

Oakland County Department of Information Technology Project Scope and Approach

Project Name: BS&A Cash Receipting Integration

Project ID: D91182CI

Leadership Group: Land			
Department: Information Technology		Division: Application Services	
Project Sponsor: Tammi Shepherd		Date Requested: 5/23/2020	PM Customer No. 182
Request Type: <u>New Development</u> ✓ Enhancement Customer Support Planned System Maintenance or Upgrade			
IT Team Name: Assessing and Taxation		IT Team No: 9	
Project Manager/Leader: Addie Hankins			
Account Number: 36600	Account Description: Land System Enhancements	Customer Name:	Application Services
Grant Funded? Yes <u>No</u> ✓		Mandate? Yes <u>No</u> ✓	
Mandate Source:			

Project Goal

To implement real-time posting of cash receipting data to the enterprise Oakland County Tax database and the G2GCS online and over the counter payment applications, so that there is no lag between the entry of a receipt and the update of the processed payments.

Business Objective

To implement real-time service between City, Village and Townships (CVTs) BS&A cash receipting data to the enterprise Oakland County BS&A tax database and the G2GCS payment applications. By implementing the real-time service Oakland County can retain the CVTs that currently are a part of the enterprise Oakland County BS&A tax database and eliminate the time, effort and cost for CVTs pulling off the enterprise Oakland County Tax database to a local version. Which will, result in more efficient delivery of taxpayer payments greatly reducing the volume of duplicate payments and refund checks issued.

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Major Deliverables

- Detailed Project Plan
- Application and/or System Requirements
- Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- User Acceptance Test Plan
- Implementation Plan
- User Manual(s)
- Application Code
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

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 Software Requirements
- Conduct Tech Review
- Order software
- Develop Implementation Plan
- Develop new system interface
- Develop User Acceptance Test Plan
- Test new system interface
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Demo system to users
- Release new system into production

**Oakland County
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Research & Analysis

Gartner Research Recommendation – Research yielded no results

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users <300

Divisions Local Units – Treasurer’s

Leadership Groups Land

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: Local Units will be available for testing and review as needed throughout the project plan.

Facilities

- NA

Technical

- NA

Funding

- Information Technology

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Other

- NA

Priority

- TBD

Constraints

- NA

Exclusions

- NA

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: 839
Total Estimated Technical Systems	Hours: 44
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: 883
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 883 Cost: 145,695

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PROJECT COMPLETION AUTHORIZATION

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

BS&A Cash Receipting Integration - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated
2				Hours
3		000000	PROJECT MANAGEMENT	169
4	Phase	200000	DEFINE BUSINESS REQUIREMENTS	112
5	Phase	300000	DESIGN SYSTEM ARCHITECTURE	79
6	Phase	500000	DEVELOP APPLICATION	423
7	Phase	600000	IMPLEMENTATION PHASE	65
8	Phase	080000	POST IMPLEMENTATION SUPPORT	35
9				883

Oakland County -- BSA Cash Receipting Integration

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:	75,616	76,372	77,136	77,907	78,686	79,473	465,191
Costs:							
Development Services Subtotal:	145,695	13,332	13,465	13,600	13,736	13,873	213,702
Hardware Subtotal:	687	2,936	2,936	2,936	2,936	2,936	15,367
Software Subtotal:	2,000	0	0	0	0	0	2,000
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	75,616	76,372	77,136	77,907	78,686	79,473	465,191
Annual Total Costs	148,382	16,268	16,401	16,536	16,672	16,809	231,069
Annual Return on Investment	(72,766)	60,104	60,735	61,371	62,014	62,664	234,122
Annual Costs/Savings Ratio	196.23%	21.30%	21.26%	21.23%	21.19%	21.15%	
Project Cumulative Statistics:							
Cumulative Total Savings	75,616	151,988	229,124	307,031	385,718	465,191	465,191
Cumulative Total Costs	148,382	164,650	181,051	197,587	214,259	231,069	231,069
Cumulative Return on Investment	(72,766)	(12,662)	48,073	109,444	171,458	234,122	234,122
Cumulative Cost/Savings Ratio	196.23%	108.33%	79.02%	64.35%	55.55%	49.67%	49.67%
Year Positive Payback Achieved			Year 3				Year 3
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

Oakland County -- BSA Cash Receipting Integration

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
Eliminating the time 36 CVTs spend exporting cash receipting transactions and importing into BSA Tax.		x	x	x	x	x	x	21,216.00	21,428.16	21,642.44	21,858.87	22,077.45	22,298
Improve user experience by reducing the time and effort spent by CVTs on fixing errors and duplication of payments.		x	x	x	x	x	x	36,720.00	37,087.20	37,458.07	37,832.65	38,210.98	38,593
Eliminate manual effort for 10 CVTs entering G2GCS counter and online payments into Cash Receipting system.		x	x	x	x	x	x	17,680.00	17,856.80	18,035.37	18,215.72	18,397.88	18,582
Eliminate inefficiencies in the current manual process.		x	x	x	x	x	x	0.00	0.00	0.00	0.00	0.00	0
Enhance existing Oakland County BSA Tax application and provide additional functionality and time saving features for processing tax payments.		x	x	x	x	x	x	0.00	0.00	0.00	0.00	0.00	0

Oakland County -- BSA Cash Receipting Integration
Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Savings Total:	75,616	76,372	77,136	77,907	78,686	79,473	465,191

Oakland County -- BSA Cash Receipting Integration

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			883	165	145,695		x						
IT Hours - System Maintenance	Development Svcs			20	165	3,300	1.010		x	x	x	x	x	x
IT Hours - Customer Support	Development Svcs			40	165	6,600	1.010		x	x	x	x	x	x
IT Hours - Planned Maintenance	Development Svcs			20	165	3,300	1.010		x	x	x	x	x	x
User Hours - New Development	Development Svcs					0								
User Hours - PTNE/OT	Development Svcs					0								
Contractor Professional Services	Development Svcs					0								
PC System - Acquisition	Hardware		EA	1	687	687		x						
PC System - Maintenance	Hardware		ANN	1	2,936	2,936			x	x	x	x	x	x
Notebook - Acquisition	Hardware				1,115	0								
Notebook - Maintenance	Hardware				3,024	0								
Tablet Notebook - Acquisition	Hardware				1,421	0								
Tablet Notebook - Maintenance	Hardware				2,800	0								
Laserprinter - Acquisition	Hardware				1,432	0								
Laserprinter - Maintenance	Hardware				1,408	0								
PC Maintenance User Owned	Hardware				2,720	0								
Printer Maintenance User Owned	Hardware				1,264	0								
File Space (100GB)	Hardware				23	0								
Package Software - Customization	Software		EA	2	1,000	2,000		x						
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 Per Processor - Includes Year 1 Maintenance	Infrastructure				21,372	0								
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,432	0								

Oakland County -- BSA Cash Receipting Integration
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 - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				24,533	0								
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				20,759	0								
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				16,985	0								
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				4,218	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				6,398	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				5,414	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				4,429	0								
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				1,100	0								
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0								

Oakland County -- BSA Cash Receipting Integration

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 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									
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									
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure		ANN		930	0									
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure		ANN		2,395	0									
Database SQL Maint Server	Infrastructure		ANN		834	0									
Database SQL Server Physical	Infrastructure		ANN		19,158	0									
DB Maintenance (Annual Cycle \$610)	Infrastructure		ANN		610	0									
DB Maintenance (Semi-Annual Cycle \$1220)	Infrastructure		ANN		1,220	0									
DB Maintenance (Semi-Annual Cycle \$2440)	Infrastructure		ANN		2,440	0									
Dedicated Virtual Server	Infrastructure		ANN		4,150	0									
DB Instance Setup	Infrastructure				976	0									
DBA MS SQL Database Creation on Existing Instance	Infrastructure				366	0									
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601 On Premise Physical Server = N/A	Infrastructure		ANN			0									

Oakland County -- BSA Cash Receipting Integration

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		
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$9,288	Infrastructure		ANN			0									
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$9,751	Infrastructure		ANN			0									
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$3,167 On Premise Physical Server = \$10,446	Infrastructure		ANN			0									
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure		ANN			0									

Oakland County -- BSA Cash Receipting Integration

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	145,695.00					
IT Hours - System Maintenance	Development Svcs		3,333.00	3,366.33	3,399.99	3,433.99	3,468.33
IT Hours - Customer Support	Development Svcs		6,666.00	6,732.66	6,799.99	6,867.99	6,936.67
IT Hours - Planned Maintenance	Development Svcs		3,333.00	3,366.33	3,399.99	3,433.99	3,468.33
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware	687.00					
PC System - Maintenance	Hardware		2,936.00	2,936.00	2,936.00	2,936.00	2,936.00
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware						
Laserprinter - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Package Software - Customization	Software	2,000.00					
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 Per Processor - Includes Year 1 Maintenance	Infrastructure						
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure						

Oakland County -- BSA Cash Receipting Integration
Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						

Oakland County -- BSA Cash Receipting Integration

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
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						
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure						
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure						
Database SQL Maint Server	Infrastructure						
Database SQL Server Physical	Infrastructure						
DB Maintenance (Annual Cycle \$610)	Infrastructure						
DB Maintenance (Semi-Annual Cycle \$1220)	Infrastructure						
DB Maintenance (Semi-Annual Cycle \$2440)	Infrastructure						
Dedicated Virtual Server	Infrastructure						
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on Existing Instance	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601 On Premise Physical Server = N/A	Infrastructure						

Oakland County -- BSA Cash Receipting Integration
Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$9,288	Infrastructure						
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$9,751	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$3,167 On Premise Physical Server = \$10,446	Infrastructure						
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure						

Oakland County -- BSA Cash Receipting Integration
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	145,695						145,695
IT Hours - System Maintenance		3,333	3,366	3,400	3,434	3,468	17,002
IT Hours - Customer Support		6,666	6,733	6,800	6,868	6,937	34,003
IT Hours - Planned Maintenance		3,333	3,366	3,400	3,434	3,468	17,002
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	145,695	13,332	13,465	13,600	13,736	13,873	213,702
Hardware:							
PC System - Acquisition	687						687
PC System - Maintenance		2,936	2,936	2,936	2,936	2,936	14,680
<i>Hardware Subtotal:</i>	687	2,936	2,936	2,936	2,936	2,936	15,367
Software:							
Package Software - Customization	2,000						2,000
<i>Software Subtotal:</i>	2,000						2,000
Infrastructure:							
<i>Infrastructure Subtotal</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	148,382	16,268	16,401	16,536	16,672	16,809	231,069

