

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Equalization BOR Replacement

Project ID: D93125BR

Leadership Group: LAND					
Department: EQUALIZATION			Division: MANAGEMENT & BUDGET		
Project Sponsor: Terry Schultz		Date Requested: 03/08/2022		PM Customer No. 125	
Request Type: <u>New Development X</u> <i>Enhancement</i> <i>Customer Support</i> <i>Planned System Maintenance or Upgrade</i>					
IT Team Name: Assessing and Taxation			IT Team No: 9		
Project Manager/Leader: Gretchen Blackwell					
Account Number:	31075	Account Description:	Equal - Development	Customer Name:	Equalization
Grant Funded? No			Mandate? No		
			Mandate Source:		

Project Goal

To create a Web-based scheduling system for the Board of Review (BOR) process so that multiple users can schedule appointments simultaneously.

Business Objective

The BOR application is aging and needs to be brought up to current technology standards. The application will either need to be rewritten or replaced with a COTS/SaaS solution.

Major Deliverables

- RFI/Feasibility Study to determine if MS Bookings will be a viable solution
- Detailed Project Plan
- Application and/or System Requirements
- End User Hardware and Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Application Code
- Service Level Agreement
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

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Approach

- Develop Detailed Project Plan
- Review current business process and conduct needs assessment with customer, ensuring current manual processes are refined and automated.
- Document system requirements
- Determine and document system architecture and diagram
- Assess User Hardware and Software Requirements
- Conduct Tech Review
- Order hardware and software if needed
- Develop Implementation Plan
- Develop new system
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents (if needed)
- Train users on new system
- Release new system into production

Research & Analysis

IT Research & Advisory Services Recommendation

Research Conducted – Nothing Found.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users	82
Divisions	Equalization
Leadership Groups	Land

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Risk

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

Technical Environment Medium - Previously implemented technologies with new aspects and/or new requirements.

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:

<u>Role:</u>	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor	Terry Schultz	As Needed

Facilities

- N/A

Technical

- The previous project in 2017 to rewrite BOR had requirements in which a COTS/SAAS solution was not suitable.

Funding

- Information Technology

Other

- N/A

Priority

- TBD

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Constraints

-

Exclusions

- N/A

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: 1,010
Total Estimated Technical Systems	Hours: 418
Total Estimated CLEMIS	Hours:
Total Estimated Internal Services	Hours:
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: 1,428
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 1,428 Cost: \$235,620

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PROJECT COMPLETION AUTHORIZATION

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

Equalization BOR Replacement - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated	Estimate Notes
2				Hours	
3	Phase	000000	PROJECT MANAGEMENT	340	
4	Phase	200000	DEFINE BUSINESS REQUIREMENTS	99	
5	Phase	300000	DESIGN SYSTEM ARCHITECTURE	94	
6	Phase	500000	DEVELOP APPLICATION	748	
7	Phase	600000	IMPLEMENTATION PHASE	94	
8	Phase	800000	POST IMPLEMENTATION SUPPORT	53	
9				1,428	

Oakland County Equalization BOR 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:	15,039	17,514	17,514	17,514	17,514	17,514	102,609
Costs:							
Development Services Subtotal:	235,620	825	825	825	825	825	239,745
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
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	15,039	17,514	17,514	17,514	17,514	17,514	102,609
Annual Total Costs	235,620	825	825	825	825	825	239,745
Annual Return on Investment	(220,581)	16,689	16,689	16,689	16,689	16,689	(137,136)
Annual Costs/Savings Ratio	1566.73%	4.71%	4.71%	4.71%	4.71%	4.71%	
Project Cumulative Statistics:							
Cumulative Total Savings	15,039	32,553	50,067	67,581	85,095	102,609	102,609
Cumulative Total Costs	235,620	236,445	237,270	238,095	238,920	239,745	239,745
Cumulative Return on Investment	(220,581)	(203,892)	(187,203)	(170,514)	(153,825)	(137,136)	(137,136)
Cumulative Cost/Savings Ratio	1566.73%	726.34%	473.90%	352.31%	280.77%	233.65%	233.65%
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:	_____		

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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
Reduce the amount of time clerical staff will spend to make an appointment	Cost Avoidance		EA	124	21	2,604	
Reduce the amount of time real property staff will spend to access appointments	Cost Avoidance		EA	371	33	12,243	
Reduce the amount of time clerical staff will spend exporting data to illustrate the number of daily appointments	Cost Avoidance		EA	8	24	192	
IT Support/Labor Cost Reduction	Cost Avoidance		HR	15	165	2,475	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- Equalization BOR 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
Reduce the amount of time clerical staff will spend to make an appointment	Cost Avoidance	X	X	X	X	X	X	2,604.00	2,604.00	2,604.00	2,604.00	2,604.00	2,604.00
Reduce the amount of time real property staff will spend to access appointments	Cost Avoidance	X	X	X	X	X	X	12,243.00	12,243.00	12,243.00	12,243.00	12,243.00	12,243.00
Reduce the amount of time clerical staff will spend exporting data to illustrate the number of daily appointments	Cost Avoidance	X	X	X	X	X	X	192.00	192.00	192.00	192.00	192.00	192.00
IT Support/Labor Cost Reduction	Cost Avoidance		X	X	X	X	X		2,475.00	2,475.00	2,475.00	2,475.00	2,475.00

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Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
<i>Tangible Benefits Subtotal:</i>							
Cost Avoidance:							
Reduce the amount of time clerical staff will spend to make an appointment	2,604	2,604	2,604	2,604	2,604	2,604	15,624
Reduce the amount of time real property staff will spend to access appointments	12,243	12,243	12,243	12,243	12,243	12,243	73,458
Reduce the amount of time clerical staff will spend exporting data to illustrate the number of daily appointments	192	192	192	192	192	192	1,152
IT Support/Labor Cost Reduction		2,475	2,475	2,475	2,475	2,475	12,375
<i>Cost Avoidance Subtotal:</i>	15,039	17,514	17,514	17,514	17,514	17,514	102,609
Intangible Benefit:							
Savings Total:	15,039	17,514	17,514	17,514	17,514	17,514	102,609

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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			1,428	165	235,620	1.015	X						
IT Hours - System Maintenance	Development Svcs				165	0								
IT Hours - Customer Support	Development Svcs			5	165	825			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					0								
Package Software - Maintenance	Software					0								
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								

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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									

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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							

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	235,620.00					
IT Hours - System Maintenance	Development Svcs						
IT Hours - Customer Support	Development Svcs		825.00	825.00	825.00	825.00	825.00
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						
Package Software - Maintenance	Software						
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 -- Equalization BOR Replacement
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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						

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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 -- Equalization BOR 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	235,620						235,620
IT Hours - System Maintenance							
IT Hours - Customer Support		825	825	825	825	825	4,125
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	235,620	825	825	825	825	825	239,745
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
<i>Software Subtotal:</i>							
Infrastructure:							
<i>Infrastructure Subtotal</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	235,620	825	825	825	825	825	239,745

Oakland County -- Equalization BOR Replacement
Return on Investment Analysis

Assumptions

Date	Assumption Description
18-Feb-22	Reduce the amount of time clerical staff will spend to make an appointment
	742 (# of appointments) * 10 min = 7,420/60 min = 123.67 * 21.2754 = \$2,631.06/ year
18-Feb-22	Reduce the amount of time real property staff will spend to access appointments
	742 (number of appointments) * 30 min = 22,260/60min = 371 * 33.0055 = 12,245.04/year
18-Feb-22	Reduce the amount of time clerical staff will spend exporting data to illustrate the number of daily appointments
	2 hrs/wk. for 4 wks. 2 * 23.8700 = 47.74/wk * 4 = \$190.96/ year
08-Mar-22	IT Support/Labor hours of 50% savings or 15 hours based on average of 30 hours per year based on 2019 and 2020 Customer Support and System Maintenance Plans.
10-Jun-22	Assuming MS Bookings is viable solution, there would be no additional licensing fees for MS bookings.
13-Jun-22	CS, SM & PMU not added to Costs, because there will be an overall reduction in time spent supporting the system. Reduction noted in the Savings tab.