

Oakland County Department of Information Technology Project Scope and Approach

Project Name: New Mugshot Implementation

Project ID: D43183FR

Leadership Group: CLEMIS			
Department: IT		Division: CLEMIS	
Project Sponsor: Jim Manning	Date Requested: 06/09/22	PM Customer No. 183	
Request Type: <i>New Development</i>			
IT Team Name: FRMS – BIOMETRICS APPS		IT Team No: 4	
Project Manager/Leader: Brian Smith			
Account Number: 63500	Account Description: CLEMIS Fund	Customer Name: CLEMIS	
Grant Funded? No	Mandate? No	Mandate Source:	

Project Goal

To replace the current mugshot application and upgrade the current mugshot database so that the technology is up-to-date and to reduce software and maintenance fees.

Business Objective

The purpose of this program is to identify the best and most cost-effective way to upgrade the CLEMIS mugshot system and possible facial recognition service offerings and then to create the necessary plans to obtain, install and migrate to the upgraded product.

Major Deliverables

- Upgrade Mugshot Database
- Implement a New Mugshot Application with RFP vendor
- Detailed Project Plan with WBS
- Business Requirements Documents
- Functional testing
- Implementation Plan
- Training/User Manual
- Service Level Agreement
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

Approach

- Identify features and functionality in existing Facial Recognition solution.
- Identify features and functionality required by the Michigan State Police.
- One or more plans will be developed as necessary to acquire, install and implement, integrate the approved solution(s).
- Analyze mugshot database to determine to upgrade or convert it.
- Develop Detailed Project Plans, as Needed

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- Review Current Business Processes
- Document Business Requirements
- Document Data Policy Changes
- Assess Hardware and Software Requirements
- Develop Implementation Plans
- Develop New Systems/Data
- Develop User Acceptance Test Plans
- Test New System/Data
- Develop User Training
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train/Notify Users of New System/Data
- Conduct Change Control
- Release New System/Data into Production

Research & Analysis

Gartner Research Recommendation - Research Conducted: Nothing Found

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users 7,000+ users

Divisions CLEMIS

Leadership Groups CLEMIS

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>
Project Sponsor:	Jim Manning	As needed

Facilities

-

Technical

- Assuming existing database needs to be upgraded or converted.

Funding

-

Other

-

Priority TBD

Constraints

-

Exclusions

-

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours:
Total Estimated Technical Systems	Hours: 118
Total Estimated CLEMIS	Hours:
Total Estimated Internal Services	Hours: 2,072
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: 2,190	
Preliminary Estimated Development for Future Phases	Hours:	
Grand Total Estimated Development	Hours: 2,190	Cost: \$361,350

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PROJECT COMPLETION AUTHORIZATION

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

New Mugshot Implementation - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated
2				Hours
3	3	000000-0	PROJECT MANAGEMENT	546
4	Phase	100000	DEFINE BUSINESS & ARCHITECTURE REQUIREMENTS	271
5	Phase	200000	DEVELOP APPLICATION	1,015
6	Phase	300000	IMPLEMENTATION PHASE	281
7	Phase	400000	POST IMPLEMENTATION SUPPORT	77
8				2,190

Oakland County -- New Mugshot Implementation
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:	260,000	260,000	260,000	260,000	260,000	260,000	1,560,000
Costs:							
Development Services Subtotal:	361,350	30,591	24,507	32,454	25,999	34,430	509,331
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	150,000	154,500	159,135	163,909	168,826	173,891	970,261
Infrastructure Subtotal:	27,628	19,801	20,395	21,007	21,637	22,286	132,753
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	260,000	260,000	260,000	260,000	260,000	260,000	1,560,000
Annual Total Costs	538,978	204,892	204,037	217,370	216,462	230,607	1,612,346
Annual Return on Investment	(278,978)	55,108	55,963	42,630	43,538	29,393	(52,346)
Annual Costs/Savings Ratio	207.30%	78.80%	78.48%	83.60%	83.25%	88.70%	
Project Cumulative Statistics:							
Cumulative Total Savings	260,000	520,000	780,000	1,040,000	1,300,000	1,560,000	1,560,000
Cumulative Total Costs	538,978	743,870	947,906	1,165,276	1,381,738	1,612,346	1,612,346
Cumulative Return on Investment	(278,978)	(223,870)	(167,906)	(125,276)	(81,738)	(52,346)	(52,346)
Cumulative Cost/Savings Ratio	207.30%	143.05%	121.53%	112.05%	106.29%	103.36%	103.36%
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
Add a new tool to the law enforcement toolkit. The current system isn't very usable unless you have a mugshot quality picture. Typical static or surveillance photos aren't good enough. The new systems now can recognize faces from live camera feeds or static photos, as low as 24 pixels between the eyes.	Intangible Benefit	CLEMIS BIO Metrics				0	
Since the existing bio facial system can't use surveillance or static photos unless they are high quality, the benefit of a new system would greatly reduce the time for officers to identify persons of interest. Typically would take 2 days/16 hours knocking on doors, create a list of suspects, draw a sketch, validate the facial identify the perpetrator.	Intangible Benefit					0	
Reduce the time to solve a crime. Currently all photos are sent to the State of Michigan for advanced scanning enhancement. The turnaround time can be between 2 weeks and 2 months. The higher severity the crime determines the place in the wait queue. Not all communities have the same priorities on various crimes, if we include in this project additional admin level licenses so agencies could enhance photos themselves, then we could reduce queue wait times.	Intangible Benefit					0	

Oakland County -- New Mugshot Implementation

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
Add a new tool to the law enforcement toolkit. The current system isn't very usable unless you have a mugshot quality picture. Typical static or surveillance photos aren't good enough. The new systems now can recognize faces from live camera feeds or static photos, as low as 24 pixels between the eyes.	Intangible Benefit												
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Oakland County -- New Mugshot Implementation

Return on Investment Analysis

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:							
If we go with a new product we will save \$260,000 in yearly maintenance fees to the vendor. (NOTE: We don't know the cost of a replacement product at this time; however, estimating to be \$150,000).	260,000	260,000	260,000	260,000	260,000	260,000	1,560,000
<i>Cost Avoidance Subtotal:</i>	260,000	260,000	260,000	260,000	260,000	260,000	1,560,000
Intangible Benefit:							
Add a new tool to the law enforcement toolkit. The current system isn't very usable unless you have a mugshot quality picture. Typical static or surveillance photos aren't good enough. The new systems now can recognize faces from live camera feeds or static photos, as low as 24 pixels between the eyes.							
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Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
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Savings Total:	260,000	260,000	260,000	260,000	260,000	260,000	1,560,000

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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	
IT Hours - New Development	Development Svcs			2,190	165	361,350	1.030	x						
IT Hours - System Maintenance	Development Svcs			40	165	6,600	1.030		x	x	x	x	x	x
IT Hours - Customer Support	Development Svcs			100	165	16,500	1.030		x	x	x	x	x	x
IT Hours - Planned Maintenance	Development Svcs			40	165	6,600	1.030		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				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			1	150,000	150,000	1.030	x						
Package Software - Maintenance	Software			1	150,000	150,000	1.030		x	x	x	x	x	x
Business Objects Access	Software					0								
Term Emulation SFTW-Acquisition	Software					0								
Term Emulation SFTW-Maintenance	Software					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								
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure				12,724	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 Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure			2	8,463	16,926	1.030	x						
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure			2	4,261	8,522	1.030		x	x	x	x	x	
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				3,769	0								
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				754	0								
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				14,170	0								
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,835	0								
SSL Certificate	Infrastructure			1	910	910	1.030	x	x	x	x	x	x	

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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
Internet Access	Infrastructure			1	190	190	1.030	x	x	x	x	x	x
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0							
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN	2	446	892	1.030	x	x	x	x	x	x
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	2	951	1,902	1.030	x	x	x	x	x	x
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$8,715	Infrastructure		ANN	4	1,702	6,808	1.030	x	x	x	x	x	x
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	361,350.00					
IT Hours - System Maintenance	Development Svcs		6,798.00	7,001.94	7,212.00	7,428.36	7,651.21
IT Hours - Customer Support	Development Svcs		16,995.00	17,504.85	18,030.00	18,570.90	19,128.02
IT Hours - Planned Maintenance	Development Svcs		6,798.00		7,212.00		7,651.21
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	150,000.00					
Package Software - Maintenance	Software		154,500.00	159,135.00	163,909.05	168,826.32	173,891.11
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
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						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure						

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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 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure	16,926.00					
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure		8,777.66	9,040.99	9,312.22	9,591.59	9,879.33
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						
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure	910.00	937.30	965.42	994.38	1,024.21	1,054.94

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Internet Access	Infrastructure	190.00	195.70	201.57	207.62	213.85	220.26
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure	892.00	918.76	946.32	974.71	1,003.95	1,034.07
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	1,902.00	1,959.06	2,017.83	2,078.37	2,140.72	2,204.94
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$8,715	Infrastructure	6,808.00	7,012.24	7,222.61	7,439.29	7,662.46	7,892.34
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 -- New Mugshot Implementation

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	361,350						361,350
IT Hours - System Maintenance		6,798	7,002	7,212	7,428	7,651	36,092
IT Hours - Customer Support		16,995	17,505	18,030	18,571	19,128	90,229
IT Hours - Planned Maintenance		6,798		7,212		7,651	21,661
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	361,350	30,591	24,507	32,454	25,999	34,430	509,331
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
Package Software - Acquisition	150,000						150,000
Package Software - Maintenance		154,500	159,135	163,909	168,826	173,891	820,261
<i>Software Subtotal:</i>	150,000	154,500	159,135	163,909	168,826	173,891	970,261
Infrastructure:							
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	16,926						16,926
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond		8,778	9,041	9,312	9,592	9,879	46,602
SSL Certificate	910	937	965	994	1,024	1,055	5,886
Internet Access	190	196	202	208	214	220	1,229
App Code Directories on Consolidated IIS Server (Virtual)	892	919	946	975	1,004	1,034	5,770

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Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$3,057	1,902	1,959	2,018	2,078	2,141	2,205	12,303
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$8,715	6,808	7,012	7,223	7,439	7,662	7,892	44,037
<i>Infrastructure Subtotal</i>	27,628	19,801	20,395	21,007	21,637	22,286	132,753
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	538,978	204,892	204,037	217,370	216,462	230,607	1,612,346

