

College of Pharmacy Information Technology Vision Plan 2002-2003

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College of Pharmacy
Information Technology Vision Plan
2002-2003

Introduction

The College of Pharmacy, like most colleges and schools, devotes the bulk of its ITAC funding to maintaining an IT infrastructure that not only satisfies the needs of its faculty, staff, and students, but also encourages continued growth and reliance upon this infrastructure. However, in addition to typical IT demands, the College must also support an infrastructure that enables the continued utilization of two-way and multipoint videoconferencing in its distance education programs in San Antonio, El Paso, and, beginning Fall '02, UT Pan American in Edinburg.

The ITAC fee is used each year to accomplish life-cycle replacement of laboratory computers. This year, ITAC funds will be used to establish wireless ethernet in the Pharmacy building and to upgrade legacy network equipment with a goal of having each ethernet client on a switch, rather than hub, and selected clients with capable computers on gigabit service. ITAC funds in past years have provided 100baseT connections for all student lab computers; this year, with the help of remodeling funds provided for a floor-wide renovation, we intend to essentially clean our racks of 10baseT hubs.

With regard to our videoconferencing infrastructure, we will leverage Telecommunication Infrastructure Funds (TIF) to bring our secondary video classroom up to a higher standard, and establish a third videoconferencing space. The uses of TIF funds are very strictly proscribed and without ITAC funds to bridge the gaps in the TIF funding it would be extremely difficult to make the best use of the TIF funds.

Finally, ITAC funds are being used, and will continue to be used, in an effort to bring digital video distribution to our student client base. We have begun migrating students away from VHS tape distribution in our audiovisual library. In the following year we will establish video data caches in our remote sites; create an ongoing streaming video service to archive MPEG 1 video files; and participate in a joint effort with the Colleges of Communications and Liberal Arts to provide long-term archiving of digitized video at the Texas Center for Advanced Computing.

Current Status

The College of Pharmacy operates a full-time computer lab, a computer classroom (available until 3:00 as a General Purpose Classroom), and an audiovisual library that houses computers used for streaming video and general use as well as VCRs and DVD players:

<u>Room</u>	<u>OS</u>	<u>No. of Stations</u>
PHR 3.116	Win 98*	19
PHR 2.116	Win 98*	23
PHR 3.208	Mac 9.2**	8

*expected to migrate to Windows XP when Labman compatibility has been tested

**expected to migrate to Mac OS X when Labman compatibility has been tested

A third of the PCs are replaced each year. At the time of this writing the standard complement of software included the Microsoft Office suite, web browsers (including specialized plug-ins for media types requested by faculty), A.D.A.M. software for studying anatomy, and a few other helpful utilities such as QuickTime. We have purchased software for a Sassafra key server and licenses for Adobe Photoshop and Acrobat Distiller in an effort to begin to make more specialized software available to students and faculty. Photoshop and Distiller were chosen as the initial purchases because students and faculty periodically need them to prepare publications. The Sassafra server will generate excellent statistics that will be used to measure the use of this software.

Technology Auditoriums and Classrooms

The College of Pharmacy had one of the first Technology Classrooms on the UT Austin Campus. This room, PHR 3.106, is in need of updating, both its hardware (for example, upgrading from NTSC video overhead camera and slide scanner to units with VGA output and much higher resolution) and software (improvement of user interface and operator control capabilities). Note that it serves as a teaching auditorium and as our major multi-point video classroom.

A second room, PHR 4.114, has in the past year received its own codec for videoconferencing. This room's complement of equipment has also been upgraded with the addition of an installed projector and high-quality scaling projector interface. This room's furnishings are beginning to show their age, however. A summer-time remodel with new acoustic treatments in the ceiling, new carpet, and better lighting are planned with ITAC funds. The TIF grant in which Pharmacy participated will probably fund a new set of video cameras.

A third room, PHR 2.208, is currently used as a conference room and occasional classroom space. The older PolyCom codec from 4.114 and Sony cameras are planned to move to this room to establish a third videoconferencing facility. This will complete the College's complement of video facilities: One auditorium-style large room, one auditorium-style medium room, and a compact boardroom-style facility.

Other rooms have received and will continue to receive audiovisual upgrades in an effort to increase utilization while decreasing demands on staff time. The College committed to placing three Natural Sciences-standard (NS standard) installations in three General Purpose Classrooms. These rooms are expected to come online during Summer '02. Two pilot consoles are also planned for installation during the Summer, a less-expensive design than NS standard but with similar functionality. These are designated in the table below as PHR standard.

Classroom Inventory :

<u>Room Number</u>	<u>Capacity</u>	<u>Installed Equipment effective Fall '02</u>	<u>Gen'l Purpose</u>
2.108	127	NS standard	Yes
2.110	133	NS standard	Yes
2.114	60	NS standard	Yes
2.116	45	Data Projector	~75%
2.208	20	PHR standard*	No
2.214	23	None (expected to be repurposed)	Yes (temp.)
3.106	136	Full tech. classroom, not NS standard*	No
3.112	16	None (expected to be repurposed)	No
3.114A	10	None (small seminar room)	No
3.114BA	10	None (small seminar room)	No
3.114D	10	None (small seminar room)	No
(Note that these three rooms are scheduled for remodeling Summer '02. Installation of equipment will depend upon funds availability from project.)			
4.114	52	PHR standard*	No

*equipped for two-way videoconference

Networking and Associated Electronics

The College of Pharmacy provides ethernet service to the usual complement of student labs, classrooms, and administrative personnel. These are very stable work environments where hard-wired connections are quite adequate. However, this is not the case with our laboratory spaces. In research laboratories, equipment is often moved, and the personnel move about the labs from their desks to various equipment. In an effort to make lab configuration as dynamic as possible (and to minimize safety hazards from long ethernet extensions), and to offer to students in public areas the capability of mobile computing, the College expects to install a wireless network capable of reaching both its buildings. Some College funds will be used in conjunction with ITAC funds.

The College has used ITAC funds consistently over the past several years to migrate all student ports to a 100baseT standard, and life-cycle replacement of desktop computers has married computers able to communicate at 100 Mbps to these connections. There do remain, however, some 10baseT hubs. These most often are used for devices, such as printers, and do not represent an impediment to their peak functionality. However, these circuits will also be migrated to 100baseT circuits albeit at a low priority.

Total number of Ethernet ports maintained by the College: -----674
 Number of static and dynamic IP addresses -----500

Number of 100baseT switched ports -----229
 Number of 10baseT switched ports -----16
 Number of 10baseT hubbed ports -----419
 -Number of 10baseT hubbed ports used for printers -----33
 -Number of 10baseT hubbed ports used for Technology Classroom
 student stations, lightly used -----140
 Number of 10baseT ports targeted for upgrade to 100baseT* -----262

*this number is derived from the total number of 10baseT ports less printer-occupied ports and less 140 dynamically addressed ports used in Technology Classroom

Departmental Servers

The College operates three servers for administrative uses:

1. Now-Up-To-Date. Legacy scheduling program running on an old Mac; used only within the Dean's office.
2. FileMaker Pro Instant Publishing. Mac G3, OS X
3. FileMaker Pro Dedicated (i.e., non-instant) Publishing, Mac G3, OS X

In addition, a video server is used to publish streaming video to our audiovisual library and feed the video caches intended for our San Antonio and El Paso sites:

1. QuickTime/MPEG1. Mac G4 Streaming Server, OS X

Portable Projectors and Notebook Computers

Although the College's long-term plan calls for the installation of installed projectors and computers, along with ancillary equipment such as VCRs, we still maintain a complement of portable equipment for checkout by faculty and use in classroom spaces not yet equipped with installed equipment.

Note that three General Purpose Classrooms will be upgraded to the "Natural Sciences" Technology Classroom standard this summer. A separate ITAC request coordinated by Liberal Arts is being submitted to help fund this project.

Specific ITAC Funding Requests

1. Introduce wireless ethernet to old and new Pharmacy buildings-----\$20,000

This project will be funded by a combination of ITAC funds and remodeling funds as part of the complete renovation of the old Pharmacy building and the remodeling of the new Pharmacy building third floor. Because this project will be coordinated with two construction schedules, the timeline is fluid.

2. Migrate nearly all ethernet to 100baseT switches minimum -----\$60,000

In essence this project aims to clear our mechanical closets of old 10baseT hubs and switches. Note that production personnel with gigabit-capable Macs, particularly those that feed the large files to the Streaming Server, will be migrated to gigabit ports. More information about this project may be found above in “Networking and Associated Electronics.”

3. Establish video cache at UT Pan Am-----\$20,000

TIF funds provided a Network Appliance cacheing server for our El Paso and San Antonio sites. This purchase will complete the installation to each of our remote sites.

4. Participate in campus-wide streaming video initiative -----\$10,000

The College of Pharmacy will join Liberal Arts and Communications in establishing a centralized architecture for video streaming and archiving. This funding will help defray costs of tape media and anticipated hardware upgrades at ITS Operations and the Texas Advanced Computing Center.

5. Establish third videoconferencing space -----\$30,000

Although the bulk of the hardware is pre-existing, installing and integrating the equipment for this boardroom-style space will make it user-friendly.

6. Install instructional technology in remaining classroom spaces -----\$20,000

This item funds creation of two Technology Classrooms with less-costly equipment and user interface according to our own design.

7. Continue life-cycle replacement of lab PCs -----\$20,000

As long as upgrades accomplish appreciable gains in computing power we will continue three-year life-cycle upgrades.

Total requested -----\$180,000

Appendix: Staffing

A breakdown of College of Pharmacy staff who directly support IT at the College:

Senior Systems Analysts, 1 1/2 FTE-----	College student fees
Senior Systems Analyst, 2/3 FTE-----	Administrative funds
Systems Analyst, 1 FTE-----	Administrative funds

Note that other staff within the College provide support for IT functions but not as a first priority. These include an FTE for audiovisual services, an FTE for video services, the LRC Manager, and an FTE who provides administrative support to all.