

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Disaster Recovery Toolkit Improvements

Project ID: DR8181DR

Approach

OCIT Internal Services and ITSM consultant will:

- Discuss current DR trends of similar companies / governments
- Recommend new DR Toolkit methods and simplified content to streamline the process for each of the OCIT application and infrastructure environments

OCIT will:

- Document 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

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

Major Deliverables

- Definition of stored assets in the DRCMDM
- 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

- Determine what assets are required to be included in the DRCMDB application
- Determine what data is required for each type of asset in the DRCMDB application
- Evaluate moving 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 a OCIT DR Toolkit prototype template and documentation instructions for each of the identified Oakland Count 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 (ex. CA PPM)
 2. Virtual server COTS applications within OCIT (ex. CA Service Desk)
 3. Virtual server SaaS applications (ex. Kronos)
 4. Virtual server custom applications (FRMS)
 5. Physical server applications (ex. Telesoft)
 6. Environment Infrastructure (ex. .net, DB, network)

**Oakland County
Department of Information Technology
Project Scope and Approach**

Project Name: Disaster Recovery Toolkit Improvements

Project ID: DR8181DR

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 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:

**Oakland County
Department of Information Technology
Project Scope and Approach**

Project Name: Disaster Recovery Toolkit Improvements

Project ID: DR8181DR

Role:

Project Sponsor:

Name

Janette McKenna

Hours per Day

As needed

Facilities

Technical

N/A

Funding

- Information Technology

Other

N/A

Priority

TBD

Constraints

- None Applicable

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.

**Oakland County
Department of Information Technology
Project Scope and Approach**

Project Name: Disaster Recovery Toolkit Improvements

Project ID: DR8181DR

PROJECT PHASE AUTHORIZATION

| | |
|--|-------------------|
| Phase(s): All | |
| Total Estimated Application Services | Hours: 63 |
| Total Estimated Technical Systems | Hours: 27 |
| Total Estimated CLEMIS | Hours: 36 |
| Total Estimated Internal Services | Hours: 745 |
| 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: 871 |
| Preliminary Estimated Development for Future Phases | Hours: |
| Grand Total Estimated Development | Hours: 871 Cost: \$143,050 |

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Disaster Recovery Toolkit Improvements

Project ID: DR8181DR

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 |
| Phase | 200000 | <input type="checkbox"/> PROJECT MANAGEMENT | 286 | |
| Phase | 200101 | <input type="checkbox"/> DESIGN & IMPLEMENT SIMPLIFIED DR TOOLKIT PROCESSES | 300 | |
| Phase | 300000-0 | <input type="checkbox"/> DISASTER RECOVERY DR CMDDB IMPROVEMENTS | 200 | |
| Phase | 400000 | <input type="checkbox"/> PROTOTYPE DR TOOLKITS TO NEW OCIT DR REQUIREMENTS | 85 | |
| | | | 871 | |

Oakland County -- Disaster Recovery Toolkit Improvements

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: | 82,500 | 84,150 | 85,833 | 87,550 | 89,301 | 91,087 | 520,420 |
| Costs: | | | | | | | |
| Development Services Subtotal: | 143,715 | 0 | 0 | 0 | 0 | 0 | 143,715 |
| Hardware Subtotal: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Software Subtotal: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Infrastructure Subtotal | 845 | 0 | 845 | 0 | 845 | 0 | 2,535 |
| Training Subtotal: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Subtotal: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Annual Statistics: | | | | | | | |
| Annual Total Savings | 82,500 | 84,150 | 85,833 | 87,550 | 89,301 | 91,087 | 520,420 |
| Annual Total Costs | 144,560 | 0 | 845 | 0 | 845 | 0 | 146,250 |
| Annual Return on Investment | (62,060) | 84,150 | 84,988 | 87,550 | 88,456 | 91,087 | 374,170 |
| Annual Costs/Savings Ratio | 175.22% | 0.00% | 0.98% | 0.00% | 0.95% | 0.00% | |
| Project Cumulative Statistics: | | | | | | | |
| Cumulative Total Savings | 82,500 | 166,650 | 252,483 | 340,033 | 429,333 | 520,420 | 520,420 |
| Cumulative Total Costs | 144,560 | 144,560 | 145,405 | 145,405 | 146,250 | 146,250 | 146,250 |
| Cumulative Return on Investment | (62,060) | 22,090 | 107,078 | 194,628 | 283,083 | 374,170 | 374,170 |
| Cumulative Cost/Savings Ratio | 175.22% | 86.74% | 57.59% | 42.76% | 34.06% | 28.10% | 28.10% |
| Year Positive Payback Achieved | | Year 2 | | | | | Year 2 |
| 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

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 |
|--|--------------------------|--------------------------------|-----------|-------|---------------|---------------|-------------------|
| | | | | | | 0 | |
| DR Toolkit Creation / Maintenance | Cost Avoidance | | | 500 | 165 | 82,500 | 1.020 |
| Standardize 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 | |

Oakland County -- Disaster Recovery Toolkit Improvements

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 / Maintenance | Cost Avoidance | x | x | x | x | x | x | 82,500.00 | 84,150.00 | 85,833.00 | 87,549.66 | 89,300.65 | 91,087 |
| Standardize 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 | | | | | | | | | | | | |
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Oakland County -- Disaster Recovery Toolkit Improvements

Return on Investment Analysis

Savings Summary

| Benefit/Savings Description | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Total |
|--|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Tangible Benefit: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <i>Tangible Benefits Subtotal:</i> | | | | | | | |
| Cost Avoidance: | | | | | | | |
| DR Toolkit Creation / Maintenance | 82,500 | 84,150 | 85,833 | 87,550 | 89,301 | 91,087 | 520,420 |
| | | | | | | | |
| <i>Cost Avoidance Subtotal:</i> | 82,500 | 84,150 | 85,833 | 87,550 | 89,301 | 91,087 | 520,420 |
| Intangible Benefit: | | | | | | | |
| Standardize 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: | 82,500 | 84,150 | 85,833 | 87,550 | 89,301 | 91,087 | 520,420 |

Oakland County -- Disaster Recovery Toolkit Improvements

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 | | | 871 | 165 | 143,715 | 1.000 | x | | | | | | |
| IT Hours - System Maintenance | Development Svcs | | | 0 | 165 | 0 | 1.030 | x | x | x | x | x | x | x |
| IT Hours - Customer Support | Development Svcs | | | 0 | 165 | 0 | 1.030 | x | x | x | x | x | x | x |
| 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 | | | | 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 | | | | | 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 | | | | | | | | |
| SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019 | Infrastructure | | | | 24,533 | 0 | | | | | | | | |

Oakland County -- Disaster Recovery Toolkit Improvements

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 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 | | | 0 | 26,415 | 0 | 0.000 | x | | | | | | | |
| 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 | | | | | | | | | |
| 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 | | | 1 | 845 | 845 | 1.000 | x | | x | | | x | | |
| Internet Access | Infrastructure | | | | 180 | 0 | | | | | | | | | |

Oakland County -- Disaster Recovery Toolkit Improvements

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 | |
| 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 | | | | | | | | |
| 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 -- Disaster Recovery Toolkit Improvements

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 | 143,715.00 | | | | | |
| IT Hours - System Maintenance | Development Svcs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| IT Hours - Customer Support | Development Svcs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | | | | | | |
| 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 | | | | | | |
| 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 | | | | | | |
| SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019 | Infrastructure | | | | | | |

Oakland County -- Disaster Recovery Toolkit Improvements

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 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 | 0.00 | | | | | |
| 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 | | | | | | |
| 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 | 845.00 | | 845.00 | | 845.00 | |
| Internet Access | Infrastructure | | | | | | |

Oakland County -- Disaster Recovery Toolkit Improvements

Return on Investment Analysis

Cost Detail

| Cost Description | Project Cost Category | Potential Cost Extensions | | | | | |
|---|-----------------------|---------------------------|----|----|----|----|----|
| | | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| 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 | | | | | | |
| 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 -- Disaster Recovery Toolkit Improvements

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 | 143,715 | | | | | | 143,715 |
| IT Hours - System Maintenance | 0 | 0 | 0 | 0 | 0 | 0 | |
| IT Hours - Customer Support | 0 | 0 | 0 | 0 | 0 | 0 | |
| IT Hours - Planned Maintenance | | | | | | | |
| User Hours - New Development | | | | | | | |
| User Hours - PTNE/OT | | | | | | | |
| Contractor Professional Services | | | | | | | |
| <i>Development Services Subtotal:</i> | 143,715 | | | | | | 143,715 |
| Hardware: | | | | | | | |
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| | | | | | | | |
| <i>Hardware Subtotal:</i> | | | | | | | |
| Software: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <i>Software Subtotal:</i> | | | | | | | |
| Infrastructure: | | | | | | | |
| SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019 | 0 | | | | | | |
| SSL Certificate | 845 | | 845 | | 845 | | 2,535 |
| | | | | | | | |
| | | | | | | | |
| <i>Infrastructure Subtotal</i> | 845 | | 845 | | 845 | | 2,535 |
| Training: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <i>Training Subtotal:</i> | | | | | | | |
| Other: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <i>Other Subtotal:</i> | | | | | | | |
| Costs Total: | 144,560 | | 845 | | 845 | | 146,250 |

