



# **Minimum Hardware, Software and Network Standards**



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## 2010 Update Overview

### Purpose

The Chicago Public Schools' (CPS) *Minimum Hardware, Software and Network Standards* sets forth the details of the Workstation and Network Policy for schools, regions, local school councils, and Central Office departments. The standards published in this document apply to all computers in CPS.

Any unit or school that connects machines to CPS' Wide Area Network (WAN) can affect connectivity at all other schools and units; therefore, everyone is responsible for network management and security. As such, the hardware, software and network standards are established for **all** users.

**Note: This document will be updated periodically as technology changes to support an environment that facilitates integration into the curriculum.**

### Standards Update

The hardware and software standards documented here represent the requirements for computer software and hardware configurations that will function properly and be supported within the CPS environment. Factors that influence these standards include but are not limited to: the WAN design; the integration of technology and instruction; proper function of CPS business critical applications, computer maintenance and field support; Internet connectivity; industry benchmarks; security; asset management; and life-cycle management.

ITS requires that all devices comply with Network Management Guidelines in regard to remote management (by having standard accounts configured and SMS, SCCM, LANRev, or AbsoluteManage installed depending on your operating system), virus protection (by having McAfee installed), and adherence to [CPS naming convention](#) described in section 4.3.1. For more information on network compliance requirements, log into your school's compliance website on your local distribution server and view the CPS Remediation Handbook for Windows or Mac OS X. To connect to your compliance website, open a web browser and access the URL <http://SCHOOL-ADM01.instr.cps.k12.il.us> - this is NOT your school's distribution server but rather will redirect you to your school's distribution server. Note your school's short name, the part before the -ADM01, as this is useful information for several aspects of ITS supported technology initiatives!

Additional standards will be developed and specified as needed to support CPS' computing infrastructure, e.g., WANs, Local Area Networks (LANs), hardware, and software.

### Links

The most current version of the Minimum Hardware, Software, and Network Standards document is available online at <http://its.cps.k12.il.us/PoliciesStandards.aspx>.

## Minimum Standards versus Recommendations

The minimum standards listed in this document represent the **MINIMUM** system configurations that may be used within the CPS environment. The charts in this document cover currently existing equipment or used equipment that may be acquired via donations. This equipment should meet or exceed the “Minimum” configuration shown here. Please be aware that the minimum standards are for computer systems that are capable of running basic software only. A computer that only meets minimum standards may not function robustly in the CPS enterprise network.

Recommended standards are always equivalent to the currently available hardware offerings via our Strategic Sourcing partners. New equipment may be purchased or leased. A list of the current offerings are available from each of the strategic sourcing hardware vendors which are found on the Department of Procurement and Contracts Website:

<http://dpc.cps.k12.il.us/index.php>

All new purchases must be from pre-qualified vendors named on the Strategic Sourcing web page at: <http://dpc.cps.k12.il.us>. Contact the *Office of Procurement and Contracts* at 553-2280 for more information.

To lease new equipment through the TECH|XL program or to find out which hardware vendors offer leasing, see the Information and Technology Services (ITS) web page at: <http://its.cps.k12.il.us/>

All hardware devices (servers, workstations and laptops), whether purchased, leased, or donated, **MUST** be fully compliant (remediation steps found on [Network Compliance Website](#)) in order to function properly on the CPS network. Equipment that is NOT in compliance may have its network connectivity blocked.

## SUPPORTED OPERATING SYSTEM (OS) SOFTWARE

### Current operating system plus legacy installed base

CPS maintains tools to properly manage the configuration of desktop operating systems from Apple and Microsoft, the predominant vendors of commercial desktop operating systems.

Apple Mac OS X support is defined as the current version and one previous version, both patched to the currently available levels for that operating system version. As of this writing, that would be Mac OS X 10.6.4 (a.k.a. Snow Leopard) and Mac OS X 10.5.8 (a.k.a. Leopard.)

Microsoft Windows support is defined as the current version and the legacy installed base, both patched to the currently available levels for that operating system version. As of this writing, that would be Windows 7 and Windows XP Service Pack 3. Please note that Windows Vista is not supported by CPS.

## Instructional and Administrative Computers

Since CPS supports both **Microsoft Windows** and **Apple Mac OS X**, both platforms are addressed. Because the installed base of servers, workstations, and laptops is represented almost entirely by Windows PCs and Macintosh platforms, these guidelines deal exclusively with these. Platform choice is a local option except for Administrative workstations, and issues of a platform's viability are not addressed in these guidelines.

### Microsoft Windows Standards

Existing, Used and Donated Workstation Configurations for the Network		
<b>Hardware</b>		<b>Minimum</b>
	Processor	1.4 GHz
	Memory (RAM)	512 MB
	Hard Disk	20 GB
	Free Hard Drive Device Space	20% of total hard drive space should be "free"
	Audio Capabilities	n/a
	Optical Drive	DVD ROM
<b>Operating System</b>		Windows XP Professional Service Pack (SP) 3
<b>Software</b>	Browser	Internet Explorer (IE) 7
	Lockdown Software *	DeepFreeze Enterprise Edition 7.1
<b>Configuration</b>	Anti-virus *	McAfee
	Network Management Tool *	SCCM
<b>Network Connection</b>		10/100
<b>Wireless</b>		WPA2 or better

*\*Network management client software, anti-virus software and lockdown software are provided to machines that meet network compliance requirements.*

## Apple Mac OS X

For any Apple computer equipment to run the IMPACT applications, Safari 3 is required.

Macintosh Computer Configuration Minimums and Recommendations		
		Minimum
<b>Hardware</b>	Base System	Intel Based
	Processor	Core Duo 1.6 GHZ
	Memory (RAM)	512 MB
	Hard Disk	20 GB
	Free Hard Drive Space	20% of total hard drive space should be "free"
	Monitor/Video	n/a
	Optical Drive	Combo Drive/Super Drive 48x CD-ROM/8x DVD
	<b>Operating System</b>	
<b>Software</b>	Browser	Safari v1.x
	Lockdown Software *	DeepFreeze OS X
<b>Configuration</b>	Anti-virus *	McAfee
	Network Management Tool *	ARD 3.2   LANRev 5.4   AbsoluteManage 5.5
<b>Network Connection</b>		10/100 (or higher)
<b>Wireless</b>		WPA2 or better

*\*Network management client software, anti-virus software and lockdown software are provided to machines that meet network compliance requirements.*

**Existing Network Servers**

Servers should be sized according to their function and purpose. Check the minimum requirements of the software to be installed to determine actual minimums provided they meet or exceed the configurations listed below.

Each school is responsible for configuring, patching, and maintaining availability of all Windows and Apple Servers that exist within their respective environments.

Minimum hardware specs should support OS minimum for the server platform

School servers should be named in accordance with the Server Naming policy, specifically schoolshortname-type# where schoolshortname is the name before the –ADM01 on your compliance website, the type is SRV for Windows and MACSRV for Mac OS X, and # is an interated number that increases as you add servers. For example, the first server installed at your school might be called school-srv01, the second would then be school-srv02.

<b>Existing Network Server Configuration Minimums and Recommendations</b>		
		<b>Minimum</b>
<b>Hardware</b>	Processor	1.4 GHz
	Cache	128 KB
	Memory	512 MB support OS
	Drive Controller	n/a
	Hard Disk Type	IDE
	Free Hard Device Space	Based on intended usage
	Tape Backup Device	n/a
	Optical Drive	Yes
	Anti-virus Software *	Current ITS Standard
	Network Management Tool *	SCCM
	<b>Network Connection</b>	
<b>Operating System</b>		Windows 2003 SP 2

**Existing Apple Servers**

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<b>Existing Apple Server Configuration Minimums and Recommendations</b>		
		<b>Minimum</b>
<b>Hardware</b>	Processor	1 GHz
	Cache	n/a
	Memory	1 GB
	Drive Controller	n/a
	Hard Disk Type	IDE
	Free Hard Device Space	Based on intended usage
	Tape Backup Device	n/a
	Optical Drive	Yes
	Anti-virus Software *	McAfee
	Network Management Tool *	ARD 3.2   LAN Rev 5.4   AbsoluteManage 5.5
	<b>Network Connection</b>	
<b>Operating System</b>		Mac OS X 10.5

*\*Network management client software, anti-virus software and lockdown software are provided to machines that meet network compliance requirements. These tools are available from your compliance website's Windows or Mac OS X Maintenance areas: <http://school-adm01.instr.cps.k12.il.us>.*