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2. ASSESSMENT OF THE CURRENT ENVIRONMENT

This section provides MAXIMUS' assessment of Alaska's statewide administrative systems and background information from interviews, surveys, and assessments. Additionally, this section provides an overview of the viability of the systems that have been implemented.

Integral to the development of a business case is documentation of the base-case; the effect that not changing either systems or operations would have on state agencies. This base-case comprises the strengths, risks, costs, and viability associated with the current administrative systems, and contributes to determining how the state will move forward with the Statewide Administrative Systems Replacement Project.

It is not adequate to state that the base-case and a cost/risk assessment are simply the continuation of the current environment. The base-case must account for future developments over a period long enough to compare new system and/or process changes. For example, an agency that keeps an aging system likely faces increasing maintenance costs as the system ages. There might be more frequent system failures or longer periods of down time. Maintenance costs might become prohibitive, service delays intolerable, or workloads unmanageable.

Our approach to completing this assessment was to gather information consistent with the development of a business case. It is not intended to provide a detailed or complete analysis of every cost or risk associated with the current environment. However, it does provide a sound basis for Alaska's executive leadership to assess current operations against the available alternatives for future administrative systems.

2.1 ASSESSMENT METHODS

In order to assess the current environment, MAXIMUS performed the following activities:

- **Review of Background Materials** – The Statewide Administrative Systems Replacement Project team provided background materials regarding administrative systems operations and supporting information;
- **Interviews** – Face-to-face interviews were conducted with six state agencies concerning the service provided by the state's administrative systems, as well as other system factors; and
- **Agency Surveys** – Surveys were completed by the agencies to collect standard information about the state's administrative systems concerning development, implementation, operations, strengths, and weaknesses.

The results of these assessment activities, along with our findings, are discussed in the following sections.

2.1.1 Review of Background Materials

In 2003, MAXIMUS completed extensive review and documentation of the state's administrative systems. The review of background materials included Alaska statutes and the

technology deployed for the state's current administrative systems. This update revisited the documentation and updated it with appropriate information and changes. For example, the state's Information Technology Group (ITG) has been renamed and changed to the Enterprise Technology Services (ETS).

Exhibit 2-1 Alaska's Administrative Systems Summary provides a high-level overview of key systems being used by the state. It includes the implementation year, application access, group responsible for maintaining the system, the agency that maintains the system, and the technology deployed.

Exhibit 2-1: Alaska's Administrative Systems Summary

System	Year Implemented	Application Access	Maintained By	Technology Deployed
Office of Management and Budget				
Budget System (ABS)	1999	Statewide	Office of Management and Budget	Client/Server Application PowerBuilder Windows-based Server
Division of Finance				
Accounting System (AKSAS)	1985	Statewide	Division of Finance	COBOL & Natural ADABAS hosted on IBM 9672 mainframe
Reporting Software (GENEVA)	1994	Statewide	Division of Finance	4th Generation Reporting Tool ADABAS Hosted on IBM 9672 mainframe
ALaska Data Enterprise Reporting (ALDER) System	2007	Statewide	Division of Finance/ETS	Business Objects XI Premium Oracle 10g Enterprise Edition ErWin Data Modeler
Payroll System (AKPAY)	1990	Statewide	Division of Finance	COBOL, SAS, & Natural DB2 hosted on IBM 9672 mainframe
Division of Personnel and Labor Relations				
Workplace Alaska	1998	Statewide	Division of Personnel and Labor Relations	Client/Server Application Lotus Notes hosted on a Domino server running on a Windows 2000 server
Workforce Planning and Development System (WorkPAD)	2002	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
TrainAlaska	2003	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
Online Position Description System	2005	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
Grievance Tracking System	1983	Department	Division of Personnel and Labor Relations	FileMakerPro
Exit Survey	2001	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
My Phone Book	2004	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server

System	Year Implemented	Application Access	Maintained By	Technology Deployed
Equal Employment Opportunity Reporting System (EEORS)	1999	Department	Division of Personnel and Labor Relations	MS Access
Issues Tracking	2004	Department	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
Database of Class Specifications (DOC)	April 2007	Statewide	Division of Personnel and Labor Relations	Client/Server Application: ColdFusion MS-SQL hosted on Windows Server
Division of General Services				
Procurement Tracking System	1999	Department	Division of General Services	MS-Access and MS-Excel tracking systems
Vendor System	2000	Department	ETS	Application Layer: Unix Server Database Layer: Oracle on Linux VM Bubble on an IBM 9672 Mainframe
Purchasing Officer Certification and Training Program	2001	Department	Division of General Services	PowerBuilder
Lease Management System (LMS) and Lease Projection System (LPS)	2003	Department	Division of General Services	Oracle platform and Java software
MAXIMO	2003	Department	Division of General Services	MRO Software – IBM company J2EE (JAVA 2 Enterprise Edition) Platform
State Property System	Unknown – mid 1980s	Statewide	Division of General Services	R-Base system
SURDATA	Unknown	Department	Division of General Services	FoxPro
Division of Retirement and Benefits				
Combined Retirement System (CRS)	1996	Department	Division of Retirement and Benefits	COBOL DB2 hosted on AS400
Supplemental / Select Benefits System (SBS)	2004	Department	Division of Retirement and Benefits	Java Oracle database
Deferred Compensation	1995	Department	Division of Retirement and Benefits	Visual Basic/PL SQL. System is being converted into JAVA. Oracle Database
Department of Revenue, Treasury Division				
Resource IQ[2]	2001	Department	Division of Treasury – Revenue	LAN-based product with a Sybase back end

2.1.2 Interviews

In order to obtain a better understanding of the features and functions of the current administrative systems, the Statewide Administrative Systems Replacement Project team arranged the following face-to-face interviews with all organizational areas responsible for

statewide administrative functions and with primary responsibility for the related supporting systems:

- Office of the Governor, Office of Management and Budget
- Department of Administration
  - Division of Finance
  - Division of Personnel and Labor Relations
  - Division of Retirement and Benefits
  - Division of General Services
- Department of Revenue, Treasury Division

The goal of these interviews was to establish an open dialogue designed to exchange information with key administrative personnel. The interview participants were selected because of their understanding of the business processes and the current administrative systems. Discussions generally covered the following topics:

- A high-level review of the organization's business processes and workflows;
- An understanding of the organization's administrative system requirements and business needs;
- An insight into "shadow systems" or administrative systems "work-arounds" necessary to meet the organization's business goals; and
- Additional ideas and thoughts regarding the administrative systems replacement efforts and the development of this business case document.

Key points from these interviews along with those from the agency surveys, reviews of background materials, and observations are outlined below in *Section 2.1.4 Findings*. Detailed information from these interviews is contained in *Section 3 Agency Interviews*.

2.1.3 Agency Surveys

To obtain more detailed and consistently formatted data, six state agencies were selected to provide formal survey data. The following agencies provided additional information about development, implementation, operations, strengths, and weaknesses associated with their administrative systems.

A copy of each completed survey is included in *Section 4 Agency Survey Responses*.

2.1.4 Findings

The following is a summary of key points learned from observations, reviews of background materials, face-to-face interviews, and agency surveys:

- AKSAS and AKPAY are in a critical stage for meeting short- and long-term business capabilities. Each system is essential for managing state business and each has a low viability for continuing in their present conditions as discussed further in Section 2.2.4 and 2.2.5.
- The budget system and other administrative systems are meeting the state's needs. However, there is an opportunity to improve and integrate primary systems to support administrative

business processes particularly in personnel and procurement, which are mostly paper-based systems.

- The current accounting and payroll systems are viewed by many as being old, but reliable systems that do what they were designed to do.
- AKSAS is an aging mainframe based system that uses character-based user interfaces and lacks workflow and other collaborative technologies. The system is completely owned and supported by the state. Minimal research and development is being invested in the system to upgrade it for current best practices or current technologies.
- AKSAS maintains a payee file for vendors receiving payments from the state while the vendor file maintained by General Services is a list of vendors registered to do business with the state. Maintenance of this information is duplicative in nature for the state and its vendors. A master vendor file maintained by General Services and used by Finance would improve the consistency of state information and optimize its process efficiencies.
- AKPAY is licensed and supported by Empagio (formerly Tesseract).
- A lengthy backlog of payroll system requests exists. Many of the requests are in response to existing labor agreements. Many manual processes are required to compensate for these backlogged requests.
- Time and attendance accounting is a significant issue for the state. Agencies are investing a considerable number of resources to address the collection and reporting of this data. Most data is processed through multiple steps between the employee and the payroll system. Technologies to improve the ease of data collection are in high demand. As a result, the state has begun the RFP process to procure a Time and Attendance solution as well as implementation services.
- Personnel and procurement applications are focused in specific functions, but do not integrate total business process. There is a lack of investment in systems to support these business processes.
- Different perspectives of data between systems require substantial amounts of verification and manual manipulation to reconcile these views.

2.2 ASSESSMENT OF ADMINISTRATIVE SYSTEMS

This section provides an overview of MAXIMUS' assessment of the condition of each administrative system. For each system listed in ***Exhibit 2-1: Alaska's Administrative Systems Survey*** we provide a summary of strengths, areas of improvement, and an estimate of their viability. For purposes of our assessment, viability is the degree to which a system is meeting the state's business needs and its ability to evolve with changing functional and technological demands. The cost assessment will follow in *Section 2.4 Current Estimate of Administrative Systems Costs*.

2.2.1 Assessment of Viability

A system's viability is the expectation that the system can be maintained to meet user needs. The following resource categories impact this viability.

Configuration of technologies. Computer systems are built upon various hardware, software, operating systems, database management systems, etc. These technologies change over time to adapt to market conditions. The dominant computer development languages, processes, and

techniques of the 1960s are quite different from the dominant ones of today. Viability relates to how adaptable systems are to changes in technologies.

System support skills. Personnel must be skilled with the base development language, processes, and techniques of a system for its continued support. This availability is dependent upon the ability of organizations to provide these services commercially and/or the availability of individuals willing to invest their personal development in pursuit of those skills. The more organizations and individuals are involved in developing and organizing these skills, the higher the probability that a system remains viable. Also, the more focused a vendor is on providing a system or service as its core business, the more likely that vendor maintains its system or service as viable.

User expectations. Users desire systems to support their business processes. Systems are designed to meet those expectations. Users and systems must constantly evolve to meet changing business demands. As newer technologies, designed to meet other needs, become available, user expectations of existing systems are affected. User expectations continue to mature – system requirements change to meet those needs; it is a cyclical, evolutionary process.

2.2.2 Viability's Effect on System Strategies

The state must judge the importance of a system within its overall strategy for administrative systems replacement. The importance of a system is the degree to which the state depends upon that system to provide services. A system is categorized as essential if the state directly relies on the system's products, which cannot be provided by other means. The more essential a system, the sooner its viability becomes a critical factor and must be addressed in its life cycle. Payroll systems are an example of essential systems.

The state must also consider the useful life of a system. The shorter a system's useful life, the sooner in its life cycle its viability must be addressed. Lastly, the complexity and volume of its user base must also factor into the strategy. The more complex and larger the number of users of the system, the sooner in its life cycle its viability must be addressed.

Exhibit 2-2: Viability Relative to Other System Factors, shows how the state can view a system's viability in relation to its importance, useful life, complexity, and number of users.

Exhibit 2-2: Viability Relative to Other System Factors

2.2.3 Alaska Budget System (ABS)

ABS is an essential system with a high priority for viability. It is the state's central budgetary development system used to develop and track the budgets and supporting documentation for state agency operating and capital budgets. It is meeting all major functional requirements and is adaptable to meet future demands. Its useful life is estimated at ten years if technology demands do not change significantly.

ABS' primary areas of improvement are associated with its need to interface with the state's existing legislative budgeting system, as well as the statewide accounting and payroll systems.

- The data interface from the legislative budgeting system requires manual steps because ABS has a different perspective of the data with more mandatory data elements than those transmitted.
- A similar divergence in data perspectives exists between ABS and AKSAS.
  - Fund sources in ABS and revenue accounts in AKSAS are maintained in different structures.
  - Reimbursable service agreements (RSAs) are difficult to reconcile.
  - Multi-year appropriations have increased in use; however, budgetary and accounting systems are not designed to handle them easily.
  - Difficulties occur in establishing year-end final authorized and actuals reports, making this a labor-intensive process.
- ABS maintains duplicate position data to AKPAY requiring manual manipulation during reconciliation.

These challenges represent system modifications, most of which are labor intensive. In particular, the lack of seamless integration between budget and accounting and payroll requires

manual manipulation during reconciliation. As the life of the system is extended, more technical and functional difficulties will arise and the only solutions will be external to ABS. In 2003, the technology supporting ABS was not considered an inhibitor to its viability. In 2004, the state updated its hardware to support the ABS DB2 database onto a new Windows-based server. At present, the ABS platform uses PowerBuilder client/server application. However, OMB has expressed the interest in centralizing its application.

The state developed and implemented this system within the last seven years. A remaining issue with users has been the need to manually enter actuals into ABS. AKSAS and ABS continue to be run in parallel. Since ABS is not externally marketed; therefore, the state retains all the risk of maintaining the viability of the system.

2.2.4 Alaska Statewide Accounting System (AKSAS)

AKSAS is an essential system with a high priority for viability. It is the state's central general ledger, budgetary control, project, contract, grant accounting, voucher preparation, and disbursement system. The system meets all major functional requirements, but lacks flexibility for making desired improvements. The system is not easily changed, or adaptable to meet future demands. Its useful life can be estimated at five years. Because of the system's high priority for viability, its complexity, its scope within state government, and the size of its user community, the five-year window of useful life makes this a critical driver for system change. Functional demands, technology limitations, and IT support considerations already are forcing the desire for significant change.

The state developed and implemented this system 22 years ago. It is built on older technologies that constitute closed architectures. Because the system is not marketed externally, the state retains all the risk of maintaining the viability of the system. This leads to the primary problem facing the state with respect to AKSAS - the state's vulnerability for application support. The system is a COBOL and Natural application running on ADABAS. This architecture is becoming harder for the state to support because the skills required to maintain them are not mainstream. As a rule, information systems professionals are not developing these skills. The state will take on more of the responsibility to develop these skills internally as time goes on. As the age of state resources approach retirement, the critical nature of obtaining these skills will greatly increase.

AKSAS' primary areas needing improvement are associated with the limitations its technology base presents given current user expectations. This condition is consistent with expectations given that the system is approaching the end of its useful life. There are several areas where user expectations of the system are not met.

- Detailed information from AKPAY is not available; summarized payroll entries are posted for payroll charges; entries default to agency suspense financial structures when there are problems.
- Reporting within AKSAS can be difficult for the casual user to learn.
- Modifying reports is difficult and the system does not support intuitive drill down capability.
- System administration is highly complex and lacks flexibility (e.g., 30,000 table entries are required to define security for authorization and certification).

- Limited ability to document or cross reference transactions internally within the system:
  - Inadequate memo posting to transactions; and
  - No reference information for adjusting journal entries.
- Lack of online help and other user assistance technology makes system difficult for users to understand without expert assistance.

These challenges represent system modifications, most of which are not achievable in the current system. As the life of the system is extended, more technical and functional difficulties will arise and the only solutions will be external to AKSAS. The technology supporting AKSAS is an inhibitor to its viability.

2.2.5 Alaska Statewide Payroll System (AKPAY)

AKPAY is an essential system with a high priority for viability. It is the state's central payroll system. It is used to administer the payroll for 16,500 employees in either semi-monthly or bi-weekly payroll cycles. Employees are distributed among 13 bargaining units, each with different pay and benefit packages. Time and attendance procedures vary within state agencies. Employees do not enter their own data directly in the system. The system is meeting all major functional requirements, but significant improvements are desired. The system is not easily changed, nor adaptable to meet future demands. Its useful life can be estimated at five years; although an external vendor, Empagio, no longer markets the software in its off-the-shelf version. Because of the system's high priority for viability, its complexity, its scope within state government, and the size of its user community, the five-year window of useful life makes this a critical driver for system change. Functional demands, technology limitations, and IT support considerations already are forcing the desire for significant change.

The state developed and implemented this system 17 years ago. It is built on older technologies that constitute closed architectures. Because the system is no longer marketed externally, the state has the risk of determining the viability of the system through Empagio's ability to support the system. It is a COBOL and SAS application running on DB2. Empagio has 40 clients for its payroll system, with its client base decreasing as recent clients have moved to ERP type software. The future rate of decline in Empagio's customers cannot be predicted with certainty, but the trend has a high probability of continuing. The state invests heavily in the maintenance of AKPAY in spite of Empagio's support. Nearly 40% of the code the state uses is custom modifications. These modifications are written in SAS and COBOL. So AKPAY faces the same support resources challenges as AKSAS.

AKPAY has several areas needing improvement. Lack of reporting functionality has necessitated standalone files with limited usefulness. A lengthy backlog exists for making changes to the payroll system to support various enhancements and changes such as those for negotiated union contracts. This backlog exists because there are not enough human resources to make the changes in addition to normal maintenance and critical enhancements. Various manual efforts are made to compensate for the backlog of changes. There are significant areas where user expectations of the system are not met.

- Time recording is a very difficult and varying process throughout state agencies. Dual recording is required, first capturing data from employees, then transformation by agencies for entry into the payroll system.
- Shift differentials and other premium pay must be manually entered.
- The Marine Highway payroll is very complex. Payroll for three marine labor unions have varying work rules and their effect on pay, master agreement, supplemental agreements, letters of agreement (LOA), and related practices are not uniform nor consistently documented.
- Lack of functionality to project time expectations and compare these against actuals for managing budgets.
- Despite limited ad hoc reporting capability, the system is the primary repository for employee, position, and benefit data.

These challenges represent system modifications that are not achievable in the current system. As the life of the system is extended, more technical and functional difficulties will arise and the only solutions will be external to AKPAY. The technology supporting AKPAY is an inhibitor to its viability.

2.2.6 GENEVA

At the time of the 2003 Business Case, GENEVA was an essential system with a high priority for viability. It is currently the state financial reporting system for AKSAS data that is mirrored in a database separate from AKSAS' operational database. Although GENEVA meets major operational reporting requirements, it has significant issues that require immediate attention and its direct tie to AKSAS resulted in an estimated useful life of five years.

The state acquired the system from Price Waterhouse under a beta licensing agreement to use the software. IBM has since acquired the licensing rights to GENEVA. There is no licensing agreement between the state and IBM; therefore, the state may be vulnerable to licensing fees as an added cost should IBM desire to enforce its rights for GENEVA's use.

GENEVA is a fixed technology used exclusively to report on AKSAS' hierarchical database structures. It is intended to provide the accounting user community access to accounting information; however, it is very complex and requires specialized skills to use effectively. Reporting is limited to periodic batch processing on current and prior year fiscal data with a cyclic schedule for previous fiscal years. These conditions severely limit GENEVA's utility for easily providing user driven reporting solutions.

Modifications to improve GENEVA's usability are not achievable. The technology supporting GENEVA is an inhibitor to its viability.

As a result, the state moved forward with the initiative to develop a data warehouse with business intelligence capabilities in August 2005. Through a rigorous procurement process, the state procured the services, software, and hardware to develop a data warehouse with the final objective of owning and maintaining the data warehouse and reporting capability with state staff. Primary data sources to be included are from the state's financial (AKSAS), payroll (AKPAY) and human resources (WorkPlace Alaska) administrative systems.

2.2.7 ALDER

The ALaska Data Enterprise Reporting (ALDER) System Project began implementation in July 2006 and is scheduled to be completed by August 30, 2007. Upon implementation of the system, ALDER will become an essential system with a high priority for viability. It will become the enterprise reporting system for financial, payroll, human resources, and recruitment data.

The fundamental goal of the ALDER system is to provide an improved and secure reporting platform that spans multiple systems so that consistent information is available to users. The ALDER data warehouse will also provide an archival system for legacy data contained in administrative systems that may be replaced thus maintaining a central repository that continues to provide operational information. Replacement projects for state administrative systems will be able to leverage the ALDER data warehouse user base, who have already acquired report development skills; hence, the state's interest in owning and maintaining ALDER for future growth.

The ALDER project is defined into four increments:

- Increment 1 – Establish financial reporting capability using the data warehouse.
  - Current plus six years of financial data (AKSAS) will be extracted, transformed, and loaded.
  - GENEVA is scheduled to be decommissioned September 28, 2007 to allow agencies time to convert their reporting environments.

- Increment 2 – Extend the financial reporting capability and establish HR-Payroll reporting using the data warehouse.
  - 1990 to current HR-Payroll data (AKPAY) will be extracted, transformed, and loaded.

- Increment 3 – Extend HR-Payroll reporting capability using the data warehouse.
  - 1997 to current recruitment data (WorkPlace Alaska) will be extracted, transformed, and loaded.
  - Consolidation of legacy CHEQ, WorkPad, labor distribution, and leave data from their respective systems.

- Increment 4 – Establish data warehouse production server redundancy.
  - The ALDER system will become mission critical. As a result, the state intends to provide a redundant data warehouse system in Anchorage as part of the ALDER project.

The business intelligence toolset used to develop the ALDER system is externally marketed; therefore, the state does not retain all risk of maintaining the viability of the system. The technology supporting ALDER is not an inhibitor to its viability. Technology supporting the infrastructure of the ALDER system contains components that have a history of continuing to evolve with technical enhancement; therefore the viability should not be inhibited.

2.2.8 Workplace Alaska

Workplace Alaska is an important system with a moderate priority for viability. It is the state's central online recruitment system for all State of Alaska classified service positions, salary range eight and above. It meets most major functional requirements and is adaptable to meeting future demands. Its useful life can be estimated at ten years if technology demands do not change significantly.

Workplace Alaska's primary areas needing improvement are associated with the requirement to interface with other personnel systems to improve applicant evaluation; however, many of these systems are standalone and are subject to replacement under this project effort. The challenges represented by these improvements are achievable with the system's current technology; however, they require specialized skills not readily available within the state. The technology supporting Workplace Alaska is somewhat of an inhibitor. As a result, the division is converting Workplace Alaska to ColdFusion architecture.

The state developed and implemented this system within the last nine years. It is built on current technologies, but its Lotus Notes architecture is not easily updated nor is its data easily accessible. Because the system is not marketed externally, the state retains all the risk of maintaining the viability of the system.

2.2.9 Workforce Planning and Development System (WorkPAD)

WorkPAD is an important system with a moderate priority for viability. It is the state's central human resource system used to report position/vacancy data. It is meeting some major functional requirements and is adaptable to meeting future demands. Its useful life can be estimated at ten years if technology demands do not change significantly.

WorkPAD's primary areas needing improvement are associated with reporting and other functionality not completed during initial development.

The state developed and implemented this system within the last five years. Its data is easily accessible and future changes are presently manageable within the technology marketplace. Because the system is not marketed externally, the state retains all the risk of maintaining the viability of the system. This system will be decommissioned with the implementation of ALDER.

2.2.10 TrainAlaska

TrainAlaska is an important system with a moderate priority for viability. It is the state's central training resources application designed to meet a variety of training requirements including student registration, attendance, transcripts, and tuition charges. It meets major functional requirements and is adaptable to meeting future demands. Its useful life can be estimated at seven years if technology demands do not change significantly. Because the system is not marketed externally, the state retains all the risk of maintaining the viability of the system.

2.2.11 Personnel Databases

The Division of Personnel and Labor Relations is supported by a number of databases it has developed and uses to manage the following:

- **Bargaining Unit Appeals database** - Tracks bargaining unit appeals.
- **Alaska Labor Relations Agency (ALRA)** - Tracks labor relations filings, hearing schedules, and decisions, such as petitions to enforce and bargaining unit clarifications.
- **Equal Employment Opportunity Reporting System (EEORS)** – Captures and analyzes EEO statistics for reporting purposes.
- **Issues Tracking** – Tracks and reports on employee/labor relations issues.
- **My PhoneBook** - Provides custom contact lists for each division.
- **Exit Survey** - Gathers information from employees leaving state service.

These are departmental systems with a low priority for viability. They meet some major functional requirements and are adaptable to meeting future demands. Their useful lives can be estimated at one to three years if technology demands do not change significantly.

Each has its own set of issues to improve its utility within the scope of personnel services. Many of these improvements revolve around the need to integrate data between these and other systems. However, these systems and their improvements are a symptom of a larger issue.

These databases support aspects of the overall personnel service offering, duplicating information and effort in their maintenance. The larger issue of integration should be addressed by strategic personnel systems that manage personnel data from position and person perspectives. A more strategic systems solution would be to manage position and classification information for budgetary and workforce planning purposes, and person data for hiring, payroll, and benefits administration.

Although the present systems support some aspects of personnel requirements, a more enterprise-wide solution would benefit the state. Changes within the present configuration are difficult to coordinate and add limited value to significant service improvement. The technology supporting these databases is not an inhibitor of future viability, however, using desktop applications for enterprise services is not a best practice solution. Because these applications are not marketed externally, the state retains all the risk of maintaining their viability.

2.2.12 Online Position Description System (OPD)

The Online Position Description system is an important system with moderate priority for viability. It is the state's central online resource for all current position descriptions for classified and partially exempt positions. It meets most major functional requirements and is adaptable to meeting future demands. Its useful life can be estimated at ten years if technology demands do not change significantly. OPD can house all position descriptions for the state agencies in the future.

The state developed and implemented this system within the last three years. It is built on current technologies with a common architecture. Its ColdFusion architecture is easily updated and its modular design has advanced the rapid development of other Personnel HR systems. Its data is easily accessible and future changes are presently manageable within the technology marketplace. Because the system is not marketed externally, the state retains all risk of maintaining the viability of the system.

2.2.13 Database of Class Specifications (DOCS)

The Database of Class Specifications is an important system with moderate priority for viability. It is the state's central online resource for current job class specifications for all agencies excluding exempt classes. Exempt classes are in this system but are not readily updated unless there is an exempt position recruited for on Workplace Alaska. It meets most major functional requirements and is adaptable to meeting future demands. It will become one of the data sources for ALDER. Its useful life can be estimated at ten years if technology demands do not change significantly.

The state developed this system and implementation is forthcoming. It is built on current technologies with a common architecture. Its ColdFusion architecture is easily updated and it uses the same modular design as OPD. Its data is easily accessible and future changes are presently manageable within the technology marketplace. Because the system is not marketed externally, the state retains all risk of maintaining the viability of the system.

2.2.14 Grievance Tracking System

The Grievance Tracking System is a departmental system with a low priority for viability. It was developed to provide a method for tracking grievances, complaints, and disputes from filing through closure. This system is also used to track letters of agreement.

It was developed in Filemaker Pro. Because the system is not marketed externally, the state retains all the risk of maintaining the viability of the system.

2.2.15 General Services Support Systems

The Division of General Services is supported by a number of applications. Each has its own set of issues to improve its usability within the scope of General Services. However, similar to the situation in the Division of Personnel and Labor Relations, these systems and their needed improvements are symptoms of a larger issue. These standalone systems and databases support aspects of the overall General Services offering, duplicating information and effort in their maintenance. The larger issue should be addressed by strategic General Services systems that manage the procurement, asset management, and facilities management processes. A more enterprise-wide solution for General Services would benefit the state. Changes within the present configuration are difficult to coordinate and add limited value to significant service improvement. Discussion of specific systems follows.

Various spreadsheets and small databases

These are departmental systems with a low priority for viability. They are used to track various purchasing activities. They meet some major functional requirements and are adaptable to meet future demands. The technology supporting these databases is not an inhibitor of future viability, however, using desktop applications for enterprise services is not a best practice solution. Because these applications are not marketed externally, the state retains all the risk of maintaining their viability.

Vendor System

The Vendor System is a departmental system with a low priority for viability. It is used to track information for vendor lists and mailing labels. This data is not integrated with the AKSAS payee file. It is meeting most major functional requirements and is adaptable to meet future demands. The technology supporting this application is not an inhibitor of future viability. Because this application is not marketed externally, the state retains all the risk of maintaining its viability.

Purchasing Officer Certification and Training Program

The Purchasing Officer Certification and Training Program is a departmental system with a low priority for viability. It is the state's application used to track certification and training for individuals with delegated purchasing authority. It is meeting most major functional requirements and is adaptable to meet future demands. The technology supporting this application is not an inhibitor of future viability. Because this application is not marketed externally, the state retains all the risk of maintaining its viability.

Lease Management System (LMS) and Lease Projection System (LPS)

The Lease Management System and the Lease Projection System are departmental systems with a low priority for viability. They are the department level applications that track basic information regarding leased and state-owned real estate. They do not meet most major functional requirements and are not adaptable to meeting future demands. The technology supporting these applications is not an inhibitor of future viability. Because these applications are not marketed externally, the state retains all the risk of maintaining their viability.

Maximo

The Maximo System is a departmental system with a low priority for viability. It is the department level application used to track preventative maintenance and project facility needs. It meets major functional requirements; however, there is dissatisfaction with using the system. This dissatisfaction could stem from lack of skills in using the system or the product not being the correct fit for General Services. Maximo is a leading product in the Enterprise Asset Management software solution market. It is highly viable and used widely in the facilities management field. The technology supporting this application is not an inhibitor of future viability. Because this application is strongly marketed externally, the state risk of maintaining viability is limited to monitoring the vendor and the product's performance in the industry. Further study should be made to determine Maximo's fit for the state.

State Property System

The State Property System is a statewide system with a low priority for viability. It meets most major functional requirements but is not easily adaptable to meeting future demands. The technology supporting this application is an inhibitor of future viability. Because this application is not marketed externally, the state retains all the risk of maintaining its viability.

SURDATA

SURDATA is a departmental system with a low priority for viability. It supports the surplus disposal process. It meets most major functional requirements and is adaptable to meeting future demands. The technology supporting this application is not an inhibitor of future viability. Because this application is not marketed externally, the state retains all the risk of maintaining its viability.

2.2.16 Retirement and Benefit Systems

The Division of Retirement and Benefits is supported by a number of applications it has developed and uses to manage the following:

- **Combined Retirement System (CRS)** is the state's central retirement system. It is used to administer retirement benefits for the state and 211 other employer organizations.
- **Deferred Compensation Plan (DCP)** is the state's central system used to administer the state's deferred compensation and annuity benefits for state employees.
- **Supplemental/Select Benefits System (SBS)** is the state's central system used to administer the state's health, life, and disability benefits for state employees and non-state employees.

These are essential systems with a high priority for viability. The analysis of these systems was limited to information needed from the state's administrative (personnel and payroll) systems to support their requirements.

As the state moves forward with its strategy to replace administrative systems, the Division of Retirement and Benefits will explore system capabilities available in an integrated solution if selected.

CRS is a COBOL based system and may start to experience limitations similar to those of AKSAS and AKPAY. DCP and SBS are open architectures, which enhance their flexibility to meet future demands. Because these systems are not marketed externally, the state retains all the risk of maintaining the viability of the systems.

2.2.17 ResourceIQ^2

ResourceIQ^2 is an essential system with a high priority for viability. It is the state's central treasury resource application designed to perform bank polling every morning. The system collects prior day banking data from four local banks and receives three files via direct lease line

from the state's custody bank for current day transactions. It meets most major functional requirements; however, vendor support is lacking and future viability is questionable. Its useful life can be estimated at five years if technology demands do not change significantly.

ResourceIQ^2 is a very stable and reliable system. It provides excellent service and meets present needs. Vendor support has been slow and inconsistent and the state does not expect to see improved vendor responsiveness. Future trends towards Web-enabled interfaces for banking transfers, and the lack of a stated strategy by the vendor make viability of ResourceIQ^2 questionable. Although this is an essential application for the state, the present expectation of changes in the transfer of banking data makes this question of viability manageable. The technology supporting ResourceIQ^2 is somewhat of an inhibitor of future viability.

As with other externally acquired applications, the state's risk of maintaining viability is limited to monitoring the vendor and the product's performance in the industry. The state must be diligent in monitoring the factors affecting this application's environment and the vendor's ability to provide continued service. Any replacement of financial systems should include options to provide cash management as an essential component.

2.3 ASSESSMENT CONCLUSIONS

The following conclusions are drawn from the individual system assessments described above:

- AKSAS and AKPAY are essential state systems with low viability. This condition makes development of a strategy to address their viability critical for the state.
- Applications supporting Personnel and General Services business processes are very focused in specific functions, but do not integrate solutions for the total business process. The importance of these applications to support these processes must be elevated by the state and addressed in future system strategies.
- ResourceIQ^2 is an essential state system with a moderate viability. This condition elevates the need to develop a strategy to address its viability, and it should be included with the strategy for the replacement of financial systems.
- ABS, CRS, DCP, and SBS are essential state systems with moderate to high viability. They have significant interfacing requirements with financial, human resource, and payroll systems. Therefore, the state should continually evaluate their viability, and review the applicability for their inclusion in any financial, human resource, and payroll systems replacement strategies.
- Maximo is a top tier application in Enterprise Asset Management. It is strongly marketed, reinvests in current technologies, and adaptable to many asset management solutions. However, its use within General Services should be studied to determine its fitness to solve their business needs.

2.4 CURRENT ESTIMATE OF ADMINISTRATIVE SYSTEMS COSTS

Cost information for the current systems is contained in ***Exhibit 2-4: Administrative Systems Costs***. This table provides the cost of the each system presented in *Exhibit 2-1 Alaska's Administrative Systems Summary.* The two exceptions include ALDER and DOCS which are systems that are in the process of being implemented.

Exhibit 2-4: Administrative Systems Costs

DEFINITIONS:

1) "Concurrent users" is defined as the number of users allowed to simultaneously access a system.

2) "Daily users" is defined as users who regularly use a system.

3)"Casual users" is defined as users who have sign-ons for a system and access a system on an infrequent basis.

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
	ABS (Alaska Budget System)			100	30	300
Hardware		~$10,000	$4,000			
Software		~$40,000	—			
License		—	$2,600			
Consulting Assistance		$300,000	—			
State staff costs		$1,050,000	~$160,000			
ETS Chargeback		—	$52,000			
Other		$25,000 for Training	$500 for TE Developer's Kit			
Total		$1,425,000	$219,100			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
	AKSAS (Accounting System)			600	300	2,500
Hardware		$1,500,000 (1985 dollars)	—			
Software		—	—			
License		—	—			
Consulting Assistance		$15,000,000 (1985 dollars)	—			
State staff costs		$4,000,000	$1,331,009			
ETS Chargeback		—	$1,300,000			
Other		—	—			
Total		$20,500,000 (1985 dollars)	$2,631,009			
	GENEVA (Reporting Tool)			50	50	350
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		$300,000 (1994 dollars)				
State staff costs		$320,000	$109,415			
ETS Chargeback		—	$300,000			
Other		—				
Total		$620,000 (1994 dollars)	$409,415			
	AKPAY (Payroll System)			200	200	1,000
Hardware		$500,000 (1990 dollars)	—			
Software		—	$4,919			
License		$2,500,000 (1990 dollars)	$122,409			
Consulting Assistance		—	—			
State staff costs		$480,000	$1,635,186			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
ETS Chargeback		—	$600,000			
Other		—	—			
Total		$3,480,000 (1990 dollars)	$2,362,514			
WorkPlace Alaska				250-300	45-60	50,000
Hardware		<$15,000	$12,200			
Software		$50,000	$360			
License		—	—			
Consulting Assistance		—	$56,427			
State staff costs		$200,000	$120,427			
ETS Chargeback		—	$31,000			
Other		—	$685 (backup)			
Total		$265,000	$221,099			
WorkPAD (Workforce Planning and Development System)				5-10	20-30	100
Hardware		$8,000	—			
Software		$17,000	—			
License		—	$8,500			
Consulting Assistance		—				
State staff costs		$55,000	$4,600			
ETS Chargeback		—	$7,000			
Other		—	—			
Total		$80,000	$20,100			
TrainAlaska				10	20	6,195
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
State staff		$10,000	$1,875			
ETS Chargeback		—	—			
Other		—	—			
Total		$10,000	$1,875			
Online Position Description				40	200	3,000
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			
State staff costs		$159,348	$13,500			
ETS Chargeback		—	—			
Other		—	—			
Total		$159,348	$13,500			
Grievance Tracking System				3	10	0
Hardware		—	—			
Software		$3,000	—			
License		—	$1,500			
Consulting Assistance		—	—			
State staff costs		$3,000	$6,000			
ETS Chargeback		—	—			
Other		—	—			
Total		$6,000	$7,500			
Exit Survey				1	1	100
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
State staff costs		Unknown	—			
ETS Chargeback		—	—			
Other		—	—			
Total		Unknown	—			
My Phone Book				5	10	10
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			
State staff costs		$6,330	—			
ETS Chargeback		—	—			
Other		—	—			
Total		$6,330	—			
Equal Employment Opportunity Reporting System (EEORS)				1	1	0
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			
State staff costs		Unknown	—			
ETS Chargeback		—	—			
Other		—	—			
Total		Unknown	—			
Issues Tracking				2	30	2
Hardware		—	—			
Software		—	—			
License		—	—			
Consulting Assistance		—	—			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
State staff costs		$6,330	—			
ETS Chargeback		—	—			
Other		—	—			
Total		$6,330	—			
Procurement Tracking System				Currently only one at a time.		
Hardware		System runs on existing workstations	—			
Software		MS Access	—			
License		—	—			
Consulting Assistance		System designed by former director	—			
State staff costs		DGS did not track internal costs	—			
ETS Chargeback		—	$2,500			
Other		—	—			
Total		Unknown	$2,500			
Vendor System				1	1	1
Hardware		$2,500	—			
Software		$4,100	$1,200			
License		—	—			
Consulting Assistance		—	—			
State staff costs		DGS did not track internal costs	$10,400 (for two months)			
ETS Chargeback		—	$2,500			
Other		$66,800	—			
Total		$73,400	$14,100			
Purchasing Officer Certification and Training Program				5	5-10	~1,000

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
Hardware		**$5,000**	**$1,500**			
Software		**—**	**$1,875**			
License		**—**				
Consulting Assistance		**$10,000**	**—**			
State staff costs		**DGS did not track internal costs**	**$10,400 for two months**			
ETS Chargeback		**—**	**—**			
Other		**—**	**—**			
Total		**>$15,000**	**$13,775**			
Lease Management System (LMS) and Lease Projection System (LPS)				**4**	**4**	**4**
Hardware		**$3,000**	**—**			
Software		**—**	**$2,100**			
License		**—**	**Included in ETS cost**			
Consulting Assistance		**$550,000**	**$4,200**			
State staff costs		**$215,000**	**—**			
ETS Chargeback		**—**	**$3,700**			
Other		**—**	**—**			
Total		**$768,000**	**$10,000**			
MAXIMO				**3**	**3**	**3**
Hardware		**~$3,000**	**—**			
Software		**$60,000**	**$5,000**			
License		**—**	**—**			
Consulting Assistance		**Included in purchase price**	—			
State staff costs		**—**	—			
ETS Chargeback		**—**	**—**			
Other		**—**	**—**			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
Total		**~$63,000**	**$5,000**			
State Property System				**4**	**4**	**5**
Hardware		**—**	**—**			
Software		**—**	**—**			
License		**—**	**—**			
Consulting Assistance		**—**	**—**			
State staff costs		**—**	**—**			
ETS Chargeback		**—**	**—**			
Other		**—**	**—**			
Total		**—**	**—**			
SURDATA				**1**	**1**	**2**
Hardware		**$4,000**	**—**			
Software		**$100,000**	**—**			
License		**—**	**—**			
Consulting Assistance		**Included in software**	**—**			
State staff costs		**—**	**—**			
ETS Chargeback		**—**	**—**			
Other		**—**	**—**			
Total		**$104,000**	**—**			
Combined Retirement System (CRS)				**100**	**100**	**88,000**
Hardware		**$330,000**	**$22,000**			
Software		**$180,000**	**$2,500**			
License		**$500,000**	**Single Source – IBM**			
Consulting Assistance		**$2,000,000**				
State staff		**$500,000**	**$800,000**			
ETS Chargeback		**—**	**$150,000**			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
Other		—	—			
Total		**$3,510,000**	**$974,500**			
Supplemental/Select Benefits System (SBS)				**20**	**60**	**15,000**
Hardware		**$20,000**	**$2,500 (every four years)**			
Software		**Open Source**	**$5,000 (software support contracts)**			
License		—	**Open Source**			
Consulting Assistance		**$250,000**	**$25,000**			
State staff costs		**$400,000**	**$200,000**			
ETS Chargeback		—	**$10,000**			
Other		—	—			
Total		**$670,000**	**$242,500**			
Deferred Compensation System				**10**	**10**	**5,000**
Hardware		**Shared database with other applications**	**Shared with division databases**			
Software		**$500**	—			
License		—	—			
Consulting Assistance		—	—			
State staff costs		**$200,000**	**$200,000**			
ETS Chargeback		—	—			
Other		—	—			
Total		**$200,500**	**$200,000**			
Resource IQ[2]				**5**	**3**	**4**
Hardware		—	—			

	System	Implementation Costs	Operating Costs	Concurrent Users	Daily Users	Casual Users
Software		**$150,000**	—			
License		—	**$24,000**			
Consulting Assistance		**$12,000**	—			
State staff costs		**$144,000**	**$61,200**			
ETS Chargeback		—	—			
Other		—	—			
Total		**$306,000**	**$85,200**			

NOTE: *While Retirement and Benefits and Treasury systems are not in the initial scope of the systems replacement effort, the current systems and costs have been documented and considered They will be re-evaluated during the project for inclusion as specific replacement alternatives are considered.*

The business case presents and analyzes alternatives for providing replacements to these systems and the expected costs for the alternatives. Projected cost estimates for existing systems provide a baseline for considering replacement alternatives. Therefore, an effort needs to be made to show the projected multi-year costs of existing systems. However, the total cost for each existing system is not currently tracked by the state. The costs are embedded within the total operating costs of the various departments and divisions using, operating, and maintaining these systems.

Particularly pressing for the state is the need to replace the current accounting system, AKSAS. Contracting for COBOL and Natural support to maintain AKSAS poses a significant challenge to the state. There is a dwindling resource pool for COBOL and Natural support and maintenance. Recent hires of resources for maintaining AKSAS were all out-of-state recruitments and senior staff are nearing retirement within the next five years.

While there is an identified extensive backlog for the payroll system and a shorter, similar backlog for AKSAS, these changes are being managed through manual workarounds and are not included in the systems cost presented above. It is the ability of the state to maintain AKSAS and AKPAY, and the need to integrate functionality that supports the conclusion of the 2003 Business Case and April 2007 Updated Business Case that the current status quo is not a feasible long-term solution.