

# Oakland County Department of Information Technology Project Scope and Approach

**Project Name:** Data Center Facility Optimization

**Project ID:** TO8186DC

<b>Leadership Group:</b> Information Technology Steering Committee			
<b>Department:</b> Information Technology		<b>Division:</b> Technical Systems and Networking	
<b>Project Sponsor:</b> Carl Wilson	<b>Date Requested:</b> 10/1/2018	<b>PM Customer No.</b> 186	
<b>Request Type:</b> <i>New Development</i>			
<b>IT Team Name:</b> Operations		<b>IT Team No.:</b> O	
<b>Project Manager/Leader:</b> Heidi Flack			
<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 clean up the current primary data center and current Network Operation Center (NOC) rooms and identify improvements so that the space permitted can be optimized, well organized and embody facility protection and efficiencies for all systems physically in the data center.

## **Business Objective**

To optimize the IT data center facilities (primary and secondary) with space and power by cleaning out hardware, cabling and power lines no longer needed and to identify improvements for future upgrades.

### **Major Deliverables**

- Facility capacity analysis and documentation (space, power, water detection, hvac, fire suppression)
- Current Ops Room Clean Up Analysis
- Current Data Center Clean Up Analysis
- Facility Controls Recommendations
- Infrastructure Clean Up
  - Power clean up
  - Cabling clean up
  - Equipment clean up
  - Rack removal
  - Current NOC room Clean up
- Ongoing capacity management and reporting

### **Approach**

- Assess current space, power and equipment
- Identify power supplies, hardware and racks that can be removed
- Assess current conditions for water detection, HVAC and develop any recommendations to modify.
- Remove unnecessary hardware, equipment, racks, cables, etc. by IT resources and/or vendors.

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- Conduct facility evaluation
- Develop facility improvement recommendations and present to leadership
- Make a decision regarding any facility updates that should be executed and how to approach implementing these changes.
- Develop a plan/process to manage the data center components and maintain organization and efficiencies.

**Research & Analysis**

**Gartner Research Recommendation**

**Benefits**

*See Return on Investment (ROI) Analysis Document*

**Impact**

<b>Number of Users</b>	Oakland County end users
<b>Divisions</b>	Oakland County
<b>Leadership Groups</b>	IT

**Risk**

<b>Business Environment</b>	Low = little or no impact to existing business processes.
<b>Technical Environment</b>	Low = proven and previously implemented technologies.

**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/ TSN Stakeholder:	Carl Wilson
IT Stakeholder:	Jim Taylor
Security Stakeholder:	Mike Timm
CLEMIS Stakeholder:	Jeff Nesmith

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Internal Services Stakeholder:	Janette McKenna
Apps Stakeholder:	Tammi Shepherd
EA Stakeholder:	EJ Widun

**Facilities**

- 

**Technical**

- 

**Funding**

- 

**Other**

- 

**Priority**

**Constraints**

- Includes all data center except Network equipment room

**Exclusions**

- Network rack replacement

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## PROJECT PHASE AUTHORIZATION

<b>Phase(s):</b>	
<b>Total Estimated Application Services</b>	<b>Hours:</b>
<b>Total Estimated Technical Systems</b>	<b>Hours: 550</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:                      Yes                      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: 550</b>	
<b>Grand Total Estimated Development</b>	<b>Hours: 550</b>	<b>Cost: \$90,750</b>

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**PROJECT COMPLETION AUTHORIZATION**

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

Data Center Facility Optimization - Size Estimate (+/- 10% to 50%) <span style="float: right;">×</span>				
Type	ID	Task Name	Estimated Hours	Estimate Notes
Phase	000000	<input type="checkbox"/> PROJECT MANAGEMENT	190	
Phase	020000	<input type="checkbox"/> DC FACILITY ANALYSIS & RECOMMENDATIONS	360	
			550	

**Oakland County -- Data Center Facility Optimization**  
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:	0	0	0	0	0	0	0
<b>Costs:</b>							
Development Services Subtotal:	90,750	0	0	0	0	0	90,750
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
<b>Annual Statistics:</b>							
Annual Total Savings	0	0	0	0	0	0	0
Annual Total Costs	90,750	0	0	0	0	0	90,750
Annual Return on Investment	(90,750)						(90,750)
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	0	0	0	0	0	0	0
Cumulative Total Costs	90,750	90,750	90,750	90,750	90,750	90,750	90,750
Cumulative Return on Investment	(90,750)	(90,750)	(90,750)	(90,750)	(90,750)	(90,750)	(90,750)
Cumulative Cost/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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 -- Data Center Facility Optimization**

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>
Fully documented capacity plan for both data center facilities with established process for periodic updates and reviews.	Intangible Benefit	Technical Services & Ntwkg				0
Improves efficiency with moisture control, hvac systems and air flow.	Intangible Benefit	Technical Services & Ntwkg				0
Improves safety of area and the security of systems by eliminating excess equipment and cabling.	Intangible Benefit	Technical Services & Ntwkg				0
Allows ease of access to the systems for ongoing management and troubleshooting.	Intangible Benefit	Technical Services & Ntwkg				0
Improved security through review and audit of data center access on a periodic basis.	Intangible Benefit	Technical Services & Ntwkg				0
Improves visibility into the power consumption and management by identifying current consumption and PDUs in use as well as ensure redundancy is in place.	Intangible Benefit	Technical Services & Ntwkg				0
Determine safety gaps with UPS room within Data Center.	Intangible Benefit	Technical Services & Ntwkg				0
						0
						0
						0
						0
						0
						0
						0
						0
						0
						0
						0

**Oakland County -- Data Center Facility Optimization**

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
Fully documented capacity plan for both data center facilities with established process for periodic updates and reviews.	Intangible Benefit												
Improves efficiency with moisture control, hvac systems and air flow.	Intangible Benefit												
Improves safety of area and the security of systems by eliminating excess equipment and cabling.	Intangible Benefit												
Allows ease of access to the systems for ongoing management and troubleshooting.	Intangible Benefit												
Improved security through review and audit of data center access on a periodic basis.	Intangible Benefit												
Improves visibility into the power consumption and management by identifying current consumption and PDUs in use as well as ensure redundancy is in place.	Intangible Benefit												
Determine safety gaps with UPS room within Data Center.	Intangible Benefit												



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Savings Summary

<b>Benefit/Savings Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Total</b>
<b>Tangible Benefit:</b>							
<i>Tangible Benefits Subtotal:</i>							
<b>Cost Avoidance:</b>							
<i>Cost Avoidance Subtotal:</i>							
<b>Intangible Benefit:</b>							
Fully documented capacity plan for both data center facilities with established process for periodic updates and reviews.	0	0	0	0	0	0	
Improves efficiency with moisture control, hvac systems and air flow.	0	0	0	0	0	0	
Improves safety of area and the security of systems by eliminating excess equipment and cabling.	0	0	0	0	0	0	
Allows ease of access to the systems for ongoing management and troubleshooting.	0	0	0	0	0	0	
Improved security through review and audit of data center access on a periodic basis.	0	0	0	0	0	0	
Improves visibility into the power consumption and management by identifying current consumption and PDUs in use as well as ensure redundancy is in place.	0	0	0	0	0	0	
Determine safety gaps with UPS room within Data Center.	0	0	0	0	0	0	
<b>Savings Total:</b>							

**Oakland County -- Data Center Facility Optimization**  
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?						Potential Cost Extensions											
								Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6						
IT Hours - New Development	Development Svcs	Technical Services & Ntwkg	HR	550	165	90,750	x							90,750.00											
						0																			

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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	90,750						90,750
<i>Development Services Subtotal:</i>	<b>90,750</b>						<b>90,750</b>
<b>Hardware:</b>							
<i>Hardware Subtotal:</i>							
<b>Software:</b>							
0							
<i>Software Subtotal:</i>							
<b>Infrastructure:</b>							
<i>Infrastructure Subtotal:</i>							
<b>Training:</b>							
<i>Training Subtotal:</i>							
<b>Other:</b>							
0	0	0	0	0	0	0	0
<i>Other Subtotal:</i>							
<b>Costs Total:</b>	<b>90,750</b>						<b>90,750</b>

