As of 3/31/03 an updated version has been reposted to the web and reflects a corrected figure on page six. If you have received or have printed this document prior to this date please make note of the following correction or print this Errata sheet for reference.

Please note the following correction on page six

Within the sixth bullet entitled, “Provide Accessible Systems,” the figure stated in the last sentence that refers to the 2001 appropriated money from the legislature has been changed.

The sentence should read as follows:

The 2001 Legislature appropriated $7.5 million for the selection and initial installation of an ERP system, which has an estimated cost of $30-40 million.

2001-2002 Annual Report
http://www.ndsu.nodak.edu/its/about/pubs_policies
Annual Report

Information Technology Services

North Dakota State University

Fiscal Year 2001-2002
Ending June 30, 2002
Advancing beyond today
ITS is a catalyst for change and will continue
to focus on today’s and tomorrow’s technology needs. We will meet the challenge for
developing and delivering the best possible
technology and services in support of our
demand-driven culture and NDSU’s goal of "moving to the next level."
A message from Rosi Kloberdanz, ITS Director

A number of significant events occurred this past year. The most crucial event was the September 11 terrorist attack of the World Trade Center. This event changed the world. For institutions of higher education, it brought to the forefront the importance of IT security. In ITS, a restructuring of staff took place to address IT security proactively. As a result, we formed a Risk Management workgroup responsible for IT business continuity planning and security.

More milestones occurred. In December, NDSU’s IT Visions were approved by the President’s Cabinet. In January, an IT survey went out to deans, directors and department chairs. In addition, staff from Information Technology Services, Agriculture Communication and the Computing and Information Technology Planning and Goals Committee met with many departments on and off campus to solicit feedback and input on IT services and needs. Based on this feedback, a new NDSU IT plan was completed and approved by President’s Cabinet.

All across the country, IT organizations continue to be challenged by increasing demands, ever-changing technologies, flat or even diminishing budgets, and the need to do things “differently.” ITS is no exception. However, with campus input, the support of the administration, and, above all, the dedication and hard work of ITS staff, we will succeed in meeting campus IT needs. A big thank you to the staff who make it all happen, as we continue to make progress on our goal to move to the next tier.

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Appendix 15
Information Technology Services provides North Dakota State University and its global community support and services for multiple technologies and system platforms. These include networking and information services related to the technology environment of the North Dakota University System.

ITS at NDSU serves as the South Host Site for the Higher Education Computer Network (HECN). HECN is a cooperative effort among the 11 campuses of the North Dakota University System. ITS holds a leadership role by coordinating academic and research computing support services for the HECN at both NDSU and the University system level. ITS is responsible for providing advanced network resources and technological expertise enabling students, faculty and staff across the state to access state-of-the-art technologies as tools for enhanced teaching, research, and learning. HECN continues to be a role model for how collaboration works with the North Dakota University System.

http://www.ndus.edu/NDUS_Tech_Info/

Mission

Information Technology Services is dedicated to providing academic, research, and business technology solutions to the North Dakota University System and its constituents. We support and live the land grant ideals in an environment of collaboration, teamwork, and individual initiative.

You’ll find this year’s report slightly different from past annual reports. The focus is primarily on the support ITS has provided to the NDSU campus. A separate NDUS-IT Common Information Services (CIS) annual report was written this year to more clearly show how higher education institutions within the state share a common IT service infrastructure. HECN activities are incorporated into the NDUS-CIS report. Common Information Services is a working title describing the organizational units reporting to the NDUS Chief Information Officer.

The NDUS-CIS is comprised of:
- the CIO office
- the Higher Education Computer Network (HECN)
  - (South Site) at North Dakota State University (NDSU)
  - (North Site) at the University of North Dakota (UND)
- the HECN Financial Systems
- the HECN Student Information Systems
- the Interactive Video Network (IVN)
- the Online Dakota Information Network (ODIN)

The CIS annual report can be found at http://www.ndus.edu/NDUS_Tech_Info/services (choose services)
Planning, priorities & partnerships — all part of year's focus

Technology is an integral part of the day-to-day operation of NDSU. Although there are many similarities in the technology that is used, there are many different ways that departments use technology.

We believe that strong partnerships between IT organizations and departments help us to share our strengths, and be more efficient in providing and using IT services.

By law, NDSU and other University System institutions and state agencies, are required to provide biennial IT plans. Our goal is to make this process more inclusive and helpful to the entire campus.

Technology is changing the way we do things. It can be invigorating and frustrating at the same time. Users require ongoing communication; ongoing training; an adequate, reliable, secure network; up-to-date equipment and software; responsive IT support; high-performance computing environments; support for administrative systems and instructional activities. Staff rely upon technology tools as a means for conducting daily business transactions with great efficiency.

ITS is not alone in its challenge to stay current with changing technology and user needs. It is a continual challenge and often impossible for any IT organization to try and accommodate all the needs of every technology user. Demands often exceed financial and staff resources—yet the expectations continue to rise—and we rise to meet the challenge.

NDUS sets IT goals:
The State of North Dakota requires all state agencies, including the campuses of the NDUS, to create and submit a technology plan each biennium. Beginning this biennium, the NDUS Common Information Services (CIS) units presented all system-wide initiatives in a single IT plan so the overall NDUS strategies are clearly outlined.

The goals identified guide us into the future. These goals are a direct result of the IT planning process which was undertaken by the combined units of the CIS this year and are in direct support of the long range goals of the State Board of Higher Education and the Higher Education Roundtable. Numerous opportunities for cooperative efforts with state government and K-12 not only move the agenda of the Roundtable forward; they will help to make efficient use of limited resources, while improving services.

ITS sets the stage for NDSU IT plan:
In August 2001, IT staff from Information Technology Services and Agriculture Communication met for a half-day retreat and discussed ideas as to how to gather feedback from the campus regarding IT needs.

During the spring of 2002, Information Technology Services and Agriculture Communication Computer Services staff met with representatives of many NDSU departments to discuss campus technology needs and priorities. Several videoconferencing sessions also were held with the Research Extension Centers and the Extension District Directors. The discussions were centered around three major areas. Planning, Priorities, Partnerships. Responses varied widely. Core themes that emerged centered on:

- On going communication
- IT training
- Reliable, secure, redundant network
- Standardized (baseline) hardware/software
- Enhanced web technology
- Enhanced IT support
- Support for research/advanced applications
- Support for administrative applications
- Support for instructional activities
Planning & Priorities

The IT planning and budgeting process for NDSU is guided by the NDSU IT Visions, approved by the President’s Cabinet in December 2001 http://www.ndsu.nodak.edu/its/about/vision.shtml. These visions embody President Joseph Chapman’s themes for NDSU: It’s about People, Students are Paramount, Leveraging Support, Programs, and Status. Using feedback from a survey distributed to all department deans, directors, department chairs, as well as the feedback solicited during campus departmental visits this past spring, the following information technology priorities were approved by the President’s cabinet:

- **“Sustain the Vision”**: Maintain base funding levels for NDSU’s academic, research, telephone, networking, administrative, and plant control activities (as outlined in NDSU’s 2000 IT Plan) in support of NDSU’s telecommunications infrastructures, IT operations, and collaboration and cooperation efforts.

- **“Sustain the Vision”**: Examine current information technology programs for adequacy in resources and infrastructure.

- **“Extend Economic Development”**: Provide IT resources in support of efforts to increase federal and private research funding.

- **“Provide Educational Excellence”**: Furnish information technology resources in support of efforts to expand doctoral programs in areas of strength.

- **“Provide Educational Excellence”**: Deliver information technology resources in support of real world research and educational opportunities for NDSU faculty, staff, and students.

- **“Provide Accessible System”**: Implement Enterprise Resource Planning (ERP) system, which will replace the 21-year-old Higher Education Computing Network (HECN) administrative information system, commonly known as CICS. The new system will be an integrated system that will be used by higher education, state government and K-12 schools. The 2001 Legislature appropriated $7.5 million for the selection and initial installation of an ERP system, which has an estimated cost of $30-40 million.

- **“Collaborate and Cooperate”**: Leverage IT resources through strategic partnerships within NDSU, the NDUS, State of North Dakota, nationally, and globally.

This plan lays the foundation for Information Technology for the 03-05 biennium. The entire plan, along with goals and objectives, can be found at http://www.ndsu.nodak.edu/its/about/projects_plans.shtml

Organizational realignment

In November 2001, ITS staff were reorganized under two associate directors, allowing the current director (for the interim period) to focus on NDSU and HECN-South IT administration, budgeting and planning. Major changes included:

- A new Risk Management work group was formed, headed by Marty Hoag.
- A new Research Computing group was formed, headed by Greg Wettstein
- The LAN server and desktop support areas merged, to form the LAN Group. All staff were reclassified to be LAN administrators, taking care of both the server and desktop areas of support.

These groups, along with the Help Desk, were moved under John Grosen, Associate Director for Networks and Multi-user Host Systems.

Training, Facilities (Clusters, Classroom Technology, Service Center), Administrative Applications Development, and PageCenter support were moved under Associate Director for Learning Technologies, James Ross.

The ITS organizational structure will continue to change as decisions are made for ERP support and staff are reallocated to this effort over the next year.
The Research Support Group works closely with NDSU researchers, analyzing needs and determining what resources we can offer and support, aiding them in their research efforts. Work is being done to help support the designation of NDSU as a repository for genetic data on Plasmodium Falciparum, the organism responsible for malaria. ITS expects, when negotiations are finalized, that storage and computing will be provided to this effort, capitalizing on a partnership between NDSU and the Infection Disease Research Division of the Department of Defense.

The Research Support Group has transferred its base of operations to the new NDSU Research Park and is working to make the new data center a resource for the research and production needs at NDSU.

To provide better support for information technology-based productivity, ITS has been working with Agriculture Communication and NDSU’s administration to develop a plan to better support desktop computing at NDSU. A Desktop Standards Committee was formed to begin the planning process to identify and specify desktop hardware and software standards. Early in its efforts, the committee determined that it was important to establish a Statement of Principles which would define the scope and spectrum of actions required by the organization as it considers implementing a strategy of standardized desktop computers.

When complete, the campus should see cost savings on hardware and software, improved performance of desktop machines, user productivity, and enhanced support and services by ITS, including training.

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**EduTech**

SENDIT Technology Services merged with the Center for Innovation in Instruction in May 2002 to form EduTech. EduTech provides North Dakota educators and students with opportunities that extend learning in the classroom and beyond, focusing on the use of technology to improve student achievement.

ITS administers EduTech through an interagency agreement with state government’s Information Technology Department (ITD).

EduTech works closely with the staff of IVN to implement H.323 video to K-12 schools. Collaboration includes planning, site consultations, scheduling and training.

EduTech has 6 regional Local Area Network Consultants who conduct face-to-face visits to every ND school (200+ districts). Staff took leadership roles on numerous projects including conference presentations, video demonstrations, PowerSchool activities, school technology assessments, Cisco Networking Academy QAP visits, and technology solution consultations. Staff conducted 79 training sessions.

EduTech hosts over 35,000 users who generate at least 1.5 million email messages each month. The web server hosts 150 K-12 web sites and the streaming server hosts 30 school audio/video sites. The Help Desk handles 1000+ requests each month by phone and email.

EduTech partnered with the ND Education Technology Council to provide Norton Anti-Virus (including definitions and support) for 25,000 desktop computers in K-12 schools.

EduTech provides a Project Manager, training programs and helpdesk support for Powerschool. Powerschool is a student information system for ND K-12 schools.
Internet2

Use of Internet2 expands to K-20

The Internet2 K-20 Initiative brings together Internet2 member institutions, primary and secondary schools, colleges and universities, libraries, and museums to get new technologies—advanced networking tools, applications, middleware, and content—into the hands of innovators across all educational sectors in the United States.


NDSU and UND, as Internet2 (I2) members, are sponsoring the other NDUS institutions as ND Sponsored Education Group Participant (SEGP) members. Current SEGP projects include: The Lewis & Clark Resource Collection and an Internet2 Primer.

SEGP is significant because it provides participants access to possible collaborators and partners, and assistance in obtaining the high bandwidth certain applications require. Projects needing or using I2’s high bandwidth are encouraged to become a SEGP project to obtain support and assistance.

How can I make use of Internet2?

Everyone on campus has access to Internet2. Internet2 links are used when you connect with a person or resource that is on Internet2. The connection is done automatically, and depends on the address of the other site. For example, if you are accessing a database or using a telescope that is on Internet2, you will use Internet2 as your path.

First Virtual Conference—a reality for NDSU

The First Virtual Conference in Genomics and Bioinformatics on October 15-16, 2001, broke new ground at NDSU.

Even though the conference itself was coordinated by a steering committee, it was a huge cooperative effort on the part of faculty, staff, students, and folks from around the world. ITS staff member, Marty Hoag, played a key technical role in helping to organize this event. Several other ITS staff worked with other departments and other access grid sites worldwide to help plan, produce, support and deliver the first scientific virtual conference ever.

High profile researchers served as key speakers exchanging ideas and innovative development of new applications related to genomic research. Participants (more than 1500 researchers) in 37 countries around the world and 28 states in the U.S. were simultaneously able to collaborate with colleagues, acquiring new knowledge and resources in the areas of genomics and bioinformatics.

The Access Grid allows “face-to-face” collaborative discussion to occur simultaneously among connected Access Grid Node sites. Colleagues worldwide can conduct large-scale meetings, seminars, lectures, tutorials, and training using the Access Grid without the need to travel.

Using a large-format multimedia display projected onto a wall coupled with specialized interactive software, a high-end audio system, and high-speed network resources of Internet2, group collaboration occurs. Visually you can “see” more than one participant at a time as well as presentation materials being used. NDSU hosted 13 major events, and numerous smaller sessions and demonstrations using the Access Grid Node in IACC 422. A listing of past events can be found at: [www.ndsu.nodak.edu/accessgrid/pastevents.html](http://www.ndsu.nodak.edu/accessgrid/pastevents.html).
Connectivity focus of infrastructure
As the campus made the decision to expand its building boundaries to the North, ITS worked with the NDSU Telecommunications Department to provide leadership in both the design and installation of the telecommunications infrastructure that now extends to the newly developed Research and Technology Park. The design included a series of underground utility holes for structure access, conduits for media placement (encased in concrete), singlemode and multimode fiber optics and 1800 pair of copper twisted pair cable. The running line of this extension was just over a mile.

Network services staff also did the design and assisted in the interior installation of all the telecommunications systems within the Research One building structure. The system provides for remote voice processing (analog and digital), gigabit uplink to the data core, 10/100 switched Ethernet to the desktop and several remote ancillary systems for HVAC, security and exterior support applications.

In February, the process of providing for a 100 Mbps uplink to the data core for all campus buildings was completed. In addition the process of extending switched Ethernet connectivity to the desktop was also initiated to provide faster connectivity speed. By the end of the fiscal year, 5 buildings were completed. The project will continue until all primary academic buildings are completely switched.

Directory Services
ITS initiated the Directory Services project under which HECN will host Novell and Microsoft top-level directory services that other campuses can join and share. This will enable shared technical expertise, provide for fault-tolerance/disaster recovery for participating campuses, and, in the future, permit the sharing of resources and services between campuses.

Highlighted projects:
- Developed Access database for ITS Service Center to facilitate tracking and charging of print jobs.
- Developed web based election process for NDSU staff senate.
- Developed Access database for University Archivist to log civil court cases dating back to the beginning of ND statehood.
- Worked with Residence Life and Admissions offices to convert their mail merge letter generation processes from WordPerfect and dBase to Microsoft Access and Word.
- Worked with HR office to add functionality in their Access database to produce a variety of job market reports for NDSU staff positions.
- Provided support for administrative SAS and Access users.
- Provided on-going support for database applications developed by workgroup.
- Held training sessions for PageCenter and conducted a SAS Workshop.

Tracking Software Licenses
Work continues on the integration of E-Academy’s Electronic License Management System (ELMS) into our software-licensing program. ELMS is a web-based software distribution and management system designed to integrate into a campus’ web infrastructure. Software can be distributed electronically, eliminating the need for hand-to-hand distribution and enabling users to access it around the clock. The database-driven architecture at the back-end enables administrators to efficiently track license agreement policies and eligibility rules as well as software inventory on a daily basis. E-Academy is designed specifically to meet the diverse needs of academic institutions.

Application & web development on the rise
- Web links to many administrative and academic forms have been placed on the Web to allow for easy access for campus personnel. Forms for accounting, human resources, payroll, research, academic affairs and equal opportunity and physical plant can be found at www.ndsu.edu/forms.
The scheduled Internet2 meeting in Austin, TX was canceled due to the September 11 crisis. That didn’t force the cancellation of Megaconference III which was to be held in conjunction with the I2 conference—the virtual host was just moved to NDSU and the show went on.

Moderator Sandy Sprafka ran the conference with little or no glitches, worrying only about pulling it all together in a relatively short period of time. While NDSU was busy being the host site, Robert Dixon at Ohio State University worked with controlling the technical portion of the Megaconference.

The significance of this event is twofold. First, the ability to use videoconferencing technology to solve a real-life logistical problem was impressive. Approximately 25 H.323 multipoint control units the around world were cascaded together to make the Megaconference possible. Second, the way various videoconferencing systems handle multiple simultaneous connections provides important research information to the videoconferencing community. Additionally, the conference helped connect videoconferencing personnel who can collaborate and share examples of ways to use this technology. Details about the conference can be found at: http://www.mega-net.net/megaconference/megaconference3/finalreport.htm

The General Atomic Molecular Electronic Structure Systems (GAMESS) has been upgraded to provide researchers with a foundation program for carrying out quantum mechanical based energy calculations. This program is being used by researchers in chemistry and pharmacy to support ongoing research in these departments. The NAMD (Not Another Molecular Dynamics) system has also been deployed at the request of researchers. This application will allow researchers at NDSU and the HECN to carry out molecular dynamics calculations. Previously, researchers were required to use facilities at national supercomputing centers to conduct these types of calculations. A third commercial program (Schroedinger) has been deployed to support chemistry researchers carrying out computations on metal-containing complexes.

Calculate & compute with great speed

The 20th Annual Telecon Awards was presented ITS for "Most Innovative use in Videoconferencing."

We continued to participate in Access Grid research and support including special events, demonstrations, and project participation. We hosted visitors from SDSU and the U of Iowa to review our facilities and learn more about the Access Grid. In April we participated in the two day NCSA NAMD Workshop 2002: Biomedical Applications of Molecular Dynamics on the TeraGrid for fourteen researchers from NDSU and UND.

A major area of support is the involvement of the ITS Research Support Group in the development and maintenance of the Computational Chemistry Biology Network (CCBN) which is a component element of the EPSCOR based Biomedical Research Information Network (BRIN). The goal of the CCBN is to develop an inter-institutional group which will focus on bringing high-level molecular dynamics, simulation and modeling capabilities to support both research and educational efforts.

The Research Support Group worked with BRIN/CCBN to refine the RFP for two large Silicon Graphic (SGI) servers as well as two clusters of SGI workstations. One server and one cluster will be located at NDSU and the other at UND. This network will be leveraged to allow researchers from across the state to access these resources.
Summary of upgrades & changes

NDSU email addresses changed
In October 2001, the format of NDSU’s Electronic ID or Email address changed from using an underscore “_” to using a dot “.” as the separator between first and last names. This was done in response to users’ requests for the change, and as a means of moving toward a universal naming convention used by K-12 and Higher Education. This identifier may be used to authenticate to new enterprise administrative systems and for other information technology initiatives.

Mail forwarding
As old servers have been retired, ITS has continued to forward email using addresses with these old server names (Badlands, Plains, Prairie, VM1) to the appropriate new address (i.e. Mail@NDSU). The volume of email being forwarded over the years has steadily declined. However, there’s been a steady rise in SPAM (unsolicited/off topic email) being forwarded from these “old” email addresses. To eliminate some of the SPAM, mail forwarding was removed at the end of the Spring 2002 semester for Badlands, Plains, and Prairie. Forwarding was stopped for VM1.NODAK.EDU September, 2001.

Web access to Mail@NDSU
Getting NDSU email from anywhere, at anytime, was made simpler through a new webmail service. In January 2002 BisonMail was replaced with a new interface allowing access to mail via the web. The ability to access address books created in Mulberry makes getting Mail@NDSU more functional.

Cluster authentication
During the past year, ITS has been working on a solution to ensure that only students, faculty and staff who are authenticated and authorized to use NDSU cluster computers will have access to these resources. Beginning Fall of 2002, users will have to supply login information to use the cluster facilities as an added measure to reduce exposure to abuse and to help manage security issues.

Beowulf expansion
A goal of the Research Computing Group is to develop a plan to expand the existing Beowulf clusters, increasing the number of computing nodes, as well as the computational power of each node. While work is focusing on this long term goal there is work being done to increase the utility of the existing cluster. Most specifically, applications that are of utility to multiple disciplines are being identified and deployed. In addition, generic resources such as high-performance and parallel compilers are being upgraded to support both the platforms of the above applications as well as to support researchers who are developing their own applications.

In brief—
- Brought three Corporate Time calendar servers online for HECN institutions.
- Increased mail quota for all HECN customers. Quotas are now 50Mb for students and 100Mb for staff.
- Designed, implemented and refined a network quota system for Residence Hall users. Implemented a method to check email quotas through the enrollment page http://enroll.nodak.edu.
- Installed MySQL database server to backend NDSU’s web server.
- Led a task force to revise the NDUS/HECN Computer and Network Usage Policy.
- Updated LISTSERV™ and removed 275 obsolete email lists.
Faculty, staff training & support

- Conducted 24 training sessions to five HECN sites (219 participants.)
- Dispatched training via the Internet with a program called NetOp School
- Held 90 training sessions at NDSU, attended by 690 participants.
- 200 staff participated in one of 15 “Emergency” Corporate Time/Eudora training sessions offered. Sessions were also held for numerous individual departments.
- The ITS Training News LISTSERV® has grown to over 1,100 subscribers.
- Held LunchBox sessions on popular technology products/uses

Classroom technology support

- Increased the number of instrumented classrooms from 20 to 27. Added:
  -Ag Engr 201
  -South Engr 116
  -CME Auditorium
- Added two multimedia carts and updated five LCD projectors
- Provided setup services for approximately 100 cart reservations per week
- Moved the library computer cluster from second floor to the basement and expanded its use by adding removable divider wall for small or large classroom needs
- Increased cluster usage by 10.5 percent from 2001 academic year

Blackboard support

- Provided training, documentation, and support for NDSU’s online course management system.
- Conducted a beta test of Blackboard 5.5.1 during Spring 2002 with approximately 1,000 students and 20 faculty and staff.
- Upgraded from CourseInfo to Blackboard 5.5.1 and migrated approx 350 courses to the new Blackboard 5.5.1 server.
- Received $4,652 from the NDSU Technology Fee Committee to hire a student to provide assistance and documentation for students using & teaching with Blackboard (for 2002-2003)
- Received $3,500 from the NDSU Development Foundation to develop and implement a “Technology Colloquium Series” for faculty (for 2002-2003)

Help Desk and desktop support

- Handled a total of 25,102 phones calls placed to the ITS general support line (231-8685)
  -15,636 to Help Desk; 6,699 to Service Center, equipment reservations or software licensing
- Continued work on the implementation of the NDUS Help Desk initiative
- Received and answered over 12,000 email messages
- Processed over 1,000 software site license orders for HECN
- NDSU staff made 1,149 software licensing purchases
- Maintained and supported more than 2,500 computers throughout the campus environment

Statistical consulting services

Curt Doetkott and graduate students from the Statistics program team together to assist faculty and staff to work with software programs such as SAS, SPSS and the test scoring system (OMR). Close to 300 clients each year continuously seek the assistance of this ITS work group as they gather, compile, manage and present data associated with various research projects. In several cases, members of this team have served as authors or co-authors on research papers.

Using H.323 video technology, individuals and groups from the University System, ERP, HE:CN, STAGE:net, and the NDUS Help Desk and other entities were able to engage in “face to face” discussions. The result has been a significant reduction in travel time and expense while increasing productivity.

To capture videoconferencing through IVN sessions for a later viewing date, research continues on internet streaming and archiving capabilities. This service has been successfully implemented with the ERP project.

ITS worked with staff from the state network and the Interactive Video Network (IVN) to upgrade interactive classrooms to the H.323 video conferencing protocol. The changes have improved meeting and classroom connectivity to ND campuses and other state and government sites.

To capture videoconferencing through IVN sessions for a later viewing date, research continues on internet streaming and archiving capabilities. This service has been successfully implemented with the ERP project.
Student support

Let’s print
- Printed 81,342 black and white pages from the high speed printer (approx. 163 reams of paper)
- Printed 44,893 color pages (approx 90 reams of paper)
- Used over 38,407 square feet of plotter paper which equates to 2.5 miles of paper rolled out

Let’s check it out
- Handled 6,700 digital camera reservations for students
- Scheduled 28 cameras for a 116,000 hours of checkout usage
- Nine laptops were reserved and checked out 3,100 times for a total of 37,000 hours
- Four digital projectors were scheduled 1,530 times and reserved for a total of 21,500 hours

Let’s assist you
- IACC, the Library and the Fine Arts cluster employ 45 students during the school semester from 7:30 am to 1 am on weekdays and 12 to 5 p.m. on Saturday and 12 to 1 a.m. Sunday.
- Students help on average 10 people an hour, with the multimedia lab, basic application support with cluster software, and data recovery (damaged files on floppy disks, zip drive or CD ROMs). This does not include when they perform other duties such as cluster maintenance, print management, and reception work.
- Peak time is over the noon hour, aiding 42 students hour.
- Provided support for 1,500 ResNet users.

Let’s train you
- The Technology Learning Center offered 199 classes on various software applications
- Nearly 2500 student contact hours were recorded as a result of 315 class hours of training.
- Students used video and audio editing equipment and learned web streaming using the three multimedia machines in the lab. On these machines 6,500 hours of use were logged.

Staff resources
ITS received over $650,000 from the technology fee to provide support for students. Without the financial resources of the tech fee dollars, many of the services ITS offers to students would not be possible. Technology funds support several full-time staff members who provide their expertise in managing, operating, and supervising programs to support a high-tech campus learning environment. Additionally, ITS employs numerous students as consultants, trainers, and technicians to assist students and support and monitor labs in IACC, the Library, and the Fine Arts building.

Customized assistance
To enhance student learning in the classroom, ITS supports instrumented classrooms and multimedia carts. Also available are services that help students and faculty with instructional graphics. Such services include freehand drawing, custom graphic charts or diagrams, video capturing and editing, optimized graphics for the web, animations of processes, graphics for PowerPoint presentations, custom photography, posters, web tutorials, and custom clipart.

Technology Learning Center
ITS is responsive to student needs for a core set of technology skills or acquiring advanced technology techniques. The Technology Learning Center (TLC), works with students to offer training on email, web browsing, and the Microsoft productivity suite, as well as high-end software such as Adobe InDesign and Photoshop, Web editors (Dreamweaver), and other popular programs requested by students. In addition, TLC staff work with faculty to identify specific classwork where training may need assistance. Students can get hands-on help through walk-in, scheduled appointments, or small classroom training sessions in the TLC lab in IACC 150G.

Clusters & Service Center
Funding from the student technology fees continues to support cluster printers and free black and white printing for students. Tech fee funds also support high-tech multimedia equipment, digital and video cameras, and specialty clusters. Student consultants in the Service Center offer a wide variety of help and instruction on burning CD’s, scanning, creating large audio presentations and working with students using advanced technologies for project work.
Some changes are obvious, others more subtle. Some changes come at the speed of light and without much warning. And some changes take more time to implement than anticipated.

We’ve seen this happen this past year with the catastrophic hardware failure on parts of the Groupwise email server and Novell file system.

Through teamwork and a commitment by ITS, staff established a systematic process to deal with the problem we faced. Many folks worked around the clock with the Novell vendor to find a solution to get administrative users back to “business as usual” as quickly as possible.

Interim solutions were made available as staff provided documentation and training on Corporate Time calendaring software as well as the Eudora email client.

Without a doubt, we owe a great deal of thanks to the many ITS staff who were responsive supported users during an extremely difficult time.

ITS also says thank-you to the campus for their patience and feedback during this incident. We’ve listened, learned, and are in the process of overhauling the campus infrastructure to prevent this type of incident from causing a major interruption of services in the future.

ITS receives awards

- ITS was awarded 3rd place in the 2001 ACM SIGUCCS competition for the ITS web page. The award is in the “web-based services, computing services category.” ACM SIGUCCS is the Association for Computing Machinery, Special Interest Group for University and College Computing Services organization.
- The 20th Annual Telecon Awards presented ITS with First Place in the area of Application/Users for “Most Innovative use in Videoconferencing” in conjunction with The Megaconferences: Internet2.

Manuscripts in referred journals

ITS staff member Curt Doetkott often authors or co-authors research papers with constituents in various fields as he provides statistical analysis of data from the research being conducted.


Years of service

- **5 years**
  - Jim Sellner
  - Don Simon
  - Elizabeth Smith
  - John Underwood
  - Gary Whaley

- **10 years**
  - John Grosen
  - Melissa Stotz

- **25 years**
  - Sandy Sprafka

- **30 years**
  - Bruce Klinder

Staff earn degrees

Cathy Hanson
Bachelor’s in University Studies,
Fall 2001

Jim Sellner
Master’s in Business Administration,
Spring 2002

Sheree Kornkven
Master’s in English,
Spring 2002
The following pages provide supplemental data pertaining to Information Technology Services

Appendix

Additional information

Organizational chart
Organizational changes
Professional development/travel spreadsheet
Technology Fee Summary awards

Links of interest

ITS home page ................................................................ www.ndsu.nodak.edu/its
Higher Education Computer Network (HECN) www.ndus.edu/NDUS_Tech_Info
ITS Technology Learning Center .................................. www.ndsu.nodak.edu/tlc
General Access Grid information .................. www-fp.mcs.anl.gov/fl/accessgrid
NDSU Access Grid events ................................ www.ndsu.nodak.edu/accessgrid
North Dakota Interactive Video Network ..................... www.ndivn.nodak.edu
EduTech .............................................................................. www.sendit.nodak.edu
Educause .................................................................................. www.educause.edu
ECAR ................................................................................. www.educause.edu/ecar
Internet2 ................................................................................... www.internet2.edu
Information Technology Services
Organizational Chart - Overview

North Dakota University System
Chief Information Officer
Grant Crawford

North Dakota State University
Vice President Academic Affairs
Craig Schnell

Information Technology Services
Director
Rosi Kloberdanz

HECN North
Director

Associate Director
Administrative Information Systems

HECN Programmer/Analysts

UND NDSU

Assoc Director
Information Services
Vacant

Associate Director
Network Services & Multi-User
Host Systems
John Grosen

Work Groups
• Research Computing
• Network Services
• Multi-User Host Systems
• Help Desk
• LAN Administration
• Risk Management Group

Associate Director
Learning Technologies
Jim Ross

Work Groups
• Digital Conferencing
• Multimedia/Web Development
• Statistical Consulting
• Documentation/Software Contracts
• Instructional Design/Consulting
• Administrative Application Development
• Clusters/Classroom Tech. & Service Ctr.
• PageCenter
• Training

Business Manager
Janet Stringer

Work Groups
• Budget/Accounting
• Office Support

Director IT Services for EduTech

Work Groups
• Network Services
• Information Services
• Application Development
• Help Center
• Staff located statewide

External Technology Initiatives

HECN Administrative Asst

HR/Communication Support

NDSU Contract with Information Technology Department
Information Technology Services
Rosi Kloberdanz - Director

Sharon Fangsrud - 4120
HECN Administrative Asst

Cathy Hanson - 4623
HR/Communications Coordinator

Sandy Sprafka - 0797
Coord. External Technology Initiatives

Financial and Office Support
Janet Stringer - 0796
Business Manager

Kim Lammers - 5004
Account Technician

Pam Nielsen - 0766
Department Secretary

Diane Clark - 0774
DP Coord (.5)

Gerry Berg - 5235
Call Center Customer Relations (.10)

Char Maas - P/T staff
**Information Technology Services**  
**Rosi Kloberdanz - Director**

**Jim Ross 4430**  
Associate Dir Learning Technologies

---

**Elizabeth Smith 4586**  
Instructional Designer/Consultant

- Students

**Mary Twitchell 3956**  
Documentation/Software Contracts

**Nancy Lilleberg 4125**  
Multimedia WG Coordinator

- Vacant 4989  
- WWW Development Specialist
- Micky Klowcow (indirect) w/Research Admin  
- Database/Application Developer
- 10 students in this area

---

**Tammy Cummings 3889**  
Digital Conferencing Event Coord

**Brian Abraham 0764**  
ITS Facilities Manager

- Jim Sellner (Tech Fee) 4533  
  Assistant Facilities Manager
- Melissa Stotz (Tech Fee) 4823  
  Classroom Technology Facilitator
- James Kapaun 4985  
  Service Center Mgr
- James Senechal 3801  
  Digital Conferencing Specialist
- Brian Jambor 5122  
  Digital Conferencing Specialist
- 50 + students work within Facilities group

---

**CJ Johnson 0784**  
Training WG Leader

- Lorna Olsen 4431  
  Technology Trainer
- Sheree Kornkven 4723  
  Training Specialist (Tech Fee)  
  5-6 students

---

**Jim Hughes 0782**  
Administrative Printing WG Leader

- James Silvernagel 0799  
  Printing Consultant
- 6 students in this area

**Curt Doetkott 0790**  
Statistical Consultant

- Grad students

---

**Carol Tschakert 0786**  
Admin Applications Development WG Leader

- Harry Vanderschoot 4432  
  Applications Developer
<table>
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<tr>
<th>Name</th>
<th>Extension</th>
<th>Title</th>
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<tr>
<td>Terry Wieland</td>
<td>0802</td>
<td>Network Operations Manager</td>
</tr>
<tr>
<td>Val Nordsletten</td>
<td>0771</td>
<td>Team Leader</td>
</tr>
<tr>
<td>Chad Foster</td>
<td>3812</td>
<td>Telcom Technician - Inside Plant</td>
</tr>
<tr>
<td>Cheryl Swanson</td>
<td>0788</td>
<td>Telcom Tech - Shop Coordinator</td>
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<tr>
<td>Dave Dahl</td>
<td>3485</td>
<td>Data Network Supervisor/Team Leader</td>
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<tr>
<td>Harry Wadnizak</td>
<td>0393</td>
<td>Telcom Tech - Outside Plant</td>
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<tr>
<td>Carla Johnson</td>
<td>4518</td>
<td>Telcom Technician</td>
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<tr>
<td>Diane Clark</td>
<td>0774</td>
<td>DP Coordinator (.5 shared with Janet)</td>
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<tr>
<td>Bruce Curtis</td>
<td>3669</td>
<td>Network Consultant</td>
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<tr>
<td>Marc Wallman</td>
<td>3231</td>
<td>Sr Systems Administrator WG Leader</td>
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<tr>
<td>Tim Mooney</td>
<td>3221</td>
<td>System Administrator</td>
</tr>
<tr>
<td>Dale Summers</td>
<td>0792</td>
<td>Database Administrator</td>
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<tr>
<td>Justin Pratt</td>
<td>5082</td>
<td>Web Systems Administrator</td>
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<tr>
<td>Kris Ottem</td>
<td>4227</td>
<td>Applications Developer (.5)</td>
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<tr>
<td>Marty Hoag</td>
<td>0780</td>
<td>Risk Mgmt WG Leader</td>
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<tr>
<td>Dick Jacobson</td>
<td>2130</td>
<td>NDUS Information Technology Security Officer</td>
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<tr>
<td>Shelby Williams</td>
<td>0800</td>
<td>LAN WG Leader</td>
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<tr>
<td>Dan Chihos</td>
<td>3270</td>
<td>LAN Administrator</td>
</tr>
<tr>
<td>Shawn Froelich</td>
<td>4353</td>
<td>LAN Administrator</td>
</tr>
<tr>
<td>Jeff Schoenack</td>
<td>4354</td>
<td>LAN Administrator</td>
</tr>
<tr>
<td>Jon Bronken</td>
<td>4355</td>
<td>LAN Administrator</td>
</tr>
<tr>
<td>Gary Whaley</td>
<td>0794</td>
<td>LAN Administrator</td>
</tr>
<tr>
<td>Yancy Funk</td>
<td>4621</td>
<td>Applications Developer (HECN)</td>
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<tr>
<td>Sue Fuss</td>
<td>4498</td>
<td>Software Licensing Technician</td>
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<tr>
<td>Deb Hegdahl</td>
<td>5371</td>
<td>Help Desk Consultant</td>
</tr>
<tr>
<td>Betty Opheim</td>
<td>P/T</td>
<td>6 students work within this work group</td>
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<tr>
<td>Marty Hoag</td>
<td>0780</td>
<td>Risk Mgmt WG Leader</td>
</tr>
<tr>
<td>Dick Jacobson</td>
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<td>NDUS Information Technology Security Officer</td>
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<tr>
<td>Francis Larson</td>
<td>4886</td>
<td>Research Support</td>
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<td>Greg Wettstein</td>
<td>5380</td>
<td>Research Computing WG Leader</td>
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<td>John Grosen</td>
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<td>Assoc Director Networks &amp; Multi-User Host Systems</td>
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<td>John Underwood</td>
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<td>Help Desk WG Leader</td>
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<tr>
<td>NDUS Information Technology Security Officer</td>
<td>2130</td>
<td>4-5 students</td>
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</tbody>
</table>
Information Technology Services
Rosi Kloberdanz - Director

Jody French 4004
Director IT Services for EduTech

Don Simon 4005
Coordinator Information Services

Information Technology Specialist (.5)
Bryan Kriewald - Williston 5237
Alicia Eslinger - Minot - 5238
Jason Berberich - G.F. 5239
Jane Hovda - Valley City 5240
Shawn Steltor - Bismarck 5241
Sarah McFadden - Dickinson 5242

Information Technology Specialist (.5)
Bryan Kriewald - Williston 5237
Alicia Eslinger - Minot - 5238
Jason Berberich - G.F. 5239
Jane Hovda - Valley City 5240
Shawn Steltor - Bismarck 5241
Sarah McFadden - Dickinson 5242

John Gieser 4025
Help Desk Manager
Students

Gerry Berg 5564
Call Center Customer Relations
Representative (.90)

Kris Ottem 4227
Applications Developer (.5)
Students/Grad student(s)

Clark Coffman 5236
Network Analyst (.5)

Wayne Wermager 4666
Coordinator Network Services

NDSU Contract with ITD
*Although the official reporting structure for the AIS staff members on NDSU payroll resides at NDSU, UND AIS Associate Director provides the leadership and direction for this group’s work activities.*
Chronological Organizational Changes
(July 1, 2001 – June 30, 2002)

- Geraldine Berg 8/1/2001  Hired as support secretary for SENDIT (EduTech)
- Clark Coffman 8/2/2001  Hired as Network Specialist for SENDIT (EduTech)
- Jane Hovda 8/6/2001  Hired as Information Technology Specialist (EduTech)
- Jason Berberich 8/6/2001  Hired as Information Technology Specialist (EduTech)
- Sarah McFadden 8/6/2001  Hired as Information Technology Specialist (EduTech)
- Shawn Steltor 8/6/2001  Hired as Information Technology Specialist (EduTech)
- Alicia Eslinger 8/22/2001  Hired as Information Technology Specialist (EduTech)
- Pam Nielson 8/8/2001  Hired as ITS support secretary
- Brian Jambor 9/4/2001  Hired as Digital Video Conferencing Specialist
- Greg Wettstein 10/12/2001  Resigned to pursue business opportunity
- Deb Hegdahl 1/1/2002  Took new responsibilities as Desk as Consultant
- James Kapaun 1/1/2002  Took new responsibilities for Service Center
- David McMullen 1/4/2002  Resigned to join local business firm
- John Underwood 1/2002  Interim Client Services Group Leader
- Shelby Williams 1/22/2002  Hired as LAN Systems Administrator
- Greg Wettstein 2/19/2002  Hired as Work Group Leader for Research Computing
- Marc Wallman 3/4/2002  Hired as Senior Systems Administrator
- John Anifinson 3/18/2002  Left organization to pursue different position
- Shelby Williams 4/1/2002  Named LAN Group Leader
- Ralph Tinjum 5/16/02  Hired as an Administrative Information Services programmer
- Rod Cody 6/14/2002  Left organization to pursue different position
<table>
<thead>
<tr>
<th>LName</th>
<th>FName</th>
<th>Date</th>
<th>Date</th>
<th>Title/Program</th>
<th>Location</th>
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<tbody>
<tr>
<td>Curtis</td>
<td>Bruce</td>
<td>05/07/02</td>
<td>05/09/02</td>
<td>2002 Interop Conference</td>
<td>Las Vegas, NV</td>
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<td>Grosen</td>
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<td>05/09/02</td>
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<td>Senechal</td>
<td>Jim</td>
<td>03/04/02</td>
<td>03/05/02</td>
<td>Access Grid Technical Retreat 2002</td>
<td>La Jolla, CA</td>
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<td>03/05/02</td>
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<td>La Jolla, CA</td>
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<td>10/17/01</td>
<td>10/20/01</td>
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<td>Portland, OR</td>
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<tr>
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<td>10/20/01</td>
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<td>10/20/01</td>
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<td>Portland, OR</td>
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<td>Hanson</td>
<td>Cathy</td>
<td>08/07/01</td>
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<td>Adobe Total Inspiration Seminar</td>
<td>Minneapolis, MN</td>
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<td>Kornkven</td>
<td>Sheree</td>
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<td>Adobe Total Inspiration Seminar</td>
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<td>Minneapolis, MN</td>
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<td>Fuss</td>
<td>Sue</td>
<td>09/11/01</td>
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<td>Wermager</td>
<td>Wayne</td>
<td>06/24/02</td>
<td>06/28/02</td>
<td>CISCO Networking Academy</td>
<td>San Diego, CA</td>
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<td>Narum</td>
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<td>02/13/02</td>
<td>Crossplex Users/Education International Workshop</td>
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<td>French</td>
<td>Jody</td>
<td>10/28/01</td>
<td>10/31/01</td>
<td>Educause 2001</td>
<td>Indianapolis, IN</td>
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<td>Jacobson</td>
<td>Dick</td>
<td>10/28/01</td>
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<td>Indianapolis, IN</td>
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<td>Kloberdzan</td>
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<tr>
<td>Underwood</td>
<td>John</td>
<td>10/28/01</td>
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<td>Educause 2001</td>
<td>Indianapolis, IN</td>
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<td>French</td>
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<td>01/15/02</td>
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<td>Educause Institute</td>
<td>Palm Springs, CA</td>
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<tr>
<td>French</td>
<td>Jody</td>
<td>02/24/02</td>
<td>02/28/02</td>
<td>Educause Institute</td>
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<tr>
<td>Eslinger</td>
<td>Alicia</td>
<td>03/05/02</td>
<td>03/08/02</td>
<td>Florida Edu. Tech. Conf. For Professional Development</td>
<td>Orlando, FL</td>
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<tr>
<td>McFadden</td>
<td>Sarah</td>
<td>03/05/02</td>
<td>03/08/02</td>
<td>Florida Edu. Tech. Conf. For Professional Development</td>
<td>Orlando, FL</td>
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<tr>
<td>Nordsletten</td>
<td>Valerie</td>
<td>10/09/01</td>
<td>10/11/01</td>
<td>Global Knowledge Networking Training Course</td>
<td>Boston, MA</td>
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<td>Bruce</td>
<td>04/18/02</td>
<td>04/19/02</td>
<td>Great Plains Network Meeting</td>
<td>Sioux Falls, SD</td>
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<tr>
<td>Dahl</td>
<td>David</td>
<td>04/18/02</td>
<td>04/19/02</td>
<td>Great Plains Network Meeting</td>
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<td>Hoag</td>
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<tr>
<td>Stotz</td>
<td>Melissa</td>
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<td>06/14/02</td>
<td>Infocomm 2002 Conference</td>
<td>Las Vegas, NV</td>
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<td>Kloberdzan</td>
<td>Rosi</td>
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<td>Internet2 Members Annual Meeting</td>
<td>Arlington, VA</td>
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<td>Ross</td>
<td>James</td>
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<td>Tschakert</td>
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<td>Java Programming Workshop</td>
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<td>Mooney</td>
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<td>01/18/02</td>
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<td>San Francisco, CA</td>
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<td>01/18/02</td>
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<td>San Francisco, CA</td>
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## Professional Development Conferences, Training, & Meetings 2001-2002

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<tr>
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<th>Date</th>
<th>Title/Program</th>
<th>Location</th>
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<tr>
<td>Tschakert</td>
<td>Carol</td>
<td>09/12/01</td>
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<td>Yancy</td>
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<td>08/02/01</td>
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<td>03/01/02</td>
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<td>Richardson, TX</td>
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<td>Vanderschoot</td>
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<td>06/03/02</td>
<td>06/04/02</td>
<td>Oracle Database Warehouse</td>
<td>Colorado Springs, CO</td>
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<td>Klemen</td>
<td>Michael</td>
<td>02/11/02</td>
<td>02/13/02</td>
<td>Oracle Warehouse Builder Training</td>
<td>Chicago, IL</td>
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<td>01/31/02</td>
<td>Peer-to-Peer Conference</td>
<td>Tempe, AZ</td>
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<tr>
<td>Lindstrom</td>
<td>John</td>
<td>03/04/02</td>
<td>03/07/02</td>
<td>PeopleSoft Higher Ed User Group Conference</td>
<td>Las Vegas, NV</td>
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<tr>
<td>Lindstrom</td>
<td>Marie</td>
<td>03/04/02</td>
<td>03/07/02</td>
<td>PeopleSoft Higher Ed User Group Conference</td>
<td>Las Vegas, NV</td>
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<tr>
<td>Underwood</td>
<td>John</td>
<td>03/04/02</td>
<td>03/07/02</td>
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<td>Las Vegas, NV</td>
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<tr>
<td>Lindstrom</td>
<td>Marie</td>
<td>06/11/02</td>
<td>06/14/02</td>
<td>PeopleSoft Student financials Fundamentals</td>
<td>Kansas City, MO</td>
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<td>Bruce</td>
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<td>06/07/02</td>
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<td>Chicago, IL</td>
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<tr>
<td>Pratt</td>
<td>Justin</td>
<td>04/08/02</td>
<td>04/12/02</td>
<td>RedHat Linux Systems Training</td>
<td>Minneapolis, MN</td>
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<tr>
<td>Ottem</td>
<td>Kris</td>
<td>04/08/02</td>
<td>04/12/02</td>
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<td>Greg</td>
<td>03/22/02</td>
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<td>Research Computing Workshop</td>
<td>Minneapolis, MN</td>
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<td>French</td>
<td>Jody</td>
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<td>State Networks Conference</td>
<td>Tempe, AZ</td>
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<td>Don</td>
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<td>11/20/01</td>
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<td>Silvernagel</td>
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<td>Cummings</td>
<td>Tammy</td>
<td>10/31/01</td>
<td>11/03/01</td>
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<td>Narum</td>
<td>Gar</td>
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<td>10/11/01</td>
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<td>01/24/02</td>
<td>01/25/02</td>
<td>Windows 2000 Active Directory Training</td>
<td>Minneapolis, MN</td>
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<tr>
<td>Whaley</td>
<td>Gary</td>
<td>01/24/02</td>
<td>01/25/02</td>
<td>Windows 2000 Active Directory Training</td>
<td>Minneapolis, MN</td>
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</table>
The Technology Fee fund has provided ITS with opportunities to enhance services used by students and faculty alike. Students come to the campus with higher levels of technical knowledge than ever before and expect NDSU will provide them with state-of-the-art classroom environments and equipment to compliment their learning experiences. ITS has engaged the use of Technology Funding to help foster technology advances on behalf of the students at NDSU. Through allocated funding, ITS supports cluster printing, Residence Hall Clusters, high-tech multimedia equipment, specialty clusters, and student training as well as other services pertinent to supporting students’ needs. Many of our programs could not be offered without the favorable support of members on the Technology Fee Committee (students, faculty, staff.).

The list below indicates approved funding during fiscal year 01-02. ITS also contributed matching dollars to various awards, totaling over $100,000.

**Fall 2001**
No proposals submitted

**Spring 2002**

$12,300  **Public Cluster Software Support, John Underwood**
To re-fund or renew the project that supports personnel (students) who maintain cluster workstations by installing software, restoring applications, including security applications and software licensing applications.

$82,653  **Enhanced Student Technology Training, Cj Johnson**
Originally requested by TFAC. Allows for continued funding for an ITS training specialist and students and a student training lab. Students deliver training to other students as identified, and promote and market courses to students, schedule facilities, and develop new components as identified.

$200,000  **Classroom Technology, Brian Abraham**
Provides technology equipment (permanent and portable) to classrooms and supports the maintenance of the equipment, and delivery of the portable equipment to the classroom.

$184,210  **ITS Cluster and Classroom Service Center, Brian Abraham**
Provides student consultants and management in support of handling equipment reservations and checkout, cluster reservations, multimedia, video editing, and special printing services, as well as replacement of equipment in the Service Center location.

$192,435  **Public Cluster Support, Brian Abraham**
Continues to provide printing in the public clusters. Supports staff and students who manage the public clusters facilities in Ehly, Morrill, Churchill, Stockbridge, Weible, Fine Arts, Van Es, and WDC3, and funded replacement of computers in Morrill, Ehly, and Van Es.

$4,752  **Blackboard Student Support Services, Elizabeth Smith**
Provides additional support services for students using Blackboard. Allows for walk-in assistance for students, offers opportunities for scheduled workshops, and Blackboard demonstrations. Also provides student trainers who will aid faculty in becoming more knowledgeable about Blackboard and instruction design usage.