

WINNEBAGO COUNTY INFORMATION TECHNOLOGY STANDARDS 2009/2010

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**PLATFORM ARCHITECTURE STANDARDS:
END USER SOFTWARE**

COMPONENT	CURRENT STANDARDS
Operating System	Windows XP SP3
Word Processor	Microsoft Word 2007 or latest release
Spreadsheets	Microsoft Excel 2007 or latest release
Presentations	Microsoft PowerPoint 2007 or latest release
Database	Microsoft Access 2007 or latest release
E-Mail Client	Microsoft Outlook 2007 / Outlook Web Access (latest release)
Project Management	Microsoft Project Professional 2007 or latest release
Graphics	Microsoft Visio Professional 2007 or latest release
Web Browser	Microsoft Internet Explorer (latest release), unless application influenced
Antivirus	Symantec EndPoint Protection (latest release) for Workstations and Servers
Patch Management	Windows Server Update Services (WSUS) Microsoft Systems Management Server (SMS)
Mainframe Terminal Emulation	iSeries Terminal emulation suite/ Jwalk GUI client
Thin Client Access	Citrix XenApp
Remote Access	Citrix Online (GoToMyPC) , Cisco VPN Client, or Kerio VPN (WCSO)
Other	Must be tested/approved in advance

**PLATFORM ARCHITECTURE STANDARDS:
END USER HARDWARE**

COMPONENT	DESKTOPS	LAPTOPS
Power	Single	Single
CPU	Intel Core 2 Duo Processor 3.16 GHz 1333 FSB	Intel Core 2 Duo Processor 2.26 GHz 1066 FSB
Disk Configuration	120 GB SATA Hard Drive	120 GB Hard Drive
Media Drive	16 X DVD R/W combo Drive	8X DVD +/-RW combo Drive
Memory	4 GB RAM Expandable	4 GB RAM
Monitor	19" SVGA Ultra Sharp Flat Panel DVI/VGA input	Wide Screen WXGA+ LCD Panel
Video Card	256 MB ATI Radeon, dual monitor capable DVI	Intel GMA 4500MHD
Interface Card(s)	Ethernet 10/100/1000 Base-T	Built-in 10/100 Base-T Ethernet Card 802.11G Wireless (Built in)
Operating System	Windows XP SP3	Windows XP SP3
File System	NTFS	NTFS
Maintenance	3 Year on-site, next business day	3 Year on-site, next business day
Additional Hardware Requirements	UL Approved Surge Processor (new) Speaker bar 2 USB Ports	UL Approved Surge Processor (new) External mouse, Keyboard and Docking Station (if used as desktop) Security Lock
Pre-Install Options	All components (hardware) installed	All components (hardware) installed
Platform	HP DC7900 or equivalent HP	HP 6730b or equivalent HP

**PLATFORM ARCHITECTURE STANDARDS:
HAND HELD MOBILE DEVICES**

COMPONENT	CURRENT STANDARDS
Platform	Windows Mobile 6.x/RIM/Blackberry
Software Compatibility	Outlook Exchange (Downloadable), Active Sync, Date Book, Address Book, To Do List, Memo Pad, Calculator
Connectivity	TCP/IP Internet or USB enabled

**PLATFORM ARCHITECTURE STANDARDS:
GENERAL SERVER STANDARDS**

COMPONENT	CURRENT STANDARDS
Web/Application Servers	Microsoft Internet Information Services Apache Web Server (if required by COTS package) Tomcat (if required by COTS package)
Operating System	Microsoft Windows Server 2003 R2 Standard Edition Microsoft Windows Server 2003 R2 Enterprise Server (Clustering or servers with 4 processors or more) Microsoft Windows Server 2008 Standard Edition Microsoft Windows Server 2008 Enterprise Edition (Clustering, Hyper-V, or servers with 4 processors or more) RedHat
Thin Client Access	Citrix XenApp
Hardware	Intel (Windows) IBM I-Series (MidRange)
Backup	Symantec Backup Exec 12.X or latest release CA ARCserve r12.x or latest release (WCSO)
Storage	SAN
E-Mail	Microsoft Exchange Server 2007 Enterprise Edition L-Soft LISTSERV
Protocol	TCP/IP v4, v6

**PLATFORM ARCHITECTURE STANDARDS:
FILE / PRINT / WEB SERVERS**

COMPONENT	FILE / PRINT SERVERS	WEB SERVERS (INTEL)	WEB SERVERS (*NIX)
Type	INTEL	INTEL	*NIX
Power	Redundant, UPS required if not Data Center resident	Redundant, UPS required if not Data Center resident	Redundant, UPS required if not Data Center resident
Fault Tolerant /Disk Configuration	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or higher, utilizing SAN if Data Center resident	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or higher, utilizing SAN if Data Center resident	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or higher, utilizing SAN if Data Center resident
CPU	2-way Quad 3.0 GHz	2-way Quad 3.0 GHz	2-way Quad 3.0 GHz
Network Interface Cards	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T
Operating System	Windows Server 2003 R2 Windows Server 2008	Windows Server 2003 R2 Windows Server 2008	Solaris/RedHat
Monitor	17" SVGA Color if non-NOC site Not required if NOC resident	17" SVGA Color if non-NOC site Not required if NOC resident	17" SVGA Color if non-NOC site Not required if NOC resident
RAM	8 GB Minimum Cache 256 MB	8 GB Minimum Cache: Database/Application specific	8 GB Minimum Cache: Database/Application specific
File System	NTFS	NTFS	Dependent on *NIX version GFS, UFS, BSD FFS
Third Party Software Requirements	Symantec EndPoint Protection MS WSUS MS SMS Client	Symantec EndPoint Protection MS WSUS MS SMS Client	
Web Server Software	N/A	Internet Information Server (latest version)	Apache (latest version) Tomcat (latest version)
Platform	HP	HP	HP/
Maintenance	5 Year, 24/7, 4 hour on-site, parts & labor included	5 Year, 24/7, 4 hour on-site, parts & labor included	5 Year, 24/7, 4 hour on-site, parts & labor included
Additional Hardware Requirements	RAID 5 Controller Rack mounting rails if Data Center Resident HBAs (if connected to SAN)	RAID 5 Controller Rack mounting rails if Data Center Resident HBAs (if connected to SAN)	RAID 5 Controller Rack mounting rails if Data Center Resident HBAs (if connected to SAN)
Pre-Install Options	None	None	None
Storage and Backup	Symantec Backup Exec 12.x or latest release	Symantec Backup Exec 12.x or latest release	Symantec Backup Exec 12.x or latest release

**PLATFORM ARCHITECTURE STANDARDS:
DATABASE / APPLICATION SERVERS**

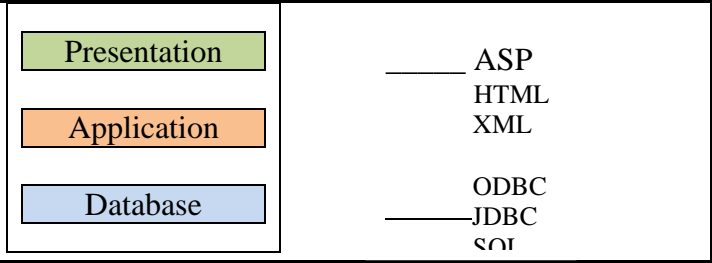
COMPONENT	DATA BASE SERVERS (INTEL)	DATABASE SERVERS (*NIX)	APPLICATION SERVERS (INTEL)	APPLICATION SERVERS (*NIX)
Power	Redundant, UPS Required if not NOC-resident	Redundant, UPS required if not NOC- resident	Redundant, UPS required if not NOC- resident	Redundant, UPS required if not NOC-resident
Fault Tolerance / Disk configuration	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or RAID 10(utilizing SAN if NOC resident)	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or RAID 10 (utilizing SAN if NOC resident)	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or RAID 10 (utilizing SAN if NOC resident)	Operating System Drives- Raid 1 (Mirrored) Database / Application Drives – RAID 5 or RAID 10 (utilizing SAN if NOC resident)
CPU	2-way Quad 3.0 GHz	2-way Quad 3.0 GHz	2-way Quad 3.0 GHz	2-way Quad 3.0 GHz
Network Interface Cards	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T
Operating System(s)	Windows Server 2003 R2 Windows Server 2008 Windows Server 2003 R2 Enterprise (Clustering) Windows Server 2008 Enterprise (Clustering)	RedHat (latest release)	Windows Server 2003 R2 Windows Server 2008 Windows Server 2003 R2 Enterprise (Clustering) Windows Server 2008 Enterprise (Clustering)	RedHat (latest release)
Monitor	17" SVGA Color if non-NOC site Not required if NOC resident	17" SVGA Color if non-NOC site Not required if NOC resident	17" SVGA Color if non-NOC site Not required if NOC resident	17" SVGA Color if non-NOC site Not required if NOC resident
RAM	16.0 GB Minimum Cache – Database/ Application specific	16.0 GB Minimum Cache – Database/ Application specific	16.0 GB Minimum Cache – Database/ Application specific	16.0 GB Minimum Cache – Database/ Application specific
File System	NTFS	Solaris/RedHat	NTFS	RedHat
Third Party Software Requirements	Symantec EndPoint Protection MS WSUS MS SMS Client		Symantec EndPoint Protection MS WSUS MS SMS Client	
Platform	HP	HP	HP	HP
Maintenance	5 Year, 24/7, 4 hour on-site, parts & labor included	5 Year, 24/7, 4 hour on-site, parts & labor included	5 Year, 24/7, 4 hour on-site, parts & labor included	5 Year, 24/7, 4 hour on-site, parts & labor included

Additional Hardware Requirements	RAID 5 Controller Rack mountable rails if NOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	RAID 5 Controller Rack mountable rails if NOC resident Minimum 2 Open Slots to facilitate System expansion HBAs (if connected to SAN)	RAID 5 Controller Rack mountable rails if NOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	RAID 5 Controller Rack mountable rails if NOC resident Minimum 2 Open Slots to facilitate system expansion HBAs (if connected to SAN);
Storage and Backup	Symantec Backup Exec 12.x or latest release	Symantec Backup Exec 12.x or latest release	Symantec Backup Exec 12.x or latest release	Symantec Backup Exec 12.x or latest release

**PLATFORM ARCHITECTURE STANDARDS:
APPLICATION DEVELOPMENT**

COMPONENT	MAINFRAME	*NIX	INTEL	INTERNET / INTRANET	GIS
Database Software	DB2	Oracle 9g or latest release	SQL Server (latest release) Oracle 9g or latest release	N/A	SQL Server (latest release)
Application Development Frameworks	N/A	Java	.NET Framework (latest release) Java	.NET Framework (latest release) Java	.NET Framework (latest release) ESRI
Virtualization	N/A	VMware Microsoft Hyper-V	VMware Microsoft Hyper-V	VMware Microsoft Hyper-V	N/A
Software And Development Tools (Report Writing Products Are Listed On Page 8.)	COBOL CICS TSO JCL	N/A	Microsoft Visual Studio 2008	Microsoft Visual Studio 2008	ArcGIS 9.3 & Extensions or latest release ArcGIS Server 9.3 or Latest Release ArcSDE 9.3 or latest release ArcPad Microsoft Visual Studio 2008
Version And Release Control	TBD	TBD	TBD	TBD	TBD
LDAP/ Directory/ Authentication		Native operating system (Solaris, Linux, AIX)	Active Directory Enterprise solution TBD	Active Directory e-Trust SiteMinder	Native Operating System
Data And Process Modeling	MS Visio Professional 2007	MS Visio Professional 2007	MS Visio Professional 2007	MS Visio Professional 2007	MS Visio Professional 2007
Middleware (EAI)	TBD	Struts, Spring	TBD	TBD	N/A
Workstation Requirements	3270 Emulation TCP / IP	Oracle Client Suite ODBC Drivers	Oracle Client Suite ODBC Drivers	MS Internet Explorer (latest release)	Terminal Server Client Citrix Metaframe Client Active X Plug-in Active Directory Tools

All applications should be web-browser based and be developed following the n-tier development model to clearly separate presentation (look and feel), from the applications (business logic), from the database. N-tier applications have the advantage that any one tier can run on an appropriate processor or operating system platform independently of the other tiers.



**PLATFORM ARCHITECTURE STANDARDS:
ENTERPRISE SOLUTION PLATFORMS**

PLATFORM	CURRENT STANDARDS
Report Writing: Departmental Reporting Needs	Crystal Reports Microsoft SQL Reporting BIRT
Web Content Management	Alfresco
Web Search Engine	Google
Survey Instrument Software	Zoomerang
GIS	ArcGIS 9.3 or Latest Release supported by WinGIS& Extensions ArcGIS Server 9.3 or Latest Release ArcSDE 9.3 or Latest Release ArcPad
Voice Communication	Mitel

WINNEBAGO COUNTY DATA COMMUNICATIONS STANDARDS

NETWORK PROTOCOLS

CURRENT	FUTURE
TCP/IP v4	TCP/IP v6

CABLING STANDARDS (Structured cabling based on the ANSI/TIA/EIA and ISO standards) Horizontal (cabling and pathways)

CURRENT	FUTURE
CAT6 UTP and SCTP	Fiber Optics

Outlets

CURRENT	FUTURE
Category 6 Jacks	
Four Cat6 terminated per location	

Between Buildings / Backbone

CURRENT	FUTURE
Dependent on Distance	
62.5 / 125 OFNP multi-mode and single mode optical fiber.	
Between buildings - 12 pair multi-mode and 12 pair single mode	
Between floors – 6 pair multimode and 6 pair single mode	

NETWORK HARDWARE

ROUTING
HP 5400 Family (Layer 3)
HP 7100 Family (MSF C)

SWITCHING
HP 5400 ProCurve Family – Core applications (MDF)
HP 3500 ProCurve Family – Wire Closet (Medium to Large IDF)
HP 3500 ProCurve Family – Wire Closet (Small to Medium IDF)

Winnebago County Enterprise Network LAN infrastructure is a purely switched environment. The size of the switch used is based on the size of the workforce supported. The fixed chassis switches such as the 2948G, 2950/24, and the 2950/48 are used only in cases where the workforce supported is less than 48 total devices. After that breakpoint a chassis style switch is used.

WINNEBAGO COUNTY DATA COMMUNICATIONS STANDARDS
(Continued)

FIREWALLS
Cisco ASA family, Kerio firewall (WCSO)

VPN CLIENT CURRENT	FUTURE
Cisco VPN Client (Current Release) Cisco AnyConnect VPN Client Kerio VPN client (WCSO)	

CONTENT/CACHING ENGINE
Barracuda Web Filter, Kerio firewall (WCSO)

CONTENT SERVICES SWITCHING/LOAD BALANCING
TBD