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Section 4

Best Practices and Lessons Learned: Assessment of Comparable Government Implementations

This section details and documents the results of the best practice analysis performed by MAXIMUS. As the State of Alaska moves forward with a replacement strategy for its statewide administrative systems, it is critical to understand the best practices and lessons learned from comparable state and large city implementations.

Driven by the need to replace its payroll and financial applications, the Alaska Department of Administration is exploring current systems offerings in the marketplace. Given the state's investment, and realizing improvement opportunities in enterprise level integrated administrative systems, Alaska desires to understand the options for business applications including the following functional areas:

- Accounting
- Payroll
- Procurement
- Human Resources
- Budgeting
- Inventory
- Asset Management
- Investment
- Banking

The objective of examining these business function software solutions is to determine if and how these functions can be enhanced at what cost. While examining all administrative systems, the initial results of this replacement decision focuses on two primary systems: payroll and financial management. Both systems have aged and cannot support business changes or provide adequate management reporting. The replacement decision will include:

- Recommending statewide payroll and financial management systems that meet the standards and financial practices of Alaska;
- Determining if a fully integrated solution is an acceptable systems replacement strategy; and
- Deciding what strategies should be used to host the applications.

In making the decision to move forward with a selected solution, the state must consider the best practices and lessons learned from comparable state and large city initiatives.

This section details and documents the results of the best practice analysis performed by MAXIMUS. The information presented includes:

- *Section 4.1.* - Marketplace analysis of emerging trends, application options and assessment, and best practice considerations;
- *Section 4.2.* - Assessment of completed system implementations that represent the possible replacement alternatives and are comparable in size, number of users, financial needs or offer distinct lessons learned;
- *Section 4.3.* - Analysis of system initiatives currently planned or underway in comparable environments; and
- *Section 4.4.* - Summary findings to guide Alaska as it moves forward to replace its statewide administrative systems.

4.1. Marketplace Analysis

The financial management systems marketplace for commercially available products includes two major types:

- “Best-Fit” financial systems from major application integrators use custom interfaces to combine solutions from an established product architecture like American Management Systems (AMS) or Tier Technologies’ ONLINE FAMIS™, with other administrative functions like Lawson HR/payroll; and
- Functional systems that are components of Enterprise Resources Planning (ERP) applications such as J.D. Edwards, Oracle Financials, PeopleSoft Financials, and SAP America.

Products from both categories have been successfully implemented in government organizations similar to the State of Alaska and have the scalability needed to meet any or all of the alternatives identified and evaluated in this report.

4.1.1. “Best-Fit” Systems

During the 1990s, both AMS and KPMG offered financial management systems for large government entities. Both had success in the state government market with large systems successfully installed in a number of states including

California, Texas, Illinois, Michigan, and others. By the mid 1990s, each vendor listed more than 15 states as clients, albeit some were agency rather than statewide financial systems. Their systems were established on a mainframe architecture that was not transferable to the client/server solutions governments pursued in the late 1990s.

AMS has continued to compete in this market with a new release of ADVANTAGE® 3 solution for the Web, which they consider to be similar to an ERP. Massachusetts is currently upgrading to this product. Wyoming and Iowa have also recently chosen this product after competitive solicitations.

KPMG no longer markets the R*Stars product. It does provide services through teaming relationships with Oracle, PeopleSoft, and SAP. KPMG sold its software division to Tier Technologies, Inc. which supports the R*Stars financial application as ONLINE FAMIS™. This application suite is currently licensed for statewide use in Arizona, Hawaii, Idaho, Kansas, Maryland, Michigan, North Dakota, Oregon, South Carolina, Tennessee, Texas, Virginia, and Washington. Of these states, South Carolina has started an SAP implementation and North Dakota and Oregon are in the planning stages for an ERP implementation.

Enterprise solutions for specific business functions such as human resources, payroll, purchasing, etc. are varied. GEAC's E & M Series (seven installations) and AMS' ADVANTAGE (three installations) mainframe systems are the most prevalent statewide payroll solutions outside ERP packages. However, the statewide solution trend is toward utilizing ERP package software for human resources and payroll functions with 17 ERP installations and five AMS ADVANTAGE® 3 installations.

4.1.2. Enterprise Resource Planning (ERP) Systems

ERP systems generally include an integrated suite of resource management components encompassing financial management, human resources management, and purchasing/inventory/asset management. ERP systems emerged from the manufacturing sector in the early 1990s and rapidly captured a large share of the financial management systems market in the private sector. After a strong surge in the 1990s, culminating with replacement of many systems as a Y2K solution, the market for ERP systems was relatively flat. However, recent developments in states like Florida, Ohio, Kansas, North Dakota, and Tennessee show that ERP system efforts are increasing in the government sector.

The market for ERP systems in government has been a mixed success. While vendors touted “public sector” versions of their product suite, the underlying architecture was initially based on the financial practices of the private sector, minimally addressing the special needs of government accounting. As vendors continue to target government, this gap is closing. With the development of

grants management, project management, encumbrance accounting, and budget preparation modules, ERP vendors continue to enhance their applications to further their entry into the government market.

The current trend among ERP product vendors has been toward “unbundling” their products so customers can purchase components and implement best-fit solutions. This trend is a result of criticism from a number of major customers who want to integrate other products and custom systems with their ERP solution. Even SAP, which is marketed as a tightly integrated ERP solution that includes financial management, asset management, purchasing, inventory control, human resources, and payroll, has announced its intention to unbundle its products over the next two years to allow customers increased flexibility to select best-fit solutions.

The Gartner Group, a noted information technology research organization, refers to the trend of unbundling ERP functionality as ERP II. References in their research and market analysis literature refer to the current product set as ERP II solutions. Gartner predicts that ERP customers will continue to demand the ability to design their own best-fit solutions and will want to select the components that best fit their specific needs for financial management, purchasing, human resources, asset management, and customer service from a variety of sources. Characteristics of ERP II are:

- A change in the role of ERP from managing and optimizing internal enterprise information to one that would include information and collaboration within a community of interests;
- Expansion from the traditional ERP view of a manufacturing-centric domain to one that encompasses non-manufacturing industries such as service-, resource- and distribution-intensive enterprises;
- Integration and development of domain-focused functionality (depth and breadth) that meets the requirements of a given industry segment, as well as the traditional ERP functional areas of manufacturing, distribution and financials;
- The inclusion of collaborative business processes that reach outside the enterprise to encompass an inter-enterprise model of customers, suppliers and other business partners;
- A technical architecture that traditionally has been closed and monolithic becomes an architecture that is Web-enabled and designed for integration with toolsets based upon open systems standards. Many vendors are utilizing connectivity standards such as Java, COM/DCOM, HTTP and

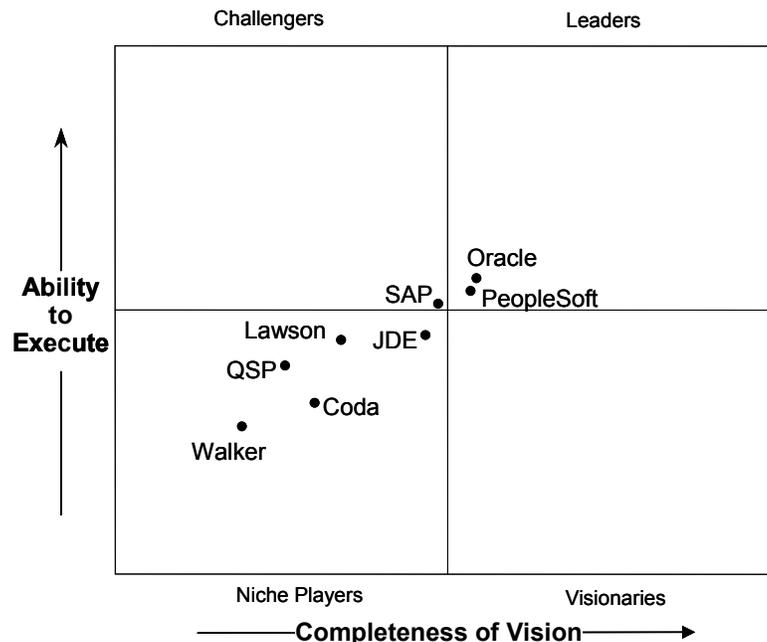
Extensible Markup Language (XML) to enhance their interoperability with other systems integration; and

- The movement from data internally consumed within an enterprise, to data distributed throughout an enterprise’s trading community (suppliers, customers, service providers, etc).

ERP systems exist that meet administrative system requirements. Before ERP II was even a term, ERP vendors were providing back-office versions of their products which included the administrative systems features of ERP, without the manufacturing and distribution features. Back-office versions of ERP are examples of the integrated administrative systems solutions the state is considering. As ERP vendors continue to change their products to meet customer demands, some of their newer features will enable value added services for the state. More recent Web-enabling and employee self-service are prime examples. As will be shown later in this section, the trend in state government is to rely on ERP products for their administrative systems functions.

The Gartner Group has evaluated the current ERP vendors, using the “ability to integrate” as one of the criteria for identifying the best overall vendors. The results of that assessment are depicted in *Exhibit 4-1: Gartner Group ERP II Assessment for the Large Enterprise Services Industry* (including government). According to the Gartner Group, Oracle and PeopleSoft are the leaders in this market sector, with SAP as a challenger. The following illustration represents the Gartner assessment.

Exhibit 4-1: Gartner Group ERP II Assessment for the Large Enterprise Services Industry



SAP has established a presence in the government sector over the last three years, with major contracts in Arkansas, Florida, North Carolina, Pennsylvania, South Carolina, and other governmental entities. PeopleSoft, which was once labeled as the leader in ERP solutions for government, has seen that leadership erode. PeopleSoft is now playing “catch up” and won the contract for the statewide ERP solution for the State of Oklahoma in 2002.

Oracle is perceived as a strong player in the financial management systems market. However, Oracle has not won a major government contract, outside the federal government, in the past two years. J.D. Edwards, which has made significant inroads into the ERP market for small to mid-size government entities, has dropped its marketing effort for government even though it has pledged to continue to support its existing customer base. Although J.D. Edwards has not significantly demonstrated the scalability needed to serve as a “top-tier” solution to state governments, Nebraska selected it for its solution in the summer of 2001. Nebraska’s implementation is scheduled for completion in the summer of 2003.

4.1.3. Current Statewide Enterprise Strategies

Statewide strategies for enterprise applications are varied; however, the recent trend is toward fully integrated software suites. A summary of the statewide enterprise solution strategies follows.

AMS Integrated Systems

Five states have implemented or are in the process of implementing the integrated suite of AMS products for their enterprise solutions. Although AMS is not a traditional ERP-type software solution, it is fully integrated within the state government enterprise systems requirements for financials, payroll, human resources, etc. Missouri completed its implementation in 2002. Massachusetts is upgrading its AMS systems and is expecting completion in 2004. Wyoming recently awarded a contract to upgrade its AMS systems. Nevada converted to AMS and is completing its implementation in 2003. Iowa recently awarded its conversion to AMS systems.

PeopleSoft ERPs

Six states have or are implementing PeopleSoft as an ERP solution. Georgia and Montana completed their implementations in 1999, while Delaware completed its in 2001. Oklahoma is completing its conversion in 2003. North Dakota and Connecticut are in the process of converting with phases scheduled for completion between 2003-2004.

SAP ERPs

Three states have or are implementing SAP as an ERP solution. Arkansas completed its implementation in 2001. Pennsylvania's conversion to SAP is scheduled for 2004. South Carolina has completed a pilot project for SAP in its Department of Mental Health, and a proposal for statewide implementation is expected in 2003.

GEAC ERP

Indiana completed an implementation of GEAC as an ERP solution in 1992.

J.D. Edwards ERP

Nebraska is completing an implementation of J.D. Edwards as an ERP solution in 2003.

Planning Enterprise and ERP Solutions

Seven states are in various stages of planning ERP implementations or partial implementation of ERP level systems. Louisiana has implemented two integrated enterprise solutions to meet different functional objectives: AMS is being used for financials, while SAP is being used for human resources and payroll. Arizona is implementing Lawson systems for its human resources and payroll systems. It will determine if Lawson or another systems solution will be used for its financial systems requirements in the future. Florida is in final product selection for PeopleSoft or SAP; however, its implementation is limited to financials. Florida has chosen to outsource the human resources and payroll functions for its 189,000 employees on a seven-year, \$280 million dollar contract with Convergys Corporation of Cincinnati. Ohio is anticipating awarding an ERP systems solution in 2003. Kansas, North Dakota, and Tennessee are in various stages of solution exploration and/or RFP processes to determine their approaches to ERP system solutions.

Business Cases

This document is the culmination of Alaska's business case to determine the alternatives for enterprise systems solutions. New Hampshire will begin its business case study in June 2003.

Summary of State Enterprise Solutions

In developing this business case, Alaska needs a perspective of what strategies other states are using for their enterprise level solutions. The greatest degree of correlation among strategies exists with financial and payroll solutions. The strategies for human resources, procurement, asset management, and other

solutions vary greatly. *Exhibit 4-2: Summary of State Software Solutions* displays the current status of statewide financial and payroll enterprise solutions. The status of each state is a moving target and may be projected in some cases.

Exhibit 4-2: Summary of State Software Solutions

	Business Cases	GEAC ERP	J.D. Edward's	Oracle	PeopleSoft	Lawson	SAP	Planned ERP	AMS- Advantage	AMS-older versions	FAMIS (R*Stars)	GEAC	Manus Service	McCormack/Dodge	SAGA	Sartoris	SCI	Tesseract	Developed	
	ERPs								Best-Fit											
Alabama									F/P											
Alaska	✓																		P	F
Arizona					P				F											
Arkansas						ERP														
California															F					P
Colorado									F/P											
Connecticut				ERP																
Delaware				ERP																
Florida				F	F															F
Georgia				ERP																
Hawaii									F											P
Idaho									F											P
Illinois									F											P
Indiana		ERP										F/P								
Iowa								F/P		F										P
Kansas				P		ERP			F											
Kentucky									F				P							
Louisiana						P		F	F											
Maine									F	P										
Maryland									F	P										
Massachusetts				P				F/P	F											
Michigan					P				F											
Minnesota				P					F											
Mississippi									F					P						
Missouri								F/P												

Legend
✓ - Currently in progress
ERP - Enterprise functions
F - Finance functions only
P - Payroll functions only

Exhibit 4-2: Summary of State Software Solutions (continued)

	Business Cases																		
	GEAC	J.D. Edward's	Oracle	PeopleSoft	Lawson	SAP	Planned ERP	AMS-Advantage	AMS-older versions	FAMIS (R+Stars)	GEAC	Mann Service	McCormack/Dodge	SAGA	Sartoris	SCI	Tesseract	Developed	
	ERPs						Best-Fit												
Montana				ERP															
Nebraska		ERP																	F/P
Nevada								F/P											
New Hampshire	✓								F/P										
New Jersey									F										P
New Mexico									F										P
New York			F	P															
North Carolina										F									P
North Dakota				ERP															
Ohio						ERP		F											P
Oklahoma				ERP															F/P
Oregon									F										P
Pennsylvania						ERP													F/P
Rhode Island																			F/P
South Carolina						ERP		F											P
South Dakota					P					F									
Tennessee							ERP		F										P
Texas									F	P									
Utah									F		P								
Vermont				P															F
Virginia									F	P									
Washington									F		P								
West Virginia																P			F
Wisconsin									F										P
Wyoming								F/P	F		P								

Legend
✓ - Currently in progress
ERP - Enterprise functions
F - Finance functions only
P - Payroll functions only

4.1.4. Application Assessment

The emerging market for statewide administrative systems is dominated by ERP solutions. The last major state-level investments in non-integrated enterprise systems for this purpose was in the early 1990s when the market for government-focused ERP systems was immature. Since then, all major efforts have relied on ERP type applications where the vendors have made significant investments to meet state government requirements. Older best-fit applications are not keeping up with the technologies infrastructure investments occurring in the ERP vendor community. These older systems will be relegated to niche or stop-gap solutions within the state government marketplace.

The majority of new state administrative systems efforts are adopting a model of fully integrated ERP solution. However, some states are adopting the ERP II trend where customers select the “best product” for a particular business area and integrate the system with other product components. The alternatives documented in this report follow an analysis of these models, with Alaska seeking to determine the best solution for its administrative management business needs. Because Alaska is not predisposed to any of the vendors or products offered in the marketplace, it has the greatest degree of flexibility in deciding a mix of systems and outsourcing alternatives.

4.1.5. Best Practices Consideration

If the state decides to pursue an administrative systems solution from an ERP and/or financial systems vendor, there are some aspects of specific “best practices” elements being marketed that should be considered.

- **Electronic Purchasing or eProcurement**

After a few “false starts” based on self-funding models that have not generated sufficient revenue to support large systems, states are once again looking at eProcurement solutions. Best practices experience in the private sector, along with some eye-opening benchmark studies in government entities such as Massachusetts and Maryland, have shown that dramatic gains in operational efficiency and real cost savings can be realized from eProcurement systems that are tightly integrated with financial management and asset/inventory control systems. If the state considers a financial management solution from a commercial vendor, the eProcurement element should be considered as a value added component of the selection process.

- Grants Accounting, Project Accounting

ERP vendors have had limited success developing modules that address the special needs of government in these complex governmental financial management areas. Although vendors market special modules advertised as meeting government needs in these areas, results have been less successful than advertised. If the state considers a financial management solution from a commercial vendor, grant and project accounting should be important components of the selection process, with an expectation that adaptations may be required to meet state needs.

- Budget Preparation and Approval

Almost every major ERP procurement in government over the past three years has included a requirement for distributed budget preparation and approval. States want to take advantage of the workflow capabilities of advanced technology products to streamline the budget preparation process.

Defining budget system success stories is problematic. While states have implemented budget systems, they do not fit the standard of “no modifications.” Government budgeting processes are complex and unique from state to state and even agency to agency. Government budget systems require working in multiple environments involving adopted budgets, future budget preparations, budget modification pre- and post-approval, multi-year budgets, budgeting at unit of appropriation level to agency line-item budgeting. If the state considers a financial management solution from a commercial vendor, the expectations for streamlining budget preparation through this project should be established at a realistic level, based on the actual experience of other large, decentralized government entities.

- Reports

Commercially available packages tout a variety of standardized reports. However, experience with ERP implementations indicates substantial dissatisfaction with the breadth and depth of available reports. Most governments have found it necessary to devote substantial resources to developing reports that meet their specific needs, particularly with respect to the needs of operating agencies. It is best to develop these reports over time after the system is in place and after users get comfortable with the “look and feel” of the system and understand what is already available in the portfolio of the standard reports. Utilization of data-warehousing technologies have also been employed to improve access to data and

enhance a state's ability to control the view of data based upon its unique models, not those imposed by product vendors.

■ Self-Service

Human resources self-service applications are designed for different roles played in the enterprise, such as manager and employee, with specific functionality, views, workflow support, and data-level access deemed suitable for each role as they are defined in the system. This feature is maturing in ERP II, niche, and integrated software products with applications also being accessible via Web or corporate portal. PeopleSoft and Oracle have the most tightly integrated examples. SAP offers these services through partnered relationships with other human resources software.

4.1.6. Summary

Commercially available administrative management systems have been successfully implemented in other similar government entities. No large state has yet completed a statewide, integrated ERP implementation covering financial, human resources, and purchasing management; Pennsylvania is still in the throes of such an implementation. However, there have been numerous large financial management system implementation success stories namely in Texas, Colorado, Michigan, and Illinois. These initiatives should be examined carefully by the State of Alaska as it moves toward the selection and implementation of a new financial management system. Commercially available administrative management systems can address most of the state's needs and the state can be successful in implementing this approach if the "lessons learned" and critical success factors from other projects are applied to the Statewide Administrative Systems Replacement Project.

4.2. Assessment Criteria – Completed Implementations

Over the past decade, a number of states and large cities implemented components of an administrative management system. These states and cities include:

- Arkansas
- Colorado
- Illinois
- Maryland
- Michigan
- Mississippi
- Missouri
- Municipality of Anchorage
- Nebraska
- Nevada
- New York City
- Oregon
- Texas
- Utah

Each of these implementations has been assessed to determine applicability to the Statewide Administrative Systems Replacement Project in terms of size, number of users, financial system needs, alternatives or options available to Alaska, and lessons learned.

The following were selected for detailed analysis of best practices and lessons learned.

Section	Identified Alternative	State or Local Government
4.2.1.	Statewide ERP Implementation	Arkansas
4.2.2.	Statewide Financial Solutions, including a Management Information Database	Michigan
4.2.3.	SAM II Financial, Human Resources, and Payroll System	Missouri
4.2.4.	City Financial Solution	Municipality of Anchorage
4.2.5.	Centralized Financial System – Agency Preferred Solution	Texas

These examples demonstrate the implementation of ERP and best-fit solutions in governments. The lessons learned can be valuable as Alaska moves forward with its replacement project.

4.2.1. Arkansas

Project Information:

Vendor: SAP	QA Vendor: Yes
Project Duration: 1999-2001	Go-Live Date: July 1, 2001
Accounting/Purchasing Costs: \$18 million	
Human Resource Costs: \$7 million	
Infrastructure Costs: \$12 million	
Elected Comptroller: No	Total Costs: \$37 million

Project Description:

The State of Arkansas, Department of Finance and Administration (DFA) initiated a complete statewide ERP solution (AASIS) that includes all financial, human resources, and procurement modules. The AASIS project established a goal of developing a fully integrated statewide ERP solution, as well as accommodating Performance-Based Budgeting and Activities-Based Costing.

The state based its appropriation request on a vendor prepared business case that substantially underestimated the total costs associated with acquisition and statewide implementation. To win the work, SAP promised to complete the implementation within the available budget. However, to manage to the budget, SAP subsequently redefined the scope of work and transferred substantial workloads to the state, which tried but was not able to dedicate the necessary staff resources. A sound software package was implemented, but agency needs were not considered or accommodated, and resources were not provided to assist agencies in the conversion effort or to provide sufficient training and cultural change management assistance.

The system went live on schedule, but experienced substantial difficulties because staff did not know how to use it well. The state continues to struggle with operational problems associated with a shortage of staff to maintain and operate the system and inadequate preparation of agency personnel. Shortage of resources and associated problems may discredit the system such that it will be scrapped and replaced in the not too distant future. It is unlikely to ever be viewed as a successful implementation.

Best Practices Considerations:

1. Improved financial controls.

2. Performance-based budgeting and activity-based costing.
3. Automated manual functions and reduced redundant data entry.
4. Replacement of multiple islands of information with a statewide integrated system.
5. Improved quality, quantity, and timeliness of information available to decision-makers and the people of Arkansas.
6. Utilization of Web-based applications such as employee self-service benefit enrollment and e-commerce. The following additional benefits will be realized as unanticipated by-products of AASIS:
 - Eliminated central pre-audit of every payment;
 - Eliminated paper vouchers;
 - Unified reliance on Employee Identification Numbers (EIN) and a centralized payroll tax reporting to one system for all AASIS agencies;
 - Decentralized entry of payroll transactions;
 - Enabled accrual of end-of-year pending liabilities;
 - Consolidation of multiple pay types on a single payroll warrant; and
 - Consolidation of hundreds of agency bank accounts.

Lessons Learned:

1. The Legislature imposed a two-year limitation for implementation, posing unreasonable time constraints on the project, and the Department of Finance and Administration decided not to seek an extension or additional resources, and at the same time refused to reduce the scope of work to a manageable level.
2. Lack of agency support – Agencies were expected to cooperate with the implementation and provide support, but were not given advance notice of those expectations. Neither financial nor staff resources were provided. Also, agencies were not accurately or adequately informed of or prepared for the work that was expected of them, and resources they had planned for other purposes had to be redirected to AASIS.
3. IT infrastructure - A central IT function promised to have all needed infrastructure, including networks and desktops, in place in plenty of time. Rollout was a centralized function and because of resource limitations, poor

planning and schedule constraints, the implementation failed. The Legislature was forced to approve a \$10 million+ appropriation for last minute infrastructure acquisition and deployment, resulting in a great deal of frustration and criticism of the Executive Branch.

4. Shortages of personnel and resources resulted in incomplete testing and insufficient preparation for deployment and use.
5. Resources that had been planned to help prepare state agencies and personnel to use the system were redirected to finishing implementation.
6. Training and cultural change management was expected to be handled by the state. Because of cost considerations, training and change management efforts were minimized. This greatly affected user confidence and the ability to effectively operate the system.
7. The project was seriously under funded. Estimates range from \$10-15 million additional dollars will be required to complete the AASIS implementation. Without that investment, it is unlikely the system will be fully accepted and effectively used by agencies.
8. The state is finding it difficult to recruit and retain staff with the skills and experience necessary to maintain and operate the system.
9. Legislatively mandated performance budgeting activity-based costing systems have been delayed and may not be implemented in a manner that meets requirements.
10. The Governor and the Department of Information Systems (DIS) received negative headlines and suffered significant political embarrassment.

4.2.2. Michigan

Project Information:

Vendor: KPMG

QA Vendor: Yes

Project Duration: 1992 - 1998

Go Live Date: 9/1/97

Accounting/Purchasing Costs: \$68 million

Human Resource Costs: \$36 million (Note)

Infrastructure Costs: \$18 million

Elected Comptroller: No

Total Costs: \$122 million

(Note: During 1996 – 2001, as part of a separate project, Michigan acquired and implemented the Lawson software suite to meet its statewide human resources and payroll requirements, at a cost of approximately \$36 million.)

Project Description:

Faced with requests from four agencies to independently install financial management systems, the State of Michigan identified a need to develop a new statewide administrative system in the areas of finance and purchasing. The new system was to replace several aging systems running on multiple platforms and employing a variety of software. Michigan elected to purchase packaged software to be customized by a systems integrator.

The Michigan Administrative Information Network (MAIN) serves as the backbone of financial and state purchasing systems for all agencies of government, other than institutions of higher education, serving over 8,000 users spread among more than 1,000 locations. The subsidiary Michigan Information Database (MIDB) provides decision support for the same population.

The infrastructure budget was used to upgrade the state's network and to construct the MIDB data warehouse. Agencies were expected to provide necessary local area networks and desktops.

Best Practices Considerations:

1. Construction of data warehouse, a critical success factor.
2. Outsourced data warehouse due to a lack of internal resources to support the initiative.
3. Committed to a substantial investment in training and change management. Created learning centers throughout the state and emphasized continuing education.

Lessons Learned:

1. Need for QA consultant to manage multiple vendors.
2. Heavily customized. The state spent considerable time on detailed requirements and then substantially modified the application. Five years was required to fine-tune the system after it went live, and it is not possible to introduce package upgrades. The Lawson solution was not customized because of the project MAIN experiences.
3. Core functions were satisfied, but the system never achieved the state's expectations. KPMG promised far more than they could deliver. Michigan contracted for project accounting and billing functionality in the original development of MAIN. However, at the end of the project the vendor agreed to return \$10 million to the state because the functionality was not delivered.
4. Wanted an integrated ERP system, but settled for an interfaced purchasing and accounting system.
5. Because of the improvement of commercial applications, Michigan is considering replacement of MAIN.

4.2.3. Missouri

Project Information:

Vendor: AMS	QA Vendor: No
Project Duration: 1997 – 2002	Go Live Date: Phase 1 07/01/99
Accounting/Purchasing Costs: \$26 million	Phase 2, wave1 11/01/01
Human Resource Costs: \$14 million	Phase 2, wave2 01/01/02
Infrastructure Costs: \$3 million	Phase 2, wave3 04/01/02
Elected Comptroller: Yes	Total Costs: \$43 million

Project Description:

SAM II is the State of Missouri’s integrated financial, human resources, and payroll system. The SAM II system incorporates accounts payable, accounts receivable, fixed asset accounting, grants and project accounting, budget preparation and budget control, purchasing, human resources, and payroll processing for all state departments and agencies. The SAM II system is powered by American Management Systems’ ADVANTAGE and BRASS software applications designed exclusively for governmental entities. In addition, the State of Missouri has augmented the online real-time production system with a Web-enabled data warehouse application to facilitate data analysis and report generation.

The initial phase of SAM II, completed in July 1999, included the implementation of AMS ADVANTAGE Financial to manage financial, purchasing, and budgeting functions across all branches of state government. SAM II also includes an Internet-based online bidding system for soliciting, evaluating, and awarding purchasing contracts. The second phase included human resources and payroll functions and was completed in three waves on November 2001, and January and April 2002.

SAM II contracted expenses totaled approximately \$29 million, excluding the Missouri Department of Transportation, whose specific expenses were approximately \$14 million. In addition, state employees spent numerous hours on the project that were not identified as SAM II expenditures. Some state agencies needed to upgrade their computer equipment for SAM II; however, these expenditures were not specifically identified as SAM II expenditures.

Best Practices Considerations:

1. Sought a long-term relationship with a system provider.
2. High levels of user support throughout the project; essential to success.
3. Close partnering between Finance, Information Technologies, and Transportation.

4. Cross-functional, full-time, and highly integrated project team.
5. Managed business process redesign; insisted on no modifications to base software.
6. Managed scope by rejecting agency requests for “coat-tail” projects that did not directly support the main focus of the project.
7. Establishment of data warehousing technology.
8. Contract structured to negotiate levels of effort for segments of work at a not-to-exceed level; fixed rates established in the contract; levels of effort negotiated as phases of the project progressed.
9. Negotiate best fit of software to meet constituency needs.

Lessons Learned:

1. Although there was a steep curve for learning the data warehousing technologies, this capability significantly enhanced the success of the project.
2. An independent project management or QA function would have facilitated the project by allowing difficult situations and hard messages to surface, while providing project executives the distance necessary to negotiate and resolve these issues.
3. Not all departments represented the state of their technology base correctly; resulted in having to upgrade infrastructure during implementation phases; caused delays and forced departments to upgrade to the required standards.
4. New technology allowed departments to decentralize accounting, human resources, and procurement responsibilities; caused greater demand on training; also caused a need for greater accounting skills in positions using the systems.
5. Needed to manage how user departments provided key project team members; when the departments conversion became imminent, departments wanted their resources back on staff to facilitate the process; left the project team with resource holes which were difficult and untimely to fill.
6. AMS product met Transportation’s elementary cost accounting needs without modification.

4.2.4. Municipality of Anchorage

Project Information:

Vendor: PeopleSoft

QA Vendor: No

Project Duration: 1995 – 1999

Go Live Dates: 1/99

Accounting Costs: \$18 million

Human Resources Costs: \$10 million

Infrastructure Costs: \$2 million

Elected Comptroller: No

Total Costs: \$30 million

Project Description:

The project was designed to replace aging systems with an integrated system that was Y2K compliant. Project encompasses purchasing, accounting, human resources, and payroll. The project was primarily a technology solution to the Y2K problem. There was little recognition of the complexity of the product in relation to the business process. The business units were not fully engaged in the front-end processes of the product definition and selection. Business processes were not scrutinized for redesign opportunities and several modifications were directed to conform the product to the municipality's business practices.

Recent offer from vendor to assist in moving system from version 7.5 to 8.x will cost \$7.8 million.

Best Practices Considerations:

1. Utilize newer systems with advanced features.
2. Obtain greater access to integrated data through systems reporting features.

Lessons Learned:

1. Business units must be included from the very beginnings of system replacement projects.
2. Do not modify the base systems.
3. Document the business processes and determine opportunities for business process redesign to meet the demands of the software system.
4. Make the software vendor or outsourcing service provider the primary contractor for the effort. Avoid problem shifting between independent contractors.
5. Ensure the systems integrator or outsourcing service provider is qualified and capable of the scope of work. A prominent name in the industry does not guarantee the capabilities of the staff provided. Manage the contract

- closely and insist upon accountability. Official sign-off is important and should not get granted lightly. Ensure accountability until the end of the project. Utilize retainage or bonding to ensure the vendor has “skin in the game” until final acceptance.
6. The learning curve for complex systems is significant. Do not underestimate the investment in this area. Funding may be cut, but the expense will not be avoided.
 7. Scripted demonstrations worked well on the vendor’s configured systems, however there were major difficulties replicating results on the municipality’s system. Some functionality was not contained in the implemented system.
 8. The implemented system is one of two of its configuration within the PeopleSoft client base. Estimates are that over 50% of systems problems are related to design problems based upon this unique configuration.
 9. Major increases of 100% in maintenance charges as maintenance renews from original cost calculated upon initial discounted licenses.
 10. Reporting capabilities did not live up to expectations. A separate Web system enables data warehousing options recently established to fulfill this expectation.
 11. Vendor’s senior management unaware of the magnitude of problems the municipality was experiencing for over a year. Meeting weekly to work toward resolution of problems.
 12. Negotiate training credits from vendor for on-site training.

4.2.5. Texas

Project Information:

Vendor: KPMG

QA Vendor: Yes

Project Duration: 1990 - 1994

Go Live Date: 9/1/93

Accounting Costs: \$42 million

Human Resources Costs: Parallel Separate Project (USPS)

Infrastructure Costs: \$6 million (network upgrade)

Elected Comptroller: Yes

Total Costs: \$48 million

Project Description:

USAS is a central accounting system that provides GAAP (generally accepted accounting principles) and cash-basis accounting, and satisfies both state and agency accounting requirements. USAS captures accounting activities supplied by state agencies and institutions of higher education.

Financial data in USAS is used by the Comptroller's office to produce state payments, agency reports, legislative reports, and reports for appropriation management and statewide budgets.

USAS also performs specialized functions, such as budgetary and encumbrance accounting, cost allocation, payment processing, and document tracking.

Payroll and purchasing functionality resides in other systems.

Best Practices Considerations:

1. Contracted with PeopleSoft for a statewide contract to provide a single preferred solution for all Texas state agencies.

Lessons Learned:

1. In 1989, Texas attempted to implement a statewide financial management system. Because of a lack of project control and other political considerations, the project was redefined and the emphasis was placed on the fiscal responsibilities of the Comptroller.
2. Eliminated proliferation of agency systems with the statewide single preferred solution master contract. Before signing the agreements with PeopleSoft, project Team Members (ISAS) completed the first phase of their project by reviewing an inventory of all statewide requirements and noting any required modifications to the PeopleSoft Financials for Public Sector software. ISAS team members and PeopleSoft employees worked together to modify the software applications for State of Texas use.

The following exhibit summarizes the effort expended in the comparable financial system implementations.

Exhibit 4-3 Comparable Financial System Implementations

Project	Vendor	QA Vendor	Project Duration	Go Live Date	Accounting and Purchasing Software and Implementation (in millions)	Human Resource Costs (in millions)	Infrastructure (in millions)	Total Costs (in millions)	Comments
Arkansas	SAP	Yes	1999-2001	7/2001	\$18	\$7	\$12	\$37	
Michigan	KPMG and Lawson	Yes	1992-1998	9/1997	\$68	\$36	\$18 ⁽²⁾	\$122	⁽²⁾ Spent on network and data warehouse
		Yes	1996-2001	3/2001					
Missouri	AMS	No	1997-2002	7/1999	\$26	\$14	\$3	\$43 ⁽³⁾	⁽³⁾ \$14 Million spent to address DOT requirements
Municipality of Anchorage	People-Soft	No	1995-1999	1/1999	\$18	\$10	\$2	\$30	
Texas	KPMG And People-Soft	Yes	1990-1994	9/1993	\$42	Unknown	\$6 ⁽¹⁾	\$48	⁽¹⁾ Spent on network upgrade

4.3. Assessment Criteria – Projects Planned or Underway

Currently, several government entities are starting or exploring implementation of new administrative management systems. The initiatives were reviewed to offer an assessment of the strategy each government entity adopted and to examine any unique approaches that may be of value to the Statewide Administrative Systems Replacement Project.

Based on the criteria of size, number of users, solution, financial requirements and costing strategy, the following governments were selected for review and summary analysis:

- Florida
- Massachusetts
- North Carolina
- Ohio
- Oklahoma
- Pennsylvania
- Tarrant County, Texas

4.3.1. FLORIDA

Business Case Recommendation

In 2001, the State of Florida contracted with KPMG to conduct a statewide ERP needs analysis. The challenge presented to KPMG was to define system requirements and to build a business case that presented and evaluated various alternatives and defined a solution. KPMG completed that study and presented Florida with recommendations for moving forward with an ERP solution.

KPMG recommended that Florida purchase an ERP software product that would be, when required, supplemented with “best-fit” integration of specialized or “bolt-on” components for:

- Legislative budget approval;
- Web-enabled vendor bid management;
- Employee travel profiles; and
- Cash vs. accrual basis accounting.

Although the integration of best-fit components to the ERP software would increase the implementation risk and cost, KPMG felt that the customization would be more than offset by additional functionality and usability of the system.

The estimated cost of KPMG's recommended solution is \$281 million with an expected implementation timeframe of approximately 4 years.

Project Update

The initial attempt to implement KPMG's recommendation was too costly. Presented with fiscal deficits following the tragic events of September 11, 2001, the cost of the project was deemed to be more than the current budget could handle. The recommendations are being approached as three independent projects.

- People First (formerly known as the Human Resource Outsourcing Project) began nearly two years ago, as part of an effort to create a smaller, more effective, more efficient government that fully harnesses the power of technology. It is designed to provide world-class tools and services for state employees, including staffing (tools and services for recruitment and selection), human resources administration (workforce data management; human resource learning; performance management), payroll preparation (recording time and attendance; leave requests), and benefits administration (open enrollment and general benefits administration).
- In August 2002, the state awarded a seven-year contract to the Convergys Corporation for human resource services scheduled to be implemented in the following timeframes: May 2003 recruitment and selection; June 2003 general human resources and payroll preparation; January 2004 benefits administration. The contract is for \$280 million to serve the state's 189,000 employees and elected officials. The contract is intended to avoid \$173 million in costs over the length of the contract.
- In September 2002, the state awarded a 3 ½ year contract to Acclaris as the third party independent monitor. The state approved the security, transition plans, and work plans. Convergys met with each agency and various technical staff to identify the "as-is" human resource operations and requirements. Convergys then provided the state their recommended business blueprint.
- An eProcurement project was established to help the state design, build, and operate a Web-based electronic procurement system. The new system will streamline agency purchasing processes, provide easier access for

state buyers to request and receive quotes, and provide a user-friendly Internet portal for vendors to interact with state government buyers. In October 2002, the state awarded Accenture a five-year contract to implement the Ariba Buyer suite with Epylon extensions and host this application for the state.

- Florida Accounting Information Resource (FLAIR) and Cash Management Subsystem (CMS) Replacement Project began in July 2002 with the selection of MAXIMUS as an independent project manager for the project. The state designed and is completing an invitation to negotiate process where potential vendors were identified and qualified for negotiations. The ERP finalists for negotiations are SAP and PeopleSoft. Negotiations are expected to be completed by August 2003 with design and configuration activities beginning in November 2003. July 2005 is the project's expected completion date.

4.3.2. MASSACHUSETTS

Project Description

American Management Systems (AMS) provided the financial software suite implemented and used by the Commonwealth since 1986. AMS has announced its intentions to cease support beyond 2003 for the underlying Enterprise Server software upon which most of the Commonwealth's current system is built. The Commonwealth does not want to risk operating an enterprise-wide system without current vendor support. The Massachusetts Management, Accounting, and Reporting System (New MMARS) Project will accomplish the Commonwealth's vision. The Web-based version of AMS ADVANTAGE[®] 3 product is being implemented.

Soon after startup, the Commonwealth expanded the original scope of the project by adding implementation of labor cost distribution functionality to the baseline product. This added both scope and expenditures to the new project budget while eliminating a current legacy system. The new module will post payroll results generated by the new Human Resource / Client Management System (a PeopleSoft product implemented in 2000) to the books of original entry.

Additionally, the Commonwealth wants to take advantage of the many benefits of the newer technology and Web-enabled services that have become available in the past 16 years. New MMARS will utilize both the intranet and the Internet.

Project Overview

Vendor: AMS

QA Vendor: Yes

Project Duration: 2002-2004

Go-Live Date: May 9, 2004

Accounting/Purchasing Costs: \$50 million (est.)

Infrastructure Costs: \$2 million (est.)

Human Resource Costs: \$0 million

Total Costs: \$52 million (est.)

Best Practice Considerations

- Integrate the statewide accounting and reporting system into the Commonwealth's overall e-government vision.
- Use Web-enabled applications to reduce training costs due to a common user interface and self-service features, with intuitive system navigation for users, constituents, customers, and vendors.
- Use application designs that embrace relational databases and open-systems architecture standards. These standards allow for the integration of best-fit third-party tools for workflow, application configuration management, business intelligence reporting, and analysis.
- Use application design concepts with business rules residing in user-maintained tables that allow the business staff to relieve the IT programming staff of routine day-to-day tasks that support policy and procedural directives.

4.3.3. NORTH CAROLINA

Project Description

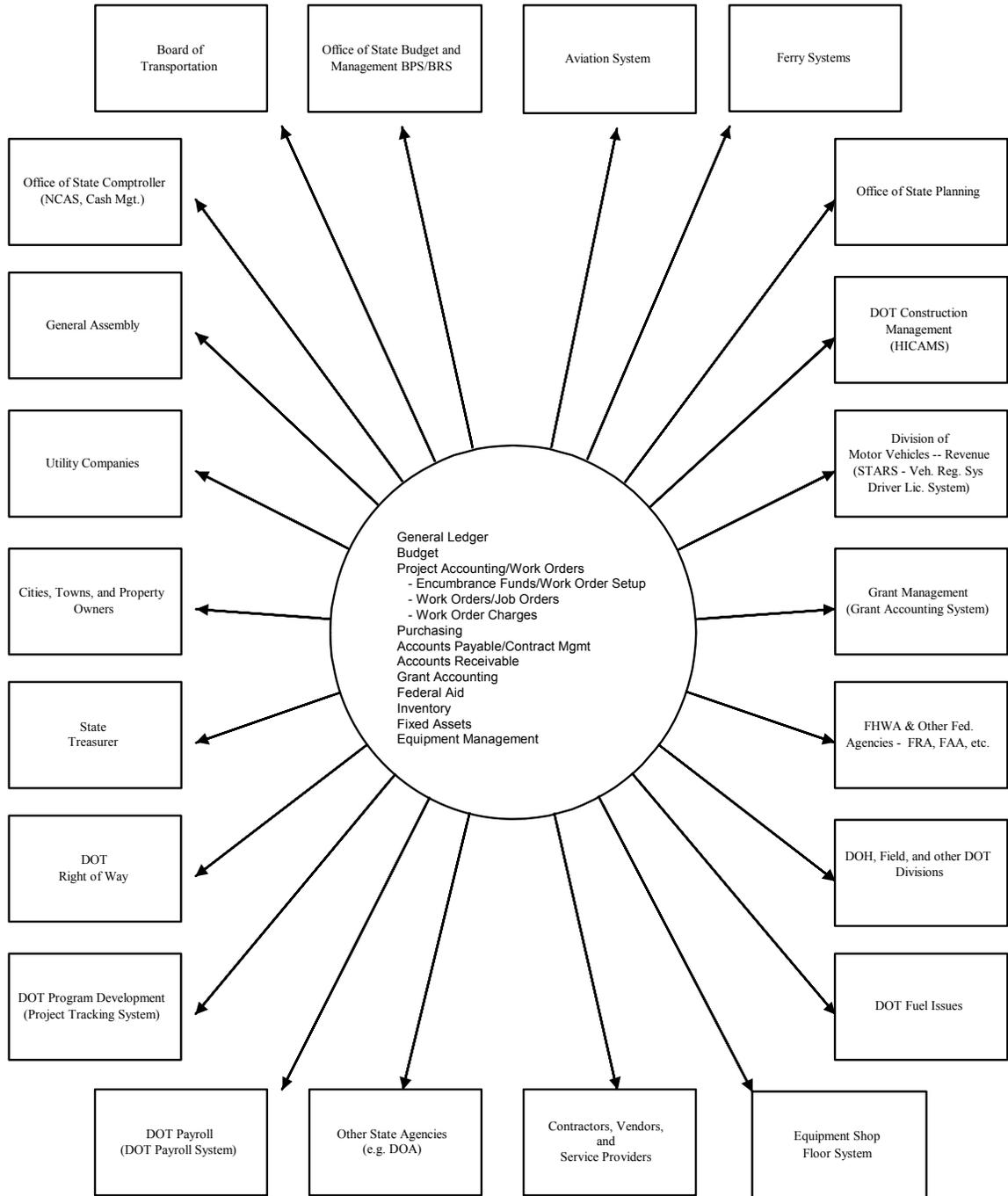
In 1999, the North Carolina Department of Transportation (NCDOT) selected SAP as their financial system solution for NCDOT's Business Systems Improvement Project (BSIP). SAP was chosen through a vendor selection process that included detailed requirement definition, development of presentation scripts based on these requirements, and vendor product demonstrations on the applicability of their application to the NCDOT's needs.

Integral to the selection of SAP was the product's module integration capabilities and accompanying flexibility.

Exhibit 4-4: NCDOT Financial Management Systems Relationships graphically shows the relationships North Carolina's Department of Transportation ERP system has with its information constituencies. An integrated ERP system will

ensure that information presentations to these constituencies will be consistent and based upon the same foundation of data.

Exhibit 4-4: NCDOT Financial Management Systems Relationships



Project Update

NCDOT has begun implementation of SAP R3. While NCDOT is the first agency to be implemented, the system is being developed in anticipation of statewide implementation. Under the guidance of the state comptroller, NCDOT is implementing the system with table manipulation, user exits, and bolt-on code in an effort to maintain an unmodified transaction core critical to a statewide implementation. To meet statewide consideration, a separate database will be kept for the Department of Transportation, but when rolled out across North Carolina, another database will be maintained for the rest of the state’s data. NCDOT established its technical environment in December 2002. NCDOT expects to go live with SAP in July 2003.

The costs of the NCDOT Pilot implementation are currently contracted at the following projections:

Description	Cost (in millions)
Initial Needs Analysis and RFP Development (Statewide)	\$12.0
NCDOT Pilot Project	
SAP Implementation Costs (18 months)	\$18.0
SAP Implementation Costs for additional 7 months to meet fiscal year schedule	\$7.0
DOT Modifications	\$20.0
SAP Upgrade from R3 to MySAP	\$5.6
Transition Planning	\$0.4
Total Projected Pilot Implementation Costs	\$63.0

Best Practice Considerations

The experience of NCDOT demonstrates the following critical best practice applications:

- Development of detailed and specific requirements;
- Conduct vendor product demonstrations based on scripts that address specific state requirements;
- Cultural change management through transition;
- Continuous and ongoing business process improvements; and

- Consideration of scalability. When budget considerations altered project expectations, North Carolina was able to continue moving forward without losing momentum or facing additional hurdles of the NCDOT BSIP project.

Other Considerations

- NCDOT has unique transportation requirements resulting in some complex financial reporting needs. Transferring this customization to other state agencies will work within the SAP framework.
- Since federal funds were available for the project, some federal funds were used to help fund this initiative.

4.3.4. OHIO

Project Description

The State of Ohio has made a commitment to replace the legacy systems and redundant processes within the central service agencies with an ERP solution that will integrate the financial, procurement, asset management, capital improvements, and human resources functions of state government.

An RFP was released in July 2001 for vendor support to conduct a Business Needs Analysis. The consulting services desired were for the development of a:

- Requirements document;
- Technical solution evaluation;
- Gap analysis;
- Process gap evaluation;
- Alternatives available to Ohio; and
- Cost/benefit analysis of each alternative.

Six vendors were identified for evaluation in August 2001 as potential providers of ERP solutions: AMS, J.D. Edwards, Lawson, Oracle, PeopleSoft, and SAP. These vendors responded to surveys based upon 2,100 requirements during the needs analysis and were evaluated using the following criteria:

- Functionality

- Scalability
- Technical fit
- Research and development spending
- Public sector experience

Based upon the evaluation process, Oracle, PeopleSoft, and SAP were identified as possible candidates.

Project Status

Ohio is in the procurement process for software and implementation services, which should be complete in the summer of 2003. The design phase is planned to begin in fall 2003. The first system modules are scheduled to become operational in 2005, with the complete system in production by summer 2006. The design and implementation phases are expected to cost \$175.4 million (\$137.6 external costs + \$37.8 internal costs).

The state plans design and implementation in phases, with some phases running concurrently.

- Finance Build Phase

Functional Modules	Go Live
Budget Preparation	January 2005
General Ledger Accounts Payable Accounts Receivable Procurement	July 2005
Fixed Assets Grants	January 2006
Vendor/Customer Self-Service Capital Improvement Projects Year-End	July 2006

■ Human Resources Build Phase

Functional Modules	Go Live
Human Resources Payroll	July 2006
Training Recruiting Health and Safety Complaint Management Employee Self-Service	July 2006

■ Data Warehouse Build Phase

Functional Modules	Go Live
Legacy Data Warehouse	January 2006
ERP Data Warehouse	July 2006

4.3.5. OKLAHOMA

Project Description

Oklahoma recently contracted with PeopleSoft for a complete statewide ERP solution. Oklahoma has developed a unique pricing model. The main software license and services costs are budgeted/funded. Additional licenses and services are funded by a pool of monies collected through transaction fees. These fees - actual or not – are based on the acceptance and use of the system. This is the state’s way to ensure the system is not only in production but becomes the main system. PeopleSoft’s incentive is to increase the number of users and transactions processed through the system since the increase in transaction fee monies collected is then used to offer additional agencies access to the ERP system. Essentially, the state wants to pay for the system over time on a usage basis to avoid an upfront investment.

Although it is premature to discuss the merits or potential drawbacks to this approach, alternative pricing offers another financing mechanism for government during tight fiscal periods. The subsequent section defines and offers examples of the alternative pricing approach.

Alternative Pricing

During times of economic hardship, governments may consider alternative pricing as a way to finance enterprise-wide ERP system implementations in an environment of economic downturn and reduced revenues. Generally, these

pricing schemes also dramatically shift most or all of the financial risk to the seller, which is, of course, attractive to the government buyer in a reduced revenue situation.

The seller might be induced to accept an alternative pricing arrangement because there are fewer attractive contracts in a down economy and the competition can get rather fierce for the really “plum” jobs. However, the buyer should be certain that the seller has the financial wherewithal to withstand the financial risk involved, because nobody wins if the seller goes out of business.

How Alternative Pricing Works

There are many imaginative ways to set up an alternative pricing model depending on the specific situation. Generally, the first rule of alternative pricing is that the seller does not get a dime until the system has been implemented and is successfully operating for a given period of time, usually one to three months. The formal event that triggers the designation of “successfully operating” is buyer acceptance. Buyer acceptance is a defined and measurable set of objective criteria, examples of which follow:

- System will have no aborts for X number of days;
- System will finish batch processing within the batch processing window for X number of days;
- System will exhibit a 98% online availability for a period of one month; and
- System will successfully process three monthly cycles.

After buyer acceptance occurs, then a defined set of events trigger vendor payments. One very simple model would be X number of dollars per month for X months. However, most alternative pricing schemes are more complicated than this. For example, if a centralized statewide accounting system implementation is completed in the central control agencies, but the political climate is such that adoption of the statewide system is optional in the operational agencies, incentives for the system vendor could be set up based on transaction volumes. In other words, the vendor would get paid so much per purchase order, payment voucher, or check cut. The vendor would then do its best to make the implementation attractive to the operating agencies to increase the transaction volume, and thus increase the vendor’s revenue.

When this type of arrangement is undertaken, care must be taken to set the transaction payment rates very carefully to produce the desired payment stream. The rates will most likely be based on historical volumes, and the buyer must be

confident in these metrics, as well as the volume forecasts based on the new system. There should also be an agreed upon “revenue ceiling,” to avoid excessive vendor profits. This ceiling would be somewhere close to the traditional fixed price fee for a job well done, plus a healthy allowance (usually about 50%) because the vendor was required to assume additional financial risk and endure deferred payments. Other factors to include would be post-implementation support and maintenance.

The other side of the “revenue ceiling” coin is some sort of “revenue floor.” Most vendors will insist on this so that at least their costs are covered in the event that transaction volume projections were considerably inaccurate.

Another situation in which this type of alternative pricing scheme might work is if the statewide system is to serve as a common application for the surrounding city and county governments. This same type of transaction-based pricing could be set up for the vendor payments as an incentive for the vendor to “sell” the other local governments on using the state’s system and data facility. If desired, the state could also charge the local governments who choose to use the system on a transaction basis as well.

Alternative Pricing Summary

Whatever alternative pricing model is used, the objective is to transfer the risk of a failed implementation to the seller, and to defer payments for the new system to a later time when, hopefully, the economic climate has improved. Also, before launching into a project funded in this manner, understand that the contract administration for these types of deals is complex, requiring sophisticated metrics and quantitative management techniques. Nothing is free – the customer should expect to pay for everything it receives over time, along with associated “carrying” charges.

Project Status

Oklahoma is in the migration phase of the project. The state has established a production environment and is testing data population and interfaces. A testing environment has been established to test implementation of business rules and provide an environment for user training. User training has begun and will continue through the go-live scheduled for July 2003. Parallel testing and validation are also occurring for payroll. Implementation will make all systems functionality available. The state contracted for \$10.9 million for agreement execution, services execution, configuration acceptance, go-live acceptance, and retainage. Transaction fee charges are minimally expected to cost \$8.6 million for years 2004 - 2008. Functionality being implemented includes:

- General Ledger
- Payables

- Purchasing
- eProcurement
- Human Resources
- Benefits Administration
- Payroll
- Time and Labor
- CRM Help Desk
- Government Portal

4.3.6. PENNSYLVANIA

Project Description

Pennsylvania is implementing a consolidated version of mySAP for the entire state, using SAP and KPMG as the integrators. A separate contract has been negotiated with IBM to provide infrastructure. A common set of administrative business processes (i.e., accounting, budget, human resources, procurement, and payroll) will be used by all agencies, departments, boards, and commissions. The current cost estimate for the implementation and maintenance is \$225 million through 2004 (original estimate was \$195 million). Ongoing costs are expected to be around \$9 million annually.

Implementation of the new system required significant upgrades to existing IT infrastructure. Improvements included upgrades to the data connectivity, acquisition of nearly 50,000 personal computers, and massive amounts of training. Although a significant amount of technology is changing in the project, Pennsylvania placed the emphasis of the project on reforming the processes that define the way it does business.

Challenges Facing Pennsylvania

In discussions with project managers, it was stressed that the greatest challenges were change management issues, training cost and coordination, how best practices could be applied within state government, and how to get agency buy-in. Many of the workflow issues were very time-consuming in that they required setting authorization limits, approval routing paths, and other required system parameters.

Anticipated Benefits

The following items are cited as some of the features and benefits of Pennsylvania's decision to implement a statewide system:

- Single, centrally managed commonwealth database of vendor, materials, and services.

- Easy Requisitioning:
 - Easy to use, Web-based shopping cart;
 - Catalog search;
 - Automated sending of requisitions to approvers (workflow); and
 - Visibility of requisition approval status.
- Unified Contracting:
 - Statewide contract (“outline agreements”) visible to all agencies, and
 - One-time data entry.
- Purchase Orders.
- Receiving (new functionality).
- Invoicing:
 - Centralized bill-to addresses for invoice entry processing, and
 - 3-way matching of purchase order, receipt, and invoice.
- Inventory Management.
- Reporting:
 - Single, central data repository, and
 - Improved decision-making.

Best Practices

The implementation strategy and approach is directed towards modifying business practices to match best practices and to avoid massive software modifications. Additionally, the state project team has been able to work with the Pennsylvania legislature to change laws that would have delayed or hindered implementation. To date, five administrative laws and one fiscal law have been amended.

Project Status

The project is organized to roll out functionality to state agencies in six waves, with the third wave being split into A and B portions. The SAP software has been successfully implemented for accounting, budget, and procurement functions in more than 30 agencies since July 1, 2002. Releases for agencies included in waves 3B and 4 are being delayed. These delays are due to the following:

- Software customization – additional configuration is necessary to handle thousands of work schedules and hundreds of pay grades for the state's 80,000 employees;
- System integration testing – additional testing is needed to ensure that the SAP payroll software can interoperate with a separate accounting system used by the state treasurer's office; and
- End-user training requirements – the system is also requiring more extensive training for end users than expected.

Given this delay of approximately six months, the project is still seen as very successful. The additional time is necessary to ensure the quality of the final product.

4.3.7. TARRANT COUNTY, TEXAS

Project Description

The Tarrant Integrated Task Access Network (TITAN) project is designed to replace aging systems with an integrated system as part of the county's overall IT strategic plan. The project strives to increase the productivity and efficiency of government by implementing "best practices" and improved processes in the administrative services areas.

The county plans a phased implementation:

- Phase 1 – Human Resources and Payroll;
- Phase 2 – Financials, Purchasing, Asset Management, Accounts Payable, Grants, and Funds Management
- Phase 3 – Budget Preparation
- Phase 4 – eRecruitment (timeframe undetermined)

Project Overview

Vendor: SAP	QA Vendor: Yes
Project Duration: 2002-2005	Go-Live Dates:
Accounting Costs: \$11 million (est.)	Phase 1 - 10/03
Human Resource Costs: \$11 million (est.)	Phase 2 - 7/04
Infrastructure Costs: \$1 million (est.)	Phase 3 - 4/05
Total Costs: \$23 million (est.)	

Best Practice Considerations

- Reduce redundant data entry and achieve highly integrated data stores.
- Reduce labor-intensive nature of paper-based systems.
- Minimize modifications to the base systems.
- Improve business processes and take advantage of best practices engineered into systems through business process redesign and fully utilizing system functionality.
- Minimize the use of manual “work-around” processes.
- Utilize workflow to automate decision and approval processes.
- Establish a long-term vendor relationship and maintain currency of systems and support.

4.4. Summary Findings

An analysis of both implemented and planned financial management and integrated administrative systems in government entities comparable to Alaska clearly offers best practice considerations and lessons learned. While each endeavor is unique, there are several universal tenets that affect every financial system project.

- Do not move forward without strong sponsorship and support from leaders of all impacted branches of government.
- Unrealistic timelines can kill the perceived effectiveness of a project. The proper mix of scope, schedule, and resources is necessary for any project to succeed. Arbitrarily reducing the schedule has the high probability of

adverse effects without a commensurate increase in resources or decrease in scope. There is a diminishing limit to the effectiveness of additional resources such that a shortened schedule cannot be achieved without a reduction in scope.

- Make realistic resource estimates and dedicate needed resources. Anticipate that no matter how careful and detailed a budget, unanticipated and unexpected expenses will consume at least 15% to 20% of the final resources used.
- Effective communications and expectation management are most important to overcome fear and sabotage, both for the central and for supported agencies. Uninformed people make up worst-case stories.
- Plan realistically for agency resource support to perform the added work assigned to them. Do not assume agencies will have the staff resources needed to execute data conversion and implementation.
- Emphasize organization change management and training; anticipate at least 30% of the project budget and personnel resources helping users understand how to use the system to do their jobs well.
- Dedicate “best and brightest” staff full-time. Relieve them of their operational responsibilities and back-fill responsibilities as needed, allowing adequate time for training prior to heavy project involvement.
- Understand that no one solution can apply to every situation. Seek to provide those common applications used by most agencies.
- Recognize that other systems requirements will drive the need for separate systems. By adhering to open architectures, effective interfaces can be used to integrate these systems with enterprise systems.
- This is a software package market. Package purveyors have invested millions and the systems work. No state should undertake to build a new administrative system.
- The learning curve for complex systems is significant. Do not underestimate your investment in training. You may cut the funding, but you will not avoid the expense in the end. The state should cut the project’s functional scope, not user training.

- Package software solutions lack needed reports. Plan to spend extra monies to develop needed reports across agencies. Data warehousing technologies are mature, open, and readily available to meet this need.
- Implement a data warehouse for ad hoc reporting, both to relieve pressure on production systems and to integrate information from multiple systems including legacy applications.
- Design of an effective account code structure that considers future reporting needs is critical. Remember as well that many agencies may drive their systems off the current account code structure and might have substantial rework as changes are adopted.
- Effective use of the Web will dramatically reduce investment in internal infrastructure.

Alaska is in the unique position of being able to move forward based on the recent experiences of other government financial system implementations. Selection of alternatives for moving forward with a replacement of the state's administrative systems must include best practices culled from other government endeavors.