

## **Information Technologies**

Annual Report | 7.1.06 – 6.30.07

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My introduction to our last annual report noted that it had been a relatively calm year for us in terms of new undertakings. As fate would have it, it was the calm before the storm. The 2006-07 academic year saw us attending to many projects including one of our largest ever – the new Elkhart Center! All of the units within the IT division were engaged in making our campus a more fulfilling place to work, a more technologically-enhanced knowledge discovery center and a more productive setting for learning and growth. The following report will present an overview of some of our accomplishments this past twelve months.

As always, we welcome not only your comments regarding our report but also your suggestions as to how IT may better serve you, our users.

*Pat C. Ames*

Pat C. Ames, PhD  
Vice Chancellor for Information Technologies



# Mission Statement

In full recognition of the student-centered orientation of the overall IU South Bend mission, Information Technologies (IT) is dedicated to facilitating the creation and dissemination of information through reliable, accessible and user-friendly technology, training and support.

## **We oversee the following functional areas (see organization chart):**

- User support
- Systems support
- Web services
- IT procurement and property
- Operations security

## **Our services include:**

- Maintaining and supporting general campus computing systems including academic and local administrative systems
- Installing and maintaining IU South Bend data and telecommunication networks
- Equipping and maintaining student computer labs
- Equipping and maintaining instructional technology in all general-use classrooms
- Providing training in computer use for students, faculty and staff
- Providing leadership in long-term planning, implementation and maintenance of information technology resources
- Serving as liaison with University Information Technology Services (UITS) for coordination of technology utilization and inter-campus networking
- Assisting with the acquisition of departmental computing technology to facilitate the education process
- Maintaining and operating the IU South Bend telephony plant including PBX switch, voice mail and installations

# Information Technologies: Parameters of Engagement

**In our dealings with all our users, IT will employ the following guiding principles:**

- Communicate effectively
- Work as a team
- Perform ethically
- Interact with civility and respect
- Follow through with commitments

**We will conduct ourselves in the following manner:**

- Do not publicly embarrass others
- Critique items or conditions, not people
- Work for the benefit of the IU South Bend community
- Communicate horizontally and vertically
- Avoid territorialism – look at the big picture
- Seek and share important information freely
- Be honest
- Be respectful and courteous
- Be helpful

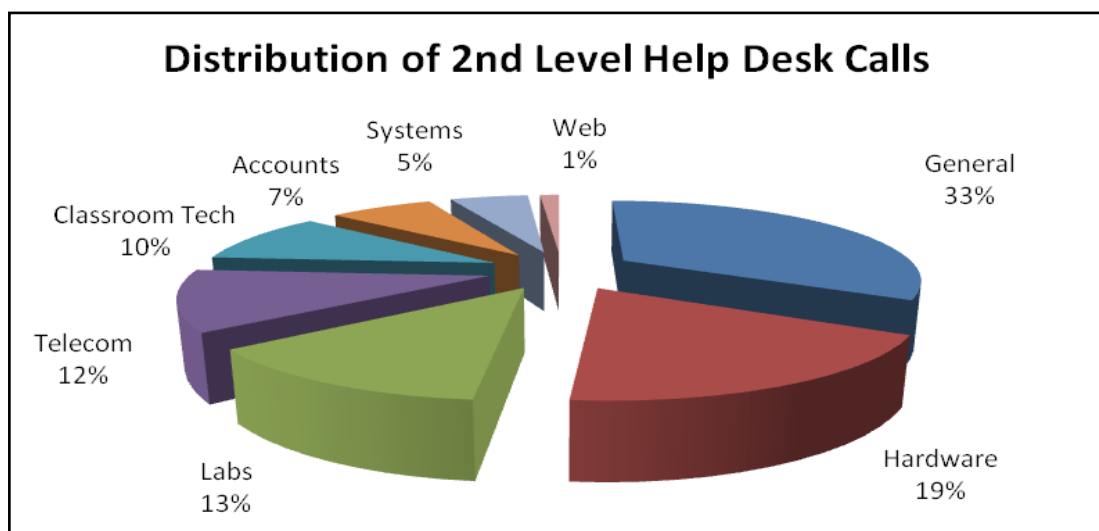
# User Support

User support is responsible for the following functional areas:

- Help desk – provides first line technical support to campus computer users
- Classroom technology – provides instructional technology and related support to the faculty and students in the general-use classrooms
- Operations and database computing – houses/maintains most of the IU South Bend-specific databases and coordinates other centralized services
- Student computing – equips, maintains and monitors instructional computing labs, open labs and express workstations
- Communications – coordinates communications within IT and between IT and the other campus divisions

## HELP DESK

During the 2006-07 academic year, the help desk received 7,268 calls. Of those, 3,630 were resolved immediately and 3,638 were referred to 2<sup>nd</sup> level support. The pie chart below shows the distribution of the 2<sup>nd</sup> level calls by service area.



Calls to the helpdesk were down about 30% this year from last. We attribute this to our efforts to educate our users earlier in the IT processes as well as our increased focus on assuring pre-deployment machine stability. System-based spam filters have also reduced the number of calls related to junk mail.

Last year we joined Dell's "Tier II" support whereby we are paid for repair work done by our help desk consultants who have qualified as Certified Dell Warranty Replacement Technicians. This past year, we were able to bill Dell over \$9,000 in repair costs.

With the release of Microsoft's newest operating system, Vista, in January of 2007, all of our help-desk staff consultants were actively involved in beta-testing and trouble-shooting the product as well as



*Helpdesk; Mike, Andy W., Andy E., Bev, Brian and George*



*Classroom Tech Support; Kathleen, Kyle, Bev and Jessie*

helping early adopters with installation and instruction. While Vista won't be rolled out to the campus at large until later in 2008, new versions of Internet Explorer and Office were placed on desktops as machines were refreshed.

In response to user comments from our last satisfaction survey, we implemented some new procedures. First, we stocked up on "hot spares" or machines that can be quickly placed in an office when the user's computer has to be removed for repair. Second, the helpdesk, with the assistance of our database folks, developed new procedures to communicate more clearly with users who are scheduled for computer replacement during refresh cycles. Finally, we increased the amount of training for help desk consultants both in the support of Macs and in the use of the ghosting software employed in the creation of the image (or build) applied to the computer before it is placed in an office or lab.

During this past year, the help desk installed 155 new computers in faculty or staff offices. Another 140 older computers were reconfigured and prepped for resale.

## **CLASSROOM TECHNOLOGY SUPPORT**

One of the major projects for CTS this year was to prep for the installation of equipment in the classrooms of the new Elkhart Center Building. The CTS staff worked very closely with the furniture manufacturer and the audio/visual consultant in the design of a new tech desk and new installation procedures. Along with this, three of the oldest tech installations on the South Bend campus were upgraded with new furniture and equipment. These three rooms provided quite a challenge as a result of room construction and configuration and were the last classrooms needing upgrades.

Other noteworthy accomplishments in CTS were the integration of SMARTboard technology into a classroom in Greenlawn (in cooperation with the School of Education and Instructional Media Services), the upgrading of the audio system in DW 1001, installation of improved security devices in the tech desks and the phase-out of the old transparency overhead projectors in favor of document cameras.

## **OPERATIONS AND DATABASE COMPUTING**

The major project for this group was preparation for the conversion of the Access databases to MS SQL Server. The programmers attended training and successfully converted the dental clinic's database (the first of many needing conversion). Along with the conversion, the clinic's database was enhanced to allow dental students to access their schedules and patient lists via the Web.



*Operations and Database Computing; (front) Craig, (rear) Bev and Dorothea*



*Part-time staff; (front) Sue and Marcia, (rear) Chuck, Jared, Frank, Drew. Missing from photo – Kevin M.*



*Student Computing; (front) Phil S., (rear) Bev and Rebecca*

In addition to the conversion project, operations/database staff were kept very busy with modifications to a variety of databases to provide Vista and Office 2007 compatibility, creation of a user-tracking card-swipe utility for the help desk area and the design and implementation of a comprehensive record-keeping database for Parking Services.

## **STUDENT COMPUTING**

Student Computing planned for the installation of a large computing lab, a lounge mini-lab, and nine Net Express stations in the new Elkhart Center (furniture and equipment) as well as facilitating the replacement of 153 computers in Northside, Greenlawn and Library labs.

Other projects for Student Computing during the 06-07 year were: 1) planning for the technology in the new Information Commons in the Library; 2) enhancing the configuration of Macs in student labs to allow for more regular and timely system upgrades; 3) providing training to student consultants from Affirmative Action and Security staff members; and, 4) installation of computers and a printer in the Honors Lounge.

## **IT COMMUNICATIONS**

In order to keep the campus better informed of not only IT's activities but also technology happenings in general, we increased the number of issues of our newsletter from two to three per year. Among the subjects covered this past year were protecting your computer against malware, dangers on the Internet, avoiding identity theft and intellectual property rights.

Because we have such a large student staff, a new internal newsletter entitled "Consultants' (Almost) Weekly" was begun to keep the student consultants abreast of IT goings-on. We also made the consultant handbook available online.

In addition to the above, the IT Communications group was also involved in: organizing training for the new Microsoft productivity suite, Office 2007; assisting users with the calendar-related issues resulting from the change to daylight savings time; and, conducting information sessions for New Student Orientation, Student Welcome Day, new employee orientation and Making IT Happen.

# Systems Support

Systems Support is comprised of three units: Telecommunications, Data Networking and Systems Administration. It was a busy year for all of them.

## TELECOMMUNICATIONS

One of the major projects of the telecom group was prepping for the work in the new Elkhart Center. The entire voice and data infrastructure was to be installed by our own staff rather than being outsourced by the project's general contractor. We expected this would provide an excellent opportunity for our telecom staff to participate in a new building from the ground up.

Other telecom projects: development of a voice mail system patch for daylight savings time; addition of a 100-pair copper cable run from the Associates Building to the Administration building in anticipation of the use of Associates as renovation surge space; preparations for and installation of emergency phones across the pedestrian bridge; enhancements to the phone system for bad weather and campus closing messages; and, retirement of the obsolete campus dial-up service.



*Telecom and Data Networking;  
Dan S., Phil M. and Kevin A.*

## DATA NETWORKING

Along with the telecom group, data networking staff were heavily involved in preparations for the Elkhart Center. New switches, a router and wireless access points had to be evaluated, procured and prepped for installation.

In addition to the Elkhart work, the data networking group: handled the campus hook-up to the statewide I-Light fiber-optic cable network; installed a new main campus router; completed the installation of core network and distribution level switches; upgraded phone and data networking cables in most of Northside West; reconfigured networking for the Bookstore to facilitate the transfer of the operations to Barnes and Noble; consulted with the IU architects on networking-related items for the new student housing complex; installation of a new backup generator

for the machine and phone rooms in Northside; redesigned the Library network and installed new switches; reconfigured and/or created new network zones to handle internal traffic more efficiently; and, moved servers containing user data to more secure IU-only address space.

## SYSTEMS ADMINISTRATION

This past year, one of the high-profile projects for the systems group was the new electronic bulletin board. In the Fall of 2006, the antiquated list-serv e-mail digests were replaced with a web-based bulletin board. The bulletin board was programmed in-house using open source PHP. To make sure that only authorized users view postings, the server was given an IU-only address. The campus community can still connect from off-site via a proxy server.

Other systems projects this past year included installation of a new ticketing system for the School of the Arts, design and implementation of two new telecom servers for billing and queue reporting (saving the campus \$3,000 per year in software licensing costs), increased support and consulting for Mac and Linux users on campus and extensive behind-the-scenes work on unanticipated new-equipment failures.



*Systems Administration; Jake, Dan F., Phil M. and Jeff*



*Web Services; Dan O. and Gary*



*Security and Property; Bruce*

## **Web Services**

With the reacquisition of the site hosting completed during the previous academic year, the Web Services group turned its attention to the site itself. The web template currently in place (developed by downstate in 2003) is difficult for non-webmasters to use which results, too often, in many of the site's pages not being updated in a timely manner. IT and IU South Bend's Office of Marketing and Communications worked together this past year to develop a new look and feel for our web site as well as easier-to-use templates. We hope to have the entire site converted to the new templates before the end of the Spring 2008 semester.

Besides working on the site revision/upgrade, Web Services tackled a number of other projects this year: 1) development of ColdFusion web forms for the Falcon help desk application; 2) development of custom web forms for Student Services, Graduate Studies, the Higher Learning Commission self-study group, and UCET; 3) creation of a custom Web interface to allow dental students to interact with the dental database; 4) developed security enhancements and performed look-up maintenance on the DNS tables; 5) participated in an IU-wide search for content management software, and 6) coded the website for the IU South Bend Bulletin (catalog).

## **Operations Security/ IT Property and Procurement**

One of the highest priorities for most IT support organizations is network security. IU South Bend is no exception. To that end, Operations Security undertook and/or completed the following: 1) developed a Memorandum of Understand (MOU) with the School of the Arts for non-IT equipment placed on the campus network; 2) worked with downstate regarding a security breach and exposure of sensitive information on a departmental web page; 3) handled 30+ RIAA and MPAA infringement notices; 4) dealt with a number of computer virus/malware incidents; and 5) developed and implemented a web-based Policy Violation Management System to track violations of IT security policies.

In the property and procurement area, approximately \$30,000 was recovered via bookstore sales of off life-cycle equipment, an audit of the property database was completed and enhancements were made to the wireless coverage in Northside and Greenlawn.



*Administration; June and Pat*

## Miscellaneous

While all of the accomplishments noted in the previous pages are attributed primarily to one group or another, it must be said that we work together as a team in meeting not only all of the challenges we face but also in the accomplishment of our goals. I believe this emphasis on teamwork and our customer-service orientation contributes greatly to the perception of improved effectiveness of IT services.

As detailed the chart below (courtesy of Dr. Rebecca Torstrick) and based on responses to the semi-annual IT satisfaction survey, our users report increasing satisfaction with the technological environment and services we provide to faculty, staff and students.

SURVEY QUESTION	SURVEY YEAR				
	2001	2002	2003	2005	2007
How helpful has the information technology environment been in your teaching activities?	3.72 ±.19	3.90 ±.17	3.92 ±.18	3.97 ±.17	4.18 ±.17
How helpful has the information technology environment been in your learning experience?	3.79 ±.11	3.82 ±.11	3.98 ±.12	4.05 ±.12	4.17 ±.12
How helpful has the information technology environment been in your research activities?	3.81 ±.10	3.91 ±.09	3.92 ±.09	3.96 ±.10	4.14 ±.10
Overall, how satisfied are you with the information technology services offered during the past year?	3.73 ±.07	3.81 ±.07	3.84 ±.07	3.93 ±.07	4.04 ±.07

I wish to publicly express my appreciation to the outstanding team of dedicated individuals – pro-staff, bi-weekly, part-time and student workers – who have chosen to work for IU South Bend’s IT division. We make a great team! Thank you!

# Credits

## WRITING

- Bev Church
- Phil Mikulak
- Gary Browning
- Bruce Bryner
- Pat Ames

## PHOTOGRAPHS

- Kathy Borlik
- Lucas Eggers (cover photo)