Project Name: CTO Technology Planning

Project ID: TT0186CT

Leadership Group:	Information Techno	logy Steering (Committee				
Department: Information Technology			Division: Technical Services and Networking				
Project Sponsor: E	J Widun	Date Requested: 6/12/2020		PM Customer No. 186			
Request Type: New	Development						
IT Team Name: Ente	erprise Architecture		IT Team No: ⊺				
Project Manager/Le	ader: Mike Zemina						
Account Number: 17030	Account Description		Services and	Customer Name: Information Technology			
Grant Funded? No	Л	Mandate? No					

Project Goal

To continue the attention on the strategic direction of IT through the CTO Technology Planning for OC so that the County can bring its focus to special research as needs arise.

Business Objective

Drive special research efforts for the County that require additional technical expertise.

Major Deliverables

• Determine efforts that require technical expertise.

Approach

• Monitor new technologies and assess their potential to become services

Research & Analysis

Gartner Research Recommendation: N/A

Benefits

Project Name: CTO T	echnology Planning	Project ID: TT0186CT
Impact		
Number of Users	All of IT directly; indirectly all of Oakland Count	y users and CVTs
Divisions	Information Technology	
Leadership Groups	IT Steering Committee	
<u>Risk</u> Business Environme	nt Medium – Project will require some chang	les to existing business
Technical Environme	ent Medium – Project will require some chang technologies	es to existing
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:	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor	EJ Widun	As Needed
СТО	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

Facilities

Technical

Project Name: CTO Technology Planning

Project ID: TT0186CT

Funding

• Information Technology (IT)

Other

Priority

Constraints

Exclusions

Project Name: CTO Technology Planning

Project ID: TT0186CT

PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	Hours:	
Total Estimated Technical Systems	Hours: 400	
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: Y	es 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: 400	Cost: \$66,000

Project Name: CTO Technology Planning

Project ID: TT0186CT

PROJECT COMPLETION AUTHORIZATION

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

	CTO Techn	ology Planning - Size Es	stimate (+/- 10% to 50%) 🗙		
	Гуре	ID	Task Name	Estimated	Estimate Notes
				Hours	
	Phase		E CTO Technology Planning	400	
2	muse			100	
Ľ					
1				400	
Ľ				400	

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:	33,000	33,000	0	0	0	0	66,000
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	33,000	33,000	0	0	0	0	66,000
Annual Return on Investment	(33,000)	(33,000)					(66,000)
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	33,000	66,000	66,000	66,000	66,000	66,000	66,000
Cumulative Return on Investment	(33,000)	(66,000)	(66,000)	(66,000)	(66,000)	(66,000)	(66,000)
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:							
Ponefite Deviewed By Dreject Spansor				Date:			
Benefits Reviewed By Project Sponsor				Dale:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			
				240.			

							A
Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Monitor new technologies and assess			Desc	Units		Total Savings	wuttpilei
their potential to become services	Intangible Benefit					0	
An articulation of the strategic						0	
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						0	
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	
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	Project Savings		Unit		Rate per		Annual
Benefit/Savings Description	Category	Budget Category/Funding Source	Desc	Units	Unit	Total Savings	Multiplier
						0	

		Affects Project ROI?			Potential Savings Extensions								
Benefit/Savings Description	Project Savings Category	Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	¥5	Y6
Monitor new technologies and assess					Ι	1	Π						
their potential to become services	Intangible Benefit												
An articulation of the strategic													
requirements of the County	Intangible Benefit	_	L		<u> </u>	1	<u> </u>						
Improvements to the effectiveness,													
efficiency, and agility of the County	Intangible Benefit						1						
Models and strategies of the future					1		1						
state, which illustrate what the County													
should look like across all EA													
viewpoints in support of the business						1							
strategy	Intangible Benefit	_	<u> </u>		1	1	<u> </u>						
Cross-Organizational sharing of													
Enterprise Information	Intangible Benefit		 	ļ	<u>i</u>	<u> </u>	<u>i</u>						
Better management of risk and	luter sible Devefit						1						
complexity	Intangible Benefit		-	-	<u> </u>	 	∔						
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		Affects Project ROI?	ifects Project ROI? Potential Savings Extensions					
	Project Savings							
Benefit/Savings Description	Category	Y1 Y2 Y3 Y4 Y5 Y6	Y1	Y2	Y3	Y4	Y5	Y6

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:							
JUSI AVOIDANCE:							
Cost Avoidance Subtotal:							
ntangible Benefit:							
Monitor new technologies and assess their							
potential to become services							
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							
Pottor management of rick and complexity							
Better management of risk and complexity							

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Savings Total:							

Return on Investment Analysis

								Af	ect	s Pro	ojecí	t ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	¥2	Y3	<u> </u>	Y5 Y6
IT Have New Davids we at Manual	Development Over				405	00.000						
IT Hours - New Development - Year 1	Development Svcs	Technical Services & Networking	HR	200	165	33,000		Х		\vdash	-+	
IT Hours - New Development - Year 2	Development Svcs		HR	200	165	33,000			Х			
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					1	
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				(İ	1	
Server - Acquisition/Upgrade	Infrastructure				8,000	0						
Server - Maintenance	Infrastructure				360	0						
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0						
Server Sftwre - Maintenance	Infrastructure					0					1	
Server Rack Mount	Infrastructure				400	0				Πİ		
Oracle Enterprise Per Processor -											1	
Includes Year 1 Maintenance	Infrastructure				21,372	0						
Oracle Enterprise Per Processor - Year												
2 and Beyond	Infrastructure				3,432	0						

Return on Investment Analysis

								Af	fects	s Pro	ject	ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4 ۱	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											İ	
(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											ĺ	
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						

Return on Investment Analysis

								Affects Project			ROI?	
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y 4 `	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	1 f				0.005	0						
Single/Dual Core - Year 2 and Beyond					2,635	0						
SSL Certificate	Infrastructure		_		845	0				<u> </u>		
Internet Access	Infrastructure				180	0				\vdash		
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										1		
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					1	
DB Instance Setup	Infrastructure				976	0				1		
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						

Return on Investment Analysis

								Af	fect	s Pr	ojec	t RO	?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual						
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4	Y5	76
Small - 4 Core 16GB RAM, 500GB										1			
Drive, 10 GB NIC - Cloud/Virtual =										1			
\$951 On Premise Physical Server =													
\$9,288	Infrastructure		ANN			0							
Medium - 8 Core 32GB RAM, 500GB										1			
Drive, 10 GB NIC - Cloud/Virtual =													
\$1,702 On Premise Physical Server =										1			
\$9,751	Infrastructure		ANN			0							
Large - 16 Core 64GB RAM, 500GB													
Drive, 10 GB NIC - Cloud/Virtual =										1			
\$3,167 On Premise Physical Server =										1			
\$10,446	Infrastructure		ANN			0							
Extra Large - 40 Core 160GB RAM,										1			
500GB Drive, 10 GB NIC -													
Cloud/Virtual = \$7,564 On Premise										1			
Physical Server = \$12,906	Infrastructure		ANN			0							

Return on Investment Analysis

			Pot	tential Cost	t Extensions		
	Project Cost						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development - Year 1	Development Svcs	33,000.00					
IT Hours - New Development - Year 2	Development Svcs		33,000.00				1
IT Hours - Customer Support	Development Svcs						1
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	Î	Ì				
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						1
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						

Return on Investment Analysis

			Po	otential Cost	Extensions		
	Project Cost						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor							
(4 cores) - Purchased Sept 2016-Aug				1			
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			1			
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				1			
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			1			
SQL Server - Standard Maintenance,							
Per Processor (4 cores) - Sept 2019							
and Beyond	Infrastructure						
Websphere Basic Per Processor							
Single/Dual Core - Includes Year 1				1			
Maintenance	Infrastructure			<u> </u>		<u> </u>	

Return on Investment Analysis

			P	otential Cost	Extensions		
	Project Cost						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor		_					
	Infrastructure						
Websphere ND Per Processor							
Single/Dual Core - Includes Year 1							
Maintenance	Infrastructure					ļ	
Websphere ND Per Processor	Infrastructure						
SSL Certificate	Infrastructure						
Internet Access	Infrastructure						1 1 1
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		i				
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						

Return on Investment Analysis

			Po	otential Cos	t Extensions		
Cost Description	Project Cost Category	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						

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	33,000						33,000
IT Hours - New Development - Year 2		33,000					33,000
IT Hours - Customer Support							
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	33,000	33,000					66,000
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infractoria Cubtatal							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							

Return on Investment Analysis

Cost Summary

	Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
	Other Subtotal:							
C	osts Total:	33,000	33,000					66,000

Return on Investment Analysis

Assumptions

Date	Assumption Description