

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Server Virtualization/Consolidation Strategy

Project ID: T68186VC

Leadership Group: Information Technology Steering Committee				
Department: Information Technology			Division: Technical Systems and Networking	
Project Sponsor: David Veit		Date Requested: 7/17/08		PM Customer No. 186
Request Type: New Development				
IT Team Name: Technical Operations			IT Team No: 6	
Project Manager/Leader: Mahesh Parab				
Account Number: 17030	Account Description:	Technical Systems and Networking	Customer Name:	Information Technology
Grant Funded? No		Mandate? No		
		Mandate Source:		

Project Goal

To develop a Server Virtualization/Consolidation strategy so that server Total Cost of Owner (TCO), support, and recovery is improved.

Business Objective

To perform project management activities, so that project execution is timely with appropriate quality and cost controls.

Major Deliverables

This Business Objective's deliverables are organized into one project phase: Project Management.

Project Management Phase:

- Updated Project Plan
- Project Issues Log
- Project Scope Management Log

Approach

To utilize Technical Systems and Networking staff to perform the following activities:

- Develop Initial Project Documents, and
- Develop and Maintain Project Data.

IT management will provide expertise and approval of project documentation requiring management approval.

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Business Objective

Develop a strategy for building a server virtualization and consolidation strategy for IT organization

Major Deliverables

1. Recommendation document, outlining scope of future server virtualization/consolidation initiatives in the organization;
2. Guidelines for applications/servers eligible for virtualization; and
3. Guidelines for applications/servers eligible for consolidation.

Approach

Analysis of all physical servers in current environment to document their processing capacity, and disk utilization; and
Develop a recommendation document for the proposed virtualization/consolidation approach;

Business Objective

Develop RFP for SAN technology in alignment with virtualization and consolidation strategy.

Major Deliverables

1. SAN RFP and vendor selection; and
2. Recommendation for vendor selection.

Approach

Prepare RFP for SAN based on based on capacity requirements generated from virtualization/consolidation study;
Convene an advisory group to review RFP response and make recommendation

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Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users None

Divisions Information Technology

Leadership Groups Information Technology Steering Committee

Risk

Business Environment Low – Little or no impact to existing business processes.
The project involves review and analysis of current practices, No changes to be done to current practices.

Technical Environment Low – Review and Analysis, no changes to actual Production Environment.

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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:

<u>Role:</u>	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor	David Veit	

Facilities

- None

Technical

- None

Funding

- IT

Other

Priority

Constraints

- None identified

Exclusions

- Any deliverable not identified in this Scope and Approach

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PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	Hours:	Cost:
Total Estimated Technical Systems	Hours: 235	Cost: \$12,810
Total Estimated eGovernment Services	Hours:	Cost:
Total Estimated CLEMIS	Hours: --	Cost: --
Total Estimated Internal Services	Hours: --	Cost: --
IT Application Services Division Manager Approval:		Date:
IT Technical Systems Division Manager Approval:		Date:
IT eGovernment Services 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: 235	Cost: \$12,810
Preliminary Estimated Development for Future Phases	Hours:	Cost:
Grand Total Estimated Development	Hours: 235	Cost: \$12,810

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PROJECT COMPLETION AUTHORIZATION

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

Server Virtualization/Consolidation - Size Estimate (+/- 10% to 50%)

Type	ID	Task Name	Estimated Hours	Estimated Cost	Estimate Notes
Phase	000000	PROJECT ADMINISTRATION	84	\$10,247.97	
Phase	100000	Server Virtualization Consolidation Review	81	\$1,342.00	
Phase	200000	SAN RFP - Storage And Backup Technology	70	\$1,220.00	
			235	\$12,809.97	

T68186VC - Server Virtualization/Consolidation

3.1 - Provide an Enhanced Application Service Offering

- 3.1.1 - Increase application integration through web services
- 3.1.2 - Research and develop a Constituent Relationship Management (CRM) strategy
- 3.1.3 - Promote mobility and location integration in business applications
- 3.1.4 - Utilize ecommerce platform to offset costs and expand product offerings to customers
- 3.1.5 - Improve the quality, reliability and availability of all applications
- 3.1.6 - Increase the agility and responsiveness of business units by expanding customer analytics
- 3.1.7 - Leverage the County's Internet presence and portal as a branded consolidated point of access to all County information and services through a web browser
- 3.1.8 - Centralize identity and access management for all applications and content

3.2 - Enhance ability to provide effective and timely customer (County departments and CVTs) service

- 3.2.1 - Implement a centralized service center strategy to provide a single point of contact for service delivery
- 3.2.2 - Implement the IT Infrastructure Library (ITIL) best practice framework for IT Service Management
- 3.2.3 - Define a service and support strategy that clearly identifies the IT service provided
- 3.2.4 - Provide a high-quality training program to empower employees through technology
- 3.2.5 - Develop a formalized customer communication plan
- 3.2.6 - Build IT Staff expertise through professional development
- 3.2.7 - Expand capacity through ongoing organizational review and selective outsourcing

3.3 - Implement a Standardized Infrastructure Strategy

- 3.3.1 - Deliver services using a shared technology infrastructure wherever possible
- 3.3.2 - Implement a Microsoft infrastructure strategy
- 3.3.3 - Implement a consolidated security strategy
- 3.3.4 - Establish a standard personal computing hardware and software product suite, SLA, and replacement schedule for all County personal computers
- 3.3.5 - Establish support cost model and SLA for all offerings outside 3.3.4
- 3.3.6 - Improve service availability through network design and management strategies
- 3.3.7 - Establish enhanced capacity planning and recovery management strategies

Oakland County -- Server Virtualization/Consolidation

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:	16,058	8,826	8,826	60,826	8,826	8,826	112,188
Costs:							
Development Services Subtotal:	28,670	0	0	0	0	0	28,670
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	16,058	8,826	8,826	60,826	8,826	8,826	112,188
Annual Total Costs	28,670	0	0	0	0	0	28,670
Annual Return on Investment	(12,612)	8,826	8,826	60,826	8,826	8,826	83,518
Annual Costs/Savings Ratio	178.54%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	16,058	24,884	33,710	94,536	103,362	112,188	112,188
Cumulative Total Costs	28,670	28,670	28,670	28,670	28,670	28,670	28,670
Cumulative Return on Investment	(12,612)	(3,786)	5,040	65,866	74,692	83,518	83,518
Cumulative Cost/Savings Ratio	178.54%	115.21%	85.05%	30.33%	27.74%	25.56%	25.56%
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: _____						
Costs (including IT Resources) Reviewed By Technical Services Manager	Date: _____						

Oakland County -- Server Virtualization/Consolidation

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
Reduction in space, power, installation, integration and networking costs by reducing server counts	Cost Avoidance	Information Technology					
Reduced Integration hardware cost - Cost Saving of \$4000 per server rack due to reduction in number of servers required	Cost Avoidance	Information Technology		1	4,000	4,000	
Reduced Networking cost - Cost Saving of \$3232 per extreme network switch due to reduction in number of racks required for servers	Cost Avoidance	Information Technology		1	3,232	3,232	
Reduction in Software Licensing cost by reducing number of installations	Cost Avoidance	Information Technology					
Reduced Software Licensing Cost - Annual cost savings of \$ 335 for OS, Antivirus licensing costs per server	Cost Avoidance	Information Technology		1	335	335	
Reduced Software Licensing Cost - Annual cost savings of \$ 3432 for Oracle Enterprise Edition License per installation	Cost Avoidance	Information Technology		1	3,432	3,432	
Reduced Software Licensing Cost - Annual cost savings of \$ 3939 for MS SQL Enterprise edition licensing costs per installation	Cost Avoidance	Information Technology		1	3,939	3,939	
Reduced Labor cost on maintenance tasks - Annual cost saving of \$ 1,120 for 7 servers (one server per family) for Patch and upgrade validation	Cost Avoidance	Information Technology	HR	20	56	1,120	

Oakland County -- Server Virtualization/Consolidation

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
Improved Recovery Strategy - Optimized recovery strategy results in hourly cost saving of \$52K Dollars in terms of employee productivity	Cost Avoidance	Information Technology	HR	2,000	26	52,000	
Reduced Warmsite contract costs	Cost Avoidance	Information Technology					

Oakland County -- Server Virtualization/Consolidation

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	
Reduction in space, power, installation, integration and networking costs by reducing server counts	Cost Avoidance													
Reduced Integration hardware cost - Cost Saving of \$4000 per server rack due to reduction in number of servers required	Cost Avoidance	x						4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Reduced Networking cost - Cost Saving of \$3232 per extreme network switch due to reduction in number of racks required for servers	Cost Avoidance	x						3,232.00	0.00	0.00	0.00	0.00	0.00	0.00
Reduction in Software Licensing cost by reducing number of installations	Cost Avoidance													
Reduced Software Licensing Cost - Annual cost savings of \$ 335 for OS, Antivirus licensing costs per server	Cost Avoidance	x	x	x	x	x	x	335.00	335.00	335.00	335.00	335.00	335.00	335.00
Reduced Software Licensing Cost - Annual cost savings of \$ 3432 for Oracle Enterprise Edition License per installation	Cost Avoidance	x	x	x	x	x	x	3,432.00	3,432.00	3,432.00	3,432.00	3,432.00	3,432.00	3,432.00
Reduced Software Licensing Cost - Annual cost savings of \$ 3939 for MS SQL Enterprise edition licensing costs per installation	Cost Avoidance	x	x	x	x	x	x	3,939.00	3,939.00	3,939.00	3,939.00	3,939.00	3,939.00	3,939.00
Reduced Labor cost on maintenance tasks - Annual cost saving of \$ 1,120 for 7 servers (one server per family) for Patch and upgrade validation	Cost Avoidance	x	x	x	x	x	x	1,120.00	1,120.00	1,120.00	1,120.00	1,120.00	1,120.00	1,120.00

Oakland County -- Server Virtualization/Consolidation
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	
Improved Recovery Strategy - Optimized recovery strategy results in hourly cost saving of \$52K Dollars in terms of employee productivity														
	Cost Avoidance				x						52,000.00			
Reduced Warmsite contract costs	Cost Avoidance													

Oakland County -- Server Virtualization/Consolidation
Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Reduced Software Licensing Cost - Annual cost savings of \$ 3939 for MS SQL Enterprise edition licensing costs per installation	3,939	3,939	3,939	3,939	3,939	3,939	23,634
Reduced Labor cost on maintenance tasks - Annual cost saving of \$ 1,120 for 7 servers (one server per family) for Patch and upgrade validation	1,120	1,120	1,120	1,120	1,120	1,120	6,720
Improved Recovery Strategy - Optimized recovery strategy results in hourly cost saving of \$52K Dollars in terms of employee productivity				52,000			52,000
Reduced Warmsite contract costs							
<i>Cost Avoidance Subtotal:</i>	16,058	8,826	8,826	60,826	8,826	8,826	112,188
Savings Total:	16,058	8,826	8,826	60,826	8,826	8,826	112,188

Oakland County -- Server Virtualization/Consolidation
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	17030 - Technical Systems and Networking		66	122	8,052		x							
IT Hours - New Development	Development Svcs	17030 - Technical Systems and Networking		130	122	15,860		x							
IT Hours - New Development - CNT	Development Svcs	17030 - Technical Systems and Networking		26	122	3,172		x							
IT Hours - New Development - SCP	Development Svcs	17030 - Technical Systems and Networking		13	122	1,586		x							
Notebook - Maintenance	Hardware				2,372	0									
Mini Notebook - Acquisition	Hardware					0									
Mini Notebook - Maintenance	Hardware				2,196	0									
Laserprinter 1 - Acquisition	Hardware					0									
Laserprinter 1 - Maintenance	Hardware				1,104	0									
Laserprinter 2 - Acquisition	Hardware					0									
Laserprinter 2 - Maintenance	Hardware				1,208	0									
Laserprinter 3 - Acquisition	Hardware					0									
Laserprinter 3 - Maintenance	Hardware				1,860	0									
Image Workstations - Acquisition	Hardware					0									
Image Workstations - Maintenance	Hardware				3,496	0									
Terminals - Acquisition	Hardware					0									
Terminals - Maintenance	Hardware				644	0									
PRTR w/TERM ID - Acquisition	Hardware					0									
PRTR w/TERM ID - Maintenance	Hardware				1,072	0									
PRTR w/o TERM ID - Acquisition	Hardware					0									
PRTR w/o TERM ID - Maintenance	Hardware				1,072	0									
PC Maintenance User Owned	Hardware				2,304	0									
Printer Maintenance User Owned	Hardware				1,072	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					0									
Server - Maintenance	Infrastructure					0									
Server Sftwre - Acquisition/Upgrade	Infrastructure					0									

Oakland County -- Server Virtualization/Consolidation
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
Server Sftwre - Maintenance	Infrastructure					0							
TBD	Infrastructure					0							
TBD	Infrastructure					0							
TBD	Infrastructure					0							
TBD	Infrastructure					0							
Internet Access	Infrastructure				180	0							
Project Staff Training	Training					0							
User Training	Training					0							

Oakland County -- Server Virtualization/Consolidation
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	8,052.00					
IT Hours - New Development	Development Svcs	15,860.00					
IT Hours - New Development - CNT	Development Svcs	3,172.00					
IT Hours - New Development - SCP	Development Svcs	1,586.00					
Notebook - Maintenance	Hardware						
Mini Notebook - Acquisition	Hardware						
Mini Notebook - Maintenance	Hardware						
Laserprinter 1 - Acquisition	Hardware						
Laserprinter 1 - Maintenance	Hardware						
Laserprinter 2 - Acquisition	Hardware						
Laserprinter 2 - Maintenance	Hardware						
Laserprinter 3 - Acquisition	Hardware						
Laserprinter 3 - Maintenance	Hardware						
Image Workstations - Acquisition	Hardware						
Image Workstations - Maintenance	Hardware						
Terminals - Acquisition	Hardware						
Terminals - Maintenance	Hardware						
PRTR w/TERM ID - Acquisition	Hardware						
PRTR w/TERM ID - Maintenance	Hardware						
PRTR w/o TERM ID - Acquisition	Hardware						
PRTR w/o TERM ID - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	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						

Oakland County -- Server Virtualization/Consolidation
Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Server Sftwre - Maintenance	Infrastructure						
TBD	Infrastructure						
TBD	Infrastructure						
TBD	Infrastructure						
TBD	Infrastructure						
Internet Access	Infrastructure						
Project Staff Training	Training						
User Training	Training						

Oakland County -- Server Virtualization/Consolidation
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	8,052						8,052
IT Hours - New Development	15,860						15,860
IT Hours - New Development - CNT	3,172						3,172
IT Hours - New Development - SCP	1,586						1,586
<i>Development Services Subtotal:</i>	28,670						28,670
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
<i>Software Subtotal:</i>							
Infrastructure:							
<i>Infrastructure Subtotal</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	28,670						28,670

