Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Disaster Recovery Toolkit Improvements – Phase II Implementation   Project ID: DR0181DR

Leadership Group: IT Steering Committee	
Department: Information Technology	**Division: Internal Services**
Project Sponsor: Janette McKenna	**Date Requested: May 16, 2018**	**PM Customer No. 181**

Request Type: <u>*XX New Development*</u>   *Enhancement*   *Customer Support*

Planned System Maintenance or Upgrade

IT Team Name: Internal Services	**IT Team No: R**
Project Manager/Leader: Sue Proksch	

Account Number: 17010	Account Description:	Admin Division Development and Support	Customer Name:	Information Technology
Grant Funded? Yes, No XX		**Mandate? Yes No XX** **Mandate Source:**		

Project Goal

To improve and simplify OCIT Disaster Recovery documentation requirements and to improve the DRCMDB so that current recovery methods and processes are accurately defined for each of the individual restore environments.

Business Objective #1

Implement a simplified DR Toolkit Process to aid in the recovery of Oakland County IT Infrastructure, servers and applications.

Major Deliverables Phase 1
- Finalize the minimal documentation required to recovery the following types of OCIT environments:
  - Applications within the AWS (Amazon Web Service) OCIT cloud
  - Virtual server COTS applications within OCIT
  - SaaS applications
  - Virtual server custom applications
  - Physical server applications
  - Environment Infrastructure
- Implement an electronic process to store the DR Toolkits (AWS cloud, SharePoint)
- Meet and obtain feedback from all DR Toolkit owners on proposed revisions (Supervisors)
- Present and obtain approval from IT Steering Committee for revised DR Toolkit process
- Document revised DR Toolkit procedures for IT and Service Desk staff
- Train and turn over new DR Toolkit processes to Service Desk staff

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Approach
- Finalize recommendations for minimal DR Toolkit content for each environment
- Meet with OCIT DR Toolkit owners to present recommendations and obtain feedback
- Present DR Toolkit revised procedures to OCIT Steering Committee for approval
- Document and deploy revised DR Toolkit procedure
- Train OCIT Service Desk to administer revised OCITDR Toolkit process

Business Objective #2

Implement DRCMDB improvements to standardize content and reduce duplication for use in Disaster Recovery efforts.

Major Deliverables
- Finalize Definition of stored assets in the DRCMDB
- Standard Disaster Recovery data requirements within the DRCMDB application for each type of asset
- DRCMDB DB relocated to shared or cloud environment
- Improved use and access of the DRCMDB application

Approach
- Finalize the minimum assets that are required to be included in the DRCMDB application
- Finalize the data elements required for each type of asset in the DRCMDB application
- Move the Access DB DRCMDB application to SharePoint or the OC AWS Cloud environment
- Evaluate DRCMDB application for opportunities to upgrade to a current version of Access or improve functionality

Business Objective #3

Produce an OCIT DR Toolkit prototype template and documentation instructions for each of the identified Oakland County environments to be used by IT Staff on an ongoing basis.
Major Deliverables
- DR Toolkit prototype and instructions for each of the identified OC environments:
  1. Applications within the AWS (Amazon Web Service) OCIT cloud (Service Desk)
  2. Virtual server COTS applications within OCIT (ITPSRS)
  3. SaaS applications (Kronos)
  4. Virtual server custom applications (FRMS)
  5. Physical server applications (Telesoft)
  6. Environment Infrastructure (DB, network)

Approach
- Identify an application within each environment to use as a DR Toolkit prototype.
- Work with DR Toolkit owners to create and approve DR Toolkit template prototype
- Present and obtain approval from the IT Steering Committee to start using the DR Template prototypes as a standard
- Inform IT Staff the new DR Toolkit template requirements moving forward including converting existing DR Toolkits from the current template to the new template when

Project Name: Disaster Recovery Toolkit Improvements – Phase II Implementation   Project ID: DR0181DR

updating DR Toolkits

Research & Analysis

Gartner Research Recommendation – nothing found

Benefits

See Return on Investment (ROI) Analysis Document (ROI completed for program that includes Analysis, Requirements & RFP project, Prototype Project, and Implementation project).

Impact

Number of Users: 200

Divisions: Information Technology

Leadership Groups: IT Steering Committee

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:	Janette McKenna	As needed

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Facilities

Technical

N/A

Funding

Other

N/A

Priority

Constraints

- OCIT staff availability

Exclusions

- This project does not include the conversion of the 200+ existing DR Toolkits. Toolkits will be converted during the ongoing new development / planned maintenance within the PM's project plan.

- This project does not include review or modification of the Disaster Recovery Drill process. The project is limited to the content of the toolkits, the DRCMDB, and the process of maintaining and storing the toolkits.

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PROJECT PHASE AUTHORIZATION

Phase(s): Project Management, Design Simplified DR Toolkit Processes		
Total Estimated Application Services **Hours: 72**		
Total Estimated Technical Systems **Hours: 133**		
Total Estimated CLEMIS **Hours: 46**		
Total Estimated Internal Services **Hours: 487**		
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:**		
Preliminary Estimated Development for Future Phases **Hours:**		
Grand Total Estimated Development **Hours: 738 Cost: $121,770**		

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PROJECT COMPLETION AUTHORIZATION

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

Disaster Recovery Toolkit Improvements - Size Estimate (+/- 10% to 50%) ✕

	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	⊟ PROJECT MANAGEMENT	156	
2	Phase	200000	⊟ DESIGN SIMPLIFIED DR TOOLKIT PROCESSES	167	
3	Phase	300000	⊟ IMPROVE DRCMDB	196	
4	Phase	400000	⊟ DESIGN & IMPLEMENT IMPROVED DR TOOLKIT TEMPLATES & PROCUDURES	219	

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II 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:	0	83,325	84,158	85,000	85,850	86,708	425,041
Costs:							
Development Services Subtotal:	121,770	0	0	0	0	0	121,770
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
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	83,325	84,158	85,000	85,850	86,708	425,041
Annual Total Costs	121,770	0	0	0	0	0	121,770
Annual Return on Investment	(121,770)	83,325	84,158	85,000	85,850	86,708	303,271
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	0	83,325	167,483	252,483	338,333	425,041	425,041
Cumulative Total Costs	121,770	121,770	121,770	121,770	121,770	121,770	121,770
Cumulative Return on Investment	(121,770)	(38,445)	45,713	130,713	216,563	303,271	303,271
Cumulative Cost/Savings Ratio	0.00%	146.14%	72.71%	48.23%	35.99%	28.65%	28.65%
Year Positive Payback Achieved			Year 3				Year 3
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II 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
DR Toolkit Creation / Mainteance	Cost Avoidance			500	165	82,500	1.010
						0	
Standarize and document DR Toolkit requirements for each OCIT environment.	Intangible Benefit					0	
Less time spent updating DR Toolkit hardcopies by IT Staff	Intangible Benefit					0	
Less time processing and shipping hard copy DR Toolkits by Service Center staff.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II 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
DR Toolkit Creation / Mainteance	Cost Avoidance		x	x	x	x	x		83,325.00	84,158.25	84,999.83	85,849.83	86,708
Standarize and document DR Toolkit requirements for each OCIT environment.	Intangible Benefit												
Less time spent updating DR Toolkit hardcopies by IT Staff	Intangible Benefit												
Less time processing and shipping hard copy DR Toolkits by Service Center staff.	Intangible Benefit												

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Date: 06/05/2020

Return 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:							
DR Toolkit Creation / Mainteance							
		83,325	84,158	85,000	85,850	86,708	425,041
Cost Avoidance Subtotal:		*83,325*	*84,158*	*85,000*	*85,850*	*86,708*	*425,041*
Intangible Benefit:							
Standarize and document DR Toolkit requirements for each OCIT environment.							
Less time spent updating DR Toolkit hardcopies by IT Staff							
Less time processing and shipping hard copy DR Toolkits by Service Center staff.							
Savings Total:		*83,325*	*84,158*	*85,000*	*85,850*	*86,708*	*425,041*

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Return on Investment Analysis

Date: 06/05/2020

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			738	165	121,770		x					
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 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						

REV: March 27, 2020

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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 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							
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure				8,463	0							
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure				4,261	0							
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				3,506	0							

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

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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
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							
Dedicated Virtual Server	Infrastructure		ANN		4,150	0							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure		ANN			0							
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							

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II 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
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 -- Disaster Recovery Toolkit Improvements - Phase II 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	121,770.00					
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 Software Purchase - Per Processor (4 Cores) - Requires Annual Support Below	Infrastructure						
Oracle Enterprise Software Support - Per Processor (4 Cores)	Infrastructure						

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Return on Investment Analysis

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 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						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure						
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						

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Return on Investment Analysis

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						
Dedicated Virtual Server	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure						
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						

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure						

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Date: 06/05/2020

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	121,770						121,770
IT Hours - System Maintenance							
IT Hours - Customer Support							
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	**121,770**						**121,770**
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	**121,770**						**121,770**

Oakland County -- Disaster Recovery Toolkit Improvements - Phase II Implementation

Date: 06/05/2020

Return on Investment Analysis

Assumptions

Date	Assumption Description
21-Jul-20	The average number of hours required to create / update / process DR Toolkits is 1,000. If those hours could be cut in half the savings could be $85,000 annually.
21-Jul-20	In 2016 IT spent 1,301 hours on DR Toolkits.
21-Jul-20	Savings Assumption assumes we will save at least 500 hours per year on DR Toolkit creation and maintenance.
21-Jul-20	Cost research must be done to estimate the cost of moving the new process to SharePoint or the OCIT cloud.