

# Knowledge Management and Information Technology (KMIT) Health Sciences Center Information Technology Standards for Users

*Revised April 25, 2005 and Approved by the KMIT Operations Council, KMIT Advisory Council,  
and the IS Directors*

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## 1.0 Introduction

Information Technology (IT) standards for the Health Sciences Center (HSC) have been developed to ensure the highest level of technical support and provide a more reliable, integrated Knowledge Management and Information Technology (KMIT) environment. The standards have been written in view of published State of New Mexico and UNM IT standards; industry best practices; local, state and federal regulations and peer institution benchmarks for IT services and support.

This document, initially authorized and approved in 1998, will be reviewed and revised annually so that the standards remain relevant and useful. Some sections may be updated more frequently to accommodate technology and regulatory changes.

These standards are developed, reviewed, and approved by the HSC KMIT advisory groups (i.e. KMIT Operations Council, KMIT Advisory Council, KMIT Leadership Council) and the Information Systems (IS) Directors Committee. Standards are created and updated based on feedback to the HSC Help Desks; industry best practices and trends identified by HSC IT staff; and technology surveys, including the biennial IT survey given by the Health Sciences Library and Informatics Center (HSLIC).

## 1.1 References

- UNM Account Password Standard (<http://cio.unm.edu/standards/>)
- UNM Wireless Standard (<http://cio.unm.edu/standards/>)
- HSC Account Management Policy (<http://hsc.unm.edu/library/kmit/policies.shtml>)
- HSC HIPAA IT Disaster and Contingency Plan Policy ([http://hospitals.unm.edu/policies\\_and\\_procedures/index.cfm](http://hospitals.unm.edu/policies_and_procedures/index.cfm))
- HSC HIPAA IT Security – Account Management, Controls and Standards ([http://hospitals.unm.edu/policies\\_and\\_procedures/index.cfm](http://hospitals.unm.edu/policies_and_procedures/index.cfm))
- ITS Policy for Granting NetID's ([http://its.unm.edu/accts/granting\\_policy.html](http://its.unm.edu/accts/granting_policy.html))

## 2.0 Authority

### 2.1 State of New Mexico IT and UNM ITS Standards

In general, the HSC will meet or exceed minimum Information Technology Standards defined by the New Mexico Office on Information and Communications Management (OICM) and UNM ITS.

### 2.2 HSC Definition of Knowledge Management and Information Technology and Guiding Principles

**Knowledge management** creates a user-centered environment that ensures easy access to and ethical use of appropriate information resources. Effective policy and training, as well as a ubiquitous, unobtrusive information technology infrastructure are essential to a knowledge management program providing stewardship for the collection, storage, organization, retrieval, archiving, and access to data and information.

**Information technology** supports knowledge management and includes a variety of devices and the connectivity that links them, in order to enable all forms of communication.

The **Guiding Principles** for fostering the creation of a knowledge management environment to maximize the power of information technologies include the following:

- Data gathering takes place once, accurately, and at the original source. It will be integrated and anticipate future needs.
- Information is available in a timely, useful and intuitive way to those with the need to know.
- The knowledge management environment enriches knowledge-based interactions and decisions, and eliminates all process steps that do not add value.

## 3.0 Support Standards

### 3.1 Help Desk Support

Detailed contact information and descriptions of technical support services for the HSLIC and UNM Hospitals (UNMH) Help Desks can be found on the following pages:

<http://hsc.unm.edu/library/usersupport/>  
[http://hyper.unm.edu/unmhs\\_intranet/IT/Index.cfm?nbcid=2](http://hyper.unm.edu/unmhs_intranet/IT/Index.cfm?nbcid=2)

In general, user support services available through the UNM Information Technology Services (ITS) unit are also available to HSC campus users. For example, software that is licensed for distribution to UNM faculty, staff and students can be accessed at: <http://its.unm.edu/swdist/>. For a list of ITS consulting services, review their service catalog: <http://its.unm.edu/servicecatalog>. However, in most cases, HSC users should first contact the HSLIC or UNMH Help Desks in order to be directed to or report problems with ITS systems.

### 3.2 Notification of Changes in Levels of System Support

HSC Departments can expect at least 3 months notice of any major changes in system standards or support, i.e. changes in support for operating systems or productivity applications that will require hardware/software upgrades. Prior to publication, all proposed changes will be discussed within KMIT, IS Directors and HSC Departmental Contacts groups to assure appropriate opportunity for feedback from faculty and technical staff.

## 4.0 Network Management Standards

### 4.1 Infrastructure and Centralized Services

#### **Core Network Services**

ITS provides UNM with commodity and specialized Internet access. Additionally, ITS maintains the core network infrastructure that links the HSC network to other UNM and Internet resources.

The HSC Network Management Team supports all HSC campus network equipment in accordance with ITS standards. The HSC Network Management Team maintains all network equipment, including the core network as well as distribution and access layers. They also oversee the distribution of IP addresses within the .health.unm.edu domain.

#### **Wireless**

The HSC currently provides 802.11b/g wireless access to the UNM network and the Internet in most of its buildings. This access was designed to provide coverage for large conference rooms and open public areas. Future plans include greater penetration into individual office spaces areas throughout all buildings.

The HSC follows the UNM Wireless Standard (<http://cio.unm.edu/standards/>), which requires encryption and authentication. Public wireless access, including access to UNM resources, is available in HSLIC and the Domenici Center for Health Sciences Education. Limited public wireless access, access to off-campus resources only, is also available in clinical care areas to patients, family members and visitors.

### **Building Cabling and Telecommunications (pager, voice mail, telephone)**

ITS Communications Network Services supports telephone/PBX communication services at the HSC. UNMH IT (the Network Management Team) serves as the initial point of contact for all HSC telecommunications work requests.

The current UNM copper cabling standard is category 6a for all new construction.

### **Centralized Services**

ITS supports the centralized financial, human resource and student systems for all of UNM including the HSC. UNMH has its own centralized financial (Ross Financials) and human resource (Empath) systems, for which its IT division provides technical support.

## **4.2 Network ID**

At UNM the term NetID is used to describe a username/password combination required for authentication to UNM managed secured systems and services. All UNM employees are provided with a UNM NetID. UNM NetID's are used to access:

- UNM email
- UNM ERP applications
- UNM's eLibrary
- Blackboard Learning System (WebCT Vista Enterprise)
- UNM Parking Services
- UNM portal/web applications

The ITS Support Center provides support for services accessed using the UNM NetID.

In addition to the UNM NetID, all HSC employees receive a separate HSC NetID. HSC NetID's are used to access:

- HSC network file sharing services
- GroupWise email
- Desktop PCs (employees only)
- HSC specific web applications
- Remote access to HSC restricted library services

More information about HSC NetID accounts can be found at:

[http://hsc.unm.edu/library/usersupport/FAQ\\_NetID.shtml](http://hsc.unm.edu/library/usersupport/FAQ_NetID.shtml). The UNM HSC Account Management Policy can be found at: <http://hsc.unm.edu/library/kmit/policies.shtml>.

Efforts to synchronize provisioning and maintenance of UNM and HSC NetID's are under way. The HSC will not support the implementation of new systems that do not use one of these IDs for authentication. More information about NetID's at UNM, including ITS policies regarding UNM NetID's, can be found at:

<http://its.unm.edu/accts/index.html>.

Directory Services are the core technology behind UNM's NetID's. In an effort to coordinate the integration of new servers and applications, users should coordinate the introduction of new systems and shared applications with HSLIC or UNMH IT staff to insure support and compatibility with one of the Directory Services technologies supported by UNM (Microsoft's Active Directory, Novell's eDirectory, LDAP).

## **4.3 Server and Systems Management**

In the interest of planned growth, business continuity and efficient use of UNM resources within the HSC campus environment, HSC departments should consult with HSLIC staff prior to all application/file server purchases. The HSC Network Management Team will not provide network connectivity to systems that have not received prior authorization to provide server based services. Systems currently in place are subject to periodic assessment to ensure they are in compliance with industry best practices along with state and federal

regulations (e.g. HIPAA). Systems shown to represent a security risk to the institution by not complying with current support standards are subject to remediation by their assigned data owner.

All UNMH server purchases must be made through the Director of PC Systems and Support. This includes any servers needed to support vendor applications at UNMH.

## 5.0 Security Standards

### 5.1 Security/Passwords

Each employee is individually responsible for maintaining their passwords, including changing them regularly (180 days or sooner), in accordance with the UNM Account Password Standard (<http://cio.unm.edu/standards/>) and HIPAA mandated HSC password protection policy and procedures ([http://hospitals.unm.edu/policies\\_and\\_procedures/index.cfm](http://hospitals.unm.edu/policies_and_procedures/index.cfm)). Doing so will help assure the security and integrity of individually identifiable and business critical information. Users of UNMH IT managed systems are required to attend training and sign a confidentiality statement before receiving system access.

### 5.2 Virus Scanning and Data Backup

All UNM or UNMH desktops and servers connected to campus networks must have current virus scanning installed and actively scanning the appropriate file systems. McAfee VirusScan is the current, centrally managed and site-licensed virus protection software available at no cost for all HSC computers running Windows XP Professional or Vista. It is therefore strongly recommended that HSC and UNMH users use McAfee's VirusScan unless there is a significant business need to install a different product.

All connections on the network are continuously monitored for malicious activity that is the result of a virus infection or system compromise. Given the criticality of the HSC network, the network connection/port of an infected/compromised machine will be disabled until the issue is addressed and approved for reactivation by one of the HSC Help Desks.

All centralized systems supported by UNMH IT and HSLIC are backed up in accordance with best practices and HIPAA legislation. Individual users in cooperation with systems administrators should develop a regular system and data backup procedure for workstations and departmental servers. Everyone should recognize that they are responsible for data stored on local system drives. Those who maintain mission critical servers and services should use current enterprise class business continuity procedures including: off-site storage, automated media rotation and redundancy. All backup and business continuity procedures should be reviewed annually in reference to the HSC HIPAA IT Disaster and Contingency Plan Policy which can be found at: [http://hospitals.unm.edu/policies\\_and\\_procedures/index.cfm](http://hospitals.unm.edu/policies_and_procedures/index.cfm)

### 5.3 Employee Data Backup

The HSC provides network storage for employees, H: drive for UNMH users, and H: and O: drives for all other HSC users. Network storage is easily accessible, privileged and shared. It is also regularly backed up. Network storage includes shared file space for individual departments / units and "Home" directories for individual users. Employees are encouraged to store work product in the appropriate location.

UNM's Acceptable Computer Use Policy (University Business Policies and Procedures Manual, policy 2500) allows for the incidental personal use of personal files. In order to control costs incidental use is limited to storage on local drives. Certain file type kept on shared network storage will be subject to additional restriction and quotas; (temporary files, ~\*.tmp; binary executables, \*.exe, \*.dll, etc.)

Backups by central IT are limited to official shared network storage; local files are not backed up by central IT, check with local departmental support for more info. Files can only be restored for file saved on official shared network storage. Files stored on network drives for at least 48 hours can be restored for up to 2 weeks. Files existing on network storage for longer than 30 days can be restored for up to a one year. The version of the file restored is based on the time it was backed up and after 2 weeks only one version per month is available. Restoration of file older than one year is rarely feasible due to resources and technology limits. Special

arrangements should be made for long term archiving or other file storage needs requiring additional resources for backup, large storage quotas, high performance access, etc. Please contact the help desk to make arrangements. For the most recent standards and examples of appropriate use of network storage please see: <http://hsc.unm.edu/library/usersupport/wbackup.shtml><sup>1</sup>.

## **6.0 Electronic Communication Standards**

### **6.1 Email and Calendaring**

All HSC Information Technology staff support GroupWise (GW) for faculty, staff and student email and electronic calendaring (along with other GW features). There is no charge to units for installation of the GW client on the desktop. UNM ITS does not promote a particular e-mail client but provides limited support for UNM Web Mail. They currently support GroupWise as their calendaring service for UNM employees.

In the near future, all UNM students will be required to have a unmc.edu e-mail account. Students taking classes at the HSC may also be required to have a salud.unmc.edu e-mail account.

In response to increased concern about the impact of unsolicited mail on employee productivity and HSC email systems, the HSC utilizes the UNM-wide spam filtering application, Sophos' PureMessage, which is managed by ITS. More information about spam filtering at UNM can be found at: <http://its.unmc.edu/email/spam.html>.

GroupWise allows messages to be saved, automatically or manually, to a static location for later retrieval. On the HSC campus all GroupWise items are stored on the server initially but are deleted around 180 days after the message is sent, depending on network storage capacity. The static location archive provides a place to permanently store items on your hard drive so that they are recoverable. More information about GroupWise archives can be found at: [http://hsc.unmc.edu/library/usersupport/imaging\\_archive.shtml](http://hsc.unmc.edu/library/usersupport/imaging_archive.shtml). At the current time, UNMH stores all GroupWise items indefinitely.

### **6.2 Terminal Emulation**

The HSLIC and UNMH Help Desks provide full support for SSH ("Secure Shell"), which can be downloaded from the ITS web site, to provide secure terminal emulation access to mainframe systems. UNMH Help Desk also provides support for LanWorkPlace Pro and SmarTerm. Support for these insecure terminal emulation products is limited and will be diminished over time.

### **6.3 Video and Internet Conferencing**

The HSC and UNM offer HSC faculty and staff a variety of video and web conferencing services. The Center for Telehealth provides and supports secure multipoint H.323 videoconferencing services and ITV. H.323 room systems are available by reservation throughout the HSC including the Domenici Center for Health Sciences Education's 2112 classroom. A fee-for-service charge may be incurred for multipoint conferences initiated through the Center for Telehealth. Multipoint videoconferencing and ITV services and support are also supported by UNM Media Technology Services. Proposals for new video conferencing rooms must be coordinated with UNMH, HSLIC or Telehealth program staff.

Software-based webconferencing (Adobe Acrobat Connect) including audio, video, and data conferencing are available for HSC research, clinical and administrative use through a collaborative effort of HSLIC and UNM Media Technology Services. Current capacity for these services is limited. HSLIC provides audio and camera solutions guidance that support desktop and room-based webconferencing. Blackboard Learning System (WebCT Vista Enterprise) and integrated webconferencing (Eluminate) is provided by UNM Extended University in support of Blackboard Enterprise supported classes for HSC faculty and students.

HSLIC continues to investigate webconferencing solutions to provide wider availability of webconferencing services to the HSC. In addition, many internet based media conferencing services (e.g. instant messaging services with video and audio) can be used by HSC faculty, students and staff. Currently, the use of these

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<sup>1</sup> Updated and approved by the KMIT Operations Council November 13, 2006.

services are not limited by HSC policy although the HSC does not provide support for any non-HSC provided internet based audio, video, or data conferencing service.

## 6.4 Instant Messaging

Currently, the HSLIC and UNMH Help Desks provide limited support for Windows Messenger and GroupWise Instant Messaging. Any department wishing to use this technology should work with their respective IT support group to facilitate this.

## 6.5 Web Support

HSLIC IT staff support the following World Wide Web browsers and application development environments:

- Browsers: Internet Explorer 6.0+ is the HSC standard browser and receives full support from both HelpDesks. (KMIT recognizes the value of having a second browser such as Firefox installed on the same PC, but non- IE browsers will not receive the same level of centralized support).
- Web authoring: Microsoft FrontPage, Expression Web, and SharePoint Designer and Macromedia DreamWeaver
- Application Development: Macromedia Cold Fusion
- Database development: Microsoft's SQL Server or Oracle (in conjunction with applications written in Macromedia Cold Fusion). Microsoft Access databases are not supported for online applications.
- Online Education: Blackboard Learning System (WebCT Vista Enterprise), Learning Central, Moodle

## 6.6 Audio/Video Streaming Media Support

Windows Media server based audio and video streaming services are provided by HSLIC IT staff. The Windows Media streaming formats WMV and WMA have been selected as HSC standards for delivery of on-demand and live streaming media. The HSC will support unicast and multicast (as it becomes more widely available) media streaming. Because of server performance and maintenance considerations, direct web based audio and video located on HSC servers other than the HSC media server either for direct or progressive download in any format is not allowed. All audio and video streaming requests will be structured according to HSC web-presentation guidelines.

The restriction to Windows Media applies only to the serving of audio and video content from HSC servers to users over the web. The restriction does not apply to audio and video content created for distribution by other media like CD and DVD. It also does not apply to the ability of HSC client computers to access content in any of the major streaming media formats. HSC client systems are preconfigured with the software to play Windows Media, QuickTime, and Real Media formatted material.

## 7.0 Hardware Standards

### 7.1 Workstations, Printers and Peripherals

HSC Administration believes that standardizing the vendor and configuration of desktop and laptop computers is in the best interest of the institution and that every faculty member should have a workstation, which meets minimum standards. These minimum standards can be found at:

[http://hsc.unm.edu/library/usersupport/NW\\_MinimumHardware.shtml](http://hsc.unm.edu/library/usersupport/NW_MinimumHardware.shtml)

Printer support standards can be found at: <http://hsc.unm.edu/library/usersupport/Printing.shtml>

Currently, the HSLIC and UNMH Help Desks support Windows XP Professional. The HSLIC Help Desk also supports Windows Vista.

### **Purchasing – UNMH**

All UNMH departments must secure IT equipment (including PC's, laptops, tablets, PDA's, printers and scanners) through the UNMH IT department. The normal process is to make an IT Equipment request through the on-line budget tool during the budget cycle. Special requests, not made during the budget cycle, can be made through the equipment contingency fund during the fiscal year. All contingency requests are made to the Director of PC Systems and Support.

### **Purchasing – HSC (non-UNMH)**

HSC departments using UNM funds to purchase computer equipment should either consult the HSLIC Help Desk or select equipment from supported vendors' websites. The current vendors are: Dell for laptop and desktop computers and Dell or Hewlett Packard for networked printers.

Prior to making new purchasing decisions, the HSLIC Help Desk can obtain quotes from these vendors. They also will attempt to assist departments to plan for upgrading workstations that are below the minimum specifications. If you need consultation regarding upgrade options or sources of external support for non-standard equipment, please contact the HSLIC Help Desk.

In addition, each HSC unit is encouraged to maintain currency of workstations through a planned replacement/upgrade every 3-4 years, with some portion of workstations replaced annually. Some workstations may need to be upgraded more frequently based on special needs.

As an ongoing practice, various strategies will be investigated to provide more flexibility and stability in budgeting, and improve our ability to provide workstation support (e.g., group purchasing, single vendor, leasing, on-site vendor maintenance). One example is the Faculty Workstation Project. This program offers new-model personal computers for faculty and staff at a reduced cost to each HSC department, with the remaining cost subsidized by the HSC Administration. Offered every fall, HSLIC purchases the computers, receive requests from HSC departments, and configures and distributes the workstations.

## **7.2 Mobile Computing**

The HSC encourages the use of mobile technologies wherever feasible. It is important to note that certain mobile technologies may or may not fit each individual's needs, therefore a variety of devices are supported. In keeping with the HIPAA Security Regulations, any data to be transferred to or from these devices to critical systems, "data-in-motion," must be done with proper authentication and encryption. Any data kept exclusively on device, "data-at-rest," is the responsibility of the custodian of the device.

### **Laptop, Tablet PC, PDA**

Current support standards for laptops, tablet PC's and PDA can be found at:  
[http://hsc.unm.edu/library/usersupport/mobile\\_techn.shtml](http://hsc.unm.edu/library/usersupport/mobile_techn.shtml)

Employees are encouraged to use laptops as their primary UNM work computer, taking best security practices for laptops into consideration. Tablet PC's receive the same support as laptops. Since this technology is still new and rapidly changing, please consult with the HSLIC Help Desk before purchasing.

### **SmartPhone**

HSLIC and UNMH provide limited support for smartphones purchased through ITS Communications Network Services.

## **7.3 Emerging Technologies**

The HSC provides limited support for a variety of emerging technologies. Contact the HSLIC Help Desk for more information.

## 8.0 End User Software Standards

### 8.1 Desktop Productivity Software

With the exception of Outlook, all HSC information technology staff will provide basic troubleshooting support for Microsoft Office. The HSC participates in the Microsoft Campus Agreement Program and offers the current version of Office to HSC employees. Home Use Program (HUP) rights are included in the program, which allows HSC faculty and staff to use a second copy of the software on a home or personal. This program does not apply to UNMH employees, residents or students. More information about the Microsoft Campus Agreement Program can be found at: [http://hsc.unm.edu/library/usersupport/Cap\\_main.shtml](http://hsc.unm.edu/library/usersupport/Cap_main.shtml)

The HSLIC and UNMH Help Desks also encourage the use of utilities (e.g. CD burning software, disk defragmenters, etc.) that are integrated into the Windows operating system wherever possible. Both Help Desks provide limited support for these applications. A detailed list of other ITS volume licensed and supported software can be found at: <http://its.unm.edu/swdist/>

### 8.2 Knowledge Management Applications

The following applications are supported throughout the HSC:

- Bibliographic Citation Management: RefWorks, EndNote (HSLIC Information Desk)
- Institutional Virtual Repository: DSpace (HSLIC Information Desk)
- Document Management and Collaboration: Microsoft Office SharePoint Server (HSLIC and UNMH Help Desks)
- Learning Management Systems: Blackboard Learning System (WebCT Vista Enterprise)[curricular] (HSLIC Help Desk and Learning Design Center), Learning Central [training] (HSLIC Help Desk and Learning Design Center, UNMH Help Desk), Moodle [external users] (HSLIC Help Desk and Learning Design Center)

HSLIC Library Services provides instruction on these applications to all HSC faculty, staff and students.

## 9.0 Remote Access

The UNM electronic resources can be accessed remotely by any Internet service provider. The HSC services that can be accessed remotely include:

### **GroupWise Access**

GroupWise Web Access is considered to be a supplement to the standard client and not a replacement for it. Links to GroupWise web access can be found in various locations throughout the HSC web site.

The GroupWise client is also available for users with high-speed connections. It may be downloaded via ftp from a link on the Technology Support web site (<http://hsc.unm.edu/library/usersupport/>). By downloading the full version of GroupWise, users may take advantage of the software's full functionality remotely.

### **Proxy Server for Online Resources**

University Libraries and HSLIC provide remote access to online resources through the use of a proxy server as licensing permits. This system allows off-campus users with access to servers and services at HSLIC that otherwise could not be accessed outside of the UNM computing environment. Departments who purchase new online resources should contact HSLIC about site-wide licensing and inclusion of these products on the proxy server.

### **Virtual Private Network Access**

UNMH operates secure Virtual Private Network (VPN) services for resources that require secure off-site access when necessary for critical work of the Health Sciences Center. Contact the HSLIC or UNMH Help Desk for access.

**Virtual Office**

The HSC offers Novell's Virtual Office as a way to access files remotely. With secure authentication, Virtual Office offers access to shared directories, e-guide, printers, and email just as if users were at the workplace. Virtual Office can be found at: <https://myhsc.health.unm.edu>.

**Medical Record Remote Access**

UNMH through its Help Desk offers the ability to remotely access the Cerner Millennium products through a secure Citrix ICA client connection. This access is available for HSC providers.