, and apply innovative technologies in all of these areas.

We recommend establishing a cross-agency team, reporting to the OSC project manager, that is formally charged with the responsibility, and provided the necessary resources, to conduct best practices research and make recommendations. The team should develop a strategy for conducting the current practices research including data collection and analysis. It should also identify the expected product, e.g., detailed reports on each practice, a comparative analysis of practices, and a set of recommendations on how OSC should proceed in light of practices elsewhere and in New York State.

Business processes have many common themes and similarities across organizations and even across state and national borders.

Recommendation 3. Continue to develop relationships with agencies and seek opportunity for convergence of efforts.

Accounting and financial management systems are vital to the proper functioning of the State. Therefore, decisions about these systems have broad influence; they may result in a system which serves the State well for another two decades, or they could result in a system which severely limits the State's effective administration and management for even longer. With so much at stake, we recommend close collaboration with other stakeholders in any financial management system initiative. Working together, OSC and agencies can jointly address the high demand for sophisticated financial management capabilities and can influence the approach pursued in developing the data structures and standards used to guide the development of financial management capabilities. For example, future agency investments in FMSs could be considered jointly by OSC and the relevant agency, and they could be considered in the context of the broader State efforts to address these needs, or in the context of what another similar agency has found. For the short term, tactical, low-key, low-budget use of FMSs may be the most sound approach to meeting ongoing needs while minimizing investment in systems that do not reflect the emerging standards.

Recommendation 4. Continue to assist users in their understanding of the current CAS functionality and terminology.

The current central accounting system is not going away. Regardless of the outcome of this effort, its role as the State's accounting workhorse will not diminish overnight. Some level of maintenance is therefore

required. We recommend going beyond the basic level of maintenance normally afforded to a system that is under consideration for replacement. We recommend the active use and promotion of the current system, a reasonable level of maintenance, and a serious effort in user re-education and re-training. This recommendation is based on our experience that users are more willing to accept the current system and its shortcomings for a while when they know that a parallel effort is identifying the options for future systems. The findings showed that the current system has a number of features and capabilities that are unknown to users. Some of the gap, therefore, is based on lack of user knowledge rather than lack of capability of the CAS. Continuing education and training of these users may bridge some of the gap between CAS functionality and user needs, and alleviate the immediate pressure on OSC to produce a new system.

We recommend a third team be assigned the goal of promoting use of the current system as an important tool in supporting State accounting and financial information requirements. This team should develop continuing information sharing opportunities for users, beyond the help desk, such as user group meetings, either general for all users, or specifically based on the type of agency or use of the CAS. The Web has been used by many organizations as a vehicle for sharing information among users about how systems can support their needs. This goes beyond instructions to complete a task to include case studies of how an individual agency or user uses a system to support various kinds of agency needs, as well as many other techniques to go beyond the “user manual” model of user support.

Appendix

A. Participating Agencies

B. Workshop Invitation Letter

C. Top Issues from the Workshop

D. FMS Study Interview Questions

E. Project Team

Appendix A. Participating Agencies

Participating New York State Agencies

Assembly Majority	Division of Parole
Banking Department	Division of Probation & Correctional Alternatives
City University of New York	Division of the State Police
Department of Agriculture & Markets	Governor's Office of Employee Relations
Department of Civil Service	Insurance Department
Department of Correctional Services	Office for the Aging
Department of Economic Development	Office for Technology
Department of Education	Office of Alcohol & Substance Abuse
Department of Environmental Conservation	Office of Children & Family Services
Department of Health	Office of General Services
Department of Labor	Office of Mental Health
Department of Law	Office of Mental Retardation & Developmental Disabilities
Department of Motor Vehicles	Office of Parks & Recreation
Department of State	Office of Real Property Services
Department of Taxation & Finance	Office of the State Comptroller
Department of Temporary & Disability Assistance	Senate Minority
Department of Transportation	State University of New York
Division of Criminal Justice Services	SUNY Construction Fund
Division of the Budget	Thruway Authority
Division of Housing & Community Renewal	Unified Court System
Division of Military & Naval Affairs	Workers Compensation Board

Participating Non-Government Organizations

The Business Council of New York State, Inc.	W.W. Grainger, Inc.
Center for the Disabled	Key Bank
Citizen's Budget Commission	M&T Bank
Civil Service Employees Association	Public Employees Federation
Fiscal Policy Institute	Sysco

Participating Agencies in the Financial Management Systems Study

Department of Agriculture & Markets	Division of Criminal Justice Services
Department of Correctional Services	Division of Housing & Community Renewal
Department of Economic Development	Governor's Office of Employee Relations
Department of Education	Insurance Department
Department of Environmental Conservation	Office of Alcohol & Substance Abuse
Department of Motor Vehicles	Office of Real Property Services
Department of State	Office of the State Comptroller
Division of the Budget	Unified Court System
	Workers Compensation Board

Appendix B. Workshop Invitation Letter

December 30, 1999

Inside address

Dear XXX:

The Office of the State Comptroller is conducting an analysis of the state's Central Accounting System (CAS). This initial step will lay an important foundation for a system evaluation and will be instrumental in defining the business needs and strategic direction for the CAS.

This needs analysis, conducted in conjunction with the Center for Technology (CTG) at the University at Albany/SUNY, will elicit input from users regarding their information and processing needs through a series of half-day workshops.

The workshops will need representation from both operational and analytical users of the CAS. To gather the most relevant and experience-based information, we are asking you to send those who use the CAS for transaction processing as well as for information and analytical purposes. In some cases this may be the same person; in other cases it may not.

Please identify two individuals in your agency who can provide these perspectives and attend a half day workshop scheduled for:

Date: Friday, January 14, 2000
Time: 8:30 am - 12:30 pm
Location: Convention Center, Meeting Room 1

An RSVP form is included. For each individual attending, this form should be completed and returned by fax to the CTG at (518)442-3886 by January 7, 2000.

I'm sure that you will agree that identifying users' needs early in the planning process is critical to the success of the decisions regarding the CAS. If you have any questions or concerns, please feel free to call me at (518) 402-4103.

Sincerely,

Ruth S. Walters

RSW/rb
Attachments

Appendix C. Top Issues from the Workshop

Top 5 Information Issues Identified in Each Workshop					
	Top five clusters of answers to the question <i>"An accounting system designed to meet the informational and information access needs for my agency would ideally..."</i>				
PARTICIPANT GROUP	ISSUE 1	ISSUE 2	ISSUE 3	ISSUE 4	ISSUE 5
Agency-based Front End	Ad hoc reporting	Report integration – not currently done	Historical information	System design	Inquiries
Agencies with discrete subdivisions	Ability to manipulate data and formulate reports	Data export/import capability	Expansion of data available	Timely access	Technology enhancements
Agencies performing state-wide functions	Flexibility in creating summaries	Modernization	Drill down capability	Vendor information	Data entry
CAS dependent	Reports canned/ad hoc	Online access	User friendly	Maintain current data structure	Internal data consistency
DOCS Users	Reporting flexibility canned and manipulation in CAS	Data import for the purpose of manipulating	Projection and trend analysis	Search capability	User support
DOCS Users	Ad hoc reporting manipulation of data	Standardization	Data timelines	Reconcile consolidated billings	Streamlined paperless process
FMS Dependent Agencies	Open system access	Real time update	Ad hoc reporting	Data capture	User friendly
External Organizations	Process improvement	Payments	Fiscal reporting	Selected access and downloading	General information
State-wide Analytical Agencies	Continuum of flexible reporting	Data integrity	Data sharing	New data elements	Training in system capability
State-wide Analytical Agencies	Flexible reporting	User friendly interface	Flexibility to reflect agency practices	Greater access to data – more detail	Training in system capability

Top 5 Transaction Issues Identified in Each Workshop					
	Top five clusters of answers to the question "An accounting system designed to meet the transactional needs for my agency would ideally..."				
PARTICIPANT GROUP	ISSUE 1	ISSUE 2	ISSUE 3	ISSUE 4	ISSUE 5
Agency-based Front End	Integration	Data reporting and retrieval	Efficient workflow	Ease of data entry	Transaction information retrieval
Agencies with discrete subdivisions	Specific functionality	Ease of Use	Reporting functionality	Technology	Paperless transactions
Agencies performing state-wide functions	Support	Data dictionary	Output/reports	Projection capability	Expenditure reporting
CAS dependent	Expenditure process improvements	Budget certifications	User friendly	Encumbrance processing improvements	Timely communication from OSC
DOCS Users	Integrated systems	Avoid redundant data entry	Paperless process	System support	Transaction tracking
DOCS Users	Integrated data allowing for ad hoc linkages	Electronic processing of data	User friendly/PC environment	Anti-batch processing	Comprehensive information retrieval
FMS Dependent Agencies	Data entry convenience and control	E-business	Workflow	Two-way communication	Cash-register systems that feed CAS
External Organizations	Process Improvement	Payments	Fiscal reporting	Selected access and downloading	General information
State-wide Analytical Agencies	Horizontal and vertical integration	Flexible transaction reporting	Refund process	Re-work the certification process	Re-work the control management process
State-wide Analytical Agencies	Seamless processing – reduce paper work	Allow for more detail, new data elements	Increase flexibility to capture information unique to agency operating needs	Increase the user friendliness of the system	Increase consistency, standards, data dictionary, forms, etc.

Appendix D. FMS Study Interview Questions

What is the current status of your FMS?

What are benefits and limitations in the functionality of your current FMS?

What are your short-term and long-term plans to address these limitations?

If the agency is migrating to a vendor application they were asked:

- ◆ What are the reasons for choosing a commercial application?
- ◆ What are the reasons for not utilizing the DOCS system?
- ◆ What are the experiences regarding consultants from system contractors, specifically with regard to their ability to reasonably estimate costs, time frames, functionality delivered, degree of customization and demands on in-house personnel?
- ◆ If the agency was in the process of working with consultants they were questioned with regard to estimated time to completion and future costs.
- ◆ What needs are expected to remain unmet subsequent to completion of the project and what plans existed for addressing these problems?
- ◆ What other problems are they able to identify associated with their selection?

If the agency was a DOCS user, they were asked:

- ◆ What are the reasons for the selection of DOCS?
- ◆ What costs or other in-house demands will result from the DOCS selection?
- ◆ What needs are expected to remain unmet?
- ◆ What plans exist for addressing these needs?

Additional questions were framed in direct response to information provided during each interview.

Appendix E. Project Team

Office of the State Comptroller

Ruth Walters, Assistant Deputy Comptroller, State Financial Services, Project Director
MaryAnne Barry, Manager of Applications, Bureau of Information Technology Services
Robert Campano, Director of State Accounting Systems
Dan Feldman, Associate State Accounts Auditor, Bureau of Management Audit
Christopher Gorka, Assistant Director of State Payroll Services
Valerie Grey, Deputy Director, Fiscal Research & Policy Analysis
Dave Hasso, Project Director, General Ledger Systems
Debbie Hilson, Project Assistant, State Accounting Systems
Mikko Makarainen, Research Analyst, Fiscal Research & Policy Analysis
Susan Raphael, Program Research Specialist, Bureau of Contracts
Eileen Ryan, Associate State Accounts Auditor, Bureau of Management Audit
David Stewart, Chief, State Accounting Systems
Pamela Stewart, Project Leader, State Accounting Systems

Center for Technology in Government

Meghan E. Cook, Project Associate
David Connolly, Graduate Assistant
Sharon S. Dawes, Director
Shrilata Nath, Project Associate
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Hans J. Scholl, Project Support Manager

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