Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: CLEMIS VPN RFP & Implementation   **Project ID: D43183PN**

Leadership Group: CLEMIS		
Department: Information Technology	**Division:** CLEMIS	
Project Sponsor: Jim Manning	**Date Requested:** 5/10/2022	**PM Customer No.** 183
Request Type: _**New Development**_ _**Enhancement**_ _**Customer Support**_ _**Planned System Maintenance or Upgrade**_		
IT Team Name: FRMS - Biometrics	**IT Team No: 4**	
Project Manager/Leader: Brian Smith / Rob Carroll		
Account Number: 63500 **Account Description:** CLEMIS Fund		**Customer Name:** CLEMIS
Grant Funded? Yes **No**	**Mandate?** Yes **No** **Mandate Source:**	

Project Goal

To research and implement a VPN so that CLEMIS can reduce costs and increase service levels to its member agencies.

Business Objective

To evaluate new VPN technologies and possibly implement them which would require new infrastructure

Major Deliverables
- Detailed Project Plan with WBS
- Business Requirements Documents
- Functional testing
- Implementation Plan
- Training/User Manual
- Service Level Agreement
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

Approach
- Develop Detailed Project Plans, As Needed
- Create RFP
- Document Business Requirements
- Assess Hardware and Software Requirements
- Develop Implementation Plans
- Develop User Acceptance Test Plans
- Test New System/Data
- Develop User Training, As Needed

Project Name: CLEMIS VPN RFP & Implementation   **Project ID: D43183PN**

- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train/Notify Users of New System/Data
- Conduct Change Control
- Release New System/Data into Production

Research & Analysis

Research Service Recommendation (select one)

- Research not Required

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users   2500 users

Divisions   CLEMIS

Leadership Groups CLEMIS

Risk

Business Environment   Medium - Project will require some changes 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.

Project Name: CLEMIS VPN RFP & Implementation   **Project ID: D43183PN**

Other Staffing: additional staffing will be available as follows:

Role:	Name	Hours per Day
Project Sponsor:	Jim Manning	As Needed

Facilities

-
-

Technical

- Assuming that we can reuse the current network.
- Assuming that we can reuse modems, laptops, and antennas

Funding

-

Other

-

Priority

- TBD

Constraints

- Implementation of the upgraded application is reliant on each agency's schedule.
-

Exclusions

-
-

Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: CLEMIS VPN RFP & Implementation   **Project ID: D43183PN**

PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	**Hours:**	
Total Estimated Technical Systems	**Hours: 224**	
Total Estimated CLEMIS	**Hours: 1,377**	
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:**	
Previously Authorized Development	**Hours:**	
Preliminary Estimated Development for Future Phases	**Hours:**	
Grand Total Estimated Development	**Hours: 1,601**	**Cost: $264,165**

Project Name: CLEMIS VPN RFP & Implementation   **Project ID: D43183PN**

PROJECT COMPLETION AUTHORIZATION

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

CLEMIS VPN RFP & Implementation - Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated
1				
2				Hours
3	3	000000	PROJECT MANAGEMENT	352
4	Phase	200000	DEFINE BUSINESS REQUIREMENTS	72
5	Phase	300000	DESIGN SYSTEM ARCHITECTURE	88
6	Phase	500000	DEVELOP APPLICATION	704
7	Phase	600000	IMPLEMENTATION PHASE	270
8	Phase	800000	POST IMPLEMENTATION SUPPORT	115
9				1,601

Oakland County -- CLEMIS VPN RFP Implementation

Date: 06/10/2022

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:	272,165	5,099	8,752	5,409	9,285	5,738	306,449
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	170,550	72,667	74,846	77,092	79,405	81,787	556,346
Infrastructure Subtotal	6,575	6,575	6,575	6,575	6,575	6,575	39,450
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	449,290	84,340	90,174	89,076	95,265	94,100	902,245
Annual Return on Investment	(449,290)	(84,340)	(90,174)	(89,076)	(95,265)	(94,100)	(902,245)
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	449,290	533,630	623,804	712,880	808,145	902,245	902,245
Cumulative Return on Investment	(449,290)	(533,630)	(623,804)	(712,880)	(808,145)	(902,245)	(902,245)
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 -- CLEMIS VPN RFP Implementation

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
Allows CJIS Network Access for Officers in the field.	Intangible Benefit					0	
Increased connectivity uptime with application persistence. During network congestion or cellular signal loss or degradation a mobile VPN allows applications to continue running without the need to restart the computer or application.	Intangible Benefit					0	
Allows for secure FIPS 140-2 compliant encryption in order to meet State of Michigan and FBI CJIS compliance.	Intangible Benefit						
Improved performance through the use of a dedicated mobile VPN network.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- CLEMIS VPN RFP Implementation

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
Allows CJIS Network Access for Officers in the field.	Intangible Benefit												
Increased connectivity uptime with application persistence. During network congestion or cellular signal loss or degradation a mobile VPN allows applications to continue running without the need to restart the computer or application.	Intangible Benefit												
Allows for secure FIPS 140-2 compliant encryption in order to meet State of Michigan and FBI CJIS compliance.	Intangible Benefit												
Improved performance through the use of a dedicated mobile VPN network.	Intangible Benefit												

Oakland County -- CLEMIS VPN RFP Implementation

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:							
Allows CJIS Network Access for Officers in the field.							
Increased connectivity uptime with application persistence. During network congestion or cellular signal loss or degradation a mobile VPN allows applications to continue running without the need to restart the computer or application.							
Allows for secure FIPS 140-2 compliant encryption in order to meet State of Michigan and FBI CJIS compliance.							
Improved performance through the use of a dedicated mobile VPN network.							

Oakland County -- CLEMIS VPN RFP Implementation

Return on Investment Analysis

Savings Summary

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

Oakland County -- CLEMIS VPN RFP Implementation

Date: 06/10/2022

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			1,601	165	264,165	1.030	x					
IT Hours - System Maintenance	Development Svcs			10	165	1,650	1.030		x	x	x	x	x
IT Hours - Customer Support	Development Svcs			20	165	3,300	1.030		x	x	x	x	x
IT Hours - Planned Maintenance	Development Svcs			20	165	3,300	1.030			x		x	
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0							
Contractor Professional Services	Development Svcs			40	200	8,000		x					
PC System - Acquisition	Hardware				639	0							
PC System - Maintenance	Hardware				3,352	0							
Laptop - Acquisition	Hardware				922	0							
Laptop - Maintenance	Hardware				3,352	0							
Tablet Notebook - Acquisition	Hardware				1,069	0							
Tablet Notebook - Maintenance	Hardware				3,352	0							
File Space (100GB)	Hardware		ANN		23	0							
Package Software - Acquisition	Software				1	100,000		x					
Package Software - Maintenance	Software				1	70,550	1.030	x	x	x	x	x	x
Business Objects Access	Software					0							
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0							
Oracle Enterprise Software Purchase - Per Processor (4 Cores) - Requires Annual Support Below	Infrastructure				42,280	0							
Oracle Enterprise Software Support - Per Processor (4 Cores)	Infrastructure				9,293	0	1.030						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure				16,985	0							
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure				12,724	0							

Oakland County -- CLEMIS VPN RFP Implementation

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 Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure				8,463	0							
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure				4,261	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure				4,429	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure				3,317	0							
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure				2,205	0							
SQL Server - Standard Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure				1,112	0							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,769	0							
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				754	0							
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				14,170	0							
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,835	0							
SSL Certificate	Infrastructure			2	910	1,820		x	x	x	x	x	x

Oakland County -- CLEMIS VPN RFP Implementation

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
Internet Access	Infrastructure				190	0							
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0							
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN		446	0							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = $2,735	Infrastructure		ANN			0							
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $3,057	Infrastructure		ANN	5	951	4,755		x	x	x	x	x	x
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $8,715	Infrastructure		ANN			0							
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,758	Infrastructure		ANN			0							
Extra Large - 40 Core 192GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $24,137	Infrastructure		ANN			0							

Oakland County -- CLEMIS VPN RFP Implementation

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	264,165.00					
IT Hours - System Maintenance	Development Svcs		1,699.50	1,750.49	1,803.00	1,857.09	1,912.80
IT Hours - Customer Support	Development Svcs		3,399.00	3,500.97	3,606.00	3,714.18	3,825.60
IT Hours - Planned Maintenance	Development Svcs			3,500.97		3,714.18	
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs	8,000.00					
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
Laptop - Acquisition	Hardware						
Laptop - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
File Space (100GB)	Hardware						
Package Software - Acquisition	Software	100,000.00					
Package Software - Maintenance	Software	70,550.00	72,666.50	74,846.50	77,091.89	79,404.65	81,786.79
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Oracle Enterprise Software Purchase - Per Processor (4 Cores) - Requires Annual Support Below	Infrastructure						
Oracle Enterprise Software Support - Per Processor (4 Cores)	Infrastructure						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure						

Oakland County -- CLEMIS VPN RFP Implementation

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Enterprise - Support, Per Processor (4 cores) - Sept 2022 and Beyond	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2019-Aug 2020 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2020-Aug 2021 - Includes Support thru Aug 2022	Infrastructure						
SQL Server Standard Software Purchase - Per Processor (4 cores) - Purchased Sept 2021-Aug 2022 - Includes Support thru Aug 2022	Infrastructure						
SQL Server - Standard Support, Per Processor (4 cores) - Sept 2022 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						
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	1,820.00	1,820.00	1,820.00	1,820.00	1,820.00	1,820.00

Oakland County -- CLEMIS VPN RFP Implementation

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = $2,735	Infrastructure						
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $3,057	Infrastructure	4,755.00	4,755.00	4,755.00	4,755.00	4,755.00	4,755.00
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $8,715	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,758	Infrastructure						
Extra Large - 40 Core 192GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $24,137	Infrastructure						

REV: February 22, 2022

Oakland County -- CLEMIS VPN RFP Implementation

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	264,165						264,165
IT Hours - System Maintenance		1,700	1,750	1,803	1,857	1,913	9,023
IT Hours - Customer Support		3,399	3,501	3,606	3,714	3,826	18,046
IT Hours - Planned Maintenance			3,501		3,714		7,215
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services	8,000						8,000
Development Services Subtotal:	*272,165*	*5,099*	*8,752*	*5,409*	*9,285*	*5,738*	*306,449*
Hardware:							
Hardware Subtotal:							
Software:							
Package Software - Acquisition	100,000						100,000
Package Software - Maintenance	70,550	72,667	74,846	77,092	79,405	81,787	456,346
Software Subtotal:	*170,550*	*72,667*	*74,846*	*77,092*	*79,405*	*81,787*	*556,346*
Infrastructure:							
SSL Certificate	1,820	1,820	1,820	1,820	1,820	1,820	10,920
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $3,057	4,755	4,755	4,755	4,755	4,755	4,755	28,530
Infrastructure Subtotal	*6,575*	*6,575*	*6,575*	*6,575*	*6,575*	*6,575*	*39,450*
Training:							

Oakland County -- CLEMIS VPN RFP Implementation

Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	*449,290*	*84,340*	*90,174*	*89,076*	*95,265*	*94,100*	*902,245*

Oakland County -- CLEMIS VPN RFP Implementation

Return on Investment Analysis

Assumptions

Date	Assumption Description
01-Jun-22	Assumes 5 VMs will be needed
01-Jun-22	Assumes 5 hours to retire old servers
01-Jun-22	Assumes 2 URLs will need to be registered
01-Jun-22	Assumes Security Scan 50 hours (10 hours * 5 servers)
01-Jun-22	Assumes the current network structure will be reused and will setup the new system in parrall to the old system.
01-Jun-22	Implementation of the upgraded application is reliant on each agency's schedule.
01-Jun-22	Assumes that CLEMIS can reuse modems, laptops, and antennas.
01-Jun-22	Software Maintenance is estimated at $70,550 per year
01-Jun-22	Software Acquisition estimated at $100,000
01-Jun-22	Professional Services to assist with new software acquisition 40 hours at $200 per hour