Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Enterprise Architecture Program   **Project ID: TT2186EA**

Leadership Group: Information Technology Steering Committee	
Department: Information Technology	**Division:** Technical Services and Networking
Project Sponsor: EJ Widun **Date Requested:** 6/03/2020	**PM Customer No.** 186
Request Type: New Development	
IT Team Name: Enterprise Architecture	**IT Team No:** T
Project Manager/Leader: Mike Zemina	
Account Number: 17030 **Account Description:** Technical Services and Networking	**Customer Name:** Information Technology
Grant Funded? No	**Mandate?** No

Project Goal

To continue the improvement, strategic execution and delivery of IT, through the Enterprise Architecture Program for Oakland County so that county can achieve greater productivity through increased efficiency and effectiveness.

Business Objective

Driving toward a future based in trust with reduced costs, reduced risk and improved business partner enablement.

Major Deliverables

1. Create Strategy Documents & Drive Process Improvements.
2. Create Technology Roadmap with a focus on a 3-year Vision & Research Documents. (CTO)
3. Tech Debt Check DB Version (consolidate into a single system of record for applications (vision is to replace Application Catalog)).
4. Tech Debt Check Enhancements (e.g. identify internet accessible applications, applications that completed a third-party assessment, last vulnerability scan date, last pen test date).
5. Create bi-annual application and technology Tech Debt Check assessment.
6. Licensing Optimization, Questions & Answers (e.g. strategic solution to optimize the usage and spend of assets).
7. Enterprise Tool Capability Model, to determine an optimized list of monitoring tools for OC. (CTO)
8. Performance Benchmarking to determine a baseline of an application's performance.
9. Open Source Strategy/Standards to identify/create strategy to maintain open source approved licenses within OCT IT.
10. Cloud Innovation to research and evaluate new Cloud technology available, enhancing the OC Cloud environments.
11. Enterprise Monitoring to reduce and consolidate number of monitoring tools for OC.

12. Data Center Standards to define Data Center standards for Oakland County based on Power, stack, temperature, and air flow.
13. API (application programming interface) Engine, to evaluate available solution to generate APIs.
14. Network performance benchmarking to determine a network baseline of application's performance under a defined load.
15. EA Program Tracking and Controlling
16. MSU Projects (CTO)
17. Supplier/Vendor Reliability Program to improve the relationships with IT's key suppliers, create a reporting mechanism and process for semi-annual reviews, identify where objective measures and feedback can be productively shared.

Approach

1. Work with stakeholders to create business cases for improvements within their organization.
2. Assist stakeholders in creating project plans and relevant documents to be used in support of the agreed upon improvements project documentation.
3. Involvement in RFP/RFI efforts.
4. Continue to refine the Oakland County IT Technology Standards.
5. Review Architectural Principles, Controls and Guidelines to ensure IT activities align to Enterprise Architecture strategies.
6. Perform annual application and technology Tech Debt Check assessment.
7. Bring new building blocks to Oakland County to improve business and IT.
8. Maintain the Governance process for project engagement and standards alignment.
9. Deliver architectural recommendations for projects needing direction.
10. Create technology roadmaps for a three-year vision.
11. Build meaningful vendor relationships with active Road Mapping sessions.
12. Challenge decisions that do not:
    - 12.1. Standardize
    - 12.2. Integrate
    - 12.3. Mindset (align to our principles and standards)
    - 12.4. Process (align to our governance)
    - 12.5. Leverage investments
    - 12.6. Engagement (ensure Architectural Engagement in decisions)
13. Conduct proactive and retrospective technology investigations that serve as a springboard for innovation and environmental hardening.

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Research & Analysis

Gartner Research Recommendation: N/A

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users	All of IT directly; indirectly all of Oakland County users and CVTs
Divisions	Information Technology
Leadership Groups	IT Steering Committee

Risk

Business Environment	Medium – Project will require some changes to existing business
Technical Environment	Medium – Project will require some changes to existing 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:

Role:	Name	Hours per Day
Project Sponsor	EJ Widun	As Needed
CTO	EJ Widun	As Needed
CISO	TJ Fields	As Needed
IT Director	Mike Timm	As Needed
Application Services Manager	Tammi Shepherd	As Needed
Internal Services Manager	Janette McKenna	As Needed
CLEMIS Manager	Jeff Nesmith	As Needed

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Facilities

Technical

Funding

- Information Technology (IT)

Other

Priority

Constraints

Exclusions

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PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	**Hours:** 236	
Total Estimated Technical Systems	**Hours:** 3,176	
Total Estimated CLEMIS	**Hours:** 81	
Total Estimated Internal Services	**Hours:** 27	
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:**	
Preliminary Estimated Development for Future Phases	**Hours:**	
Grand Total Estimated Development	**Hours: 3,632**	**Cost: $599,280**

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PROJECT COMPLETION AUTHORIZATION

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

	Type	ID	Task Name	Estimated Hours	Estimate Notes
Enterprise Architecture Program - Size Estimate (+/- 10% to 50%) (Read-Only) ✕					
1	Phase		⊟ Enterprise Architecture Program	3,632	
2					
1				3,632	

Oakland County -- Enterprise Architecture 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	0	0	0	0	0
Cost Avoidance Subtotal:	0	0	0	0	0	0	0
Costs:							
Development Services Subtotal:	299,640	299,640	0	0	0	0	599,280
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	0	0	0	0	0	0	0
Annual Total Costs	299,640	299,640	0	0	0	0	599,280
Annual Return on Investment	(299,640)	(299,640)					(599,280)
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	0	0	0	0	0	0	0
Cumulative Total Costs	299,640	599,280	599,280	599,280	599,280	599,280	599,280
Cumulative Return on Investment	(299,640)	(599,280)	(599,280)	(599,280)	(599,280)	(599,280)	(599,280)
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?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

Oakland County -- Enterprise Architecture Program

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
Reduces risk and exposure	Intangible Benefit					0	
An articulation of the strategic requirements of the County	Intangible Benefit					0	
Improvements to the effectiveness, efficiency, and agility of the County	Intangible Benefit					0	
Models and strategies of the future state, which illustrate what the County should look like across all EA viewpoints in support of the business strategy	Intangible Benefit					0	
Cross-Organizational sharing of Enterprise Information	Intangible Benefit					0	
Better management of risk and complexity	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
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						0	
						0	
						0	

Oakland County -- Enterprise Architecture Program

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
Reduces risk and exposure	Intangible Benefit												
An articulation of the strategic requirements of the County	Intangible Benefit												
Improvements to the effectiveness, efficiency, and agility of the County	Intangible Benefit												
Models and strategies of the future state, which illustrate what the County should look like across all EA viewpoints in support of the business strategy	Intangible Benefit												
Cross-Organizational sharing of Enterprise Information	Intangible Benefit												
Better management of risk and complexity	Intangible Benefit												

Oakland County -- Enterprise Architecture Program

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit							
Tangible Benefits Subtotal:							
Cost Avoidance:							
Cost Avoidance Subtotal:							
Intangible Benefit:							
Reduces risk and exposure							
An articulation of the strategic requirements of the County							
Improvements to the effectiveness, efficiency, and agility of the County							
Models and strategies of the future state, which illustrate what the County should look like across all EA viewpoints in support of the business strategy							
Cross-Organizational sharing of Enterprise Information							
Better management of risk and complexity							
Savings Total:							

Oakland County -- Enterprise Architecture Program

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	Y1	Y2	Y3	Y4	Y5	Y6
								Affects Project ROI?					
IT Hours - New Development - Year 1	Development Svcs	Technical Services & Networking	HR	1,816	165	299,640		X					
IT Hours - New Development - Year 2	Development Svcs		HR	1,816	165	299,640			X				
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				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							
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							

Oakland County -- Enterprise Architecture Program

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 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				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				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							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0							

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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
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		500	0							
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 Exisitng 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							

Oakland County -- Enterprise Architecture Program

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
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 -- Enterprise Architecture Program

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development - Year 1	Development Svcs	299,640.00					
IT Hours - New Development - Year 2	Development Svcs		299,640.00				
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						
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						

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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 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						
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						
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						

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						
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 Exisitng Instance	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure						

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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 -- Enterprise Architecture Program

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 - Year 1	299,640						299,640
IT Hours - New Development - Year 2		299,640					299,640
IT Hours - Customer Support							
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	***299,640***	***299,640***					***599,280***
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	***299,640***	***299,640***					***599,280***

Oakland County -- Enterprise Architecture Program

Return on Investment Analysis

Assumptions

Date	Assumption Description