Northwestern Commits to World-class Telecommunications Infrastructure

Through the Converged Communications initiative, Northwestern is positioning itself to remain competitive as a world-class academic and research institution by laying the groundwork for next-generation telecommunications services. “The University has always been a technology leader, and we’re moving in the direction of new telecommunications industry standards to benefit the entire NU community,” said Mort Rahimi, vice president for information technology and chief technology officer, regarding converged communications, which will make state-of-the-art service options available to the Evanston and Chicago campuses.

An investment in Session Initiation Protocol (SIP)-enabled technologies to build much-needed extensions and enhancements to Northwestern’s telecommunications infrastructure is at the forefront of the University’s plan, which extends from Fiscal Year 2006 to 2011. By upgrading outdated telephone switching hardware and components with SIP-enabled technology, NU will be able to support both current TDM (time-division multiplexed) telephones and new converged communications services.

What is “converged communications?”

Converged communications is the coming together of key communications services such as voice-calling, secure instant messaging (IM), and videoconferencing, which are delivered over a single network. This is made possible by SIP, which enables the delivery of telecommunication services over Internet Protocol (IP) networks such as the NU Network.

Currently, Northwestern University Information Technology (NUIT) is working to update Northwestern’s voice platform to handle SIP-enabled technology. This will provide a foundation for the deployment of converged communications on the Evanston and Chicago campuses over the next five years.

What are the benefits?

In the future, delivery of telecommunication services over the NU Network will make it possible for Northwestern faculty and staff to access NU-hosted converged communications services and features from any Internet connection. Eventually, users will have a single point of contact, instead of having multiple, location-based telephone numbers. The University will no longer have to bear the cost of maintaining multiple delivery systems for telecommunications services and changing office locations, adding new phones, and other service changes will be more efficient and, therefore, more convenient for customers. For more information about converged communications and the implementation of SIP-enabled technologies on campus, visit NUIIT’s Converged Communications Web site at <www.it.northwestern.edu/telephone/converge/>.
E-mail Defense System Gets an A+

Northwestern University computer users had **6 million** fewer pieces of junk e-mail in their inboxes in October, thanks to the successful roll out of the E-mail Defense System (EDS). EDS, which performs junk e-mail probability tests and anti-virus scans on messages coming to NU's central e-mail servers (casbah, hecky, lulu, and merle), was implemented on October 3.

Between October 3 and October 31, EDS scanned 788 gigabytes of information in 20,187,323 e-mail messages addressed to Northwestern. EDS blocked:

- **5,931,626** pieces of junk e-mail, which represents 29.38% of all incoming e-mail; and
- **182,111** pieces of mail with virus attachments, which represents 0.90% of all incoming e-mail.

Thanks, EDS!

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Converged Communications Questions & Answers

**What new features and services will be available?**

Converged communications will give telecommunications customers at Northwestern the opportunity to benefit from state-of-the-art service options. Voice over Internet Protocol (VoIP) will be the first new service implemented as part of converged communications. Many people are familiar with voice-calling via VoIP, but VoIP can also provide desktop videoconferencing, secure file-sharing, and secure Instant Messaging (IM).

**What are some of the technical challenges associated with SIP-enabled technology?**

While service portability is a benefit of SIP-enabled technologies and converged communications, it also represents a technical challenge. As the telecommunications industry moves away from land-based delivery systems, changes have to be made to related systems that depend on geographic information, such as E911. NUIT is working to meet these challenges and to insure the regulatory compliance of converged communications systems.

Digital Imaging Collaboration Will Preserve Unique Chinese Cultural Relic

Some of the most advanced imaging technology available is being used to photograph and preserve one-of-a-kind cultural heritage sites around the world, and Northwestern University is leading the way in developing and using that technology. Media experts and software development specialists from NUIT are working with Chinese cultural institutions to completely document the interior of the thousand-year-old Shuilu’an Temple near Xi’an, China in high-resolution digital imagery. A team from NUAMPS (NU Advanced Media Production Studio, a unit of NUIT Academic Technologies) traveled to China in October to launch the first phase of this major collaborative effort, which is funded through a $475,000 grant from the Andrew W. Mellon Foundation.

Besides support for the on-site photography, Foundation funding will allow for continued training and educational cooperation between the University and Chinese cultural institutions, and for NUIT development of a computer interface that will allow scholars and students alike to study the Shuilu’an Temple. The interior of the temple is encrusted with thousands of intricate, 500-year-old terra-cotta sculptures of the Buddha, many of which have begun to collapse. Acquisition of detailed photography is not only of cultural and historic importance, but could be the last chance to record the existing sculpture.

“The Shuilu’an project represents an important step in a much larger initiative of imaging cultural heritage sites,” said Harlan Wallach, architect for media technologies. “Northwestern is working at the forefront of this field as a result of our team’s expertise in digital imaging, software development, and digital collections architecture.”

Key NUIT project staff include Wallach, who is principal investigator for the Mellon Foundation grant; project manager/image specialist Stefani Foster; photographer Jeremy Brunjes; and technology architects Bill Parod and Jonathan Smith.

Project members in China include the Shaanxi Provincial Wenwujiu (cultural relics bureau) and the Dunhuang Research Academy (DRA). A Northwestern team previously collaborated with the DRA on a four-year photographic initiative in Dunhuang, China funded by the Mellon Foundation. This work resulted in an extensive series of wall mural images for the Mellon International Dunhuang Archive (MIDA) component of the ARTstor Digital Library, www.artstor.org. ARTstor is licensed to universities and museums throughout the world.

“This is an exciting collaboration that is attempting to break new ground on several levels of cultural documentation,” said Wallach. “Not only is the project team producing a lasting archive of Shuilu’an, our Chinese colleagues will be trained in the use of imaging techniques and methods of 3D capture and application. Their team represents a high level of expertise, and we’re expecting very rewarding results.”

NUIT image specialist Stefani Foster prepares for a photo shoot at the thousand-year-old Shuilu’an Temple in China.
Secure Workstations
Reduce Risk to NU Resources

David Kovarik, Director
NUIT Information & Systems Security/Compliance

I’ve often heard individuals say that they have nothing of a sensitive nature on their computers, and ask why they need to be concerned with security. My typical response is, while their computers might not hold sensitive data, when they are connected to the NU Network, they have access to its resources, some of which are sensitive and confidential.

In fact, the most severe information security incidents suffered by Northwestern were launched from within the NU Network itself, using compromised workstations. In the majority of these cases, the workstations contained no sensitive data, but became bases from which attacks on the network and its resources were initiated and conducted.

NUIT Information and Systems Security/Compliance (ISS/C) is charged with the development and coordination of the University’s information security program, but effective security practice is the personal responsibility of every person who uses the University’s information assets. Here are a few things you can do to keep your workstation and Northwestern’s resources secure:

• Keep your operating system and application software current by loading updates and patches in a timely manner.
• Activate automatic update features when they are available to ensure your system stays current.
• Frequently update your antivirus software.
• Execute a virus scan of your system at least once a week.
• Ensure that your firewall is active.
• Backup your system or data files frequently.
• Scan your system for spyware at least once a week, using two or more anti-spyware applications.
• Select a strong passphrase/password and change it frequently.
• Do not share your NetID or passphrase/password with anyone. It’s a bad practice, and it’s against University policy.

Remember, protecting your personal data and your computer helps ensure protection of University assets and is part of your job. You are the key to information security!

If you are interested in learning more about information security topics, check out the Security Awareness Tip of the Month at <www.it.northwestern.edu/security/tip-of-the-month/> or join us for NUIT Tech Talks! See Upcoming Tech Talks at right for details.

Upcoming Tech Talks:
Save the Date!
TechTalks are a series of informal presentations by IT professionals to help educate faculty, staff, and student information technology users about current trends and issues related to IT.

Tech Talks are presented as a videoconference between Evanston and Chicago campuses and are held at noon in the University Library Forum Room (Evanston) and Wieboldt Hall, Room 421 (Chicago).

Fall 2005: NUIT Tech Talk:
Love Your Computer - Ensuring Optimum Performance

Date: Friday, December 9, 2005

Leaving little issues unattended can lead to big problems down the road. Maximize the performance and security of your computer by keeping your hard drive clean and your software up to date.

Learn:
• Easy steps you can take to keep your computer operating effectively.
• How to implement security patches for your operating system and other applications.
• How to complete functional upgrades for your software.
• What disk defragmenter does and why you should use it.

Winter 2006: NUIT Security Awareness Tech Talk: Protecting Privacy and Safe Disposal of Information

Date: Friday, February 17, 2006

Computers become obsolete. Private and confidential information often does not. Don’t let your information fall into the wrong hands!

Learn:
• How to properly prepare old computers, PDAs, and other devices for disposal so the information on them cannot be retrieved.
• How to properly dispose of confidential information in other formats (paper, CD, disk, etc.).
• How to protect your personal information online.
Software Corner
Find the software you need from NUIT at <www.it.northwestern.edu/software/> For support, contact questions@software.northwestern.edu or the NUIT Support Center at 847-491-HELP (4357).

New SPSS v.14
SPSS for Windows is a tool for statistical analysis. SPSS 14 features data management, forecasting, and reporting capabilities, as well as expanded structural equation modeling and graphics options.

SPSS 14 for Windows is available for purchase by faculty and staff for $77. Those who purchased a license for SPSS for Windows in FY2006 are entitled to a free upgrade to version 14.0 if SPSS is installed via the NUIT software server. With SPSS 14, a documentation CD containing comprehensive user guides is also available for an additional $15.

If you have questions regarding SPSS 14 or to check eligibility for the upgrade, contact questions@software.northwestern.edu. Please include the order number for the previous purchase of SPSS, if you are inquiring about upgrade eligibility.

To order software, please visit our Site Licensed Software Distribution Web site at <software.northwestern.edu>.

Maple v.10
Maple is mathematical problem-solving and visualization software with industrial, educational, and research applications. In its latest release, the functionality of Maple has been expanded. A new equation editor allows users to express complicated mathematical problems using standard mathematical notation. Users also embed GUI components in documents. By adding sliders, buttons, and edit boxes, a document can become both a report and an application.

Maple 10 is available for Windows, Macintosh, and Linux platforms. Users who want to upgrade to the new version must purchase a new license and a full installation of the software, as upgrades are unavailable. Maple 10 licenses are $99 for faculty and staff. Bulk purchase pricing is available for orders of 10 or more licenses for the same platform.

For more information about Maple, please visit <www.it.northwestern.edu/software/staff/dept/maple/index.html>.

Network Extensions: That 'Quick Fix' Can Cause Big Problems
Imagine the following scenario: Your research grant has been approved and you've hired several new staff, all of whom need immediate access to the NU Network. You're anxious for everyone to start work on your project—no time to order network connections through NUIT—so you get a multi-port network extension. Or perhaps you get a great deal on a wireless router from your local electronics superstore, and create your own wireless LAN. Problem solved! These are convenient, inexpensive, and harmless ways to get everyone connected. Aren't they?

Actually, there's nothing harmless about them. Adding unapproved extensions of any kind to the NU Network is asking for trouble. That low-cost "quick fix" will probably be an expensive time-waster, and may result in widespread problems. For example:

- With a network extension, more users share a single port resulting in slower connections, regardless of how robust the overall network may be. In the above scenario, the research staff encountered frustrating slowdowns on a regular basis, especially during videoconferences with other research institutions.
- A single infected computer can infect every other user on a network extension and cause extensive damage. One member of the research team was unaware that her computer was harboring a virus. When she accessed the network, the infection spread to other department computers, destroying valuable research data. Fortunately, the data was backed up each night, but it took several days for technical support staff to examine, repair, and restore all the affected machines.
- Ports with compromised computers attached are shut off by NUIT, and all computers connected through those ports lose their network access.

Unfortunately for our research team, one of the department's servers was connected to the network extension. Not only did the staff lose their network connections when the port was shut off, they also lost access to critical data on the server.

- Wireless segments are especially vulnerable to outside attacks. That "bargain" wireless router was no bargain—the staffer who was assigned to install it neglected to secure the router properly. An unscrupulous visiting researcher took advantage of the situation to hack into the network and steal research data.

“We want to help Northwestern maintain a secure infrastructure, and ensure a level of service that will support future technologies.”

Continued on page 8
Ryan Family Auditorium: More than just a Smart Classroom

Northwestern’s largest classroom space is also one of its most appealing and in-demand performance venues, thanks to a major “technology makeover.”

As part of the University’s commitment to upgrade all Evanston classrooms to smart classroom status over a 10-year period, NUIT Academic Technologies and NU Facilities Management have upgraded the Ryan Family Auditorium to meet the wide-ranging demands of the digital media age.

Located in the Technological Institute, the 600-seat Ryan Family Auditorium is the largest classroom space on NU’s Evanston campus. New features include a cinema-quality projector, mobile lecterns with touch panel controls, digital annotation (similar to the electronic chalkboard used by TV sports commentators), and a high-resolution digital document camera.

“Our goal is to support the most effective teaching practices of our faculty...and to enrich the possibilities for special events.”

NUIT, “and to enrich the possibilities for special events in this auditorium. These technology improvements respond to the many changes in information services that have taken place since the auditorium was last renovated in the 1960s, as well as the change in student expectations and preferences for learning.”

Even NUIT classroom designers were challenged by the $250,000 renovation, partly because of the room’s size and in particular because of the variety of functions the auditorium serves. In addition to daytime classes, the Ryan Family Auditorium is frequently booked on evenings and weekends for performances, concerts, and lectures.

NUIT needed to ensure that the improvements were sufficiently flexible for classroom use but would also support special University events. “We started planning for this two years ago,” said Bob Davis, associate director for NUIT Academic Technologies. “We’ve learned from both the mistakes and successes of this new technology being introduced other universities, and the time was right for bringing it to some of the larger venues here at Northwestern.”

Instructors appreciate cutting-edge technology such as the digital document camera, which is capable of zooming in 500X to display text and 3D images. The new digital annotation system makes it easy to highlight portions of video or text being projected in the auditorium. Network monitoring enables NUIT support staff at another location to see a “mirror image” of activity at one of the lecterns onstage; if necessary, staff can troubleshoot problems remotely.

And after hours, improvements to the facility’s audio-visual system are appreciated by University staff and audiences alike. “If a group scheduled an event over at Ryan Family Auditorium, we needed two or three people to deliver and set up equipment,” said Dan Foley, Technical Services Manager for Norris University Center. “Now we only need one person, and most of the time there’s no need for extra equipment. It’s a huge savings, especially for student organizations who can do so much more for less money.”

Web-based Service Streamlines NetID Activation Process

New faculty and staff can now “join” the Northwestern community up to 30 days before their arrival on the Evanston or Chicago campus, with no need to visit a NUIT help desk—thanks to an easy-to-use Web-based tool for NetID activation.

Created through a joint effort of NUIT and Human Resources Information Systems (HRIS), the “Activate Your NetID” process gives new hires the convenience of activating their Northwestern NetIDs from their own computers. Faculty and staff can access a variety of NU networked resources prior to their official start date, including e-mail, the Electronic Time Entry System, Human Resources self-service tools, University Library resources, and the Course Management System.

Questions about this new service can be directed to the NUIT Support Center at 847-491-HELP (4357) or consultant@northwestern.edu.

For further information, please visit NUIT’s “What’s New & Changing with Technology @ NU?” site at <www.it.northwestern.edu/transitions/2005/netidactivate.html>.

What’s New & Changing: Technology @ NU

For more information on the following items, please visit the NUIT Web site at <www.it.northwestern.edu/transitions/>.
What's New & Changing:
Technology @ NU (continued)

Be Your Own Tech Support with a New Self-Service Tool

NUIT Telecommunications and Network Services has created a new self-service network diagnostic tool for configuration and performance testing on the NU network. The Network Diagnostic Tool (NDT) uses a Java applet to run a two-way test between your computer and the NDT server. The results let you know if you have any network congestion or configuration problems.

Test report details can be sent to TNS for further examination or submitted as part of a trouble report. The NDT server is available to anyone connected to the NU Network and requires a Java-enabled Web browser.

To access NDT, point your computer's browser to <ndt.ittns.northwestern.edu>.

For further information, please visit NUIT's "What's New & Changing with Technology @ NU?" site at <www.it.northwestern.edu/transitions/2005/ndt.html>.

Deep Discounts on Microsoft Software for Faculty and Staff

Ever wanted to use the same software on your home computer that you use at work? NUIT began offering the Microsoft Employee Select Program so NU faculty and staff can buy productivity software for personal use at a significantly greater discount than other software retailers offer:

- Windows XP Professional Upgrade, $69.80: Features include digital media support and tools for instant messaging, voice and video conferencing, and application sharing.
- Microsoft Office 2003 Professional, $69.05: Includes Microsoft Publisher, Excel, Outlook, PowerPoint, Access, and Word.
- Microsoft Office 2004 Standard for Macintosh, $59.00: Includes full versions of Excel, PowerPoint, Word, and Entourage 2004 designed exclusively for Mac OS X.

For further information, please visit NUIT's "What's New & Changing with Technology @ NU?" site at <www.it.northwestern.edu/transitions/2005/employeeselect.html>.

New Third Thursday Club for UNITS Reps Serves IT Topics with a Cup of Joe

NUIT has established a new venue for members of the University Network of Information Technology Specialists (UNITS) to share information and ideas with their peers—Third Thursday Club. The club meets on the third Thursday of each month and is an opportunity for UNITS representatives to discuss information technology issues and solutions over coffee in an informal setting.

Third Thursday Club held its first meetings on the Evanston and Chicago campuses on November 17, 2005, focusing on "Securing Desktop Computers: Creative Ideas in Use at the Departmental Level." Ongoing meetings will be held simultaneously on both campuses at 9:30 a.m. and are in addition to regular UNITS Quarterly Meetings. Each month, the club's locations and topics will change. Locations and topics will be selected by the group's participants and will be sent out in advance via the UNITS listserv. No registration is required to attend. Please direct questions regarding Third Thursday Club to the NUIT Support Center at 847-491-HELP (4357) or <consultant@northwestern.edu>.

Because of the holidays, Third Thursday Club will not meet in December. Regular meetings will resume on January 19, 2006.

iPass Connect is Gaining Popularity

NU's use of iPass Connect has more than tripled recently. iPass Connect, a national and international commercial Internet service, is available on a monthly for-fee basis to faculty and staff who need work-related Internet access while traveling or off-campus.

The convenient, economical service has attracted close to 100 iPass Connect customers at the University. During a recent three-month period, users logged nearly 1,000 Internet connections.

iPassConnect has over 19,000 access nodes in 160 countries. In addition to dial-up service, iPassConnect supports wired and wireless Internet access from hotel rooms, airports, and many other locations. The service is available for a monthly fee of only $10.00 in addition to any usage fees.

Requests for iPassConnect service must come from a dean, vice president, department head, director, or administrator. All requests should be e-mailed to NUIT Consulting Services at consulting-services@northwestern.edu and should include the faculty/staff subscriber's name, their NetID, and a valid CUF5 account number.

For detailed information about iPass Connect at Northwestern, visit <www.it.northwestern.edu/offcampus/ipass/>.
Online Billing System  
Makes Life a Little Easier  
No more tracking and filing printed billing statements, thanks to CONDUITS Online! NUIT’s Web-based billing system, launched in October, is providing better service for NUIT customers and University administrative staff. Not only is there less paper to deal with, but designated staff get monthly statements e-mailed to them in convenient PDF format.  
The CONDUITS Online (Customer Oriented Network Delivering University Information Technology Services) system creates billing reports in real-time, giving schools and departments a “snapshot” of charges for NUIT services. Staff are logging into CONDUITS Online to access, schedule and run a variety of detailed reports and summaries.  
For detailed information about CONDUITS Online, visit <www.it.northwestern.edu/conduits/>. Please direct questions to NUIT Consulting Services at 847-467-5500 or consulting-services@northwestern.edu.  

Featured Web Site:  
Security Awareness Tip of the Month  
NUIT’s Security Awareness Tip of the Month Web site, which debuted in September, features topics to keep you informed of trends and issues related to computer and network security. Fall quarter tips have included: The Mighty Passphrase, Unmasked – Worms, Spyware, and Other Intruders, and Keep It Legal: What You Should Know About File-sharing.  
The Security Awareness Tip of the Month is part of a collaboration between NUIT Information and System Security and Compliance (ISS/C) and NUIT Technology Support Services (TSS), and is offered in conjunction with the “You’re the Key” initiative to increase the awareness of faculty, staff, and students of security issues.  
Bookmark the NUIT Computer and Network Security Web site <www.it.northwestern.edu/security/tip-of-the-month/> and watch for the changing Tip of the Month, articles, and events to learn what you can do to keep yourself and the University data on your computer safe.

NUIT Helps Plan and Support Technology Initiatives for Schools and Departments  
Did you know NUIT is “on call” before you start planning new or upgraded information technology equipment and systems? NUIT provides independent internal consulting services to NU schools and departments that are pursuing information technology initiatives.  
By offering a broad range of technical expertise, NUIT can help meet the technology needs of Northwestern’s academic and business units appropriately and effectively.  
In keeping with the University Policy for Information Technology Acquisition and Deployment, NUIT’s Office of Systems Consulting (OSC) was developed to ensure early in the life of a project that new and upgraded information technology equipment and systems were compatible with the University’s infrastructure.  
OSC provides consulting support for information technology acquisitions that are part of capital projects or for the implementation of technologies that may impact the NU Network, such as interdepartmental or administrative systems. Services include assistance in Request for Proposal (RFP) creation, system analysis and planning, vendor evaluation, and contract negotiation and review.  
The office works with a diverse cross-section of the University community and assists with projects that vary in scope from small and straightforward to broad and complex. Recent assignments include a database project for the Office of the Registrar which focused on storing digital images of inactive transcripts, and systems review and development for NU Facilities Management.  
For detailed information, consult the Policy for Information Technology Acquisition and Deployment at <www.it.northwestern.edu/policies/acquisition.html>.  

ECOMMUNICATOR is moving to the Web!  
This is the LAST printed issue of the eCommunicator newsletter, but don’t despair, because beginning next quarter, eCommunicator will be delivered to you electronically. NUIT is responding to Northwestern University’s Highest Order of Excellence II, which encourages the NU community to decrease printing and mailing costs across campus.  
The eCommunicator name will be retained and be combined with our current, industry award-winning online news publication Technology For You, resulting in a brand new online publication. The newsletter will continue to be published once per quarter during the academic year and provide regular and timely summaries of NUIT’s latest news and activities to all members of the NU community.  
We’re confident that our new online version will continue to keep you in touch with essential information technology news at Northwestern University.  
Watch for the next eCommunicator edition in your e-mail boxes, beginning mid-Winter Quarter 2006!
Have you heard the news about Eudora?

This past June, NUIT officially announced its decision to encourage the University community to explore alternative industry-standard e-mail options as a replacement for Eudora for optimal computer performance and compatibility on the NU Network. NUIT is joining a growing number of universities ending distribution of future versions of Eudora e-mail client software.

NUIT will continue technical support of current versions of Eudora, but will not purchase or distribute any future versions of Eudora after September 1, 2006 and will eventually discontinue support when vendor support ends. We recommend that you use this time to research your options and choose an alternative e-mail client such as Outlook, Outlook Express, Entourage, or Apple Mail.

For further information, please visit NUIT’s “What’s New & Changing with Technology @ NU?” site at <www.it.northwestern.edu/transitions/2006/email_eudora.html>.

Network Extensions (continued from page 4)

Situations such as these might be more common, were it not for a NUIT program launched in 2003 to identify and replace unapproved campus network extensions over a two-year period. For details, see the related NUIT policy statement at <www.it.northwestern.edu/policies/extensions.html>.

“This program was developed to benefit the entire University community,” said Dave Carr, director of NUIT Telecommunications and Network Services. “We want to help Northwestern maintain a secure infrastructure, and ensure a level of service that will support future technologies."

With the near-term availability of converged communications such as Voice over Internet Protocol (VoIP) on campus, said Carr, eliminating unapproved network extensions is even more critical. Multi-port devices critically affect real-time networking traffic.

NUIT port-level services designed to improve security, such as NetPass (currently being used to support NU residence hall networks), are hindered by network extensions. The extensions reduce the ability of these services to detect network threats.

Carr also cautioned against unapproved wireless network access points. "Wireless networks are susceptible to intrusion or infection from off-campus as well as on-campus,” he said. "Wireless networks do not have hard boundaries and are susceptible to intrusion or eavesdropping from beyond the walls of an office or building. Someone could readily capture traffic or attack a wireless network from the bench outside your office window."

Cost-conscious school and department administrators have much to gain by having NUIT replace any remaining unauthorized extensions with wired network ports at this time. Not only is NUIT providing this service at a reduced cost, it has eliminated the cost of temporary NetIDs (formerly known as rental NetIDs). Authorized NetID administrators can request short-term NetIDs for University visitors requiring on-campus network access.

If your department or school needs further information about eliminating unauthorized network extensions, please contact NUIT Consulting Services at 847-467-5560 or consulting-services@northwestern.edu.