

Oakland County Department of Information Technology Project Scope and Approach

Project Name: eCommerce Redesign Program

Project ID: DJ8182RD

Leadership Group: IT Steering Committee		
Department: IT		Division: Application Services
Project Sponsor: Phil Bertolini / Jim Taylor	Date Requested: 6/11/18	PM Customer No. 182
Request Type: <u>New Development</u> <i>Customer Support</i>		Enhancement <i>Planned System Maintenance or Upgrade</i>
IT Team Name: eCommerce		IT Team No: J
Project Manager/Leader: Eric McGhee		
Account Number: 30004	Account Description: IT – eGovernment	Customer Name: IT – eGovernment
Grant Funded? Yes <u>No</u>	Mandate? Yes <u>No</u>	
	Mandate Source:	

Project Goal

To install new physical servers and hardware in both the primary and secondary data center locations in order to replace existing aging systems so that new applications can be efficiently load balanced while increasing uptime and reliability.

Business Objective

To provide updated hardware in both the primary and secondary data centers for new applications to reside on.

Major Deliverables

- New Production Servers
- New QA Servers
- New SQL databases
- New Database Sync application
- New SQL backups
- New VPN hosts
- Load balancing between environments

Approach

- Two new production servers located in the primary and secondary data center locations
- One new QA server at each location
- One new SQL database at each location with backup capabilities

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- Development of a new Oracle/SQL database synchronization job application
- One VPN host installed at each location
- One new NGINX load balancer at each location

Research & Analysis

Gartner Research Recommendation – N/A

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users – All current and future participating agencies

Divisions - All

Leadership Groups - All

Risk

Business Environment

Low - little or no impact to existing business processes

Technical Environment

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:

<u>Role</u>	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor	Phil Bertolini / Jim Taylor	As Needed

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Facilities

- None identified

Technical

- None

Funding

- Information Technology

Other

- None

Priority

- N/A

Constraints

- None identified

Exclusions

- None identified

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PROJECT PHASE AUTHORIZATION

Phase(s):	
Total Estimated Application Services	Hours: 2,065
Total Estimated Technical Systems	Hours: 179
Total Estimated CLEMIS	Hours:
Total Estimated Internal Services	Hours:
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: 2,244
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 2,244 Cost: \$370,260

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PROJECT COMPLETION AUTHORIZATION

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

eCommerce Redesign Program - Size Estimates - Phase Level ×					
	Type	ID	Task Name	Estimate Hours	Estimate Notes
1	Phase	000000	<input type="checkbox"/> PROJECT MANAGEMENT	56	
2	Phase	200000	<input type="checkbox"/> DEFINE BUSINESS REQUIREMENTS	24	
3	Phase	300000	<input type="checkbox"/> DESIGN SYSTEM ARCHITECTURE	28	
4	Phase	500000	<input type="checkbox"/> DEVELOP APPLICATION	51	
5	Phase	600000	<input type="checkbox"/> IMPLEMENTATION PHASE	85	
6	Phase	080000	<input type="checkbox"/> POST IMPLEMENTATION SUPPORT	6	
7					

Oakland County -- eCommerce Redesign Program

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	42,000	42,000	42,000	42,000	168,000
Cost Avoidance Subtotal:	0	0	1,344	1,344	1,344	1,344	5,376
Costs:							
Development Services Subtotal:	370,247	0	0	0	0	0	370,247
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	33,970	140,436	16,436	17,780	17,780	17,780	244,182
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	0	0	43,344	43,344	43,344	43,344	173,376
Annual Total Costs	404,217	140,436	16,436	17,780	17,780	17,780	614,429
Annual Return on Investment	(404,217)	(140,436)	26,908	25,564	25,564	25,564	(441,053)
Annual Costs/Savings Ratio	0.00%	0.00%	37.92%	41.02%	41.02%	41.02%	
Project Cumulative Statistics:							
Cumulative Total Savings	0	0	43,344	86,688	130,032	173,376	173,376
Cumulative Total Costs	404,217	544,653	561,089	578,869	596,649	614,429	614,429
Cumulative Return on Investment	(404,217)	(544,653)	(517,745)	(492,181)	(466,617)	(441,053)	(441,053)
Cumulative Cost/Savings Ratio	0.00%	0.00%	1294.50%	667.76%	458.85%	354.39%	354.39%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

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Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Elimination of cost on extended server support on existing EoL servers	Cost Avoidance		EA	8	168	1,344	
Improve server infrastructure to support significant growth (transactional volume growth)	Intangible Benefit					0	
Improved application performance by creating a tenant database structure	Intangible Benefit					0	
Improve application performance by improved database schema	Intangible Benefit					0	
Support the new functionality within OLP.	Intangible Benefit					0	
Improve reporting capabilities of data by redesigning the database schema	Intangible Benefit					0	
Maintain backward compatibility with AOFS	Intangible Benefit					0	
Reduce overall customers support by improving existing reporting and agency self service.	Tangible Benefit		EA	250	168	42,000	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

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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
Elimination of cost on extended server support on existing EoL servers	Cost Avoidance			x	x	x	x			1,344.00	1,344.00	1,344.00	1,344
Improve server infrastructure to support significant growth (transactional volume growth)	Intangible Benefit												
Improved application performance by creating a tenant database structure	Intangible Benefit												
Improve application performance by improved database schema	Intangible Benefit												
Support the new functionality within OLP.	Intangible Benefit												
Improve reporting capabilities of data by redesigning the database schema	Intangible Benefit												
Maintain backward compatibility with AOFS	Intangible Benefit												
Reduce overall customers support by improving existing reporting and agency self service.	Tangible Benefit			x	x	x	x			42,000.00	42,000.00	42,000.00	42,000

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Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Reduce overall customers support by improving existing reporting and agency self service.			42,000	42,000	42,000	42,000	168,000
<i>Tangible Benefits Subtotal:</i>			42,000	42,000	42,000	42,000	168,000
Cost Avoidance:							
Elimination of cost on extended server support on existing EoL servers			1,344	1,344	1,344	1,344	5,376
<i>Cost Avoidance Subtotal:</i>			1,344	1,344	1,344	1,344	5,376
Intangible Benefit:							
Improve server infrastructure to support significant growth (transactional volume growth)							
Improved application performance by creating a tenant database structure							
Improve application performance by improved database schema							
Support the new functionality within OLP.							
Improve reporting capabilities of data by redesigning the database schema							
Maintain backward compatibility with AOFS							
Savings Total:			43,344	43,344	43,344	43,344	173,376

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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	
IT Hours - New Development	Development Svcs			2,244	165	370,247		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	0			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								
CheckPoint Firewall	Hardware				18,000	0								
Cisco Switch	Hardware				3,420	0								
Cisco SFPs	Hardware				150	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	8,000	64,000			x					
Server - Maintenance	Infrastructure				360	0								
Server Sftwre - Acquisition/Upgrade	Infrastructure			8	168	1,344					x	x	x	
Server Sftwre - Maintenance	Infrastructure					0								
Server Rack Mount	Infrastructure			15	400	6,000			x					
NGINX Server Acquisition	Infrastructure			3	8,000	24,000			x					
NGINX Server Sftwre	Infrastructure			3	10,000	30,000			x					
NGINX Server Sftwre Maint.	Infrastructure			3	2,500	7,500			x	x	x	x	x	

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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	
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								
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			2	16,985	33,970		x						
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure			2	4,218	8,436			x	x	x	x	x	
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				5,414	0								
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								

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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 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				845	0								
Internet Access	Infrastructure				180	0								
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN	1	500	500			x	x	x	x	x	
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								

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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		
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									

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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	370,246.80					
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						
CheckPoint Firewall	Hardware						
Cisco Switch	Hardware						
Cisco SFPs	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		64,000.00				
Server - Maintenance	Infrastructure						
Server Sftwre - Acquisition/Upgrade	Infrastructure				1,344.00	1,344.00	1,344.00
Server Sftwre - Maintenance	Infrastructure						
Server Rack Mount	Infrastructure		6,000.00				
NGINX Server Acquisition	Infrastructure		24,000.00				
NGINX Server Sftwre	Infrastructure		30,000.00				
NGINX Server Sftwre Maint.	Infrastructure		7,500.00	7,500.00	7,500.00	7,500.00	7,500.00

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						
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	33,970.00					
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure		8,436.00	8,436.00	8,436.00	8,436.00	8,436.00
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						
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						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		500.00	500.00	500.00	500.00	500.00
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						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						

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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
Development Services:							
IT Hours - New Development	370,247						370,247
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>	370,247						370,247
Hardware:							
PC System - Acquisition							
PC System - Maintenance							
Notebook - Acquisition							
Notebook - Maintenance							
Tablet Notebook - Acquisition							
Tablet Notebook - Maintenance							
Laserprinter - Acquisition							
Laserprinter - Maintenance							
PC Maintenance User Owned							
Printer Maintenance User Owned							
File Space (100GB)							
CheckPoint Firewall		0	0	0	0	0	0
Cisco Switch		0	0	0	0	0	0
Cisco SFPs		0	0	0	0	0	0
<i>Hardware Subtotal:</i>							
Software:							
Package Software - Acquisition							
Package Software - Maintenance							
Business Objects Access							
Term Emulation SFTW-Acquisition							
Term Emulation SFTW-Maintenance							
<i>Software Subtotal:</i>							
Infrastructure:							
Server - Acquisition/Upgrade		64,000					64,000
Server - Maintenance							
Server Sftwre - Acquisition/Upgrade				1,344	1,344	1,344	4,032
Server Sftwre - Maintenance							

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Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Server Rack Mount		6,000					6,000
NGINX Server Acquisition		24,000					24,000
NGINX Server Sftwre		30,000					30,000
NGINX Server Sftwre Maint.		7,500	7,500	7,500	7,500	7,500	37,500
Oracle Enterprise Per Processor - Includes Year 1 Maintenance							
Oracle Enterprise Per Processor - Year 2 and Beyond							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	33,970						33,970
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond		8,436	8,436	8,436	8,436	8,436	42,180
SQL Server Enterprise - Purchased Sept 2016-Aug 2017 - (4 cores)							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019							
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance							
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond							
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance							

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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
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond							
SSL Certificate							
Internet Access							
Imperva Web Application Firewall (External Web Applications Only)		500	500	500	500	500	2,500
App Code Directories on Consolidated IIS Server (Virtual)							
Database (5 GB) on Consolidated SQL Instance Server							
Database Instance (125 GB DB) on Consolidated SQL Server							
Database SQL Maint Server							
Database SQL Server Physical							
DB Maintenance (Annual Cycle \$610)							
DB Maintenance (Semi-Annual Cycle \$1220)							
DB Maintenance (Semi-Annual Cycle \$2440)							
Dedicated Virtual Server							
DB Instance Setup							
DBA MS SQL Database Creation on Existing Instance							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601 On Premise Physical Server = N/A							
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$9,288							
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$9,751							
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$3,167 On Premise Physical Server = \$10,446							

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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
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906							
Dell PowerEdge 740XD servers for physical server farm for Virtual environment		0	0	0	0	0	
Dell Encryption software		0	0	0	0	0	
VM Licensing for Dell PowerEdge		0	0	0	0	0	
Logging Server for Dell PowerEdge		0	0	0	0	0	
<i>Infrastructure Subtotal</i>	33,970	140,436	16,436	17,780	17,780	17,780	244,182
Training:							
Project Staff Training							
User Training	0	0	0	0	0	0	
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	404,217	140,436	16,436	17,780	17,780	17,780	614,429

