

# Oakland County Department of Information Technology Project Scope and Approach

**Project Name: Papercut Implementation – Phase 1**

**Project ID: TN9186PI**

<b>Leadership Group:</b> Information Technology Steering Committee					
<b>Department:</b> Information Technology			<b>Division:</b> Technical Systems and Networking		
<b>Project Sponsor:</b> Joe Tabor		<b>Date Requested:</b> 08/14/2019		<b>PM Customer No.</b> 186	
<b>Request Type:</b> New Development					
<b>IT Team Name:</b> Workstation Services			<b>IT Team No:</b> N		
<b>Project Manager/Leader:</b> Mike Zemina					
<b>Account Number:</b>	17030	<b>Account Description:</b>	Technical Systems and Networking	<b>Customer Name:</b>	Information Technology
<b>Grant Funded?</b> No			<b>Mandate?</b> No		

## **Project Goal**

To implement the Papercut application replacing unsupported Managed Print Services software so that Oakland County can continue using the print/fax/scan function on all Multi-Function Devices (MFD).

## **Business Objective – Phase #1 – Pilot Papercut with IT Organization**

Install Papercut application (replacing the existing software) onto the eight (8) MFDs located within IT organization (49W) to prove out the installation and communications needed throughout Oakland County.

### **Major Deliverables**

- New application servers
- Papercut installed on eight (8) MFD devices
- Communication plan, DR Toolkit & Service Center Knowledge Docs
- Job aide
- Performance and test results

### **Approach**

- Build & configure new application servers
- Removal of PCS Director on IT workstations
- Create firewall rules
- Migrate PIN users and provide permissions
- Create implementation schedule for MFDs
- Document communication plan, DR Toolkit & Service Center Knowledge Docs
- Create job aide
- Deploy Papercut software on MFDs and on workstations
- Provide user training
- Test for usability and performance
- Review pilot results and adjust process as needed

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**Research & Analysis**

**Gartner Research Recommendation**

- N/A

**Benefits**

*See Return on Investment (ROI) Analysis Document*

**Impact**

**Number of Users**     All IT users (Phase 1)

**Divisions**             IT (Phase 1)

**Leadership Groups** IT (Phase 1)

**Risk**

**Business Environment**     Medium – User experience on MFD for scanning, printing and faxing.

**Technical Environment**     Low – Proven and previously implemented technology

**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:

<b><u>Role:</u></b>	<b><u>Name</u></b>
Sponsor/IT Stakeholder:	Joe Tabor
IT Stakeholder:	EJ Widun
Sponsor/ TSN Stakeholder:	Joe Tabor
Security Stakeholder:	Mike Timm
Apps Stakeholder:	Tammi Shephard
Internal Services Stakeholder:	Janette McKenna

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## **Facilities**

- Vendor access to IT facility (49W) with MFD devices is required.

## **Technical**

- Firewall rule changes will be necessary and approved.

## **Funding**

- Information Technology

## **Priority**

- N/A

## **Constraints**

None for Phase 1.

## **Exclusions**

- None for the Phase 1 (IT – building 49W).

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## PROJECT PHASE AUTHORIZATION

<b>Phase(s): Project Management and Core Implementation</b>	
<b>Total Estimated Application Services</b>	<b>Hours:</b>
<b>Total Estimated Technical Systems</b>	<b>Hours:</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	<b>Date:</b>
Reason:	
<b>Project Sponsor Approval:</b>	
Title:	<b>Date:</b>

## 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:</b> <b>Cost: \$</b>

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**PROJECT COMPLETION AUTHORIZATION**

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

**Oakland County -- Papercut Implementation**

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:	1,704	1,704	1,704	1,704	1,704	1,704	10,224
<b>Costs:</b>							
Development Services Subtotal:	0	0	0	0	0	0	0
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	18,860	18,860	18,860	1,902	1,902	1,902	62,286
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	1,704	1,704	1,704	1,704	1,704	1,704	10,224
Annual Total Costs	18,860	18,860	18,860	1,902	1,902	1,902	62,286
Annual Return on Investment	(17,156)	(17,156)	(17,156)	(198)	(198)	(198)	(52,062)
Annual Costs/Savings Ratio	1106.81%	1106.81%	1106.81%	111.62%	111.62%	111.62%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	1,704	3,408	5,112	6,816	8,520	10,224	10,224
Cumulative Total Costs	18,860	37,720	56,580	58,482	60,384	62,286	62,286
Cumulative Return on Investment	(17,156)	(34,312)	(51,468)	(51,666)	(51,864)	(52,062)	(52,062)
Cumulative Cost/Savings Ratio	1106.81%	1106.81%	1106.81%	858.01%	708.73%	609.21%	609.21%
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 -- Papercut Implementation

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
Reducing number of virtual machines from six to two	Cost Avoidance	Technical Services & Ntwkg	EA	1,704	1	1,704	
Replacing virtual machines from Windows Server 2008 to 2016	Intangible Benefit	Technical Services & Ntwkg				0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
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						0	
						0	
						0	
						0	

**Oakland County -- Papercut 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
Reducing number of virtual machines from six to two	Cost Avoidance	x	x	x	x	x	x	1,704.00	1,704.00	1,704.00	1,704.00	1,704.00	1,704
Replacing virtual machines from Windows Server 2008 to 2016	Intangible Benefit												



**Oakland County -- Papercut Implementation**

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>							
Reducing number of virtual machines from six to two	1,704	1,704	1,704	1,704	1,704	1,704	10,224
<i>Cost Avoidance Subtotal:</i>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>10,224</b>
<b>Intangible Benefit:</b>							
Replacing virtual machines from Windows Server 2008 to 2016							
<b>Savings Total:</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>1,704</b>	<b>10,224</b>

**Oakland County -- Papercut Implementation**  
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				165	0								
IT Hours - System Maintenance	Development Svcs				165	0								
IT Hours - Customer Support	Development Svcs				165	0								
IT Hours - Planned Maintenance	Development Svcs				165	0								
User Hours - New Development	Development Svcs					0								
User Hours - PTNE/OT	Development Svcs					0								
Contractor Professional Services	Development Svcs					0								
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					0								
Package Software - Maintenance	Software					0								
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 -- Papercut Implementation**  
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								

**Oakland County -- Papercut Implementation**  
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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	Technical Services & Ntwkg	ANN	6	601	3,606									

**Oakland County -- Papercut Implementation**  
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	Technical Services & Ntwkg	ANN	2	951	1,902									
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 -- Papercut Implementation**  
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						
IT Hours - System Maintenance	Development Svcs						
IT Hours - Customer Support	Development Svcs						
IT Hours - Planned Maintenance	Development Svcs						
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						
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						
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						
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 -- Papercut Implementation**  
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 -- Papercut Implementation**  
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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 -- Papercut Implementation**  
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 -- Papercut Implementation**  
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							
IT Hours - System Maintenance							
IT Hours - Customer Support							
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>							
<b>Hardware:</b>							
<i>Hardware Subtotal:</i>							
<b>Software:</b>							
<i>Software Subtotal:</i>							
<b>Infrastructure:</b>							
(Qty 2) VMs - Windows 2016	1,902	1,902	1,902	1,902	1,902	1,902	11,412
3 year Contract addendum (~\$17k x 3) for Maintenance of RightFax	16,958	16,958	16,958	0	0	0	50,874
<i>Infrastructure Subtotal</i>	<b>18,860</b>	<b>18,860</b>	<b>18,860</b>	<b>1,902</b>	<b>1,902</b>	<b>1,902</b>	<b>62,286</b>
<b>Training:</b>							
<i>Training Subtotal:</i>							
<b>Other:</b>							
<i>Other Subtotal:</i>							
<b>Costs Total:</b>	<b>18,860</b>	<b>18,860</b>	<b>18,860</b>	<b>1,902</b>	<b>1,902</b>	<b>1,902</b>	<b>62,286</b>

