

Celebrating the Progress, 1998-2008

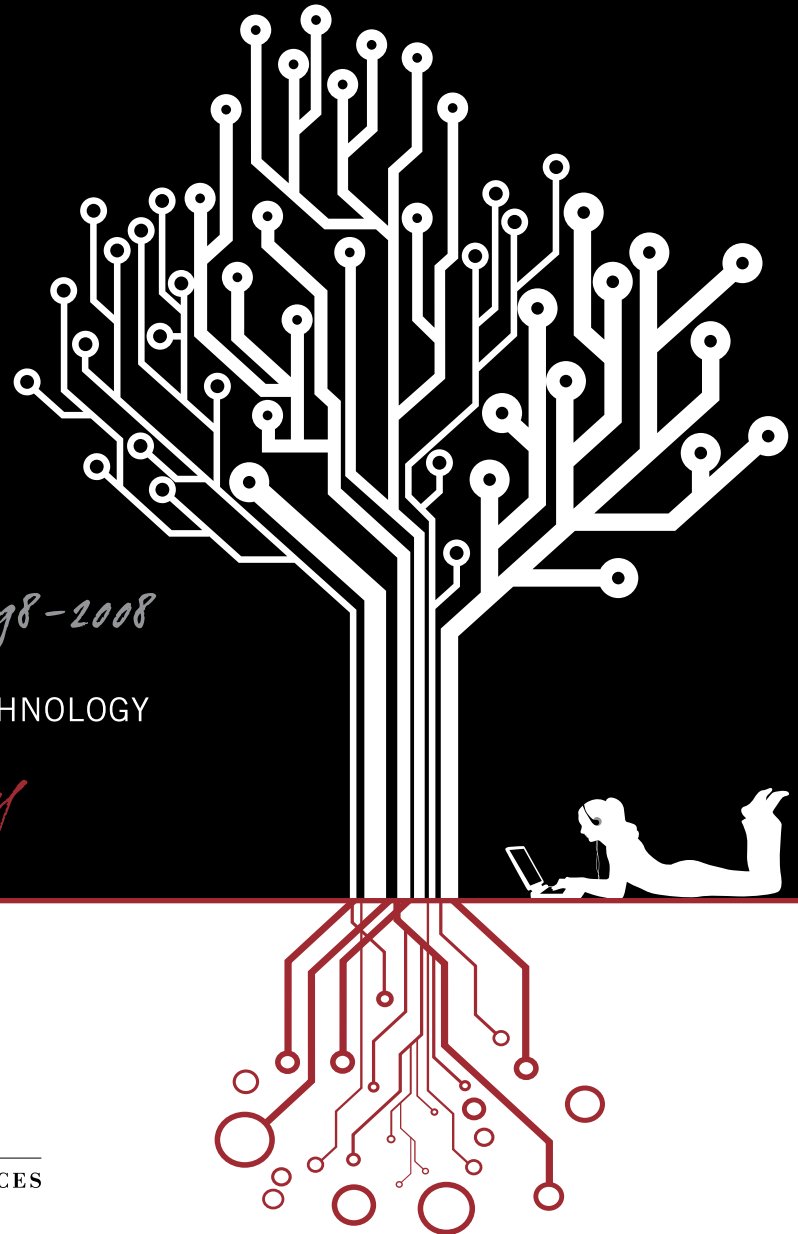
STRATEGIC PLANNING FOR INFORMATION TECHNOLOGY

Continuing the Journey

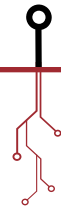


INDIANA UNIVERSITY


UNIVERSITY INFORMATION TECHNOLOGY SERVICES



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CELEBRATING THE PROGRESS, 1998-2008



What a difference a decade can make – a decade, that is, when we set forth a bold vision for our future, collectively develop a plan to achieve it, aggressively execute the plan, then live the values of our vision.



IT IS TIME TO PLAN AGAIN...

In 1997, IU's first Vice President for IT & CIO, Michael McRobbie, and the newly created University Information Technology Services (UITS) set out to fulfill a request from President Myles Brand. Brand's charge was "to create a plan for the development of information technology at IU that will enable the university to become a leader in absolute terms in its use and application."

The 1998 IT Strategic Plan contained ten General Recommendations, largely timeless in their vision, to provide the organizing vision for IT at IU. They addressed the fundamentals of finance and connectivity while also pushing for incentives, integration, and convergence. Sixty-eight specific Action Items organized the work to make these recommendations real. Every Action Item had a budget and multi-year implementation plan.

The outcomes of that work – by UITS, the school and administrative IT teams, and the regional campuses – are self evident. Almost every general-inventory classroom now has a projector, computer, and other equipment that is maintained and replaced with lifecycle funding. Faculty and staff computers are upgraded on set schedules, leveraging IU's considerable buying power to provide equipment that is modern and in warranty. IU has developed massive digital storage capabilities that are shared across the disciplines, from the humanities to the sciences. Four refreshes of our supercomputers – with funding from foundations and the NSF – make clear that IU researchers will use every cycle available to them. IU now boasts a leading, world-class Network Operations Center for advanced networks like Internet2, National LambdaRail, and the State of Indiana's own I-Light.

In recent years, we have continued the journey set forth by the 1998 plan. We have path-breaking alliances for the next generation of guided search, IU is at the forefront of open source software communities for higher education, and we are beginning a full refresh of our campus wireless capabilities to reach the next generation of speed.

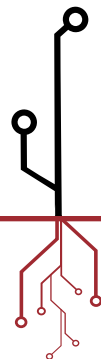
It is time to plan again . . . and we are doing just that. By May 2008, more than 140 faculty, students, staff, and partners from across all IU campuses were already deeply engaged in developing our next IT Strategic Plan. President McRobbie has called for this plan to "build excellence in education and research in all disciplines, in administration, in IU's engagement in the life of the State, across all campuses, and in collaboration with IU's key partners such as Clarian Health and institutions of higher education in the State." This is a human-centered plan that focuses on Faculty Excellence, Student Success, Effective Community, and our Engagement Beyond the bounds of the university.

We will complete this plan in 2008, and immediately begin its rigorous implementation through our outstanding extended IT team across the university. We will continue our unrelenting journey as a leader in absolute terms in the use and application of IT, toward fulfilling IU's enduring mission.



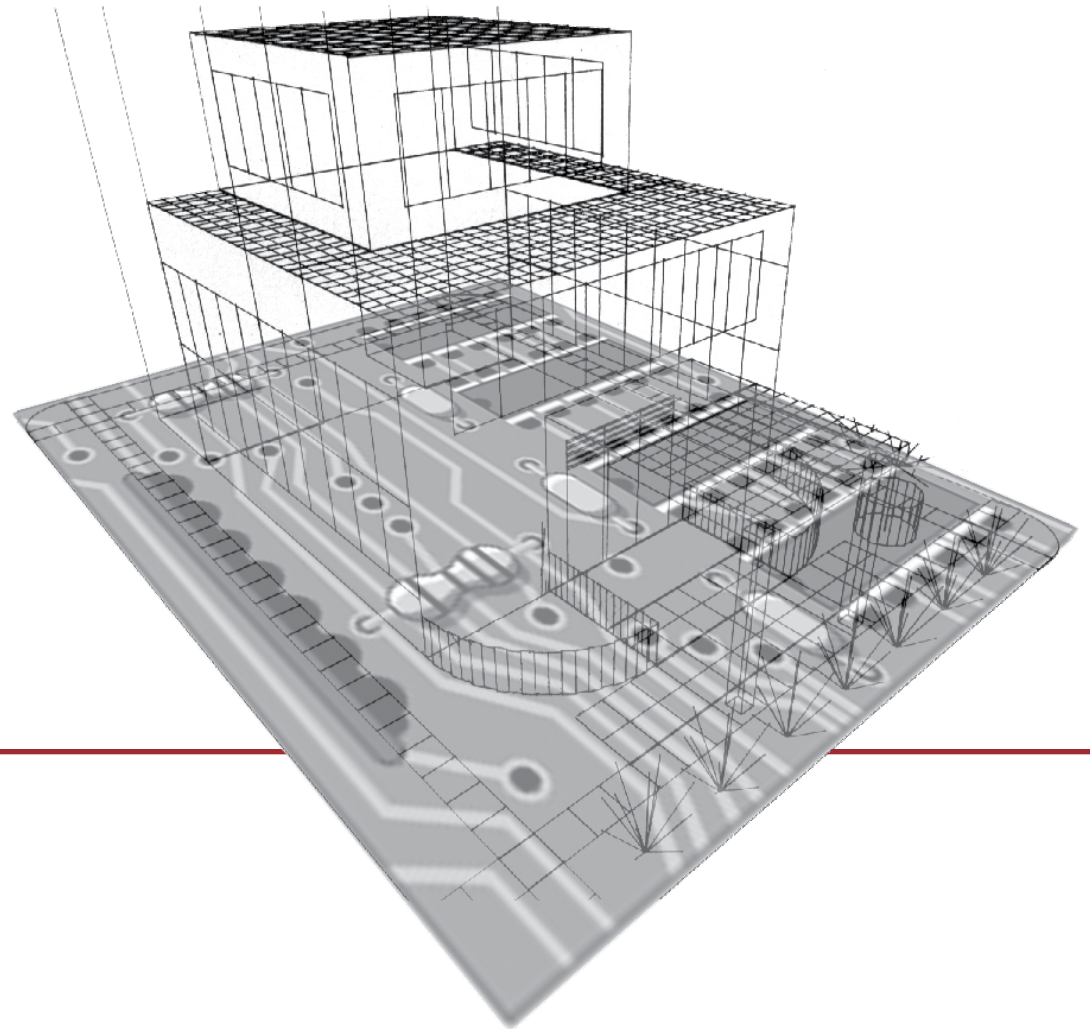
Brad Wheeler

Vice President for Information Technology & CIO,
Dean, and Professor
Indiana University



INTRODUCTION

Human curiosity and intellect, augmented by information technology (IT), can escalate the development of human knowledge at a pace that once would have been unimaginable. Digital networks, combined with knowing what to ask and how to ask it, widen the reach of investigation and research. New applications for IT, and new levels of engagement among their users, bring a new convergence of evolution and opportunity. The route for the evolution and development of IT at IU was mapped out in 1998 by an information technology strategic plan. It set a course for the development of IT in support of teaching, learning, research, and lifelong learning and built an information technology foundation that has continued to serve IU for years beyond the timeframe of the plan.



INDIANA UNIVERSITY INFORMATION TECHNOLOGY STRATEGIC PLAN, 1998

Then-IU President Myles Brand made information technology a university-wide concern. He appointed Dr. Michael McRobbie as IU's first Vice President for Information Technology and charged him with developing a strategy that would enable IU to become a leader in absolute terms in the use and application of IT in order that IU be "recognized as one of the very best of the nation's universities." ["State of the University: The Next Step," 1997]



THE PLANNING PROCESS

McRobbie engaged a planning group comprising the IU-wide University Information Technology Council (UITC), taskforces representing the four 1998 UITs Divisions, the IUB and IUPUI Campus IT Councils, and the regional Computer Center Directors to draft a five-year strategic plan to guide the development of IT at IU. Input came from some 200 faculty, staff, administrators, and students. After a little more than a year, the *Indiana University Information Technology Strategic Plan: Architecture for the 21st Century* was launched, and the UITC charged with overseeing its implementation along with any modification needed to keep IU technologically “light on its feet.”

The plan guided the work of hundreds of UITs staff. Halfway through the implementation of the plan, UITs and the advisory groups conducted a mid-course review of its recommendations and actions. Very few adjustments were made, and the plan remained a roadmap for IT beyond its original five years, and indeed up to the present time.

COMMITTEES INVOLVED IN THE PLANNING PROCESS FOR THE IT STRATEGIC PLAN:

The University Information Technology Committee, chaired by J. Michael Dunn, then Oscar Ewing Professor of Philosophy and Professor of Computer Science

The Teaching and Learning Technology Taskforce, chaired by the late Jon Barwise, then Professor of Mathematics, Computer Science, and Philosophy, IUB

The Telecommunications Taskforce, chaired by Russel Eberhart, then Professor of Engineering, IUPUI

The University Information System Taskforce, chaired by Jim Perin, then Assistant Vice President for Finance

The Research and Academic Computing Taskforce, chaired by Dennis Gannon, then Professor of Computer Science, IUB

The Computer Center Directors

The IUB and IUPUI Campus IT Councils



THE UITs EXECUTIVE LEADERSHIP TEAM, 2000

Indiana University VPIT and CIO Michael McRobbie (second from left), with AVPs (from left) Christopher Peebles (Research and Academic Computing), Norma Holland (University Information Systems), Erwin Boschmann (Distributed Education), Garland Elmore (Teaching and Learning Information Technologies), and Brian Voss (Telecommunications).



“The Information Technology Strategic Plan, *Architecture for the 21st Century*, was created in 1998, which seems a long time ago – it was before Y2K and before the creation of the School of Informatics. It was my great privilege to be asked by Michael McRobbie to chair the University Technology Committee that produced the five-year Strategic Plan (which with some updating still guides IT at IU). Another five committees reported to this lead committee. Together they produced 10 recommendations with 68 actions, but the two main themes of the plan were lifecycle replacement and universal access. While now these seem common sense, they were extremely innovative ideas for their time and continue to be the foundation that supports IU in its leadership role in IT. We said that “The goal of this plan is for Indiana University to rise to a position of absolute leadership among institutions of public higher education in the creative use and application of information technology.” I can no longer remember why we put in the qualifier ‘public.’ ”

J. Michael Dunn

Emeritus Founding Dean of the School of Informatics
 Professor Emeritus of Computer Science and Informatics
 Oscar Ewing Professor Emeritus of Philosophy
 Indiana University



“Dramatic technological change will reshape society and its institutions in the next ten to twenty years. The pace of this change is increasing, and . . . small causes can have great effects. For these reasons, there is urgency to the choices we make about information technology. The paths chosen in the next few years will be critical in setting a direction and trajectory for the institution in the decades that follow.”

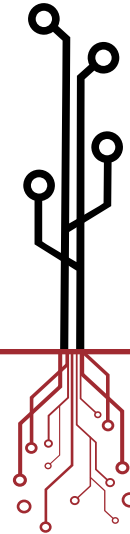
Architecture for the 21st Century, p. 3



“The IT strategic plan has been an extraordinary success that has built IU’s cyberinfrastructure to give us an enormous competitive advantage in the 21st century’s information age.”

Robert A. Becker

Executive Associate Dean
College of Arts and Sciences
Indiana University Bloomington



BUILDING THE FOUNDATION

Ten years later we recognize the architect's eye in the IT strategic plan. The enduring foundation began at ground level, establishing a steady state of desktop computing and network connectivity across the university, backed by base funding. Classrooms were renovated to accommodate new modes of instruction; teaching centers expanded to support faculty; and general-use computer labs expanded on campus. Preparing a level ground of standard IT tools was among the first of a progression of logical steps. The following section reviews these major steps and some of the outcomes that followed.

RECOMMENDATION 1: SOLID FOUNDATION OF IT INFRASTRUCTURE AND SOUND FISCAL PLANNING

The plan declared a first step: Equip the campuses with basic desktop technology; sustain that investment with an annual lifecycle replacement fund. UITs and university units shared oversight. Working with IU Purchasing and commercial vendors of IT hardware and software, and leveraging the buying power of the university, UITs provided desktop computers, operating systems, and common software applications for all campuses and all 110 IU Schools and service units. Agreements with Microsoft, Macromedia, Symantec, Oracle, Corel, SPSS, Dell, and others consistently supplied the campuses with hardware and low- or no-cost software, at an annual savings of \$16-million. These agreements began long-term partnerships with vendors that help sustain a reliable foundation of current desktop technology.

RECOMMENDATION 2: ACCESS TO NETWORK RESOURCES

Network access was another foundational tool. In 1997 making off-campus dial-up connections to the IU network was the fundamental method for access to resources. Modem pools were oversubscribed. With the goal of “No busy signals!” UITS augmented the modem pool until commercial DSL and cable modems provided an alternative way to meet growing demand. The core principle: Provide access to computing resources, regardless of time and location. UITS secured those connections with Virtual Private Network (VPN) technology, which it leveraged again to secure wireless services, now nearly pervasive across the core campuses. With Purdue, IU created the very-high-speed I-Light network connecting IUB, IUPUI, and Purdue. One of I-Light’s many benefits was to increase inter-campus networking capacity and connectivity to the commodity Internet by orders of magnitude.

RECOMMENDATION 3: INSTITUTIONAL COMMITMENT: FACULTY AND STAFF ENGAGEMENT

The plan provided incentives and help services tailored to specific audiences. Through the Ameritech Fellows Program UITS awarded \$1M over seven years to IU faculty to support innovation in IT-based teaching. Winning faculty Fellows showcased their projects and lessons learned in annual summer forums, establishing a group of mentors and seeding the discussion and diffusion of best practices in teaching with technology.

Building partnerships with departments and schools, UITS set up the Local Support Provider (LSP) Services program, which now provides IT support and consulting to more than 650 LSPs in departments and schools on the core and regional campuses. Continued investment in LSPs includes an online LSP community resource system (LSP Online), UITS-sponsored technical certification series, and professional development opportunities.



“The LSP program improves the dialog between LSPs and UITS, and among LSPs themselves. The informal networks formed increase cooperation and collaboration, critical components of making intelligent use of resources. LSPs provide a unique, close-to-the-ground way to really assess the needs of the university community. This innovative and symbiotic partnership brings to bear the perspectives and talents of all members of IU’s IT family, and the IU community they serve.”

Bob E. Flynn

Technology Director,
Graduate Accounting Programs &
IS Graduate Programs
Kelley School of Business
Indiana University Bloomington



NEW IT HOUSING

In 1998 UITs staff on the IUPUI campus were housed in multiple buildings. By fall 2004, the new Informatics and Communications Technology Complex (ICTC) at IUPUI opened its doors to UITs staff, providing state-of-the-art, secure housing for IU cyberinfrastructure and the hub for telecommunications and I-Light at IUPUI.

RECOMMENDATION 4: TEACHING AND LEARNING: CONTENT, ACCESS, DISTRIBUTED EDUCATION

The plan established or expanded on all campus centers for teaching and learning to support faculty innovation with IT. These provide a working environment and contact area for faculty, instructors, and instructional technology providers interested in any aspect of developing implementing, or assessing teaching and learning materials.

In 1999, only 12% of nearly 700 general-purpose classrooms offered installed technology. Providing this equipment relied on one-time funding. The plan brought UITs squarely into the conversation on classroom design and use. Working with Instructional Support Services, the University Architect's Office, and other units, UITs developed a comprehensive, base-funded IT plan to renovate and equip general-purpose classrooms. On the campuses today is a standard installed package of IT hardware and software that mirrors the build in student IT labs. The percentage of installed technology classrooms is nearly 100% on the core campuses.

A foundation of standard IT hardware and software was complete when UITs and Residential Programs and Services (RPS)

agreed that UITs would be responsible for RPS IT labs and support at IUB. Currently UITs owns and operates 2,400 workstations and provides the software build to more than 800 workstations in 18 schools and departments, including all Classroom Technology Services (CTS) stations in classrooms across both campuses. The number of seats serving students tops 3,200.

In response to the call for initiatives in distributed education, IU evolved its homegrown collaborative learning and course management system, Oncourse, and in that process partnered in founding the Sakai open source initiative. Oncourse CL (Collaboration and Learning environment), built via the Sakai initiative (www.sakaiproject.org), with 100 colleges and universities around the world, serves as IU's learning environment. Students in the digital age are wired and on the move. Through the Oncourse podcasting tool and iTunes U, the UITs/IU podcasting initiative makes learning portable.



"The innovations that came from the IT Strategic Plan transformed the design, deployment, and support of information technology at every campus. University-wide licensing and purchase agreements with companies like Microsoft, Apple, Dell, and HP, coupled with life-cycle funding plans at each campus enabled us to implement a coherent technology strategy across the university while meeting the specific needs of each campus. Students have access to contemporary software tools using up-to-date computing technology and faculty instruct in classrooms that provide access to all the digital resources they need to support and augment teaching and learning."

Larry Mand
Vice Chancellor for IT and
Community Engagement
Indiana University Southeast



Indiana University comprises eight campuses, including the residential campus at Bloomington, the urban campus at Indianapolis, and six regional campuses located in communities throughout the state. Eighty percent of Hoosiers are within an hour's drive of an IU campus.

LEFT: IU Southeast

TOP TO BOTTOM:

IU Bloomington, IU Kokomo, IU East, IU South Bend, Indiana University-Purdue University Fort Wayne, IU Northwest, and Indiana University-Purdue University Indianapolis

RECOMMENDATION 5: RESEARCH: COMPUTATION, COMMUNICATION, AND COLLABORATION

The development of IU's high performance computing (HPC) infrastructure is a story of leveraging grants, building partnerships, and engaging IU's HPC resources broadly across the map of IU's research initiatives. Here HPC is the common denominator.

In the plan's early days UITS expanded IU's high performance computing hardware with Shared University Research (SUR) grants from IBM. These grants set the cornerstone of a nearly decade-long and productive relationship with IBM, adding steadily to IU's supercomputer assets. In 2006, IU acquired the IBM e1350 Blade Center Cluster, then the nation's fastest university-owned supercomputer and largest disk-based research storage facility. It was key to IU's competitiveness for large grants from such funding sources as the National Science Foundation, National Institutes of Health, and National Endowment for the Humanities. Big Red supports research into discoveries in the life sciences, astronomy, informatics, computational physics, and the humanities. Among the beneficiaries of the acquisition was the work of the Center for Genomics and Bioinformatics in developing innovative ways to analyze gene expression patterns in model organisms.

IU's Data Capacitor offers researchers hundreds of TeraBytes of fast temporary storage, serving compute resources, visualization, archival storage, and scientific instruments. IU's Massive Data Storage System (MDSS) supplies hundreds of terabytes of disaster-tolerant data storage, mirroring data via I-Light across the IUB and IUPUI campuses. Through IU's partnership in the NSF-funded national TeraGrid and operations role in the Open Science Grid, IU researchers can reach, from their desktops, national supercomputers, collaborations, laboratories, and scientific instruments. Serving the TeraGrid community of users locally and nationally are IU HPC staff who write and update documents for the IU-hosted TeraGrid knowledge base.

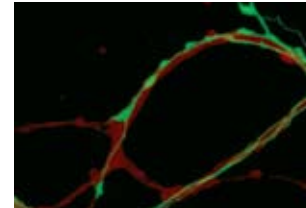


Images from the Big Red ribbon cutting ceremony, August, 2006, Wrubel Computing Center, IUB.

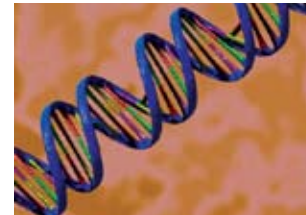


TOP TO BOTTOM:

The Horsehead Nebula, one of the most identifiable nebulae in the sky, is part of a swirling cloud of dark dust and gases, shaped like a horse's head. It is approximately 1500 light years from Earth.



Proteolysis is the digestion of proteins by cellular enzymes called proteases or by intramolecular digestion.

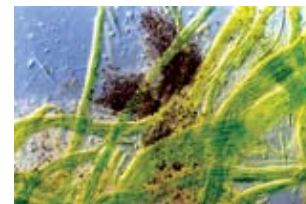


DNA, double helix

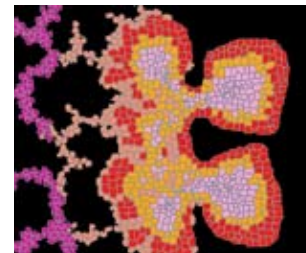
Image of fetus from the Collaborative Initiative on Fetal Alcohol Spectrum Disorders (CIFASD). IU hosts the CIFASD data repository.



Cyanobacteria play a critical role in our Earth's ecosystem, producing nearly 50% of the planet's oxygen and removing massive amounts of carbon dioxide from the atmosphere. Light microscope view of organisms in a microbial mat.

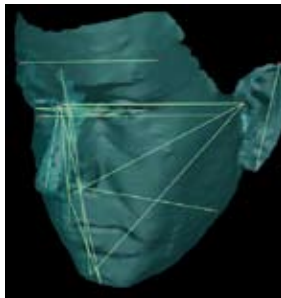
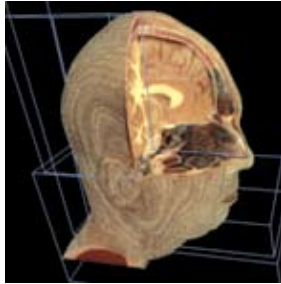
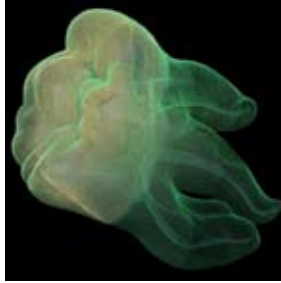


Simulation of tumor-induced blood-vessel growth and associated tumor invasion (metastasis).



RIGHT: Images from the UITS Advanced Visualization Lab (AVL) which supports visualization and simulation techniques for analyzing datasets too large for traditional means. Projects range from sciences and medicine to the arts.

FAR RIGHT:
Crowd Scenes
by IU digital artist and professor Margaret Dolinsky.





“This was not an IT strategic plan, but an IU strategic plan for IT. It was made possible by the partnership between University Information Technology Services and the academic and business units of Indiana University.

The plan was developed and endorsed by its university authors, and was communicated across the university. The needs and priorities of the institution at large led the prioritization of the plan’s action items. The plan enabled IT staff to see how their work fit into university priorities.

A great strength of the plan was that it was alive. Everyone referred to it and adjusted their priorities to it, day in and day out. It gave staff a solid sense of really contributing to the needs of the institution.

The IT Strategic Plan was the single most important piece of work that led to the realization of just how important information technology is for Indiana University. This was governance at its best.”

Norma Holland

Fellow, EDUCAUSE and
Associate Vice President Emerita
University Information Systems
University Information Technology Services
Indiana University

RECOMMENDATION 6: INFORMATION SYSTEMS

Information is among a university’s key strategic assets. In realizing the plan’s recommendations, UITs made those data manageable and accessible, contributed to online access to library data, and built the means to protect those data. In the largest system reengineering effort in IU’s history, UITs created a coordinated environment that maximizes cost savings, efficiency, flexibility, scalability, and access for IU’s ad-hoc-developed enterprise information systems. A new level of self-service allows students to move online through admissions, advising, enrollment, financial aid and other business and academic activities. IU’s more than 35,000 faculty and staff handle hiring, payroll, benefits, and timekeeping — all through the web-based university application portal OneStart. From this systems development experience IU partnered in creating the Kuali Foundation, contributing its client-server financial system toward open source software that serves the financial system needs of Carnegie-class institutions.



Says Barry Walsh, now AVP for Enterprise Software, such open source development allows IU to “... [control] our own destiny.”

Collaborations with IU Libraries technologists realized the Libraries strategic goals of integrating web-based services for the IU community. IUCAT, the Library’s web-based interface, features, among other resources, patron self-service, federated search capability (searching across groups of databases and consolidating the results), and catalog database.

To protect the foundational IU services and data that now rely on information technology, UITs developed a disaster comprehensive recovery plan. It ensures basic infrastructures are geographically redundant, and that service managers adequately back up data and build redundancy into their operations.



RIGHT: Three images showing the installation of the I-Light optical fiber network installed in 1999. Images showing optical fiber follow.

FAR RIGHT: Myrinet fiber cables that connect to Big Red.



RECOMMENDATION 7: TELECOMMUNICATIONS

In 1998 telecommunications was seen as the “cement” that interlinks the university, and that connects the university to national and international research communities. The plan’s five-year goal for telecommunications called for erasing the electronic borders between home, workplace, campus, and community.

Connecting IU. On the core campuses wireless connectivity is pervasive. Videoconferencing facilities ease collaboration and discussion. Unified messaging, teleconferencing, and converged voice, data, and video at the desktop are being rolled out. This creates a foundation for levels of collaboration across the globe. And the technologies provide substantial gains in productivity and sustainability.

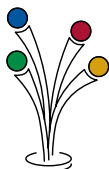
Local networking. A partner in building foundational network connections among universities in the state, IU with Purdue built the I-Light regional network, and in so doing took a major step toward independence in telecommunications. I-Light provides sufficient capacity for the next 10 years, an increase of more than 500% over previous capacity. The benefits extended to the state higher education community through I-Light2. The 2008 expansion of I-light provides public and private colleges and universities across northern Indiana greater access to very high-speed networking for collaboration, research, and education. IU was also a partner in

founding the National LambdaRail, the largest optical network owned and managed by the higher education community. The Crossroads Technology Report cites I-Light as key to “innovation zones” in the Midwest.

With Purdue, IU founded the IP-grid, connecting the universities to the TeraGrid in Chicago. Through IP-grid IU makes its computing, networking, and data storage facilities available to the TeraGrid.

International networking. IU was a founding partner in the TransPAC network, the first high performance network to connect US scientists with their counterparts in the Asia Pacific region. TransPAC2 connected the US to the Asia Pacific Advanced Network (APAN) and established the basis for an inter-Asia network backbone.

Managing networks. Its expertise in network management led UITs to manage engineering and operations services for major regional, national, and international high performance R&E networks at the Global Research Network Operations Center (GRNOC) at IUPUI. The GRNOC manages network operations for I-Light and for the Internet2 Network, National LambdaRail, TransPAC2, STAR TAP, MAN LAN, AmericasPATH, IP-grid, and iVDGL. It also serves as the watch desk for the REN-ISAC (Research and Education Networking Information Sharing and Analysis Center) security initiative.



I - L I G H T

GlobalInoc



RECOMMENDATION 8: SUPPORT

IT tools are only as useful as the mechanisms for supporting users of varying needs and abilities. The plan saw that making practical use of IT in teaching, learning, and research would depend on support that was pragmatic, current with IU-specific issues and audiences, and accessible. The plan called for a support environment that was “seamless across boundaries of campus, home, residence hall, and community.”

Seamless support. To create a seamless help environment UITS progressively extended its IT oversight, taking on responsibility for residence hall IT sites and support, expanding Student Technology Center (STC) facilities and hours, extending help to 24/7 on participating campuses, and continuing to grow the Knowledge Base, which now holds more than 14,000 documents and averages more than 77,000 searches a day. In a services- and support-based online help environment any user connected to the Internet can get help and information and handle countless procedures and activities that once required an in-person visit to a campus help desk. UITS also assumed management responsibility for IU telephone services, which include a large and important collection of the University’s central information and communication services.

Learning hub. IT puts learning on a social footing, encouraging online learning communities, local and remote collaborations, and real-time video. IU’s Information Commons, a joint venture of UITS and the IU Libraries in the Herman B Wells Library, expresses social learning with collaboration areas and space for faculty and students to gather. In its converging of services from multiple university units — the IU Writing Tutorial Center, Adaptive Technology

Center, IU Libraries reference services, and IT consulting — it’s emblematic of the intertwined nature of IT and other aspects of learning and expression. It is a hub of student activity and productivity.

RECOMMENDATION 9: DIGITAL LIBRARIES

Academic research today depends on access to digital information and the scholarly record. The Plan projected that the management and mining of information would depend on tools that “integrate intelligent knowledge acquisition systems with the ingenuity of the individual scholar . . . who has access to a well catalogued, distributed, national digital library.” It called upon IU to connect its scholars and researchers to an expanded digital library program.

The IU Digital Library Program is a collaborative effort of the Indiana University Libraries, the Office of the Vice President for Information Technology, and IU research faculty with leadership from the School of Library and Information Science and the School of Informatics. Over the course of the Strategic Plan, the program has served as a focal point for multidisciplinary partnerships that created resources like CLIOH — an initiative to preserve endangered archaeological sites, and the Digital Library of the Commons, a gateway for literature on the commons. It hosts collections that reflect notable IU strengths, via such collections as the Victorian Women Writers Project and the Swinburne Project. Its photography holdings represent the heyday of the steel industry in Indiana, the life and work of Hoagy Carmichael, and regional images of Indiana’s rural past, its dimensionality promoting understanding of Indiana past and present for the farthest Internet-connected viewer.



Images from the collections of the IU Digital Library Program, clockwise from left: Steelmaker-Steeltown: U.S. Steel Gary Works Photograph Collection, 1906-1971. Photo of Brown County artist Carl Graf, from the photos of Frank Hohenberger, 1876-1963. IU's collection includes 15,000 photos and negatives of Brown County, Indiana. Songwriter Hoagy Carmichael, whose sound recordings, photographs, and handwritten musical compositions makes IU's collection the world's largest. *The Chymistry of Isaac Newton* includes a study of Newton's involvement with alchemy, or "chymistry."

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RECOMMENDATION 10: IT SECURITY

Fundamental to academic discourse is the free exchange of information, which can thrive only in a secure context, where personal privacy and intellectual property rights are protected. In 1998 the OVPIT assumed responsibility for leading IU in developing policies and procedures that protect IU's IT resources and institutional data, safeguard personal privacy and intellectual property, and promote access to information and freedom of discussion. IU's security and policy offices became leaders in higher education in determining and applying effective security to complex campus environments.

State security. IU partners with the Indiana Office of Technology to protect state data by providing backup data center space and network connectivity to the state through the data center at IU Bloomington and the I-Light high-speed network. The partnership provides critical redundancy, saves money for the state, and serves as a basis for further partnership and collaboration between IU and the state.

National security. In the national arena, IU was among the leaders in the national strategy to secure cyberspace, through the EDUCAUSE/Internet2 Computer and Network Security Task Force. IU developed the first higher education-based Research and Education Networking Information Sharing and Analysis Center (REN-ISAC), benefitting US higher education. IU's Center for Applied Cybersecurity Research (CACR) combines leading University thinkers and strategists in IT, law, policy, security, computer science, business, and informatics. Research focuses on current problems — phishing, identity theft, and terrorism; its scholars and practitioners advise industry, Congress, government agencies, and academe, and fill leadership roles in professional associations. IU's partnership with the SANS (SysAdmin, Audit, Network, Security) Institute provides advanced security training and benefits state law enforcement, education, and non-profit agencies.

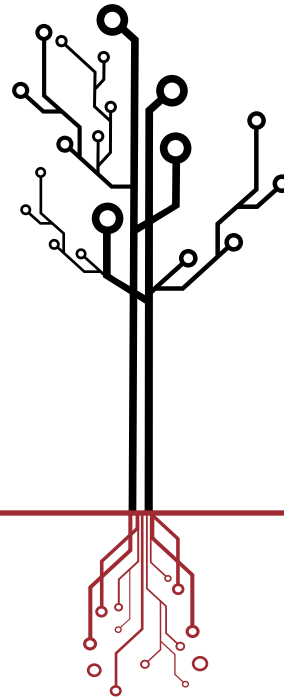


Ad campaign posters for National Cyber Security Awareness Month (NCSAM) and Digital Millennium Copyright Act, 2005.



Center for Applied
Cybersecurity
Research





ORGANIZING FOR THE FUTURE

As Michael McRobbie became IU's 18th president, Professor Brad Wheeler was appointed as Vice President for Information Technology and Chief Information Officer. The IT Strategic Plan and new century had evolved a university that is increasingly reliant on IT, and UITs had grown commensurate with these responsibilities. It was time to realign the leadership team and organizational structure to continue IU's progress. Vice President Wheeler appointed new Associate Deans to lead the Research Technologies and Learning Technologies areas; consolidated machine rooms, telephone systems, and the campus networks as Enterprise Infrastructure; elevated the responsibilities for User Support; consolidated Enterprise Software to aggregate expertise for development and implementation; and appointed leadership for IU's growing expertise in advanced research Networks. Security, policy, privacy, and Information and Infrastructure Assurance were unified, and two Deputy CIOs appointed to work across all UITs efforts to ensure high-quality services, integration, and efficiency. Wheeler advanced the concept of the Extended IT Team with renewed collaboration between UITs and school IT staff.

VP for IT

Brad Wheeler, Ph.D.

VP for IT and CIO

VPIT CABINET

Garland C. Elmore, Ph.D.

Deputy CIO and Dean

Laurie G. Antolovic'

Deputy CIO and Finance Officer

Craig Stewart, Ph.D.

Associate Dean

Research Technologies

Anastasia S. Morrone, Ph.D.

Associate Dean

Learning Technologies

Sue Workman

Associate Vice President

Support

Barry Walsh

Associate Vice President

Enterprise Software

Dave Jent

Associate Vice President

Networks

Dennis J. Cromwell

Associate Vice President

Enterprise Infrastructure

Mark S. Bruhn

Associate Vice President

*Information and
Infrastructure Assurance*

Vince Sheehan

CIO, School of Medicine

Debby Allmayer

Human Resources Officer

Christine Y. Fitzpatrick, Ed.D.

Communications Officer

Kim Milford, J.D.

Special Assistant



A REALIGNED UITS

New or reconfigured staff positions and units reflect current needs and issues in IT support.

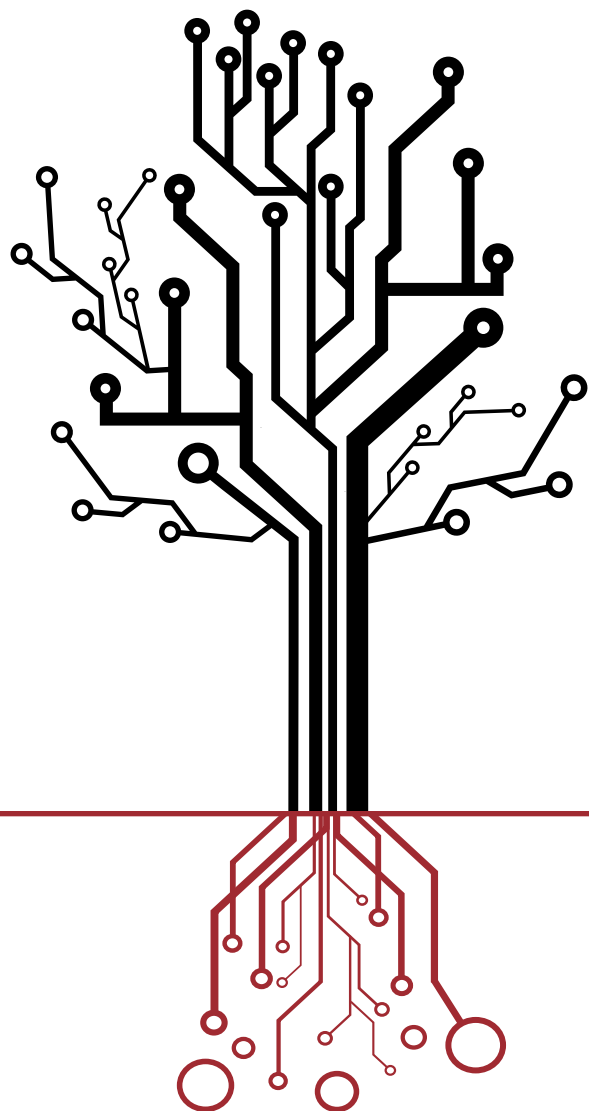
- A new Deputy CIO and Dean of IT at IUPUI provides oversight of future directions for IT at IU and of quality of UITs services.
- The Deputy CIO and Chief Administrative and Finance Officer also oversees the new UITs Applied Technology Lab.
- The Associate Dean for Research Technologies is responsible for cyberinfrastructure resources including high performance computing, storage, visualization, biomedical applications, computational biology, statistics and mathematics, and grid participation.
- The Associate Dean for Learning Technologies supports initiatives related to excellence in teaching and learning, including the teaching and learning centers, technology-equipped classrooms and technology centers, IT training, Oncourse CL, and media design and production services.
- The Associate Vice President for Support leads IU's IT support initiatives including the support organization, the support center and telephone call center, enterprise licensing, residence hall IT services, local support providers, software development and distribution and executive IT support.
- The Associate Vice President for Enterprise Software focuses on application software, especially for academic systems (Oncourse CL and library and student systems), enterprise business systems, and decision support and web hosting.
- The Associate Vice President for Networks leads initiatives in network operations and planning, along with the Global Network Operations Center, and I-Light, and initiatives related to Internet2 and international networking.

- The AVP for Enterprise Infrastructure oversees the technology infrastructure that underlies all university services and software, including cable and wiring, voice and data network infrastructure, messaging, identity management, data centers, storage, servers, campus networks, and telephone switches
- A new AVP for Information Infrastructure and Assurance oversees activities and groups related to the security of university data, including information policy and security, data management, business continuity and disaster recovery, and emergency communications.
- These and other organizational changes are reflected on the organizational chart at http://www.indiana.edu/~uitshr/services/org_charts/OVPIT_Current.pdf

NEW ADVISORY COUNCILS

New councils formalize and address the broad efforts of Quality, Stewardship, and Frontiers, which express the OVPIT vision and direction for UITs.

- The Quality Council focuses on improving UITs services and products in part through user input, and by improving communication within the organization and with clients.
- The Stewardship Council takes over the economic review functions of the former ERC, to ensure the efficient use of resources within UITs.
- The Futures Council is the focal point for technology strategy, forecasting, and assessment for the OVPIT. It provides direction for the new Applied Technologies Laboratory and its research into such projects as next generation wireless and handheld devices.



2007-08: THE YEAR IN REVIEW

For each year of the IT Strategic Plan, UITS summarized the year's progress toward meeting the goals set out in the plan, with detailed accounts of staff accomplishments against each of the 68 Actions. These reports are available at: <http://uits.iu.edu/scripts/ose.cgi?anvz.ose.help>

After the formal completion of the plan, more general reports were produced.



RIGHT AND CENTER:

Photos show progress on the Data Center at IU Bloomington, the new home for the invaluable IT infrastructure currently housed in the Wrubel Computing Center.



FAR RIGHT:

Architect's images representing the Cyber Infrastructure Building (CIB) that will accompany the Data Center.





ASSURING IU'S TECHNICAL ASSETS

IU made progress in shoring up the university's physical IT investments.

On October 12, 2007, IU President Michael McRobbie presided over the groundbreaking for a long-anticipated Data Center at IUB. The 82,700-square-foot berm structure is designed to contain and protect IU's supercomputing resources, ever-expanding IT infrastructure, and mission-critical systems from electrical damage, power outages, natural disasters and malicious harm. The new center will also scale to accommodate growth in the IT equipment that supports IU academics and administration.

IU Trustees approved plans for a Cyber Infrastructure Building (CIB), sister to the Data Center. The CIB will bring together in one building, for the first time, IU Bloomington IT scientists, experts, strategists, technologists, administrators, and technical support staff. The CIB complex will provide the southern hub to the IU data corridor, anchored in the north by the Informatics and Communications Technology Complex on the IUPUI campus.



TEACHING AND LEARNING

New leadership appointments bring UITs and the IU community into closer dialogue, provide linkages between faculty and UITs, and help UITs target support services more closely to faculty needs. Two new faculty positions help bridge UITs and faculty, especially in using Oncourse CL, to which IU migrated in 2007.

New appointments. A new faculty liaison works with the Associate Dean for Learning Technologies to help faculty explore using Oncourse CL and other teaching and learning tools. A faculty fellow for Oncourse CL supports faculty in developing good practices using the resource.

The new Director of Academic and Faculty Services oversees the campus centers for teaching and learning and IT Training and Education, and chairs the Functional Requirements Committee (FRC) for Oncourse CL and ePortfolio, and the Support and Implementation Team (SIT) for Oncourse CL.

New groups. New or refocused UITs service groups support faculty in using technology-equipped classrooms and new media.

The Classroom Technology Services group consolidates the expertise of IUB and IUPUI staff.

The new UITs Media Design and Production, formed from the former Media Production at IUB and Digital Media Services at IUPUI helps with web, digital audio and video, CD and DVD production, and works with the campus centers for teaching and learning to support IT in teaching and learning.

Podcasting. The Indiana University podcasting portal, developed by UITs staff in partnership with Creative Services, links to iTunes U, supporting learning internal and external to IU.

AT&T Fellows. The AT&T Fellows Program (originally the Ameritech Fellows Program) featured 10 projects at the annual IU AT&T Summer Leadership Forum at the Informatics and Communications Technology Complex in June. Final reports and examples of good practices in teaching and learning with technology are available on the program web site. See <http://attf.iu.edu/>

Software agreements and partnerships. UITs partnership agreements with software and hardware vendors continue to make lower-cost technology tools available to the IU community.

The renewed IU-Microsoft agreement provides students some of Microsoft's most popular products at no cost from IUware Online, or at low cost from campus bookstores.

A new strategic alliance between IU and Sony Electronics will allow students, faculty, and staff on all IU campuses, and alumni, to take advantage of special prices on select Sony consumer electronics products, including HD broadcast and production products, such as studio and field cameras, the XDCAM HD line of optical disc-based camcorders and decks, and more. This will be of special use when departments across the university transition to high-definition media in the near future.



“Starting from a core of excellent staff and partnerships with a few faculty who were pathfinders in computational sciences, we have created at IU a research cyberinfrastructure that is among the best in the nation. We create new possibilities for research, scholarship, and artistic creativity, which the IU community uses to make new discoveries and new forms of expression. IU’s leadership in research and scholarly computing has been made possible by IU faculty; UITS staff; our collective persistence of purpose and clarity of goals; and IU’s state, federal, corporate, and foundation support.”

Craig A. Stewart

Associate Dean
Research Technologies
Office of the Vice President for
Information Technology
Indiana University

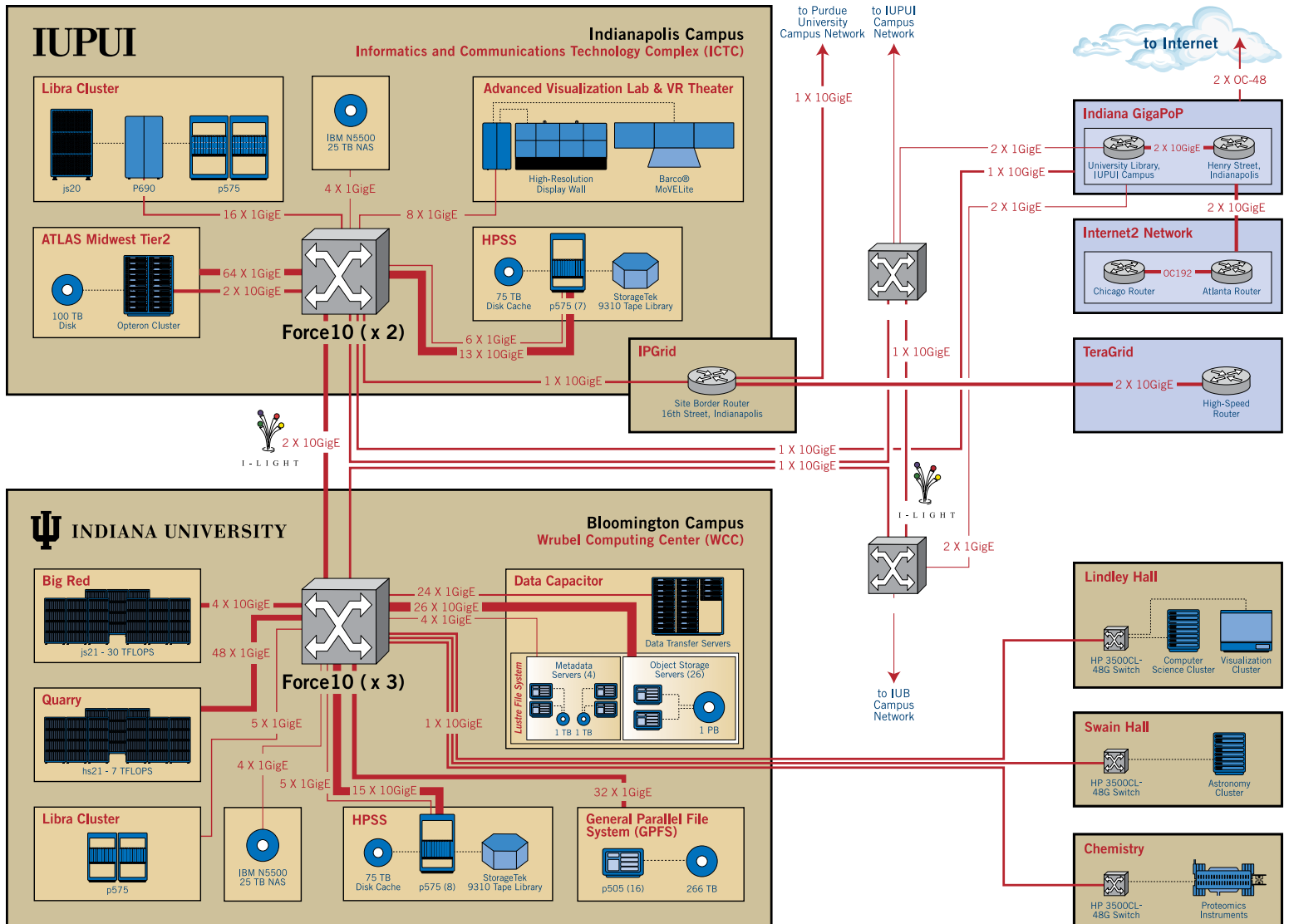
RESEARCH TECHNOLOGIES

In 2007 UITS continued to build IU’s cyberinfrastructure resources through leveraging partnerships, sharing resources with other institutions, and securing grants from funding agencies. IU’s supercomputing and massive data storage systems help sustain faculty exploration and research, and help attract top faculty and graduate students to IU.

Data capacitor. Leveraging \$1.72-million in NSF support, UITS funded the data capacitor, a major contribution to data-intensive computing at IU. IU’s data capacitor helps IU researchers manage the massive volume of data generated by advanced digital instruments, and is a foundational part of IU’s forward-looking data-intensive computing resources. It provides hundreds of terabytes of fast temporary storage, supporting researchers in astronomy, bioinformatics, x-ray crystallography, proteomics, high-energy physics, library sciences and informatics, and computer science. The data capacitor team was a candidate for the 2007 TechPoint Mira Awards.



The Data Capacitor



Overview of the Indiana University research computing environment

The data capacitor helped an IU-led team push the limits of networking and storage technology to win first place in the international competition for leading-edge, high-bandwidth computing applications at SC07, the world's largest international conference for high performance computing. The team included partners from the Technische Universitaet Dresden, Rochester Institute of Technology, Oak Ridge National Laboratory and the Pittsburgh Supercomputing Center.

Supercomputing

Big Red enables scientific innovations at IU and via the TeraGrid. In spring 2007 IU doubled the size of Big Red through an agreement with the Indiana Economic Development Corporation and IBM, who provided three computational scientists to help scholars and Indiana companies take advantage of the supercomputer.

The 2-TFLOPS AVIDD cluster was replaced with the Quarry 7-TFLOPS supercomputer, which provides faster Intel hardware for research and general Unix computing. Quarry will serve as replacement hardware for the Steel cluster on its retirement in June 2008. The Research Database Complex (RDC) was migrated to faster hardware.

The upgraded Massive Data Storage System (MDSS) now provides 52 tape drives, 500 GB of tape capacity, and 170TB of disk cache. The MDSS provides a competitive advantage for grant seekers who need significant storage.

Grid computing

IU's contributions to the international structure for grid computing extend the reach of IU researchers and encourage collaboration.

As coordinator of the Open Science Grid (OSG), and supported by a five-year, \$30M NSF and US Department of Energy Office of Science award, IU contributes to an effective distributed facility for researchers from a variety of scientific disciplines.

The National Science Foundation in August '07 awarded an IU-led team \$1.96M to create a "Polar Grid" of computers to help scientists understand polar ice sheets and the relationship between rising sea levels and global climate change.

IU received a \$1.69M NSF grant for "Open Grid Computing Environments (OGCE) Software for Science Gateways." Pervasive Technologies Lab staff and others will develop software for creating web gateways to online resources, of special help to non-experts in high performance or grid computing.



Strategic alliances

Strategic alliances with corporate partners promote research in applications and products that rely on advanced technologies.

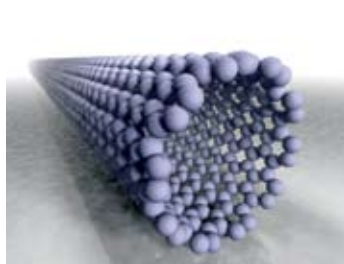
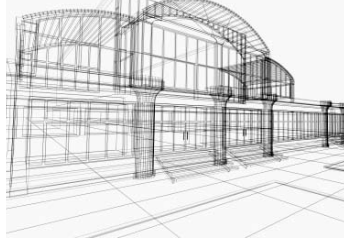
The IU-Sony alliance focuses on applications for high-definition broadcast and media production technologies.

IBM's \$2M investment in the Future Technology Solution Design Center in the ICTC targets development of products that use advanced cell chip technology, especially useful in medical imaging and research. The IUPUI location will help bring people and technology together.



IU RESOURCES PROMOTE ECONOMIC DEVELOPMENT

Big Red provides the computing power behind the Indiana Initiative for Economic Development (IIED), an economic stimulus program established by IBM, Indiana University, Purdue University, and the Indiana Economic Development Corporation (IEDC). IU Principal Scientist Danko Antolovic serves as IBM Industry Liaison for the project. Says IU VP Brad Wheeler, “[This is] the type of blended public-private partnership that will retool the state’s economy to compete in the 21st century.”





“Our involvement in community source development efforts allows IU to pool its resources along with other like-minded institutions to create software designed by the higher education community for the higher education community. Open source software creates the shortest path between the instructor and the developer whereby faculty members can directly affect the design of software intended for research, teaching, and learning.”

Lance D. Speelmon
Group Manager,
Online Development
University Information
Technology Services
Indiana University
and Member,
Board of Directors
Sakai Foundation

INFORMATION SYSTEMS

In 2007 and early 2008, UITs staff conducted a major upgrade of PeopleSoft to Version 9.0, which includes the following improvements:

- Compliance with federal and state regulations for financial aid and tax processing
- Improved Human Resource Management functionality for Employee Records Management, Benefits, Payroll, and Employee Self-Service
- Better functionality in Student Records Administration, Academic Advising, Campus Community, Admissions, Financial Aid, and Student Financials
- Enhanced development toolset and technologies.

OneStart 2.0, redesigned with input from focus groups, usability studies, and testing, offers an improved portal and easier navigation.

Community source

IU's investment in co-founding the Sakai Foundation to develop learning and collaboration software for higher education shows dividends in a membership today of more than 100 institutions and some dozen commercial firms. Lance D. Speelmon of UITs was elected to the Sakai board of directors, to

take part in foundation governance, determine development priorities, and oversee the advancement of all Sakai products. The Kuali Foundation, in whose founding IU also played a part, now numbers some 15 member colleges and universities who work together to develop university financial systems. IU's Jennifer Foutty was named Executive Director of the Kuali Foundation, with responsibility for leading the Foundation's activities in recruiting new members, coordinating programmatic initiatives, technology development, sharing best practices, and fostering collaboration on behalf of the Kuali community.

Leveraged solutions

New IT strategies offer leveraged solutions to IU units and departments.

A strategy for UITs shared web hosting and content management includes a rational funding model for teaching and learning about web technologies, improving the IU web search tool, and developing templates.

The IU Intelligent Infrastructure initiative offers IU departments and units access to high performance computing and storage hardware in a secure environment with best-of-class backup solutions.

TELECOMMUNICATIONS

2007 improvements in the IU communications infrastructure increase efficiency and ease of use. Improvements in email make email access easier while providing new features and functions.

Enriched communications

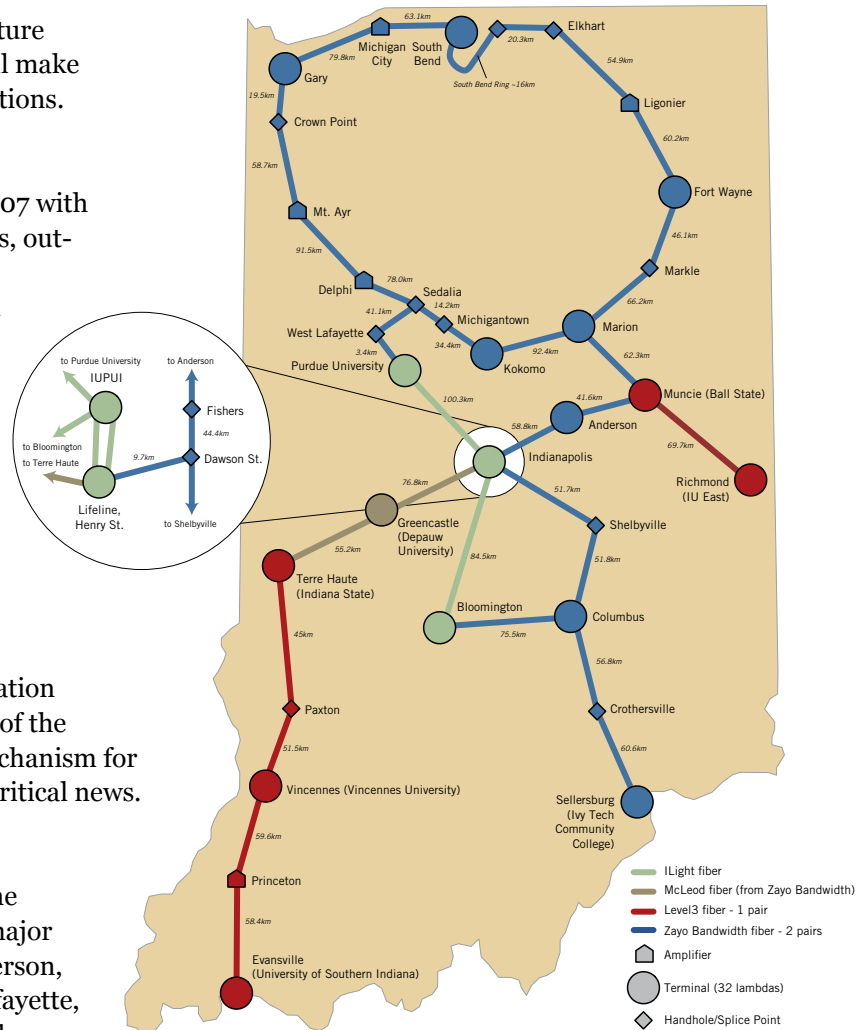
UITs upgraded Microsoft Exchange 2003 to Exchange 2007 with a new Outlook Web Access interface with document access, out-of-office features, and instant search. Exchange 2007 supports Windows Mobile 6.0 devices and integrates with the UniCom project, in which IU partners with Nortel and Microsoft to deliver voice, video, audio, instant messaging, file sharing, and calendaring in a consistent interface.

New email offerings from Google and Microsoft provide richer functionality including such Web 2.0 features as personal web space, calendars, and blogs.

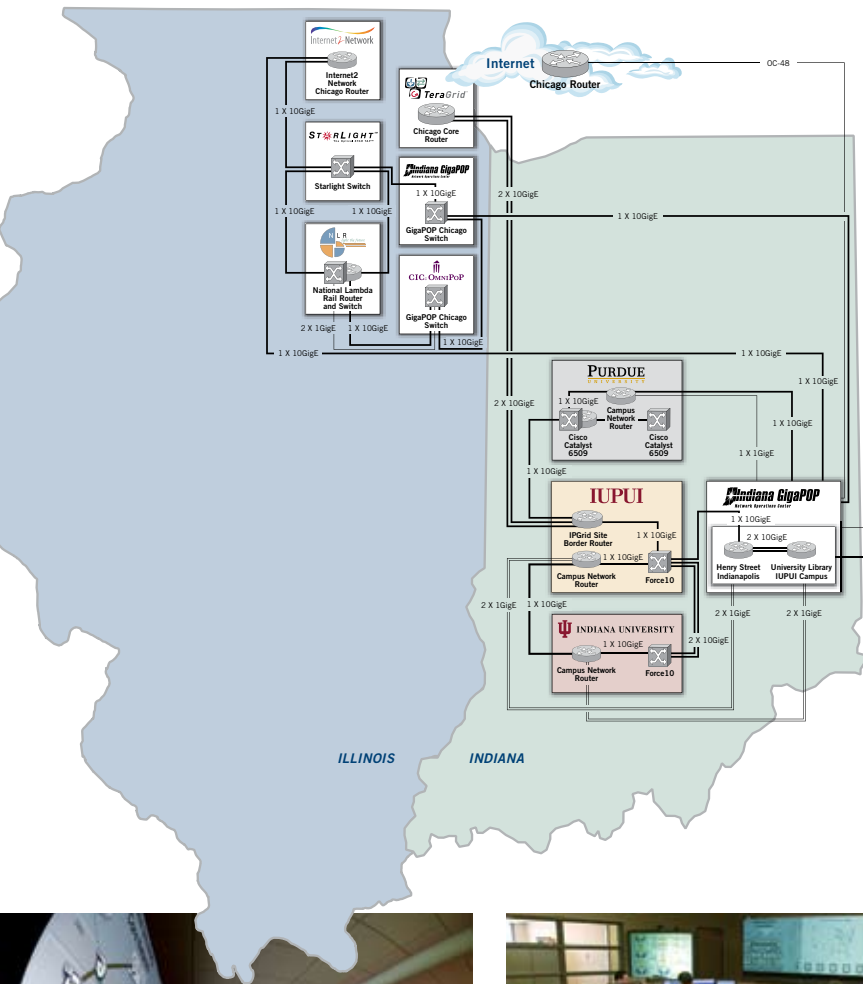
UITs staff contributed to the development of an urgent communications system for IU. A UITs-developed notification system can reach all eight campuses within minutes. Part of the “IU-Notify” initiative, it feeds into the university-wide mechanism for communicating everything from weather delays to more critical news.

I-Light

With new connections at IU East, Earlham College, and the Purdue University College of Technology, I-Light has 15 major network connection points or nodes at Indianapolis, Anderson, Muncie, Marion, Fort Wayne, South Bend, Gary, West Lafayette, Terre Haute, Richmond, Sellersburg, Vincennes, Evansville, Bloomington, and Kokomo.



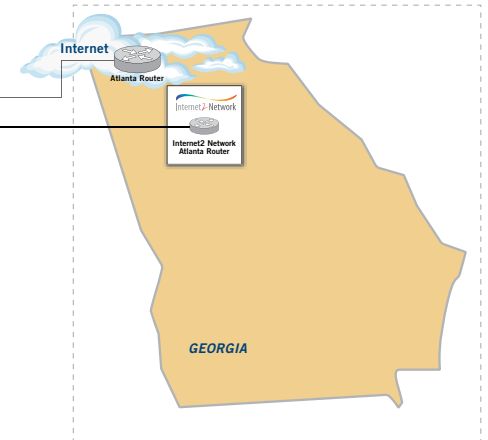
I-Light Optical Fiber Map



International networking

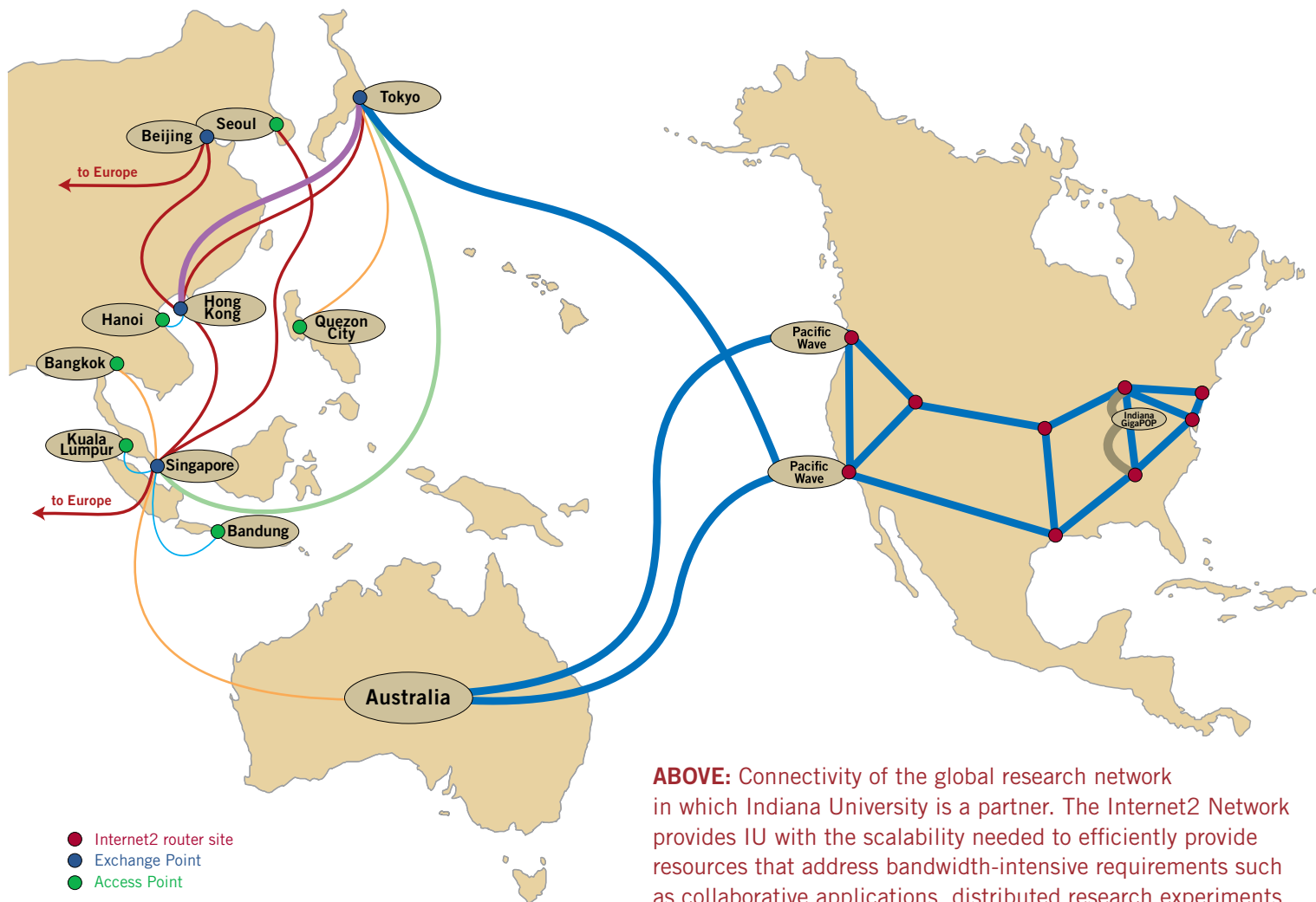
Staff from the IU Global Research Network Operations Center (GRNOC) and IU network engineers were key to the smooth transition to the new Internet2 100-Gigabits-per-second (Gbps) nationwide network infrastructure.

Jim Williams, UITS Director, International Networking, dedicated a new high-speed, NSF-funded Internet connection that will link Pakistani scientists and researchers with their US counterparts, extending the UITS-operated TransPAC2 connection to the Asia-Pacific region.



ABOVE: Connectivity of Indiana University's cyberinfrastructure with national research networks

LEFT: Photos inside the Global Research Network Operations Center (GRNOC). The GRNOC at Indiana University is a premier provider of highly responsive network coordination, engineering, and installation services that support the advancement of R&E networking.



ABOVE: Connectivity of the global research network in which Indiana University is a partner. The Internet2 Network provides IU with the scalability needed to efficiently provide resources that address bandwidth-intensive requirements such as collaborative applications, distributed research experiments, grid-based data analysis, and social networking. TransPAC, the high-speed international Internet service connecting research and education networks in the Asia-Pacific region to those in the US, utilizes the Internet2 Network and the Pacific Wave network infrastructure.



Of the NSA designation, **Fred Cate**, an Indiana University law professor and director of the Center for Applied Cybersecurity Research (CACR), said the title “reflects the university’s internationally recognized prominence in the study, teaching and use of information technologies.”

BELOW: UITs staff developed passphrase ad campaign posters to educate the IU community about security and the protection of online identity.

SECURITY

IU joined InCommon, the first nationwide US identity management federation for higher education. It provides single sign-on for online content and services, obviating the need for multiple, password-protected accounts.

Further efforts at improving security targeted online and campus security.

- CACR hosted the 2008 Indiana Higher Education Cybersecurity Summit at IUPUI with support from Purdue University, University of Notre Dame, and Indiana State University. Information assurance and other IT professionals and faculty from Indiana universities and colleges and other public institutions shared best practices, research, and trends in cybersecurity.
- UITs continued to promote the use of more secure passphrases over passwords.
- The “IU-Notify” emergency communications system will provide alerts and guidance in emergency or crisis situations, joining other communications systems described at the IU emergency preparedness site at <http://www.indianauniversity.info>.
- The IU REN-ISAC and Microsoft have formed an alliance to enhance network security measures in higher education. The alliance will extend Microsoft’s Security Cooperation Program to include higher education institutions.

National security

The National Security Agency (NSA), in April 2007, designated IU as a **National Center of Academic Excellence in Information Assurance Education**, making IU a partner for five years in national efforts to keep networks and computers safe and secure.



SUPPORT

Systems UITs staff developed in 2007 add flexibility and efficiency to the process of getting help.

Online help

- The new version of IT Notices, IT Now 2.0 is customizable by user preference. Subscribers get single notices about foundational services, even if they subscribe to several related services.
- Using ITHelp Live, Windows users can receive IT help in real time from a UITs consultant, including remote assistance in some cases. See <https://ithelplive.iu.edu/>
- Helping Local Support Providers (LSPs) provide better services is the LSP Online tool for sharing expertise and solving problems via forums, blogs, downloads, and RSS feeds. This won a “Best of Category” award in the 2007 competition hosted by the Association for Computing Machinery (ACM) SIGUCCS, the special interest group of university IT support professionals.
- The IU Knowledge Base (KB) provides more than 14,000 IT questions and answers for the IU community, and manages content for the knowledge bases that serve the TeraGrid and the Sakai community source organization.

Online search

IU entered a strategic alliance with ChaCha for research and development of next-generation Internet search tools. The project integrates searches from IUB Libraries, IUPUI Libraries, and the UITs Knowledge Base into a consolidated platform at search.iu.edu. Current research focuses on ways to use and access information stored in the UITs KB.



Brad Wheeler announces the IU-ChaCha alliance with ChaCha co-founders and IU alumni Scott Jones (right) and Brad Bostic.



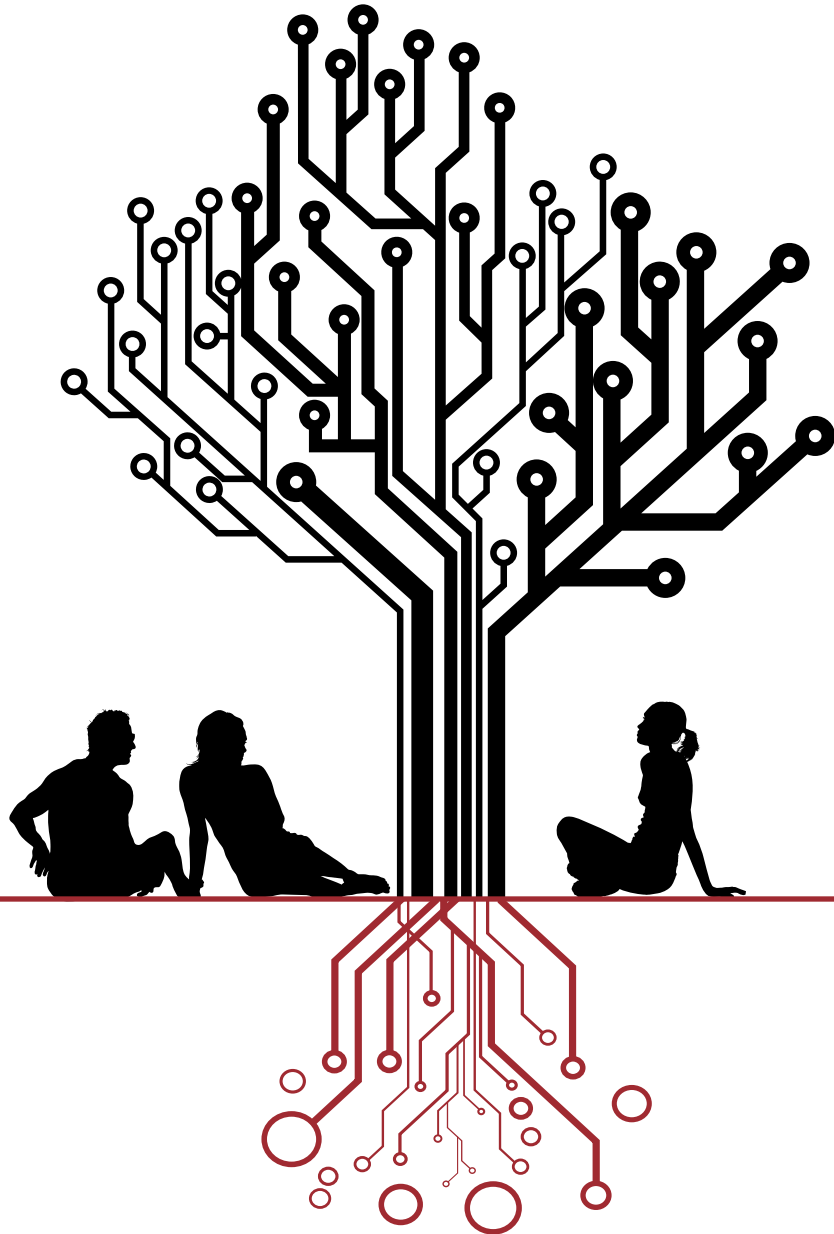
DIGITAL LIBRARIES

The IU IN Harmony project, with support from an Institute of Museum and Library Services grant, provides scholars with some 10,000 digitized pieces of sheet music, including holdings of the Indiana University Lilly Library, the Indiana State Library, the Indiana State Museum, and the Indiana Historical Society. See <http://www.dlib.indiana.edu/projects/inharmony/>

Recent advances in the digital library program include the following:

- IU scholars and researchers will benefit from IU's participation in the Google Book Search Project to digitize the most distinctive collections across all Committee on Institutional Cooperation (CIC) libraries, up to 10 million volumes. IU is a member of the CIC. The agreement advances IU's digitization efforts on a scale otherwise impossible, and saves the university millions of dollars by accomplishing in a few years what would otherwise have taken decades.
- In producing a scholarly online edition of Newton's 30-year involvement with alchemy, known as "chymistry," IU is greatly increasing access to one of the lesser-known activities of the founding father of physics. The Chymistry of Isaac Newton project includes a repository of searchable transcriptions with page images, with interactive tools for working with the text. See <http://webapp1.dlib.indiana.edu/newton/>.
- Through the Central American and Mexican Video Archive (CAMVA), IU scholars have access to a regional audio-visual archive of videos and raw footage collected through years of anthropological studies of people indigenous to Oaxaca, Veracruz, and Chiapas.

LEFT: Students using the IU-developed Variations2 digital music library program can review and annotate musical scores as they listen.



CONTINUING THE JOURNEY —
INFORMATION TECHNOLOGY STRATEGIC
PLAN 2: VISIONARY, REALISTIC, RELEVANT

The use of information technology (IT) services at IU has grown markedly since the 1998 Information Technology Strategic Plan provided a cornerstone of IU's emergence as a leader in information technology. Its recommendations steered the interweaving of IT and modern scholarship and learning such that the achievements of the IT organization and the achievements of the university are inexorably intertwined.



THE PRESIDENT'S CHARGE

In May of 1998 IU's IT Strategic Plan was presented to then IU President Myles Brand. In December of that year, it was approved for implementation.

By any standard IU's ITSP has been an enormous success. The awards and recognition that IU has received in just about every area of IT services and infrastructure confirm, in aggregate, IU's national and international leadership in IT. It also played a major role in helping create the environment that led to the establishment of IU's School of Informatics.

However, ten years have elapsed since this plan was developed. While the plan's ten general recommendations remain remarkably relevant, I believe the time has come to develop a new plan that will guide the future directions for the development of IT at IU for the next 5 to 10 years.

IU has developed IT services and infrastructure second to none over the last 10 years, and the impressive impacts

of these have been seen in education and research in many disciplines. But this impact has been uneven. As well, new waves of technology innovation are continuously building.

Hence the next IU IT Strategic Plan should be a plan to develop the pervasive use of IT to help build excellence in education and research in all disciplines, in administration, in IU's engagement in the life of the State, across all campuses, and in collaboration with IU's key partners such as Clarian Health and institutions of higher education in the State. The plan should sustain IU's leadership in services and infrastructure, while maximizing how these are leveraged to build excellence in education and research. And the plan should attempt to take into account the impact of the new waves of technology innovation in education and research based on the best predictions and analysis that can be developed.

In developing this plan a key guideline needs to be kept firmly in mind. IT at IU must continue to be seen as a University-level service provided at both the IU Bloomington campus and the IUPUI campus by University Information Technology Services (UITs) under the Office of the Vice President for Information Technology (OVPIT). OVPIT should also continue to provide guidance and oversight to the IT units on all the regional campuses.

The aim of this is to continue to ensure that IU maximizes the collective leverage of IU's total investments in IT in a way that is efficient, effective and financially responsible. However OVPIT must also continue to be responsive to the IT needs

of the individual campuses and schools, but in a way that is consistent with the foregoing principles.

This means for example, that university and campus administrators should ensure that "shadow" IT administrative systems, infrastructure or services are not developed or acquired that provide duplicate or similar IT systems, services or infrastructure to those provided by UITs, unless these are compelling and exceptional reasons for doing so and with the approval of OVPIT. University administrators should instead work with UITs to either provide these IT systems, infrastructure or services, or to modify existing IT systems, infrastructure or services. Where university or campus administrators require completely new IT systems, services or infrastructure, discussions should first be held with UITs about the provision of these and to ensure that security and economic efficiency considerations are taken fully into account.

You will be responsible for the development of the new IU IT Strategic Plan. I would like to receive it on 1 October, 2008. Please insure that in developing the plan, there are substantial opportunities for involvement and input from faculty, staff, students, administrators and IU's many external constituencies.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Michael McRobbie
President
Indiana University



ITSP2: THE CHALLENGES

New challenges lie ahead. Says Wheeler, “Open scholarly publishing, cyberinfrastructure, podcasting of multimedia content, blended residential and distributed courses, the rapid consumerization of IT, and the entry of digital natives as students, are among the early indicators that great universities of this century must adapt to new opportunities and imperatives.” [Wheeler, Charge to UITC and Task Forces]

New action plans are needed to guide the next 10 years of IT investments at IU. On the charge from President Michael McRobbie, IT Vice President Brad Wheeler charged the University Information Technology Committee (UITC) and its taskforces to develop IU's next IT Strategic Plan. Wheeler called for a plan that is “... *visionary, realistic, and relevant* to serving the explicit missions of all campuses of Indiana University. It should enable revolutionary outcomes via evolutionary steps.” Building on the architecture set down by the original plan, it will focus on accelerating the use and application of IT among IU's faculty, staff, students, and alumni. Specifically, it should “empower faculty excellence, student success, community effectiveness, and engagement beyond the physical boundaries of IU.” [Wheeler, Charge to UITC and Task Forces]

THE PLANNING PROCESS

The University Information Technology Strategic Planning Committee (UITC) under the guidance of chair Professor Frank Acito, Kelley School of Business, will work with the VPIT and leadership to develop IU's next IT Strategic Plan. Task Forces comprising IU faculty, staff, and students will consider the use of IT within and across various university roles and missions. Following are the Task Forces and their focus.

- *Faculty and Scholarly Excellence* will consider how information technology can continue to enable Indiana University faculty and scholars to pursue and achieve academic excellence in teaching, discovery, and creative

activity, including path-breaking research and scholarship, and optimize their pursuits.

- For students, Indiana University seeks to provide the best possible accessible and affordable education to all students, while providing a student living and learning environment of the highest quality. The *Student Success* Task Force will consider what vision for information technology will support the success of IU's students, enrolled now and who will enroll in the next decade.
- To engage as an effective community, faculty, students, and staff on Indiana University's campuses require access to information and capabilities for communication and collaboration. The *Effective Community* Task Force will consider how IU's infrastructure can support and enable the institutional missions of the University.
- Engagement in the life of the State of Indiana is a third mission for Indiana University, building upon excellence in education and research and focusing especially on economic development. Indiana University is also an international university. The *Engagement Beyond* Task Force will consider how IU's information technology plan can support the University's efforts to widen the scope and impact of its role as a public university and strengthen its global relationships.


The plan will be developed on an aggressive timeline, and the committees and leadership will seek broad input throughout the process.


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