In response to increasing concerns regarding identity theft and the confidentiality of Social Security Numbers (SSNs), Georgia Tech is moving away from using SSNs as a primary identifier for campus constituents to using a unique, non-SSN identifier called the Georgia Tech Identification Number or the gtID# effective spring 2003.

“Social Security Numbers were not designed by the Federal Government to serve as a global identifier,” said Lori Sundal, director of OIT’s Enterprise Information Systems, the division of OIT responsible for providing technical support for the Institute’s student, human resources, and financial systems. “Over the years, however, as the number of Institute and departmental applications and systems has increased, its use has evolved into just that – a global identifier.

“With the need to provide immediate services to a very large and diversified population – many who do not receive a SSN before they arrive – it has been extremely difficult for the administrative offices to accurately identify all constituents across multiple applications, sometimes impacting their ability to conduct business efficiently. This has become an increasing factor in identity theft. The gtID# will assist in resolving internal problems as well as protecting confidential information of all Tech constituents.”

As part of the gtID# initiative, the Institute recently approved and distributed an Institute Social Security Number policy outlining the appropriate collection, use, and distribution of SSNs. SSNs, where appropriately collected, will remain a permanent part of an individual’s official records since by law they are required for certain administrative processes like financial aid and payroll.

“We want our campus constituents to know how their social security number is being used,” said Sundal. “We also want them to know that Georgia Tech is working to insure that their confidential information is being protected.”

Project History

Discussions concerning developing a single identifier for Tech constituents actually began two years ago. Various departments and business offices began voicing concerns over the complications of having multiple IDs for a single individual. The scope expanded to individual confidentiality and how to protect the campus community from identity theft, a crime in which someone wrongfully obtains and uses another person’s personal data in a fraudulent or deceptive manner. A campus-wide team was created to address the numerous problems resulting from the multiple IDs. In the meantime, an increasing number of automated business processes were added as new technologies emerged creating the gtID#, and eliminating the SSN as a unique identifier.

Discussions were also underway within the Board of Regents (BOR) concerning the appropriate use of SSNs. In August 2002, the BOR issued “Protecting Student Identity, Principles of Good Practice” to address the use of SSNs as a student identifier within the University System. The document states: “Beginning summer 2003, institutions are encouraged to implement the necessary business practices and procedures to replace the use of the social security number as the primary student identification number.”

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The year 2002 held many changes for the OIT – changes in organizational leadership and structure, and changes in our focus and direction concerning how we manage, communicate, and deliver services to the campus.

Since being named the Associate Vice President and Associate Vice Provost for Information Technology, I have been working with Georgia Tech’s senior leadership team to identify the immediate and strategic needs of the campus academic, research, and business units. campus.

In addition, we began a series of “leadership team” discussions with campus units to increase our efforts to be responsive to their technology needs. Currently, OIT teams are working on preparation of a portfolio of service initiatives resulting from these talks. Information security concerns are also at an all time high. As we experience an increasing number of attempts to compromise systems, we have increased our efforts to assist multiple departments with defining and implementing new security policies and procedures to protect information technology resources.

In 2002, OIT was involved in several major initiatives to enhance services to the campus. With support from the Provost and the Senior Vice President for Administration & Finance, we worked closely with Housing to complete major upgrades to the ResNet and EastNet networks, providing much-needed bandwidth enhancements to our residential students. We partnered with the Library and CETL to launch the new Library West Commons. This innovative environment offers our students not only state-of-the-art technology, but also a unique combination of on-site support that teams our OIT technical experts with reference librarians. We are working closely with campus academic and support groups to develop a solution for a campus portal, and with the Vice Provost for Undergraduate Studies and Academic launch Affairs on a program to upgrade and support technology in all of the campus classrooms. Our engineering, network, telecom, and classroom technology teams played a major role in the construction and opening of the new Environmental Science and Technology (ES&T) building project.

Near the end of 2002, the Customer Support Center began testing a new call center distribution application that routes calls among customer support agents, allowing customers to hear recorded messages regarding system status and upcoming outages, or providing them the option to leave a voice mail message.

We have had a number of successes, but they have not been without challenges. Like the rest of the units at Tech, we are working hard to deal with the budget reduc-
Soon, the Georgia Tech community will have access to email, calendars, campus news, services, and information from a single location on the web – the new Georgia Tech Campus Portal. After months of preparation and planning, the project is nearing the end of its testing phase and is scheduled to go live this summer.

“We are about six months away from implementation,” said Project Co-Director Greg Huseth, OIT manager, Information Technology. “The rollout is planned for summer, giving the project implementation team time to prepare for the influx of students this fall.”

The campus portal is one of the most anticipated Institute projects of the year. Its progress and success can be attributed to an extensive collaboration between multiple campus departments, of which the Office of Information Technology (OIT) is assisting with implementation. According to Project Co-Director Marie Mons, who is also director of Student Financial Planning & Services, the collaborating departments include representatives from the project steering committee, senior leadership, students, faculty, staff, and administration – over 65 individuals all working under the direction of project sponsors Bob McMath, vice provost for Undergraduate Studies, and John Mullin, associate vice president and associate vice provost for OIT.

“All of these groups are integrated into developing, organizing, and implementing the campus portal strategy,” said Mons, “and together they represent the enormous, yet positive impact this project has campus-wide.”

The campus portal promises to bring on-line communications tools, resources, and information together on a single web page to enhance and streamline communications between Tech students, faculty, and staff. In its initial launch, the portal will feature automated alerts, secure access to academic and financial information, calendaring, chat, email, personalization, and targeted email and web-based messaging. Users will also have access to campus resources and information. Although the campus portal will benefit the entire campus, it has been designed with special functions to simplify online communication and interaction between faculty and students.

“This aspect of the portal initiative is critical because it is truly the driving force behind the entire project,” Huseth said.

For faculty, the portal will provide the ability to manage

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BOR estimates that all University System schools will complete the transition by 2005.

**Impact to Campus**

The gtID# conversion process will affect the entire campus. The greatest impact, however, will affect students. Current students (and faculty/staff) will continue to use their BuzzCard across campus without any interruption in service. When students logon to applications such as student registration and student elections, they will need to use their new gtID#. New students will receive their gtID# upon acceptance to Georgia Tech. As a result, everyone benefits from the reduced risk of identity theft.

The gtID# conversion will also greatly impact staff who support the technical and functional administrative processes that currently use SSNs as an identifiers. In addition to the main Banner and PeopleSoft applications, many departments have internal systems and applications that currently use SSNs in their administrative processes. Currently, those staff are busy changing programs, reports, applications, and business practices in preparation for the conversion.

The BuzzCard Center, lead by director James Pete, is taking the lead role in this campus-wide initiative. It is the only department on campus providing a critical service (the issuance of the BuzzCard) to the entire campus community.

The Registrar’s Office will generate the gtID# for the largest community component - the students. BuzzCard Center staff will process requests submitted by authorized administrators, and assign the gtID# for all other members of the large and diversified Tech community such as faculty, staff, consultants, contractors, temps, visiting scholars, researchers, alumni, Athletic Association and Foundation affiliates, retirees, intensive English participants, ATDC affiliates, SAC program affiliates, spouses, family members, etc.

Currently BuzzCard requests for non-student constituents are processed manually. A web application has been developed for authorized administrators to request the assignment of a gtID# to any individual requiring as soon as they are hired, accepted for admission, etc.

Once the gtID# is assigned, the individual is officially recognized, said Pete, and is entitled to start utilizing appropriate services. This new process will be particularly beneficial for certain groups such as new faculty and staff.

“As a result, they can activate computer and email accounts; access library services, and register for other services like parking before their first real work day,” he said.

**New BuzzCard Design**

In conjunction with the launch of the gtID#, a new BuzzCard design will be placed into production. The new card will include the gtID# on the face of the card, and a hologram of the Institute seal on the back. Students, faculty, staff, and affiliates will not be required to receive a new card. However, cardholders wanting to obtain a new card can voluntarily go to the BuzzCard Center to receive their new card. All cardholders must exchange their existing card for a new card. There will only be one card design for all cardholders as compared to separate designs for students, faculty, and staff cards.

For more information on the gtID# project, upcoming changes, or how the transition may affect you, visit the gtID# web site at http://www.gtid.gatech.edu.
Tech’s information infrastructure has grown in size and complexity, however, the policies, processes, procedures, and tools necessary to protect student information, intellectual property, research data, and administrative information have not kept pace.” OIT

The Institute’s world-class information technology infrastructure has enabled the diverse mission of the Institute and allowed us to leverage the computing environment for new initiatives and national attention. With the increased availability of network access at remote sites and the development of online course material and actual degree programs, it is imperative to develop an adaptive information security strategy that protects the integrity of our information resources.

Unfortunately, threats to related system security and vulnerabilities are rising rapidly as the numbers, skill levels, and activities of individuals on the Internet increase. Recent rapid change in the technical environment and potential vulnerability of major information systems has caused increased concern about the selection, deployment, and maintenance of adequate safeguards. Systems and their uses are increasingly difficult and time-intensive to manage because of the upsurge in system types, system configurations, and network connectivity requirements.

Tech’s information infrastructure has grown in size and complexity; however, the policies, processes, procedures, and tools necessary to protect student information, intellectual property, research data and administrative information have not kept pace.

Provost Jean-Lou Chameau and Senior Vice President for Administration & Finance Bob Thompson have instructed the unit heads reporting to them to work with OIT to develop unit-level information security policies that are appropriate for their unique missions. This effort is well underway with many units having approved unit-level information security policies in place (Budget & Planning, Financial Services, OHR, OIT, GTRI, Enrollment Services, Real Estate Development, School of Civil and Environmental Engineering, GTF), and many units nearing completion of unit-level policies (Architecture, Facilities, LCC, GTRI, Legal, OOD, Internal Audit, MARC, ICPA, DEV). The goal is to have an information security policy in place for each major unit by the end of the 2002-03 academic year.

We also have a strong campus consensus that we should finalize and submit a proposal for the FY04 funding cycle which starts to deploy appropriate technology such as unit-level firewalls in the operational areas of each participating unit. Introducing unit-level firewalls will provide a much needed layer of protection that compli-
OIT is assisting the Office of Assessment by creating online forms to capture critical data required for Georgia Tech’s accreditation process through the Southern Association of Colleges and Schools (SACS). The official rollout of the forms is scheduled for September, and is expected to unify and streamline annual assessment reporting between campus academic units.

Presently annual assessment updates are collected, submitted, and archived using a paper-file system, according to Office of Assessment Director Dr. Joseph Hoey. Although formats and guidelines are being followed, a need still exists to move to a web-based process that will allow information to be accessed, searched, updated, reviewed, and archived with ease.

“This will be possible with the new online reporting process,” he said. “There is a big push right now from SACS to place everything online so that the SACS reviewers can view information via the web, and we will be able to effectively evaluate ourselves over time. The information collected will be indexed and stored in an online database.”

Eventually, Hoey said, all of the annual assessment update information will be archived on the web. “Eventually, all of the annual assessment update information will be archived on the web.”

“Eventually, Hoey said, all of the annual assessment update information will be archived on the web, giving the Institute the ability to review past reports in PDF formats online and compare data for various project initiatives. New information will be captured in the online database that will allow authorized administrators to run limited reports, track the progress of reviews, update, or otherwise make changes to information.

“This project is the cornerstone of enabling compliance in institutional effectiveness with SACS,” he said. “It is a key element of the entire institutional effectiveness process. This is a strong way in which we can show that we are doing what we are supposed to be doing as an institution of higher education with regard to student outcomes. We hope that this project helps push the Institute forward while providing a valuable data repository on the impact of student learning.”

The OIT Team assisting with the new online forms consists of Debbie Bradshaw, Andy Fox, Steve Green, Karen Sharpe, and Jason Toth, all with Enterprise Information Systems. CIO John Mullin currently serves on a committee that is focusing on compliance in relation to the accreditation process.
tions while continuing to advance the quality of our information technology services and identifying new ways to use the power of IT to improve the competitiveness of Georgia Tech’s academic and research endeavors.

The year 2003 promises to be filled with challenges and opportunities. Building upon the phenomenal success of the first phase of the Library West Commons project, we are very happy to announce our continuing collaboration with the Library as we begin Phase II which will include the renovation of the second floor which is tentatively scheduled for opening in time for fall semester.

Our involvement in the Technology Square project will accelerate in the coming months as we prepare for Summer occupancy. The technology underpinnings of this major initiative will include over 10,000 new network ports along with showcase technologies in support of education and research.

On the administrative front, we will soon be heavily involved in the acquisition and implementation of a new Grants grants management system. Also, there is a renewed focus on the Disaster Recovery initiative as we begin to nail down alternative sites and processes - all of which will consume much of our available resources. We are energized and ready to meet these upcoming challenges to create a better environment for us everyone.

Our Chief Technology Officer (CTO), Dr. Ron Hutchins, has focused specifically on the academic and research communities. We are now collaboratively initiating, developing, and delivering all information technology services. The newly formed Academic and Research Technologies (ART) division in OIT is creating an aggressive agenda to offer enabling technologies in partnership with the Georgia Tech community. The current GT wireless network, the LAWN, is being updated and expanded to the new Technology Square area across the connector on 5th Street. This expansion will drive some of the newer wireless technologies back to the main campus as well.

The central High Performance Computational facility, the SGI supercomputer, is being upgraded significantly in partnership with Earth and Atmospheric Sciences and Civil and Environmental Engineering to support more faculty and student use. This upgrade is in conjunction with planning for a high performance computation and collaboration model on campus. ART is also working to develop a partnership across the Georgia Research Alliance universities and the Board of Regents’ state education and research network (PeachNet) in the bio-sciences for collaboration and sharing of research data and facilities. On the national front, a research and education high-speed optical network is in the planning/discussion stage with Georgia Tech participation. The coming year should provide other opportunities for new collaboration and partnerships across the academic and research community on campus. **OIT**
Silicon Graphics, Inc. (SGI), a world leader in high performance computing technologies, recently awarded a $150,000 grant to Georgia Tech to assist with critical high performance computing upgrades. The School of Earth and Atmospheric Sciences (EAS), the Vice President for Research, and OIT also assisted in funding the project.

"Funding is being used to replace the Origin 2000, an existing super computer that has nearly reached its capacity to process complex data with a newer, more efficient model - the Origin 3800," said Mary Trauner, OIT senior research scientist. "In addition, SGI gave us a $107,000 trade-in on the Origin 2000."

The HPC group, which provides support to faculty and students using the high performance computing systems, has experienced a steady increase in the amount of complex data processed through the supercomputers within the last 12 months. They have logged the use of 292,000 hours of computing cycles by 63 individuals. Many jobs run continuously for days. While most people run their own models and simulations, significant use is also made of canned applications such as ANSYS (engineering simulations), ABAQUS (advanced finite element analysis), or MatLab (data analysis, visualization, and application development).

"There were some firmware issues with the older 195 MHz R10K boards in the Origin 2000, so this fall SGI loaned us 400MHz boards while they revised ours. The workload increased so much this year that we would have had serious trouble without the loaners," Trauner said. "The loaners gave us the extra capacity we needed to process existing jobs, and helped develop the justification for the Origin 3800. The 3800 has the capacity to handle the cycles we require now and the potential to handle some additional increases."

We anticipate that the Origin 3800 installation will be completed by the first week of February, she said. There will be no interruption of service. The Origin 2000 and 3800 will run simultaneously as transition takes place. Once we have determined that the transition is complete, we will return the 2000 to SGI," Trauner said.

For more information on the HPC group or the supercomputing systems, visit http://www.hpc.gatech.edu.
OIT partners with Barrow County School System

OIT is pleased to announce its partnership with the Barrow County School System (BCSS) to assist in creating a model "technology-based" middle school by 2005. OIT will provide the school system with guidance in network engineering and classroom design.

The BCSS is planning to create a positive learning environment to meet the needs of their growing student population with a goal to establish a model school that will prepare teachers to teach students of the future. With a focus on results, the school will monitor student progress through state-wide, standardized testing. The school system is also looking for other Georgia Tech departments or units to help lead the way. If your campus unit would like to participate, or for more information, contact Lou Zehner, manager, OIT Operations & Engineering, at 404.894.5377 or email lou.zehner@oit.gatech.edu, or Mike Glynn, Manager, OIT Customer Support, at 404-894-6893 or email mike.glynn@business.gatech.edu.

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mments host-based security for critical Institute services and information assets. The secure transmission and storage of Institute information is one of our top strategic information technology priorities. This project will differ significantly from other information technology projects including the Intrusion Detection System, because we will make a concerted effort to limit access to our information assets based upon business requirements and unit-level policies that are approved by each unit head.

We are in an economic downturn and must assume that funding for implementation of firewalls in support of unit-level policies will likely be accomplished in a phased approach. OIT has developed an adaptive technical architecture to facilitate this effort over a period of time, and one that protects our investment in critical information assets.

For more information on information security, visit http://www.security.gatech.edu or email security@oit.gatech.edu.

OIT
Public, private wireless model to launch at new Technology Square

By Holly Mullins, Contributing Writer

Campus wireless services, the Georgia Tech LAWN (Local Area Wireless/Walkup Network) now has more than 2,000 unique users on campus. The new wireless model will securely integrate the private, campus infrastructure into the public, commercial space.

This strategy appears possible now that major corporations, including AT&T, Intel, and IBM, are funding ventures that deploy wireless networks in public venues nationwide, according to an article recently published in the Wall Street Journal. The commercial wireless networks are based on the same technology standard used by Georgia Tech — wireless fidelity, also known as Wi-Fi and 802.11. The wireless network firms sell wireless access to service providers, who offer the service to consumers.

Georgia Tech is pursuing commercial partners who can provide the public components of the new model. “We are actively investigating the commercial space and have some partnership strategies in the early stages of forming,” Hutchins said.

The concept suggests that where commercial companies offer wireless via hot spots, Georgia Tech users will also have wireless services.

Plans are underway city-wide to develop a public-private, wireless data network, which can be accessed from various locations. Georgia Tech is working jointly with other companies to integrate private networks with public networks in a secure manner.

Security features built into the system’s interface will make it accessible to both private and commercial users, using standard wireless equipment. The new wireless model prototype is currently being created in the GCATT building.

“Students will benefit from more connectivity in locations where they like to congregate. My research has shown that mobility is not a big issue right now,” said Hutchins. “On campus, about 20 percent of the access points provide 80 percent of the use. That’s what the hot spots are all about.”

Eventually, he said, handheld Wi-Fi (wide area network) devices will change the way wireless is used.

“We’re going to see an explosion of handhelds, and handheld use while people are walking around. That implies a whole new set of issues,” said Hutchins. For example, OIT plans to adapt some Georgia Tech online service interfaces for the smaller footprint of handheld devices. Oscar Web, the student registration information site, will soon have a wireless counterpart.

Other services and applications will be designed exclusively for
OIT offers spring streaming media sessions

OIT will offer streaming media information sessions to the Georgia Tech community this spring. The sessions will cover capturing and encoding audio and video files for the web and integrating the technology into classroom instruction and learning.

There are no prerequisites to participate. The sessions are free and open to students, faculty, and staff.

“This is the second time we have offered these information sessions within the past year,” said Mike Estler, OIT’s streaming media manager. “We were pleased by the initial level of interest and participation, and as a result, believed it would be a good idea to offer them again.”

The objective is to provide participants with a clear understanding of what streaming media is and how to apply the technology here at Tech. Participants will learn how to capture and encode audio and video files, and where to find campus resources to assist them in completing their streaming media projects. In addition, the sessions will include a special segment on how to integrate streaming media with online course systems like WebCT. They will also address other practical applications for streaming media like hosting webcasts (a live interactive program delivered over the Internet) or distant learning.

“We will also spend some time discussing current project successes,” Estler said. “The session will conclude with question and answer session for participants.”

Four sessions will be held in February in the Homer Rice Conference Room in the Library. The first and second sessions are scheduled for Wednesday, February 12 from 9:30am - 11am, and from 2pm - 3:30pm. The third and forth sessions will be held Thursday, February 13 during the same time frame.

For more information on streaming media, email mike.estler@oit.gatech.edu or visit http://video.gatech.edu. The site features a "streaming media" how-to-guide that will provide a closer look at the topics covered in the upcoming sessions. OIT

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mobile users. The School of Electrical and Computer Engineering is developing classrooms with state-of-the-art wireless technology designed to encourage collaborative learning.

Lonnie Harvel, associate director of the Arbutus Center for Distributed Engineering Education, said that mobile computing enriches the classroom by facilitating deeper interaction. For example, students will be able to use wireless devices to attach notes to class materials, and then share their notes interactively with other students and instructors.

Gregory Abowd, associate professor at the College of Computing, said students and faculty are especially interested in designing for a campus-wide wireless environment. Student projects have generated prototypes for handheld tour guides, parking space finders, and device-based assistance for the disabled, to name a few applications.

“Once we have campus-wide connectivity outdoors, it will give students the playground they need to explore uses for handheld devices,” Abowd said.

In time, the Georgia Tech wireless corridor will extend across more outdoor spaces. This will make new uses possible including a wireless application that uses Global Positioning System (GPS) technology to track the trolleys that will run between campus and Technology Square. Students will be able to save time and trouble on cross-campus trips by viewing the next trolley’s exact location on a handheld device.

The new wireless model will enrich the campus environment for visitors, too. Visitors who do not already have commercial wireless service will benefit from “day passes” that provide temporary wireless service. For example, a DuPree conference participant, given a day pass, could check online reservations wirelessly upon arrival at the airport. During the conference, the visitor could check a web-based e-mail service without leaving the conference room. After hours, the visitor could do some wireless online research in the hotel. They would also be better equipped to find their way around campus, and the city using the wireless infrastructure to access web-based maps. For more information email ron.hutchins@oit.gatech.edu. OIT
In on-going efforts to provide the best possible information technology (IT) services to campus constituents, and in response to feedback from our constituents for current web-based information, OIT is developing a new web presence that promises to be customer-focused and service-centered.

“Our current web site is over five years old,” said Lori Sundal, web redesign project manager. “It will soon be replaced by a new ‘living’ site that will provide campus constituents with improved access to current information and technology services.”

The OIT web redesign project has been underway for several months. As a key part of the process, CIO John Mullin appointed an internal web development team to create a comprehensive web presence that best reflects the needs of the Georgia Tech community. The new design has grown from within this group.

“The most important aspect of this redesign is the Georgia Tech community,” said Sundal. “It is from their perspective that the web development team has constructed the site’s foundation. At this point, we are pleased to finally begin to offer the kind of web presence needed to place our services at their fingertips. The new site will provide up-to-date information on existing, current, and new information technology services. It will include a search engine that permits customers to find information quickly and easily. Also, attention has been given to our employees by providing a web presence with information pertinent to them.”

In general, the Georgia Tech community can expect a site that serves as a resource to campus computing services and information, while also providing a simple interface to users seeking assistance or more information on services provided to the campus by OIT. The web site will adhere to web accessibility guidelines and standards established by Institute Communications and Public Affairs.

“This has been a long process, but the project outcome will be worth the wait for everyone,” she said. “The implementation team has been identified and work has started. Our goal is to have the new site released by summer.”