

INDIANA UNIVERSITY SOUTH BEND

INFORMATION TECHNOLOGIES

Annual Report
2002-2003

Beverly Church
Acting IT Director



The year 2002-2003 was a year of transitions for Information Technologies. With the new Chancellor's administrative reorganization, the Acting IT Director became a member of the Chancellor's Cabinet, and the search began for a Vice Chancellor of Information Technologies.

During the summer of 2002, system administrators transitioned from Novell to Linux for file and application serving in IT computing labs. This transition had been planned for over eighteen months. But even as the migration took place, research and planning had already begun to move to Microsoft ADS, which would allow us to take advantage of support resources university-wide and integrate more effectively with IU systems.

In November, we migrated all faculty and staff email to Exchange and the Outlook client. In cooperation with Continuing Education we were able to offer sessions to all employees demonstrating the basics of email, plus hands-on training for the Outlook calendar. At the same time we transitioned student email from local to IU WebMail

In the spring semester the installation of twelve new smart classrooms was completed, as we transition from circulating to fixed equipment for instruction. The faculty have been pleased with these new units; the challenge now is to schedule classes needing technology in the smart classrooms. The new room scheduler software integrated with SIS should help with this endeavor.

In July we deployed our new web design, created by the IU Office of Communication and Marketing. In preparation for this transition IT staff worked months ahead to create accounts on the new system for all existing departments, resolve user id collisions, and migrate web data to central servers.

Supporting the five campus parameters of engagement, the directors and manager of the four areas of IT developed our own divisional parameters of engagement. These parameters are listed on appendix A-6, and define how we plan to work together as a team.

This report highlights some of the major accomplishments of each IT area from July 2002 through June 2003. I commend the entire Information Technologies team for their dedication and expertise in successfully meeting the challenges of the past year.

Beverly J. Church, Acting Director
Information Technologies
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Information Technologies

The mission of Information Technologies is to support the university's mission by providing reliable, innovative, and high quality technology services and support in computing, media and telephony to enable the students, faculty, and staff of IU South Bend to effectively meet their goals as a student-focused learning community.

We oversee the following offices (See organization chart on appendix A-1):

- Computing Services
- Hardware Services
- Instructional Media Services
- Telecommunication Services

Our services include:

- Maintaining and supporting general campus computing systems including academic and local administrative systems
- Installing and maintaining IU South Bend data networks
- Maintaining student computer laboratories
- Providing training in computer use for faculty, staff, and students
- Leading initiatives in long-term planning, implementation, and maintenance of information technology
- Providing a liaison role with Indiana University for coordination of technology utilization
- Supporting the acquisition, maintenance, and distribution of instructional media to facilitate the educational process
- Providing the technical support and a liaison role for the multi-campus technology project Indiana Higher Education Telecommunications System (IHETS) and "distance learning" facilities
- Maintaining and operating the IU South Bend telephony plant including PBX switch, voicemail, and installations.

IT-Computing Services

Computing Services is comprised of twelve professional staff, one biweekly staff, and 30-40 hourly student consultants. (See organization chart on appendix A-2)

Computing Services provides computing hardware, software, and support to students, faculty and staff. Some of the major accomplishments in the past year are listed below.

New Helpdesk System

Our campus joined other IU campuses in purchasing and implementing Falcon as our request tracking system for IT. This new system provides easier entry, routing, and escalating of trouble tickets for Computing Services, Hardware Services, and Telecommunication Services. Report capabilities allow us to better determine needs, and response time, and therefore be able to plan more effectively for the future. This year 8,142 contacts to the Helpdesk were recorded.

Email Transition

Faculty and staff received an upgrade to email as we transitioned from WebMail to IU's Exchange system using the Outlook client. This provided a greatly enhanced email package and a system calendar that has been very popular with the campus. At the same time student email was migrated to the IU WebMail system.

Web enhancements

A new web design, created by the Office of Communication and Marketing of IU, went into production in July of 2003. The hosting of the main web site was moved at this time to central UITS servers in Bloomington. Preparation for these changes took place in the months before July and included account creation, user-id resolution, and migration of all existing web page files.

Two new web servers were installed on our campus. The first, which is for academic purposes, runs on a Windows 2000 server. It was made available locally to provide faculty web serving for instructional use. This web server will allow easy web page creation and maintenance using Microsoft FrontPage. The second server, running on Linux, is to support personal web pages for students, faculty, and staff.

Improvements in Student Computing

The computing lab in the library was remodeled with new furniture and layout to provide a more open and accessible environment. Students can now easily spot open stations, and at the same time have some privacy for their work provided by the new partial dividers.

Collaborative workstations for student group projects were placed in the Schurz Library, Administration building and Greenlawn Hall. Students are now able to work together as a group around a computer and not have to worry about disturbing other students in the lab.

Over 270 new lab computers were installed in our IT labs and over 70 computers were relocated in departmental labs to bring all computer clusters on campus up to Windows XP. A mini-lab was established in Elkhart to provide technology to students when classes are using the IT lab at that location.

System changes

Our systems administrators received Microsoft certified training through UITS for Windows 2000 Server and installed four new servers to provide data storage, web services, printing, and application serving.

Our campus hosted security training sessions for our staff and IU Northwest IT staff. This allowed more IU South Bend staff to attend the training without significantly impacting local system support, saving our campus travel expenses.

A backup system was purchased and implemented to ensure reliable backup and restore capabilities of servers and data. Plans were made and implemented to provide off-campus storage of backups for disaster recovery.

We completed the planning stages for moving all computers on campus from the Novell network operating system to Windows 2000 and ADS. Implementation of this plan began the summer of 2003 with completion expected by the summer of 2004. With this change we will align our campus with university systems, as well as provide the ability to accommodate one sign-on for local and central services.

Both Windows and Linux servers are configured to receive regular upgrades and patches to maintain the highest security and protection. Applications are running which provide the latest statistics and are set to alert system administrators of possible problems.

Database Creation and Maintenance

IT staff continually develop new applications and enhancements, maintain commercial data products, keep abreast of IU data procedures, and ensure data flows properly between all of the systems. These applications support a wide variety of functions for the campus. These services include the Best door lock system, Copy Center accounting, Department of English web assisted class instruction, student counseling, placement testing, Financial Aid (PARS), student elections, Dental scheduling, campus phone directory, and phone/data billing.

When our aging ID card system was replaced, IT staff assisted in the transition to the new software. They designed a card in the new system that replicated the features of existing cards and hooked the new program into our existing data stores. IT staff also developed a program to package the photos taken by our card system and send them to Bloomington so that they can be entered into OnCourse. This gives our faculty faces to put with all the names of students in their courses.

IT staff assist students, faculty, and staff in creating network, email, web and other accounts. They troubleshoot access and account problems and provide technical consultation for OnCourse users (both faculty and student). They also assist users in generating reports from both IU and local data stores.

Our staff continuously makes adjustments as IU upgrades their systems (such as the move to PeopleSoft) so that we will continue to be able to provide the data retrieval and reporting our campus has come to expect.

Training

Part of support is helping the users help themselves. IT has worked cooperatively with Continuing Education to provide quality technology training to faculty and staff. (See training statistics on appendix A-7) As the new email system was rolled out in November, 2002, all employees were offered special sessions for both the email and the calendaring functions.

Training sessions for OnCourse (course management software) continued to be offered, and over 120 faculty attended either the Beginning or Advanced OnCourse classes. Use of OnCourse has grown each year since its adoption on this campus in the Fall of 2000. (See OnCourse usage reports on appendix A-8.)

Our classes for Microsoft products including Windows, Word, Excel, Access, PowerPoint, and FrontPage, were attended by over 50 faculty and staff.

Students are offered startup classes in OnCourse, email, creating web pages, and more, which are taught by student consultants or Computing Services staff.

IT-Hardware Services

Hardware Services is comprised of the manager, one full time hardware specialist, and one or two part time staff. (See organization chart on appendix A-3)

The primary functions of Hardware Services are consulting, acquisition, distribution, maintenance, redeployment and database tracking of computing equipment. Further, via vendor trade-in programs and book store sales, recover value from surplus equipment.

Consulting Services

By having technical staff available, departments as well as individuals have the opportunity to draw on our technical expertise when considering purchasing needs. Internally to IT, we keep abreast of current technologies and trends relevant to various areas such as server, classroom, instructional or desktop applications.

Acquisition

Hardware Services initiates most all campus computing equipment purchase order requests. Central purchasing of equipment helps guarantee the highest efficient use of university funds, as well as IT's ability to support the equipment once put in place. Hardware Services is an authorized self service center for both Apple and Dell, which allows us access to advanced diagnostic tools, vendor tech support and over night replacement parts. Once a computer problem has been determined to be a hardware issue, down time is kept at a minimum.

Distribution

With lifecycle funding for both faculty/staff and lab computing equipment, 300-400 new computers are acquired annually. Those computers displaced by new units are then redistributed to other areas not part of the life cycle schedule. Part time employees are used for distribution. During this last business year, 1,386 database entries tracked computer movements, those being new installs, redistributions and office moves.

Maintenance

This campus has approximately 1,500 active computers, most with inkjet printers, some with other types of special peripherals. IUSB also has just under seventy (70) networked laser printers. Our server farm consists of just over 40 computers and a few specialty items such as tape back up units and power back up units. We also maintain notebook computers and other special equipment.

Other

In order to track computing equipment, we still tag incoming units and maintain a database, which means that entries are made each time a unit is delivered, moved or temporarily stored. Surplus equipment has to be prepped to eliminate data stored on drives. The units are then negotiated as trade-in on repair parts and special acquisitions, or prepped for sale in the book store. Everything is done to retrieve all possible value from surplus equipment within the guidelines of university policy.

IT-Instructional Media Services

Instructional Media Services (IMS) is comprised of the director, the manager/distance learning coordinator, the instructional media consultant, four IMS assistants, and part time and student workers. (See organization chart on appendix A-4)

The primary function of IMS is to provide media equipment and technical support to faculty, staff, and students. IMS operates two offices to meet over 7,000 requests annually, servicing 77 classrooms and ten buildings over two campuses. Our inventory ranges from traditional overheads and slide projectors to computers, digital cameras and data projectors. IMS designs, installs, and maintains “smart classrooms” and auditoriums, and operates the distance learning, teleconferencing, satellite, and cable TV systems on campus. Accomplishments of this past year are described below.

Smart Classrooms

An important milestone in our migration from circulating to installed classroom technology, these twelve “smart classrooms” feature a prototype technology desk that is permanently installed in the classroom, but movable so that instructors may position it where it is most effective. The rooms include a ceiling-mounted projector, PC, VCR/DVD, document camera, high quality audio, and a standardized user control interface. Five additional classrooms were upgraded to include ceiling mounted projectors, computers, and a control interface.

Distance Learning

In order to meet advancing needs for video teleconferencing, IMS established an additional teleconferencing suite and expanded our support to include desktop teleconferencing equipment in several locations across campus. Distance learning also established support for a new off-campus site in Plymouth, Indiana, and implemented live, real-time streaming of video and audio.

Digital media upgrades

To better meet the needs of faculty and students in the gathering, manipulation, and distribution of digital media, IMS developed a digital media conversion station to convert existing analog teaching materials to digital files or DVD, and upgraded the IMS duplication system to include digital media. Six new digital cameras and camcorders, and seven new laptops were added to the inventory.

Staff development

As technology changes, so do the skill requirements of our staff. IMS staff attended two major technology seminars, several training seminars, and in-house training sessions covering new technology. Over the course of the year, we reassessed our mission, values, roles and expectations in a series of departmental meetings.

Event support

In support of Indiana University South Bends expanding role in the community, and in the lives of our students, IMS provided audio and video support for several on campus

special events, including the YWCA Tribute to Women, the visit by Mike Davis, and the Board of Trustees meeting. Oversight was provided to the Student Activity Center in the development of the plan for the addition of large venue projection and videotaping equipment, and to the Student Government Association in support of the acoustic café, guest artist performances, and other student sponsored events.

Media development

IMS produced video programming for the campus, including a presentation for the Board of Trustees, a video for the Civil Rights Heritage Center, and support of various student videos. IMS consulted with faculty in the writing of innovative and successful grant applications, resulting in technical advancements in content delivery and course development. IMS also assembled and implemented a mobile multi-camera videotaping station for support of seminars and other events.

IT-Telecommunication Services

Telecommunications is comprised of the director, a telecommunications consultant, and a networking consultant. (See organization chart on appendix A-5)

More than any other unit within IT, Telecommunications works mostly behind the scenes. Consequently, many services are somewhat taken for granted until they don't work. Furthermore, our users span a wide range, from students and other campus groups, to other units within IT. Therefore, one of telecommunications primary functions is to ensure continuous and reliable voice and networking services for all University constituents. Other major functions include:

- Recommend, design and implement solutions to problems through the use of technology where appropriate.
- Provide consulting services in the use of technology to enhance the mission of the University.
- Accomplish all of the above using the most cost-effective means possible.

Accomplishments for this past year are described below.

Implementation of Voice-over-IP (VoIP) between South Bend and Elkhart

Before VoIP, telephone traffic between the IUSB South Bend phone switch and the IUSB Elkhart phone switch was handled by one-third of the dedicated circuit between South Bend and Elkhart. This left only two-thirds of the dedicated circuit for data and video traffic. With the implementation of VoIP, all of the bandwidth is available for all types of traffic – thus the bandwidth between South Bend and Elkhart is used more efficiently. Note that this was the first production VoIP implementation in the entire IU system.

Wiring Upgrades for Information Technology Labs

This project involved getting a minimum of category-5 wiring available in all IT computer labs (cat-5 wiring allows faster speed). This 3-year project was finished this last year by completing NS0040, NS0038, LI118 and NS340. All labs directly managed by IT now have cat-5 wire or better.

Network Switch Upgrades

This was year 4 of a 5-year project to retire all network shared-hubs and replace them with network switches. The advantage of a switch over a hub is that it minimizes collision domains (more collisions mean network slowdowns). There are approximately 50 network switches on campus. No less than 13 were upgraded this past year. All shared network hubs have now been upgraded, but there are still a few hybrid switches that will be upgraded in the coming year.

New Dialup Service Introduced

Two improvements were made here. First, a new terminal server was installed that uses digital modems, allowing faster access speeds. Because of the integration of the

modems within the terminal server, it takes up much less room (and much less power) than the old system. The second improvement made was the introduction of a nighttime/weekend modem pool, in addition to the main modem pool. This opens up more dialup lines when the demand is highest. When combined with the main modem pool, 15 more dialup lines are available than were available under the old system.

Upgrade of Uninterruptible Power Supplies

Before the upgrade, UPS connections for telephone and network systems were helter-skelter and inconsistent. Some of the UPS's were also failing prematurely. After the upgrade, all important network and telephone systems are protected by UPS's. This allows the network, voicemail and telephone switch to continue to operate for some time without electricity from the power company.

Installation and Upgrade of Campus Emergency Phones

Campus emergency phones are located outside buildings throughout campus and provide a means to call for help. New phones were placed south of Wiekamp Hall, south of the Student Activities Center and north of Northside Hall West. Some of the older phones were also upgraded to newer phones. All emergency phones now have a blue light that marks their location and automatically strobes in an emergency.

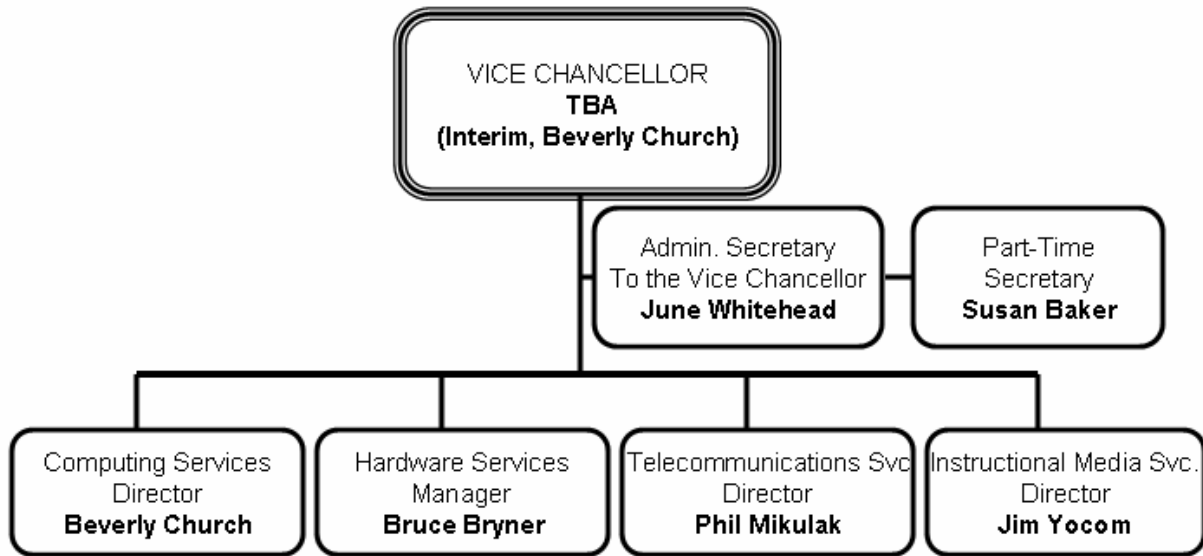
Installation of Automatic Call Distribution Systems

ACD systems feature a "queue" that callers go into when all lines are busy. Over the past two years, ACD systems have been installed at the main switchboard, the IT helpdesk, Continuing Education, Admissions, Financial Aid and (most recently) the Registrar. Along with providing a queue for callers, ACD also features rich reporting tools so that departments can get answers to questions such as "How many callers gave up waiting and hung up".

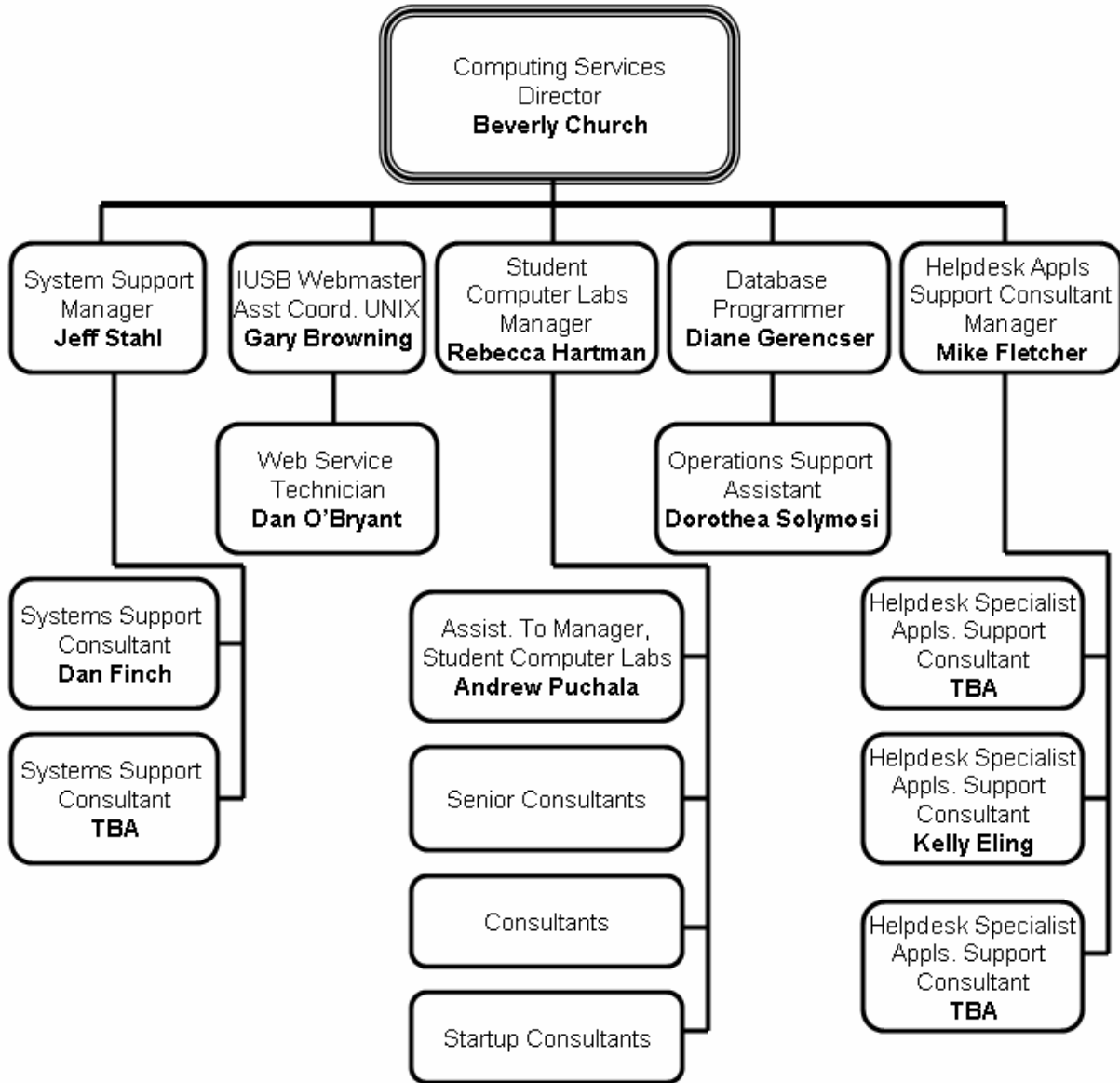
Day-to-Day Service Requests

See the spreadsheet "requests.xls" for a month-by-month breakdown of data.

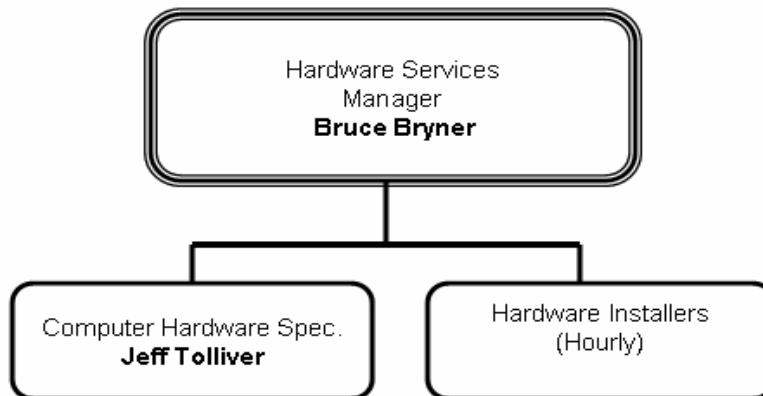
INFORMATION TECHNOLOGIES (IT) ORGANIZATIONAL CHART



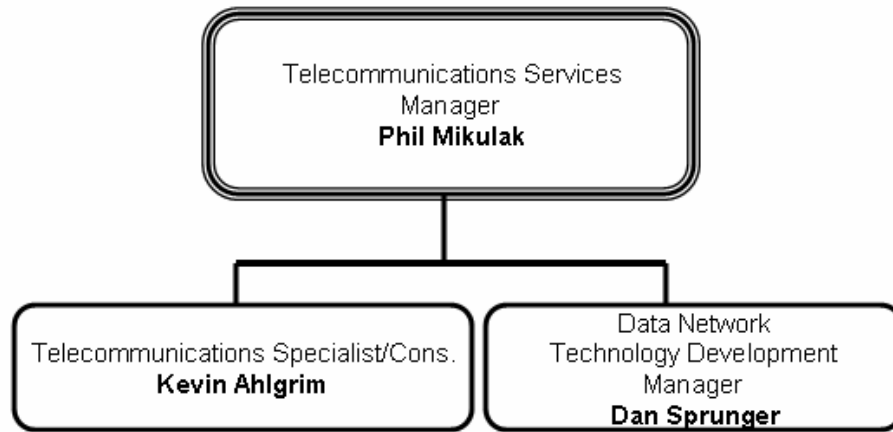
COMPUTING SERVICES ORGANIZATIONAL CHART



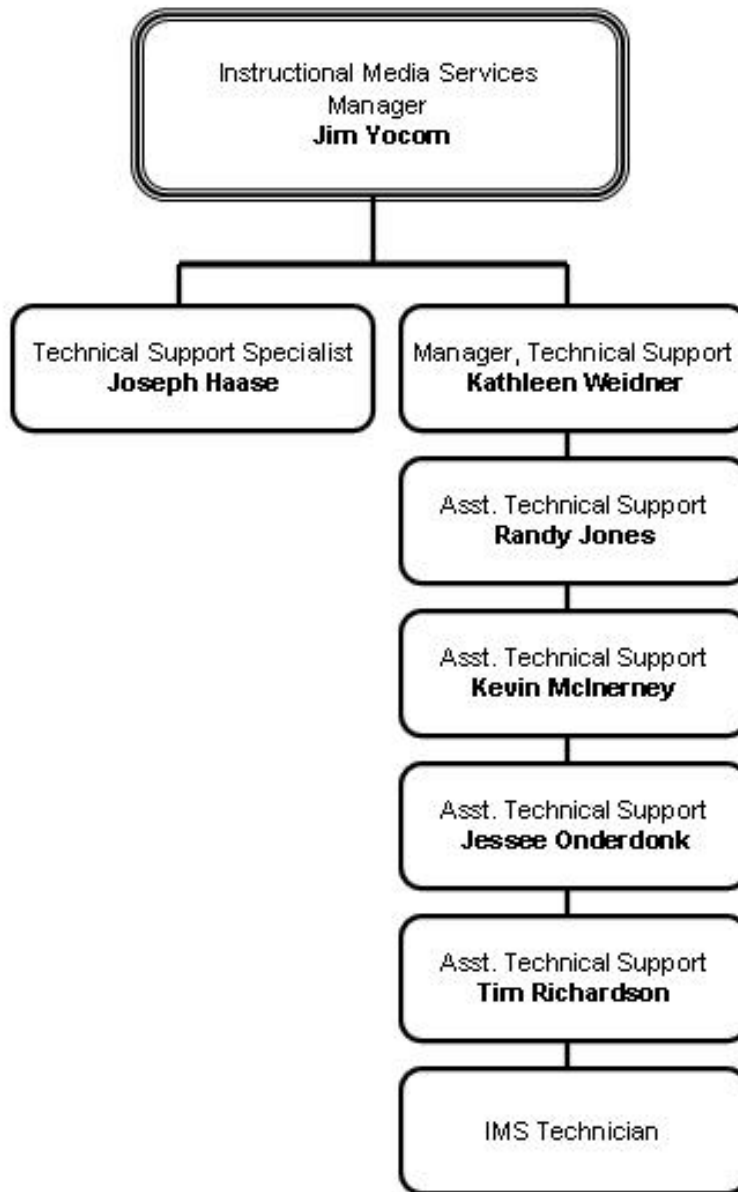
HARDWARE SERVICES ORGANIZATIONAL CHART



TELECOMMUNICATIONS SERVICES ORGANIZATIONAL CHART



INFORMATION TECHNOLOGIES (IT)
INSTRUCTIONAL MEDIA SERVICES
ORGANIZATIONAL CHART
Updated 11/11/2003



Information Technologies Parameters of Engagement

Campus Parameters of Engagement

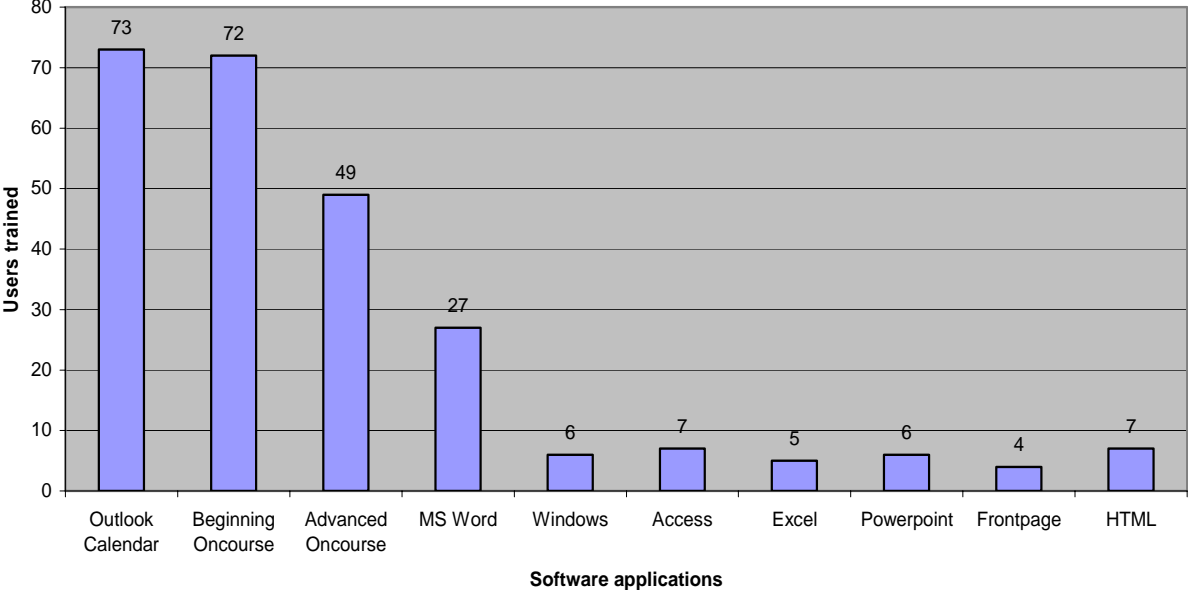
1. Communication
2. Teamwork
3. Integrity
4. Civility/Respect
5. Commitment

Parameters of Engagement for the IT Executive Staff

1. No public embarrassment
2. Critique items, not people
3. Work for benefit of IUSB/students
4. Communicate horizontally and vertically
5. Avoid territorialism, look at the big picture
6. Seek and share necessary information freely
7. Be honest with each other
8. Respect and help each other

Faculty and Staff Training Statistics

Application Training Activity July 2002 through June 2003



OnCourse Usage Reports

