

# Oakland County Department of Information Technology Project Scope and Approach

**Project Name: Network Services Test Environment**

**Project ID: TP9186TE**

<b>Leadership Group: Information Technology Steering Committee</b>				
<b>Department: Information Technology</b>			<b>Division: Technical Systems and Networking</b>	
<b>Project Sponsor: Carl Wilson</b>		<b>Date Requested: 5/18/18</b>		<b>PM Customer No. 186</b>
<b>Request Type: New Development</b>				
<b>IT Team Name: Network Services</b>			<b>IT Team No: P</b>	
<b>Project Manager/Leader: Jerry Cadreau</b>				
<b>Account Number:</b> 17030	<b>Account Description:</b>	Technical Systems and Networking	<b>Customer Name:</b>	Information Technology
<b>Grant Funded? No</b>		<b>Mandate? No</b>	<b>Mandate Source:</b>	

## **Project Goal**

To acquire software, equipment and work space to create a dev/test environment so risks to the County transport systems will be reduced.

## **Business Objective**

To acquire and implement software and hardware needed to create a test environment to be used for network changes.

### **Major Deliverables**

1. Build vs Lease Decision
2. Software needed for test network
3. Hardware / licensing
4. Design Diagram for test network
5. EA / Security approval of design
6. Staff training

### **Approach**

1. Create detail project plan
2. Research available options for utilizing Cloud hosted solution.
3. Create design document
4. Present to InfoSEC / EA for approval
5. Present options to management for build vs lease decision
6. Acquire DNA Center software
7. Acquire needed hardware and licensing

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- 8. Rack / Mount hardware
- 9. Load network configurations
- 10. Create VM Server(s) – if necessary
- 11. Test
- 12. Train staff

**Research & Analysis**

**Gartner Research Recommendation**

Nothing Found.

**Benefits**

*See Return on Investment (ROI) Analysis Document*

**Impact**

**Number of Users**     **All**  
**Divisions**             **All**  
**Leadership Groups** **All**

**Risk**

<b>Business Environment</b>	<b>Low</b>	Little or no impact to existing business processes
<b>Technical Environment</b>	<b>Medium</b>	Previously implemented technologies with new aspect 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:

<b><u>Role:</u></b>	<b><u>Name</u></b>	<b><u>Hours per Day</u></b>
Project Sponsor:	Carl Wilson	As needed

**Facilities**

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**Technical**

- If leased solution is available, that solution would be preferable assuming it would save the County money.

**Funding**

- 

**Other**

- 

**Priority**

**Constraints**

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**Exclusions**

- 
-

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**PROJECT PHASE AUTHORIZATION**

<b>Phase(s):</b> All	
<b>Total Estimated Application Services</b>	<b>Hours:</b>
<b>Total Estimated Technical Systems</b>	<b>Hours: 770</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	Date:
Reason:	
<b>Project Sponsor Approval:</b>	
Title:	Date:

**PROJECT SUMMARY**

<b>Authorized Development (see above)</b>	<b>Hours: 770</b>
<b>Preliminary Estimated Development for Future Phases</b>	<b>Hours:</b>
<b>Grand Total Estimated Development</b>	<b>Hours: 770 Cost: \$127,050</b>

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**PROJECT COMPLETION AUTHORIZATION**

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

Network Services Test Environment - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated	Estimate Notes
2				Hours	
3	3	000000	PROJECT ADMINISTRATION	186	
4	Phase	100000	Network Services Test Environment	584	
5				770	

**Oakland County -- Network Services Test Environment**

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:	13,200	13,332	13,465	13,600	13,736	13,873	81,207
<b>Costs:</b>							
Development Services Subtotal:	127,050	0	0	0	0	0	127,050
Hardware Subtotal:	35,000	0	0	0	0	35,000	70,000
Software Subtotal:	4,000	4,000	4,000	4,000	4,000	4,000	24,000
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	13,200	13,332	13,465	13,600	13,736	13,873	81,207
Annual Total Costs	166,050	4,000	4,000	4,000	4,000	39,000	221,050
Annual Return on Investment	(152,850)	9,332	9,465	9,600	9,736	(25,127)	(139,843)
Annual Costs/Savings Ratio	1257.95%	30.00%	29.71%	29.41%	29.12%	281.11%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	13,200	26,532	39,997	53,597	67,333	81,207	81,207
Cumulative Total Costs	166,050	170,050	174,050	178,050	182,050	221,050	221,050
Cumulative Return on Investment	(152,850)	(143,518)	(134,053)	(124,453)	(114,717)	(139,843)	(139,843)
Cumulative Cost/Savings Ratio	1257.95%	640.92%	435.15%	332.20%	270.37%	272.21%	272.21%
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:	_____		

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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>	<b>Annual Multiplier</b>
Increased security by allowing for more frequent implementation of patches and software upgrades	Intangible Benefit					0	
Provide environment for network services training	Intangible Benefit					0	
Avoid potential downtime for implementation patches that cause network or application outages.	Intangible Benefit					0	
Allow for a more proactive strategy for patch /software upgrades.	Intangible Benefit					0	
Reduction in Network team time required to build one off bench systems for critical patch testing.	Cost Avoidance		HR	80	165	13,200	1.010

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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
Increased security by allowing for more frequent implementation of patches and software upgrades	Intangible Benefit												
Provide environment for network services training	Intangible Benefit												
Avoid potential downtime for implementation patches that cause network or application outages.	Intangible Benefit												
Allow for a more proactive strategy for patch /software upgrades.	Intangible Benefit												
Reduction in Network team time required to build one off bench systems for critical patch testing.	Cost Avoidance	x	x	x	x	x	x	13,200.00	13,332.00	13,465.32	13,599.97	13,735.97	13,873.33



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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>							
Reduction in Network team time required to build one off bench systems for critical patch testing.	13,200	13,332	13,465	13,600	13,736	13,873	81,207
<i>Cost Avoidance Subtotal:</i>	<b>13,200</b>	<b>13,332</b>	<b>13,465</b>	<b>13,600</b>	<b>13,736</b>	<b>13,873</b>	<b>81,207</b>
<b>Intangible Benefit:</b>							
Increased security by allowing for more frequent implementation of patches and software upgrades							
Provide environment for network services training							
Avoid potential downtime for implementation patches that cause network or application outages.							
Allow for a more proactive strategy for patch /software upgrades.							
<b>Savings Total:</b>	<b>13,200</b>	<b>13,332</b>	<b>13,465</b>	<b>13,600</b>	<b>13,736</b>	<b>13,873</b>	<b>81,207</b>

**Oakland County -- Network Services Test Environment**  
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	IT - Information Technology / 17030	HR	770	165	127,050		X						
IT Hours - System Maintenance	Development Svcs				122	0								
IT Hours - Customer Support	Development Svcs				122	0								
IT Hours - Planned Maintenance	Development Svcs				122	0								
User Hours - New Development	Development Svcs					0								
User Hours - PTNE/OT	Development Svcs					0								
Contractor Professional Services	Development Svcs					0								
Test environment - CAPEX	Hardware	IT - Information Technology / 17030	EA	1	35,000	35,000		x						x
Test environment - Maintenance	Software	IT - Information Technology / 17030	ANN	1	4,000	4,000		x	x	x	x	x	x	x
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							
MS SQL Server Standard Per Processor - Includes Year 1 Maintenance	Infrastructure					4,725	0							
MS SQL Server Standard Per Processor - Year 2 and Beyond	Infrastructure					946	0							
MS SQL Server Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure					19,693	0							
MS SQL Server Enterprise Per Processor - Year 2 and Beyond	Infrastructure					3,939	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							

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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 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									
Project Staff Training	Training					0									
User Training	Training					0									
TBD	Infrastructure		ANN			0									
TBD	Infrastructure		ANN			0									
TBD	Infrastructure		ANN			0									

**Oakland County -- Network Services Test Environment**  
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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	127,050.00					
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						
Test environment - CAPEX	Hardware	35,000.00					35,000.00
Test environment - Maintenance	Software	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Server Rack Mount	Infrastructure						
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure						
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure						
MS SQL Server Standard Per Processor - Includes Year 1 Maintenance	Infrastructure						
MS SQL Server Standard Per Processor - Year 2 and Beyond	Infrastructure						
MS SQL Server Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure						
MS SQL Server Enterprise Per Processor - Year 2 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						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						
Project Staff Training	Training						
User Training	Training						
TBD	Infrastructure						
TBD	Infrastructure						
TBD	Infrastructure						

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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	127,050						127,050
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>127,050</b>						<b>127,050</b>
<b>Hardware:</b>							
Test environment - CAPEX	35,000					35,000	70,000
<i>Hardware Subtotal:</i>	<b>35,000</b>					<b>35,000</b>	<b>70,000</b>
<b>Software:</b>							
Test environment - Maintenance	4,000	4,000	4,000	4,000	4,000	4,000	24,000
<i>Software Subtotal:</i>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>24,000</b>
<b>Infrastructure:</b>							
<i>Infrastructure Subtotal</i>							
<b>Training:</b>							
<i>Training Subtotal:</i>							
<b>Other:</b>							
<i>Other Subtotal:</i>							
<b>Costs Total:</b>	<b>166,050</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>39,000</b>	<b>221,050</b>

