	Number:
# DEPARTMENTAL REGULATION	3170-001

SUBJECT: End User Workstation Standards	DATE: December 12, 2007
	OPI: Office of the Chief Information Officer

1. **PURPOSE**

   The objectives of the United States Department of Agriculture's (USDA) End User Workstation Standards requirements are: (a) to ensure cyber security protection, (b) to increase effectiveness in acquiring and administering resources by promoting compatibility and interchangeability of workstation hardware and software, (c) to ensure that these standards are aligned with the enterprise architecture business goals and processes of USDA, and (d) to meet the policy requirements of OMB Circular A-130 and OMB policy memorandum M-07-11.

2. **SPECIAL INSTRUCTIONS/CANCELLATIONS**

   This regulation will remain in effect until superseded. Appendices are forthcoming.

3. **BACKGROUND**

   The Clinger-Cohen Act of 1996 (40 U.S.C. (11101 et seq.)), as amended by the Information Technology Management Reform Act (ITMRA) and OMB Circular A-130, "Management of Federal Information Resources", require Federal agencies to build and maintain a Profile of Standards and Technical Reference Model that supports IT investment management and development of enterprise architecture. More recently, the Office of Management and Budget issued policy memorandum M-07-11, "Implementation of Commonly Accepted Security Configurations for Windows Operating Systems," which stated: "agencies with these operating systems [Windows XP and VISTA] and/or plans to upgrade to these operating systems must adopt these standard security configurations by February 1, 2008." Established standards for workstation hardware and software are vital to ensure that USDA complies with these and other workstation mandates.

4. **POLICY**

   This policy requires the agencies and offices under the administrative oversight of the Department of Agriculture to follow a set of standards regarding workstation computers. The Chief Information Officer of the USDA (CIO USDA) is required

to establish standards to ensure the cyber security of the agencies', Department, and Government-wide networks. These standards include hardware, operating systems, and applications.

The workstation standards are contained as appendices to this general policy. Each appendix is to be established within 90 days of the approval of this policy with comments from agencies, and reviewed quarterly in the first year of this policy. After the first year, a review of each of the appendices are to be conducted in the first month of the second quarter; reviewed for comment by the agencies for 30 days; and finalized prior to the end of the second quarter.

The USDA CIO is to ensure the following during the annual review:

a. support for the continuity of operations to the USDA programs;
b. focus areas and training maximizing the use of the standard workstation configuration;
c. centralized support of operating system and application patches to maintain the cyber security protection of over 130,000 workstations;
d. establishing an enterprise architecture standard;
e. meeting the workstation security requirements of the Office of Management and Budget;
f. achieving discounts by volume purchasing;
g. providing automated inventories through vendor information transfer;
h. supporting smartcard based security;
i. supporting the Department's thin client, mobile technology, and teleworking policy;
j. ensuring consistency to provide users better Tier 1 helpdesk service;
k. creating a functional workstation that will assist our employees with their daily work requirements; and
l. minimize the expense of workstation rotation and replacement.

Agencies and offices of the United States Department of Agriculture shall procure computer workstation hardware and software consistent with the standards identified in the appendices of this regulation. Exceptions to these standards may be requested through specific procedures identified in Paragraph 7 of this regulation.

The following appendices provide the detailed selection specifications for conforming to the policy requirements of this regulation:

a. Appendix A, "End User Workstation Hardware Standards"
b. Appendix B, "End User Workstation Security Standards"
c. Appendix C, "End User Workstation Software Standards"
d. Appendix D, "End User Workstation Peripheral Standards"

e. Appendix E, "USDA Conservation and Green Standard Requirements for Workstations"

f. Appendix F, "USDA Standards for Acceptable Disposal of Batteries and Other Workstation Components"

g. Appendix G, "Other Workstation Standards"

5. BENEFITS

The benefits to the Department, agencies, and users from the standardization of workstations include better security for the Government's networks, better helpdesk support, increased inventory management capabilities, support of USDA telework and mobile computing technologies, adherence to OMB workstation security requirements, lower operating costs, and volume based purchasing discounts.

USDA uses information technology (IT) to assist in achieving program objectives and reporting requirements. Consistency in USDA's IT allows the development of safe, efficient and cost-effective methods for supporting programs and in planning for upgrades, migrations, staff training, and future technology installations. In addition, these standards promote cross-agency information sharing, increase interoperability, and improve Departmental communication and collaboration.

6. RESPONSIBILITIES

a. The USDA CIO is:

(1) The final, approving authority on the adoption of IT standards to ensure the security of Government networks, maximize the benefit of technology purchases, and minimize investment and operating expense.

(2) The final reviewer and approver of exceptions to the workstation standard requested by the agencies or staff offices.

b. The Office of the Chief Information Officer (OCIO) will:

(1) Develop basic policies and standards for the end-user workstation environment.

(2) Provide management and oversight activities related to workstation operating system configurations, to include but not limited to:
   (a) Providing periodic updates to all operating system configurations to ensure systems security posture is maximized;
   (b) Reviewing and monitoring compliance with established operating systems policy;

(c) Testing all configurations in a non-production environment to ensure compatibility with legacy applications;

(d) Supporting the agencies by testing operating system software;

(e) Creating a software update architecture that is able to receive and approve patches and updates from the Department of Homeland Security for deployment to the USDA enterprise;

(f) Creating and maintaining a security configuration guide for each operating system; and

(g) Reporting compliance and deviations to OMB.

(3) Establish enterprise-wide contracts for standard hardware and software.

(4) Establish and maintain the green policy, recycle policy, and energy conservation policy for computer workstations, in accordance with applicable Government-wide policies and standards.

c.   Department agencies and staff offices will:

(1) Adopt the policies and standards for the end-user workstation environment by:
(a) Establishing procedures and controls to ensure the use of these standards;
(b) Ensuring effective communication between local systems administrators and OCIO; and
(c) Incorporating these standards in each agency's and office's capital planning and investment control process.

(2) Implement and maintain operating system and security configuration settings by:
(a) Scanning and providing periodic updates to all operating system configurations to ensure systems security posture is maximized;
(b) Documenting all deviations from these standard operating systems settings with a detailed rationale for the deviations, and requesting a waiver from the Cyber Security Division in OCIO;
(c) Providing corrective action plans for the timely remediation of issues not authorized as an approved deviation;
(d) Ensuring only qualified and trained personnel are granted elevated privileges;
(e) Ensuring that elevated privileged accounts are not mail or Internet enabled;
(f) Ensuring all custom or commercial off the shelf (COTS) applications are written to be run as "user";
(g) Creating an authorized software list that includes all the software that can be used on these configurations; and

(h) Employing the use of the National Institute of Standards and Technology (NIST) Security Content Automation Protocol (S-CAP) tool to help evaluate providers and perform self evaluations.

(3) Procure standard hardware and software from enterprise–wide contracts as they are made available.

(4) Request acquisition of hardware and software using the Acquisition Approval Request (AAR) process prior to any procurement. The AAR must identify whether or not the acquisition of hardware or software to be procured meets the USDA standards, the contracts to be used and must provide a detailed rationale if the product(s) being purchased does not meet the standard, regardless of whether the standard is a product or a specification(s).

7. EXCEPTION REQUEST PROCESS

Some agencies may have special conditions or requirements that prevent full compliance with this regulation. Agencies may request a special exception by submitting written justification to the USDA CIO for review and decision. The justification must include the business reasons that show a different option is in the best interest of the agency and USDA for cyber security, technology development, and expense reduction. All requests must be signed by the Agency CIO.

The written exception request is to be in the form of a decision memorandum and is to include:

i.   Indication of Request for Exception
ii.   Name of submitting agency
iii.   Name and contact information of submitting person
iv.   Information technology description (hardware/software exception)
v.   Justification to show good cause for the exception. The request should document the justifications for the exception and the impact of granting versus not granting the request.
vi.   Cyber security management plan
vii.   Technology development summary
viii.   Technology refresh plan
ix.   Cost justification
x.   Signature of Agency CIO.
xi.   Date of the request.

8.   DEFINITIONS

a. <u>Workstation.</u> Desktop, laptop, or other computer used by the employee to complete their daily tasks.

b. <u>Desktop Computer</u>. A computer made for use on a desk in an office or home, and is distinguished from portable computers such as laptops or Personal Digital Assistants (PDA). Desktop computers are also known as microcomputers.

c. <u>Laptop Computer</u>. A small mobile computer, which usually weighs 2-18 pounds (1-6 kilograms), depending on size, materials, and other factors.

d. <u>Thin Client</u>. Server-centric computing hardware in which the application software, data, and CPU power resides on a network server rather than on the client computer.

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Appendix A

End User Workstation Hardware Standards

1. End User Workstation Hardware Standards

The policy for USDA hardware standards is designed to insure security of the
workstation, minimize workstation expense, reduce environmental impact, and increase
help desk response. The following are the hardware standards for USDA thin client,
desktop, and laptop workstations. Agency Administrators and CIOs are instructed to
review work requirements of the employees within their workforce and assign
workstations to equal work requirements. The agencies are to purchase thin client
workstations unless circumstances detail a work requirement for a more advanced
desktop. Due to the risk of data loss and theft, laptops are to be used sparingly. Except
in extenuating circumstances, employees are only to be allocated one workstation.

USDA has identified five workstation types, based on function:

Workstation Type	End-User Computing Platform
Standard Office Workstation	Base-Level Desktop Workstation
Standard Office Workstation By 2010	Thin-Client Workstation
Enhanced Office Workstation	Mid-Level Desktop Computer
Specialized Office Workstation	High-end Desktop Computer
Mobile Workstation	Mid-Level Laptop Computer
Specialized Mobile Workstation	High-end Laptop Computer
Ruggedized/Semi-Ruggedized Mobile Workstation	Ruggedized/Semi-Ruggedized Mid-Level Laptop Computer

The standard office workstation will be deployed to all USDA employees unless business
requirements justify otherwise.

a. Standard Office Workstation

The end-user computing platform for the standard office workstation is a base-
level workstation. The standard office workstation will be deployed to all USDA
employees unless business requirements can justify otherwise.   Justification for
something other than a standard office workstation may include the following:

(1) The end user is required to conduct regular work-related travel and requires a
mobile workstation to effectively perform job requirements.
(2) The end user is a Continuity of Operations (COOP) responder and requires a
mobile workstation to ensure uninterrupted program operations.
(3) The end user performs job functions (heavy statistical analysis, intensive
graphical, or large financial calculations) that requires a high degree of
processing on the local desktop.

The following table contains the minimum hardware configuration requirements for the standard office workstation that is deployed to the user:

Processor:	2.8 GHz; 800 MHz FSB; may be a single or dual processor
Memory:	2 GB DDR2 533 MHz upgradeable to 4 GB
Ports:	4 USB 2.0; 1 serial; 1 parallel; 1 external monitor; 2 PS/2; 10/100/1000 Ethernet
Keyboards:	USB Smartcard Keyboard or USB Keyboard if Smartcard Reader is an external device
Monitors:	17 inch Flat Panel
Hard Drives:	80 GB
Mouse:	USB 2-Button Mouse

Components external to the base-level device, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

b. Standard Office Workstation By 2010

The "thin client" is a network computer that is designed to be especially small so that the bulk of the data processing occurs on a network server. For the most part, application software, data, and processing reside on this network server rather than on the end user workstation. Thin clients are not as vulnerable to security breaches, have a longer life cycle, use less power, and require less on-site maintenance support. In addition, the average cost of a thin client is less than $500, almost a third of the cost of the normal base workstation. Agencies are to build their capability to implement thin clients in lieu of base-level desktop computers whenever the end users are located in offices that have sufficient network bandwidth for reliable thin client operation. The thin-client workstation should be the default standard office workstation for all agencies by January 2010.

The thin client can support most administrative and business processing functions including office productivity applications such as e-mail, word processing, spreadsheets, Internet applications, and presentations. Additionally thin clients will support business applications where the user interface is browser or application streaming based.

The following table contains the minimum hardware configuration requirements for the standard office workstation by 2010 that is deployed to the user:

Processor:	1 GHZ; Low Power Consumption
Memory:	512 MB DDR SDRAM upgradeable To 1 GB
Flash Memory:	256 MB Flash RAM upgradeable To 1 GB Flash RAM
Ports	3 USB 2.0; 1 serial; 1 parallel; 1 external monitor (Dual monitor capable);; 10/100Ethernet
Keyboards:	Integrated Smartcard reader or USB Keyboard if Smartcard Reader is an external device
Monitors:	17 inch Flat Panel
Mouse:	2-Button Mouse
OS:	No embedded operating system (e.g., XPe)

Components external to the thin client device, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

c. Enhanced Office Workstation

The end-user computing platform for the enhanced office workstation is a typical mid-level desktop computer.   The enhanced office workstation is deployed to the end-user only when the standard office workstation will not support the business functions being performed by the end-user.

This enhanced office workstation supports office productivity applications such as e-mail, word processing, spreadsheets, Internet applications, presentations, and viewing PDF documents and graphic images. Additional functionality includes: business program development, project management, statistical analysis, desktop publishing, multi-media development, and database processing.

The following table contains the minimum hardware configuration requirements for the enhanced office workstation that is deployed to the user:

Processor:	3.4 GHz; 800 MHz FSB; dual processor
Memory:	2 GB DDR2 677 MHz upgradeable to 4 GB
Ports:	USB 2.0; 1 serial; 1 parallel; 1 external monitor; 2 PS/2; 10/100/1000 Ethernet
Keyboards:	USB Smartcard Keyboard or USB Keyboard if Smartcard Reader is an external device
Monitors:	17 inch Flat Panel
Hard Drives:	160 GB
Mouse:	USB 2-Button Mouse

Components external to the enhanced office workstation, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

d. Specialized Office Workstation

The end-user computing platform for the specialized office workstation is a high-end desktop computer. A specialized office workstation may be deployed to the end-user only when standard office workstation or the enhanced office workstation will not support the business functions being performed.

The specialized office workstation is configured to support high-end applications and advanced graphics and modeling capabilities required by Geospatial Information System (GIS), software design and development, or engineering applications. This model is intended to be used by subject matter experts that demand the most processing power offered in a desktop computer.

The following table contains the minimum hardware configuration requirements for the specialized office workstation that is deployed to the user:

Processor:	4 GHz; 1333 MHz FSB; dual processor
Memory:	4 GB DDR2 667 MHz ECC upgradeable to 8 GB
Ports:	4 USB 2.0; 1 serial; 1 parallel; 1 external monitor; 2 PS/2; 10/100/1000 Ethernet
Keyboards:	USB Smartcard Keyboard or USB Keyboard if Smartcard Reader is an external device
Monitors:	20 inch Flat Panel
Hard Drives:	250 GB with capability to install multiple internal hard drives
Mouse:	USB 2-Button Mouse

Components external to the specialized office workstation, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

e. Mobile Workstation

The end-user computing platform for the mobile workstation is a mid-level laptop computer.   A mobile workstation may be deployed to the end-user only when the various office workstations will not support the business functions being performed due to regular work-related travel, field work, and/or continuity of operations.

The mobile workstation supports office productivity applications such as e-mail, word processing, spreadsheets, Internet applications, presentations, and viewing PDF documents and graphic images. Additional functionality may include: business program development, project management, statistical analysis, desktop publishing, multi-media development, and database processing.

The following table contains the minimum hardware configuration requirements for the mobile workstation that is deployed to the user:

Processor:	1.83 GHz; 667 MHz FSB
Memory:	2 GB DDR2 533 MHz upgradeable to 4 GB
Ports:	4 USB 2.0; 1 serial; 1 parallel; 2 PS/2; 10/100/1000 Ethernet
Keyboards:	Internal Keyboard
Monitors:	14.1 inch WXGA display
Hard Drives:	80 GB
Mouse:	USB 2-Button Optical Mouse
Other:	Smartcard Reader

Components external to the mobile workstation, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration

f.   Specialized Mobile Workstation

The end-user computing platform for the specialized mobile workstation is a high-end laptop computer.   A specialized mobile workstation may be deployed to the end-user only when the various office workstations will not support the business functions being performed due to regular work-related travel, field work, and/or continuity of operations.

The specialized mobile workstation is configured to support high-end applications and advanced graphics and modeling capabilities required by Geospatial Information System (GIS), software design and development, or engineering applications. This model is intended to be used by subject matter experts that demand the most processing power offered in a laptop computer.

The following table contains the minimum hardware configuration requirements for the specialized mobile workstation that is deployed to the user:

Processor:	2.16 GHZ; 2MB L2 Cache;667 MHZ
Memory:	3 GB, DDR2 667 MHZ ; Upgradeable to 4 GB
Ports:	4 USB 2.0, DVI, Docking/port replicator, integrated gigabit Ethernet w/wireless
Keyboards:	Enhanced Performance USB Keyboard
Monitors:	15.0", Wide Screen UXGA 1600x1200
Hard Drives:	100 GB, 7200 RPM
Mouse:	USB 2 –button Optical Wheel Mouse
Other:	UXGA 256mb ATI Mobility FireGL v5200, smart card reader

Components external to the specialized mobile workstation, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory.

Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

g. Ruggedized and Semi-Ruggedized Mobile Workstation

The ruggedized mobile workstation is a computer laptop that is constructed for travel, field use, and/or continuity of operations and can withstand extreme environmental conditions that most electronics could not tolerate. The semi-ruggedized mobile workstation is a computer laptop that is built for field use and costs less than a ruggedized laptop, but is not designed to withstand the same extreme conditions as a ruggedized laptop. Both models provide office automation and mobile productivity. Applications include: e-mail, word processing, spreadsheets, viewing PDF documents and graphic images, and specific field applications.

The following table contains the minimum hardware configuration requirements for the ruggedized mobile workstation that is deployed to the user:

Processor:	1.83 GHz; 667 MHz FSB
Memory:	2 GB DDR2 533 MHz upgradeable to 4 GB
Ports:	4 USB 2.0; 1 serial; 1 parallel; 2 PS/2; 10/100/1000 Ethernet
Keyboards:	Internal Keyboard
Monitors:	12.1 XGA WVA Outdoor Viewable Display
Hard Drives:	80 GB
Mouse:	USB 2-Button Optical Mouse
Other:	Smartcard Reader

Components external to the specialized mobile workstation, such as monitors, keyboards, and speakers can be provisioned through reuse of existing inventory. Based on business need, additional internal and/or external devices, such as CD-ROM and DVD drives may be added to the configuration.

2. Workstation Refreshment Standards

The configuration requirements for each workstation will be updated on an annual basis so that it represents commercial available technology offerings available in the marketplace. Deployed workstations based on prior year configurations will remain in service until the minimum refreshment period is met or the hardware fails to operate.

The following table identifies the refreshment standard and maximum life for each workstation type:

Workstation Type	Refreshment Period	Average Annual Refreshment Rate Per Agency	Maximum Life
Standard Office Workstation	4 Years	20%	5 Years
Standard Office Workstation By 2010 (Thin Client Workstation)	5 Years	20%	5 Years
Enhanced Office Workstation	4 Years	25%	5 Years
Specialized Office Workstation	4 Years	25%	5 Years
Mobile Workstation	3 Years	33.33%	5 Years
Specialized Mobile Workstation	3 Years	33.33%	5 Years
Ruggedized/Semi-Ruggedized Mobile Workstation	3 Years	33.33%	5 Years

3. Workstation Sources of Supply

The OCIO will establish enterprise wide contracts for purchasing of workstations and associated internal and external devices. Until such time that the contracts are established and designated as the mandatory sources of supply, all workstation purchases must be addressed through the Acquisition Approval Request (AAR) process. In the event that the request is for other than the standard or target office workstation, the AAR must provide sufficient justification for the number of each non-standard workstation type requested (enhanced, specialized, mobile, and ruggedized/semi-ruggedized mobile).

4. Workstation Management and Tracking

Each Agency and Staff Office will maintain basic itemized information on all workstations in order to track, manage and report on assets.

Appendix B

End User Workstation Security Standards

1. End-User Workstation Security Standards

    a. Operating System Security Configuration Settings

        (1) Microsoft Windows Operating Systems

            Microsoft Windows XP Professional Service Pack 2 is the standard Windows operating system in USDA. Although there are some instances of Microsoft Windows Vista Enterprise implemented in USDA, this operating system is not considered a standard USDA Windows operating system at this time, and is not authorized for general end-user workstation deployment. The following sections contain the configuration setting requirements for the Windows operating systems deployed within USDA.

        (2) Microsoft Windows XP Professional

            Windows XP Professional Service Pack 2 is the only version that is supported. Older versions such as Service Pack 1 must be upgraded with the most current Service Pack or removed from the network.

            All instances of Microsoft Windows XP Professional SP2 operating system software will conform to the configuration setting requirements set forth by the National Institute of Standards and Technology (NIST) Federal Desktop Core Configuration (FDCC). There will be no deviations from this core configuration.

            Information about the FDCC is available at: http://csrc.nist.gov/fdcc/

        (3) Microsoft Windows Vista Enterprise

            If Microsoft Windows Vista is deployed, then Microsoft Windows Vista Enterprise is the only version permitted on the USDA network.

            All instances of Microsoft Windows Vista operating system software will conform to the configuration setting requirements set forth by the National Institute of Standards and Technology (NIST) Federal Desktop Core Configuration (FDCC). There will be no deviations from this core configuration.

            Information about the FDCC is available at: http://csrc.nist.gov/fdcc/

       (4)   Scanning and Patching

Agencies and staff office must scan operating system software monthly to ensure that software updates and patches are current and that all system vulnerabilities are remediated unless a waiver has been approved by USDA CIO allowing quarterly scanning. At a minimum, all patching must be performed on a monthly basis.

FDCC compliance scanning will commence once a Department-wide tool that will support FDCC scanning has been acquired and implemented.

  b. Security Software

The following table contains the current security software standards that apply to desktop and laptops only:

Category	Manufacturer	Title	Source Contract
Anti-virus/Anti-malware	McAfee or Symantec	VirusScan Enterprise Symantec Antivirus Corporate Edition	SmartBuy Contract USDA BPA
Disk Encryption	Spectrum Systems	Safeboot	SmartBuy USDA BPA

Security software to support thin-client hardware devices will be implemented on the server infrastructure.

  c. Two-Factor Authentication

USDA, along with the rest of the Federal government, is beginning to implement Homeland Security Presidential Directive 12 (HSPD-12) to provide an interoperable identity card to employees and contractors that either access government computer systems or need to access government facilities that are protected with electronic access controls. USDA is going to leverage the HSPD-12 credential (also know as the USDA LincPass) to meet the two-factor authentication requirement.

The USDA LincPass environment will be implemented and deployed during FY 2008 and FY2009. All employees and contractors that have been provisioned with a LincPass must use it to access USDA networks by the end of FY 2008 when using a laptop and by the end of FY 2009 when access is by a workstation.

APPENDIX C

End-User Workstation Software Standards

The following sections identify the software standards for USDA Desktops, Laptops, and Thin Clients.

1. Workstation Operating System

a. Windows Operating Systems

The following table contains the current Windows operating system software standard:

Category	Manufacturer	Title	Version
Windows-Based Workstations	Microsoft	Windows XP Professional SP2	2002

Although there are some instances of Microsoft Windows Vista Enterprise implemented in USDA, this Windows operating system is not considered a current USDA standard Windows operating system at this time, and is not authorized for general end-user workstation deployment.

b. Desktop and Laptop Application Software

The following table contains the base commercial-off-the-shelf (COTS) applications and government-off-the-shelf (GOTS) utility software standards:

Category	Manufacturer	Product	Oldest Version Permissible
Application Programming Interface	Microsoft	DirectX	9.0c
Application Programming Interface	Microsoft	Dot Net Framework	2.0
Browser	Microsoft	Internet Explorer	6.0.x SP2
Configuration Management	Microsoft	MS SMS Client	2.50.4160.2000
Database Connectivity	Microsoft	Microsoft Data Access Components (MDAC)	2.8
File Compression	Corel	WinZip	11.0
Graphics Display	Adobe	Adobe Flash Player	9.0.28
Graphics Display	Adobe	Adobe Shockwave	10.1.4.20
Media Player	Microsoft	Media Player	10
Media Player	Apple	QuickTime	7.1.6
Media Player	Real	RealOne Enterprise	Enterprise (V6.0.11.2160)
Office Productivity Suite	Microsoft	Office Professional	2003* SP2
Email and Content Management	Microsoft	Outlook /CRM	2003* SP3

(i.e., Email, Calendar, etc.)			
PDF Viewer/Writer	Adobe	Acrobat Standard	6.06
PDF Viewer/Writer	Adobe	Adobe Reader	8.0
Security	Various	**See Appendix B**	n/a

* FY2009 The Department allow the purchase and will begin the migration of MS Office Professional 2007.

Each Agency and Staff Office may add additional software, such as Microsoft Project, to the base standards when configuring their desktop and laptop software image to support their mission. Only those products that are needed by an agency to support the categorical function must be loaded. For example, not all workstations must have a copy of Adobe Acrobat Standard.

When implementing the (thin-client workstation, the application software for the most part would be installed on the server infrastructure.

2. Software Sources of Supply

The OCIO will establish enterprise wide contracts for purchasing of workstation software associated with this appendix. In the event that the request is for software with the same functionality as software identified in this appendix, the agency is to request a deviation through the AAR process.

3. Workstation Software Management and Tracking

Each Agency and Staff Office will maintain basic information, to include manufacturer name, software category, software title, software version, number of licenses, procurement source of software, and contract number, associated with all COTS workstation software, in order to track, manage and report on software licensing.

4. Approval of Workstation Software Images

On an annual basis, each Agency and Staff Office will provide to the OCIO a listing of workstation software information for each software image in use within the organization for review and approval by the CIO. The date of the annual review along instructions on what information to provide and how to provide it will be announced through a CIO memorandum.