

# Oakland County Department of Information Technology Project Scope and Approach

**Project Name: HSD Imaging**

**Project ID: D59166IM**

<b>Leadership Group:</b> Finance/Admin			
<b>Department:</b> Health and Human Services		<b>Division:</b> Homeland Security	
<b>Project Sponsor:</b> Thomas Hardesty	<b>Date Requested:</b> 2/15/18	<b>PM Customer No.</b> 166	
<b>Request Type:</b> <u><b>New Development</b></u> <i>Enhancement</i> <i>Customer Support</i> <i>Planned System Maintenance or Upgrade</i>			
<b>IT Team Name:</b> Public & Environmental Services		<b>IT Team No:</b> 5	
<b>Project Manager/Leader:</b> Stu Smith			
<b>Account Number:</b> 98990	<b>Account Description:</b> Homeland Security	<b>Customer Name:</b>	Homeland Security
<b>Grant Funded?</b>	Yes <u><b>No</b></u>	<b>Mandate?</b>	Yes <u><b>No</b></u>
		<b>Mandate Source:</b>	N/A

## Project Goal

To implement the document imaging solution so that the Homeland Security department can leverage the new technologies for document management, workflow, and form generation.

## Business Objective

To increase efficiencies in document management by leveraging enterprise product features and the most up to date technologies for document management and imaging. Additional objectives are:

- Reduce the number of paper files that must be stored
- Reduce time needed to retrieve files
- Make files accessible from network access points
- Produce electronic forms for use in ICS
- Create Retention Policies for documents
- Assist with Grant Process

## **Major Deliverables**

- Detailed Project Plan
- Application and/or System Requirements
- End User Hardware and Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan

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- Training/User Manual(s)
- Service Level Agreement
- 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 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**

### **Gartner Research Recommendation**

- Examine e-signature use cases for business value, and consider both short- and long-term document creation, workflow and management requirements.
- Identify the jurisdictional requirements for each use case and select products that can integrate digital certificates to comply with national regulations, as needed.
- Evaluate each applicable business process to determine the need for native management and workflow capabilities, as well as integration with COTS applications (such as CRM and contract life cycle management systems) or custom-built applications via APIs.

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**Benefits**

*See Return on Investment (ROI) Analysis Document*

**Impact**

**Number of Users**                      25 + users

**Divisions**                                Homeland Security

**Leadership Groups**                    Finance/Admin

**Risk**

**Business Environment**              Low- Little to no impact to existing business process.

**Technical Environment**              Low - Proven and previously implemented technologies.

**Assumptions**

**Staffing**                      HSD resources will be available to execute the attached project plan.

<b><u>Role:</u></b>	<b><u>Name</u></b>	<b><u>Hours per Day</u></b>
HSD Project Sponsor:	Thomas Hardesty	As Needed

**Facilities**

- 

**Technical**

- Leverage existing enterprise technology and solutions

**Funding**

-

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**Other**

**Priority**

**Constraints**

- Retention Requirements

**Exclusions**

- 

**PROJECT PHASE AUTHORIZATION**

# Oakland County Department of Information Technology Project Scope and Approach

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<b>Phase(s):</b>	
<b>Total Estimated Application Services</b>	<b>Hours: 717</b>
<b>Total Estimated Technical Systems</b>	<b>Hours: 55</b>
<b>Total Estimated CLEMIS</b>	<b>Hours:</b>
<b>Total Estimated Internal Services</b>	<b>Hours:</b>
<b>IT Application Services Division Manager Approval:</b>	<b>Date:</b>
<b>IT Technical Systems Division Manager Approval:</b>	<b>Date:</b>
<b>IT CLEMIS Division Manager Approval:</b>	<b>Date:</b>
<b>IT Internal Services Division Manager Approval:</b>	<b>Date:</b>
<b>IT Management Approval:</b>	
Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date:
Reason:	
<b>Project Sponsor Approval:</b>	
Title:	Date:

### PROJECT SUMMARY

<b>Authorized Development (see above)</b>	<b>Hours:</b>	
<b>Preliminary Estimated Development for Future Phases</b>	<b>Hours:</b>	
<b>Grand Total Estimated Development</b>	<b>Hours: 772</b>	<b>Cost: \$127,380</b>

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**PROJECT COMPLETION AUTHORIZATION**

<b>Customer Acceptance of Product:</b>	
Title:	Date:
<b>Project Office Review:</b>	Date:

HSD Imaging - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated
2				Hours
3	<b>3</b>	<b>000000</b>	<b>PROJECT MANAGEMENT</b>	<b>239</b>
4	<b>Phase</b>	<b>100000</b>	<b>DEVELOP RFP &amp; SELECT VENDOR</b>	
5	<b>Phase</b>	<b>200000</b>	<b>BUSINESS REQUIREMENTS</b>	<b>108</b>
6	<b>Phase</b>	<b>300000</b>	<b>DESIGN SYSTEM ARCHITECTURE</b>	<b>76</b>
7	<b>Phase</b>	<b>400000</b>	<b>DEVELOP APPLICATION</b>	<b>247</b>
8	<b>Phase</b>	<b>500000</b>	<b>IMPLEMENTATION PHASE</b>	<b>64</b>
9	<b>Phase</b>	<b>600000</b>	<b>POST IMPLEMENTATION SUPPORT</b>	<b>38</b>
10				<b>772</b>

**Oakland County -- HSD Imaging**  
Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<b>Benefits/Savings:</b>							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	31,000	31,500	32,010	32,530	33,061	33,602	193,703
<b>Costs:</b>							
Development Services Subtotal:	155,580	13,200	6,600	13,200	6,600	13,200	208,380
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	5,250	5,250	5,250	5,250	5,250	5,250	31,500
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
<b>Annual Statistics:</b>							
Annual Total Savings	31,000	31,500	32,010	32,530	33,061	33,602	193,703
Annual Total Costs	160,830	18,450	11,850	18,450	11,850	18,450	239,880
Annual Return on Investment	(129,830)	13,050	20,160	14,080	21,211	15,152	(46,177)
Annual Costs/Savings Ratio	518.81%	58.57%	37.02%	56.72%	35.84%	54.91%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	31,000	62,500	94,510	127,040	160,101	193,703	193,703
Cumulative Total Costs	160,830	179,280	191,130	209,580	221,430	239,880	239,880
Cumulative Return on Investment	(129,830)	(116,780)	(96,620)	(82,540)	(61,329)	(46,177)	(46,177)
Cumulative Cost/Savings Ratio	518.81%	286.85%	202.23%	164.97%	138.31%	123.84%	123.84%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
<b>Signatures:</b>							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

**Oakland County -- HSD Imaging**  
Return on Investment Analysis

Savings Detail

<b>Benefit/Savings Description</b>	<b>Project Savings Category</b>	<b>Budget Category/Funding Source</b>	<b>Unit Desc</b>	<b>Units</b>	<b>Rate per Unit</b>	<b>Total Savings</b>	<b>Annual Multiplier</b>
Reduce timing spent searching for old documents	Cost Avoidance		HR	250	65	16,250	1.020
Reduce time spent filing paper documents	Cost Avoidance		HR	100	50	5,000	1.020
Reduction in cost of supplies (paper, printer ink) for storage of paper documents	Cost Avoidance		ANN	1	1,000	1,000	
Reduction in staff time to maintain document retention policies	Cost Avoidance		HR	25	50	1,250	1.020
Reduce physical storage space	Cost Avoidance		ANN	1	5,000	5,000	
Reduce staff time spent shredding old/obsolete paper documents	Cost Avoidance		HR	50	50	2,500	1.020
Enhance protection from document loss for fire, water , etc.	Intangible Benefit					0	
						0	
						0	
						0	



**Oakland County -- HSD Imaging**  
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
Reduce timing spent searching for old documents	Cost Avoidance	X	X	X	X	X	X	16,250.00	16,575.00	16,906.50	17,244.63	17,589.52	17,941
Reduce time spent filing paper documents	Cost Avoidance	X	X	X	X	X	X	5,000.00	5,100.00	5,202.00	5,306.04	5,412.16	5,520
Reduction in cost of supplies (paper, printer ink) for storage of paper documents	Cost Avoidance	X	X	X	X	X	X	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000
Reduction in staff time to maintain document retention policies	Cost Avoidance	X	X	X	X	X	X	1,250.00	1,275.00	1,300.50	1,326.51	1,353.04	1,380
Reduce physical storage space	Cost Avoidance	X	X	X	X	X	X	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000
Reduce staff time spent shredding old/obsolete paper documents	Cost Avoidance	X	X	X	X	X	X	2,500.00	2,550.00	2,601.00	2,653.02	2,706.08	2,760
Enhance protection from document loss for fire, water , etc.	Intangible Benefit												

## Oakland County -- HSD Imaging

## Return on Investment Analysis

## Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<b>Tangible Benefit:</b>							
<i>Tangible Benefits Subtotal:</i>							
<b>Cost Avoidance:</b>							
Reduce timing spent searching for old documents	16,250	16,575	16,907	17,245	17,590	17,941	102,507
Reduce time spent filing paper documents	5,000	5,100	5,202	5,306	5,412	5,520	31,541
Reduction in staff time to maintain document retention policies	1,250	1,275	1,301	1,327	1,353	1,380	7,885
Reduce staff time spent shredding old/obsolete paper documents	2,500	2,550	2,601	2,653	2,706	2,760	15,770
Reduction in cost of supplies (paper, printer ink) for storage of paper documents	1,000	1,000	1,000	1,000	1,000	1,000	6,000
Reduce physical storage space	5,000	5,000	5,000	5,000	5,000	5,000	30,000
<i>Cost Avoidance Subtotal:</i>	<b>31,000</b>	<b>31,500</b>	<b>32,010</b>	<b>32,530</b>	<b>33,061</b>	<b>33,602</b>	<b>193,703</b>
<b>Intangible Benefit:</b>							
Enhance protection from document loss for fire, water , etc.							
<b>Savings Total:</b>	<b>31,000</b>	<b>31,500</b>	<b>32,010</b>	<b>32,530</b>	<b>33,061</b>	<b>33,602</b>	<b>193,703</b>

**Oakland County -- HSD Imaging**  
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			772	165	127,380		x							
IT Hours - System Maintenance	Development Svcs			20	165	3,300			x	x	x	x	x	x	
IT Hours - Customer Support	Development Svcs			20	165	3,300			x	x	x	x	x	x	
IT Hours - Planned Maintenance	Development Svcs			40	165	6,600			x		x			x	
User Hours - New Development	Development Svcs					0									
User Hours - PTNE/OT	Development Svcs					0									
Contractor Professional Services	Development Svcs			15	1,880	28,200		x							
PC System - Acquisition	Hardware				814	0									
PC System - Maintenance	Hardware				2,304	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		ANN		350	0									
Package Software - Maintenance	Software		ANN	15	350	5,250		x	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									

**Oakland County -- HSD Imaging**  
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									

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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		
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 -- HSD Imaging**  
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 -- HSD Imaging**  
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	127,380.00					
IT Hours - System Maintenance	Development Svcs		3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
IT Hours - Customer Support	Development Svcs		3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
IT Hours - Planned Maintenance	Development Svcs		6,600.00		6,600.00		6,600.00
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs	28,200.00					
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						
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	5,250.00	5,250.00	5,250.00	5,250.00	5,250.00	5,250.00
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 -- HSD Imaging**  
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 -- HSD Imaging**  
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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 -- HSD Imaging**  
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 -- HSD Imaging**  
Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<b>Development Services:</b>							
IT Hours - New Development	127,380						127,380
IT Hours - System Maintenance		3,300	3,300	3,300	3,300	3,300	16,500
IT Hours - Customer Support		3,300	3,300	3,300	3,300	3,300	16,500
IT Hours - Planned Maintenance		6,600		6,600		6,600	19,800
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services	28,200						28,200
<i>Development Services Subtotal:</i>	<b>155,580</b>	<b>13,200</b>	<b>6,600</b>	<b>13,200</b>	<b>6,600</b>	<b>13,200</b>	<b>208,380</b>
<b>Hardware:</b>							
<i>Hardware Subtotal:</i>							
<b>Software:</b>							
Package Software - Acquisition							
Package Software - Maintenance	5,250	5,250	5,250	5,250	5,250	5,250	31,500
<i>Software Subtotal:</i>	<b>5,250</b>	<b>5,250</b>	<b>5,250</b>	<b>5,250</b>	<b>5,250</b>	<b>5,250</b>	<b>31,500</b>
<b>Infrastructure:</b>							
<i>Infrastructure Subtotal:</i>							
<b>Training:</b>							
<i>Training Subtotal:</i>							
<b>Other:</b>							
<i>Other Subtotal:</i>							
<b>Costs Total:</b>	<b>160,830</b>	<b>18,450</b>	<b>11,850</b>	<b>18,450</b>	<b>11,850</b>	<b>18,450</b>	<b>239,880</b>

