UW Information Technology

2011 ANNUAL REPORT

150 YEARS

Welcome

At UW Information Technology, our work is not about technology—it's about people. It's about leveraging the power of technology to make people within the UW more productive and effective. As the stories in this report show, we are working with partners across the UW on initiatives that advance breakthrough research, move teaching and learning into the 21st century, improve the student experience, transform the way we do business, and retain and advance the UW's capacity for outstanding research and teaching.

A special focus this year is on improving the student experience. Students come to campus with high expectations. They are being asked to contribute more toward their education. Students need and deserve technology that enriches their learning experience and makes their academic lives easier. Our strategy is to provide a richer experience for students today, while building tomorrow's infrastructure.

Toward that end, we are engaging with faculty and students on key initiatives: evaluating next-generation learning management systems, developing MyPlan for online academic planning, exploring eTextbooks, and piloting a cloud-based lecture capture tool. We recently launched ViDA, an online virtual desktop that gives students 24/7 access to a growing list of software applications.

Other key priorities focus on major infrastructure upgrades that foster collaboration and increase productivity and efficiency—significant upgrades to wired and wireless networks, enhanced mobile offerings, and initiatives to modernize aging administrative systems and deliver better information for decision making. We are working with the eScience Institute and strategic external partners to support researchers with advanced networking, computing, and data storage and analysis capabilities.

To arrive at these priorities we listened to people across the UW community. We worked with the Graduate School, Undergraduate Academic Affairs, UW Libraries, academic computing directors, and undergraduate and graduate students to identify an information technology strategy for students. We conducted a Customer Satisfaction Survey to measure how we are doing and how we can better serve the UW community. With Classroom Support Services, we conducted a teaching and learning technology survey to gain insight into student and faculty needs, and we are launching initiatives that directly address the most pressing problems. We are lowering costs by negotiating better vendor contracts, using cloud computing and virtualization, and implementing internal business process improvements to make our organization more efficient.

Transformational changes in information technology offer the University great opportunity— and challenge. UW-IT's role is to serve as a catalyst—to engage with partners across the UW and national peers to make the right technology choices at the right time, and to find solutions that further the ability of everyone across the University to achieve their goals and engage in work that matters. With your help, these transformational changes are already underway.

Kelli Trosvig
INTERIM VICE PRESIDENT AND VICE PROVOST
UW INFORMATION TECHNOLOGY

Who We Are

UW Information Technology (UW-IT) is the central information technology organization for the University of Washington, responsible for strategic planning, oversight and direction of IT infrastructure, resources and services. We provide critical technology support to all three campuses, UW medical centers and research operations around the world. UW-IT has units focusing on administrative systems and information management, networking, telecommunications, data centers, information security and privacy, academic and collaborative applications, accessible technology, server and storage infrastructure, customer service and technology business continuity. We partner with the UW community to enable innovation, learning, discovery and service.

UW-IT Strategic Plan: Key Goals

1 **Excellent foundation services and infrastructure:** Deliver highly functional, reliable and invisible infrastructure that just works—and doesn't get in the way

2 **Improved collaboration and productivity tools:** Enable easy, secure collaboration with partners at the UW and beyond

3 **Advanced global research support:** Support UW research with up-to-date tools and resources

4 **Innovative teaching and learning tools:** Provide technology to support and improve the learning experience

5 **Information for decision making:** Provide access to better business information for planning and analysis

6 **Modern business information systems:** Provide modern, flexible and integrated business information systems to support a complex, global research institution

7 **Business continuity, security and privacy protection:** Support UW's risk management and compliance objectives

Our Mission

- Enable UW students, faculty and staff to be more effective
- Help the UW manage risks and resources
- Foster a community of innovation

More info

UW Information Technology (UW-IT)
uw.edu/uwit/

UW-IT Strategic Plan
uw.edu/uwit/strategic.plan.html

UW-IT Service Catalog
uw.edu/uwit/services/

Transforming how we do business

Bringing all the University's data together— and transforming how it can be used— promises to revolutionize the way we do business

Assistant Dean Lawrie Robertson takes advantage of data warehouse tools to make better decisions.

A Single Source of Truth

It was budgeting time at UW's School of Public Health, and Assistant Dean for Administration Lawrie Robertson had a couple of basic questions.

"What would happen to revenue if we raised tuition 10 percent? What would happen if we raised enrollment by 10 percent?" he asked. "With our current data systems, it's surprisingly challenging to find the answers. It takes a lot of blood, sweat and tears."

Fortunately, a better solution is underway.

That solution is to bring the vast amounts of data collected across the University into a single repository—the Enterprise Data Warehouse (EDW)—envisioned as "the single source of truth" for all UW data.

Currently, the effort is focused on migrating key institutional data administered by the Office of Planning & Budgeting, a major step in delivering strategic reports of trends, key metrics and longitudinal data across subject areas. Bill Yock, UW-IT's director of Enterprise Information Services, whose team is leading the effort, explained that after this work completes in 2013, UW-IT will migrate data from other legacy systems, retrieving, connecting and translating invaluable information. The full spectrum will include everything from advancement to student demographics, human resources to administrative research, financial data to space use and more.

While migration of Planning & Budgeting data is still in process, the EDW's current huge dataset—and new ways of accessing it—is already having a significant impact across the University.

Users can now download more than 200 canned reports containing previously unavailable data on finance, payroll, admissions and much more. Some 5,000 users currently access these reports, about 25,000 times per quarter. The data in the reports is refreshed regularly, and new reports are being added all the time.

For more in-depth analysis, new tools called Financial Activity Cubes offer a great alternative. The cubes use the familiar Microsoft Excel interface and allow users to quickly and easily "slice and dice" financial data in powerful ways. Users can ask multi-dimensional questions, generating information by fiscal year, by organization and by budget.

"We were one of the first schools to dig into cubes, and it has really changed the way we do business," Robertson said. "It's intuitive, and allows us to look across a number of related budgets rather than just one budget at a time. We use it on an almost daily basis. A lot of questions that used to be extremely difficult to answer are much, much easier thanks to the cubes."

"With the Warehouse and these new tools, we'll be able to look at many years of past data," Yock said. "We will get valuable insights for planning purposes in ways not possible today."

Robertson agrees. "The more reliable your data is, the more people have confidence in it. That spreads confidence into other areas—your research, all the work you're doing. That's why we're so strongly behind the EDW," he said. "We believe the full development of the EDW is absolutely essential to our ability to manage." ●

Enhancing efficiency; saving time and money

New online Faculty Effort and Cost Sharing (eFECS) reports save time, improve compliance and provide better information. The reports now include retroactive salary transfers, salary cap calculations and a better layout. This means less time processing reports and fewer compliance reviews.

New online budget reconciliation tool provides better, faster financial information. MyFinancial.desktop (MyFD) eliminates printed reconciliation reports. Users can annotate posted transactions, sign off on budgets and see the status of all budgets in one report. *Up next:* More source documents linked to posted transactions in MyFD.

A multi-year effort to improve business continuity will provide geographic redundancy for critical business systems. UW-IT established a remote data center outside the Pacific Northwest seismic area and completed a Business Impact Analysis for critical business applications. *Up next:* More enhancements and disaster recovery planning.

Direct deposit electronically processes travel and other reimbursements—no more paper checks and vouchers. UW employees enrolled in payroll direct deposit now have their approved travel reimbursements automatically deposited to their bank accounts within two business days.

Decision Support Web portal provides reports and tools to speed data gathering and analysis. Online access to enterprise reports, a financial data analysis cube, and self-service access to planning and budgeting data make it faster and easier to get reliable data about students, faculty, staff and budgets.

Enterprise workflow pilots automate and streamline business processes. Two successful pilots, using an open-source Kuali Rice platform, are complete:

- **Automated tuition change** improves efficiency and accuracy.
- **Online vendor registration** speeds the flow of UW purchases and payments.

What's next

- **HR/Payroll system replacement project** to deliver modern support for critical functions. Pending funding and approvals, implementation will start early 2013.

- **Online review of faculty effort certification reports**, expected to launch in early 2012.

- **Future enterprise workflow pilots** will automate paper-based processes and enable quick development of Web applications.

- **Improvements to MyUW**, UW's enterprise portal.

Promoting green computing saves trees and energy

- **Saving 3 million sheets of paper with online reports** while increasing accessibility and convenience.

- **Minimizing data center power, network and space demands** by virtualizing Computing Infrastructure Services servers.

- **Lowering energy consumption by about $700,000** through participation in the Pacific Northwest Smart Grid Project.

- **Optimizing desktop power consumption** through power management software. A pilot involving 3,000 desktops is testing an option to offer to all UW Seattle units.

More info

Decision Support
uw.edu/uwit/im/ds/

Information Management
uw.edu/uwit/im/

A flexible approach to technology keeps the UW on the leading edge of enriching the student experience

Professor and Dean Emeritus Michael Eisenberg enriches the student experience with cutting-edge teaching and learning tools.

One Size Does Not Fit All

For as long as universities have existed, one rule has remained constant: Don't carry on conversations during lectures. That's changing at the UW, thanks to one of several new teaching and learning tools being evaluated across campus. The tool, called Yarn, allows students to participate in real-time chats with one another during lectures.

"My biggest goal is to have 100 percent participation. I want every student to feel connected to the class," said Mike Eisenberg, professor and former dean of the Information School, the first to try the new tool in Spring Quarter 2011. Eisenberg uses Yarn as a "backchannel chat" to generate interesting questions and comments that he uses to enrich the discussion.

Yarn is just one of a number of cutting-edge teaching and learning tools UW-IT is making available to promote collaboration, enrich the student experience in and out of the classroom and help instructors manage their courses. Eisenberg, for instance, uses multiple proprietary and open-source tools including Catalyst Web Tools, Facebook and Vimeo.

"Not all students feel comfortable raising their hand and speaking out in class," Eisenberg said. "Having all these tools, both synchronous and asynchronous, makes it a lot easier for students with different skills, styles and personalities to participate and be fully engaged."

Other new tools, like Tegrity lecture capture and Canvas for course management, are currently being piloted, while ViDA, which provides students with 24/7 virtual desktop access to a growing software library, is already available.

According to Tom Lewis, UW-IT's director of Academic & Collaborative Applications, making multiple tools available and integrating them securely into UW's computing infrastructure is a strategy that keeps the UW on the leading edge of technology.

"We've always been leery of one-size-fits-all solutions that are still the dominant model in higher education," Lewis explained. "The future is not going to be about one big thing. We want to create a 'stack' of integrated tools. Our job is to find great technologies, bring them together, and make them quicker and easier to use, so that our students and faculty can be more effective."

One new tool Eisenberg is especially excited about is Canvas, a next-generation learning management system. Canvas promises to tremendously streamline instructors' ability to manage their courses and enrich the student experience.

"Right now it takes up to a minute per student just to get to their work for evaluation and grading. For me, that can be 100 minutes for each assignment," Eisenberg said. "With Canvas, you're just there. It's done. I estimate this one tool is going to increase my personal efficiency by 20 percent, which is time I can use for more meaningful interactions with my students."

"I think we are in the top 10 percent among our peers when it comes to willingness and efforts to take advantage of cutting-edge learning technologies," Eisenberg said. "All these technologies have the potential to make the classroom experience so much richer. That's what we're really talking about. A very rich, multi-dimensional experience that engages all the students." ●

Leveraging technology to transform teaching and learning

UW-IT is engaging faculty, students and staff on all campuses to provide advice and guidance and to help evaluate projects. This involvement includes input from the Teaching & Learning Technology Oversight Committee, faculty-driven pilot projects and feedback from UW partners and student participants in pilot projects.

Tegrity cloud-based lecture capture lets faculty record classroom sessions so students can review any segment, any time. Tegrity is being offered to a few classes in Autumn 2011 before becoming available to all faculty and enrolled students.

ViDA virtual desktop gives users 24/7 access to software applications from their personal computers. Students began using ViDA in Autumn 2011 to access Student Technology Fee-funded software as an alternative to going to a computer lab.

Cloud services provide new tools for teaching, learning and collaboration. More than 21,000 students, faculty and staff use UW Google Apps and UW Windows Live—low-cost, UW-branded, ad-free, cloud-hosted services for email and collaboration—in partnership with Microsoft and Google. New UW Google Apps tools include the Google+ social platform, Blogger for posting, and Picasa photo sharing, with more apps being added every quarter.

Catalyst Web Tools enable online collaboration and communication for teaching, learning and research. Catalyst averaged 48,000 daily user sessions for 4,700 classes per quarter in FY 2011. Enhancements make it easier to use UW Groups to manage group permissions in Catalyst Tools. The release of GradePage offers a one-step interface for grade submission, replacing paper forms.

Students with disabilities level the playing field by accessing help from the Disabilities, Opportunities, Internetworking and Technology (DO-IT) Center. DO-IT is a national effort involving the colleges of Education and Engineering and UW-IT. The center runs on-site and online programs that help students succeed by using technology as an empowering tool. DO-IT students are featured in 12 UWTV videos, speaking about adapted environments and technologies that give them equal access to education and employment.

New online tools make students' academic lives easier:

- Financial aid applicants can apply for loans more easily thanks to improved integration between UW Financial Aid and DirectLoans.gov.
- Financial aid recipients can track their status and be alerted whenever actions must be taken.

What's next

- **Canvas, a next-generation learning management system,** offers integrated features that enrich the student experience and help faculty manage courses. Pilots are underway with faculty on all campuses through Spring 2012.

- **MyPlan, a student academic planning tool,** helps students chart a multi-year education plan and track progress toward graduation. MyPlan is supported with funding by the Student Technology Fee. Initial rollout scheduled for Autumn 2012.

- **eText online text delivery** enhances student engagement at a lower cost than traditional textbooks. Users can search, highlight and annotate text, and access social-networking tools. Pilots planned through 2012.

- **Cloud services**: Early adoption of Exchange Online will bring robust email and calendaring, and allow users to migrate from UW Exchange to the cloud. New Google Apps under consideration for the UW include Books and Bookmarks and iGoogle personal information portal.

More info

Cloud-based services
uw.edu/itconnect/teamwork/cloud.html

Catalyst and other Web tools
uw.edu/lst/

DO-IT students on UWTV
uwtv.org/video/index.aspx?id=1549961281

Connecting people

UW global health researchers feel a little closer to home, thanks to UW-IT support

PhD candidate Katie Curran relies on technology to stay connected while conducting AIDS research in Kenya.

Staying Connected

When UW Department of Epidemiology doctoral researcher Katie Curran sits down at her laptop, she has full, secure access to her desktop in Seattle—even though she's conducting her AIDS research in Kenya, nine thousand miles away. And despite challenges with sub-Saharan Africa's sometimes spotty power and limited Internet bandwidth, Curran makes daily use of email—supplemented by video chat, planning and scheduling software, Internet "soft phones" and texting—to collaborate with colleagues and keep in touch with friends and family.

Curran depends on technology to carry out her research. Since many Kenyans have mobile phones, she is planning to send short surveys via phone to her research participants—surveys that aim to track, in near real time, sexual activity, fertility intentions, condom use and more.

Curran is one of about 30 UW International Clinical Research Center (ICRC) workers based in Africa—all of whom depend on technology supported by UW-IT. It's important that Curran, who is studying strategies to prevent HIV transmission between heterosexual infected and non-infected partners, conducts her research in sub-Saharan Africa. Some 67 percent of all people infected with HIV worldwide live in the region, with nearly two million new infections each year.

"Technology is critical for my work," Curran said. "The majority of my work is done on my laptop. The Internet is crucial for communication with my colleagues in the U.S., and we will be piloting the use of basic mobile phones to collect daily data from our research participants."

UW-IT supports researchers around the globe, working closely with them to set up IT best practices, source local supplies and hire local IT support staff, according to Sandra McGowan, UW-IT's assistant director of Customer Services and Operations.

"We help researchers figure out which tools will work well with minimum bandwidth and spotty power, and which tools they will find most useful," McGowan said. "We don't want to re-invent the wheel. Sometimes an open-source or cloud-based solution provides the most value. Researchers today want to have tools that provide safe and secure access to digital information at any time. It's our job to help identify these tools and make them accessible."

Supporting field research is just one way UW-IT is connecting people across campus and around the world. Other key initiatives include wireless and telephone system upgrades and cell phone discounts.

"Even though the 10-hour time difference can be a challenge when seeking live support, my experience with UW-IT has been great. Any problems I've had have been resolved quickly. This helps me focus on what's most important—my research," Curran said. "I definitely feel connected to the UW community." ●

Connecting people, improving coverage, saving money

Next-generation Wi-Fi will enhance speed, performance and coverage. A three-year wireless network (Wi-Fi) upgrade is underway. It will deliver six-to-eight times greater speed, offer better coverage and provide significantly more capacity. The effort is partially funded by $1 million from the Student Technology Fee Committee.

A major phone system upgrade will move the UW into the future. The upgrade will replace an aging, outdated phone system that lacks vendor support and modern features. UW-IT is partnering with key stakeholders and UW units to identify alternatives that will provide better collaboration and lower costs. Initial work is underway.

Microsoft and Apple licensing agreements provide popular software at significant savings to the UW. New agreements provide current and new Microsoft software at no additional cost for UW-owned computers, plus, for the first time, Apple software. The licenses help to keep computers up-to-date and in compliance.

UW users have mobile access to key resources including course catalogs, campus directories, maps, news, sports and events through the m.UW app—now available for Android, iPhone, BlackBerry and mobile Web. Further enhancements are planned for the future.

Hefty discounts add up to big savings for UW cell phone users. More than 26,000 UW students, faculty and staff take advantage of significant discounts available through contracts negotiated by UW-IT with AT&T and T-Mobile. The discounts save users an estimated $3 million a year—an average of well over $100 per person.

Nebula Managed Desktop Services help units manage IT support costs through on-demand pricing and flexible service options. Clients can request specialized consulting, on-site support and other services at an hourly rate.

Upgrades improve Washington's K-20 Education Network. Teachers, students and staff across the state connect through the high-performance K-20 network, designed and operated by UW-IT. The network connects Washington's K-12 schools, community colleges, universities, libraries and museums. Recent upgrades enable enhanced traffic management at over 400 sites and pave the way for increased bandwidth. *Up next:* Upgrades will enable speeds up to 10 gigabits, increase efficiency and reduce costs.

Fiber optic networks and Wi-Fi serve area hospitals. Heart-care clinicians at UW Medicine (including Northwest Hospital) and Seattle Cancer Care Alliance can access, evaluate and act on patient data across multiple data systems, sources and formats thanks to fiber optic network connectivity installed by UW-IT. At UW and Harborview Medical Centers, patients and visitors have free wireless service, and staff have secure, wireless access to hospital systems.

What's next

- **A unified communications pilot** is underway to integrate phones, videoconferencing, voicemail, email and instant messaging. UW-IT is partnering with all three UW campuses, UW Medicine and the K-20 Education Network.

- **Phone system upgrades and pilots** are ongoing at UW and Harborview Medical Centers.

- **New network architecture** will provide flexible service provisioning for researchers, enhanced security and an ability to scale network connections from 1 to 10 gigabits on request. Coming June 2012.

- **A more aggressive mobile strategy** will include UW-IT working with UW partners to add existing Web content to m.UW and help developers create content specifically for mobile devices.
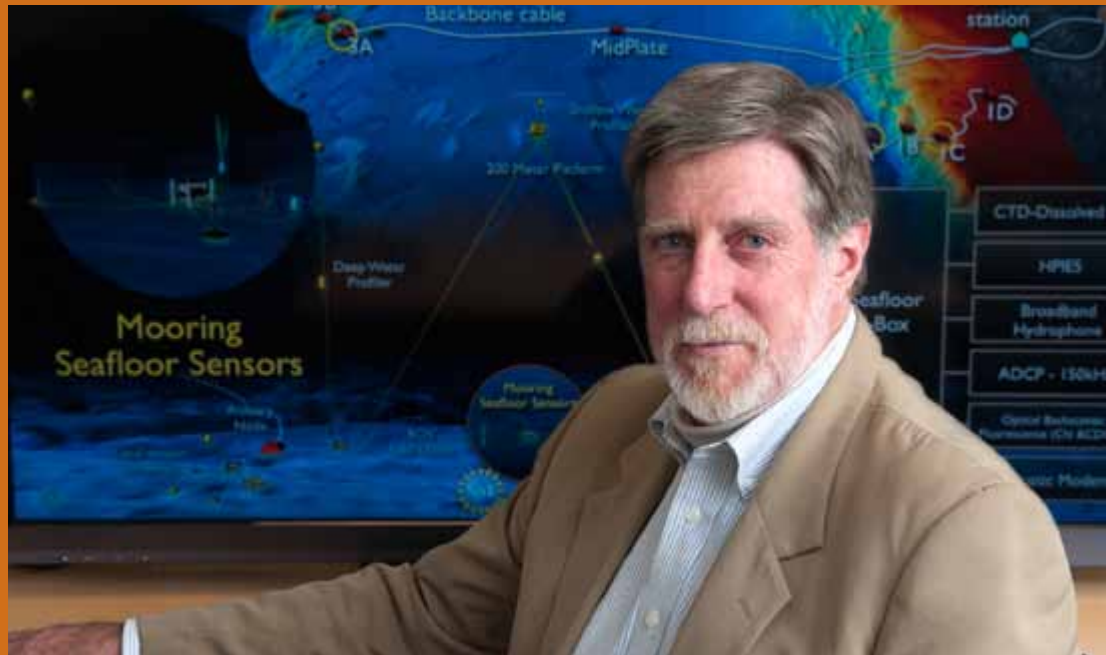
More info

UW-IT Service Catalog
uw.edu/uwit/services/

Software licenses (UWare)
uw.edu/itconnect/wares/uware

An NSF-supported effort to virtually inhabit the seafloor will reshape the future of our relationship to the world's oceans

Professor and Principal Investigator John R. Delaney leverages technology to advance breakthrough research on the world's oceans.

Unlocking the Oceans' Secrets

Imagine going to a Web site and transporting yourself to the ocean floor. You might witness a deep-sea volcano erupt in HD video, or listen to a blue whale sing. If you're a scientist or student, you could tap into a vast flow of real-time data about biological, chemical, geological and physical processes.

UW oceanographer John Delaney has dreamed of this capability for over 20 years. Now, thanks to a multi-decade National Science Foundation (NSF) project called the Ocean Observatories Initiative (OOI) and UW-IT support, that dream is close to becoming reality.

"For thousands of years, humans have gone to sea," Delaney said. "By 2014, instead of transiting, we'll 'be there' in a virtual sense. For the first time, humans are on the threshold of being virtually present, 24/7/365, within the complex, restless ocean that supports life on earth. Unless we can observe this global system in real time, it's possible to completely miss the big events—eruptions, earthquakes, tsunamis, giant storms. Key processes in this ever-changing planetary life support system are not routinely accessible if one is constrained to a ship, which can only be in one place at one time."

In pursuit of his goal, Delaney has led annual voyages on the UW's Research Vessel Thomas G. Thompson since 1995, often making incremental advancements, like streaming the first ever HD broadcast from the ocean floor. UW-IT, partnering with UWTV, has been instrumental in contributing to the design of the supporting infrastructure, both on board and on land. This infrastructure—including 500 miles of fiber-optic cable off Washington and Oregon and robot sensors in the ocean—

moves massive amounts of data between the ocean floor, the ship, a Ku-Band satellite, the UW and the global Internet.

"UW-IT turned out to be one of our guardian angels," Delaney said. "They provided essential technical support to a number of our seagoing efforts."

The partnership has enabled data to be rapidly beamed from ship to shore so people around the world can watch live video feeds of the scientists at work on the ship and on the seafloor.

While helping to bring bandwidth to the bottom of the sea is one dramatic example of UW-IT's efforts, it is only part of an ongoing, multi-year initiative to provide cutting-edge capabilities and bandwidth, both wired and wireless, to all three UW campuses, the UW Medical Center, Harborview Medical Center, Washington's K-20 Education Network and more.

"We're research partners," said Clare Donahue, UW-IT associate vice president of Networks, Data Centers & Telecommunications. "We want our students, faculty and staff to have the best tools to transform their work. We are always engaged with the future—and John's work is a perfect example of that."

Delaney's ultimate vision is to capture enough data to enable highly sophisticated computer models to predict large-scale shifts in ocean behavior—events that may have a global impact.

"That's the transformation we're contributing to," said Delaney. "A monumental effort to fully understand this incredibly complicated life support system that affects every human on the planet." ●

Leveraging strategic UW partnerships

Advancing research and learning through collaboration between UW-IT and the UW eScience Institute:

- **Developed Hyak, a shared high-performance, cost-effective research computer cluster** that saves faculty, students and staff from purchasing and maintaining high-end equipment. Hyak supports research in areas such as molecular dynamics and bioinformatics. *Up next:* Hyak will deploy additional storage space in the UW Tower Data Center by the end of 2011.
- **Database service expedites data-intensive science.** Improvements by UW-IT to SQLShare, an eScience database service, let researchers focus on analysis and collaboration rather than database administration and programming. *Up next:* Explore SQLShare as a tool for direct student interaction with complex research data.
- **Offered two new, cost-effective data storage services** to researchers:
  - **Shared File Service** combines general-purpose file storage with high-speed capability for sharing large datasets.
  - **Archive Storage Service** provides a redundant, tape-based repository for rarely accessed data.

Working with external partners to deliver next-generation networking

Supporting global research by designing, managing and operating two research data networks:
- **Pacific Northwest Gigapop (PNWGP)** delivers robust, highest-speed access to current and next-generation Internet services, technology, fiber and testbeds. PNWGP provides resources that support UW's global research.
- **Pacific Wave** connects Pacific Rim research and education networks and staff.

Joining Gig.U, a national coalition of over 30 research universities working to provide ultra-high-speed networking to local communities, attract startup companies, bolster the economy and stimulate innovation.

Collaborating with Internet2, K-20 Education Network, Northern Tier and other state, national and international networks.

Making high-priority improvements

Bringing 21st century capabilities to UW's network. A multi-year initiative will provide 10 gigabit virtual networks and other improvements to meet high-capacity research needs and growing demand for network bandwidth. The cost-effective and reliable network will be easier to maintain while meeting UW's future teaching, learning and research needs.

Operating a reliable, scalable and secure data center in the UW Tower that is environmentally controlled, energy efficient and cost effective.

Promoting a culture of security. The Office of the Chief Information Security Officer (CISO) promotes understanding of information assurance risks through analysis, research, education and consulting, and strategic solutions to protecting UW confidential information. This risk-based approach supports data integrity and availability and helps maintain the UW's reputation by safeguarding information assets.

What's next

- **Data center consolidation** to reduce the number of UW sites, providing significant cost savings. Explore strategies to continue to increase energy efficiency and reduce the overall data center footprint. FY 2014.

- **OpenFlow pilot to improve and enable advanced research** in network flow control and protocol development. UW-IT is partnering with Computer Science & Engineering, proposing to use NSF funds to implement an OpenFlow-enabled testbed among a subset of buildings at UW Seattle. If funded, will implement late 2012.

- **Ongoing eScience collaboration to explore Windows Azure and Amazon EC2 & S3**, cloud platforms for building and hosting Web applications to support research.

- **Meet growing demand for Internet addresses** and provide next-generation connectivity by moving to IPv6 internetworking protocol. Spring 2012.

- **A Pacific Northwest Gigapop partnership to build NSF-funded Northern Wave from Seattle to Chicago.** This shared 10 gigabit Ethernet facility architected and operated by UW-IT allows participating institutions to exchange network traffic with each other and with national and international networks. Completing in 2012.

More info

The eScience Institute (Hyak, SQLShare)
escience.uw.edu/

Networks, Data Centers & Telecommunications
uw.edu/uwit/ndt.html

Office of the Chief Information Security Officer (CISO)
ciso.uw.edu/

UW-IT's Annual Budget: Fiscal Year 2012

Sources (Revenue)

State Appropriation, Tuition and Indirect Cost Recovery	$ 43,560,604
Technology Recharge Fee	18,023,188
Self-Sustaining Services	20,624,200
Student Technology Fee	2,262,756
Total	**$ 84,470,748**

Uses (Expenses)

|	
Administrative Systems	$ 25,636,716
Data Networks	19,123,792
Telecommunications Services	8,358,233
Managed Servers and Workstations	3,380,626
Data Center and Facilities	3,230,997
Identity and Access Management	3,112,017
Campus Software Licensing	2,895,473
Email, Calendaring and Collaboration Tools	2,751,525
Student Technology Fee Initiatives	2,262,756
Teaching and Learning Tools	2,254,844
Chief Information Security Office	1,747,795
Backups and Mass Storage	1,507,695
Emergency Preparedness and Business Continuity	1,430,622
New Initiatives for Student Learning	1,300,000
UW Support for UWTV and KEXP	1,033,873
Enterprise Portal	920,058
Web Publishing	767,312
Accessible Technologies	750,553
Technology Evaluation and Development	603,846
Technology Spaces and Labs	521,441
IT Consulting	440,982
Cable Television	439,592
Total	**$ 84,470,748**

By the Numbers: What UW-IT Supports

207,577 unique devices on the UW wired network

223,000 unique devices on the UW Wi-Fi wireless network

28,394 people from 24 countries accessed UW's mobile app (m.UW)

975,000 business transactions processed on peak days

614,815 people with UW NetIDs (212,454 of whom used theirs this year)

171 million emails processed monthly

140 terabytes (10^{12}) of storage for research computing

1,247 student transactions per minute during peak times

100,255 unique UW NetIDs used Catalyst Web Tools

16,933 course sections used Catalyst Web Tools

17,242 Web sites hosted on central Web servers

15,500 help requests per month

Basic Bundle of IT Services

Almost 50 percent of UW-IT's FY 2012 budget ($42,024,226) is dedicated to providing a basic bundle of critical information technology services to all UW students, faculty and staff.

These basic services are supported by $24,001,038 in UW central funds and $18,023,188 from the Technology Recharge Fee. This fee was established in FY 2011 to provide a sustainable, long-term funding model for information technology. It replaced an outdated recharge model based upon phone lines, which did not fully cover the cost of services. The Technology Recharge Fee is a per capita rate paid by all UW academic and administrative units.

Funding Sources
Total: $42,024,226

Technology Recharge Fee
$18,023,188

UW Central Funds
$24,001,038
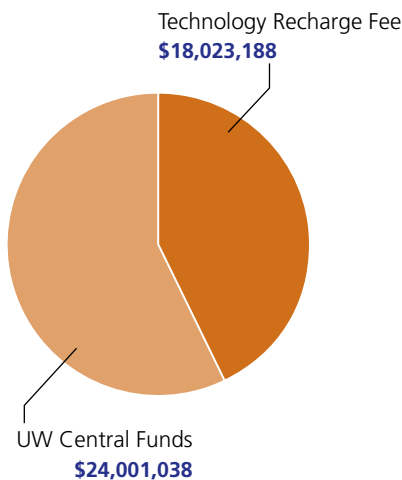
What's Included

- Accessible technologies
- Administrative systems infrastructure
- Basic backups and mass storage
- Basic data networks
- Basic email, calendaring and collaboration tools
- Campus software licensing
- Emergency preparedness and business continuity
- Enterprise portal
- Identity and access management
- Teaching and learning tools
- Telecommunications infrastructure
- Web publishing

Specific UW-IT Priorities for FY 2012

Improve the student experience: Provide better academic planning and scheduling tools; enhance support for teaching and learning; expand computer laboratory access through a "virtual laboratory"; upgrade and increase Wi-Fi access.

Deliver core IT resources to students, faculty and staff: Continue core infrastructure upgrades, including networking, telephony, storage, collaboration, teaching and learning; improve managed desktop, server and storage offerings; implement UW-IT improvement initiatives.

Leverage the cloud to provide more flexible and on-demand resources: Respond to growing demand for cloud services and associated institutional risk management issues; continue replacing on-premise email with cloud-based solutions; provide easier-to-use tools; negotiate better vendor contracts to lower costs and offer more training to the UW community; work with the eScience Institute to provide more access with better value to cloud computer platforms such as Windows Azure and Amazon EC2 & S3 for research.

Integrate mobility and global support: Ensure key applications are mobile friendly; work toward anytime/anywhere/any-device access to services; continue to integrate popular consumer devices.

Be a UW leader in green computing: Increase server virtualization; leverage more efficient processors; pilot and evaluate improved desktop power management; consolidate data center space.

Provide better business information systems: Improve enterprise reports by leveraging the Enterprise Data Warehouse with a strategic focus on providing analytical data for key UW initiatives; launch Human Resources/Payroll system modernization; provide incremental, but significant, improvements to business information systems, including piloting an enterprise workflow and a document imaging and management solution.

Improve UW's risk profile: Implement Business Continuity Initiative Phase II; launch campus privacy initiative; increase computer security through centralized patch management, standard laptop encryption and better software compliance.

Customer Satisfaction: Highlights of UW-IT's 2011 Survey

A customer satisfaction survey of 2,100 randomly selected students, faculty and staff was conducted in May 2011 to measure satisfaction with UW-IT services. The survey was conducted by MOR Associates, an external consultant with expertise in developing satisfaction surveys for IT organizations in higher education. The response rate was high: 35 percent (745 responses). Scoring was on a satisfaction scale of 1 to 6, with 6 being the highest.

- **UW-IT overall ratings:** UW-IT's overall quality of services was rated 4.88 (mean score), with 94 percent of all respondents at least somewhat satisfied. UW-IT's responsiveness to your needs was rated 4.86, with 91 percent of respondents at least somewhat satisfied.

- **Areas rated highly:** The reliability and availability of the wired network had the highest ratings for a major service, at 5.20 and 5.18, respectively. Also highly rated were UW-IT's main help service (help@uw.edu), with scores in three key areas ranging from 5.01 – 5.03; and telephone customer service, with two services rated 5.00 and 5.02.

- **Areas receiving lower scores:** Lower scoring areas included wireless network reliability rated at 4.69; UW email (Alpine deskmail) at 4.50; wireless network (Wi-Fi) coverage at 4.47; and cellular coverage at 4.20.

UW-IT has key projects underway to address the lower-scoring areas including a major Wi-Fi upgrade to significantly improve speed, coverage and reliability; continued improvements to cellular service offerings; and continued enhancements to UW cloud-hosted email—additional Google Apps and a move to Exchange Online / Office 365. Other significant infrastructure efforts include upgrades to the UW's wired network and aging telephone system.

More info

UW-IT Customer Satisfaction Survey Report
uw.edu/uwit/surveys/cs11.html
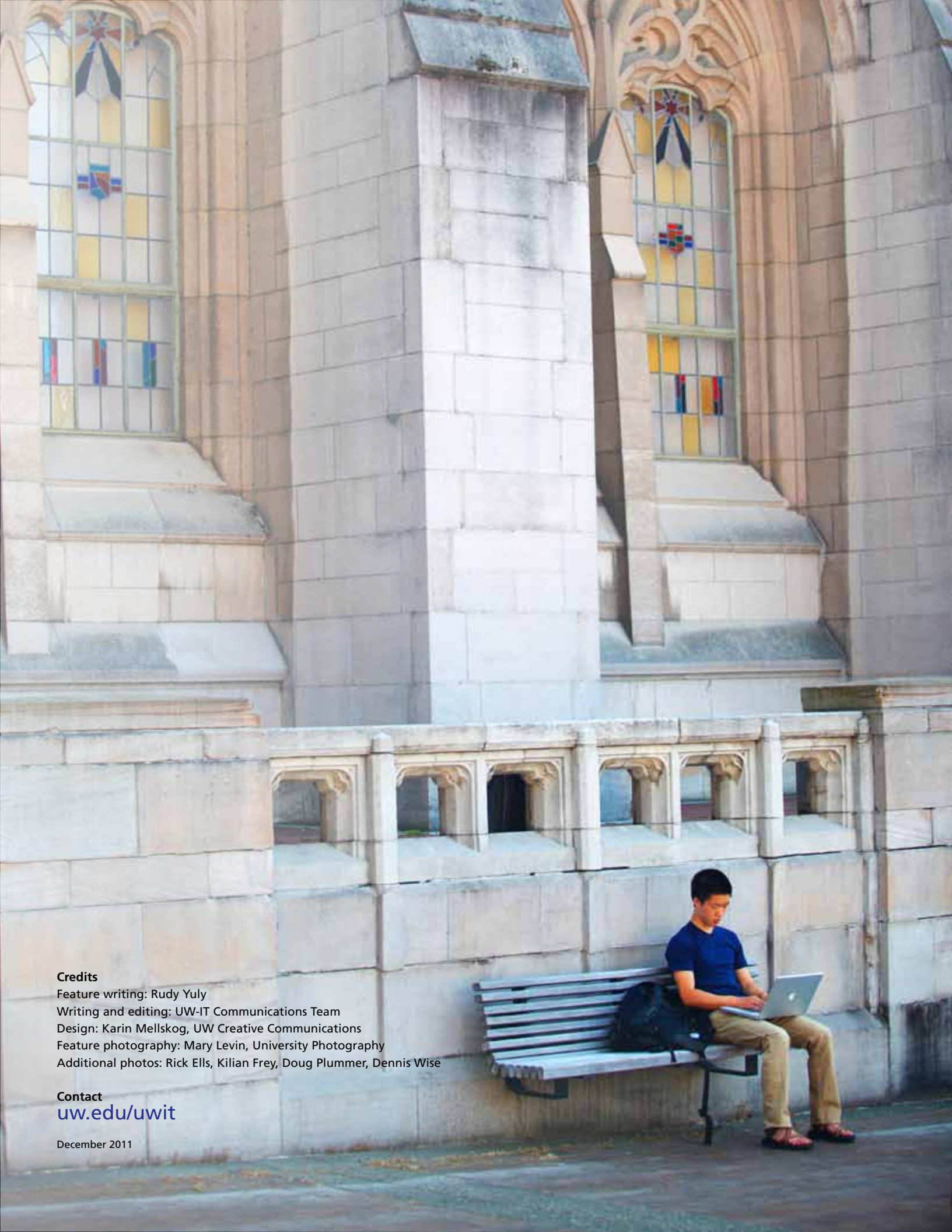
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