

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Health Division EMR Referral Integration Solution

Project ID: D52161RS

Leadership Group: Finance & Administration					
Department: Health and Human Services			Division: Health		
Project Sponsor: Sara Stoddard		Date Requested: 02/11/2022		PM Customer No. 162	
Request Type: <u>New Development</u> <i>Enhancement</i> <i>Customer Support</i> <i>Planned System Maintenance or Upgrade</i>					
IT Team Name: Public & Environmental Services			IT Team No: 5		
Project Manager/Leader: Stu Smith					
Account Number:	96842	Account Description:	Health Administration	Customer Name:	Health
Grant Funded?		Yes <u>No</u>	Mandate?		Yes <u>No</u>
			Mandate Source:		

Project Goal

To implement a solution that interfaces with all the different EMR systems used by Oakland County Health Division and their community service provider partners to electronically exchange client referral data among the different EMR systems so that there is interoperability and secure connectivity to eliminate a paper-based process.

Business Objective

Gather the details to implement the new solution for integrating the existing systems.

Major Deliverables

- Detailed Project Plan
- Participate in creation of requirements document
- Participate in distribution RFP to potential vendors
- Develop and populate scoring matrix
- Implementation Plan
- Application and/or System Requirements
- Technical Architecture Diagram
- User Acceptance Test Plan
- Approved Tech Review of selected solution
- Contract with selected vendor
- Training/User Manual(s)
- Provide Training and support documentation
- 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
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
- Release new system into production

Research & Analysis

IT Research & Advisory Services Recommendation - TBD

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users: Health Staff, Partners of Community Healthcare providers such as OLHSA, Honor Community Health, Gary Bernstein and general public.

Divisions: Health Division

Leadership Groups: Finance & Administration

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Risk

Business Environment : High- Project will dramatically change existing business processes for client referral or will negatively affect the business environment if implementation is unsuccessful.

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:	Sara Stoddard	As needed

Facilities

-

Technical

- No data conversion needed. The current referral tracking is done in paper mode.

Funding

-

Other

-

Priority

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Constraints

-

Exclusions

-

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PROJECT PHASE AUTHORIZATION

Phase(s): ALL	
Total Estimated Application Services	Hours: 901
Total Estimated Technical Systems	Hours: 62
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:
Previously Authorized Development	Hours:
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 963 Cost: \$158,895

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PROJECT COMPLETION AUTHORIZATION

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

Health Division EMR Referral Integration Solution - Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated Hours
1	Phase	000000	PROJECT MANAGEMENT	309
2	Phase	100000	DEVELOP RFP & SELECT VENDOR	174
3	Phase	200000	DEFINE BUSINESS REQUIREMENTS	46
4	Phase	300000	DESIGN SYSTEM ARCHITECTURE	56
5	Phase	400000	IMPLEMENT VENDOR APPLICATION	185
6	Phase	500000	IMPLEMENTATION PHASE	145
7	Phase	600000	POST IMPLEMENTATION SUPPORT	48
8				
1				963

Oakland County -- Health Division EMR Referral Integration Solution

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:	11,600	11,774	11,951	12,130	12,312	12,496	72,263
Costs:							
Development Services Subtotal:	183,895	8,374	5,100	8,627	5,254	8,888	220,137
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	15,000	15,225	15,453	15,685	15,920	16,159	93,443
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	11,600	11,774	11,951	12,130	12,312	12,496	72,263
Annual Total Costs	198,895	23,599	20,553	24,312	21,174	25,047	313,580
Annual Return on Investment	(187,295)	(11,825)	(8,602)	(12,182)	(8,862)	(12,550)	(241,317)
Annual Costs/Savings Ratio	1714.61%	200.43%	171.98%	200.43%	171.98%	200.43%	
Project Cumulative Statistics:							
Cumulative Total Savings	11,600	23,374	35,325	47,454	59,766	72,263	72,263
Cumulative Total Costs	198,895	222,494	243,047	267,359	288,533	313,580	313,580
Cumulative Return on Investment	(187,295)	(199,120)	(207,722)	(219,904)	(228,767)	(241,317)	(241,317)
Cumulative Cost/Savings Ratio	1714.61%	951.89%	688.04%	563.40%	482.77%	433.94%	433.94%
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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Project 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:							
Time for staff to manually complete paperwork, fax and track referrals	5,800	5,887	5,975	6,065	6,156	6,248	36,131
Time for staff to data enter into multiple systems or compile data from various resources	5,800	5,887	5,975	6,065	6,156	6,248	36,131
<i>Cost Avoidance Subtotal:</i>	11,600	11,774	11,951	12,130	12,312	12,496	72,263
Intangible Benefit:							
Ability to connect clients to services needed within our partnership							
Data will show success of partnerships and identify gaps in service delivery needs for the client							
Streamlined referral process across different agencies and eliminate the inefficiencies and delays experienced in the existing paper based manual process.							
Savings Total:	11,600	11,774	11,951	12,130	12,312	12,496	72,263

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Return on Investment Analysis

Project Summary

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		HR	963	165	158,895		x							
IT Hours - System Maintenance	Development Svcs		HR	10	165	1,650	1.015	x	x	x	x	x	x		
IT Hours - Customer Support	Development Svcs		HR	20	165	3,300	1.015	x	x	x	x	x	x		
IT Hours - Planned Maintenance	Development Svcs		HR	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		EA	1	25,000	25,000		x							
PC System - Acquisition	Hardware				687	0									
PC System - Maintenance	Hardware				2,936	0									
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		ANN		23	0									
Package Software - Acquisition	Software		ANN	1	15,000	15,000		x							
Package Software - Maintenance	Software		ANN	1	15,000	15,000	1.015		x	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 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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Project Summary

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								

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Project Summary

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									

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Project Summary

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									

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Project Summary

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	158,895.00					
IT Hours - System Maintenance	Development Svcs	1,650.00	1,674.75	1,699.87	1,725.37	1,751.25	1,777.52
IT Hours - Customer Support	Development Svcs	3,300.00	3,349.50	3,399.74	3,450.74	3,502.50	3,555.04
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	25,000.00					
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
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 - Acquisition	Software	15,000.00					
Package Software - Maintenance	Software		15,225.00	15,453.38	15,685.18	15,920.45	16,159.26
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						

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Project Summary

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						

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Project Summary

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						

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Project Summary

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						

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Return on Investment Analysis

Project Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	158,895						158,895
IT Hours - System Maintenance	0	1,675	1,700	1,725	1,751	1,778	8,629
IT Hours - Customer Support	0	3,350	3,400	3,451	3,502	3,555	17,258
IT Hours - Planned Maintenance	0	3,350		3,451		3,555	10,355
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services	25,000						25,000
<i>Development Services Subtotal:</i>	183,895	8,374	5,100	8,627	5,254	8,888	220,137
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
Package Software - Acquisition	15,000						15,000
Package Software - Maintenance		15,225	15,453	15,685	15,920	16,159	78,443
<i>Software Subtotal:</i>	15,000	15,225	15,453	15,685	15,920	16,159	93,443
Infrastructure:							
<i>Infrastructure Subtotal</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	198,895	23,599	20,553	24,312	21,174	25,047	313,580

