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5. COST MODEL

The purpose of this section is to provide concise documentation on the cost model approach and assumptions. The cost model offers a general estimate for the costs associated with the solutions currently in progress as well as the future administrative systems solution with two possible scenarios – ERP and Best Fit.

The cost model is also flexible and should the current assumptions (such as the number of state or consultant resources needed, salary of state employees or consultants) change, the model adjusts its estimate to meet the new assumptions.

However, it is *not* the goal of the cost model to provide an exact cost for procuring, implementing, and maintaining the selected solutions. As in previous request for proposals (RFP) efforts of IT implementations, it is imperative that the procurement drive the cost.

5.1 APPROACH

The 2007 Cost Model is composed of eight Excel worksheets in one Excel workbook:

1. Executive Summary:

The *Executive Summary* is comprised of three worksheets, which summarizes the projected costs associated with the:

- ALDER data warehouse and the Time and Attendance solution (i.e., *Solutions In Progress*)
- Future systems replacement scenario 1 – ERP Solution (i.e., *Solutions Decision-Scenario 1*)
- Future systems replacement scenario 2 – Best Fit Solution (i.e., *Solutions Decision-Scenario 2*)

These three *Executive Summary* worksheets are based on the *Calendar Salary*, *Planning Detail* and *Annual Detail* spreadsheets.

2. Calendar Salary

The *Calendar Salary* worksheet drives the cost model. All other worksheets use the assumptions calculated in the calendar salary worksheet. There are several key components: the fiscal year calendar; daily rates for state resources; RFP and QA Consulting; Implementation Consulting; ETS chargeback for AKPAY, AKSAS and GENEVA; and hardware and software costs for the data warehouse, the Time and Attendance solution, and for the two possible future replacement scenarios.

3. Planning Detail

The *Planning Detail* worksheet outlines the total projected costs (implementation and maintenance) for FY 2008 – FY 2018 based on the two scenarios. Resource, software, and hardware costs are pulled from the *Calendar Salary* worksheet.

This worksheet estimates resource costs using a detailed method. The number of worker days is calculated using the total number of days in a fiscal year found in the *Calendar Salary* worksheet and multiplied by the duration of the project during that fiscal year and multiplied by the percent of effort for that specific resource as outlined by the tables in this section.

For example, for FY 2008, the Number of stakeholders worker days (Line E-5) =

$$\begin{array}{ccccc}
 \text{(Calendar_Salary!\$P\$2)} & \times & (.17) & \times & (.15) \\
 \uparrow & & \uparrow & & \uparrow \\
 \text{Total number of} & & \text{17 \% - duration of T\&A} & & \text{15\% - percent of time} \\
 \text{days for FY 2008} & & \text{project for FY 2008} & & \text{stakeholders spent on project}
 \end{array}$$

Should the duration of a project change or the percent of time estimated that a resource would spend on a project change; the state can adjust the second and third number respectively. If the duration of the project is for the entire fiscal year, then the percent of time is 100%.

4. Annual Detail

The *Annual Detail* worksheet is based on the *Calendar Salary* and *Planning Detail* worksheets and organizes the projected total costs by fiscal year.

5. Cost Breakout

The *Cost Breakout* worksheet is based on the *Annual Detail* worksheet and organizes projected total costs data by planning, implementation, and maintenance.

6. Implementation Budget Projection

The *Implementation Budget Projection* worksheet is based on the *Cost Breakout* worksheet. It details the projected implementation costs by line item for each fiscal year. It includes maintenance costs on software *during* the implementation period. It does *not* include costs for RFP development and administration.

The overall cost model is based on the 2003 Business Case, but there are two key differences in the updated cost model. First, updated estimates are based on industry price lists and public vendor responses from the 2006 HR-Payroll Request for Proposal (RFP). Second, the updated cost model examines two options:

- a) Scenario 1 - Enterprise Resource Planning (ERP) solution – The State of Alaska pursues an ERP solution, which is defined as a solution that integrates financial, budget, procurement, human resources, and payroll functionality. It is highly recommended that the state take a phased approach for implementing an ERP solution. The state should retain the option to continue with the selected vendor for implementation of the HR-Payroll functionality based on the successful implementation of the financial, budget, and procurement functionality.
- b) Scenario 2 - Best Fit solution – The State of Alaska pursues a Best Fit solution, which is defined as procuring the best vendor for the financial, budget, and procurement functionality and after the successful implementation of the financial, budget, and procurement functionality, the state procures the best vendor for the HR-Payroll functionality.

5.2 ASSUMPTIONS

1. The updated business case includes costs from FY 2008 to FY 2018.
2. The total number of days in a fiscal year is 253 days. This accounts for eight state/federal holidays. There are 21 days per month with the exception of September, which has 22 days.

3. The assumed U.S. inflation rate is on average 3% per the U.S. government. This inflation rate is used in the model for cost items in later years unless the state has already firmly negotiated a rate for future years. An example of the latter is the rate contracted for the data warehouse as shown on the Oracle Maintenance line item A-57 and the Sun HW Support line item A-59 in the *Calendar Salary* cost worksheet.
4. State salaries were updated to the current annual salaries plus benefits, which includes Term Leave, Leave Cashins, Unemployment Insurance (UI), Risk Management (RM), Supplemental Benefits System (SBS), Medicare, and Public Employee Retirement System (PERS). Future annual salaries and benefits were calculated using a 3% inflation rate.
5. Only a third of the state resource cost is included in total project costs. It is assumed that ongoing operating budgets will cover most of the cost of state resources working on the implementation projects.
6. AKPAY and AKSAS maintenance costs are represented in a yearly ETS (Enterprise Technology Services) chargeback.

- a. Rates for future years are not predictable, so the ETS chargeback for AKPAY and AKSAS is based on FY 2008 cost estimate from the IT plan with a 3% annual inflation.
- b. ETS chargeback for AKSAS should cease in FY 2013 since the new solution will have been implemented by 5/2013. The ETS chargeback for FY 2013 was calculated using the following formula: 5/2013 is 11 months into FY 2013 (i.e., 11/12 of FY 2013).

*The cost formula for ETS chargeback in FY 2013 = (FY 2012 ETS Chargeback Cost*1.03)/(11/12)*

NOTE: This applies to Scenario 1 – ERP solution and Scenario 2 – Best Fit Solution.

- c. ETS chargeback for AKPAY in Scenario 1 estimates the new system to be fully implemented by approximately 12/2014. Hence, ETS chargeback should cease in FY 2015 since the new system will have been implemented by 12/2014. The ETS chargeback for FY 2015 was calculated using the following formula: 12/2014 is six months into FY 2015.

*The cost formula for ETS chargeback in FY 2015 = (FY 2014 ETS Chargeback Cost*1.03)/2*

- d. ETS chargeback for AKPAY in Scenario 2 estimates the new system to be fully implemented by approximately 1/2016. The ETS chargeback for FY 2016 was calculated using the following formula: 1/2016 is seven months into FY 2016.

*The cost formula for ETS Chargeback in FY 2016 = FY 2015 ETS Chargeback Cost*1.03)/(7/12)*

7. Ongoing hardware and software costs for the ALDER data warehouse from FY 2008 to FY 2018 were outlined below with the agreement of the state ALDER project manager:

DW HW Maintenance, Operations and Upgrade	FY07	FY08	FY09	FY 10	FY 11
Primary Production and Secondary Production - App Server and Dev/Test Server	\$ 26,272	\$ 78,829	\$ 81,194	\$ 83,630	\$ 86,138
Primary Production - DB Server	\$ -	\$ -	\$ -	\$ -	\$ 58,315
Secondary Production - DB Server	\$ -	\$ -	\$ -	\$ -	\$ 58,315
Primary SAN - 4Tb	\$ -	\$ -	\$ -	\$ -	\$ 27,466
Secondary SAN - 4Tb	\$ -	\$ -	\$ -	\$ -	\$ 27,466
Dev/Test SAN - 8Tb	\$ -	\$ -	\$ -	\$ -	\$ 47,312
SubTotal	\$ 26,272	\$ 78,829	\$ 81,194	\$ 83,630	\$ 305,013

DW HW Maintenance, Operations and Upgrade	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18
Primary Production and Secondary Production - App Server and Dev/Test Server	\$ 88,723	\$ 91,384	\$ 94,126	\$ 96,950	\$ 99,858	\$ 102,854	\$ 105,939
Primary Production - DB Server	\$ -	\$ -	\$ -	\$ -	\$ 67,603	\$ -	\$ -
Secondary Production - DB Server	\$ -	\$ -	\$ -	\$ -	\$ 67,603	\$ -	\$ -
Primary SAN - 4Tb	\$ -	\$ -	\$ -	\$ -	\$ 31,841	\$ -	\$ -
Secondary SAN - 4Tb	\$ -	\$ -	\$ -	\$ -	\$ 31,841	\$ -	\$ -
Dev/Test SAN - 8Tb	\$ -	\$ -	\$ -	\$ -	\$ 54,848	\$ -	\$ -
SubTotal	\$ 88,723	\$ 91,384	\$ 94,126	\$ 96,950	\$ 353,593	\$ 102,854	\$ 105,939

NOTE: The maintenance, operations, and upgrade of the Windows application servers for primary production, secondary production, and dev/test are covered under a service level agreement with ETS. The cost for FY 2007 includes a one-time charge for SQL and two months of hosting, which equals \$26,272.

8. Implementation costs associated with a T&A solution are based on the below assumptions:

- a. Although the state has started the RFP process for a T&A solution, the T&A Implementation is part of the overall ERP solution. Implementation costs are projected in the cost model. T&A RFP costs are not included because they are covered under the existing MAXIMUS Contract, Amendment 6.
- b. Timeline for implementing a T&A solution:

Project	Implementation Period	Total months
T&A Implementation	5/2008 – 4/2010	23 months

c. State resources needed for implementing a T&A solution:

Project	Type of Resource	FY2008		FY 2009		FY 2010	
		#	%	#	%	#	%
T&A Implementation	Stakeholders	8	15	8	15	8	15
	Project Management	1.5	100	1.5	100	1.5	100
	Administration	1	100	1	100	1	100
	Subject Matter Experts	3	100	1	100	1	100
	Acceptance Testers	-	-	5	25	5	50
	Communications	1	100	1	100	1	100
	Training	-	-	5	25	5	50
	Agency Change Management Agents	1	100	1	100	1	100
	Application Development / Configuration	1	80	1	80	1	80
	Infrastructure and DBA	1	80	1	80	1	80
	Operations	-	-	1	80	1	80
	Help Desk / Call Center	-	-	1	50	1	100
Resource Total		17.5		27.5		27.5	

d. Implementation Consulting rates have factored in a 15% discount that the state can reasonably achieve during Best and Final Offer discussions.

NOTE: The 2006-0200-5915 Data Warehouse Contract negotiated a reduced total cost by nearly 20% from the offeror's initial proposal and reduced the implementation costs by 22% from the initial proposal.

e. Implementation vendor resources for implementing a T&A solution:

Role	Position	#	% of Time		
			FY 2008	FY 2009	FY 2010
Project Management	Project Director, Project Manager	1	100%	100%	100%
Project Administration	Administrative Assistant	1	100%	100%	100%
Infrastructure / Operations Readiness	DBA, Developer A, Report Designer	1	100%	100%	50%
Organization / Agency Change Management Advocacy	Change Management Lead	1	100%	100%	100%
Training and Documentation	Training Specialist	1	100%	50%	50%
Software Installation and Configuration	DBA, Developer B, Report Designer	1	100%	75%	30%
Technical Architecture	Technical Architect and Senior Technical Lead	1	100%	100%	100%
Testing (Application)	Testing Manager and Tester	1	0%	50%	100%
Workflow Configuration	Functional Lead and SME	1	100%	100%	100%

Role	Position	#	% of Time		
			FY 2008	FY 2009	FY 2010
Interfaces (development and testing)	Technical Architect, Senior Technical Lead, and Tester	1	100%	75%	50%
Data Conversion/Loading	Technical Architect and Senior Technical Consultant	1	50%	75%	100%
Report development	Report Designer	1	0%	50%	75%
TOTAL		12			

f. In addition to implementation costs, the Time and Attendance project will require a Quality Assurance consultant to assist the state in evaluating deliverables and project management. The project management oversight/quality assurance consulting services are estimates based on industry standards for a team of three consultants from FY 2008 to FY 2010, with a 15% discount factored in as an anticipated outcome of Best and Final Offer negotiations.

- 1 project manager
- 1 full-time consultant
- 1 project director for 40 hrs per month

g. Other project related costs:

- i. The project facility for the ALDER Data Warehouse project will be used for the T&A implementation project. As a result, there are no project facility setup costs for the T&A implementation project.
- ii. The rent for the ALDER Data Warehouse project facility is approximately \$65,000 a year. Hence, the cost of the T&A project facility is \$65,000 a year for FY 2008. For FY 2009 and FY 2010, an incremental increase of 3% is included to account for inflation.
- iii. No costs were included for project workstations, printers, or other equipment because it is assumed that the equipment from the ALDER Data Warehouse project will be transferred to the T&A implementation project.
- iv. Project supplies and paper are estimated to cost \$12,000 for FY 2008. For FY 2009 and FY 2010, an incremental increase of 3% is included to account for inflation.
- v. Project travel is estimated to cost \$15,000 for FY 2008. For FY 2009 and FY 2010, an incremental increase of 3% is included to account for inflation.
- vi. Training Facilities Setup / Operations Costs / Rental is estimated to cost \$20,000 a year based on the state's experience.
- vii. A 15% project contingency on all implementation project costs based on industry standards.

9. Implementation costs associated with an ERP solution and a Best Fit solution are based on the below assumptions:

- a. **Scenario 1 – ERP solution:** The state procures an integrated ERP solution with a single procurement effort. The vendor and solution for financial, budget, and procurement components are successful and the state opts to complete the HR-Payroll module:

(Total estimated timeframe - August 2008 to December 2014)

Project	Implementation Period	Total months
ERP RFP (i.e., Financial, Budget, Procurement, and HR-Payroll) NOTE: The financial module includes general ledger, project accounting, accounts payable, accounts receivable, cost allocation, and project accounting.	8/2008 – 10/2009	15 months
Implementation of Financial, Budget, and Procurement	11/2009 – 5/2013	43 months
Implementation of HR-Payroll	7/2013 – 12/2014	18 months

NOTE: MAXIMUS recommends a 30-45 day lag before beginning the HR-Payroll implementation to evaluate the success of the financial, budget, and procurement implementation.

State resources required for **Scenario 1:**

Project	Type of Resource	FY2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
ERP RFP (i.e., Financial, Budget, Procurement, HR-Payroll)	Stakeholders	8	15	8	15	-	-	-	-	-	-	-	-	-	-
	Project Management (Project manager, project directors)	1.5	50	1.5	50	-	-	-	-	-	-	-	-	-	-
	SMEs	2	50	2	50	-	-	-	-	-	-	-	-	-	-
Resource Total		11.5		11.5											
Financial, Budget, Procurement Implementation	Stakeholders	-	-	8	15	8	15	8	15	8	15	-	-	-	-
	Project Management	-	-	1.5	100	1.5	100	1.5	100	1.5	100	-	-	-	-
	Administration	-	-	1	100	1	100	1	100	1	100	-	-	-	-
	Subject Matter Experts	-	-	3	80	1	80	2	100	2	100	-	-	-	-
	Acceptance Testers	-	-	-	-	5	25	5	25	3	50	-	-	-	-
	Communications	-	-	1	50	1	100	1	100	1	100	-	-	-	-
	Training	-	-	-	-	5	25	5	50	5	50	-	-	-	-
	Agency Change Management Agents	-	-	1	80	1	100	1	100	1	100	-	-	-	-
	Application Development / Configuration	-	-	1	80	1	100	1	100	1	100	-	-	-	-
	Infrastructure and DBA	-	-	1	80	1	80	1	80	1	80	-	-	-	-
	Operations	-	-	1	80	1	100	1	100	1	100	-	-	-	-
Help Desk / Call Center	-	-	-	-	1	50	1	100	1	100	-	-	-	-	
Resource Total				18.5		27.5		28.5		26.5					
HR-Payroll Implementation	Stakeholders	-	-	-	-	-	-	-	-	-	-	8	15	8	15
	Project Management	-	-	-	-	-	-	-	-	-	-	1.5	100	1.5	100
	Administration	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Subject Matter Experts	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Acceptance Testers	-	-	-	-	-	-	-	-	-	-	5	50	5	50
	Communications	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Training	-	-	-	-	-	-	-	-	-	-	5	25	5	50
	Agency Change Management Agents	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Application Development / Configuration	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Infrastructure and DBA	-	-	-	-	-	-	-	-	-	-	1	80	1	80
	Operations	-	-	-	-	-	-	-	-	-	-	1	100	1	100
Help Desk / Call Center	-	-	-	-	-	-	-	-	-	-	1	50	1	100	
Resource Total												27.5		27.5	

- b. **Scenario 2: Best Fit solution:** In this scenario, financial, budget, and procurement is procured first and then the HR-Payroll portion is procured after the implementation of the financial, budget, and procurement modules.

(Total estimated timeframe - August 2008 to January 2016)

Project	Implementation Period	Total months
Financial, Budget, and Procurement RFP		
NOTE: The financial module includes general ledger, project accounting, accounts payable, accounts receivable, cost allocation, and project accounting.	8/2008 – 10/2009	15 months
Implementation of Financial, Budget, and Procurement	11/2009 – 5/2013	43 months
HR-Payroll RFP	7/2013 – 7/2014	13 months
Implementation of HR-Payroll	8/2014 – 1/2016	18 months

State resources required for **Scenario 2:**

Project	Type of Resource	FY2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Financial, Budget, Procurement RFP	Stakeholders	8	15	8	15	-	-	-	-	-	-	-	-	-	-	-	-
	Project Management (Project manager, project directors)	1.5	50	1.5	50	-	-	-	-	-	-	-	-	-	-	-	-
	SMEs	2	50	2	50	-	-	-	-	-	-	-	-	-	-	-	-
	Resource Total	11.5		11.5													
Financial, Budget, Procurement Implementation	Stakeholders	-	-	8	15	8	15	8	15	8	15	-	-	-	-	-	-
	Project Management	-	-	1.5	100	1.5	100	1.5	100	1.5	100	-	-	-	-	-	-
	Administration	-	-	1	100	1	100	1	100	1	100	-	-	-	-	-	-
	Subject Matter Experts	-	-	3	80	1	80	2	100	2	100	-	-	-	-	-	-
	Acceptance Testers	-	-	-	-	5	25	5	25	3	50	-	-	-	-	-	-
	Communications	-	-	1	50	1	100	1	100	1	100	-	-	-	-	-	-
	Training	-	-	-	-	5	25	5	50	5	50	-	-	-	-	-	-
	Agency Change Management Agents	-	-	1	80	1	100	1	100	1	100	-	-	-	-	-	-
	Application Development / Configuration	-	-	1	80	1	100	1	100	1	100	-	-	-	-	-	-
	Infrastructure and DBA	-	-	1	80	1	80	1	80	1	80	-	-	-	-	-	-
	Operations	-	-	1	80	1	100	1	100	1	100	-	-	-	-	-	-
	Help Desk / Call Center	-	-	-	-	1	50	1	100	1	100	-	-	-	-	-	-
Resource Total			18.5		27.5		28.5		26.5								
HR-Payroll RFP	Stakeholders	-	-	-	-	-	-	-	-	-	-	8	15	8	15	-	-
	Project Management (Project manager, project directors)	-	-	-	-	-	-	-	-	-	-	1.5	50	1.5	50	-	-
	SMEs	-	-	-	-	-	-	-	-	-	-	2	50	2	50	-	-
	Resource Total											11.5		11.5			
HR-Payroll Implementation	Stakeholders	-	-	-	-	-	-	-	-	-	-	-	-	8	15	8	15
	Project Management	-	-	-	-	-	-	-	-	-	-	-	-	1.5	100	1.5	100
	Administration	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Subject Matter Experts	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Acceptance Testers	-	-	-	-	-	-	-	-	-	-	-	-	5	50	5	50
	Communications	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Training	-	-	-	-	-	-	-	-	-	-	-	-	5	25	5	50
	Agency Change Management Agents	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Application Development / Configuration	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Infrastructure and DBA	-	-	-	-	-	-	-	-	-	-	-	-	1	80	1	80
	Operations	-	-	-	-	-	-	-	-	-	-	-	-	1	100	1	100
	Help Desk / Call Center	-	-	-	-	-	-	-	-	-	-	-	-	1	50	1	100
Resource Total													27.5		27.5		

- c. Other areas/modules such as Retirement and Benefits are not included in the updated business case per the request of the Administrative Services Manager and Director of Finance.
- d. The difference between Scenario 1 – ERP solution and Scenario 2 – Best Fit solution is that Scenario 2 procurement for the HR-Payroll functionality begins in FY 2014 and the implementation of the HR-Payroll functionality is scheduled to be completed by FY 2016. Scenario 1 has only one procurement, and is scheduled to be completed by FY 2015.
- e. The application software license cost, license maintenance, infrastructure hardware costs, infrastructure licenses, and maintenance are assumed to be the same for Scenario 1 – ERP solution and Scenario 2 – Best Fit solution.
- f. Other project related costs for Scenario 1 and Scenario 2 include:
 - i. Project Facility Setup / Operations Costs
 - ii. Project Facility Rent
 - iii. Project Workstation / Printers / Other Equipment

- iv. Project Supplies / Paper / Etc.
 - v. State Project Travel
 - vi. Training Facilities Setup / Operations Costs
 - vii. Project Contingency
- g. ERP RFP Preparation and Procurement Support consulting services are estimates based on industry standards for a team of three consultants from FY 2009 to FY 2010 for Scenario 1:
- 1 project manager
 - 1 full-time consultant
 - 1 project director for 40 hrs per month
- h. Financial, Budget, and Procurement RFP Preparation and Procurement Support consulting services are estimates based on industry standards for a team of three consultants from FY 2009 to FY 2010 for Scenario 2:
- 1 project manager
 - 1 full-time consultant
 - 1 project director for 40 hrs per month
- i. HR-Payroll RFP Preparation and Procurement Support consulting services are estimates based on industry standards for a team of three consultants from FY 2014 to FY 2015 for Scenario 2:
- 1 project manager
 - 1 full-time consultant
 - 1 project director for 40 hrs per month
- j. Implementation Vendor consulting services are estimates based on industry standards from FY 2010 to scheduled completion. Consulting services were grouped in terms of functional areas and assumes a 19-person team for 100% of the time.
- NOTE:** The cost model assumes that both implementation scenarios will require at minimum a vendor implementation team of 19 staff.

Role	Position	Number
Project Management	Project Manager (with some assistance from the project director)	1
Project Administration	Administrative Assistant	1
Infrastructure / Operations Readiness	DBA, Developer A, Report Designer	2
Organization / Agency Change Management Advocacy	Change Management Lead	1

Role	Position	Number
Training and Documentation	Training Specialist	1
Software Installation and Configuration	DBA, Developer B, Report Designer	2
Technical Architecture	Technical Architect and Senior Technical Lead	2
Testing (Application)	Testing Manager and Tester	2
Workflow Configuration	Functional Lead and SME	2
Interfaces (development and testing)	Technical Architect, Senior Technical Lead, and Tester	2
Data Conversion/Loading	Technical Architect and Senior Technical Consultant	2
Report development	Report designer	1
TOTAL		19

k. Scenario 1 – ERP Solution (FY2010 – FY2015): The ERP project management oversight/quality assurance consulting services are estimates based on industry standards for a team of five consultants.

- 1 project manager
- 2 full-time consultants
- 1 SME (subject matter expert)
- 1 project director for 40 hrs per month

l. Scenario 2 – Best Fit Solution (FY2010 – FY2013 and FY2015 - FY2016): The Best Fit project management oversight/quality assurance consulting services are estimates based on industry standards for a team of five consultants.

- 1 project manager
- 2 full-time consultants
- 1 SME (subject matter expert)
- 1 project director for 40 hrs per month

m. The cost for a software module is a formula based on the license list price, software update license and support, and units from PeopleSoft industry standards.

On a high-level the following are the modules that are likely to be included in a financial, budget, procurement, and HR-Payroll solution. However, this is *not* a comprehensive list.

The actual composition of modules is dependent on a number of factors such as the state's requirements, which have not been identified.

- Financials
 - Purchasing
 - Project Costing
 - Grants
 - Contracts
 - eProcurement
 - Human Resources
 - Employee Self-Service
 - iRecruitment
 - ePerformance
 - Payroll
 - Absence Management
 - Enterprise Learning Management
 - Enterprise Portal
- n. The hardware specifications for an ERP implementation are based on the formal responses from the HR-Payroll RFP 2006-0200-5914.
- o. The total number of AKSAS users is 3,400. As a result, the potential number of users used to calculate the cost of the financial, procurement, project costing, grants, and contracts modules is 3,400.
- p. The total number of AKPAY users is 1,000. As a result, the potential number of users used to calculate the cost of the payroll module is 1,000.
- q. The total number of General Services' users for the purchasing module is approximately 100. As a result, the potential number of users used to calculate the cost of the purchasing and eProcurement module is 100.
- r. The total number of state employees is 16,500. As a result, the potential number of users used to calculate the cost of the Human Resource, Employee Self-Service, iRecruitment, ePerformance, Absence Management, Enterprise Learning Management and Enterprise Portal modules is 16,500.

5.3 IMPLICATIONS

The State of Alaska is faced with large annual expenditures to replace its aging administrative systems, and to maintain the resulting replacement systems. Using the assumptions listed, the projected DW costs from FY 2007 through FY 2018 are

- ALDER data warehouse maintenance - \$5.1 million

Using the assumptions listed, the projected costs from FY 2008 through FY 2018 are:

- Time and Attendance solution - \$15.3 million
- Scenario 1: ERP solution for financial, budget, procurement, and HR-Payroll - \$257 million
- Scenario 2: Best Fit solution for financial, budget, procurement, and HR-Payroll - \$256 million

The total costs between the two scenarios are essentially equal because the cost of the software maintenance in Scenario 1 for the HR-Payroll modules begins a year earlier in FY 2014 and incrementally increases by 3% annually thereafter. In Scenario 2, costs are increased for the second RFP and for additional implementation resources for integrating the systems.

The implementation costs vary considerably between the two scenarios (Scenario 1 - \$203 million vs. Scenario 2 - \$176 million) because the maintenance on the financial, budget, and procurement software is included through FY 2015 in Scenario 1, but ends after FY 2013 in Scenario 2.

The cost estimates are more accurate for the data warehouse, which is currently being implemented, than they are for the Time and Attendance solution, which is currently being scoped for procurement. The estimates for the two administrative system replacement scenarios contain even more variability. They are completely dependent on the assumptions used.

Included in the appendix is an article from the Gartner Group entitled “Estimating the Time and Cost of ERP Implementation Projects Is a 10-Step Process” that describes the importance of using detailed assumptions in estimating costs of system implementations.