Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: MS Windows 11 & Latest MS Office Upgrade   Project ID: TN2186WU

Leadership Group: Information Technology Steering Committee	
Department: Information Technology	**Division: Technical Systems & Networking (TSN)**
Project Sponsor: Joe Tabor	**Date Requested: 06/10/2022** **PM Customer No. 186**
Request Type: Planned System Maintenance or Upgrade	
IT Team Name: Workstation Services	**IT Team No: N**
Project Manager/Leader: Mike Zemina	

Account Number: 19030	**Account Description:** TSN Planned Maintenance	**Customer Name:**	Information Technology

Grant Funded? No	**Mandate? No**
	Mandate Source:

Project Goal

To upgrade County workstations to the next generation of Windows OS so that they may continue to receive security patches and Windows features.

Business Objective

The objective of this project is to migrate 3500 County workstations from the current County standard operating system from Windows 10 to Windows 11 so that Oakland County workstations will continue to receive critical updates and feature enhancements beyond 10/15/2025.

Major Deliverables

- Prepare ECM environment
- Prepare group policy templates
- Establish county standard workstation build
- Test task sequence
- Validate driver pack installation
- Observe network (traffic) footprint
- Validate software application and hardware compatibility
- Create communications plan
- Update and create Knowledge documents
- Schedule and migrate all machines
- Post implementation support
- Create machine (Win11) exemption list based on discovered constraints

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Approach

- Build and complete Windows 11 infrastructure
- Execute communications plan - communication with departments, publish applicable knowledge documents.
- Provide listing of applications and use at department
- Install Win11 on 2-3 machines per department for testing
- Verify departments hardware/ software compatibility with Win11
- Assist customers with any non-compatibility issues
- Schedule and install Win11. Provide post implementation support as needed

Research & Analysis

Research Service Recommendation (select one)

- Research Conducted – See recommendation below.
  - Microsoft consultations

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users   3500 workstations and associated users

Divisions   All Oakland County Divisions

Leadership Groups All

Risk

Business Environment   LOW – introduction of minor navigational changes associated with operating system upgrade.

Technical Environment   MEDIUM – Based on previous implementation of new MS OS may introduce new OS subsystem behavior to the environment

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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	Hours per Day
Project Sponsor:	Joe Tabor	As Needed
App Services Stakeholder:	Tammi Shepherd	As Needed
CLEMIS Stakeholder:	Jeff Nesmith	As Needed
CTO:	EJ Widun	As Needed
IT Director:	Mike Timm	As Needed

Facilities

- The Windows 11 Project will utilize current Workstation Services office space (desks, PCs, telephones). Team has ID badges and after-hours building access for project deployment if necessary and will coordinate with appropriate staff for any facilities access anomalies (judges).

Technical

- Workstations will be available and on the network for project deployment, either on campus or through VPN.

Funding

- Information Technology

Other

- None

Priority   TBD

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Constraints

- Windows 10 lifecycle ends 10/15/2025, extended support has not been announced.

Exclusions

- County assets not supported by Workstation Services will be excluded from this project.

- No new hardware deployments included in the scope of this project.

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PROJECT PHASE AUTHORIZATION

Phase(s):		
Total Estimated Application Services	**Hours:**	
Total Estimated Technical Systems	**Hours:** 3,677	
Total Estimated CLEMIS	**Hours:** 45	
Total Estimated Internal Services	**Hours:** 756	
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:** 4,478	**Cost:** $738,870

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Project Scope and Approach

Project Name: MS Windows 11 & Latest MS Office Upgrade   **Project ID: TN2186WU**

PROJECT COMPLETION AUTHORIZATION

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

	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	PROJECT ADMINISTRATION - WIN11 & OFFICE UPDATE	1,201	
2	Phase	100000	DEFINE BUSINESS REQUIREMENTS	217	
3	Phase	200000	INFRASTRUCTURE READINESS	590	
4	Phase	300000	IMPLEMENTATION	1,970	
5	Phase	400000	POST IMPLEMENTATION SUPPORT	500	
6					
1				4,478	

Microsoft Windows 11 & latest Microsoft Office Upgrade - Size Estimate (+/- 10% to 50%) (Read-Only)

Oakland County -- MS Windows Latest MS Office

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:	2,100,000	4,200,000	12,600,000	0	0	0	18,900,000
Costs:							
Development Services Subtotal:	738,870	0	0	0	0	0	738,870
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	2,100,000	4,200,000	12,600,000	0	0	0	18,900,000
Annual Total Costs	738,870	0	0	0	0	0	738,870
Annual Return on Investment	1,361,130	4,200,000	12,600,000				18,161,130
Annual Costs/Savings Ratio	35.18%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	2,100,000	6,300,000	18,900,000	18,900,000	18,900,000	18,900,000	18,900,000
Cumulative Total Costs	738,870	738,870	738,870	738,870	738,870	738,870	738,870
Cumulative Return on Investment	1,361,130	5,561,130	18,161,130	18,161,130	18,161,130	18,161,130	18,161,130
Cumulative Cost/Savings Ratio	35.18%	11.73%	3.91%	3.91%	3.91%	3.91%	3.91%
Year Positive Payback Achieved	Year 1						Year 1
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

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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
Security	Intangible Benefit					0	
Win10 extended service Y1	Cost Avoidance			3,500	$600	2,100,000	
Win10 extended service Y2	Cost Avoidance			3,500	1,200	4,200,000	
Win10 extended service Y3	Cost Avoidance			3,500	3,600	12,600,000	
						0	
						0	
						0	
						0	
						0	
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						0	

Oakland County -- MS Windows Latest MS Office

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
Security	Intangible Benefit												
Win10 extended service Y1	Cost Avoidance	X						2,100,000.00					
Win10 extended service Y2	Cost Avoidance		X						4,200,000.00				
Win10 extended service Y3	Cost Avoidance			X						12,600,000.00			

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Date: 06/10/2022

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:							
Win10 extended service Y1	2,100,000						2,100,000
Win10 extended service Y2		4,200,000					4,200,000
Win10 extended service Y3			12,600,000				12,600,000
Cost Avoidance Subtotal:	*2,100,000*	*4,200,000*	*12,600,000*				*18,900,000*
Intangible Benefit:							
Security							
Savings Total:	*2,100,000*	*4,200,000*	*12,600,000*				*18,900,000*

Oakland County -- MS Windows Latest MS Office

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	Information Technology		4,478	165	738,870		X					
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							
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 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							

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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
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				910	0							

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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
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			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							

Oakland County -- MS Windows Latest MS Office
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	738,870.00					
IT Hours - System Maintenance	Development Svcs						
IT Hours - Customer Support	Development Svcs						
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						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
File Space (100GB)	Hardware						
Package Software - Acquisition	Software						
Package Software - Maintenance	Software						
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						

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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						

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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						
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						

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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	738,870						738,870
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:	**738,870**						**738,870**
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	**738,870**						**738,870**

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Return on Investment Analysis

Assumptions

Date	Assumption Description