



# UBIT

## spring 2011 news

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### W.O.M. IT Word of Mouth

What will be your next mobile device purchase and why?



*"Don't know. My kids get the good phones first!"*

Dave Costello  
Director of IT  
School of Management

[Read more W.O.M.s...](#)

### New UB\_Guest Wireless Network

By RICK LESNIAK,  
[lesniak@buffalo.edu](mailto:lesniak@buffalo.edu)

UB\_Guest is a new WiFi network designed for visitors and guests to UB.

[Read about UB\\_Guest...](#)

### CIT Name Changes

By NANCY KIELAR,  
[kielar@buffalo.edu](mailto:kielar@buffalo.edu)

CIT's Operational Support Services and Instructional Technology Services units



### On Change and Commitment

By TOM FURLANI, Interim Associate Vice President for IT [furlani@buffalo.edu](mailto:furlani@buffalo.edu)

The one constant in the field of information technology (IT) is change, with new technologies and methods for delivering services continuously emerging. As someone who began his programming career when computer memory was measured in kilobytes as opposed to gigabytes, it has been amazing to witness the remarkable impact that IT has had on every facet of our lives, from medicine, to science and engineering, to communications, to many other technologies we now take for granted, such as digital photography, mobile devices, and GPS systems.

The rapid advances in IT represent both an opportunity and a challenge. Organizations must continually adapt to improve operational efficiency and most importantly improve the quality and range of services to their customers.

UB is no different in this regard, and I think as this newsletter demonstrates, the people responsible for supporting and advancing the university's IT capability, whether they reside in the nodes or the central organization, are committed to ensuring the IT needs of the institution are met. I have come to appreciate this dedication and commitment more fully in the short time I have served as CIO.

[Read below about On Change and Commitment...](#)



### Introducing the New "HUB" of UB's Student Services

By LISA STEPHENS, [stephens@buffalo.edu](mailto:stephens@buffalo.edu)

UB is introducing a campus-wide student services system that students recently named "HUB". Combining all student transactions, the HUB Student Center will be easily accessed through MyUB and become the "HUB" of a student's academic and financial life at UB. This web-based software will seamlessly integrate academic advising, admissions, course enrollment, financial aid, student accounts, grading and transcripts into a one-stop-shop.

"We were very pleased with the response to the 'Name the System' contest as it generated significant student excitement about the new system," said A. Scott Weber, Vice-Provost and Dean for Undergraduate Education. "HUB embodies the central nature of the services, data and transactions that the new system facilitates while capitalizing on the UB brand." HUB was not named or intended as a service acronym, but many people have unofficially referred to it as the new "heartbeat of UB's student services."

This multi-year, institution-wide project could not have been realized without broad cooperation, support and commitment from departmental faculty, staff and administrators who gave generously of their time and effort serving on advisory groups, assisting with early testing, and volunteering for the "train-the-trainers" effort. Many of the HUB trainers have also been willing to serve as "First Advisors" to assist colleagues during the transition to the new system.

"This is the most comprehensive technology and business redesign project undertaken at UB in recent memory, and we continue to be impressed by the level of sustained commitment and professionalism exhibited by the stakeholders campus-wide" said Tom Furlani, Interim Associate Vice President and CIO.

"The system is being made incrementally available following the academic calendar timeline," explained Kara Saunders, Interim Registrar and Assistant Vice Provost for Undergraduate Education. "The first feature made available

was to undergraduate applicants living within the United States. Applicants receive a UBIT name to track the status of their application within HUB prior to being accepted as a student. The system contains a checklist they can use to monitor whether required documents have been received to support the admissions decision process."

have merged and the resulting organization has a new name: **Network and Classroom Services (NCS)**. This name change more specifically describes the nature of the work performed by this unit in providing enterprise communications and classroom technology services for the campus. Mark Deuell continues to be the director of Network and Classroom Services. Mark reflects that this change is a déjà vu of sorts, since classroom technology design and integration support was previously a part of OSS.

Similarly, Administrative Computing Services has been renamed **Enterprise Application Services (EAS)**, with Susan Huston as director. The new name is more descriptive of the services provided for enterprise application implementation, development and support for the campus, such as the recent student services transformation currently underway (**See HUB article in this issue**).

Read below about HUB...

## Taste of Virtual Computing

By SAIRA HASNAIN, [saira@buffalo.edu](mailto:saira@buffalo.edu)



Our recent student IT experience survey reveals that 88% of students own laptop computers, yet UB's Cybraries and public labs continue to be as busy as ever. When we ask students why they don't use their laptops and stop relying on public labs, one important reason is their access to expensive specialized software that is only available in the labs. As we plan for the next refresh of the Cybraries and public labs, we're asking ourselves, "Is there a better way?"

In 2009, University of Virginia announced the end of public labs on their campus. To make this happen, UVa needed to formulate solutions to extending software access to students from virtually anywhere. Their UVa Hive project is an example of how this can happen at a major university.

SUNY Stony Brook has a similar project, the Virtual Computer Lab where the goals were to give students access to technology 24x7 from anywhere using only a web browser on a PC, Mac or Linux computer. Their user interface goal is to be identical to that in their public computer labs.

In our student IT experience survey, we asked students two questions to help guide our development thoughts: if given a virtual computer, what software would be used, and what purpose would it be used. Access to Adobe Creative Suite® and Acrobat Professional® were the top titles desired, which agreed with the top purpose identified: doing homework at home.

Read below about Taste of Virtual Computing...

## On Change and Commitment

By TOM FURLANI, Interim Associate Vice President for IT [furlani@buffalo.edu](mailto:furlani@buffalo.edu)

[article continued from above]

### Commitment Examples

A good example of this commitment is the new student services system (**see the article on HUB above**). More than three years in the making, this is the most comprehensive technology and business redesign project undertaken at UB in recent memory, and its successful implementation is a testimonial to the dedication, capability, and commitment of the many staff, departmental faculty, and administrators who worked on the project. From the Office of the CIO, I would like to especially acknowledge the efforts of Administrative Computing Services and Enterprise Infrastructure Services, both of which have been involved with this challenging project since its inception.

Networking is another area of sustained focus at UB. UB's network bandwidth demands double about every two years, and staying ahead of the curve can be challenging, especially in the current economic climate. Unfortunately, a congested network is not much different than a highway at rush hour, with network traffic traveling at a much slower rate than desired. Which is where things stood at the end of the fall semester, and as a result the campus experienced unusually slow Internet performance during periods of peak utilization. In late February, we switched over to a new network with double the capacity of the old one. The new network, which operates at 2 Gbps, has plenty of room to grow so we are well positioned for future growth.

UB is a leader in the field of high performance computing but staying there is not easy given the pace at which processing power changes. However, thanks to several competitively awarded research grants, CCR's supercomputers are undergoing a major \$9M upgrade that will boost the Center's compute capacity by more than a factor of 5 and its high-performance storage capacity by more than a factor of 15. It will be achieved utilizing the latest in green IT technologies, so that that much of the increased compute capacity is achieved while at the same time reducing the Center's energy consumption.

### Transformation Continues

Under the guiding principles of the UB 2020 IT Strategic Transformation initiative, we continue to innovate as well as look for ways to improve the efficiency of UB's IT operations. For example, over the next year we hope to rollout a virtual computing lab that will allow students to run many of the application packages that are currently available only in campus computing labs directly on their personal computer. (**see "Taste of Virtual Computing"**).

We are also working with UB Libraries and the Office of the Vice President of Research, with the library taking the lead, to develop a repository to facilitate the retention and sharing of research data as now required by the National Science Foundation.

We also recently completed the reorganization of the Academic Services (ASCIT) division within the Office of the CIO to better focus on providing front-line IT services to UB faculty, staff and students (see the recent Reporter article "ASCIT reorganization focuses on 'front-line' IT services"), and are investigating ways to improve the delivery of service through our help desk. Other ongoing projects include the renovation of UB's primary data center, which is more than 20 years old.

Clearly, 2010 was a busy year and 2011 promises to be no different. However, I look forward with confidence to the challenges that lie ahead knowing the quality of our IT staff and their commitment to excellence.

I hope you'll find the information useful and welcome your comments and suggestions for future topics as well as feedback on IT services and initiatives in general. You can find previous issues of the newsletter on our Web site: [www.cio.buffalo.edu](http://www.cio.buffalo.edu).

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## Introducing the New "HUB" of UB's Student Services

By LISA STEPHENS, [stephens@buffalo.edu](mailto:stephens@buffalo.edu)

[article continued from above]

For course registration, HUB replaces both the web registration system and BIRD. Beginning this spring, students can access the HUB Student Center through a new tab in MyUB. One key registration feature is the "shopping cart" that enables students to create a course "wish list" for registration in multiple courses with a single click as soon as their registration window opens up. The main HUB page will simplify accessing grades, viewing required classes, checking enrollment and conducting student account and financial aid transactions. There also will be a student planner available to help with organization.

Students will be able to view detailed information that in the past may have required an in-person visit to the Student Response Center (SRC). One unidentified student who participated in an early demonstration of HUB features commented, "I really like being able to view the details of financial aid packages and decide whether to accept or reject an offer online" and if I receive a checkstop (now called a "hold" in HUB), it describes the problem, and what I have to do to get rid of it."

As the system continues to rollout, it will be easier for students (and authorized payers) to view account information and recent eBills, and then choose from several options to make payments online. Students will also be asked to update and maintain personal information to ensure that phone numbers for emergency contacts and mailing addresses remain current.

"From a graduate student perspective, the initial benefits of the HUB are in the central availability of graduate and professional application data," said John Ho, Vice Provost for Graduate Education and Dean of the Graduate School. "HUB offers the ability of graduate and professional students to manage their academic and financial matters using the self-service features. In the near future, we hope to introduce additional degree audit functionalities that would facilitate student advisement, retention, and degree completion."

Vice Provost Weber said, "The immediate impact on faculty is limited. Tasks that most of us currently perform such as entering grades, or viewing exam schedules, will largely remain the same. MyUB's new "HUB Faculty Center" will simply point to a new location in order to access HUB." He added, "But the impact of student empowerment to access, manage and plan their academic careers is significant. Advisors will be able to reduce time spent on chasing detailed paperwork, and increase the time they spend with students! These improvements will result in higher retention and graduation rates, more timely advisement, and most importantly"fewer frustrations for staff, students and faculty."

The HUB project leaders have been pleased with the pace of the new system rollout, but patience is advised during the transition to the new system, as a significant change in operation such as this will naturally result in a campus-wide learning curve. "During the transition to the new system, a temporary performance dip is to be expected given the extensive nature of the changes being made," said Tom Furlani. "However, there will be substantial benefits for students, faculty and staff as we move forward that will be well worth the investment and effort."

An example of one of those learning curves will be new terminology that characterizes some HUB functions. A "career" refers to status as an undergraduate, graduate or professional school student, and a "program" refers to the school in which a student is enrolled (e.g., The School of Engineering and Applied Sciences). There are other language changes within HUB that impact the advising community and other staff who must learn how to navigate the system to assist faculty and students.

An extensive "hands on" and online training effort is currently taking place to assist staff with becoming familiar with the new system. Prior to receiving access to HUB, those who administratively manage sensitive data such as social security numbers have been re-certified in proper security practices. A growing library of online resources customized to UB's use of HUB will provide immediate "how to" video and print tutorials to students, faculty and staff as the campus makes the transition from the legacy systems to HUB.

A website to direct students, faculty and staff to tutorial resources is available at: [www.hubtraining.buffalo.edu/help](http://www.hubtraining.buffalo.edu/help). A video describing some of the new features is available on the student HUB website at: [www.buffalo.edu/hub](http://www.buffalo.edu/hub).

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## Taste of Virtual Computing

By SAIRA HASNAIN, [saira@buffalo.edu](mailto:saira@buffalo.edu)

[article continued from above]

We're investigating two methods to make virtual lab computing a reality at UB. One project looks at providing a virtual computer to students accessible via browser, ala Stony Brook; the other investigates providing virtual access to software through streaming download or similar access methods similar to the UVA Hive.

We're planning on making 32 virtual computers complete with a full suite of public lab software available for students to schedule for periods of time for their exclusive use using their browser. Once their usage is completed, the machine would be reset and available for the next user.

The virtual software access pilot project is slated for Summer 2011. This project will investigate appropriate tools for providing virtual access to individual software titles to students 24x7, anywhere. A similar system has been in use at UB's Cybraries and Public labs for a few years, but pushing out software to disparate and unknown computers poses considerable additional problems.

It should be noted that virtual access to computers has been in use within UB departments for several years. Two such examples are the Ubiquity Citrix service in School and Engineering, and the Office of Medical Computing's Citrix service providing "virtual" access to specialized software for medical students.

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## The State of the Supernode

By PETER RITTNER, [prittner@buffalo.edu](mailto:prittner@buffalo.edu)

Under the Information Technology Transformation initiative, the University has for five years been making progress in optimizing the effectiveness and efficiency of its information technology resources and services. The formation in September 2010 of the CASet/DMG/SENS supernode is an important step in that process. Combining the staffs and resources of CASet (which serves the College of Arts and Sciences), DMG (which serves the School of Architecture and Planning), and SENS (which serves the School of Engineering and Applied Sciences and the faculty of natural sciences and mathematics) presents opportunities for consolidation of infrastructure, cross coverage of staffing needs, and diversification and distribution of expertise and skills. Taking advantage of such opportunities is particularly important in a time of severely limited resources, particularly of shrinking staff resources.

Three of us (Peter Rittner (Assistant Dean for Educational Technology in the College of Arts and Sciences and nominal director of the supernode), Bruce Majkowski (Associate Dean in the School of Architecture and Planning), and Dave Yearke (director of SENS in the School of Engineering and Applied Sciences)) comprise the leadership team of the supernode.

To date, we have:

- met several times to discuss and explore areas of potential cooperation and collaboration;
- met individually with each staff member of the units in the supernode; and
- have identified those staff members who will actively develop detailed plans for the projects which will define and develop the supernode.

Our near term projects include:

- merging of work order systems;
- reconciliation (where possible) of policy differences;
- sharing of specialized resources, such as high end printing; and
- cross training and exchange of ideas about matters such as server virtualization, workstation virtualization, and automation of routine and repetitive functions.

Mutual support in the event of temporary staff shortages is, of course, a given part of the supernode's function.

On a lighter note, our three component nodes shared a holiday party at the Tonawanda golf dome. A modest feast of pulled pork and side dishes was followed by a fiercely competitive round of miniature golf. There were no major scoring disputes.

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## W.O.M. IT Word of Mouth

What will be your next mobile device purchase and why?



*"Android 3.0 tablet. iWhat??? I like my iPod and I Love my Macbook Pro, but I am all Droid for mobile. I do not like the restrictive nature of the iTunes store and the way the carriers strangle you on the data plans for iPhone. I have a Nexus One with an unlimited data plan and it rocks."*

Keith Curtachio, Director of Information Technology  
UB Campus Dining & Shops

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## New UB\_Guest Wireless Network

By RICK LESNIAK, [lesniak@buffalo.edu](mailto:lesniak@buffalo.edu)

[article continued from above]

A WiFi enabled device will automatically detect the UB\_Guest network, as well as UB\_Secure, the campuses secure wireless network. Once a visitor selects UB\_Guest and opens a browser they will see UB\_Guest's simple Terms and Conditions screen. All that is



*"Actually, I just got a Droid 2 Global phone a couple weeks back and switched from AT&T to Verizon. The reason was to replace my old smartphone (HTC Fuze) which was pretty good for everything except making phone calls, which were dropped all the time. New phone has much better call quality and no drops, so far."*

Michael W. Tinsmon, Director of IT  
Graduate School of Education



*"iPad; it will allow me to be more mobile than a notebook."*

Richard Amantia, Director Technology Services  
School of Social Work

required to connect is to enter an e-mail address and accept the terms and conditions.

UB\_Guest is restricted to Web traffic only, and is not secured with encryption. Anyone with a UBITName should use UB\_Secure for their wireless connection, which is secured with encryption and provides access to full Internet services.

With UB's new guest wireless capability, it is no longer necessary to request UBITName conference accounts for guest or visitor access who come to campus for conferences or special events.

For more information, please visit the Web page [ubit.buffalo.edu/wireless](http://ubit.buffalo.edu/wireless) or ask the CIT Helpdesk at 645-3542 ([cit-helpdesk@buffalo.edu](mailto:cit-helpdesk@buffalo.edu)).

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## UB's High Performance Computing Center (CCR) Gets a Big Boost in Capability

By TOM FURLANI, Interim Associate Vice President for IT [furlani@buffalo.edu](mailto:furlani@buffalo.edu)

Staff at UB's Center for Computational Research have been doing double duty lately - both supporting faculty and students in their modeling and simulation based research as well as carrying out a dramatic upgrade of the Center's computing, storage, networking and visualization infrastructure.

The \$9M upgrade, when completed later in the year will boost the Center's compute capacity by about a factor of 5 (to 60 - 70 Tflops) and its high-performance storage capacity by more than a factor of 15 (to 400 Tbytes). In addition, two new computing architectures will be brought on-line, including a powerful GPU (Graphical Processing Unit) cluster consisting of the 64 Nvidia "Fermi" GPU's and a supercomputer specifically architected to solve data-intensive problems, which are common in fields such as bioinformatics where high-throughput experimental devices can easily generate 2 - 4 Terabytes of data per experiment. CCR's large tiled display wall will also undergo a major upgrade.

Keeping in line with the University's commitment to environmental stewardship, the Center's upgrades are being carried out with the latest in green IT technology, including employing energy efficient servers and advanced rack-based cooling techniques. Indeed, CCR's achievements in green supercomputing were recently recognized by NYSERDA when it awarded UB its first annual New York State Data Center Energy Efficiency Leadership Award, recognizing leadership in pursuing policies and projects that promote data center energy efficiency in New York State. For more info, visit [ccr.buffalo.edu](http://ccr.buffalo.edu).

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## MATLAB® Total Academic Headcount Campus License

By RICK LESNIAK, [lesniak@buffalo.edu](mailto:lesniak@buffalo.edu)

UB has contracted with MathWorks for a campus site license for several key MATLAB software titles. MATLAB is widely used software for mathematical computation, analysis, visualization, and algorithm development in science and engineering.

This license culminates nearly two years of work in identifying central computing resources that will advance UB's teaching and research mission. It eliminates the divide between faculty and students who could afford access to this software, and those needing it to advance their science and scholarship but couldn't afford individual licenses.

The MATLAB® TAH Campus license is an annual site license that provides on-campus access of MATLAB® Standard Configuration software for all faculty, staff, researchers, and students, and offers home or laptop use by faculty, staff, and researchers. Classroom or lab installation and network server installation is included. Student use is restricted to on-campus computing facilities or virtual lab environments. In addition, faculty, staff, and researchers are licensed for home and laptop use.

Installation of Campus License on student-owned equipment is prohibited. A student version of MATLAB® may be purchased from UBMicro.

The MATLAB® TAH Campus License titles included in UB's contract are:

1. MATLAB®
2. Simulink
3. Symbolic Math Toolbox Version 5.1 or later
4. Bioinformatics Toolbox
5. Control System Toolbox
9. Image Processing Toolbox
10. Instrument Control Toolbox
11. Optimization Toolbox
12. Signal Processing Toolbox
13. SimMechanics

6. Curve Fitting Toolbox
7. Data Acquisition Toolbox
8. Signal Processing Blockset

14. Stateflow
15. Statistics Toolbox
16. SimScape

In addition, UB added a site license for MATLAB® Distributed Computing Server (MDCS) to the TAH license. MATLAB® Distributed Computing Server™ lets users solve computationally and data-intensive problems by executing MATLAB® and Simulink® based applications on a computer cluster. MATLAB is installed on every machine of the u2 (edge) cluster at the Center for Computational Research (CCR) with MATLAB Distributed Computing Server software supporting either sequential or parallel code to run on the cluster.

The MATLAB® TAH campus license is an annual agreement that must be renewed each October for the upcoming year. The CIO's office using UBIT funding is supporting the cost of licensing this program.

Additional Toolboxes may be purchased directly from MathWorks as child licenses to UB's campus site license. Annual software maintenance on additional toolboxes is the responsibility of the licensee.

Departments and individuals who wish to obtain MATLAB® software for installation in their labs or workstations should contact Dominic Liberta at UBMicro. There is a fee of \$25 attached to this software to cover UBMicro license administration and distribution costs.

For more information visit [ubit.buffalo.edu/software/matlab](http://ubit.buffalo.edu/software/matlab).

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## Mobile Student Affairs

By TRACEY EASTMAN, [teastman@buffalo.edu](mailto:teastman@buffalo.edu)

UB's division of Student Affairs has a moving target: UB students. Effectively reaching our students with timely information is vital to ensuring they can take advantage of everything UB has to offer, both in and outside the classroom. What's more, in the event of a campus emergency, having a dependable link to our students is critical.

But college students are shrewd consumers of information. They don't sit still and they have a healthy skepticism about anything that smells like a hard-sell or institutional propaganda. We knew students lived on social media but guarded that landscape carefully. We also knew from past surveys that students expected to be able to access information, to communicate and transact business on-the-go - and that more and more were tied to their Internet-enabled handheld devices and smartphones.

We knew this from several surveys we conducted within Student Affairs, as well as IT's Annual student survey from November 2010.

What separates a **smartphone** from other mobile devices? According to PC Magazine online, a smartphone is any cellular telephone with built-in applications and Internet access. They may provide digital voice service, e-mail, Web browsing, music, video and camera functions. Sales of smartphones jumped 55% in 2010 alone.

UB's students are marching with a national trend. Today, more undergrads have mobile Web devices than desktop computers; in fact 62.7% of US undergraduates surveyed had an internet-capable handheld device and two-thirds used it daily to access the Internet. At UB, nearly 60% of those surveyed either owned or were planning to purchase a smartphone or PDA.

In the US, 8 out of 10 college students who own Internet-capable handhelds use it for news, weather, sports, facts, and e-mail. More than three-quarters say they use them to access social networking sites like Facebook. Among UB's current mobile hand-held users, the most common UB-related uses are e-mail, MyUB and *UBlearns*.

As mobile Internet-enabled devices increase, more colleges and universities are adapting their Web content, applications and day-to-day student transactions to function efficiently on mobile devices. Most experts expect that students will demand mobile-enabled access to such things as campus maps, enrollment applications, athletics info, searchable directories as well as student services like course registration.

Reaching students on mobile devices, no matter where they are in the engagement cycle with UB, helps us build stronger, more credible relationships with them. And in our market, where competition is hot and getting hotter, meeting students where they live is not just smart. It's brilliant.

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## Shared Service Desk Redux

By NANCY KIELAR, [kielar@buffalo.edu](mailto:kielar@buffalo.edu)

The UB 2020 IT Transformation Share Service Desk (SSD) project was launched in 2007 to seamlessly integrate IT resources from across the campus to provide unified service delivery. While the SSD project attempted to put in place a Shared Service Desk model that met the needs of the campus as a whole, the path that we took received mixed reviews.

Many IT professionals worked very hard on this project and had some level of disappointment when it was put on hold. We are very appreciative of this effort, but we need to take a step back and seek expert advice on how to create a central IT Help Desk that meets the needs of the various campus constituent groups.

CIT (UB's central IT organization) has a long-standing relationship with Gartner Inc., one of the world's leading information technology research and advisory companies. We have engaged Gartner to conduct an assessment of our IT Help Desk and to provide recommendations on what structure and processes should be put in place to create an IT Help Desk that meets our needs.

In order to gather as much feedback as possible, we conducted an online survey for faculty, staff, and students to complete, and held an open forum with IT leaders giving everyone the opportunity to meet with the Gartner consultants.

The goals of the forum were to:

- Understand current/emerging client and stakeholder needs
- Confirm "pain points," constraints, potential risks, and service bottlenecks
- Discuss priorities and pain points on short/long term needs

Once Gartner completes their process they will present their recommended course of action to the CIO's office. We expect to determine a new course of action by late spring.

UBIT News is a newsletter for faculty and staff to share information about Information Technology at the State University of New York at Buffalo. UBIT News is a publication of the Office of the Chief Information Officer at UB. To submit articles for consideration, contact our editor, Rick Lesniak, IT Policy and Communications, [lesniak@buffalo.edu](mailto:lesniak@buffalo.edu) or 645-6158.