Project Name: Veterans Services Soldier Relief Database Project ID: DJ9173SR

Leadership Group: Fina	nce/Administra	tion									
Department: Public Serv	ices		<b>Division:</b> Veterans Services								
Project Sponsor: Garth	Wootten	Date Reques	sted: 3/14/18	PM Custom	<b>er No</b> . 173						
Request Type:	New Develo	<u>pment</u>	Enhancem	ent Cus	stomer Support						
	Planned Sys	stem Maintena	nnce or Upgrade								
IT Team Name: eComme	erce/Finance/A	dmin	IT Team No: J								
Project Manager/Leader	: Eric McGhee	)									
Account Number: 95650	Account Description:		NS SERVICES- ENT	Customer Name:	VETERANS SERVICES						
Grant Funded? Yes	<u>No</u>	ı	Mandate?	Yes	<u>No</u>						
		ı	Mandate Source:								

## **Project Goal**

To update the Veterans Soldiers Relief Program so that newer technology can be utilized which will provide additional functionality and automate current manual compilation of statistics for the Annual Report and provide efficiencies in the overall workflow process.

# **Business Objective**

Create a new method for keeping track of Soldiers Relief expenditures and reporting used in Veterans Services Division Annual Reports. Make the system is user friendly so that fewer hours are needed to provide emergency assistance to Oakland County Veterans and the possibility of errors are reduced. Upgrade to the latest software so that the possibility of lost data is reduced.

## Major Deliverables

- Detailed Project Plan
- Application and/or System Requirements
- End User Hardware and Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Application Code
- Service Level Agreement
- Disaster Recovery Toolkit
- Service Center Knowledge Documents

Project Name: Veterans Services Soldier Relief Database Project ID: DJ9173SR

#### **Approach**

- Develop Detailed Project Plan
- Review current business process and conduct needs assessment with customer, ensuring current manual processes are refined and automated.
- Document system requirements
- Determine and document system architecture and diagram
- Assess User Hardware and Software Requirements
- Conduct Tech Review
- Order hardware and software if needed
- Develop Implementation Plan
- Develop new system
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
- Release new system into production

## Research & Analysis

#### **Gartner Research Recommendation**

Research yielded no results

## **Benefits**

See Return on Investment (ROI) Analysis Document

## **Impact**

Number of Users 12

**Divisions** Veterans Services

**Leadership Groups** Finance Administration

Project Name: Veterans Services Soldier Relief Database Project ID: DJ9173SR

**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:

Role: Name Hours per Day

Project Sponsor: Garth Wootten As Needed

#### **Facilities**

None

#### **Technical**

•

#### **Funding**

Information Technology

#### Other

None

## **Priority**

• TBD

## **Constraints**

None

### **Exclusions**

None

Project Name: Veterans Services Soldier Relief Database Project ID: DJ9173SR

#### **PROJECT PHASE AUTHORIZATION**

Phase(s):		
Total Estimated Application Services	Hours: 520	
Total Estimated Technical Systems	Hours: 30	
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: 550	
Preliminary Estimated Development for Future Phases	Hours:	
Grand Total Estimated Development	Hours: 550	Cost: \$90,750

Project Name: Veterans Services Soldier Relief Database Project ID: DJ9173SR

### PROJECT COMPLETION AUTHORIZATION

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

Veterans Services Soldier Relief Database - Size Estimate (+/- 10% to 50%)

1	Туре	ID	Task Name	Estimated	Estimate Notes
2				Hours	
3	3	000000	PROJECT MANAGEMENT	138	
4	Phase	030000	BUSINESS AREA REQUIREMENTS	47	
5	Phase	040000	BUSINESS SYSTEM DESIGN		
6	Phase	050000	TECHNICAL DESIGN	30	
7	Phase	060000	PROGRAMMING	259	
8	Phase	070000	IMPLEMENTATION	60	
9	Phase	080000	POST IMPLEMENTATION SUPPORT	16	
10				550	

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:	2,450	2,450	2,450	2,450	2,450	2,450	14,700
Costs:							
Development Services Subtotal:	90,750	0	0	0	0	0	90,750
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	4,429	0	0	0	0	0	4,429
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	2,450	2,450	2,450	2,450	2,450	2,450	14,700
Annual Total Costs	95,179	0	0	0	0	0	95,179
Annual Return on Investment	(92,729)	2,450	2,450	2,450	2,450	2,450	(80,479)
Annual Costs/Savings Ratio	3884.86%	0.00%	0.00%	0.00%	0.00%	0.00%	(00, 110)
Project Cumulative Statistics:							
Cumulative Total Savings	2,450	4,900	7,350	9,800	12,250	14,700	14,700
Cumulative Total Costs	95,179	95,179	95,179	95,179	95,179	95,179	95,179
Cumulative Return on Investment	(92,729)	(90,279)	(87,829)	(85,379)	(82,929)	(80,479)	(80,479)
Cumulative Cost/Savings Ratio	3884.86%	1942.43%	1294.95%	971.21%	776.97%	647.48%	647.48%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							NOTATBACK
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date: <b>.</b>			

As Of: 3/14/2018

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
Avaid duplication of work by aliminating							
Avoid duplication of work by eliminating multliple data entry points. Based on 15							
minutes times 160 applications	Cost avoidance			40	55	2,200	1.000
Avoid loss of data by ensuring system	OOST AVOIDATION			+0	33	2,200	1.000
is updated and has proper backup	Intangible Benefit						
Automatically prepare reports needed	mangiolo Bonom						
for Annual Report to BOC	Cost Avoidance			5	40	200	1.000
Simplify and improve navigation ease of							
use	Intangible Benefit					0	
Increase the degree to which the							
software can be used by specified							
users to achieve quantified objectives							
with effectiveness, efficiency, and							
satisfaction in a quantified context of							
use.	Intangible Benefit					0	
Migrate old Access technology to the							
latest release of Access.	Intangible Benefit					0	
						0	

Return on Investment Analysis

### Savings Detail

		A	fect	s P	roje	ct F	ROI	l?	Potential Savings Extensions								
Benefit/Savings Description	Project Savings Category	Y1	Y2	Υ3	Y4	Υ	5 \	Y6	Y1	Y2	Y3	Y4	Y5	Y6			
Avoid duplication of work by eliminating						İ	İ							ı			
multliple data entry points. Based on 15					į									•			
	Cost avoidance	х	х	х	х	х	х	,	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200			
Avoid loss of data by ensuring system	0001 010100	T^	<u> ^_</u>	<u> ^</u>	<del> ^</del>	Ť	+^	Ì	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200			
	Intangible Benefit				į		İ							Ì			
Automatically prepare reports needed			İ	İ	İ	İ	Ť										
for Annual Report to BOC	Cost Avoidance	х	х	х	х	х	х	(	200.00	200.00	200.00	200.00	200.00	200			
Simplify and improve navigation ease of			•	İ													
use	Intangible Benefit		į	ĺ	İ		İ							1			
Increase the degree to which the			ļ	į	į	İ											
software can be used by specified			į		į		ļ							:			
users to achieve quantified objectives			į			į	İ							•			
with effectiveness, efficiency, and			į	į	İ		İ		i					•			
satisfaction in a quantified context of			İ	İ	İ	ĺ	İ							1			
use.	Intangible Benefit				-	1	-										
Migrate old Access technology to the			ļ			į	I										
latest release of Access.	Intangible Benefit		į		į												
			į	ĺ	ĺ	İ	Ī				-						
			<u> </u>	L	<u>.</u>	L	_[							·			

As Of: 3/14/2018

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:							
Avoid duplication of work by eliminating							
multliple data entry points. Based on 15							
minutes times 160 applications	2,200	2,200	2,200	2,200	2,200	2,200	13,200
Automatically prepare reports needed for							
Annual Report to BOC	200	200	200	200	200	200	1,200
Simplify and improve navigation ease of use							
Cost Avoidance Subtotal:	2,400	2,400	2,400	2,400	2,400	2,400	14,400
Intangible Benefit:							
Avoid loss of data by ensuring system is							
updated and has proper backup							
Increase the degree to which the software							
can be used by specified users to achieve							
quantified objectives with effectiveness,							
efficiency, and satisfaction in a quantified							
context of use.							
Migrate old Access technology to the latest							
release of Access.							
0							
Savings Total:	2,400	2,400	2,400	2,400	2,400	2,400	14,400

As Of: 3/14/2018

Return on Investment Analysis

								Af	fect	s Pro	ject	t RO	?
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
IT Hours - New Development	Development Svcs			550	165	90,750	•	х		i	i	一	目
IT Hours - System Maintenance	Development Svcs				147	0					Ţ		
IT Hours - Customer Support	Development Svcs				147	0				i	İ	i	
IT Hours - Planned Maintenance	Development Svcs				147	0				1	İ		
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0				i	İ		
Contractor Professional Services	Development Svcs					0				i	Ī		
PC System - Acquisition	Hardware				814	0							
PC System - Maintenance	Hardware				2,304	0					Î		
Notebook - Acquisition	Hardware				1,223	0				i	Ī		
Notebook - Maintenance	Hardware				2,372	0				i	Ī		
Tablet Notebook - Acquisition	Hardware				2,012	0							
Tablet Notebook - Maintenance	Hardware					0					i		
Laserprinter - Acquisition	Hardware				1,432	0					į		
Laserprinter - Maintenance	Hardware				1,104	0					į		
Image Workstations - Acquisition	Hardware					0				Ì	Î		
Image Workstations - Maintenance	Hardware				3,496	0				I			
PC Maintenance User Owned	Hardware				2,304	0				i	į		
Printer Maintenance User Owned	Hardware				1,072	0				Ì	Î		
File Space (100GB)	Hardware		ANN		173	0					l		
Internet Bandwidth per MB	Hardware		ANN		750	0							
Package Software - Acquisition	Software					0					İ		
Package Software - Maintenance	Software					0					ĺ		
Business Objects Access	Software					0				I	- 1		
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0				Ì	Î		
Server - Acquisition/Upgrade	Infrastructure				8,000	0				į			
Server - Maintenance	Infrastructure				360	0							
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0							
Server Sftwre - Maintenance	Infrastructure					0				Î	ĺ		
Server Rack Mount	Infrastructure				400	0							
Oracle Enterprise Per Processor -										i		Ī	
Includes Year 1 Maintenance	Infrastructure				21,372	0					į	İ	
Oracle Enterprise Per Processor - Year											Ì		
2 and Beyond	Infrastructure				3,432	0							

As Of: 3/14/2018

Return on Investment Analysis

								Af	fect	s Pro	oiec	t ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual				,	
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	<b>Y1</b>	<b>Y2</b>	Y3	<b>Y4</b>	Y5 Y6
SQL Server Enterprise - Per Processor											į	
(4 cores) - Purchased Sept 2016-Aug											į	Į
2017 - Includes Maintenance thru Aug											į	į
2019	Infrastructure				24,533	0					į	į
SQL Server Enterprise - Per Processor											Î	
(4 cores) - Purchased Sept 2017-Aug											į	ļ
2018 - Includes Maintenance thru Aug											ļ	ł
2019	Infrastructure				20,759	0					į	į
SQL Server Enterprise - Per Processor											j	
(4 cores) - Purchased Sept 2018-Aug											į	Į
2019 - Includes Maintenance thru Aug											į	į
	Infrastructure				16,985	0					į	į
SQL Server Enterprise - Maintenance,					·						İ	į
Per Processor (4 cores) - Sept 2019											ļ	į
and Beyond	Infrastructure				4,218	0					į	į
SQL Server Standard - Per Processor					,						i	
(4 cores) - Purchased Sept 2016-Aug										l i	İ	Ì
2017 - Includes Maintenance thru Aug											į	į
•	Infrastructure				6,398	0					į	į
SQL Server Standard - Per Processor					,						İ	į
(4 cores) - Purchased Sept 2017-Aug											į	Į
2018 - Includes Maintenance thru Aug											į	į
2019	Infrastructure				5,414	0					į	į
SQL Server Standard - Per Processor					·						İ	
(4 cores) - Purchased Sept 2018-Aug										!!	ŀ	į
2019 - Includes Maintenance thru Aug											į	ŧ
2019	Infrastructure			1	4,429	4,429		х			į	ŧ
SQL Server - Standard Maintenance,					·	·					ļ	
Per Processor (4 cores) - Sept 2019											ļ	Į
• • • • • • • • • • • • • • • • • • • •	Infrastructure				1,100	0					İ	į
Websphere Basic Per Processor											i	
Single/Dual Core - Includes Year 1											ļ	į
Maintenance	Infrastructure				3,506	0					İ	į

Return on Investment Analysis

Cost Detail

Cost Description   Category   Source   Desc   Units   Rate per   Units   Category   Total Cost   Multiplier   Y1   Y2   Y3   Y4   Y5   Y6   Y6   Websphere Basic Per Processor   Infrastructure									Af	fect	s Pro	ject	ROI?
Websphere Basic Per Processor   Infrastructure   701   0		Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Single/Dual Core - Year 2 and Beyond   Infrastructure	Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4	Y5 Y6
Single/Dual Core - Year 2 and Beyond   Infrastructure	Website Design												
Websphere ND Per Processor         Infrastructure         13,180         0           Single/Dual Core - Includes Year 1         Infrastructure         2,635         0           Websphere ND Per Processor         Infrastructure         2,635         0           Single/Dual Core - Year 2 and Beyond         Infrastructure         845         0           Internet Access         Infrastructure         180         0           Internet Access         Infrastructure         180         0           Imperva Web Application Firewall         Infrastructure         ANN         500         0           Ickternal Web Application Sonly)         Infrastructure         ANN         500         0         0           App Code Directories on Consolidated         Infrastructure         ANN         415         0         0         0           Instance Server         Infrastructure         ANN         415         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td>704</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td>į</td> <td>į /</td>						704	0					į	į /
Single/Dual Core - Includes Year 1   Infrastructure   I		Intrastructure				701	U						
Maintenance   Infrastructure												İ	}
Websphere ND Per Processor         Infrastructure         2,635         0         0         1         2         35SL Certificate         0         1						40.400						- 1	į į
Single/Dual Core - Year 2 and Beyond   Infrastructure	Maintenance	Infrastructure				13,180	0					į	[
Single/Dual Core - Year 2 and Beyond   Infrastructure	Wohenhoro ND Por Processor												
SSL Certificate		Infractructuro				2 625	0					- 1	•
Internet Access   Infrastructure   Inf												-	
Imperva Web Application Firewall (External Web Applications Only)													_
(External Web Applications Only)		IIIIIasiiuciule				100	U						
App Code Directories on Consolidated   Infrastructure   Infrastructure   ANN   415   0   0   0   0   0   0   0   0   0		Infractructure		ANN		500	0					į	
Infrastructure		illiastiuctuie		ZININ		300	U					-	
Database (5 GB) on Consolidated SQL   Infrastructure		Infractructure		ANN		115	0					į	į /
Infrastructure		imasiruoturo		ZININ		413	U					<del>- i</del>	
Database Instance (125 GB DB) on   Consolidated SQL Server   Infrastructure   ANN   2,395   0		Infrastructura		ΔΝΝ		930	0				l	ŀ	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           \$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 Exisiting Instance         Infrastructure         366         0           Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601		imasiruoturo		ZININ		930	0						
Database SQL Maint Server	` ,	Infrastructure		ΔΝΝ		2 305	0					į	}
Database SQL Server Physical   Infrastructure   ANN   19,158   0												- ŧ	
DB Maintenance (Annual Cycle \$610)												÷	
DB Maintenance (Semi-Annual Cycle   \$1220)						,					<u> </u>	- 1	<del>- j-  </del>
\$1220)		milastractare		7 (1 4) 4		010	0				- 1	- i	
DB Maintenance (Semi-Annual Cycle \$2440)  Semi-Annual Cycle Infrastructure  Infrastructure  Dedicated Virtual Server  Infrastructure  Infrastructure  ANN  ANN  ANN  ANN  ANN  ANN  ANN  A	`	Infrastructure		ANN		1 220	0				ŀ	į	
\$2440)         Infrastructure         ANN         2,440         0  <	1 ' ' '	minaci actare		,		1,220	•					- i	
Dedicated Virtual Server Infrastructure ANN 4,150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Infrastructure		ANN		2 440	0					ŀ	•
DB Instance Setup  DBA MS SQL Database Creation on Exisiting Instance  Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601											ŧ		
DBA MS SQL Database Creation on Exisiting Instance 366 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5				,							ı	i	
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601		madadada				0.0					1	Ť	
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601	· ·	Infrastructure				366	0					- 1	į į
Drive, 10 GB NIC - Cloud/Virtual = \$601						330					-	÷	
Drive, 10 GB NIC - Cloud/Virtual = \$601	Extra Small - 2 Core 8GB RAM 500GB											į	
												ļ	
		Infrastructure		ANN			0				i	į	

As Of: 3/14/2018

Return on Investment Analysis

Cost Detail

								Af	fect	s Pr	ojec	t RO	)l?
Cost Personintian	Project Cost	Budget Category/Funding	Unit	l limite	Rate per	Total Coat	Annual	V4	Va	V2	V4	VE	VC
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y 1	Y 2	Y 3	Y4	15	Y6
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951													
	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,	i i i i dotaro		,			-							
500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure		ANN			0							

REV: January 22, 2018

As Of: 3/14/2018

Return on Investment Analysis

	Potential Cost Extensions								
	Project Cost								
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6		
IT Hours - New Development	Development Svcs	90,750.00		!	1 1 4	! ! !	! ! !		
IT Hours - System Maintenance	Development Svcs			<u> </u>	<u> </u>				
IT Hours - Customer Support	Development Svcs			į	i !				
IT Hours - Planned Maintenance	Development Svcs								
User Hours - New Development	Development Svcs				! !	 			
User Hours - PTNE/OT	Development Svcs								
Contractor Professional Services	Development Svcs				ļ				
PC System - Acquisition	Hardware				i !				
PC System - Maintenance	Hardware								
Notebook - Acquisition	Hardware								
Notebook - Maintenance	Hardware								
Tablet Notebook - Acquisition	Hardware	i							
Tablet Notebook - Maintenance	Hardware			!	] [	1 1 1	!		
Laserprinter - Acquisition	Hardware								
Laserprinter - Maintenance	Hardware			-	!		<u> </u>		
Image Workstations - Acquisition	Hardware								
Image Workstations - Maintenance	Hardware			1			!		
PC Maintenance User Owned	Hardware			-	!		:		
Printer Maintenance User Owned	Hardware								
File Space (100GB)	Hardware			!					
Internet Bandwidth per MB	Hardware								
Package Software - Acquisition	Software			-	!		<u> </u>		
Package Software - Maintenance	Software								
Business Objects Access	Software			!			!		
Term Emulation SFTW-Acquisition	Software								
Term Emulation SFTW-Maintenance	Software								
Server - Acquisition/Upgrade	Infrastructure	l		-	1 1 1	1 1 1	!		
Server - Maintenance	Infrastructure								
Server Sftwre - Acquisition/Upgrade	Infrastructure			1			<del> </del>		
Server Sftwre - Maintenance	Infrastructure	Ì			}		•		
Server Rack Mount	Infrastructure				!				
Oracle Enterprise Per Processor -									
Includes Year 1 Maintenance	Infrastructure				•				
Oracle Enterprise Per Processor - Year		İ		i	ļ		!		
2 and Beyond	Infrastructure								

Return on Investment Analysis

	Potential Cost Extensions							
0.15.1.0	Project Cost	V4 V9 V9 V4 V5 V						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6	
SQL Server Enterprise - Per Processor								
(4 cores) - Purchased Sept 2016-Aug				į		İ		
2017 - Includes Maintenance thru Aug				Ì	i ! !			
2019	Infrastructure			<u> </u>	! ! !	<u></u>	<u></u>	
SQL Server Enterprise - Per Processor								
(4 cores) - Purchased Sept 2017-Aug				į			<u> </u>	
2018 - Includes Maintenance thru Aug						İ	•	
2019	Infrastructure							
SQL Server Enterprise - Per Processor								
(4 cores) - Purchased Sept 2018-Aug				ļ			<u> </u>	
2019 - Includes Maintenance thru Aug				į		İ		
2019	Infrastructure			Ì	i ! !			
SQL Server Enterprise - Maintenance,								
Per Processor (4 cores) - Sept 2019							<u> </u>	
and Beyond	Infrastructure			į		İ		
SQL Server Standard - Per Processor				Ĭ	Ĭ ! !	i I	i i	
(4 cores) - Purchased Sept 2016-Aug								
2017 - Includes Maintenance thru Aug				•				
2019	Infrastructure			į	į	į		
SQL Server Standard - Per Processor				ļ		!		
(4 cores) - Purchased Sept 2017-Aug							<u> </u>	
2018 - Includes Maintenance thru Aug				•				
2019	Infrastructure			Ì	i ! !			
SQL Server Standard - Per Processor								
(4 cores) - Purchased Sept 2018-Aug				ļ			!	
2019 - Includes Maintenance thru Aug				Ì	i ! !			
2019	Infrastructure	4,429.00			! ! !			
SQL Server - Standard Maintenance,								
Per Processor (4 cores) - Sept 2019				İ	İ			
and Beyond	Infrastructure					•	<u> </u>	
Websphere Basic Per Processor								
Single/Dual Core - Includes Year 1				İ	İ	İ	<u> </u>	
Maintenance	Infrastructure	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u>:                                    </u>	

Return on Investment Analysis

		Potential Cost Extensions								
Out Description	Project Cost	V/4	\/o	\/a	V4	\/-	\/O			
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6			
				}	}	İ	}			
Websphere Basic Per Processor							! !			
Single/Dual Core - Year 2 and Beyond	Infrastructure		1	] !	] 		] 			
Websphere ND Per Processor										
Single/Dual Core - Includes Year 1				!	!		!			
Maintenance	Infrastructure		į		į		į			
Wakankan ND Dan Daaraa										
Websphere ND Per Processor							! !			
Single/Dual Core - Year 2 and Beyond	Infrastructure									
SSL Certificate	Infrastructure		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
Internet Access	Infrastructure		<u> </u>	ļ	ļ	ļ	ļ			
Imperva Web Application Firewall						İ				
(External Web Applications Only)	Infrastructure		<u> </u>	! ! !	! ! !	<u> </u>	! ! !			
App Code Directories on Consolidated										
IIS Server (Virtual)	Infrastructure		<u> </u>	ļ	ļ	ļ	ļ			
Database (5 GB) on Consolidated SQL										
Instance Server	Infrastructure		1	 	 		 			
Database Instance (125 GB DB) on										
Consolidated SQL Server	Infrastructure									
Database SQL Maint Server	Infrastructure									
Database SQL Server Physical	Infrastructure		<u> </u>	! !	! !	! !	! !			
DB Maintenance (Annual Cycle \$610)	Infrastructure		<u> </u>							
DB Maintenance (Semi-Annual Cycle										
\$1220)	Infrastructure									
DB Maintenance (Semi-Annual Cycle				<u> </u>	! !		! !			
\$2440)	Infrastructure									
Dedicated Virtual Server	Infrastructure				 		<u> </u>			
DB Instance Setup	Infrastructure									
DBA MS SQL Database Creation on				!	!		ļ			
Exisitng Instance	Infrastructure									
			-	İ	İ	İ	İ			
Extra Small - 2 Core 8GB RAM, 500GB				!						
Drive, 10 GB NIC - Cloud/Virtual = \$601				İ	İ	İ	ļ			
On Premise Physical Server = N/A	Infrastructure		<u>i</u>	<u>į</u>	<u>į</u>	<u> </u>	<u>į</u>			

As Of: 3/14/2018

Return on Investment Analysis

		Potential Cost Extensions								
Cost Description	Project Cost Category	Y1	Y2	Y3	Y4	Y5	Y6			
						I I I	I I I			
Small - 4 Core 16GB RAM, 500GB										
Drive, 10 GB NIC - Cloud/Virtual = \$951					1					
On Premise Physical Server = \$9,288	Infrastructure		<u> </u>				1 1 1			
Medium - 8 Core 32GB RAM, 500GB			1			! ! !	I I I			
Drive, 10 GB NIC - Cloud/Virtual =							! ! !			
\$1,702 On Premise Physical Server =										
\$9,751	Infrastructure						i !			
Large - 16 Core 64GB RAM, 500GB					Ì	ì ! !	Ĭ I I			
Drive, 10 GB NIC - Cloud/Virtual =							! ! !			
\$3,167 On Premise Physical Server =							 			
\$10,446	Infrastructure									
Extra Large - 40 Core 160GB RAM,					!	1 !	1 1 !			
500GB Drive, 10 GB NIC - Cloud/Virtual										
= \$7,564 On Premise Physical Server =					İ	i !				
\$12,906	Infrastructure									

As Of: 3/14/2018

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	90,750						90,750
IT Hours - System Maintenance							
IT Hours - Customer Support							
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	90,750						90,750
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	4,429						4,429
moduces Maintenance that Aug 2010	7,720						4,423
Infrastructure Subtotal	4,429						4,429
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	95,179						95,179

As Of: 3/14/2018

Return on Investment Analysis

## Assumptions

Date	Assumption Description
	Savings Detail - Automate the printing of checks so that costs would not be incurred with manual completion of checks: This is the estimate
14-Mar-18	for the purchase of checks from the bank.
	Veteran's Services will NOT be able to print checks based on the MS Access-to-SQL conversion and will require additional hardware,
14-Jun-18	software, and licensing
	Hours breakdown is as follows: Core work at 288 hours (including 20 DBA and 10 SA hours), PM and contigency at 165 hours, and Pre/Post
	Implementation at 97 hours
	Treasurer's Office estimated ~\$40,000 for the cost of BottomLine licenses and MICR printers
15-Jun-18	Security Team has asked for 4 hours to perform security scans

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