Project Name: Oaknet Fiber Physical Plant Feasibility Study Project ID: TP31860F

Leadership Group: IT Steering Committee									
Department: Informat	ion Technology		Division: Technical Systems & Networking						
Project Sponsor: EJ W	/idun	Date Requested	d: 4/13/22	er No. 186					
Request Type: N	t Eni	hancement		Customer	Support				
	Planned Syst	tem Maintenance	e or Upgrade	е					
IT Team Name: Netwo	rk Services		IT Team No	0: P					
Project Manager/Lead	er: Jerry Cadrea	u							
Account 17030 Number:	Account Description:	Technical Sy Networking	stems &		Customer Name:	Information Technology			
Grant Funded?	Yes <u>No</u>		ndate? ndate Source	Yes e:	<u>No</u>				

Project Goal

To conduct feasibility study to determine sustainability of physical plant regarding burying existing aerial fiber links so that costs and risks are defined.

Business Objective

Conduct a review of the existing OakNET fiber plant to determine risks, sustainability, and provide an improvement strategy including residual value of existing fiber plant and costs for improving reliability of critical fiber links.

Major Deliverables

Inventory of fiber plant connections Risk Assessment Report Recommendation Report

Approach

Gather information about fiber connections
Review pertinent information about fiber connections
Make assessment report
Provide report to IT Management for decision

Project Name: Oaknet Fiber Physical Plant Feasibility Study Project ID: TP31860F

Research & Analysis

IT Research & Advisory Services Recommendation (select one)

Research not Required

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users All fiber connected users

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.

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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:NameHours per DayProject Sponsor:EJ WidunAs Needed

Facilities

•

•

Form Rev. 03/15/2022

Project Name: Oal	knet Fiber Physical Plant Feasibility Study	Project ID: TP3186OF
Technical		
•		
•		
Funding		
• Information	Technology	
Other •		
Priority TBD		
Constraints		
•		
•		
Exclusions		
•		

Project Name: Oaknet Fiber Physical Plant Feasibility Study Project ID: TP31860F

PROJECT PHASE AUTHORIZATION

11100201111110271		
Phase(s): All		
Total Estimated Application Services	Hours:	
Total Estimated Technical Systems	Hours: 553	
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 Internal Services Division Manager Approval: IT Management Approval:		Date:
<u> </u>	s No	Date:
IT Management Approval:	s No	
IT Management Approval: Approved: Yes	s No	
IT Management Approval: Approved: Yes Reason:	s No	
IT Management Approval: Approved: Yes Reason: Project Sponsor Approval:		Date:
IT Management Approval: Approved: Yes Reason: Project Sponsor Approval: Title:		Date:
IT Management Approval: Approved: Yes Reason: Project Sponsor Approval: Title: PROJECT SU	MMARY	Date:

Hours:

Hours: 553

Cost: \$91,245

Preliminary Estimated Development for Future Phases

Grand Total Estimated Development

Project Name: Oaknet Fiber Physical Plant Feasibility Study Project ID: TP31860F

PROJECT COMPLETION AUTHORIZATION

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

Oaknet Fiber Physical Plant Feasibility Study - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated	Estimate Notes
_2				Hours	
3	Phase	000000	PROJECT MANAGEMENT	143	
4	Phase	600000	IMPLEMENTATION PHASE	410	
5				553	

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:	91,245	0	0	0	0	0	91,245
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	91,245	0	0	0	0	0	91,245
Annual Return on Investment	(91,245)						(91,245)
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	(0:,=:0)
Project Cumulative Statistics:							
Cumulative Total Savings	0	0	0	0	0	0	0
Cumulative Total Costs	91,245	91,245	91,245	91,245	91,245	91,245	91,245
Cumulative Return on Investment	(91,245)	(91,245)	(91,245)	(91,245)	(91,245)	(91,245)	(91,245)
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?							110 1711 271011
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Belletits Reviewed by Project Sportsor				Date.			
Costs (including IT Resources) Reviewed By							
Information Technology Project Manager				Date:			

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
						0	
Provide strategic roadmap for existing fiber plant including projected lifespan, change management, improvement and							
replacement.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

Return on Investment Analysis

Savings Detail

		Af	fect	s Pr	ojec	t R	OI?		Po	tential Savii	ngs Extensio	ns	
Benefit/Savings Description	Project Savings Category	Y1	Y2	Y3	Y 4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
Provide strategic roadmap for existing fiber plant including projected lifespan, change management, improvement and replacement.	Intangible Benefit												

Return on Investment Analysis

Savings Summary

	Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tar	ngible Benefit:							
	Tangible Benefits Subtotal:							
Co	st Avoidance:							
	Cost Avoidance Subtotal:							
	Cost Avoidance Subtotal.							
Inta	angible Benefit:							
	Provide strategic roadmap for existing fiber							
	plant including projected lifespan, change							
	management, improvement and							
	replacement.							
Sav	vings Total:							

Return on Investment Analysis

Cost Detail

								Af	fect	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 `	Y5 Y6
IT Hours - New Development	Development Svcs		HR	553	165	91,245	1.015	Х		\Box	\neg	
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						i
User Hours - PTNE/OT	Development Svcs					0						
Contractor Professional Services	Development Svcs					0						
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					0						
Package Software - Maintenance	Software					0						
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										1 1	- 1	
Annual Support Below	Infrastructure				42,280	0				i	İ	
Oracle Enterprise Software Support -										()		
Per Processor (4 Cores)	Infrastructure				9,293	0	1.030			i i	I	
SQL Server Enterprise Software												
Purchase - Per Processor (4 cores) -											- 1	
Purchased Sept 2019-Aug 2020 -												
Includes Support thru Aug 2022	Infrastructure				16,985	0				i i		
SQL Server Enterprise Software												
Purchase - Per Processor (4 cores) -										(- 1	
Purchased Sept 2020-Aug 2021 -												
Includes Support thru Aug 2022	Infrastructure				12,724	0				Шİ	<u>i</u>	

Return on Investment Analysis

Cost Detail

								Af	fect	s Pro	iect	ROI?
	Project Cost	Budget Category/Funding	Unit		Rate per		Annual					
Cost Description	Category	Source	Desc	Units	Unit	Total Cost	Multiplier	Y1	Y2	Y3	Y4 `	Y5 Y6
SQL Server Enterprise Software											T	
Purchase - Per Processor (4 cores) -												•
Purchased Sept 2021-Aug 2022 -												
Includes Support thru Aug 2022	Infrastructure				8,463	0				i	İ	•
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				i	İ	•
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) -										i	İ	•
Purchased Sept 2021-Aug 2022 -												•
Includes Support thru Aug 2022	Infrastructure				2,205	0					į	•
SQL Server - Standard Support, Per												
Processor (4 cores) - Sept 2022 and											į	•
	Infrastructure				1,112	0						
Websphere Basic Per Processor												
Single/Dual Core - Includes Year 1											i	•
Maintenance	Infrastructure				3,769	0						[
										i	İ	•
Websphere Basic Per Processor						_						
	Infrastructure				754	0					<u>i</u>	
Websphere ND Per Processor										i	İ	•
Single/Dual Core - Includes Year 1						_					İ	•
Maintenance	Infrastructure				14,170	0			<u> </u>		—∔	
Websites ND Des Diseases										i	İ	•
Websphere ND Per Processor					0.005						ļ	<u> </u>
	Infrastructure				2,835	0			<u> </u>		_ <u></u>	['
SSL Certificate	Infrastructure				910	0			<u> </u>	<u> </u>	<u>_</u> i	i

Return on Investment Analysis

Cost Detail

	Ι							Af	fect	s Pro	ojec	t RO	l?
Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Y1	Y2	Y 3	Y4	Y5	Y6
Internet Access	Infrastructure				190	0				ŀ	ļ	- 1	
()/	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			0							
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							

Return on Investment Analysis

Cost Detail

		S					
	Project Cost						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	91,245.00		 			! !
IT Hours - System Maintenance	Development Svcs						
IT Hours - Customer Support	Development Svcs			į			<u>.</u>
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						
Laptop - Acquisition	Hardware						
Laptop - Maintenance	Hardware				<u> </u>	i !	!
Tablet Notebook - Acquisition	Hardware						<u> </u>
Tablet Notebook - Maintenance	Hardware				i !	i	
File Space (100GB)	Hardware						!
Package Software - Acquisition	Software				<u>.</u>		
Package Software - Maintenance	Software						
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software				<u> </u>	i !	!
Term Emulation SFTW-Maintenance	Software						1
Oracle Enterprise Software Purchase -					i !	i	
Per Processor (4 Cores) - Requires				ļ	! ! !	! ! !	
Annual Support Below	Infrastructure						•
Oracle Enterprise Software Support -				1			1
Per Processor (4 Cores)	Infrastructure				i !		
SQL Server Enterprise Software							
Purchase - Per Processor (4 cores) -				•	İ		
Purchased Sept 2019-Aug 2020 -							İ
Includes Support thru Aug 2022	Infrastructure				 		
SQL Server Enterprise Software							
Purchase - Per Processor (4 cores) -				•	İ		
Purchased Sept 2020-Aug 2021 -		İ					İ
Includes Support thru Aug 2022	Infrastructure			!			•

Return on Investment Analysis

Cost Detail

			Potential Cost Extensions					
	Project Cost	- Contract Contractions						
Cost Description	Category	Y1	Y2	Y3	Y4	Y5	Y6	
SQL Server Enterprise Software			ł			:	1	
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			İ				İ	
Purchase - Per Processor (4 cores) -							į	
Purchased Sept 2019-Aug 2020 -						•	Į.	
Includes Support thru Aug 2022	Infrastructure			•	•	İ	į	
SQL Server Standard Software			Î	i i			ĺ	
Purchase - Per Processor (4 cores) -								
Purchased Sept 2020-Aug 2021 -						•	Į.	
Includes Support thru Aug 2022	Infrastructure			•	•	İ	į	
SQL Server Standard Software			i i	i !	i !	i !	Ì	
Purchase - Per Processor (4 cores) -								
Purchased Sept 2021-Aug 2022 -				•	•	İ	į	
Includes Support thru Aug 2022	Infrastructure		Ì	}	•		į	
SQL Server - Standard Support, Per								
Processor (4 cores) - Sept 2022 and						•	}	
Beyond	Infrastructure							
Websphere Basic Per Processor				[[[
Single/Dual Core - Includes Year 1						İ		
Maintenance	Infrastructure					•		
						!]	
Websphere Basic Per Processor						•	}	
Single/Dual Core - Year 2 and Beyond	Infrastructure			•	•	İ	į	
Websphere ND Per Processor			-					
Single/Dual Core - Includes Year 1			ļ	•	•		•	
Maintenance	Infrastructure							
Websphere ND Per Processor			į					
Single/Dual Core - Year 2 and Beyond	Infrastructure		į	<u> </u>	<u> </u>		į	
SSL Certificate	Infrastructure		1		<u> </u>	<u> </u>	<u> </u>	

Return on Investment Analysis

Cost Detail

		Potential Cost Extensions						
Cost Description	Project Cost Category	Y1	Y2	Y3	Y4	Y5	Y6	
Internet Access	Infrastructure		<u> </u>	}	:	:	-	
Imperva Web Application Firewall (External Web Applications Only) App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure 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							
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							

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	91,245						91,245
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:	91,245						91,245
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
0,1,1,1							
Other Subtotal:	0465						040:5
Costs Total:	91,245						91,245

Return on Investment Analysis

Assumptions

Date	Assumption Description