Project Name: Emergency Preparedness Inventory Management Solution Project ID: D50162EP

Leadership Group: Fina	Leadership Group: Finance/Administration										
Department: Health & H	luman Services			Division: Health							
Project Sponsor: Sara	Stoddard	Date Requ	uested	d: 2/10/2020	PM Custome	er No . 162					
Request Type:	<u>ment</u>		Enhancement	Custor	mer Support						
	Planned System Maintenance or Upgrade										
IT Team Name: Public	& Environmental	Services		IT Team No: 5							
Project Manager/Leade	er: Scott Kaiser										
Account Number:	Account Description:				Customer Name:	Health					
Grant Funded?	Yes	No	No Mandate		Yes No		No				
			Mar	ndate Source:							

Project Goal

To implement an inventory management system for Emergency Preparedness to scan assets with existing hardware so that users can track, document, and distribute all inventory purchased through grants during outbreaks and immunization clinics as well as have reports available quickly in the time of an emergency.

Business Objective

Create and execute an RFP to obtain a solution to provide full inventory management for the Health Department. Utilization of existing hardware such as cell phones to scan items in and out of inventory to eliminate single-use technology and increase usability of the system. Increased accessibility at County facilities as well as off-site locations via web browser or smart device to ensure uptime and availability in the event of an emergency or incident. Increased reporting functionality to aid in emergency and incident response as well as improve inventory planning.

Major Deliverables

- Create and execute an RFP
- Detailed Project Plan
- Application and/or System Requirements
- Technical Architecture Diagram
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Disaster Recovery Toolkit Service Center Knowledge Documents

Approach

- Write the RFP
- Review RFP responses

Project Name: Emergency Preparedness Inventory Management Solution Project ID: D50162EP

- Request and attend demonstrations
- Select a vendor
- Perform contract negotiations
- 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
- Conduct Tech Review
- Develop Implementation Plan
- Procure mobile devices
- Configure new system and mobile devices
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
 Release new system into production

Research & Analysis

Gartner Research Recommendation

Business Continuity Management Program (BCMP) solutions are recommended by Gartner. A BCMP is defined as "solutions as the primary tools used to manage BCM programs through all phases of the business continuity management (BCM) life cycle, including planning and execution." BCM's include solutions used for crisis management. Using a proven solution will ensure consistency and proper execution of the business need.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users: 4

Divisions Health

Leadership Groups Finance and Administration

Project Name: Emergency Preparedness Inventory Management Solution Project ID: D50162EP

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:

Role: Name Hours per Day

Project Sponsor: Sara Stoddard As Needed

Facilities

Technical

Funding

- State of Michigan Emergency Preparedness Grant (Timing and Distribution TBD).
- Software and implementation costs in excess of the grant would be covered by Health Administration (96842).

Other

Priority

Constraints

Exclusions

	Fioje	ect ocope a	iliu Appioac	11		
Project Name:	Emergency Prepar	redness Inventory	Management Solu	tion Pro	oject ID:	D50162EP

Project Name: Emergency Preparedness Inventory Management Solution Project ID: D50162EP

PROJECT PHASE AUTHORIZATION

Phase(s): ALL		
Total Estimated Application Services	Hours: 731	
Total Estimated Technical Systems	Hours: 76	
Total Estimated CLEMIS	Hours:	
Total Estimated Internal Services	Hours:	
IT Application Services Division Manager Approva	l:	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:	
Preliminary Estimated Development for Future Phases	Hours:	
Grand Total Estimated Development	Hours: 807	Cost : \$133,155

Project Name: Emergency Preparedness Inventory Management Solution Project ID: D50162EP

PROJECT COMPLETION AUTHORIZATION

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

Emergency Preparedness Inventory Management Solution - Size Estimate (+/- 10% to 50%)

Туре	ID	Task Name	Estimated	Estimate Notes
			Hours	
3	000000	PROJECT MANAGEMENT	208	
Phase	100000	DEVELOP RFP & SELECT VENDOR	223	
Phase	200000	DEFINE BUSINESS REQUIREMENTS	26	
Phase	300000	DESIGN SYSTEM ARCHITECTURE	44	
Phase	400000	IMPLEMENT VENDOR APPLICATION	186	
Phase	500000	IMPLEMENTATION PHASE	96	
Phase	600000	POST IMPLEMENTATION SUPPORT	24	
			807	

Emergency Preparedness Inventory Management 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:	0	9,201	9,283	9,366	9,450	9,534	46,834
Costs:							
Development Services Subtotal:	133,155	13,332	6,733	13,600	6,868	13,873	187,561
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	30,000	1,800	1,800	1,800	1,800	1,800	39,000
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	0	9,201	9,283	9,366	9,450	9,534	46,834
Annual Total Costs	163,155	15,132	8,533	15,400	8,668	15,673	226,561
Annual Return on Investment	(163,155)	(5,931)	751	(6,034)	782	(6,139)	(179,727)
Annual Costs/Savings Ratio	0.00%	164.46%	91.91%	164.42%	91.73%	164.39%	\
Project Cumulative Statistics:							
Cumulative Total Savings	0	9,201	18,484	27,850	37,300	46,834	46,834
Cumulative Total Costs	163,155	178,287	186,820	202,220	210,888	226,561	226,561
Cumulative Return on Investment	(163,155)	(169,086)	(168,335)	(174,369)	(173,587)	(179,727)	(179,727)
Cumulative Cost/Savings Ratio	0.00%	1937.65%	1010.69%	726.09%	565.38%	483.75%	483.75%
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:			

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
Reduction in staff time to manually track		Budget eutogory/r unumg eeuroe	1	Office	Onic	Total Cavingo	manaphor
assets and creating/maintaining							
	Cost Avoidance		HR	200	29	5,800	1.010
Reduction in hardware costs by	Costytvoidanes		1	200		0,000	1.010
eliminating use of scanners.	Cost Avoidance		EA	5	200	1,000	1.000
Ability for staff to upload inventory into							
	Cost Avoidance		HR	80	29	2,320	1.010
Improved availability, accessibility, and uptime for quick decision making in the							
	Intangible Benefit					0	
Compliance with the Emergency Preparedness grant to have a system in							
	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
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						0	
						0	
	<u> </u>					0	

Return on Investment Analysis

Savings Detail

	Project Savings		Unit		Rate per		Annual
Benefit/Savings Description	Category	Budget Category/Funding Source	Desc	Units	Unit	Total Savings	Multiplier
						0	

Return on Investment Analysis

Savings Detail

		Af	fect	s Pr	oje	ct R	OI?		Po	tential Savir	Potential Savings Extensions		
Benefit/Savings Description	Project Savings Category	Y1	Y2	Υ3	Y4	Y5	Y6	Y1	Y2	Y 3	Y4	Y5	Y6
Reduction in staff time to manually track assets and creating/maintaining													
spreadsheets.	Cost Avoidance	<u> </u>	Χ	Χ	Χ	Χ	Х		5,858.00	5,916.58	5,975.75	6,035.50	6,096
Reduction in hardware costs by eliminating use of scanners.	Cost Avoidance		Χ	Х	Х	Х	Х		1,000.00	1,000.00	1,000.00	1,000.00	1,000
Ability for staff to upload inventory into Homeland Security's system without reentering data.	Cost Avoidance		X	X	Х	x	Х		2,343.20	2,366.63	2,390.30	2,414.20	2,438
Improved availability, accessibility, and uptime for quick decision making in the event of an emergency.	Intangible Benefit								2,010.20	2,000.00	2,000.00	2,111.20	2,100
Compliance with the Emergency Preparedness grant to have a system in place to track grant funded equipment.	Intangible Benefit												
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Return on Investment Analysis

Savings Detail

		Affects Project ROI? Potential Savings Extensions					
Benefit/Savings Description	Project Savings Category	Y1 Y2 Y3 Y4 Y5 Y6	Y1 Y2	Y3	Y4	Y5	Y6

Emergency Preparedness Inventory Management SolutionReturn on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Tangible Benefits Subtotal:							
Cost Avoidance:							
Reduction in staff time to manually track							
assets and creating/maintaining							
spreadsheets.		5,858	5,917	5,976	6,036	6,096	29,882
Reduction in hardware costs by eliminating							
use of scanners.		1,000	1,000	1,000	1,000	1,000	5,000
Ability for staff to upload inventory into							
Homeland Security's system without re-							
entering data.		2,343	2,367	2,390	2,414	2,438	11,953
Cost Avoidance Subtotal:		9,201	9,283	9,366	9,450	9,534	46,834
Intangible Benefit:							
Improved availability, accessibility, and							
uptime for quick decision making in the event							
of an emergency.							
Compliance with the Emergency							
Preparedness grant to have a system in							
place to track grant funded equipment.							
Dominion Total		0.004	2 222	2 222	2 452	2.50	40.05:
Savings Total:		9,201	9,283	9,366	9,450	9,534	46,834

Return on Investment Analysis

Cost Detail

								Af	fect	s Pr	ojec	t RC) ?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					•	:
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y 1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs		HR	807	165	133,155		Х	!				
IT Hours - System Maintenance	Development Svcs		HR	20	165	3,300	1.010		Х				Х
IT Hours - Customer Support	Development Svcs		HR	20	165	3,300	1.010		Х	Х	Х	Х	Х
IT Hours - Planned Maintenance	Development Svcs		HR	40	165	6,600	1.010		Х	<u> </u>	Х	<u> </u>	Х
User Hours - New Development	Development Svcs					0				<u> </u>	<u> </u>		į
User Hours - PTNE/OT	Development Svcs					0				<u> </u>	<u> </u>		1
Contractor Professional Services	Development Svcs					0				<u>!</u>	<u>!</u>	<u> </u>	ł
PC System - Acquisition	Hardware				687	0				•	•	į į	į
PC System - Maintenance	Hardware				2,936	0			İ	i	i	i	i
Notebook - Acquisition	Hardware				1,115	0						•	1
Notebook - Maintenance	Hardware				3,024	0						•	i
Tablet Notebook - Acquisition	Hardware				1,421	0						•	į
Tablet Notebook - Maintenance	Hardware				2,800	0						•	i
Laserprinter - Acquisition	Hardware				1,432	0							:
Laserprinter - Maintenance	Hardware				1,408	0							ŀ
PC Maintenance User Owned	Hardware				2,720	0							į
Printer Maintenance User Owned	Hardware				1,264	0			İ	i	i	i	i
File Space (100GB)	Hardware		ANN		23	0						•	1
Package Software - Acquisition	Software		EA	1	30,000	30,000		Х				•	i
Package Software - Maintenance	Software		EA	1	1,800	1,800			Х	Х	Х	Χ	Х
Business Objects Access	Software					0						•	i
Term Emulation SFTW-Acquisition	Software					0							l
Term Emulation SFTW-Maintenance	Software					0				<u>!</u>	<u>!</u>	<u> </u>	ł
Server - Acquisition/Upgrade	Infrastructure				8,000	0							į
Server - Maintenance	Infrastructure				360	0						•	i
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0						!	:
Server Sftwre - Maintenance	Infrastructure					0				Ĭ			ŀ
Server Rack Mount	Infrastructure				400	0						•	<u> </u>
Oracle Enterprise Per Processor -												•	i
Includes Year 1 Maintenance	Infrastructure				21,372	0			_	L	L	L	<u></u>
Oracle Enterprise Per Processor - Year										1	!		<u> </u>
2 and Beyond	Infrastructure				3,432	0				<u> </u>	<u> </u>		<u> </u>

Return on Investment Analysis

Cost Detail

								Aff	ects	Pro	ject	ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual			- [<u> </u>	
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4 `	Y5 Y6
SQL Server Enterprise - Per Processor										Ī	T	
(4 cores) - Purchased Sept 2016-Aug										į	I	
2017 - Includes Maintenance thru Aug								li		į	i	
2019	Infrastructure				24,533	0		į				
SQL Server Enterprise - Per Processor										İ	ŀ	
(4 cores) - Purchased Sept 2017-Aug											į	
2018 - Includes Maintenance thru Aug										į	į	
2019	Infrastructure				20,759	0				į	į	
SQL Server Enterprise - Per Processor										İ	i	
(4 cores) - Purchased Sept 2018-Aug										ļ	ı	
2019 - Includes Maintenance thru Aug										į	į	
2019	Infrastructure				16,985	0				į	į	
SQL Server Enterprise - Maintenance,												
Per Processor (4 cores) - Sept 2019										į	į	
and Beyond	Infrastructure				4,218	0					į	
SQL Server Standard - Per Processor												
(4 cores) - Purchased Sept 2016-Aug								İ		ĺ	ĺ	
2017 - Includes Maintenance thru Aug										ļ	ı	
2019	Infrastructure				6,398	0				į	į	
SQL Server Standard - Per Processor										i	į	
(4 cores) - Purchased Sept 2017-Aug										ĺ	ĺ	
2018 - Includes Maintenance thru Aug										į	i	
2019	Infrastructure				5,414	0					į	
SQL Server Standard - Per Processor										i	į	
(4 cores) - Purchased Sept 2018-Aug								li		į	į	
2019 - Includes Maintenance thru Aug										ļ	ı	
2019	Infrastructure				4,429	0				į	į	
SQL Server - Standard Maintenance,								li		į	į	
Per Processor (4 cores) - Sept 2019										ĺ	ĺ	
and Beyond	Infrastructure				1,100	0		Li	_ [1	_ !	<u>i</u> l
Websphere Basic Per Processor												
Single/Dual Core - Includes Year 1										į	į	
Maintenance	Infrastructure				3,506	0				[

Return on Investment Analysis

Cost Detail

								Af	fect	s Pro	iect	ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4	Y5 Y6
										\Box	T	
Websphere Basic Per Processor										1 1	İ	- 1
Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0				<u> </u>		
Websphere ND Per Processor										1 1		
Single/Dual Core - Includes Year 1										: i	į	
Maintenance	Infrastructure				13,180	0				⊢∔	į	
Websphere ND Per Processor												
Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0					İ	į
SSL Certificate	Infrastructure				845	0					_	_
Internet Access	Infrastructure				180	0					- †	
Imperva Web Application Firewall	madadad				100	· ·					- i	
(External Web Applications Only)	Infrastructure		ANN		500	0				l İ	İ	
App Code Directories on Consolidated												
IIS Server (Virtual)	Infrastructure		ANN		415	0				i i	į	į
Database (5 GB) on Consolidated SQL												
Instance Server	Infrastructure		ANN		930	0				1 1	l	
Database Instance (125 GB DB) on												
Consolidated SQL Server	Infrastructure		ANN		2,395	0				1 1		
Database SQL Maint Server	Infrastructure		ANN		834	0					Ī	
Database SQL Server Physical	Infrastructure		ANN		19,158	0						
DB Maintenance (Annual Cycle \$610)	Infrastructure		ANN		610	0						
DB Maintenance (Semi-Annual Cycle											i	
\$1220)	Infrastructure		ANN		1,220	0				ı i	İ	
DB Maintenance (Semi-Annual Cycle										1		
\$2440)	Infrastructure		ANN		2,440	0						
Dedicated Virtual Server	Infrastructure		ANN		4,150	0				<u>. i</u>	<u> </u>	
DB Instance Setup	Infrastructure				976	0				L İ	<u>i</u>	
DBA MS SQL Database Creation on										1		
Exisitng Instance	Infrastructure				366	0						
										1 T	T	
Extra Small - 2 Core 8GB RAM, 500GB										i i	į	į
Drive, 10 GB NIC - Cloud/Virtual = \$601											ļ	
On Premise Physical Server = N/A	Infrastructure		ANN			0				<u> </u>	<u>i</u>	i

Return on Investment Analysis

Cost Detail

								Affects	Project	ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual			
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1 Y2 Y	/3 Y4	Y5 Y6
										1
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 =										į l
\$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				

Return on Investment Analysis

Cost Detail

			Po	tential Cost	Extensions		
	Project Cost						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	133,155.00					
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		3,333.00	3,366.33	3,399.99	3,433.99	3,468.33
IT Hours - Planned Maintenance	Development Svcs		6,666.00		6,799.99		6,936.67
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs		1				
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware		į.				
PC System - Maintenance	Hardware						
Notebook - Acquisition	Hardware		!				
Notebook - Maintenance	Hardware		Ī				
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware		:				
Laserprinter - Maintenance	Hardware						
PC Maintenance User Owned	Hardware		i				
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Package Software - Acquisition	Software	30,000.00					
Package Software - Maintenance	Software		1,800.00	1,800.00	1,800.00	1,800.00	1,800.00
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Server - Acquisition/Upgrade	Infrastructure		į.				
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		ļ				
Oracle Enterprise Per Processor - Year							
2 and Beyond	Infrastructure		į				

Return on Investment Analysis

Cost Detail

			Po	tential Cost	Extensions		
	Project Cost						
Cost Description	Category	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					I I I	I I !	
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		<u> </u>				

Return on Investment Analysis

Cost Detail

			Po	otential Cos	t Extensions	<u> </u>	
	Project Cost		-	!	}	!	į
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
			:	:	<u> </u>	!	!
Websphere Basic Per Processor							į
Single/Dual Core - Year 2 and Beyond	Infrastructure						!
Websphere ND Per Processor				İ			
Single/Dual Core - Includes Year 1					į		
Maintenance	Infrastructure				 		<u> </u>
Wakankan ND Dan Daaraa							}
Websphere ND Per Processor	la for a story and the		İ	İ	İ	Ì	
Single/Dual Core - Year 2 and Beyond	Infrastructure		-	<u> </u>	<u> </u>	<u> </u>	<u> </u>
SSL Certificate	Infrastructure	<u> </u>	-	<u> </u>	<u> </u>	!	!
Internet Access	Infrastructure				<u> </u>	!	<u> </u>
Imperva Web Application Firewall				•	}	!	
(External Web Applications Only)	Infrastructure		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
App Code Directories on Consolidated						 	
IIS Server (Virtual)	Infrastructure		<u> </u>	!	!	! ! !	<u> </u>
Database (5 GB) on Consolidated SQL				ļ	1		
Instance Server	Infrastructure				<u> </u>	ļ	<u> </u>
Database Instance (125 GB DB) on				İ			
Consolidated SQL Server	Infrastructure		<u> </u>	!	!	 	<u> </u>
Database SQL Maint Server	Infrastructure		!	!] 	
Database SQL Server Physical	Infrastructure						<u> </u>
DB Maintenance (Annual Cycle \$610)	Infrastructure					<u> </u>	
DB Maintenance (Semi-Annual Cycle				İ	į	į	
\$1220)	Infrastructure		<u> </u>		<u> </u>		
DB Maintenance (Semi-Annual Cycle					Į.		
\$2440)	Infrastructure					<u> </u>	
Dedicated Virtual Server	Infrastructure						İ
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on						!	-
Exisitng Instance	Infrastructure		<u> </u>	<u> </u>			<u> </u>
5 / 0 / 00 000 DAY 50000						!	•
Extra Small - 2 Core 8GB RAM, 500GB					İ	i !	İ
Drive, 10 GB NIC - Cloud/Virtual = \$601				•	İ	•	•
On Premise Physical Server = N/A	Infrastructure		1	<u> </u>	}	ł	i

Return on Investment Analysis

Cost Detail

			Po	otential Cos	t Extensions		
Cost Description	Project Cost Category	Y1	Y2	Y3	Y4	Y5	Y6
			}	}	į	:	
Small - 4 Core 16GB RAM, 500GB							
Drive, 10 GB NIC - Cloud/Virtual = \$951				į			
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 =				ļ.	ļ		
\$12,906	Infrastructure		<u> </u>	<u> </u>	<u> </u>		

Emergency Preparedness Inventory Management Solution 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	133,155						133,155
IT Hours - System Maintenance	,	3,333	3,366	3,400	3,434	3,468	17,002
IT Hours - Customer Support		3,333	3,366	3,400	3,434	3,468	17,002
IT Hours - Planned Maintenance		6,666		6,800		6,937	20,403
User Hours - New Development						·	,
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	133,155	13,332	6,733	13,600	6,868	13,873	187,561
Hardware:		· ·					·
Hardware Subtotal:							
Software:							
Package Software - Acquisition	30,000						30,000
Package Software - Maintenance		1,800	1,800	1,800	1,800	1,800	9,000
						·	•
Software Subtotal:	30,000	1,800	1,800	1,800	1,800	1,800	39,000
Infrastructure:	ĺ	ŕ	Í	ĺ	Í	Í	,
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	163,155	15,132	8,533	15,400	8,668	15,673	226,561

Return on Investment Analysis

Assumptions

Date	Assumption Description
	The Health Division Emergency Preparedness unit is supported annually by a State of Michigan Emergency Preparedness Grant. This
03-Mar-20	application is expected to be all or partially funded by the grant budget. The grant requires a working inventory management solution.
02 Mar 20	No IT hours were apont an Support or Maintenance of the legacy system in the last two fiscal years and is not denoted as cost sayings
	No IT hours were spent on Support or Maintenance of the legacy system in the last two fiscal years and is not denoted as cost savings Legacy system is on shared infrastructure; decommission of system will not result in reduced infrastructure
03-Wai-20	Legacy system is on shared infrastructure, decommission of system will not result in reduced infrastructure
03-Mar-20	Possible integration with Homeland Securities OakEOC app to allow supply management between both departments during an event.
	Per Google search an inventory management solution can run \$20,000-\$40,000 and about \$150/month for a SaaS subscription
05-Jun-20	Assuming SaaS implementation - no infrastructure builds will be required