Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Audit Management System Replacement   **Project ID: DA2112AM**

Leadership Group: Finance / Admin		
Department: County Executive		**Division: Compliance Office**
Project Sponsor: Pam Weipert	**Date Requested: 2/22/22**	**PM Customer No. 112**
Request Type: _**New Development**_		
IT Team Name: Finance / Admin		**IT Team No: A**
Project Manager/Leader: Janet Brinker		
Account Number: 44034	**Account Description:** AUD – New Development	**Customer Name:** Auditing
Grant Funded? Yes **No**	**Mandate?** Yes **No** **Mandate Source:**	

Project Goal

To recommend and implement a solution that will automate the audit workflow process so that efficiencies are achieved while maintaining compliance with generally accepted government auditing standards (GAGAS).

Business Objective

Increase efficiency in audit process by automating and improving processes, eliminating duplicated data and streamlining the recordkeeping while reducing reliance on paper files.

Major Deliverables
- Create and execute an RFP
- Detailed Project Plan
- Application and/or System Requirements
- Technical Architecture Diagram
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

Approach
- Write the RFP
- Review RFP responses
- Request and attend demonstrations
- Select a vendor/implementor
- Perform contract negotiations
- Develop Detailed Project Plan
- Review current business process and conduct needs assessment with customer
- Document system requirements
- Determine and document system architecture and diagram

Project Name: Audit Management System Replacement   Project ID: DA2112AM

- Conduct Tech Review
- Develop Implementation Plan
- Configure new system
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
- Release new system into production

Research & Analysis

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users   5

Divisions   Compliance Office

Leadership Groups   Finance/Admin

Risk

Business Environment   Medium – Project will require some changes to existing business processes

Technical Environment   Medium – previously implemented technologies, new
requirements

Project Name: Audit Management System Replacement   **Project ID: DA2112AM**

Assumptions

Staffing   IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing: additional staffing will be available as follows:

Role:	Name	Hours per Day
Project Sponsor:	Pam Weipert	As needed

Facilities

-

Technical

-

Funding

- Information Technology

Other

-

Priority

-

Constraints

-

Exclusions

-

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PROJECT PHASE AUTHORIZATION

Phase(s):			
Total Estimated Application Services	**Hours: 564**		
Total Estimated Technical Systems	**Hours: 15**		
Total Estimated CLEMIS	**Hours:**	**Cost:**	
Total Estimated Internal Services	**Hours:**	**Cost:**	
IT Application Services Division Manager Approval:			**Date:**
IT Technical Systems Division Manager Approval:			**Date:**
IT CLEMIS Division Manager Approval:			**Date:**
IT Internal Services Division Manager Approval:			**Date:**
IT Management Approval:			
Approved:	Yes	No	Date:
Reason:			
Project Sponsor Approval:			
Title:			Date:

PROJECT SUMMARY

Authorized Development (see above)	**Hours:**		
Previously Approved Development	**Hours:**		
Grand Total Estimated Development	**Hours: 579**	**Cost: $95,535**	

Project Name: Audit Management System Replacement   **Project ID: DA2112AM**

PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

Audit Management System Replcement - Size Estimate (+/- 10% to 50%) ✕

Type	ID	Task Name	Estimated Hours
Phase	000000	⊟ PROJECT MANAGEMENT	185
Phase	100000	⊟ DEVELOP RFP & SELECT VENDOR	106
Phase	200000	⊟ DEFINE BUSINESS REQUIREMENTS	39
Phase	300000	⊟ DESIGN SYSTEM ARCHITECTURE	43
Phase	400000	⊟ IMPLEMENT VENDOR APPLICATION	128
Phase	500000	⊟ IMPLEMENTATION PHASE	48
Phase	600000	⊟ POST IMPLEMENTATION SUPPORT	30

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	15,673	16,457	17,279	18,143	19,051	20,003	106,606
Costs:							
Development Services Subtotal:	95,535	3,300	3,300	3,300	3,300	3,300	112,035
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	30,000	45,000	45,000	45,000	45,000	45,000	255,000
Infrastructure Subtotal	0	0	0	0	0	0	0
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	15,673	16,457	17,279	18,143	19,051	20,003	106,606
Annual Total Costs	125,535	48,300	48,300	48,300	48,300	48,300	367,035
Annual Return on Investment	(109,862)	(31,843)	(31,021)	(30,157)	(29,249)	(28,297)	(260,429)
Annual Costs/Savings Ratio	800.96%	293.50%	279.52%	266.21%	253.53%	241.46%	
Project Cumulative Statistics:							
Cumulative Total Savings	15,673	32,130	49,409	67,553	86,603	106,606	106,606
Cumulative Total Costs	125,535	173,835	222,135	270,435	318,735	367,035	367,035
Cumulative Return on Investment	(109,862)	(141,705)	(172,726)	(202,882)	(232,132)	(260,429)	(260,429)
Cumulative Cost/Savings Ratio	800.96%	541.04%	449.58%	400.33%	368.04%	344.29%	344.29%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

Oakland County -- Audit Management System Replacement
Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Elimination of maintenance and cloud hosting costs for current audit management system.	Cost Avoidance			7	2,239	15,673	1.050
Provide enhancements that result in improved functionality and efficiency in the audit process for auditors and audit clients.	Intangible Benefit					0	
Reduce time spent performing research	Intangible Benefit					0	

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
Elimination of maintenance and cloud hosting costs for current audit management system.	Cost Avoidance	x	x	x	x	x	x	15,673.00	16,456.65	17,279.48	18,143.46	19,050.63	20,003
Provide enhancements that result in improved functionality and efficiency in the audit process for auditors and audit clients.	Intangible Benefit												
Reduce time spent performing research	Intangible Benefit												

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Tangible Benefits Subtotal:							
Cost Avoidance:							
Elimination of maintenance and cloud hosting costs for current audit management system.	15,673	16,457	17,279	18,143	19,051	20,003	106,606
Cost Avoidance Subtotal:	*15,673*	*16,457*	*17,279*	*18,143*	*19,051*	*20,003*	*106,606*
Intangible Benefit:							
Provide enhancements that result in improved functionality and efficiency in the audit process for auditors and audit clients. Reduce time spent performing research							
Savings Total:	*15,673*	*16,457*	*17,279*	*18,143*	*19,051*	*20,003*	*106,606*

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs			579	165	95,535		x					
IT Hours - System Maintenance	Development Svcs			10	165	1,650			x	x	x	x	x
IT Hours - Customer Support	Development Svcs			10	165	1,650			x	x	x	x	x
IT Hours - Planned Maintenance	Development Svcs				165	0							
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0							
Contractor Professional Services	Development Svcs					0							
PC System - Acquisition	Hardware				639	0							
PC System - Maintenance	Hardware				3,352	0							
Laptop - Acquisition	Hardware				922	0							
Laptop - Maintenance	Hardware				3,352	0							
Tablet Notebook - Acquisition	Hardware				1,069	0							
Tablet Notebook - Maintenance	Hardware				3,352	0							
File Space (100GB)	Hardware		ANN		23	0							
Package Software - Acquisition	Software		ANN	1	30,000	30,000		x					
Package Software - Maintenance	Software		ANN	1	45,000	45,000			x	x	x	x	x
Business Objects Access	Software					0							
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0							
Server - Acquisition/Upgrade	Infrastructure				8,000	0							
Server - Maintenance	Infrastructure				360	0							
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0							
Server Sftwre - Maintenance	Infrastructure					0							
Server Rack Mount	Infrastructure				400	0							
Oracle Enterprise Software Purchase - Per Processor (4 Cores) - Requires Annual Support Below	Infrastructure				42,280	0							
Oracle Enterprise Software Support - Per Processor (4 Cores)	Infrastructure				9,293	0	1.030						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure				16,985	0							

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure				12,724	0							
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure				8,463	0							
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure				4,261	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure				4,429	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure				3,317	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure				2,205	0							
SQL Server - Standard Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure				1,112	0							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0							
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0							
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				13,180	0							

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0							
SSL Certificate	Infrastructure				845	0							
Internet Access	Infrastructure				180	0							
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0							
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN		415	0							
Dedicated Virtual Server	Infrastructure		ANN		4,150	0							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = $2,735	Infrastructure		ANN			0							
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $3,057	Infrastructure		ANN			0							
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $8,715	Infrastructure		ANN			0							
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,758	Infrastructure		ANN			0							
Extra Large - 40 Core 192GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $24,137	Infrastructure		ANN			0							

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	95,535.00					
IT Hours - System Maintenance	Development Svcs		1,650.00	1,650.00	1,650.00	1,650.00	1,650.00
IT Hours - Customer Support	Development Svcs		1,650.00	1,650.00	1,650.00	1,650.00	1,650.00
IT Hours - Planned Maintenance	Development Svcs						
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
Laptop - Acquisition	Hardware						
Laptop - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
File Space (100GB)	Hardware						
Package Software - Acquisition	Software	30,000.00					
Package Software - Maintenance	Software		45,000.00	45,000.00	45,000.00	45,000.00	45,000.00
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Server - Acquisition/Upgrade	Infrastructure						
Server - Maintenance	Infrastructure						
Server Sftwre - Acquisition/Upgrade	Infrastructure						
Server Sftwre - Maintenance	Infrastructure						
Server Rack Mount	Infrastructure						
Oracle Enterprise Software Purchase - Per Processor (4 Cores) - Requires Annual Support Below	Infrastructure						
Oracle Enterprise Software Support - Per Processor (4 Cores)	Infrastructure						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure						

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure						
SQL Server - Standard Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure						
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure						
Dedicated Virtual Server	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = $2,735	Infrastructure						
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $3,057	Infrastructure						
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $8,715	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,758	Infrastructure						
Extra Large - 40 Core 192GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $24,137	Infrastructure						

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	95,535						95,535
IT Hours - System Maintenance		1,650	1,650	1,650	1,650	1,650	8,250
IT Hours - Customer Support		1,650	1,650	1,650	1,650	1,650	8,250
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	*95,535*	*3,300*	*3,300*	*3,300*	*3,300*	*3,300*	*112,035*
Hardware:							
Hardware Subtotal:							
Software:							
Package Software - Acquisition	30,000.00						30,000
Package Software - Maintenance		45,000.00	45,000.00	45,000.00	45,000.00	45,000.00	225,000
Software Subtotal:	*30,000*	*45,000*	*45,000*	*45,000*	*45,000*	*45,000*	*255,000*
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							

Oakland County -- Audit Management System Replacement

Return on Investment Analysis

Cost Summary

	Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
	Other Subtotal:							
Costs Total:		*125,535*	*48,300*	*48,300*	*48,300*	*48,300*	*48,300*	*367,035*

Oakland County -- Audit Management System Replacement
Return on Investment Analysis

Assumptions

Date	Assumption Description
08-Mar-22	Support and cloud hosting fees are expected to increase 5% annually. Currently paying for 7 licenses at $2239 each.
14-Jun-22	Vendor costs based on verbal quote from Auditboard vendor