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As I sit down to think about our year's accomplishments, I want to be sure to express appreciation to the IT staff all over Cornell who make the basic infrastructure services so reliable that we almost take them for granted. Often, these staff receive attention only when something breaks, and I'd like to take the opportunity to make up for that a bit here.

That rock-solid infrastructure doesn’t “just happen.” Hundreds of people all across the university focus intensely on making the underlying communications and computing infrastructure work—day in and day out—and they spend many weekend and evening hours on-call and actually at work to that end. So this year I thank them especially. I hope everyone reading this report will realize that underneath every project and accomplishment highlighted are the cables and computers they hardly see and the dedicated IT folks who make those parts of it all work.

Major accomplishments

When I wrote this message last year, I predicted 10 areas of priority for this year: IT security, Workforce Planning, National LambdaRail, PeopleSoft, Employee Leadership Program, online music, project management, distributed learning, Cornell web presence, and e-mail. As you will read in the report, we’ve made major progress in all of these areas.

The highlights:

1. **IT security began shifting from reactive to proactive mode.** We said IT security would be big, but I’m not sure any of us realized how big it would be. We have engaged technical professionals and executive leadership across the university. Faculty, staff, and students have greater understanding of their responsibilities for system security, from the moment they plug their computer’s cable into our networks. Our new and very effective quarantine and scanning capability for new computers being brought onto the Cornell network has saved countless hours of remediation.

2. **The IT Managers Council laid a foundation of trust and collaboration.** In its first year of operation the council has truly begun to bridge the gaps between the many individual IT units across campus. We are beginning to develop a more common purpose, shared ownership, and better appreciation for each other’s contributions.

3. **We focused our PeopleSoft efforts on planning.** We completely re-worked our approach to the student systems implementation and also planned a major upgrade to PeopleSoft 8.9. Both will consume our efforts during 2005-06, and put us in a good place to respond to whichever direction Oracle takes recently acquired PeopleSoft. We also developed a five-year plan for systems enhancements and replacements and made major progress in redesigning our governance and priority-setting processes.

4. **We reinstituted IT technical training.** We once again are offering both office-productivity and professional IT training. Identifying the technical training needs of the university was a joint project of the IT Managers Council and CIT Training.

5. **Standardized project management became part of how we work.** Great progress in adopting the Cornell Project Management Methodology was achieved, both across the university and certainly within CIT. All major projects and many smaller ones at CIT are now using this common-sense approach. Just considering major systems projects, we have seen much better communication and meeting of milestones as a result. The methodology has been used, for example, for the huge EzraNet program and for our internal CIT billing project.

6. **Several big projects were successfully completed.** For example, we delivered a complete reimplementation of the cornell.edu web presence and implemented a new spam filter that has saved us all from millions of unwanted e-mail messages. In addition, we began a process to accommodate those who desire a more “user-friendly” e-mail address.

7. **We took values-based leadership and staff development to heart.** Over half of our staff have attended our week-long Employee Leadership Program. Reviews are generally very positive, with most people expressing impatience that all of their colleagues have not yet attended. Other important changes have also contributed to producing significant improvements in staff satisfaction, as measured by our annual “quality of work life” survey. And no doubt related to that is the improvement in our Customer Satisfaction Survey results. Happier people do a better job, and our users and customers notice and appreciate that.

**Polley Ann McClure has served as Cornell’s vice president for information technologies since May 1999. Her professional experience spans two distinct careers: a traditional academic faculty career in ecology and evolutionary biology, and an IT career begun in the early 1980s, with leadership roles at Indiana University, the University of Virginia, and Cornell.**
Priorities for next year

Taking out my crystal ball, which is always dangerous in the fast-moving world of IT, I see the following big clusters of priority work in the year ahead:

1. **IT security and policy**: We will continue to develop and deploy appropriate privacy and security policies and proactive security management tools, such as the network quarantine, that protect our resources in a cost-effective way. And, of course, we will continue to be aggressive in educating the campus community about security and intellectual property issues.

But the largest new focus I can see centers on extending our security focus to the realm of data protection. We should be advancing policies, standards, and new institutional practices to help us better protect our valuable data resources.

2. **Administrative systems**: The PeopleSoft 8.9 upgrade is a “must succeed” project that must be accomplished as quickly as possible because the PeopleSoft Student Administration project is queued up right behind it.

The student project will be implemented using a new strategy that coordinates implementation across areas of student administration based on the business cycle, rather than module by module. This promises to be quicker overall and less expensive.

First steps toward implementation of a new financial system will be completed. And we will be implementing a new, more-inclusive governance process for setting administrative computing priorities.

3. **IT collaboration**: Weaving a coherent tapestry of IT at Cornell based on the diverse needs and capabilities of distributed and central IT remains a major challenge. Based on our first year, I have great hopes that the IT Managers Council and its various activities will continue their good progress on this front.

4. **Networking**: Cornell’s fiber connection between Ithaca and New York City will be lit, and National LambdaRail will become a reality with its promise for enabling entirely new functionality, especially for research.

Wireless connectivity will continue to expand, and EzraNet will continue its steady renovation of internal building communication infrastructure.

Dedication

This year, I dedicate this report to all IT staff on campus. More of the progress in this report than ever before has been achieved through collaboration and partnership among the diverse units in CIT and in IT units throughout Cornell. Our combined challenges are great, but the resources we bring to them together are huge.
As a new group charting new territory, the ITMC has spent part of its first year discussing how to function most effectively. Communication and understanding within and among the units have already improved as have the connections and trust felt within the ITMC.

Other first-year accomplishments include identifying Cornell IT professional training needs and delivering on-campus technical training; identifying and publishing “best practices” for desktop support; recommending improvements for the software licensing process; and discussing how CIT can improve how it communicates with IT staff.

Guarding the university’s data

www.cit.cornell.edu/security

Our top priority in security this year was institutional data: What data do we need to worry about? Where does it come from? Where does it go? Who accesses it and how?

Legislation regarding the university’s obligations to protect certain types of data, as well as several incidents of data loss at other institutions, were our primary driving forces. A new component of our standard response when a departmental system has been compromised is to determine whether any institutional data may have been put at risk.

A key strategy this year was improving security at the desktop level, typically the weakest link among higher-education institutions. We are urging everyone in the community to run a client firewall, at least the one provided with their operating system, or for people running Microsoft Windows, the stronger firewall provided as part of the site-licensed Symantec Client Security suite.

We also took a tough stand on spyware, drawing national attention from Oct. 2004 through May 2005 as we took measures to prevent Marketscore from gathering web traffic details (including SSL-encrypted traffic) from campus computers. Our technical analysis of Marketscore benefited other higher-education institutions, and our technical maneuvering safeguarded the data of Cornell faculty, staff, and students while we helped the community understand the real risks of spyware.

As part of that effort, we evaluated anti-spyware solutions and began supporting two no-cost packages for all Windows users. For departments that want a managed solution, we coordinated a group purchase of Webroot’s Spy Sweeper. In June 2005, a new version of Symantec AntiVirus that also detects and removes spyware was released to campus.
Responding rapidly to threats
www.cit.cornell.edu/security

Systems on our campus network remain under continuous attack from the Internet. Two trends this past year were the rise of the so-called “zombie PCs,” where systems are hacked and then remotely controlled to distribute illicit material or mail out spam, and “rootkits,” which make intrusions very difficult to detect without the use of specialized tools.

As anyone in IT security knows, the question is not whether a security breach is going to happen, but when. Great care is taken to minimize the frequency and severity of breaches, but beyond that, the next best defense is to be ready with a rapid response.

We have taken several steps to make our response even faster:

• The mail servers now block threats quickly.
• Very specific support is provided to departments under siege.
• Even better coordination among local units, the Network Operations Center, and the Contact Center has narrowed the gap between detecting a problem and acting on it.
• A locally developed technique for analyzing traffic on our “dark nets” is proving valuable for spotting emerging threats. (These isolated networks offer no valid services or hosts, so any traffic on them is potential trouble.)

• Helix, a Linux tool for security incident response, has been enhanced specifically for the Cornell environment and made available through Cornell’s Security Special Interest Group.

Thwarting would-be password thieves
www.cit.cornell.edu/services/identity/password.html

In Apr. 2005, we began a campaign to make Cornell passwords much harder to crack. Passwords control access to highly confidential data, some of which requires protection mandated by federal legislation. Although Cornell has had minimum password guidelines for years, they weren’t stringent enough to stand up to commonly available password-guessing tools. In consultation with campus stakeholders and an advisory group, we devised new standards that could.

So faculty, staff, and students who are setting their password, whether it’s their first time or fiftieth, must now take the Cornell password challenge... create a password you can remember that is at least 8 characters long, includes at least three of four character types (uppercase letters, lowercase letters, numbers, and symbols found on the keyboard), isn’t in any dictionary, and doesn’t repeat characters or sequences.

Each time a new password is created this way, the owner can take pride not only in his or her creativity but also in being a vital part of the armor that protects the university’s electronic resources.

Providing more access to campus visitors
identity.cit.cornell.edu/gids/

Every year, thousands of people visit the university. Inevitably, some will want to use Cornell resources that require a NetID. However, the process for issuing NetIDs is strict, and typically only students, faculty, staff, and other groups closely aligned with Cornell’s mission qualify. A different approach for granting temporary access was needed.

Enter the GuestID project, launched as a pilot in June 2005 with the university’s Blackboard course web site system. It used to be that faculty and students had to maintain separate Blackboard accounts, since that was the only way to also give access to “guests,” such as distance learning students, faculty colleagues, and Cornell Cooperative Extension class participants. Now, Cornellians can log in with their Cornell NetIDs, and guests can request university GuestIDs. Authentication for both is handled by Kerberos.

In the future, CIT will be designing and building the components necessary to allow additional services to use GuestIDs.
Hosting computing lab professionals
labmanconference.org

In June 2005, we hosted the two-day national Lab Management Conference. Over 170 professionals from 90 institutions and 14 vendors came together to discuss the challenges of managing computing labs in the educational environment.

Protecting people, data, and IT resources through policy
www.cit.cornell.edu/oit/PolicyOffice.html

Preserving the integrity of the university’s IT resources and data while respecting the people who use them—that’s our vision for how to craft IT policies. Our approach joins security and privacy policy principles in service to the overall mission of the university as the means of protecting and preserving institutional assets. This year, we established one new policy and began work on three:

- Policy 5.5, Stewardship and Custodianship of Electronic Mail: circumstances in which the contents of electronic mail transmitted and stored on the university’s network can be disclosed to third parties; established Feb. 2005
- Policy 5.1, revision of Responsible Use of Electronic Communications: what constitutes appropriate management of content on a network device; this revised policy marries security obligations of Policy 5.2.1, Security of Information Technology Resources, to the obligations users have to manage the data on their computer
- Policy 5.x, Privacy of the Network: university’s position on monitoring, posting, or removing content material from its networks and computers, as well as the rules for disclosure of IT data under the purview of the authority of the vice president for information technologies as a data steward
- Policy 5.x, Authentication of Information Technology Resources: who can have a Cornell NetID, what constitutes an acceptable NetID password, password complexity rules, and authentication standards for four classes of data

Upgrading wiring across the campus
www.cit.cornell.edu/ezranet

EzraNet, the university’s $57-million initiative to upgrade data wiring and the distribution infrastructure in approximately 60 buildings on campus, continued to meet with success.

This year, we completed Upson and Grumman Halls (five telecommunications rooms and over 1,500 faceplates) and Biotechnology Building (two telecommunications rooms and over 1,450 faceplates). We have also done design work for A. D. White House, Olin Hall, Clark Hall, Comstock Hall, Rhodes Hall, and Willard Straight Hall. In fall 2005, we will begin construction in Olin and Comstock Halls. Soon after, planning for the Vet Medical Center and the Bard, Kimball, and Thurston Halls complex will begin.

Tuning our customer service approach

In 2004, we interviewed key constituencies and surveyed students and network administrators to help determine what the community expects from customer service for technical services. The results are being used to develop a strategic road map that will detail improvements to make over the next 2 to 3 years.

The top four most-desired attributes:
- Effective communication
- Performance of customer service
- Positive relationship with the customer
- Improved process for billing

University Computer Policy and Law Program
www.cit.cornell.edu/oit/UCPL.html

The University Computer Policy and Law Program (UCPL) promotes IT ethics education and encourages campus community discussion and debate on these topics by sponsoring speakers for both small workshops and university lectures.

- Oct. 2004: “The Digital Media Crisis” and “The Problem with the Law in Cyberspace,” with John Palfrey, Berkman Center for Internet and Society at Harvard Law School
- Nov. 2004: “Should ISPs Have to Police the Internet?” and “Wired-Tapping the Internet: It’s Not Whether, but HOW and HOW MUCH,” with Lara Flint, staff counsel, Center for Democracy and Technology
- Mar. 2005: “Implementation and Education of the New University E-Mail Policy,” with Pat McClary, University Counsel’s Office; Lauren Jacoby, Office of Human Resources Labor Relations; Marguerite Spencer, University Policy Office; and Tracy Mitrano, OIT
- Apr. 2005: “The Download Debate Strikes Back: The Politics of Digital Copyright, Part 2,” with Kent Hubbell, dean of students, moderating a panel including Alec French, senior counsel for government relations; NBC/Universal; Cary Sherman, president, Recording Industry Association of America; Avery Kotler, senior director of business and legal affairs, Napster; Fred von Lohmann, senior staff attorney, Electronic Frontier Foundation; Siva Vaidhyanathan, professor of communications, New York University; and Fritz Attaway, executive vice president and general counsel, Motion Picture Association of America
- June 2005: “Solve the Mystery of the Accessible Web,” with Deborah Buck, executive director, Association of Assistive Technology Act Programs; and Sharon Treise, coordinator, Accessible IT for Northeast Americans with Disabilities Act and IT Center

Shannon Osburn (left), Scott Burroughs, Michelle Reynolds, Sasja Huilts, Tom Theimer, and Joe Blasz gather at the completion of an EzraNet project that upgraded the data wiring in Upson and Grumman Halls.
What Cornell’s IT Dollar Buys: $51.6 Million Actual Expenses (Fiscal Year 2005)

- Campus IT Infrastructure (35%)
- Administrative Computing (25%)
- General Campus Computing (19%)
- Teaching and Learning (13%)
- Leadership and Campus Outreach (8%)

Institute for Computer Policy and Law
www.educause.edu/icpl

The EDUCAUSE/Cornell Institute for Computer Policy and Law provides leadership to colleges and universities in developing technology policies. Every summer since 1996, Cornell has hosted an intensive four-day seminar that brings nationally recognized technologists and legal experts in higher education together with participants to discuss perennial and emerging issues. This year’s topics ranged from online privacy risk assessment to the politics of digital copyright.

Pat McClary (left), associate university counsel, and Marguerite Spencer, director of the University Policy Office, discuss Cornell’s new policy on e-mail stewardship and custodianship at a Mar. 2005 University Computer Policy and Law event.
Professional affiliations

ACM (Association for Computing Machinery)
ACUTA (Association for Communications Technology Professionals in Higher Education)
ASTD (American Society for Training and Development)
Berkman Center for Internet and Society at Harvard Law School
BICSI (telecommunications)
CCUMC (Consortium of College and University Media Centers)
CNYCA (Central New York Communications Association)
CSG (Common Solutions Group)
E-Authentication
EDUCAUSE
EDUCAUSE/Cornell Institute for Computer Policy and Law
EDUCAUSE NLII (National Learning Infrastructure Initiative)
ICIA (International Communications Industries Association)
InCommon Federation
International Association of Privacy Professionals (IAPP)
Internet2
Internet2 (Big Video Group)
Ivy-Plus
JA-SIG (Java Architectures Special Interest Group)
Kuali Project
MERLOT (Multimedia Educational Resource for Learning and Online Teaching)
National Center for Disability and Access to Education
National LambdaRail
NMC (New Media Consortium)
NYSERNet (New York State Education and Research Network)
Pinnacle Users Group
PMI (Project Management Institute)
Sakai Project
SIGUCCS (Special Interest Group on University and College Computing Services)
STC (Society for Technical Communication)
ViDe (Video Development Initiative)

At an Apr. 2005 University Computer Policy and Law event, Kent Hubbell (top left), dean of students, moderates a spirited debate on digital copyright among Fred von Lohmann, Electronic Frontier Foundation; Siva Vaidhyanathan, New York University; Fritz Attaway, Motion Picture Association of America; Cary Sherman, Recording Industry Association of America; Avery Kotler, Napster; and Alec French (not shown), NBC/Universal.

IT Funding: Fiscal Years 1996-2005 in 1996$ (in $1,000's)

- Mainframe, Administrative Systems Development and Maintenance
- Special Funding (EzraNet, PAR's, Distributed Learning)
- Services Merged with CIT* and Internal Services
- Cost-Recovered Services (Voice and Data Services, EZ-Backup, ETV*, WPG*)
- General Appropriations (General Campus Services)

*Some eCornell staff merged with CIT in 2005. The Educational Television Center (ETV) and Web Production Group (WPG) migrated to CIT in 2004 from the College of Human Ecology.
CIT staff on the national scene


———. Quoted by Daniel Keller in “Installation Profile: Cornell University’s School of Civil and Environmental Engineering Instructional Facility,” Sound and Video Contractor, Mar. 2005.


Joan Getman (CIT Faculty Development), Marilyn Dispensa (CIT Instructional and Web Services), and Steve Weidner (CIT Instructional and Web Services). “Evolution in Teaching: Moving from Individual to Shared Innovation.” Presentation at New Media Consortium 2005 Summer Conference, June 2005.


Tracy Mitrano (OIT IT Policy), Brian Hawkins (EDUCAUSE), and Steve Worona (EDUCAUSE). “Overview of Key Policy Issues in Information Technology.” Presentation at Frye Institute 2005, June 2005.


CIT’s University Computer Policy and Law events are attended by 20 to 50 people in person and many more online.
Making Hyperion reporting available campuswide

Hyperion (formerly Brio) is a set of reporting tools that help staff analyze data and create reports using Cornell’s administrative databases. This year’s accomplishments were big ones: upgrading from Brio version 6 to Hyperion version 8, developing a Hyperion hosting service that allows local units to access their own data sources without having to invest in a duplicate infrastructure, and purchasing a campus license.

The campus license was the fruit of a nine-month effort with the IT Managers Council. We analyzed the university’s total investment in Brio, determined that site licensing was worth pursuing, and negotiated a three-year license for the Hyperion Performance Suite, Essbase, and Metrics Builder.

Goal
Support Cornell’s administrative computing needs: In concert with colleagues from Cornell’s administrative units and university leadership, CIT is deeply engaged in the ongoing effort to modernize administrative systems. CIT also introduces IT products/services, as appropriate, to assist in realizing the goals of workforce planning.

Progress
• PeopleSoft Student project
• Hyperion/Brio upgrade and licensing
• Kuali

Pushing ahead with PeopleSoft
We enhanced PeopleSoft Contributor Relations and began work on PeopleSoft Student Administration. We also continued supporting the Benefits Administration and Human Resources/Payroll modules. And we are planning for the upgrade to PeopleSoft 8.9.

• PeopleSoft Contributor Relations provides information about the university’s alumni and benefactors. We’ve added enhancements for the individual giving process; corporation and foundation processing; campaign management; leadership gifts; the Cornell Fund; and prospect research.

• PeopleSoft Student Administration will provide an integrated suite of applications for student accounts, financial aid, admissions, student records, course management, and degree progress. The Office of the University Registrar, the Undergraduate Admissions Office, the Graduate School Admissions Office, the Vet School Admissions Office, and CIT are working on this project.

In June 2004, we implemented the Course Management module, which is a repository of the courses offered at Cornell (the online version of Courses of Study).

We enabled our current legacy systems to use the PeopleSoft-supplied ID (now known as the Cornell ID) as the identifier for an individual. That will make the eventual merging of those systems easier, and also greatly reduces the administrative burden of resolving duplicate records.

We completed the requirements-gathering phase for business and functional needs in admissions and student records.
Building a university-focused financial system

We have joined the Kuali consortium, an effort led by universities to develop a community-source, non-proprietary financial information system designed to meet the needs of higher education. The project will build on the proven functionality of Indiana University’s financial system.

Over the next 2-3 years, the consortium intends to release modules, which universities can selectively adopt to replace or supplement their existing systems. Cornell will help develop those modules and share in providing support services for the project.

CIT-developed data warehousing tool draws national interest

In Apr. 2005, Jeff Christen, CIT Data Operations, presented at the “Best Practices in Data Warehousing in Higher Education” forum at Northwestern University. His topic was DMTools, a data warehousing infrastructure management tool developed by Cornell’s Data Warehousing team that solves many common issues, such as the availability of data during loads, failed load recovery, and the management and support of a complex warehouse environment.

Since the conference, so many institutions have expressed interest in DMTools that Cornell will be sharing the code, as open source, through the JA-SIG Clearinghouse. We will also be holding a two-day workshop in Sept. 2005.
Supporting faculty who teach large-enrollment classes

innovation.cornell.edu

To bring fresh approaches to the common challenges of faculty who teach large-enrollment classes, Cornell's fourth cycle of Faculty Innovation in Teaching Grants focused on leveraging instructional technologies to substantially improve both teaching and learning in these classes. Some examples:

- Faculty teaching Computer Science 101 (720 students) and Economics 101 (450 students) are integrating handheld devices that instantaneously poll a large audience. These personal response systems help faculty check students' level of understanding and pose intriguing questions for discussion.
- Hotel School faculty are developing an online tutorial to help students build critical-thinking skills. Vet School case studies on fluids will enable students to make critical decisions in hypothetical situations.
- In Agriculture and Life Sciences, archived interviews introduce students to “real world” entrepreneurs. In Human Ecology, video clips of disturbed children and adolescents in therapeutic and family settings encourage students to connect with patients as people, rather than focus on their conditions.
- Education students watch selected video clips to promote discussion of difficult topics and broaden their perspectives. These students, along with those in anthropology and English courses, also go on “virtual field trips” and create multimedia projects.

The Faculty Innovation in Teaching Grants program receives substantial support from the Office of the Provost. Twenty grants are awarded annually, 16 by the college and school deans and 4 by the Faculty Advisory Board on Information Technologies (FABIT). To date, 78 grants have been awarded to faculty who seek to improve education by leveraging contemporary technologies in their teaching.

Grant winners receive assistance with project planning, instructional design, web programming, video production and other services from CIT’s Academic Technology and Media Services, in partnership with the Cornell University Library and the Center for Learning and Teaching.

Support Cornell's commitment to teaching and learning: CIT is committed to providing the infrastructure, faculty support services, student training, and classroom technologies necessary to enhance 21st-century teaching and learning at Cornell. CIT is a leader among the academic and support units that, together, bring distributed learning into the mainstream at Cornell. Distributed learning is “anytime/anywhere” learning.

Goal

Support Cornell's commitment to teaching and learning: CIT is committed to providing the infrastructure, faculty support services, student training, and classroom technologies necessary to enhance 21st-century teaching and learning at Cornell. CIT is a leader among the academic and support units that, together, bring distributed learning into the mainstream at Cornell. Distributed learning is “anytime/anywhere” learning.

Progress

- Faculty Innovation grants
- Blackboard
- Faculty survey
- Technology upgrade in large-enrollment classrooms
- Classroom technology design
- Classroom audiovisual resources database
- Integration of eCornell staff
- RefWorks

Gaunting what faculty, students want in instructional technologies

We analyzed and published the results of our 2003-04 “Teaching with Technology” and “Student Instructional Technology” surveys. Our response rates were 24 percent and 27 percent, respectively.

Most students agreed that instructional technologies, particularly web-based materials, could enhance their learning. The technologies students would most like to see used in courses are multimedia presentations and course web sites.

Among faculty, two-thirds have at least one course web site, use e-mail lists to communicate with their classes, and anticipate increased use of the Internet and other distance learning tools to supplement in-class instruction. Three-quarters post course materials on the Internet. Almost all use e-mail several times a day.

Top-ranked ways the faculty would like to be using instructional technologies include accessing online course reserves, doing end-of-semester evaluations, offering interactive exercises, and conducting online surveys. Electronic whiteboards, videoconferencing, and in-class polling were the technologies faculty are most interested in trying. Finding time to incorporate instructional technologies is the biggest challenge faculty face.

Marrying Blackboard and Kerberos

blackboard.cornell.edu

We have made several improvements to the university's course web site system, since we upgraded to Blackboard 6 in June 2004. The biggest is that Kerberos now protects Blackboard, which means faculty and students can log on with their Cornell NetID instead of maintaining a separate Blackboard login. We are also using Blackboard to pilot a new service for people who are not eligible for a NetID. These people can now request a GuestID and password, which they can use to access Cornell resources (currently only Blackboard is available).

Other enhancements include features that allow faculty to grade discussion board postings for each student, more easily create groups of students within a course, and upload a folder of documents.

Upgrading technology in large-enrollment classrooms

www.dls.cornell.edu/programs

In May 2004, we completed an assessment of the instructional technologies provided in the 16 classrooms at Cornell that host the most students. Fifteen of
those needed improvements, according to
the guidelines and standards of practice
for advanced audiovisual technologies es-
established by Cornell and the International
Communications Industries Association.

This year, we upgraded 6 of these large-
enrollment classrooms. Some of the
projects included deployment of student
response (“polling”) systems. Upgrades to
8 additional classrooms were expected to
be complete by the end of summer 2005.

Consulting on classroom
technology design
www.dls.cornell.edu/programs

We provided design consulting services
for the development and integration of
audiovisual presentation and conferenc-
ing systems in over 25 facilities. These
included innovative learning environ-
ments such as the Richard N. White In-
structional Earthquake Simulation facil-
ity, the CIS Uris Cooperative Computing
Lab, and the Veterinary Necropsy Lab,
as well as technology upgrades to 6 large
enrollment classrooms. Student response
(polling) systems, to enhance interac-
tion between faculty and students, were
deployed in the Uris Auditorium, Baker
200, and Caldwell 100 lecture halls.

Launching a classroom
audiovisual resources database
avdb.cit.cornell.edu

In Jan. 2005, we launched a new data-
base that helps faculty and academic
staff find out more about which instruc-
tional technologies are available in which
Schedule 25 classrooms. A taskforce
from Engineering, Agriculture and Life
Sciences, Arts and Sciences, and the
University Registrar guided the develop-
ment. Currently separate from Schedule
25, the classroom technology database is
expected to be tightly integrated with the
next version of the Schedule 25 system
(Resource 25), under development by the
University Registrar.

Welcoming eCornell designers

In Nov. 2004, we welcomed 8 course
developers from eCornell, a university
subsidiary that develops online profes-
sional and executive education programs
authored by Cornell faculty. These staff
helped eCornell develop over 55 online
courses and 9 online certificate pro-
grams. They are continuing to support
eCornell initiatives while also applying
their considerable talents to web projects
for the university’s traditional academic
programs.
Greg Bronson named “Harald Thiel Volunteer of the Year”

In June 2005, Greg Bronson (CIT Video Distribution Services) was awarded the Harald Thiel Volunteer of the Year Award by the International Communications Industries Association (ICIA). The award recognizes individuals who have demonstrated an exceptional level of volunteerism for the association.

Among other achievements, Greg was recognized for his work as chairman of ICIA’s Dashboard for Controls Committee, an innovative group seeking to make it just as easy to operate different professionally installed audiovisual presentation systems as it is to operate different car models. Greg also serves on ICIA’s Board of Governors, which he formerly chaired, and is an ICIA Certified Technology Specialist in Design (CTS-D).

Collaborating on scholarly citation management
refworks.cornell.edu

In Jan. 2005, RefWorks, a citation-management tool, was made available to the Cornell community through the joint funding efforts of Cornell University Library (CUL) and CIT. RefWorks helps users collect and organize enormous amounts of bibliographic details. It was selected from other citation managers because it is easy to learn, web-based, and supports collaborative research.

In the first half of 2005, 1,180 new users tried RefWorks, 40 percent of whom were undergraduates. Most were from the colleges of Arts and Sciences and Agriculture and Life Sciences.

CUL’s Citation Management Working Group looked at CIT as a natural partner in acquiring RefWorks, knowing that we had requests from users for software management tools. The partnership is working well; today, RefWorks is available in all of our computer labs and every library. CUL supports RefWorks and hosts monthly workshops for new users.

Faculty and CIT staff enjoy a Faculty Innovation in Teaching luncheon in Apr. 2005. From left: Elisabeth Meyer, associate professor, Art, and Joan Falkenberg Getman, CIT assistant director, Academic Technology and Media Services; Clare van den Blink (right), CIT faculty development and training coordinator, and two faculty members; Jim Blankenship, senior lecturer, Molecular Biology and Genetics; Marilyn Dispensa, CIT instructional designer; and Raphael Littauer, professor emeritus, Physics.
Creating an open window to the world

www.cornell.edu

Cornell's goal? To come across as a leader on the web by Aug. 2004. The mission? To revamp Cornell's outdated, often-confusing, and seemingly impenetrable web site that grew up with the Internet.

How did Cornell do it? CIT's Web Production Group (now called Instructional and Web Services) collaborated with Cornell's Office of Web Communications (OWC) to create phase one—a new university web site with a top layer of navigation and a look and feel that is being adopted by the university's multitude of secondary web sites.

We were engaged to design the site and build its technical infrastructure, guided by Diane Kubarek's OWC team and vice president for university communications Tommy Bruce's charge to make Cornell's web presence an “open window to the world.” Together, we finished a six-month job in three months. A redesign blog kept (and continues to keep) interested observers apprised of the team's thinking and progress and serves as a discussion forum.

The site is much like an open book, ranging from who's who at Cornell to details on how to apply for admission. Navigation and searching are simple and elegant. The quality and strength of our academic programs and the beauty of the campus are showcased, as is Cornell's commitment to knowledge transfer.
Cornell faculty anywhere, anytime: CyberTower
cybertower.cornell.edu

We work closely with Cornell’s Adult University (CAU) to produce CyberTower, a free, web-based service that offers noncredit study with Cornell professors. Study rooms feature in-depth lectures along with resources for further self-study. Forums are moderated interviews on current issues. Views and Reviews are short lectures on current books, films, breaking news, or anything else that intrigues or inflames faculty. A look at what CyberTower covered this year:

**Study Rooms**
- “Creating Jacques Brel at Cornell”
- “The Psychology of Television Realism”
- “Applied GIS: Turning Data into Information”
- “Plant Breeding Then and Now”
- “Today’s Cars: Where in the World Do They Come From?”
- “Marketing to Generations”
- “Us vs. Them: The Immigration Debate in the U.S.”
- “A Romance with Spiders”

**Forums**
- May 2005: “Promoting Democracy”
- April 2005: “Military Practices in Imperial Germany”
- December 2004: “Redesigning Undergraduate Life at Cornell”
- November 2004: “A Conversation with Cornell President Jeffrey Lehman”
- October 2004: “New Initiatives in Social Science”
- June 2004: “The Beethoven Piano Sonata Project”
- May 2005: “Animals in Translation”
- March 2005: “A Look Inside Cornell’s Alumni Magazine”
- December 2004: “Root Causes of Sudan’s Civil Wars”
- December 2004: “The Sun’s Role at Cornell: Past and Present”

ETV thrives in year of tight deadlines
etv.cornell.edu

As the university’s primary link to network television around the world, the Educational Television Center (ETV) helps CIT further our outreach mission. Cornell faculty share their expertise with millions of TV viewers via our studio and satellite uplink. The sights and sounds of Cornell are captured by our production team, and our editing and duplication team turns those stories into top-quality shows viewable in a variety of formats.

This was a year full of short deadlines and high visibility. We created two productions for the Cornell Board of Trustees—including interviews with provost Biddy Martin, vice president for university communications Tommy Bruce, and multiple faculty members—in Sept. 2004 and Jan. 2005.

We produced live webcasts for a variety of seminars hosted by University Computer Policy and Law. We also filmed the earthquake simulator from multiple locations in fall 2004. Other work included a video for the Oct. 2004 land-grant meeting, promotional videos for Campus Life, an interactive DVD with Cornell’s Interactive Theatre Ensemble (CITE), and a brief history of the growth of Cornell’s research facilities for the Life Sciences Building ground-breaking ceremony.

We work regularly with the Cornell News Service and other units of Cornell Media Relations to provide video interviews and events via satellite uplink to television networks around the country.

During commencement and convocation, we provided video to Time Warner Cable for a real-time broadcast, set up extra video sites across campus, and released a DVD of the entire commencement ceremony. We also uplinked a video news release to CNN, Fox News, ABC, and many networks in Thailand because crown princess Bajrakitiyabha “Patty” Mahidol graduated from the Law School.

Plans for fiscal year 2006 include continuing to acquire high-definition capability, and being heavily involved in creating content for the Cornell channel on the university’s new IP-based television service (CUTV).

Colbert McClellan (left) and Joy Quigley work on one of the Educational Television Center’s many productions.
Leading the Northeast's connection to the nation's premier research network

National LambdaRail (NLR) is a set of fiber-optic networks stretching across the country that can transmit up to 40 simultaneous light wavelengths (called lambdas), each of which can transmit 10 gigabits per second. NLR's production network provides such speed that researchers, such as Cornell's high-energy physicists, can share massive amounts of data, do visualizations, control equipment, with researchers at other universities as if they were in the same lab. NLR's experimental network provides a national test bed for new networking technologies.

Cornell has served as the NLR sponsor for New York and New England since May 2004. This year, we engineered a Cornell optical fiber path to Syracuse. Not only will this link us to NLR, but via NLR pathways will also create a dedicated network between researchers on the Ithaca campus and at Weill Medical Center, more powerful than what either campus has now. We expect to light these pathways in Dec. 2005.

In June 2005, we chartered the North East LambdaRail (NeLR) consortium to support Cornell's NLR membership. Institutions that want to tap into NLR will pay a membership fee to join the consortium, which serves as an advisory board to Cornell. The fee will support the Syracuse and New York City NLR points of presence.

Cornell, in partnership with NYSERNet, is also facilitating the development and interconnection of regional optical networks (RONs) in New York and New England. For institutions that want to use NLR but are off its main route, RONs provide an alternative to leasing fiber connectivity from a traditional telecommunications carrier. NYSERNet's new RON, for example, enables other upstate institutions to connect to Internet2 (and NLR) through Syracuse, rather than through New York City.

A sampling of how researchers use CIT services

- Lab of Ornithology (www.birds.cornell.edu): Its web-based "Citizen Science" projects and multimedia resources rely on our server hosting services to engage millions of people in the study of birds.
- Nanobiotechnology Center (www.nbtc.cornell.edu): Our videoconferencing bridge enables the center to hold virtual meetings involving more than three sites.
- High-energy physics: Researchers tap the connection to Internet2, and soon, National LambdaRail, to collaborate with researchers at other institutions.
- Northeast Regional Climate Center: Its historical climate data for the northeastern United States, as well as daily and hourly data about the Ithaca climate, is stored and disseminated via our server hosting services.
Goal

Support general campus computing: CIT supports the campus at large by delivering and supporting a collection of services and by maintaining a widespread IT infrastructure. Cornell’s IT infrastructure consists of the communication networks that form our data and telephone systems; the servers and storage devices that process and store data; and applications that integrate a variety of systems, devices, and processes.

Progress

• E-mail improvements
• Napster online music pilot
• CommonSpot
• Training
• uPortal.Cornell upgrade
• RedRover wireless improvements
• CIT OnSite Solutions
• Software acquisition
• Better directory search
• CoursEnroll improvements
• EMC donation
• EZ-Remote
• Television over IP
• Lower rates

Adding new e-mail services

www.cit.cornell.edu/email

We pooled many resources over the past year to improve one of the most essential campus services—e-mail. For starters, in Nov. 2004, we increased the size of each person’s mailbox on our e-mail servers from 150 megabytes to 300 megabytes. Most of Cornell’s peer institutions provide half of that storage space.

Then in Feb. 2005, we came down hard(er) on spam (junk e-mail). Since Feb. 2003, we had been marking e-mail that was probably spam with a distinctive indicator to make it easy to spot, but we were still delivering it, which meant our e-mail systems were dealing with more than 250,000 messages a day that almost no one wanted anyway.

This year, with the consent of many representatives of the campus community, we set our e-mail systems to automatically reject any message flagged as having a 90 percent or higher probability of being spam. A negative acknowledgment is sent to the sender’s mail transfer agent to ensure that legitimate messages aren’t forever lost. Those who do not want to have spam blocked can opt out of the service.

In May 2005, we added SMTP authentication to bolster the security of the community’s computers. SMTP authentication ensures that Cornell’s faculty, staff, and students are recognized by the e-mail system as authorized senders of e-mail. That extra step prevents the e-mail they send from being accidentally marked as spam by our mail system, even if they send it using a non-Cornell network connection. It also addresses problems experienced by people who were using e-mail while off-campus.

Time Away Responder automatically sends a message to anyone who e-mails in the meantime. It keeps track of whom it has notified, so that it doesn’t send another notice for 7 days. The person who is away can still check and respond to e-mail at any time, without affecting the Time Away Responder notifications.

Also in May, we added SMTP authentication to bolster the security of the community’s computers. SMTP authentication ensures that Cornell’s faculty, staff, and students are recognized by the e-mail system as authorized senders of e-mail.

Our Messaging Services group meets regularly with a cross-CIT group to discuss changes to e-mail services. Together, the team ensures that changes happen as smoothly and easily as possible for the campus community.
Bringing music to students
www.cit.cornell.edu/services/music

We continue to support the Student Assembly and the Dean of Students in their pilot program to offer students a legal music downloading service. During academic year 2004-05, students could tap into Napster's library of 1 million songs and listen to its web-based radio stations. A local caching server kept most Napster traffic within the campus network.

About 11,000 students subscribed, and an average 3,000-4,000 downloaded music each day. In an Apr. 2005 student survey, most ranked Napster highly and recommended continuing it. Primary misgivings were its incompatibility with Macintosh, Linux, and iPod.

As a result, Napster will be on the table during the Student Assembly's fall-semester deliberations over what to fund via the student activity fee. Since those decisions don’t take effect until academic year 2006-07, a one-year extension of the original Napster agreement was negotiated for 2005-06.

CommonSpot meets Cornell
commonspot.cornell.edu

In 2004, several groups on campus, including Engineering, Alumni Affairs and Development, Cornell University Library, the Vet School, Industrial and Labor Relations, the University Registrar, the Office of Web Communications, and CIT, joined forces to investigate which web content management system would be the best fit for Cornell.

Three vendors made the cut, with PaperThin's CommonSpot emerging as the final choice. The university negotiated an unlimited user site license for the entire campus community.

CommonSpot provides simple, sophisticated tools for creating, publishing, and managing web content in a controlled, distributed, and collaborative environment. People using it include those responsible for updating content, programmers, web developers, web designers, and system administrators.
In Jan. 2005, a CommonSpot special interest group was formed. Among others, the group has members from Engineering, Industrial and Labor Relations, Agriculture and Life Sciences, Cornell University Library, the Office of Web Communications, and CIT. Its charter is to manage research and decision making around initial implementation issues, with long-term goals of campus-wide collaboration on content management projects.

Providing new options for technical training

www.cit.cornell.edu/training

We have rolled out a new IT professional training program and an office productivity workshop program. Our office productivity workshops are free of charge and meet the demand for additional training in tools such as Oracle Calendar and Microsoft Word, Excel, PowerPoint, and Access.

Our IT professional courses are fee-based but deeply discounted. Topics, selected in collaboration with the IT Managers Council, include security, Microsoft Windows Server, Oracle, Microsoft networking, FileMaker, and ColdFusion.

Our first wave of training—scheduled from June 2005 through Jan. 2006—encompasses over 30 courses and is expected to serve 330 people. All courses are open to Cornell faculty, staff, and students.

We are also piloting a mobile lab training service. We coordinate with Cornell units to bring our courses to their location using our 24 laptops and server, or to lend them our mobile lab for their own training needs.

Student Use of the Internet (Wide Area Network) (Fiscal Years 2003-2005)
Upgrading uPortal.Cornell

uportal.cornell.edu

In May 2005, uPortal.Cornell debuted its newest version, 2.4, designed to help Cornellians navigate through Cornell’s web presence and the Internet at large. To help all 37,000 users migrate, we provided a migration channel that saved address books, groups that were created, e-mail settings such as signatures, and web bookmarks.

uPortal.Cornell is Cornell’s web portal. It offers convenient and easy access to a wide variety of information and services geared toward faculty, staff, and students—services such as Just the Facts and the entire Bear Access suite, information about employment opportunities, Cornell news, libraries and computer labs, and, of course, the weather.

To help users choose what they want to see and where they want to see it, we created a “Welcome to the uPortal.Cornell Tour.” Users can also choose the look of uPortal.Cornell: several skins (graphical interfaces, each with a different look and feel) are available in the new version.

uPortal.Cornell is based on uPortal, a free, open-source, sharable portal tool being developed by higher education institutions.

Revving up RedRover wireless

www.cit.cornell.edu/redrover

This year, we increased the number of wireless access points around campus to 500 and upgraded them to be 3 to 5 times faster. We also deployed a much-demanded guest wireless access service for visitors who do not have a Cornell NetID and password. And we started a pilot—in collaboration with the Vet College—to study the provision of secure, encrypted wireless access where required.

Serving IT customers onsite

www.cit.cornell.edu/services/onsite/

CIT OnSite Solutions is a new service we’re offering to provide information technology support to Cornell departments within the greater Ithaca area. Launched in July 2004, Onsite Solutions employs 3 technicians and currently supports 17 departments. Our services range from shared (help on a regular basis) to transactional (help when you call us) service agreements.

Plans for fiscal year 2006 include continuing to add new services to our IT support packages as well as offering FileMaker 7.0 (and newer) development support.
This year, we dug in, process-mapped, and came up with a new plan for expanding our software acquisition service. Its new name—CU Software Licensing Services—reflects that we not only acquire software for the university, but also provide billing, order entry and fulfillment, and technical support consulting services.

In fiscal year 2006, we will embark on a full-scale campaign to better acquaint the entire campus with the service. We will also become a designated service, which provides a funding model that enables us to scale our services to meet the growing demands of the university.

We have been working closely with the IT Managers Council (ITMC) and its newly created Software Acquisition subcommittee. Chaired by Dean Krafft, the subcommittee acts as our advisory body, offering guidance on the changes we propose for the overall Cornell program. Its goals are to demystify software acquisition and provide the best service to support campus.

Major accomplishments with software contracts include negotiating a new agreement with Hyperion (see page 10), negotiating a new academic license agreement with Adobe Systems, and pursuing an agreement with Microsoft to purchase site licenses for each Cornell department or unit. Typically university-negotiated software license agreements save the Cornell community 20 to 80 percent off academic retail pricing.
Searching the Cornell universe
www.cornell.edu/search

As part of the launch of the new Cornell web site (www.cornell.edu), we worked with the Office of Web Communications to consolidate web-page searching to one very familiar tool: Google. At the click of a mouse, the community can now search all accessible web sites within the Cornell web space, or restrict their search to people, units, events, or facts. Previously, doing that meant going to different web sites that used different search tools, and only getting results from web sites that were registered.

Improving course pre-enrollment
registrar.sas.cornell.edu/Student/coursenroll.html

Several fixes made to CoursEnroll in fall 2004 substantially reduced performance issues, even at peaks when hundreds of students simultaneously request the courses they want to take the following semester.

On the technical side, we discovered minor inefficiencies in some software noticeable only under the heaviest load. Upgrading the software solved that. We also reduced the number of commands executed when a student starts Just the Facts (CoursEnroll is one element of Just the Facts).

Adding a powerful new storage system
www.emc.com

We are grateful for EMC Corporation’s donation of a CLARiiON CX500 with 3 terabytes of storage. This new storage system complements the EMC CX700 we purchased last year and provides us with additional data protection by enabling us to host data at two sites.

Administering modem/dial-up subscriptions online
www.cit.cornell.edu/ezremote

We implemented online subscriptions for the 3,300 faculty, staff, and students who use EZ-Remote, our fee-based modem/dial-up service. Community members can now subscribe and renew online, using a credit card, bursar account, or department account.
Delivering TV to dorms over the data network

campuslife.cornell.edu/cutv

With Campus Life, we introduced a subscription-based television service to students in the university’s 44 residence halls in fall 2005. The new Internet Protocol television (IPTV) service, dubbed CUTV, uses Cornell’s existing data network to deliver 50 channels of news and entertainment programming provided by TimeWarner Cable.

Subscribers can watch on their Windows-based computers or on a standard TV equipped with a set-top box. Previously, most undergraduates had access to TV only in hall lounges because it would be cost-prohibitive to wire individual residence-hall rooms with coaxial cable.

Dropping our prices

We again lowered costs and rates for telephone and data network services to campus, while improving response times. We also revamped our pricing model for the Server Farm, which hosts 415 servers, 92 of which are owned by non-CIT departments. The result was a 30-40 percent price reduction.

We have introduced a new look and feel for our printed documentation about our products and services. This is one way CIT is striving to take unnecessary complexity out of the technologies used at Cornell. Our first booklet to be redesigned was “Using ResNet at Cornell University.”

Top Five Protocols on Cornell’s Commodity Internet (Fiscal Year 2005)

<table>
<thead>
<tr>
<th>Protocol</th>
<th>In</th>
<th>Out</th>
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<tbody>
<tr>
<td>HTTP</td>
<td>35,000</td>
<td>30,000</td>
</tr>
<tr>
<td>SSH</td>
<td>25,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Unidata-LDM</td>
<td>15,000</td>
<td>10,000</td>
</tr>
<tr>
<td>SMTP</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Gnutella</td>
<td>2,000</td>
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</tbody>
</table>

HTTP is web sites.
SSH provides secure remote access to other computers and servers.
Unidata-LDM is near-real-time meteorological data.
SMTP is a protocol used to transmit e-mail.
Gnutella is a file-sharing application.
Support development of Cornell Information Technologies and the Cornell IT community: CIT is committed to contributing to the professional development of the IT community campuswide. CIT also pursues long-term internal development goals to enhance its ability to meet customer needs, provide IT leadership, improve organizational and individual performance, and manage projects and finances.

Progress:
- Project management
- Employee Leadership Program
- Supervisor training
- Technology scholarship program
- Recruiting
- Customer Satisfaction Survey results

Putting project management into practice
projectmanagement.cornell.edu

We have made significant strides in project management since our 2-year pilot program began in Jan. 2004. The materials we have developed, and the experiences gained, are being used by Cornell's Organizational Development Services to build the broader university program and methodology, the Cornell Project Management Methodology (CPMM). The goal is to significantly improve the execution of projects.

CPMM is adapted from the Princeton University project management methodology, which has a 7-year track record of success in higher education and basically follows the industry standard from the Project Management Institute (PMI). Some of the past year's achievements:
- Taught the “Project Management Fundamentals” course to over 200 Cornell staff (140 from CIT)
- Developed a 2-day “How To Use the Cornell Project Management Methodology” course
- Developed an extensive guidebook, adapted from materials published by the New York State Office of Technology
- Developed templates for each of the five project management process groups
- Hired two senior project managers for administrative systems and an internal project manager for CIT

Celebrating the leader in everyone

We are continuing our Employee Leadership Program. About every six weeks, we gather 20-24 staff from across CIT for an intense, week-long program that covers CIT values in practice, leadership styles, the Myers-Briggs Type Indicator, feedback, listening skills, perception versus reality, conflict management, personal values and trust, service relationships, teamwork, and change management.

Since we started in March 2004, we have held 10 sessions involving 214 staff. In 5 more sessions, all of our staff will have been through the program. We are developing a series of follow-up activities to reinforce the concepts of the program and provide training in additional areas requested by our staff.

Instituting best practices for supervisors

Our management team is strengthening its skills through a series of Cornell workshops for anyone who supervises anyone. Using a case-study approach developed by Cornell's Organizational Development Services, our managers learn more about expectation setting, performance coaching, workplace climate, and Cornell policies and state and federal laws.

In fall 2005, we will be supplementing these workshops with supervisor roundtable “lunch and learn” events on topics such as ways to acknowledge stellar work and strategies for recruiting new staff. We will also have “just in time” refresher sessions to assist managers with performance reviews and career development planning.

Helping staff develop new technical skills

Based on feedback from CIT staff, we developed a special fund this year for staff whose career development objectives are within the technology field but outside the realm of their current job responsibilities. The CIT Technology Scholarship Program provides grants of up to $2,500 per person per year to support participation in courses, seminars, workshops, or conferences. Once each fiscal year, we call for applications, then a committee of CIT staff determines the recipients. This year, we were able to award scholarships to all who met the criteria.

Getting great leads on recruiting new staff

We have refined our strategies for finding the best staff. In the past, we relied quite a bit on external recruiters. Now, we’re mostly using a combination of two powerful forces—monster.com (the top job-seeking web site), and our own staff. We instituted a employee referral program that provides a bonus to any staff member who recommends a person whom CIT winds up hiring. We’ve recruited 13 new staff that way.

We have also been making strides on filling job openings with our own staff. This year, 14 staff transferred to other positions within CIT, up from 3 in 2003-2004.

Doing better in our customers’ eyes

Once a year, we do a customer survey among faculty, staff, and students on the Ithaca campus. With the help of Cornell’s Communication and Marketing group, we distributed a 10-question postcard in March 2005. We offered everyone who returned the survey by the deadline a chance
2005 Customer Satisfaction Survey Results

I feel well informed about CIT services and facilities.
Other responses: 23.3% neither disagreed or agreed (was 22.6% in 2004); 24.3% disagreed or strongly disagreed (was 26.4% in 2004)

I can usually find the campus technology information I’m looking for in CIT printed and web resources.
Other responses: 19.3% neither disagreed or agreed (was 20.1% in 2004); 11.8% disagreed or strongly disagreed (was 13.4% in 2004)

When I need to contact someone at CIT, it’s easy to get in touch with the appropriate person or group.
Other responses: 23.1% neither disagreed or agreed (was 23.1% in 2004); 15.9% disagreed or strongly disagreed (was 16.4% in 2004)

CIT staff members are usually responsive and customer-oriented.
Other responses: 17.1% neither disagreed or agreed (was 17.7% in 2004); 6.8% disagreed or strongly disagreed (was 7.0% in 2004)

CIT staff members seem technically competent.
Other responses: 15.4% neither disagreed or agreed (was 16.6% in 2004); 4.6% disagreed or strongly disagreed (was 6.3% in 2004)

I am satisfied with the speed and convenience of CIT services.
Other responses: 25.1% neither disagreed or agreed (was 25.3% in 2004); 12.9% disagreed or strongly disagreed (was 15.2% in 2004)

When there is a fee for services, CIT provides fair value for the price.
Other responses: 49.4% neither disagreed or agreed (was 48.3% in 2004); 17.5% disagreed or strongly disagreed (was 19.1% in 2004)

CIT is an innovative university technology organization.
Other responses: 39.9% neither disagreed or agreed (was 37.8% in 2004); 8.9% disagreed or strongly disagreed (was 12.1% in 2004)

Overall, I am satisfied with the variety of services and facilities CIT provides.
Other responses: 26.2% neither disagreed or agreed (was 27.1% in 2004); 7.2% disagreed or strongly disagreed (was 8.8% in 2004)

Overall, I am satisfied with the quality of services and facilities CIT provides.
Other responses: 20.5% neither disagreed or agreed (was 21.3% in 2004); 9.4% disagreed or strongly disagreed (was 12.1% in 2004)

Over 18,800 surveys were sent out, and about 1,750 were returned. This has been our typical response rate since our first survey in 2001. Of the respondents, 83% report using a PC (Windows or DOS) system, 14.7% Macintosh, 2% UNIX.

As in years past, the community’s overall rating of the quality of our services and facilities correlates most highly with their satisfaction with the speed and convenience of our services, as well as the variety of services we provide.
Measuring What CIT Does

**Academic support**

Classrooms (Schedule 25) with active network connections: 75% ... with data and video projectors: 75%

Courses with active CIT-supported web sites: 4,320 ... number using Blackboard: 4,100

Courses using videostreaming services: 157 (110 instructors)

Surveys created with CIT survey tools: 450 (requested by 100 people)

Class sessions hosted in CIT’s instructional computer labs: 1,091 (2,880 hours of instruction)

Computer labs—computers supported by CIT’s lab group: 372

Academic Technologies and Media Services workshops and events: 48 ... workshop participants: 893

Academic Technologies and Media Services custom-requested workshops: 19

Academic Technologies and Media Services walk-in consultations: 381 (165 individuals)

Lynx Student Technology Assistant appointments: 129 (120 hours) ... projects: 68 (240 hours)

Video support provided: 47 two-way videoconferences; 86 multi-site videoconferences; 6 special events

Average visits per week to CyberTower from non-Cornell addresses: 807

**General campus services**

Bear Access (Cornell’s package of popular Internet and local administrative services)—times used in a year: 11.11 million

CIT/Rhodes Hall high-speed laser printing—jobs printed: 63,755 ... pages printed: 8.59 million (average 131 pages per job)

Contact Center (HelpDesk)—requests for help (phone, e-mail, walk-in): 150,956

Contact Center (HelpDesk)—requests for help by constituency: 11% faculty; 31% staff; 44% students; 4% retirees; 8% alumni; 2% other

Contact Center (HelpDesk)—callers who hung up after being put on hold: 12.1%

CU People (free web hosting for personal pages)—accounts: 7,048 (7.9% faculty; 14.9% staff; 62.7% students; 14.5% other)

CU Search—hits per month: 47,435

CUInfo—average visits in a year: 4.57 million

CUWebLogin— authentications in a year: 16.39 million

Electronic directory—searches per day: 2.99 million

E-mail—messages routed in a year: 825.84 million

E-mail—mailing lists: 3,421 (368,055 subscribers, 172,072 unique addresses, 65,516 Cornell addresses)

E-mail—special mailboxes (e-mail accounts set up for a business purpose): 428

Employee Essentials—average visits per month: 2,717 (2,037 unique visitors)

EZ-Backup: 79.4 terabytes of data backed up on 2,748 computers and servers

EZ-Remote (paid, dial-up service)—modems: 23 on 1 T1 line ... individual users: 3,341

Express Lane (free, time-limited dial-up service)—modems: 23 on 1 T1 line ... individual users: 800

Just the Facts—times used in a year: 805,414

NetIDs created: 11,266

Net-Print (CIT’s lab-based laser printing service)—pages printed in CIT labs: 2.14 million pages ... pages printed in non-CIT labs: 5.77 million pages

Network—active data ports: 25,955

Network—data going over campus backbone daily: 16 terabytes

Network—unique devices connected: 66,049

Network—work orders (moves, adds, changes, disconnects, swaps): 14,302

Network Operations Center—complaints made about alleged computer policy violations, electronic copyright violations, and other types of computer-related abuse: 843 a month (2nd shift NOC)

Network Operations Center—manual DNS entries: 62 (1st shift NOC)

Network Operations Center—network or computer security incidents handled via e-mail: 2,472

Network Operations Center—phone calls: 1,629 a month (3rd shift NOC)

Network Operations Center—problem reports: 990 (3rd shift NOC)

Oracle Calendar (university-wide personal calendar and meeting scheduling service) users: 9,655

**Administrative system support**

Data in Cornell’s central administrative datamarts: 375 gigabytes

Human Resources/Payroll users of Actuate/PEDL: 1,025

Actuate Human Resources/Payroll reports delivered each month: 1,438 (131,386 pages)
This annual report covers the July 1, 2004, to June 30, 2005, period. All staff listings reflect staff employed during that period.

Many thanks to
Leslie Intemann for handling photography and assisting with production.
Jan Jesmer for gathering the metrics.
Jan Jesmer, Kurt Larsen, Duane Lukosavich, and Donna Poole for their help with distribution.
Everyone who provided information and reviewed drafts.
Everyone we photographed to help show the diverse community in which we work.

CIT staff and business measures
Staff hired: 51 (37 new to Cornell)
Average years of service by our staff: 11.57 (8.66 with CIT)
Staff with 10 years of service: 103 … with 20: 68
Number of CIT purchasing/accounts payable, payroll, capital assets, and facilities transactions processed: 40,829
Acknowledgments