

North Central University

Information Technology Strategic Plan - 2006

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Executive Summary

The Information Technology Strategic Plan compares and analyzes North Central's technology history, the current circumstances, and establishes future goals based on this analysis and the perception of future technological trends. Reviewing technology history helps evaluate the current infrastructure and processes which moved North Central University into the present technological situation. Additionally, a concrete knowledge of achievements provides background structure that facilitates future trends and goals.

Historically, North Central has seen tremendous growth in the awareness of technology on campus as well as a solid investment in backbone infrastructure. The "NCA Progress Report on Enrollment and Technology, 10/1/01" described significant changes in the campus's information technology environment.

Historical Perspective:

- technology committees
- a computer training classroom
- sufficient computer and software updates for staff and faculty
- upgrades within student computer labs
- residential halls with network backbone infrastructure
- upgrades to North Central's Enterprise Resource Planning (ERP) system
- student technology services, including voicemail, email, and electronic teaching equipment

Current Environment:

- increased Internet bandwidth
- a solidified network infrastructure
- a user friendly Course Management System
- upgrades to North Central's ERP system
- network infrastructure to classrooms
- the growth of online, authenticated access
- online course registration
- the addition of wireless in student common areas

Future Plan:

- the need for enhanced faculty training
- full online courses
- academic and infrastructure cohesion
- online bill viewing and payment
- media content streaming
- further convergence of wireless, cell phones, computers, and media technology
- VoIP
- the use of virtual servers
- the need for superior security
- the need for redundancy and online up-time
- continued maintenance and replacement of equipment

This strategic plan will compare technological changes since the "NCA Progress Report on Enrollment and Technology, 10/1/01" to issues currently taking place in Information Technology. Then it will provide a look at the current environment, not covered in the paper, and project a plan for Information Technology at North Central.

Mission Statement

Over the past several years, technology has been developing at ever-increasing rates; concurrently, faculty, student, and staff expectations of the campus's IT environment, resources, and their support structures has and will continue to increase. Faculty must rely on robust and effective educational technology tools to enhance teaching and learning. Students expect more mobility, flexibility, and customization in their use of IT for classes, and in their electronic administrative interactions with the university. Staff desire specific, timely, and accurate information to support their work. Even with the improvements to the campus's IT environment over the previous five years, including increased levels of support, faster networks, and greater access, campus users expect ever-greater performance from the campus's computing and network resources.

The Information Technology Department exists to create and sustain a technological environment with a solid and flexible infrastructure thus enabling an efficient operational environment, with quality service supporting the University's mission of academic excellence.

Historical Comparison and the Current Environment

Historical Comparison

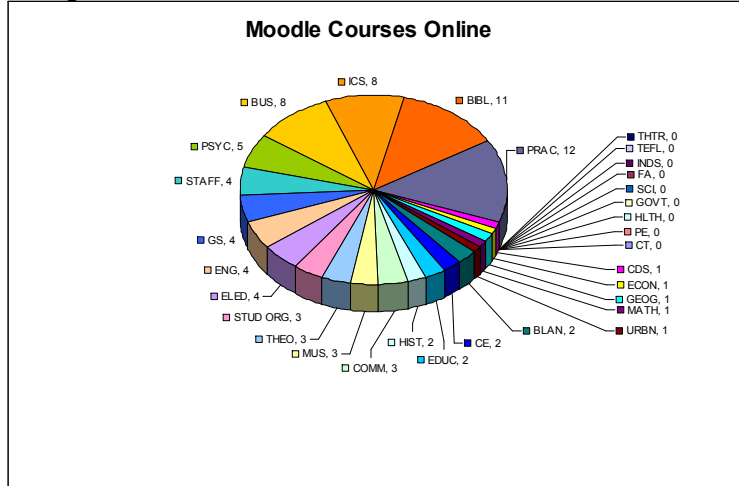
Technology Committees

In the summer of 2002, the President’s Cabinet initiated a plan to strengthen technology at an institutional level and combined the Department of Academic Computer Technology with the Information Systems Department into the current Information Technology Department. This change allowed for combined resources to effect technological changes more efficiently on campus. In light of this merger, the Vice President of Academic Affairs and the Director of Academic Computer Technology mutually agreed to dissolve the Academic Computer Technology Committee.

The E-Learning Committee still provides leadership in defining the use of online delivery systems within the academic context. North Central used the Jenzabar: IMS module as the first academic web system. This system proved difficult to utilize. In 2003, Information Technology submitted a proposal for Jenzabar’s new system, for Blackboard, and for Jones Knowledge (ELMS). North Central chose ELMS as the new academic web system. However, Faculty members complained this system was not intuitive and difficult to use. The E-Learning committee then allowed faculty to test Pageout from McGraw-Hill and ResearchNavigator.com from Prentice Hall. Although the publisher systems allowed online quizzes and other features, North Central soon realized these systems did not guarantee service and material from year to year. These vendors often placed restrictions on who may use their systems and often required curriculum purchases that may not be the best for North Central’s mission.

In the fall of 2005, the E-Learning Committee and several faculty beta testers began testing Moodle. With approval from the E-Learning Committee, Moodle became the main academic

web system. Moodle is an Open Source Course Management System, which allows North Central Faculty to enhance course content and structure. The Course Management System is available to all enrolled students at www.northcentral.edu/UNET. UNET provides one location for faculty and students to access authenticated course information. Moodle includes the ability to conduct discussions, show calendar information, test with variable matrixes, link to additional material, and upload course documents. Since its full

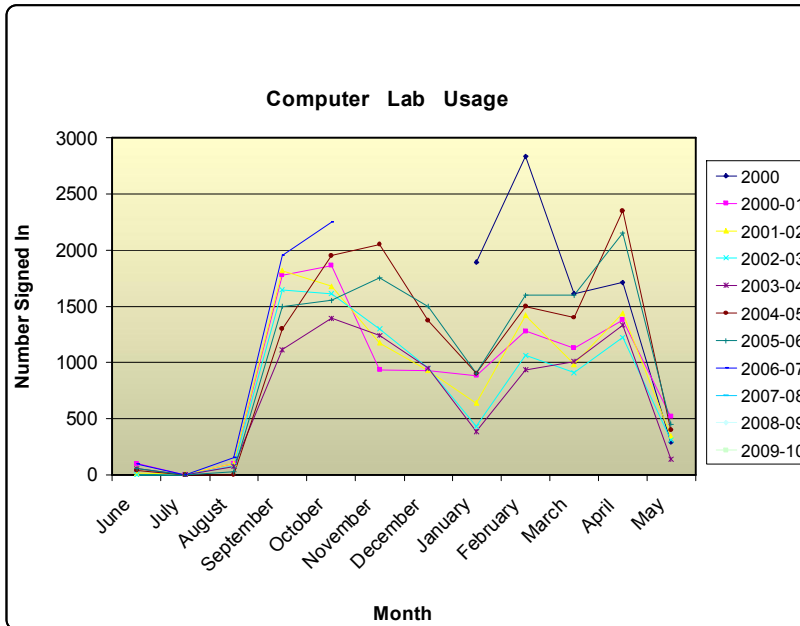


implementation in the fall semester of 2006 (3 months), North Central has added seventy-nine academic courses and six training courses.

Student Computer Lab

The student computer lab contained 40 machines (75% PC’s and 25% Macs) running anywhere from 600 MHz to 1.2 GHz in 2001. Additionally, the computer lab housed two high-capacity laser printers (HP 5000N), one color laser printer, flatbed scanners, a new server, and numerous ZIP drives.

Currently, the student computer lab provides 5 Mac G4, 7 PC 2400mhz, 5 PC 2800mhz, 19 PC 3000mhz, and 8 PC 3100mhz systems with CD burners (two units have DVD burners). Each system contains the following software; Windows XP Pro, Microsoft Office 2003 (with FrontPage, Publisher, Access, PowerPoint, Excel, Word), WordPerfect Suite 2002, Atiquit, Antiquitas, Adobe Reader 7.0 or higher, Language programs (Spanish, Chinese, Somali), Macromedia Reader, Rebus (artwork stored on Crimson for Children’s Ministries), Internet Explorer, Real player One, Winrar. Specialty software includes Adobe Photoshop, Adobe Premier, and Adobe PageMaker.



The computer lab received new computer tables in 2002 and renovation with new paint, carpet, new chairs, and LCD flat screen monitors in 2003. Annually, Information Technology replaces approximately one third of the computer and monitor equipment.

The staff of six to ten student employees is available for student help and direction on equipment use during the labs open hours. The lab

is open more than eighty hours a week and the student salaries are around \$500.00 for the same period. Over the last few years there has been an increase in student use.

Faculty Computing Improvements

Full-time Faculty members still receive a computer at their desk with Microsoft Windows XP, MS Office Suite 2003, Winrar (compression program), Email services, printing services, and voicemail services. Staff and Faculty also receive 250MB of backup network storage. Comparatively, since 2001, North Central has provided these services and has maintained them. There are two non-departmental faculty labs, the Miller Adjunct Lab with three computer systems and the Kingsriter Center Adjunct Lab with three computer systems.

NCU Website

The internal website, campus.northcentral.edu, is now in its last year of use. In the summer of 2006, Media Relations and Information Technology began to implement authenticated access for current students, staff, and faculty. Authenticated access secures proprietary information and dissolves the need for maintaining two systems. This is an ongoing project, which will be added to and revisited frequently.

Computer Classroom

North Central recently upgraded and moved the Computer Classroom from Phillipps Hall 116 to the Business Administration Building. The new location provides enhanced cooling for the occupants, more ergonomic computer furniture, and some upgraded computer equipment. North Central equips the Computer Classroom with custom computing desks, thirty-one pc’s with 15”

flat screen monitors, and utilizes the following software: Microsoft Office Suite (Excel, Word, Outlook, Access, Power Point), Microsoft Frontpage, Language audio files, Sim Net Enterprise – (a Microsoft Office training program), and hyper studio. Business Administration majors have to take Intro to Office Software, and Elementary Education requires students to take Computers and Technology in Education. This classroom is available to all majors or students desiring to enhance their computer competency.

Information Technology officially maintains the computers and monitors in this classroom. Previously, this classroom had no designated resources but since the Tech Fee increase of 2005, North Central has designated money for upgrades. In 2005 prior to moving this classroom, Information Technology spent nearly \$13,000.00 on computer upgrades. North Central spent additional resources to purchase furniture, relocate the classroom, update the air conditioning, and wire the Business Administration Department for the improved classroom.

Faculty Training

Faculty members receive training at every “New Faculty In-service” and at least one other time during the academic year. Training, as before, includes tailored topics, hands-on learning time, computer lab time, Microsoft Power Point use and presentations, break out discussions, and other electronic higher education learning. At the current time, E-Learning provides training for utilizing the online course management system.

Institutional Policies

Information Technology now publishes all computer related Institutional Policies at <http://www.northcentral.edu/it/policy.php>. Additionally, Institutional Policies are located in the Faculty and Staff Manuals, as well as in the Student Handbook.

Increased Student Access

Students still receive access to computer technology at the upgraded kiosks around campus, in the Miller Hall Student Computer Lab, in the Computer Classroom, and within the resident halls. In November of 2004, Information Technology assisted with the installation of a Deaf culture video conference phone. Carlstrom Deaf Studies Program funds this venture and utilizes this phone via a high-speed cable link. Additionally, the Student Success Center is now equipped with JAWS (a screen reader) to ASC (for blind students).

Technology Fee

In the fall of 2000, North Central instituted a technology fee of \$42.00/semester for on-campus students and \$30.00/semester for off-campus students. The technology fee funded a new staff member for student services, public kiosks, the student email system, the initial investment for a computer classroom, and network connections to the remaining resident halls. In 2005, the technology fee increased to \$108.00/semester for on-campus students and \$59.00/semester for off-campus students. An increase in the technology fee provided these items and more:

- Microsoft Office Student Suite for all on-campus and off-campus students
- Word, PowerPoint, Excel, Outlook, and Access - \$22,500.00 in 2005
- A fully funded Computer Classroom - \$15,000.00 annually
- Increase of Internet bandwidth from 6mb to 18mb - \$44,000.00 since June 2005
- A microwave radio upgrade for Internet connection - \$14,000.00 in 2005
- A new Firewall, Content Filtering, and Bandwidth Shaper - \$4,500.00
- Gig switches in residential halls - \$11,225.00 in 2005 \$9,674.00 in 2006
- Anti-virus updates - \$2,000.00 in 2005
- A new student e-mail server - \$4000.00 in 2005
- A web server for UNET - \$6,500.00 – 2005

- The infrastructure to place Wireless connections in PH Clay Commons and in Carlson Hall 2nd floor lobby - \$27,000.00

The previous amount in the \$108.00 still provides maintenance for the Miller Hall Computer Lab, Kiosks, student voicemail, and email services.

PC Software

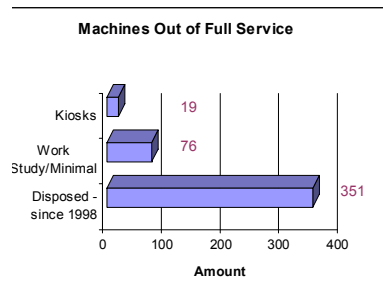
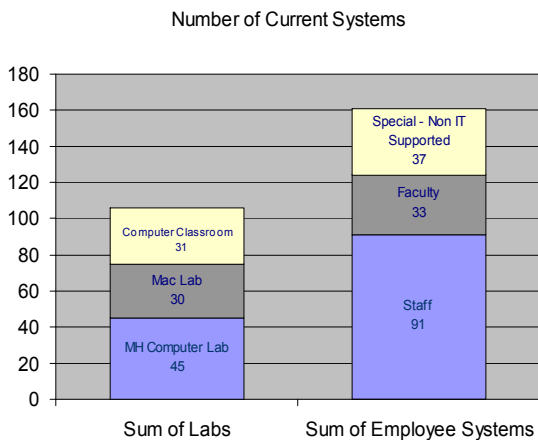
Since 2001, Information Technology has maintained the Microsoft Campus license. Additionally, Information Technology is working on auditing all employee software, in an effort to verify proper upgrades and proper licensing. (See Appendix A)

Staff Computers

Information Technology continues to receive resources to replace faculty and staff computers on a three to four year interval. The “Number of Current Systems” chart gives the ratios of North Central computers around campus. The “Machines out of Full Service” chart shows aging systems that may no longer run the latest versions of software or that have been recycled. In 2006, North Central University donated computers (only available to run Windows 95) to an

Assembly of God missionary organization in Africa. A professor headed up this endeavor and the mission organization

paid for the shipping of the CPU’s.



Specialized Applications

NCU's main administrative software (ERP) system is a suite of Windows-based client/server applications from Jenzabar, running on a Microsoft SQL Server database. This system began use on campus in its non-Windows "QE" version in 1997, and has since been upgraded to the "QX" version. In 2006, NCU implemented the "QX Web" module. This module gives faculty the ability to enter grades and see current course rosters online, and it provides students the ability to use the web to register for classes, see their grades, and review "degree audit" information to check on their progress towards meeting degree requirements. The Information Technology department has become very proficient in utilizing the software, and extracting necessary information from the database.

- In 1997 NCU moved its payroll, registration, and student billing onto QE.
- In 1999 NCU moved its financial applications (GL, AP, budget) onto QX.
- In 1999 all QE software was updated for Y2K compliance.
- In 2000-2001 NCU's fundraising office moved onto QX.
- In 2001-2002 NCU's admissions office moved onto QX.
- In 2003 NCU's registration and student billing were moved from QE to QX.

- In 2005 NCU moved payroll from QE to QX, and began using the "QX Degree Audit" software.
- In 2005 NCU replaced the database server and migrated from Sybase to Microsoft SQL Server 7.
- In 2006 NCU began using the "QX Web" software.
- In 2006-2007 NCU upgraded from Microsoft SQL 7 to SQL 2000.

Telecommunications

In 2005, the voicemail system was upgraded. The old server was five years old and running on an old operating system and outdated software. The AD-120 software was upgraded from level 2.4 to 2.7, the operating system was upgraded from Windows NT 4.0 to Windows Server 2003 (2 levels newer), and the mail engine was upgraded from Exchange 5.5 to Exchange 2003 (2 levels newer). In addition, we were able to offer unified messaging to all employees. This feature as discussed in the fall of 2000 was installed after the Faculty/Staff Email Server upgrade in 2005. Cost: \$20,000

In addition, NCU contracted to have underground voice/data backbone installed to campus buildings on the West side of Chicago Ave. This provided a new voice backbone and fiber network connection to Chicago Hall/CYL, the Elliot Condominiums, Centennial Place, and Kingsriter. This also allowed NCU to stop relying on cables hung from utility poles as our main connection to distant campus buildings.

In 2006, NEC Unified upgraded the Mensing PBX to be VOIP-capable. This enables NCU to offer connectivity to the campus phone system remotely via IP phones or soft-phones (installed on computers). In addition, phone sets can be relocated without IT intervention. This project is still in research and testing. Cost: \$7,000

In 2004, NCU changed local phone service vendors. The new vendor is CP Telecom, which uses SuperSwitch technology. This enables them to offer more attractive pricing, which saves NCU approximately \$8,000 annually.

Network Infrastructure

The previous two years has shown substantial growth in North Central's network structure. Replacement and upgrades include Internet bandwidth, content filter, server replacement, new fiber, and new gigabyte resident hall switches.

Internet Connection

Information Technology has increased Internet Bandwidth over the years. In 1998, NCU had 384kbps, in 1999 1500kbps, in 2001 5100kbps, and in 2005 18000kbps. Most students downloading information from the Internet are now doing so at the 1998 full bandwidth rate.

Firewall

Currently, Information Technology uses two appliances (Firebox) for intrusion detection, content filtering, and routing. These devices assist in the prevention of malware, spy-ware, malicious attacks on the NCU network, and provide the basis for content filtering. A bandwidth shaper also assists in the management of network traffic and restricts over allocation of bandwidth to less desirable mediums.

Switch-based backbone architecture

Information Technology has increased upon the switch based backbone architecture of 2000-2001. Currently, the backbone consists of sixty-four Hewlett Packard Enterprise Class switches.

Out of the sixty-four units, fourteen are not gigabit, but will be by the end of 2006. Most network traffic on campus crosses a full fiber network with gigabit capabilities.

Inter-building links

The main buildings now have gig fiber connections to the network core. Approximately 75% of North Central facilities connect with this backbone. The main facilities lacking this speed include the Orfield Apartments and Mensing Hall. The Orefield's are still on 100mb switches, and Mensing Hall's network crosses via a 100mb laser link.

Current Environment

The previous section compared the technology over the course of the years. This section does not compare the former with the updates, as much of these items were new to the NCU campus structure.

Wireless

In the fall of 2006, with the assistance of the Student Technology Fee, Information Technology purchased the necessary hardware to begin deployment of wireless hubs on campus. Areas of deployment for North Central's wireless network include, Phillipps Hall Clay Commons, the Second Floor of Carlson Hall, and the first floor of the T.J. Jones Resource Center. Once the infrastructure is in place, North Central may add hubs until the main controller is full. Future prospective areas include the Sanctuary Atrium, the Cafeteria, the second floor of the Resource Center, the Youth Center, the Business Department, the Commuter Lounge, and the Miller Hall vending area. The wireless network is secure, and gives connection to the Internet only. To date, North Central has invested \$27,000.00

Student Email

Information Technology installed Imail version 7 for students in 2000. In 2000, students had a 10-Megabyte mailbox capacity. In 2004, Information Technology upgraded to version 8.2 of Imail and moved the mail to new hardware. At the end of 2006, students received another new email server and a new software interface (Zimbra) with additional features. Students also received an additional 190-Megabyte email storage capacity.

In 2005, Information Technology created an automatic updating list of current students' email addresses. By 2006, the lists were updated to dynamically add and drop students from class email lists. This feature allows faculty to facilitate better communication through the student email system.

Microsoft Office Suite

Since the fall semester of 2005, student may download Microsoft Office Professional (this is not to be confused with Microsoft Student). This Suite includes, Microsoft Word, Microsoft, Excel, Microsoft PowerPoint, Microsoft Outlook, Microsoft Publisher, and Microsoft Access. As of the fall of 2006, both on and off campus students may download and access the Microsoft Office Suite from UNET via proper authentication.

Laser to Mensing

In order to provide network, phone, and Internet access to the Mensing Hall, Information Technology implemented innovative laser technology. The separation of Mensing Hall from the main campus provided a unique challenge for linking Mensing Hall to the main network infrastructure. In 2004, before the acquisition and remodeling, Information Technology pursued a cable route underground through the Hennepin County Medical Center, however, HCMC did

not grant the right of way. Therefore, Information Technology investigated other options, including microwave, a separate ISP, and a laser link.

After review, Information Technology decided the laser link provided the most efficient hook-up and NCU contracted with Systems Support Solutions to install a laser connection between Mensing and the main campus. Systems Support Solutions installed two laser cameras (MRV 1000 and MRV 100), one for the security network (card readers, elevator controls, and camera equipment), and one for the main campus network. In addition, Systems Support Solutions installed an RF link as an emergency failover solution. Information also maintains several Qwest telephone lines for fire alarms, the emergency elevator phone, and as a 911 failover. Cost: \$39,720

Network Design Incorporated wired the entire building for voice and data. In addition, NEC BNS installed a NEC 2000 phone switch and office phone system. The system integrates with the main campus phone system to share local/long distance trunking, as well as voicemail system. Cost: \$66,000

Server Growth

North Central has significantly increased the number of servers and the storage capacity for our community. Information Technology now houses forty-one servers in a secure controlled environment. The servers are on a data backup plan, have a backup air conditioning unit, recently upgraded battery backups, and a generator to power the main servers in a power outage. During the installation of the generator, Information Technology had the opportunity to test a complete shutdown and script an emergency shut down procedure. Capacity on the main file server went from 20 GB to 750 GB.

Authenticated Access off-campus

The University Network (UNET) web site, accessible from on and off campus, provides a convenient user interface for students and employees. UNET is the link to “Moodle”, North Centrals online course management system. With Moodle, students may download their assignments, discuss topics in the classroom, or take quizzes. UNET is also the place where students may access student Email, register for classes, check their grades, download Microsoft Office Suite, download Symantec Anti-Virus, and store files on MyFiles.

Employees also benefit from UNET as they may now check their employee email, advise students, enter grades, access critical files off campus, and send materials needing copying from home to the Mail Center.

Strategic Plan

Shortcomings

In review of the current situation, certain issues remain outstanding.

Training

There is a definite need for more training. Currently, there are few opportunities to advance in certifications within the Information Technology Department. Technology advances at an incredible rate, and the personnel within Information Technology must remain on the cutting edge without receiving proper training. Additionally, there are few opportunities for Faculty and Staff to receive training on improving computer skills. Previously, North Central has invested in outsourcing training for faculty and staff; however, the main disadvantage is the broadness of the training and the lack of tying it back in to the needs of the University. The information presented from this type of training is abstract and not concrete in nature. North Central should conduct training to allow users to see the benefits to their specific projects or needs. It may be necessary to hire a full-time person who does nothing but computer software training. This person may be responsible for training online course structure, efficiencies in using day-to-day applications, and provide teaching models for classroom lecturing.

Streaming Media

Information Technology is currently investigating media streaming. It is an area we are behind and lacking appropriate technology. Many academic institutions already surpass North Central with the availability of streaming, or downloadable media content. The educational experience requires multiple facets of learning. In today's generation, media content is a main form of communication. Information Technology is currently pursuing and investigating options to provide this resource to our Faculty and Students. In the development of this system, Information Technology is working toward a solution that is flexible, non-proprietary, works on multiple operating platforms, and has a user-friendly interface. Financial, personnel, and equipment resources are necessary for this project

Anticipated Growth Areas

Cell Phone Convergence

In the future Information Technology anticipates communicating with students through their primary means, the cell phone. The cell phone will become a main instrument in small computing as software and information storage moves to "information farms". Cell phones may provide a point of connection to a wireless network combining voice, video, and data that enables an "anywhere, anytime" approach to computation and the communication of all kinds of information. In a recent demonstration from <http://www.ravewireless.com/>, Information Technology discovered a possible link to student text messaging and other cell phone communication issues. The average annual cost to implement a program of this nature is approximately \$50,000 to \$75,000, depending upon the user base.

VoIP

With the transformation of society from analog to data and the need to upgrade our telecommunication systems within the next three to four years, Information Technology anticipates a need to check into the prospects of Voice over Internet Protocol (VoIP). In order to move from analog to digital phone, North Central would have to invest in new switches, routers, Internet bandwidth, servers, and network backbone.

Streaming Media

Although discussed earlier, streaming media will need to take the highest priority in providing an effective learning environment. Streaming media includes the downloading of MP3 files, video files (MPEG 4 and other formats), live video conferencing, live video feeds, video chat, and possible voice

data transfer. In order to facilitate this item, North Central must provide facilities, staffing, and equipment for a full-time video and voice editor. Media released from North Central must reflect the excellence of this institution. Students may transmit or store indefinitely any media North Central provides for viewing or downloading. It is imperative that NCU hires quality producers, provides proper editing equipment, provides enough bandwidth, and provides server disk space to meet this future need. Information Technology, with the assistance of Mark Lundeen, is researching and drafting a plan proposing the timeline and resources necessary to provide quality-streaming media.

Online Billing and Payment

With the implementation of UNET, and the upgrading of necessary software, Information Technology will begin designing online billing and the availability for students to view and pay their accounts online. The utmost care is necessary to secure student information, and to protect their financial transactions. This element may be ready by the 2008 fall semester.

Virtual Servers

Information Technology is excited to research the capabilities of virtual servers. Virtual servers allow multiple platforms to run on one hardware system. This means one server, with enough capacity may provide what two or three servers provide today. Virtual servers will provide better utilization of current server capacities, allowing processor and storage resources to be utilized closer to their maximum potential. Although this may save money on combining platforms into one server, Information Technology is also anticipating the need to expand storage capacity well beyond current limits. In other words, savings gained for combining servers may be lost in the need for additional digital storage. Even now, departments are beginning the process of moving files from paper storage to digital storage.

SPAM filtering

Malware and SPAM are becoming an increasing problem. North Central will need to invest in an appliance with annual maintenance cost to check SPAM attacks. The means by which SPAMers operate is becoming more sophisticated and wasting North Central resources as Faculty and Staff sort through illegitimate emails to find true company business. Information Technology will submit a proposal in the spring of 2007.

64 bit Processing

Lastly, Information Technology anticipates purchasing new computers in 2007 that will be 64 bit ready. When these machines arrive, testing will begin on Office 2007, Exchange 2007, and Microsoft's new operating system, Vista. Often Information Technology is forced to wait on an upgrade because not all vendors upgrade compatibility at the same time. Yet, Information Technology anticipates the move and wishes to make sure we have the hardware in place for this future transition.

Full Online Courses

In order for North Central to remain viable in the future, online courses must become a reality. Online courses will provide some unique challenges for an institution that knows the benefit of students living on campus in such a nurturing environment. Currently, North Central has a preliminary system that allows professors to begin moving material to an online setting. However, this change to online learning will necessitate a change in the way North Central conducts business. It may be possible for North Central to offer online courses with a required stay in our facilities for a few weeks during the semester to allow academic nurturing and an experience with the incredible spiritual atmosphere of the campus. If the two-week visit can be scheduled appropriately, resident halls, classes, the chapel service, and food services may benefit from the flexibility offered to online students. Although, the trend moves toward a convergence of the on-campus and online experience, online courses and the convenience a student desires will necessitate North Central to move into a full online offering. Information Technology is waiting for administrative direction regarding this important issue.

Summary

We in Information Technology are excited about the recent upgrades and about the resources North Central will allocate to further technology on campus. Many incredible projects were completed, and many more are becoming a reality. Information Technology looks forward to serving the campus in the future.

Appendix A

Software

<i>ID</i>	<i>Installed Programs</i>	<i>Program</i>	<i>Version</i>	<i>Used</i>					
1	ACA Capture Pro 5.0	ACASystems.com, Zhihui Sheng	5.0	1	38	ClickArt 950,000 v. 2	Broderbund Software	01.02.0000	2
39	Corel Applications	ShopperReports	1.0.8.0	2	40	Corel Business Applications			1
42	Covenant Eyes	My Search	1.0.5 (en-US)	4	43	Crescendo Pro	Microsoft	3.1.1	1
7	Adobe Acrobat 4.0	Adobe Systems, Inc.	4.0	1	44	Crescendo Pro	Microsoft Corporation	2005.2	1
8	Adobe Acrobat 5.0	Adobe Systems, Inc.	5.1	15	45	CuteFTP 7 Home	GlobalSCAPE	7.10.0000	1
9	Adobe Acrobat 5.0	Adobe Systems, Inc.	5.0	17	10	Adobe Acrobat 6.0	Adobe Systems	006.000.000	3
11	Adobe Acrobat 6.0 Standard	Adobe Systems	006.000.000	4	48	DameWare Mini Remote	DameWare Development	4.9.2.6	5
12	Adobe Acrobat 7.0	Adobe Systems	7.0.0	2	49	DameWare Mini Remote	DameWare Development	4.9.2.5	2
13	Adobe Acrobat 7.0 Standard	Adobe Systems	7.0.0	3	50	DameWare Mini Remote	DameWare Development	5.1.1.0	8
14	Adobe Acrobat 7.0.5	Adobe Systems	7.0.5	1	51	DameWare NT Utilities	DameWare Development	4.8.0.0	1
15	Adobe Acrobat 7.0.5 Standard	Adobe Systems	7.0.5	2	52	DavkaWriter Platinum	Davka Corporation	3.20.0000	2
16	Adobe Acrobat 7.0.7	Adobe Systems	7.0.7	1	53	DESI Labeling System	DESI Telephone Labels, Inc.	2.5	4
17	Adobe Acrobat 7.0.7 Standard	Adobe Systems	7.0.7	2	54	DivX	DivX, Inc.	6.1.1	1
18	Adobe Creative Suite	Adobe Systems, Inc.	1.1.1	1	55	DivX Player	DivXNetworks, Inc.	6.1.1	1
19	Adobe Creative Suite 2	hp	3.0	2	56	Documents To Go	DataViz Inc.	7.005.914	1
20	Adobe PageMaker 7.0	Adobe Systems, Inc.	7.0.1	1	57	Documents To Go	DataViz Inc.	6.002.643	6
21	Adobe PhotoDeluxe Home	Adobe Systems, Inc.	4.0	2	58	Easy CD Creator 5 Basic	Roxio Inc	5.3.4.21	7
22	Adobe Photoshop 5.0 Limited	Adobe Systems, Inc.	5.0	2	59	Easy CD Creator 5 Basic	Roxio Inc	5.1.0.0000	8
23	Adobe Photoshop 7.0	Adobe Systems, Inc.	7.0	2	60	Encryption Plus Secure Export	Macromedia	7.0.2	1
24	Adobe Photoshop 7.0.1	Adobe Systems, Inc.	7.0.1	5	61	Encyclopaedia Judaica	Microsoft Corp	1.0.0.0	1
25	Adobe Photoshop Album 2.0	Adobe Systems, Inc.	2.00.000	2	62	English-Spanish Interpreter	Word Magic Software Inc.	3.07.0	1
26	Adobe Photoshop Album 2.0	Adobe Systems, Inc.	2.00.100	2	63	ExamView Pro	Brownstone	5.2	5
27	Adobe Photoshop CS2	Adobe Systems, Inc.	9.0	1	64	FlashFXP v3	IniCom Networks, Inc.	v3.3.5 build 1110	1
28	Adobe® Photoshop® Album	Adobe Systems, Inc.	3.00.000	3	65	GenoPro	Microsoft Corporation	1.2.0	1
29	ArcSoft Panorama Maker 3.5	ArcSoft	1.0.22.20030804	3	66	GoldWave v5.06	Microsoft Corporation	2.0.1389.0	1
30	AutoCAD 2007 - English	Autodesk	17.0.54.110	2	67	Google Earth Plus	Google	3.0.0336	1
31	BadCopy Pro	Adobe Systems, Inc.	7.0.1	1	68	GrabIt Pro 6.02	DivXNetworks, Inc.	2.5.3	1
69	Gradekeeper	Pure Networks	5.8	1	33	Business Plan Pro 2005	Palo Alto Software	8.09.0001	1
35	C-Dilla Licence Management	Apple Computer, Inc.	2.53	2	72	HyperStudio 4	iMediaLearn, a division of	3.3.15	3
36	Chapura PocketMirror	Chapura, Inc.	1.0.1.5 Trial	1	73	HyperStudio® 4.5	Jenzabar	1.00.000	33
37	CIS RecordNow DX	CyberLink	4.12	1	74	IAV FileSplitter 2.03	DivXNetworks, Inc.	2.5.3	1
75	IBM RecordNow!	IBM Corporation	7.22	1	116	Macromedia ColdFusion MX	Macromedia, Inc.	6.1.0.0	1
76	IIS 6.0 Resource Kit Tools	Microsoft Corporation	6.00.0000	1	117	Macromedia Contribute	Macromedia	1.0	2
78	InCD	Integration and Application	5.1	1	79	InCD (Ahead Software)	DESI Telephone Labels, Inc.	2.5	1
80	InfoMaker 5.0 for Intel 32	The Ethereal developer	0.10.9	1	121	Macromedia Contribute 3.11	Macromedia, Inc.	3.11.0.2419	1
81	InfoMaker 6.5	The Ethereal developer	0.10.11	2	122	Macromedia Dreamweaver 8	Macromedia	8.0.0.2734	1

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<i>ID</i>	<i>Installed Programs</i>	<i>Program</i>	<i>Version</i>	<i>Used</i>					
82	Infuzer	Trondent Development Corp	9.00.5100	1	123	Macromedia Dreamweaver MX	Macromedia	7.0.1	3
83	InterActual Player	Microsoft Corporation	11.0.7969.0	3	124	Macromedia Fireworks MX 2004	Macromedia	7.0.2	3
125	Macromedia Flash MX 2004	Macromedia	7.2	1	85	InterVideo WinDVD	InterVideo Inc.	5.0-B11.250	1
86	InterVideo WinDVD	InterVideo Inc.	5.0-B11.822	39	127	Macromedia FreeHand MXa	Macromedia	11.0.2	1
87	InterVideo WinDVD	InterVideo Inc.	5.0-B11.777	1	128	Macromedia HomeSite+	BVRP Software	1.00.005	1
88	InterVideo WinDVD	InterVideo Inc.	5.3.4.21	5	129	MacromediaContribute	Macromedia	2.0	1
89	InterVideo WinDVD 4	InterVideo Inc.	1.0.22.20030804	3	130	Magic Match	Oberon Media	1.0	1
90	InterVideo WinDVD Creator	InterVideo Inc.	2.0.14.463	1	131	MAILERS+4	Melissa Data	06.15.2005	
132	MAILERS+4	Melissa Data	12.15.2005	2	93	JAWS 5.0	HP	5.0	1
94	Jenzabar QCS Admiss	Jenzabar	1.6.0	51	135	MailNavigator v.1.10	Microsoft Corporation	1	1
95	Jenzabar QCS Cashier	Jenzabar	1.6.1	36	136	Microsoft Exchange	Microsoft Corporation		4
96	Jenzabar QCS FRS	Jenzabar	1.6.4	91	137	Microsoft Halo	Microsoft	2.04	1
97	Jenzabar QCS Fund-AI	Jenzabar	1.6.3	43	138	Microsoft MapPoint 2002 North	Microsoft	9.00.16.2000	1
98	Jenzabar QCS Pay	Jenzabar	1.6.2	10	139	Microsoft Office 2000 Disc 2	Microsoft Corporation	9.00.2720	11
99	Jenzabar QCS Powerlock	Jenzabar	1.6.1	7	140	Microsoft Office 2000	Microsoft Corporation	9.00.2720	10
100	Jenzabar QCS Student	Jenzabar	1.6.4	92	141	Microsoft Office 2000 SR-1	Microsoft Corporation	9.00.9327	7
101	Jenzabar QX Admiss	Jenzabar	9.0.0.0000	27	142	Microsoft Office 2000 SR-1	Microsoft Corporation	9.00.9327	1
102	Jenzabar QX Bills	Jenzabar	1.8.0	37	143	Microsoft Office 2000 SR-1	Microsoft Corporation	9.00.9327	10
103	Jenzabar QX Bills	Jenzabar	9.0.0.0000	43	144	Microsoft Office 97,	Apple Computer, Inc.	4.6.0.15	2
104	Jenzabar QX Cashier Receipts	Jenzabar	9.0.0.0000	14	105	Jenzabar QX Degree Audit	Jenzabar	1.6.5	49
106	Jenzabar QX FRS	Jenzabar	9.0.0.0000	201	147	Microsoft Office Visio	Microsoft Corporation	11.0.7969.0	12
107	Jenzabar QX Fund-AI	Jenzabar	9.0.0.0000	33	148	Microsoft Office XP	Microsoft Corporation	10.0.2627.01	1
108	Jenzabar QX Student	Jenzabar	9.0.0.0000	200	109	KeePass Password Safe 1.04	Dominik Reichl	1.04	9
110	KeyPoint 4 (Single User, WE)	Logotron Ltd	4.0	1	151	Microsoft SQL Server 2000	Microsoft	8.00.2039	10
152	Microsoft SQL Server 2005	Microsoft Corporation	8.00.194	1	153	Microsoft SQL Server 2005	Microsoft Corporation	3.0.0.0	3
154	Microsoft SQL Server 7.0	Symantec Corporation	2.6.18.0	158	155	Microsoft Streets & Trips 2006	Microsoft Corporation	13.00.09.0200	1
156	Microsoft Streets and Trips	Microsoft	10.00.09.1300	4					
157	Microsoft Virtual PC 2004	Microsoft Corporation	5.3.582.27	1	198	SPSS for Windows 10.1	Pure Networks	5.8	1
158	Microsoft Visio Professional	Microsoft Corporation	10.0.525	3	199	SQL Anywhere Studio 8	Symantec Corporation	2.5.55.0	4
159	Microsoft Visual C++ Toolkit	Microsoft	1.01.0000	1	200	Stat Crew Software - Control	Microsoft Corporation	4.6.0.15	1
160	Microsoft Visual Studio 2005	Microsoft Corporation	8.00.194	1	201	Storybook Weaver	Flock	1.00.000	0
161	Nero	ahead software gmbh	5.5.9.2	1	202	SureThing CD Labeler -	Martin Prikryl	3.7.6	1
162	Nero - Burning Rom	ahead software gmbh	5.5.8.0	2	203	Surf Accuracy	Hewlett-Packard Company	2.1.2	0
163	Nero - Burning Rom	ahead software gmbh	5.5.9	8	164	Nero OEM	Mozilla	1.0.7 (en-US)	36
165	Nero Suite	Microsoft Corporation	3.5	27	206	Sybase InfoMaker 8.0	Apple Computer, Inc.	2.53	1
207	Sybase InfoMaker 9.0	Symantec Corporation	2.5.55.0	3					
167	Norton SystemWorks 2003	Symantec Corporation	6.0.0	1	208	Sybase PowerBuilder 6.5	Apple Computer, Inc.	4.6.0.15	1
168	NovaDisk SE for Windows NT	Apple Computer, Inc.	4.6.0.15	1	209	Sybase PowerBuilder 9.0	CACE Technologies	3.1.0.27	1
169	OpenMG Secure Module 3.3.01	Adobe Systems, Inc.	2.00.100	1	210	Sybase SQL Anywhere 7	Apple Computer, Inc.	2.53	1
211	Symantec pcAnywhere	Symantec Corporation	11.5.0.121	0	212	Symantec pcAnywhere	Symantec Corporation	10.0	1
182	QuarkXPress 6.5	Quark, Inc.	6.50.0000	2	223	VERITAS Backup Exec	VERITAS Software	10.0.5484	1

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175	Power Scan	Microsoft Corporation	8.00.761	1	216	TMPGEnc DVD Author 1.6	Pegasys Inc.	1.6.0026	1
176	PowerDVD	Symantec Corporation	10.0.359.0	18	177	PowerDVD 5.1	Sonic Solutions	4.95	17
178	PowerQuest PartitionMagic 8.0	PowerQuest	8.00.000	1	179	Presto! BizCard 4.1 Eng	Macromedia, Inc.	6.1.0.0	1
180	Prism POS	Broderbund Software	01.02.0000	2	184	Quicken 2003 Deluxe	Intuit	12.00.0000	1
185	Quicken 2006	Intuit	15.1.4.5	1	227	Viewpoint Toolbar (Remove	Microsoft Corporation	4.6.0.15	1
231	WatchDISK Disk Space	Power Admin LLC	3.2.19	1	232	WatchDISK Disk Space	Power Admin LLC	3.2.14	1
193	Sonic RecordNow!	Sonic Solutions	7.22	1	234	WatchGuard Fireware 8.2.1	WatchGuard Technologies, Inc.	8.2.1	1
194	Sonic RecordNow! Plus	Sonic Solutions	7.3	17	235	WatchGuard System Manager	WatchGuard Technologies, Inc.	8.20	2
195	Sony ACID 4.0f	Sony	4.0.446	3	236	WatchGuard System Manager	WatchGuard Technologies, Inc.	8.21	4
196	Sony Screenblast Sound Forge	Sony	7.0.262	1	238	Windows 2000 Administration	Microsoft Corporation	5.0.0.0000	4
239	Windows Server 2003	Microsoft Corporation	5.2.3790	3	241	WinPRISM Nebraska Book Company 1.4.2		5	
242	WinRAR archiver	Microsoft Corporation	20050602.215753	17					

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