



INFORMATION TECHNOLOGY SERVICES

2009-2010
ANNUAL
REPORT

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TECHNOLOGY THEN



Welcome from Information Technology Services



Wally Czerniak

Academic Year 2009/2010 proved to be another challenging, successful, and exciting year for Information Technology Services at Northern Illinois University. Our mission continues... to provide an information technology environment that delivers a ubiquitous learning atmosphere for students, faculty, and staff.

The ITS vision is to maintain leadership in technology by upholding the core tenants of teamwork, respect, integrity, dedication and commitment to all of our constituents.

We leverage technology to enhance the student experience, support faculty teaching endeavors, foster collaboration and discovery, and advance the interests of the communities we serve. The realization of the university's shared vision is the foundation for excellence and the building blocks of a legacy that will endure the test of time.



Jim Fatz

As the NIU Strategic Plan continues to guide us into the future, Information Technology Services will persist in building strategic partnerships to investigate innovative means to achieve the goals set forth in the plan.

While the proliferation and sophistication of available technologies continues to increase, the responsibilities of ITS remain the same – to provide quality services to the university community, maintain a strong and secure infrastructure, and anticipate and meet the needs of the students, faculty, staff, and administration.



Kim Hensley

We wish to thank our Information Technology partners across the campuses for their invaluable work. They continue to demonstrate their expertise, dedication, creativity, and willingness to accept the many challenges inherent in staying abreast of new technologies. We would also like to thank the entire NIU community for your continued support, cooperation, and encouragement. Together we really can achieve more!

Technology Excellence...

Yesterday... Today... Tomorrow



Cindy Phillips

Meeting Today's Challenges Through Technology Innovation and Forward Thinking

Information Technology Services, Northern Illinois University's central IT provider partners with distributed IT staff to deliver integrated technology solutions, information resources, and quality services and consultation. We strive to be recognized as an effective force in using technology to support the ongoing mission and vision of Northern Illinois University and the State of Illinois.

Our organization is a team of 200 employees including students and other part-time staff in the following areas: Information Services, Customer Support and Telecom Services and Information Security and Operations. In close alliance with technology and business professionals in the academic and administrative offices, ITS provides the following services to support the pursuit of academic and administrative goals.

Service List

Hardware Infrastructure—servers, storage, switches, routers, wireless access points, network wiring, connectivity

Printing—design, development, print, PDF (brochures, postcards, marketing material etc.)

Security—password and account control, virus protection, SPAM control, network threat mitigation, compromise response

Software—distribution, development, licensing, support

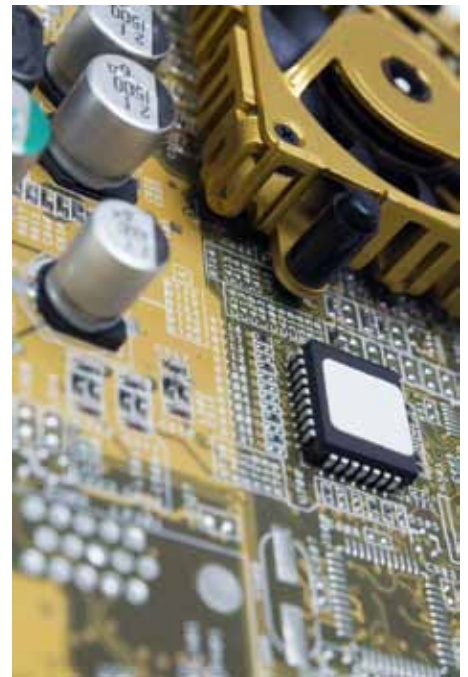
Telecommunications—telephone, voicemail, directory assistance, conference call services

User Support—enterprise applications, lab operations, technical help, training

Information Technology Services works collaboratively with the NIU community to provide technology leadership and support. Some examples include:

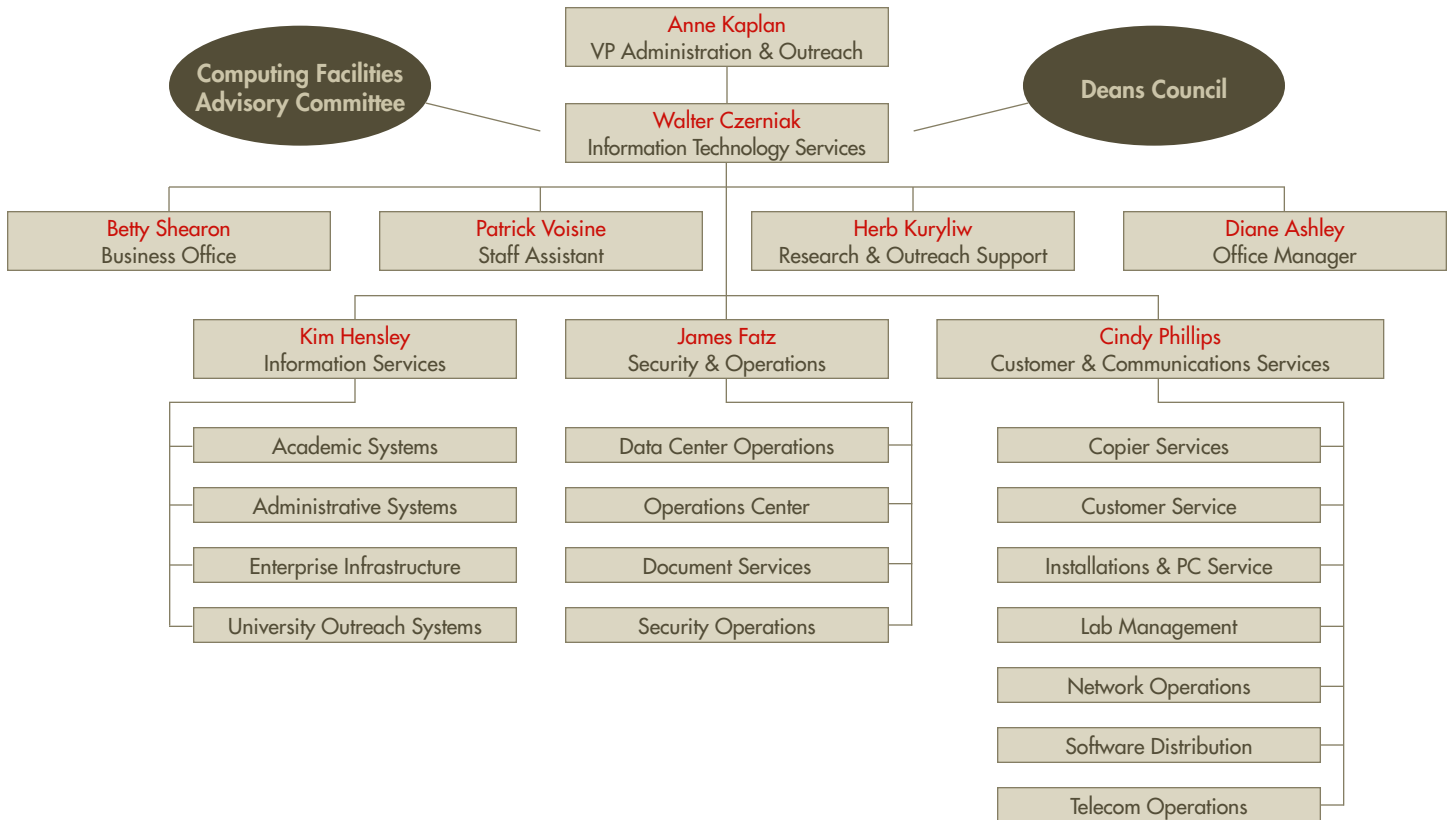
- Supporting the university's mission through adaptive and innovative use of information technology
- Providing a highly reliable infrastructure and set of computer-based administrative, teaching, learning and research tools to meet the ever-growing needs of NIU faculty and staff
- Leveraging hardware, software, and centrally provided web-based resources
- Maintaining campus desktop technology
- Providing requisite training
- Informing the NIU community about current and emerging issues in technology
- Reasonably protecting information resources and systems from illegal access and use

The employees of ITS understand the necessary and important role technology plays in teaching and learning experiences. Our purpose is to identify and fulfill the technology needs of the community through a shared vision and the delivery of superior service, enabling Northern Illinois University to function and compete as a leading educational and research institution.

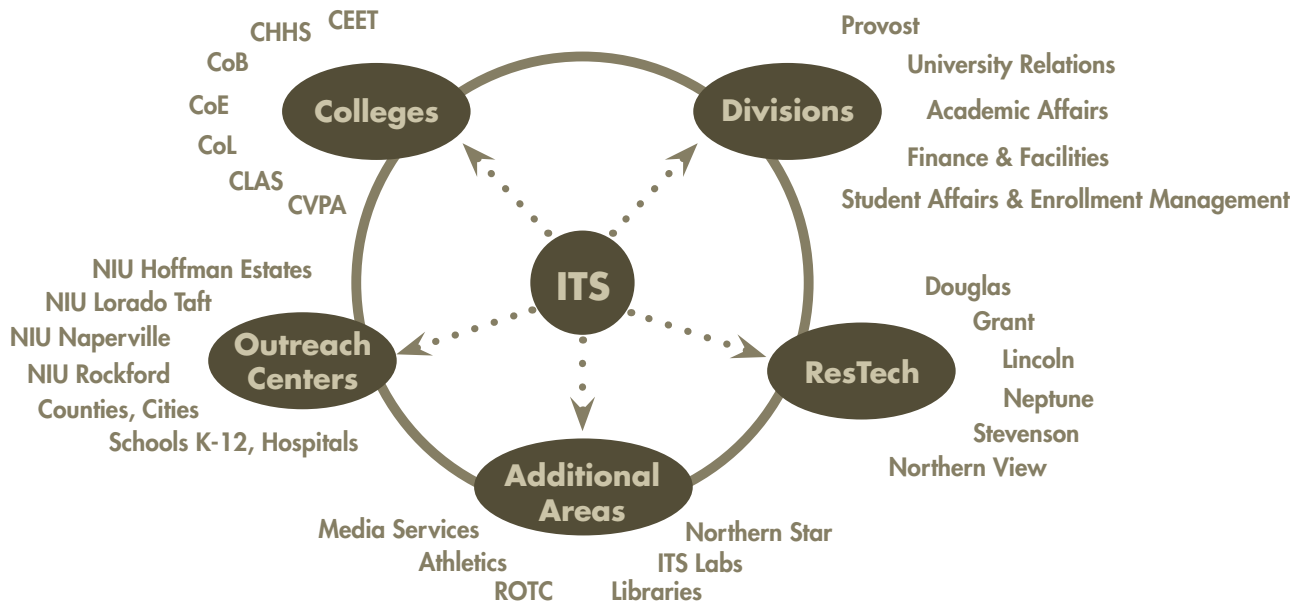


INFORMATION TECHNOLOGY SERVICES

Organization of Information Technology Services



Who We Serve



Highlights

Infrastructure

The “mainframe” computing environment was decommissioned ending decades of large scale computing services. The replacement strategy, a cloud computing environment was prototyped during the year and a production service will be rolled out in FY2011 reducing cost, power and space while improving security and reliability for all campus IT users.

NIUNet continued to be the predominate force in the State for raising BTOP federal grants. The DATA grant was awarded providing \$15 million in fiber construction funds for DeKalb County. Groundbreaking will occur in October 2010. This grant will provide significant fiber capacity to connect the data center in the Wellness & Literacy Center to the main NIU campus. ITS submitted a \$3 million contract to provide backbone services to the Illinois Rural Health Network (IRHN) organization. It was approved and should be awarded in the fall of 2010. The \$70 million grant to enhance backbone services for the ICN was awarded. NIU received a \$68 million BTOP grant for northwest Illinois, the largest in NIU history.

During the year, the NIUNet backbone was upgraded to 10 gig for all Outreach campuses; Naperville, Hoffman and Rockford. New users were added including the City of Naperville, Carpentersville School District 300, City of Elgin and Village of Hoffman Estates. Significant expansion is planned for FY2011.

In order to support the above projects and services, a new NIU Operations Center is being created in the Swen Parson Data Center to provide 24x7 monitoring and support of NIUNet and the cloud computing centers. The center will begin trial

operations in the fall of 2010 and become fully operational by the summer of 2011.

NIU Housing & Dining requested the removal of the majority of phones from campus residence halls and has estimated an annual savings to housing of \$700,000 and consequently a loss of revenue to ITS of the same amount. A written plan is being developed and will begin implementation in FY2011.

Campus Wi-Fi continues to be a strategic initiative. ITS in support of this goal reduced pricing on new antennas by 23% and began a program to upgrade the existing 167 old antennas to newer models at no additional cost to the departments. Other initiatives still need to be implemented as NIU continues to work to increase Wi-Fi coverage on campus.

Projects and Applications

With the completion of the Student Information System implementation, work began on the PeopleSoft Enterprise Portal. Phase I is planned to be implemented in early 2011. The portal will provide single sign-on to the existing PeopleSoft systems, access to Blackboard and other enterprise systems, and has the ability to personalize targeted messaging within the NIU community.

Upgrades for the PeopleSoft ERP systems, including the Human Resource System, the Financial Management System, and the Student System, are scheduled for 2011.

Self service for HR was implemented for employee access to paycheck information. Additional features are expected to be rolled out in 2011.

During the past year work was completed for the emergency communications systems

for Public Safety. These initiatives included successful usage of the TXT messaging system, redesign and updating of the emergency guide, the addition of more TV channels and lab computers included in the emergency TXT notification system, and implementation of an audio alert system utilizing the existing fire alarm panels and initiation of PA systems.

The new content management system was implemented in time for the revamping of the NIU web pages rolled out for fall 2010.

The document imaging program continues to expand, allowing for electronic versus paper document retrieval and enabling more efficient work flows for departments and users on campus. This is anticipated to play a larger role in NIU’s “green” efforts in 2011.

Work continues on the lab print management project. Testing has been rescheduled to begin this fall. A production implementation is tentatively planned for summer 2011 upon approval.

Major upgrades were made to the Blackboard ELearning system including a new interface that allows instructors to submit final grades directly from Blackboard to the Student System rosters. iPad and iPhone apps were activated for Wi-Fi.

Health Care

Besides the rural healthnet initiative, ITS is working with University Outreach (UO) and HHS at the Wellness & Literacy Center to bring in additional grants and promote NIU throughout the industry. Beginning in FY2011, ITS and UO will provide receptionist services to the facility and are working with Campus Parking to provide the center’s patients and visitors with free parking.

Cloud Computing Comes to NIU

Faster + better + cheaper – usually you can have only two of the three. Server virtualization achieves all three.

Server virtualization is a type of cloud computing, in which computing resources are shared instead of each customer having individual resources. In this case, the cloud is a virtual machine environment that ITS customers can share. An application runs on its own “virtual machine” along with 15-20+ other applications on one physical server. Each virtual machine is customized for the application and is separate from the other applications on the server. If one application goes down, the others running on that server are not affected.

Work on the virtual machine environment began in September 2009. It was designed and is being built by ITS infrastructure experts and network engineers with the help of many of our technicians and project managers.

Faster

Getting a price quote for a server, ordering it, and then installing it typically takes six weeks. A virtual machine can be up and running your application in about a week.

Better

Each virtual machine is customized to the application. One server can run different operating systems for each virtual machine, which was not possible before.

All ITS hosted virtual servers provide 1Gb+ network bandwidth.

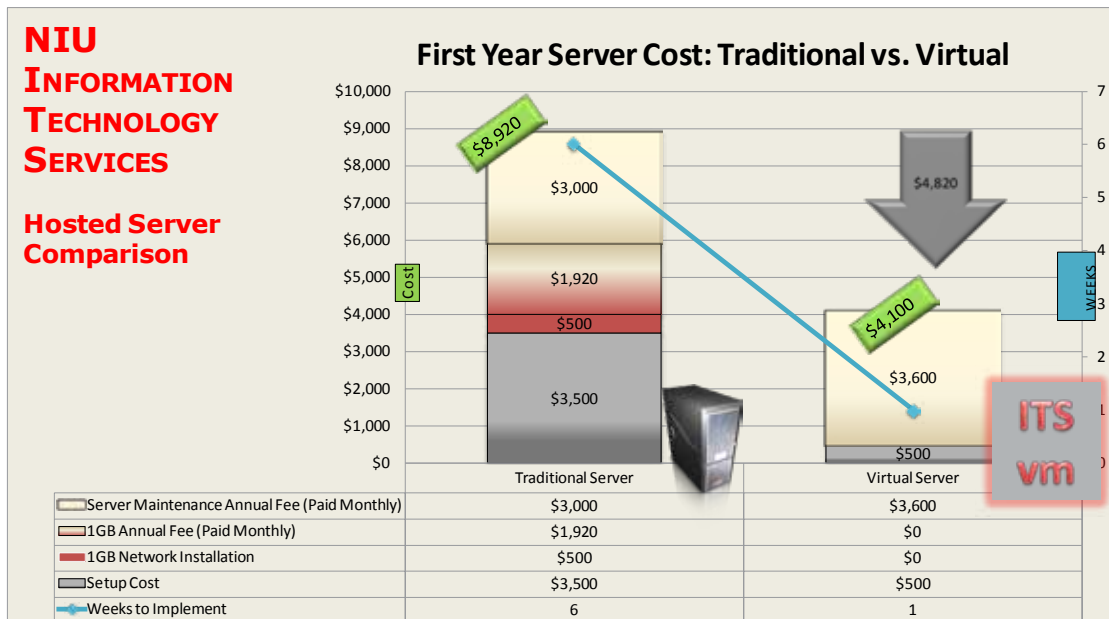
ITS maintains the server your virtual machine is on for you. Failover protection is built in. ITS will upgrade the server as necessary. Your virtual machine can adjust to peak demand times and changing space requirements.

Cheaper

The average first-year cost for a traditional server is \$8,920, and for a virtual machine \$4,100. After that, the yearly cost of a traditional server is \$4,920, and for a virtual machine \$3,600. You can have a virtual machine for as long as you need it, from one month to many years.

Currently most servers run one application with resources left over. Since many virtual machines can run on one physical server, waste and energy consumption are greatly reduced. In the NIU virtual environment, 8 host servers will potentially take the place of 150 of the 300 servers currently residing in the Swen Parson data center.

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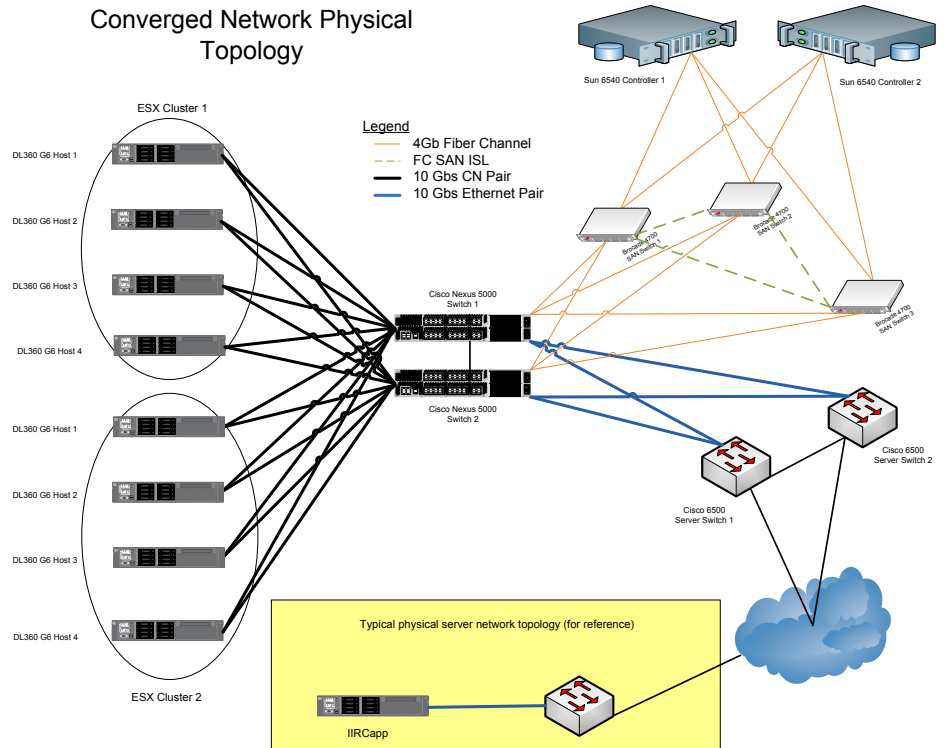


Cloud Computing Infrastructure

- **Hosts:** 8 HP DL360 G6 servers (72GB RAM, 2 Quad Core Xeon 5500 CPUs)
- **Network:** 2 x Cisco Nexus 5000 using 10Gb FCoE uplinks to core switch and 2Gb to SAN
- **Data:** 4 drawer expansion (22 TB raw) of the SUN/Oracle StorageTek FLX380 SAN
- **Virtualization Software:** VMWare VSphere 4.1

Interested?

For available options and their costs, see its.niu.edu > Forms & Rates for Services > Rates > Servers.



Increasing NIU Wi-Fi Campus-wide

The demand for mobile computing at NIU is increasing as more students bring laptops to campus and more handheld devices are capable of accessing the Internet through Wi-Fi.

ITS has begun two initiatives to increase NIU Wi-Fi coverage campus-wide. One is to increase the speed of the Wi-Fi network significantly, and the other is to reduce the monthly rate for access points.

Over the next two years, ITS will be investing in upgrading access points to 802.11bgn. The letters b, g and n refer to wireless standards. 802.11n is the current

standard and has the highest data rate. 802.11bgn means the access point is compatible with older devices also.

So far, 78 of the 234 access points have been upgraded to 802.11bgn. ITS continues working to fund and install more access points throughout campus.

Effective June 1, 2010, the monthly rate for access points decreased. The total annual cost to the campus will be 9.3% less under the new rates. An 802.11bgn access point will cost \$66 per month, down from \$85 per month. An open 802.11bgn access point will cost \$76, down from \$105.

An open access point allows anonymous non-secured access to NIU Wi-Fi for guests and visitors.

"The convenience and simplicity of NIU wireless allows me to quickly research anything from almost anywhere on campus," says Jesse Hastings, Helpdesk associate and a senior in mechanical engineering.

ITS recently enhanced NIU Wi-Fi with WPA and WPA2 technology, which provides stronger data protection and network access control.

Active Directory Redesign Project



In the winter of 2009, ITS started a project to redesign the Microsoft Active Directory domain: NIUNT. The project has the following major goals.

Synchronize account and password security rules across both Novell and Microsoft platforms.

Up until now password rules have been less secure in the Microsoft NIUNT domain than in the NIU Novell eDirectory tree. We resolved this in June 2010 by implementing a password expiration policy of 130 days to match eDirectory. We also implemented an 8 character password minimum length to match eDirectory.

The next step will be to strengthen our policies in both directories. We'll do this by implementing Microsoft password complexity rules with the following requirements.

Must contain, at a minimum, a character from at least three of the following four groups

- Uppercase letter
- Lowercase letter
- Special character like spaces: -+ , ~ ! @ # \$ % ^ & * () = _ ' " { } [] | \ ; / : ; > < .
- A number

May not:

- Be reused
- Contain your Account ID
- Contain your full name



Refresh the domain

We audited hundreds of group policies and eliminated the obsolete ones.

We upgraded the "functional level" of the domain to 2003 and plan to take the step to 2008 pending compatibility. Upgrading the functional level allows us to take advantage of the latest Active Directory features.

Delegate administration

- Design our domain structure to facilitate technicians from non-ITS departments to manage their departmental objects in the NIUNT domain.
- Objects will include computers, servers, and printers.
- This will allow us to hand over segments of our directory to qualified technicians to manage their machines and users.



The ultimate goal of the project is to make the NIUNT domain a welcome and stable place for departments to join and take advantage of a centrally managed Microsoft directory.

NIU Operations Center

The acronym NOC stands for Network Operations Center but has evolved into a sophisticated command, control, and communications hub that monitors for problems on all layers of the IT infrastructure including power, cooling, servers, virtual machines, storage, security, and applications. In movies, the NOC is usually displayed as a “war room” with huge monitors covering the walls and displaying all sorts of computer statistics, graphs and charts. We are extremely pleased to say that NIU ITS has brought our very own NOC online and into active production as of the first day of Fall 2010 classes!

The foundation of the NOC is a comprehensive monitoring strategy. To facilitate this, ITS has deployed EMC SMARTS as our premier monitoring solution alongside our other support tools. EMC SMARTS is an extensible monitoring and alerting framework and it enables us to proactively address issues that could cause service interruptions, as well as actively alert us in real time to problems our users might be experiencing. SMARTS also provides a customizable user interface so that besides the NOC, each service area can have a view showing only items for which they are responsible.

It does little good to know about problems if we cannot communicate effectively with the right people at the right time. That is why we have developed and continue to improve upon a strong communications plan so that accurate and actionable information flows into and out of the NOC to the areas that need it. This way, if an end user calls the Help Desk to report a problem, we can respond in a positive manner that we are aware of the issue and our best people are on it! Moreover, all issues flowing through the NOC will be tracked by a new Incident Management System so that no issue gets left behind.

Our NOC (NIU Operations Center) now has a physical presence alongside our Swen Parson data center. The area that formerly housed the large mainframe printers has been remodeled in order to accommodate staff, workstations and large monitors to display the SMARTS and other monitoring data. We are also extending the NOC presence to the Wellness & Literacy Center where we will eventually be able to implement business continuity solutions for NIU’s most critical applications. However, the NOC is not just a physical place with big screens that monitor what is going on; it is the way for us to assure that essential computer system services provided by ITS to the campus are operating effectively.



NIUNet

NIUNet started as an initiative to provide high-speed broadband services to the NIU Outreach Centers at a lower cost over fiber-optic cabling. The initiative also included low cost commodity Internet services, Internet 2 and connectivity to the federal research labs in northern Illinois. NIUNet has allowed NIU to reach out to northern Illinois communities and provide an ultra-fast fiber-optic network that connects schools, libraries, hospitals and municipalities to NIU broadband services.

The NIUNet broadband model allows for low cost connectivity to Internet Service Providers and between facilities for NIUNet partners. A shared services model reduces the cost of ownership for all project participants.

NIUNet greatly increases the capacity for research and collaboration at NIU and across Illinois. Based on past successes, we are very optimistic about the future of NIUNet.

DeKalb Advancement Technology Authority (DATA) Project

The DeKalb Advancement Technology Authority (DATA) project replicates the successful NIUNet model. In February 2010, the DeKalb County government was awarded a \$15 million grant to benefit all the community anchor institutions and businesses in DeKalb County with a 140-mile fiber-optic network. It is currently in the execution phase, having met all of the special awards conditions, which allowed the release of earmarked funds.

NIU is a contributing partner of the DATA project and will be granting fiber to assist community anchor institutions. The fiber ring will connect over 65 community anchor institutions and several businesses to state and NIU broadband resources at ultra-high speeds. With the ability to connect all of these institutions to NIU, the result is a "virtual sandbox" with endless possibilities for research and collaboration in the region.

Through the DATA project, NIU will also connect the NIU Wellness and Literacy Center on Bethany Road and the main campus, providing redundancy for the NIU data centers.

Illinois Broadband Opportunities Partnership (IBOP)

NIU and the State of Illinois have joined to minimize duplication of efforts and maximize dollars with Illinois Broadband Opportunities Partnerships (IBOP). Grants for five IBOP regions were presented to the National Telecommunications and Information Administration, creating a complete cohesive plan between organizations that does not duplicate efforts. The five partnerships are IBOP-South, IBOP-East Central, IBOP-West, IBOP-North West (IBOP-NW) and IBOP-North East, covering over 90% of Illinois.

NIU took the lead for the IBOP-NW grant, overseeing the details and replicating the NIUNet and DATA models throughout. The \$68 million IBOP-NW grant proposes building an 811-mile fiber-optic network connecting over 500 community anchor institutions. Approval of the grant was announced September 13, 2010 and is the largest grant in NIU history. "This is a landmark day for NIU," President John Peters said. "Not only because of the magnitude of this grant, but also for what it says about NIU and our commitment and capacity to serve the emerging needs of our region."

The IBOP-NW is structured to take full advantage of funding from the federal Broadband Technology Opportunities Program under the National Telecommunications and Information Administration and the American Recovery and Reinvestment Act. The grant proposal has raised over \$21 million in cash-match and in-kind services to meet the federal match program with an Illinois matching fund for \$14 million.



Illinois Rural Healthnet (IRHN)

One of the goals of NIUNet is to provide high-speed communications between healthcare organizations. With the highly urban presence of NIUNet, hospitals west of I-39 into the western suburbs of Chicago will have the ability to utilize NIUNet and access statewide Health Information Exchanges.

NIUNet is also positioned to provide services for the Illinois Rural Healthnet (IRHN) as a connection from urban healthcare to rural healthcare. The IRHN is a \$22 million federal grant that was architected to provide high-speed networking capacity to rural healthcare organizations throughout Illinois, connecting over 85 hospitals. NIU is in the final negotiations to provide NIUNet resources for IRHN connectivity.

NIUNet at NIU

The high quality of the picture and sound plus no lag time in delivery allows NIU to provide superior distance education to its outreach centers in Naperville, Hoffman Estates and Rockford. The School of Music has used NIUNet to provide concerts and music education to 50 states and Washington DC, more than three dozen countries, and five continents using multiple high-definition cameras and refined production techniques.

The School of Music is also using NIUNet for a unique music opportunity between the Elgin Symphony Orchestra and NIU to deliver webcast and live music to the bedside of patients in hospitals. Building on this proof of concept, it would be possible for the School of Music to provide music for over 85 hospitals over the IRHN.

IPTV

Northern Illinois University and Northwestern University have partnered on a pilot project to trial the sharing of delivery of television services over the Internet to students living in the residence halls. Using NIUNet and our Internet 2 connection, NIU is receiving 10 Northwestern stations to include in the NIU content lineup, and NIU is providing Northwestern with 10 NIU stations to add to their package. This sharing of delivery services will reduce costs while providing additional TV programming for students, all available at <http://iptv.niu.edu>.

Current Partners:

1 Non-Profit Organization

- American Red Cross

5 School Districts

- District 427 Sycamore
- District 428 DeKalb
- District 302 Kaneland
- District 300 Carpentersville
- District 429 Hinckley

1 Community College

- Kishwaukee Community College

4 Municipalities

- DeKalb
- Elgin
- Hoffman Estates
- Naperville

1 Hospital

- Kishwaukee Community Hospital - DeKalb

2 Labs (Chicago)

- Argonne National Laboratory
- Fermilab

2 Universities (for IPTV)

- Northern Illinois University
- Northwestern University



Going Green

We are constantly hearing phrases like eco-friendly, sustainability, and “going green”. The frequent use of these terms not just locally, but globally, shows the need for commitment to better, cleaner practices.

Printing, like most industrial activities, uses a variety of materials and potentially hazardous chemicals. The impact on the environment of all the printers in the industry is substantial. Yet, many opportunities exist to lessen the impact of printing on the environment.

For more than a decade, ITS Document Services has been on a quest to become as environmentally friendly as possible. That is why, in June of 1997, a commitment was made to the Great Printers Project. The Great Printers Project was one of the first in the nation to seek to create a business environment conducive to pollution prevention for an entire industry sector.

Document Services voluntarily adopted the Great Printers’ vision and employed their principles as a pathway to environmentally sound printing, while producing a quality product.



Great Printing Principles

A Great Printer is one who minimizes impact on human health and the environment, while producing a quality printed product for the customer.

Toward that end, the goals of Document Services have been to:

1. Comply with applicable environmental and worker health and safety laws.
2. Go beyond compliance by employing the most environmentally sound practices, consistent with the following operational principles:
 - Maximizing pollution prevention;
 - Reusing or recycling waste; and
 - Maximizing energy efficiency through automation.
3. Seek continuous environmental improvement through periodic assessments of our operation, materials and products.

While some may say these are lofty goals, Document Services has implemented such principles in many ways. Some facts regarding our operation are:

1. 97% of our printing stocks are recycled papers.
2. All of our scrap paper is recycled.
3. If virgin paper is required, FSC (Forest Stewardship Council) Certified paper from sustainably harvested forests is used.

4. For our offset printing, low VOC (Volatile Organic Compound) soy and vegetable based inks are used.
5. In other areas such as our mailing equipment, water-based inks are used.
6. Our chemistry contains minimal or zero VOCs.
7. Our focus for a “Documents-on-Demand” program for NIU has reduced or eliminated obsolete printed materials, thus reducing the need to recycle printed material.

The Newest Way Document Services is Implementing These Principles

We have made great progress, but we are not stopping there. Most recently, ITS Document Services has brought Direct Imaging (DI) printing to NIU. Our new DI press is a highly automated four-color digital offset press ideally suited for fast turnaround, short-run, color printing. At the same time it offers the most up-to-date technology to ensure the highest quality of print. While this press offers a significantly smaller footprint than a conventional four-color press, its real focus is on eliminating the inconsistencies and environmental concerns that are normally associated with chemistry-based imaging and alcohol-based systems.

Document Services’ workflow relating to our new press will significantly reduce the need to store and dispose of chemistry. Worldwide, it is estimated that more than 31 million gallons of chemistry are used in producing and developing printing plates every year. We are doing our part to reduce these numbers.

VOC-less Printing

Volatile organic compound (VOC) emissions have been linked to the breakdown of the earth's ozone layer, contributing to global warming. The DI's waterless press design eliminates what is typically the largest portion of a printer's VOC output—solvent-based press and blanket wash solutions. Even after our years of improvement, the benefits of the DI's on-press chemistry-free thermal imaging and the automated ink cleaning functions will reduce our operation's VOC output by another 90%.

A direct imaging press achieves great efficiency by automatically imaging the printing plates and printing the job directly on press. The digital file is sent to the DI press where all four plates are simultaneously imaged in precise register. Plates are imaged via a thermal process; the heat from the lasers removes the top layers of the plate material, exposing the ink receptive layer. The laser and digital plate comprise an optimized system that eliminates the use of chemistry in the plate-making process.

Water Conservation

With a growing number of humankind unable to obtain clean, safe, drinkable water, the concern is obvious. Conventional offset printing requires water for plate processing and for the press dampening system. DI printing does not use water. The chemically tainted waste water from traditional offset printing is eliminated.

Significantly Reduce Paper Waste

According to PIA/GATF, in recent years the cost of paper has accounted for 22% of a printer's sales revenue. Therefore, reducing paper waste has an immediate positive effect on printing costs.

Perhaps more importantly, from an ecological perspective, when you consider that one tree is equivalent to only 236 11" x 17" brochures printed on 100 lb. cover stock, paper waste reduction becomes very relevant. Trust that Document Services is making every effort to reduce this waste.

Going Green is Just Good Business

Most of the NIU community has expressed an interest in environmentally safe printing methods. As public awareness increases, some at NIU are looking for printing processes that maintain Forestry Services Certification. Others are seeking Chlorine Free Processing. We continue to refine our operation to meet the quality, efficiency and cost-efficient needs of NIU. We also look to preserve our community and our planet by doing our part in improving the environment.



Presstek DI Press

Information Security

A comprehensive approach is vital to securing information and providing technology resources at every level while adhering to compliance issues. Effective computing security is a tradeoff between protective measures and utility. Protecting the University's systems is a daunting task that presents significant challenges.

To a large degree, many potential threats have been off-set by technology based solutions that allow for automated monitoring and logging of anomalies, events and activities. However, these systems are aging and strained, suffering from increased event-based demands. As a public sector institution, the University seeks to have a well established web based presence. This visibility creates our greatest challenge.

In a typical calendar year, NIU's email systems (student and administrative) are deluged with over a billion SPAM emails. While the majority of these SPAM attempts are blocked automatically, some do get through. Although only a small percentage leak through, end-users continue to fall prey to these ill-intended solicitations. The impact of responding to these messages varies. Depending on the user's accounts' access to restricted data, these seemingly minor events can represent a potentially significant exposure to proprietary data. Immediate action is required to mitigate the situation. The need for a quick and escalated response has meant that Information Security Office (ISO) staff are working around the clock. A time delay in response can have disastrous effects. For the most part, these nefarious attempts have been generated from overseas locations such as Russia, China, or Europe.

As technology is becoming more accessible worldwide, we are beginning to see attacks from Africa and other somewhat impoverished countries. Updating our auto-mitigating systems and a quick human response continue to be our best methods of addressing these issues.

For whatever reason—a struggling economy, greater intrapersonal angst, enhanced access to legal services—ISO is seeing a greater need to assist in matters of preserving information as relates to litigation. In many cases, litigation issues require that NIU preserve a wide range of potential documentation. As information has become almost fully automated, the systems that fall in-scope for consideration of litigation matters is significant. Possible areas of preservation include: web-based content, real-time email information, email archives, phone records, administrative records, student records, scanned documents and financial transaction records. Even a limited scope preservation effort can take weeks of time to locate, collate, and archive data.

With increasing regularity, the gap between new virus variants and the fix to identify or clean them is becoming larger. Often, the only solution that remains, post system contamination, is a complete rebuild of the data storing devices. This causes frustration, loss of productivity, potential loss of data, and embarrassment. Ensuring that computers are kept current with virus software and anti-virus signature files is a first step in addressing this issue.

The Digital Millennium Copyright Act and copyright infringement issues continue to be sources of concern. Although the amount of record industry infringement notices have remained fairly stable, there has been an increase in the number of other forms of alleged copyright violations. We have begun to see a surge in infringement notices related to television series, feature movies, DVDs, and video games. Unfortunately, recent notices of this nature have not been isolated to students. Several instances have involved full-time staff. Other areas of regulatory control have also added a burden to the security effort; increased FERPA, HIPAA, HITECH, and legal monitoring requirements create a very dynamic landscape.

Taking into account the increased information security workload, and the variability of issues that exist, the ISO is maintaining an adequate response posture. As workload increases and requirements continue that necessitate immediacy of response, staffing and technological solutions will need to be increased to meet the demand. Additionally, based on the NIU Information Security Policy and actual scenarios, the ISO has become the focal point for a coordinated effort as relates to information security related prevention and incidents. This coordinated effort has appeared to have resulted in expeditious responses, consistency of approach, consolidation of expertise, and smoother integration with all levels of management.

Helpdesk

New NIU Operations Center is Online

The new NIU Operations Center (NOC) now monitors the NIU network 24x5 for problems and conditions that may impact performance. It provides real-time reporting on infrastructure issues like power outages, switch failures, and overheating servers. Located in Swen Parson where the mainframe computer used to reside (it was decommissioned in December 2009), the NOC uses a product called IT Operations Intelligence from EMC Corporation to detect issues, communicate with technicians if necessary, and track problems through their resolution.

Currently the NOC staff monitor the NIU infrastructure using a real-time visual representation of hundreds of devices and their status. The monitoring software can also document applications running on each server so the appropriate customer base can be notified if a server goes down. When support personnel are needed to resolve an issue, the system can contact them by text message or e-mail with problem details.

The NOC was designed with future growth in mind. It will operate 24x7 soon. Eventually, ITS plans to offer network monitoring services to commercial customers.

ITS Call Center

The ITS Call Center is located on the second floor of the Wellness and Literacy Building on Sycamore Road. During FY 2010, the Call Center answered 46,887 calls. Approximately 10% of these calls are handled during the first two weeks of semester start-up.

Helpdesk associates get extensive training in ITS enterprise applications and customer service. They are constantly learning about the new technologies ITS provides to NIU. For example, when Network Engineering implemented a new system to provide Wi-Fi to the DeKalb campus, the ITS Helpdesk created reference documents and trained associates so they could assist customers.



ITS Contact Center

The ITS Contact Center provides face-to-face customer service on campus. Located in the heart of campus in the Telecom Building, it is open Monday–Friday from 7:00 a.m. to 5:00 p.m. during fall and spring semesters, and Monday–Thursday from 7:00 a.m. to 5:30 p.m. during the summer.

The Contact Center serves students, faculty and staff, retirees, and prospective students visiting campus, at no charge. In FY 2010, the Center served over 1,000 walk-ins. Customers can bring laptops and phones for help setting up NIU Wi-Fi, e-mail, Blackboard and virus protection.



TECHNOLOGY NOW





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