Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: OS Management & Patch Optimization **Project ID: T62186PM**

Leadership Group: Information Technology Steering Committee					
Department: Information Technology			**Division:** Technical Systems and Networking		
Project Sponsor: EJ Widun		**Date Requested: 10/1/2022**		**PM Customer No.** 186	
Request Type: *New Development*					
IT Team Name: Server Administration			**IT Team No: 6**		
Project Manager/Leader: Heidi Flack					
Account Number:	17030	**Account Description:**	Technical Systems and Networking	**Customer Name:**	Information Technology
Grant Funded? No			**Mandate? No**		

Project Goal

To identify a solution and options so that the Server Administration can optimize processes and procedures for inventorying, managing, and reporting on deployed servers.

Business Objective

Growth in the environment over the last several years has strained the ability of the team to manage the many environments, operating systems, and patch levels. Using this solution in conjunction with a selected Patch management solution to improve patching consistency. Promoting a proactive, robust approach to managing the patching process and a more mature Linux patching process.

Major Deliverables

- Research & Analysis
- Process and Procedures
- Reporting/Metric Requirements
- SA OS Management & Patching Strategy
- Sandbox environment
- Server Patch Software development
- Interval deployments and refinements
- Implementation of all processes and procedures
- DR Toolkit Updates

Approach

Phase I: Planning

- Conduct server analysis.
- Document interdependencies and sequences per server.
- Research patching software capabilities and components.

- Develop new patching procedures to be a more mature/robust and include automation where possible.
- Document new processes and update support model (if applicable)
- Define metrics, reporting and monitoring requirements and processes.
- Identify central location for the software program to be hosted and managed.
- Develop SA Patching / OS Management Strategy
- Conduct a Tech Review

Phase II: Develop & Deploy

- Develop sandbox environment where servers with various OS and Patch levels can be stood up and interval development and testing can be conducted.
- Configure patching software.
- Configure reporting mechanisms.
- Test interval developments and refinements in sandbox/DEV.
- Develop QA Patching Implementation Plan (Servers, Dates, Communications, Validation)
- Implement monitoring and reporting processes.
- Execute QA servers patching procedures
- Baseline Patching / OS Management Strategy
- Develop Product patching Implementation Plan (Servers, Dates, Communications, Validation)
- Execute Production patching procedures
- Update DR Toolkits.

Research & Analysis

Gartner Research Recommendation None found.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users	All
Divisions	IT
Leadership Groups	IT Steering Committee

Risk

Business Environment	Low = Little or no impact to existing business processes.
Technical Environment	Low = Proven or 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:	Name
Sponsor/ TSN/EA Stakeholder:	EJ Widun
IT Stakeholder:	Mike Timm
Security Stakeholder:	TJ Fields
NS Stakeholder	Guy Compton
CLEMIS Stakeholder:	Jeff Nesmith
Internal Services Stakeholder:	Janette McKenna
Apps Stakeholder:	Tammi Shepherd
Data Center Stakeholder:	Joe Tabor

Facilities

-

Technical

- .

Funding

- Information Technology
- Funding will be available for this effort and future phases and purchases.
- Implementation of a solution will be approved and budgeted.

Other

-

Priority

- 10

Constraints

-

Exclusions

-

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PROJECT PHASE AUTHORIZATION

Phase(s): Project Management, Project Greenfield Program		
Total Estimated Application Services	**Hours: 50**	
Total Estimated Technical Systems	**Hours: 650**	
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: 700**	
Previously Approved Phases	**Hours:**	
Grand Total Estimated Development	**Hours: 700**	**Cost: $115,500**

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PROJECT COMPLETION AUTHORIZATION

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

OS Management & Patch Optimization - Size Estimates - Phase Level

	Type	ID	Task Name	Estimate Hours	Estimate Notes
1	**Phase**	**000000**	**PROJECT MANAGEMENT**	**226**	
2	**Phase**	**100000**	**ANALYSIS & PLANNING**	**168**	
3	**Phase**	**200000**	**DEVELOP & DEPLOY**	**306**	
4					

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Return on Investment Analysis

Date: 6/28/2022

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:	79,200	79,200	79,200	79,200	79,200	79,200	475,200
Costs:							
Development Services Subtotal:	115,500	0	0	0	0	0	115,500
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	79,200	79,200	79,200	79,200	79,200	79,200	475,200
Annual Total Costs	115,500	0	0	0	0	0	115,500
Annual Return on Investment	(36,300)	79,200	79,200	79,200	79,200	79,200	359,700
Annual Costs/Savings Ratio	145.83%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	79,200	158,400	237,600	316,800	396,000	475,200	475,200
Cumulative Total Costs	115,500	115,500	115,500	115,500	115,500	115,500	115,500
Cumulative Return on Investment	(36,300)	42,900	122,100	201,300	280,500	359,700	359,700
Cumulative Cost/Savings Ratio	145.83%	72.92%	48.61%	36.46%	29.17%	24.31%	24.31%
Year Positive Payback Achieved		Year 2					Year 2
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

REV: March 27, 2020

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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
Reduced resources needed to patch systems (reduce resource allocation for effort from 2 to 1)	Cost Avoidance	Technical Services & Ntwkg / 17030	HR	480	165	79,200	
Builds efficiencies and a more consisent and improved patch experience	Intangible Benefit	Technical Services & Ntwkg / 17030				0	
Leverage existing software capabilities to their potential that will improve the patching process and incorporate automation where possible.	Intangible Benefit	Technical Services & Ntwkg / 17030				0	
Develops a proactive approach to identifying issues early, reducing risk and impacts to users.	Intangible Benefit	Technical Services & Ntwkg / 17031				0	
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						0	
						0	

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Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6	Potential Savings Extensions Y1	Y2	Y3	Y4	Y5	Y6
Reduced resources needed to patch systems (reduce resource allocation for effort from 2 to 1)	Cost Avoidance	x	x	x	x	x	x	79,200.00	79,200.00	79,200.00	79,200.00	79,200.00	79,200
Builds efficiencies and a more consisent and improved patch experience	Intangible Benefit												
Leverage existing software capabilities to their potential that will improve the patching process and incorporate automation where possible.	Intangible Benefit												
Develops a proactive approach to identifying issues early, reducing risk and impacts to users.	Intangible Benefit												

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Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
0	0	0	0	0	0	0	
Tangible Benefits Subtotal:							
Cost Avoidance:							
Reduced resources needed to patch systems (reduce resource allocation for effort from 2 to 1)	79,200	79,200	79,200	79,200	79,200	79,200	475,200
Cost Avoidance Subtotal:	***79,200***	***79,200***	***79,200***	***79,200***	***79,200***	***79,200***	***475,200***
Intangible Benefit:							
Builds efficiencies and a more consisent and improved patch experience							
Leverage existing software capabilities to their potential that will improve the patching process and incorporate automation where possible.							
Develops a proactive approach to identifying issues early, reducing risk and impacts to users.							
Savings Total:	***79,200***	***79,200***	***79,200***	***79,200***	***79,200***	***79,200***	***475,200***

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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
IT Hours - New Development	Development Svcs	Technical Services & Ntwkg / 17030	HR	700	165	115,500		X					

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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	115,500.00					

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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	115,500						115,500
Development Services Subtotal:	***115,500***						***115,500***
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	***115,500***						***115,500***

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Return on Investment Analysis

Assumptions

Date	Assumption Description
6.17.20	Assumes a base rate of $165/hr.