

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Badge Reader Infrastructure Replacement

Project ID: D52110BR

Leadership Group: Finance/Admin			
Department: Emergency Management		Division: Emergency Management	
Project Sponsor: Thom Hardesty	Date Requested: 02/15/22	PM Customer No. 110	
Request Type: <i>New Development</i>			
IT Team Name: Public and Environmental Services		IT Team No: 5	
Project Manager/Leader: Stu Smith			
Account Number: 95011	Account Description: Emergency Management	Customer Name: Emergency Management	
Grant Funded?	Yes <u>No XX</u>	Mandate? Yes <u>No XX</u>	Mandate Source:

Project Goal

To implement an infrastructure improvement project that will update Badge Reader functionality and resiliency so that Emergency Management can improve downtime and outages for the generation of employee and contractor badges.

Business Objective

The main business objective of the Emergency Management Badge Reader Infrastructure project is to provide the Homeland Security/Emergency Management Department a more reliable method of creating Oakland County identifying badges for entry to spaces and employee/contractor verification.

Major Deliverables

- Detailed Project Plan
- Implementation Plan
- Application and/or System Requirements
- RFP Distributed to Vendors
- Vendor Selection via Vendor Demos and RFP Scoring Matrix
- Completed and Signed Vendor Contract
- Technical Architecture Diagram(s)
- User Acceptance Test Plan
- Disaster Recovery Toolkit
- Service Level Agreement
- Service Center Knowledge Documents
- Training/User Manuals

Approach

- Develop Detailed Project Plan
- Document system requirements
- Determine and document system architecture and diagram

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- Develop and distribute RFP to potential vendors
- Conduct vendor demos and complete vendor selection via RFP Scoring Matrix
- Conduct contract negotiations with selected vendor
- 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
- Train users on new system
- Release new system into production

Research & Analysis

Research Recommendation - None

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users	25+
Divisions	Homeland Security/Emergency Management
Leadership Groups	Finance/Admin

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.

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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>
Sponsor	Thomas Hardesty	As Needed
Business Lead	Mike Crum	As Needed
Subject Matter Expert	Glori Macias	As Needed

Facilities

-

Technical

- Interaction between OCIT Network and Homeland Security/Emergency Management.

Funding

- Information Technology/Grants

Other

Priority TBD

Constraints

Exclusions

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: 1,593
Total Estimated Technical Systems	Hours: 164
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: 1,757	
Preliminary Estimated Development for Future Phases	Hours:	
Grand Total Estimated Development	Hours: 1,757	Cost: \$289,905

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PROJECT COMPLETION AUTHORIZATION

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

Badge Reader Infrastructure Replacement – Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	PROJECT MANAGEMENT	404	
2	Phase	200000	DEVELOP RFP & SELECT VENDOR	310	
3	Phase	300000	DEFINE BUSINESS REQUIREMENTS	190	
4	Phase	500000	DESIGN SYSTEM ARCHITECTURE	100	
5	Phase	600000	IMPLEMENTATION PHASE	692	
6	Phase	800000	POST IMPLEMENTATION SUPPORT	61	
7					
1				1,757	

Oakland County -- Badge Reader Infrastructure 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:	0	0	0	0	0	0	0
Costs:							
Development Services Subtotal:	289,905	16,748	13,599	17,254	14,010	17,775	369,290
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	678,735	1,385	1,385	1,385	1,385	62,985	747,260
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	0	0	0	0	0	0	0
Annual Total Costs	968,640	18,133	14,984	18,639	15,395	80,760	1,116,550
Annual Return on Investment	(968,640)	(18,133)	(14,984)	(18,639)	(15,395)	(80,760)	(1,116,550)
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Project Cumulative Statistics:							
Cumulative Total Savings	0	0	0	0	0	0	0
Cumulative Total Costs	968,640	986,773	1,001,756	1,020,395	1,035,790	1,116,550	1,116,550
Cumulative Return on Investment	(968,640)	(986,773)	(1,001,756)	(1,020,395)	(1,035,790)	(1,116,550)	(1,116,550)
Cumulative Cost/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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 -- Badge Reader Infrastructure 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
Assurance of greater efficiency and reliability to ensure limited downtime related to the badging process.	Intangible Benefit					0	
Ability to utilize updated equipment, processes, and applications to increase confidence in the security of Oakland County departments.	Intangible Benefit					0	
Reallocation of time management spent on working around the inefficiencies of the current system to other duties.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- Badge Reader Infrastructure Replacement
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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
Assurance of greater efficiency and reliability to ensure limited downtime related to the badging process.	Intangible Benefit												
Ability to utilize updated equipment, processes, and applications to increase confidence in the security of Oakland County departments.	Intangible Benefit												
Reallocation of time management spent on working around the inefficiencies of the current system to other duties.	Intangible Benefit												

Oakland County -- Badge Reader Infrastructure Replacement
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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:							
<i>Cost Avoidance Subtotal:</i>							
Intangible Benefit:							
Assurance of greater efficiency and reliability to ensure limited downtime related to the badging process.							
Ability to utilize updated equipment, processes, and applications to increase confidence in the security of Oakland County departments.							
Reallocation of time management spent on working around the inefficiencies of the current system to other duties.							
Savings Total:							

Oakland County -- Badge Reader Infrastructure 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			1,757	165	289,905		x							
IT Hours - System Maintenance	Development Svcs			40	165	6,600	1.015		x	x	x	x	x	x	
IT Hours - Customer Support	Development Svcs			40	165	6,600	1.015		x	x	x	x	x	x	
IT Hours - Planned Maintenance	Development Svcs			20	165	3,300	1.015		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				814	0									
PC System - Maintenance	Hardware				2,304	0									
Skyware 1.8 Meter Dish	Hardware				4,659	0									
10 Watt Power Inserter	Hardware				475	0									
Notebook - Acquisition	Hardware				1,223	0									
Notebook - Maintenance	Hardware				2,372	0									
Tablet Notebook - Acquisition	Hardware				2,012	0									
Tablet Notebook - Maintenance	Hardware					0									
Laserprinter - Acquisition	Hardware				1,432	0									
Laserprinter - Maintenance	Hardware				1,104	0									
Image Workstations - Acquisition	Hardware					0									
Image Workstations - Maintenance	Hardware				3,496	0									
PC Maintenance User Owned	Hardware				2,304	0									
Printer Maintenance User Owned	Hardware				1,072	0									
File Space (100GB)	Hardware		ANN		173	0									
Internet Bandwidth per MB	Hardware		ANN		750	0									
Package Software - Acquisition	Software					0									
Package Software - Maintenance	Software				240	0									
Business Objects Access	Software					0									
Term Emulation SFTW-Acquisition	Software					0									
Term Emulation SFTW-Maintenance	Software					0									
Server - Acquisition/Upgrade	Infrastructure		ANN			0									
Server - Maintenance	Infrastructure		ANN	1	360	360		x	x	x	x	x	x	x	
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									

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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	1,100	1,100		x						
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 -- Badge Reader Infrastructure 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		ANN	1	845	845		x	x	x	x	x	x	x	
Internet Access	Infrastructure		ANN	1	180	180		x	x	x	x	x	x	x	
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	1	4,150	4,150		x							
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									
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									

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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		
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure		ANN			0									
Project Staff Training	Training					0									
User Training	Training					0									
IP Camera power injector (2000 badge readers)	Infrastructure		ANN	42	250	10,500		x							
Cisco 9300 with PoE to power remaining Badge Readers (500 Badge Readers)	Infrastructure		ANN	11	5,600	61,600		x							x
Existing Badge Readers (2000)	Infrastructure		ANN	2,000	300	600,000		x							

Oakland County -- Badge Reader Infrastructure Replacement
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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	289,905.00					
IT Hours - System Maintenance	Development Svcs		6,699.00	6,799.49	6,901.48	7,005.00	7,110.07
IT Hours - Customer Support	Development Svcs		6,699.00	6,799.49	6,901.48	7,005.00	7,110.07
IT Hours - Planned Maintenance	Development Svcs		3,349.50		3,450.74		3,555.04
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						
Skyware 1.8 Meter Dish	Hardware						
10 Watt Power Inserter	Hardware						
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware						
Laserprinter - Maintenance	Hardware						
Image Workstations - Acquisition	Hardware						
Image Workstations - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Internet Bandwidth per MB	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	360.00	360.00	360.00	360.00	360.00	360.00
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						

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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	1,100.00					
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 -- Badge Reader Infrastructure Replacement

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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	845.00	845.00	845.00	845.00	845.00	845.00
Internet Access	Infrastructure	180.00	180.00	180.00	180.00	180.00	180.00
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	4,150.00					
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						
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						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure						
Project Staff Training	Training						
User Training	Training						
IP Camera power injector (2000 badge readers)	Infrastructure	10,500.00					
Cisco 9300 with PoE to power remaining Badge Readers (500 Badge Readers)	Infrastructure	61,600.00					61,600.00
Existing Badge Readers (2000)	Infrastructure	600,000.00					

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Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	289,905						289,905
IT Hours - System Maintenance		6,699	6,799	6,901	7,005	7,110	34,515
IT Hours - Customer Support		6,699	6,799	6,901	7,005	7,110	34,515
IT Hours - Planned Maintenance		3,350		3,451		3,555	10,355
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	289,905	16,748	13,599	17,254	14,010	17,775	369,290
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
<i>Software Subtotal:</i>							
Infrastructure:							
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	1,100						1,100
Dedicated Virtual Server	4,150						4,150
Server - Maintenance	360	360	360	360	360	360	2,160
SSL Certificate	845	845	845	845	845	845	5,070
Internet Access	180	180	180	180	180	180	1,080
IP Camera power injector (2000 badge readers)	10,500						10,500
Cisco 9300 with PoE to power remaining Badge Readers (500 Badge Readers)	61,600					61,600	123,200
Existing Badge Readers (2000)	600,000						600,000
<i>Infrastructure Subtotal</i>	678,735	1,385	1,385	1,385	1,385	62,985	747,260
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	968,640	18,133	14,984	18,639	15,395	80,760	1,116,550

Oakland County -- Badge Reader Infrastructure Replacement

Return on Investment Analysis

Assumptions

Date	Assumption Description
28-May-22	Badge review not to include Laserfiche effort for Emergency Management.
28-May-22	Half of all Badge Readers will use wireless
28-May-22	Wireless Badge Readers will be supplied power via multiport injectors
28-May-22	Power Injectors handled by FM
28-May-22	SA will set up DHCP/DNS environment for Badge Readers and provision access to FM
28-May-22	FM will provision Badge Readers using environment set up by SA
28-May-22	Using existing electronic door locks
28-May-22	Replacing only the door readers and controllers
28-May-22	Emergency Management covers the cost of equipment and installation
28-May-22	Emergency Management covers the software and licensing costs