2. Information Systems and Technology – Year in Review
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"As new technologies emerge and mature, and as GSU faculty explore and develop new methods of using these technologies in teaching, we can expect to see numerous benefits. Likewise, students will be better able to select the mode of instruction that best supports the learning style most effective for them. This transition will take much work, but the results promise to be more and better learning."

Dr. Mark Becker  
President of Georgia State University  
in March of 2012
A Message From Our CIO

As IS&T begins a new year, with several large-scale projects slated to significantly update the university’s technical infrastructure and available services, I am excited to share an overview of the impact technology has made at the university over the course of this past year, as well as a preview of planned projects.

This past year, Information Systems and Technology completed over a hundred IT projects that made an impact campuswide. In support of the goals of the campus community, we recently worked to update the campus wireless network, brought a new research computing system online, and helped implement a tool to support students and advisors in monitoring progress toward degree completion.

We know with certainty that technology plays a role in almost all functions of the university - from payroll and human resources to online learning and course registration. We also recognize that our achievements today stand upon the foundation of creativity and innovation built 100 years ago, when Georgia State University began as the Georgia Tech Evening School of Commerce. In Georgia State University’s centennial year, and as I complete my first decade as CIO of Georgia State, we have seen advancements in technology become so powerful that devices, which used to take up the space of an entire room, can now be carried in the palm of your hand.

As we enter our next 100 years of growth at Georgia State, we remain positioned to advance empowerment through technology - making work easier, producing better results and discovering new innovations. The future of technology at Georgia State rests on conscientious decision-making that continues to ensure investments in technology are measured in terms of their potential returns.

The next chapter of technology history at Georgia State is emerging, and we invite you to join us in building upon past solutions to inspire the next stage of information technology breakthroughs. The result will be the tools to get us to our next great destination.

- J. L. Albert

J. L. Albert is the Associate Vice President and Chief Information Officer for Georgia State University. He oversees Georgia State’s Division of Information Systems and Technology (IS&T) and provides senior leadership in the strategic use and support of technology services for the university.
Serving Students
STUDENT SUCCESS

Wireless to Connect, Communicate and Learn

Wireless Upgrade

IS&T is working to ensure that students can obtain consistently secure and reliable Internet connections across campus. After collecting and analyzing student feedback, network usage data and signal performance measurements, IS&T has begun a new wave of network expansion to enhance the wireless network’s ability to handle continually growing traffic. Many classrooms are being equipped with wireless connectivity to allow for as many as three devices per student, recognizing the increasing need for the wireless network to accommodate several devices per user. Wireless network expansion is scheduled for completion at the end of October 2013, but IS&T continues to monitor wireless network usage in order to ensure performance is optimized to meet student needs.

Expanding Student IT Support

Walk-Up Student Help Desk

This summer, IS&T added a new Walk-Up Student Help Desk to the student computer lab in Aderhold Learning Center. At the new walk-up help desk, students can obtain assistance with IT services such as troubleshooting issues with access to campus computing resources, connecting to wireless, and installing antivirus.

The Walk-Up Student Help Desk is staffed by Georgia State students who can provide targeted advice to their fellow peers.

Visit the Walk-Up Help Desk

<table>
<thead>
<tr>
<th>Location</th>
<th>Fall Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aderhold Learning Center Room 023 Downtown Campus</td>
<td>Monday - Thursday: 7:30 a.m. - 10:00 p.m.</td>
</tr>
<tr>
<td>Phone (404) 413-4338</td>
<td>Friday: 7:30 a.m. - 5:00 p.m.</td>
</tr>
</tbody>
</table>

Technology Outreach

IS&T participates in these events to ensure students have an opportunity to learn about the technology services and support available to them.

- Panther Preview
- Freshmen Convocation
- Freshmen Send-off
- INCEPT
Delivering Essential Data to Help Improve Success Rates

The Graduation and Progression Success Advising (GPS) Web-based Platform

Georgia State’s recent collaboration with the Education Advisory Board (EAB) to develop and implement a web-based advising platform for predicting and triggering intervention when a student is first at risk for not graduating is an example of the kind of work that led to the accolade “next-generation university.”

In support of this project, IS&T worked with the EAB to securely upload historical student performance data that included over 2 million student grades and seven years of retention, progression and graduation data. The data was used to develop predictive models to help recognize patterns that put students in danger of not graduating in order to draw attention to the problems early enough for advisors to help intervene.

Georgia State has used the system to advise nearly 13,000 students, and IS&T continues to support transfer of this important data to help ensure students progress toward graduation.

Staying on Track for Graduation

DegreeWorks

IS&T worked with Enrollment Services to launch a web-based tool and degree-audit program called DegreeWorks, which allows students and advisors to monitor progress toward degree completion. With the system, students can see what course requirements they have left to complete in order to graduate. DegreeWorks computes “what if” comparisons, giving students and advisors a variety of options to help determine the best avenues for degree completion. The application empowers students with information to forecast graduation outcomes and make needed adjustments to stay on track academically.

To implement DegreeWorks, IS&T helped integrate the tool with the Banner student information system and campus infrastructure.

Creating Better-Customized Technology

Campus User Testing

User testing allows IS&T to receive direct feedback from students, faculty, and staff in order to find ways to prevent potential difficulties before a product is released campuswide. Testing sessions were conducted this year for Desire2Learn, the Georgia State University mobile application, the newly revised Admissions website, and the CatChat2x wireless network.

Participants engaged in a variety of tasks. While some clicked through simple versions of what would later become more complex web pages to help determine content organization, others attended one-hour, in-person sessions, where they were asked to complete defined objectives while describing their experiences using the technology. Modifications were then made to the way that products were implemented in order to respond to commonly-raised concerns.
Opening Career Opportunities for Students

Student Assistant Program Provides Path for Students’ Internships with McAfee

Helping fellow students get connected to Georgia State’s wireless network has led to additional career opportunities and “real-world” work experience for Elena Vykova and Huy Truong, two of IS&T’s student assistants. During the summer semester of 2013, McAfee selected Elena and Truong for their Resident Support Intern Program, to work as on-site resource assistants in support of McAfee’s applications suite for colleges and universities. Vykova and Truong, both juniors at Georgia State, began working in IS&T as student assistants for the Help Center’s Walk-up Wireless Window, which provides technical support to students connecting to the campus wireless network, CatChat2x.

In their role as interns, their focus has been to help encourage use and awareness of the McAfee computer security products available on campus, while also serving as local contacts to escalate product issues through support channels. The students provide recommendations for installing and using McAfee’s antivirus software and related products. During the internship, the students became familiar with techniques for securing an organization’s IT network, and one of the most rewarding aspects of the internship is enhancing their employment prospects. Each year of work as an intern for McAfee can count towards preparation for the Certified Information Systems Security Professional exam.

The students praised IS&T’s student assistant program. “Everyone was so extremely supportive. They wanted to see us move up and learn and grow as students and in a career field that would give us skills that we could use later,” said Vykova.

IS&T employs over 80 student assistants in a variety of areas within the division, including student computing labs, customer relations, the IS&T Help Center, multimedia communications, engineering, networking and many others.
Help Center

July 2012 to June 2013

5 Full-Time Agents Answered
53,872 Help Requests

100% HDI-Certified Staff

200+ Technology Support Documents and Articles

42 Seconds Average Time to Answer Classroom Support Calls

92% Customer Satisfaction Index

72% First-Contact Resolution Rate

Contact the IS&T Help Center:
Phone: (404) 413-HELP (4357)
Email: help@gsu.edu
Web: technology.gsu.edu/help

Classroom Support Hotlines:
Downtown: (404) 413-4321
Alpharetta: (404) 413-7777
Brookhaven: (404) 413-7800
Resources for Researchers

Interactive High-Performance Computing Power

VELA

The high-performance, interactive computing system, VELA, came online in the Fall of 2012. The system complements Georgia State’s current computing resources with the capacity to run rigorous applications and process Linux jobs independently, with no requirement for task scheduling.

Comprised of four IBM System x3850 X5 servers, VELA sustains core research in chemistry, physics, biology, neuroscience, and other disciplines.

Research Aided by VELA

Researchers in the Department of Biology, led by Dr. Donald Hamelberg, use VELA to calculate and produce simulations of the biomolecular interactions between protein and RNA molecules. The group’s work seeks to provide insight into the underlying mechanisms of diseases such as HIV-1.

The Integrative Biomolecular Modeling Laboratory in the Department of Chemistry, led by Dr. Iryaio Ivanov, uses VELA to model DNA replication and repair in order to better understand the molecular basis of genetic integrity and integrity loss in degenerative diseases like cancer.

Secure Access to Partner Resources

InCommon Federation

Georgia State University has joined the InCommon Federation, an organization that provides a secure technical framework for member institutions to collaborate by accessing shared online resources. Through the university’s InCommon membership, students, faculty, and staff can use their CampusID and password to conveniently access resources at over 300 trusted education and research institutions.

In addition to a number of universities, other participants include organizations that use InCommon to simplify access to their online services, such as the National Science Foundation (NSF) and the National Institutes of Health (NIH). Through the InCommon Federation, it is easier than ever before to expand access to new research resources and technical services. Find out more at: technology.gsu.edu/incommon.
Streamlining the Grant Proposal Process

Pilot of Cayuse 424 Makes It Easier to Prepare and Submit Grants

With IS&T’s assistance, University Research Services and Administration (URSA) is piloting a new electronic solution for proposal development, routing and submission. Cayuse 424 simplifies pre-proposal development by providing an error-checking engine that validates proposals against government and business rules to draw attention to potentially inaccurate information.

"[Cayuse] is extremely user friendly, and saves us time when completing proposals. I love that we can easily see any errors in our proposal, and that we can track the proposal through submission," says Dr. Daniel Whitaker, Professor in the School of Health, who used the system to submit a $1.5 million grant proposal to provide parenting training for mothers with substance-abuse issues.

Having built-in error testing saves time and provides researchers with reassurance that grant application packages are complete before they are submitted to federal agencies.

"I was initially a little hesitant because I had to learn a new system, but I really appreciated the sense of control I felt over the submission process," said Dr. Kevin Swartout, Assistant Professor of Psychology, who used the system to apply for a $400,000 grant to explore how social network ties influence behavior. Dr. Monica Swan, Associate Vice President for Research, notes that Cayuse 424 is an important step forward as her division proactively implements strategies and services to facilitate the grant application process.

"I really appreciated the sense of control I felt over the submission process."

The Technology to Automate Processes

With an eye toward increasing support and recognition for research at Georgia State, URSA is working with IS&T to implement cloud solutions that help achieve business goals, reduce time-to-market and increase efficiency. Recently automated processes include:

- The Significant Financial Interest Disclosure process now uses Red Hat’s OpenShift to make it easier for researchers to report income that may impact their research.

- URSA is piloting a request and task tracking system that uses SharePoint to allow researchers and administrators to electronically follow the progress of requests submitted online.

- Financial award reports are now generated online using SharePoint, with dashboards that track the university’s progress toward research funding goals.

In 2012, applications on the CARINA supercomputer provided over 400 years of research computation and applications on the OCTANS blade center supplied 20 years of research computation.

Georgia State University has contributed 100 years of research computing power to the World Community Grid.
Network:
- **20,000** Average Number of Devices Connected to the University's Network at One Time
- **600x Faster** Speed of Internet Access on Campus Versus Standard DSL
- **6,000** Ethernet Ports are in the 60 Buildings that are Connected to the University's Network
- **85,120** Simultaneous Connections Are Possible on the Wireless Network

Security:
- **238 Million** Spam Emails Blocked
- **58 Million** Unauthorized Connection Attempts to the University's Network Prevented
- **49 Million** Warnings Issued to Help Users Avoid Websites that Could Harm Their Computers
- **12 Million** Instances of Malware Blocked by Antivirus from Infecting Campus Desktops

Tools:
- **80+** Software Titles Supported on Workstations Across Campus
- **1,200** Devices Maintained in the IS&T Data Center
- **9,004** Checkouts of 44 Different Models of Multimedia Equipment
- **150 Million** Email Messages Sent and Received from Campus
The Year in Numbers
An Overview of the Technology IS&T Supports

**Instruction**

- **1,400** Visits to the Exchange
- **300** Technology Workshops Conducted
- **335** Classrooms Supported
- **1,669** Faculty & **22,826** Students Used Desire2Learn

**Service**

- **IS&T Employs**
  - **126** Full-Time Staff & **89** Student Assistants
  - **100+** Projects Completed
  - **92%** Customer Satisfaction Index of the IS&T Help Center
  - **227,000** Passwords Changed Using Convenient, Automated Support Options

**Devices Connected to the Wireless Network**

- **31%** iPhone
- **23%** Android
- **11%** Windows
- **11%** Pad
- **12%** Mac
- **12%** Other

**International Traffic on the GSU Website**

Top Five Countries Outside of the United States With Visits to the GSU Website

- **India**: 93,103
- **China**: 55,558
- **United Kingdom**: 50,350
- **Canada**: 44,109
- **South Korea**: 27,161
Enabling Innovative Teaching & Effective Learning

TEACHING AND LEARNING

The Exchange: A Partner in Transforming Learning

The Exchange

Through its Innovative Instructors Workshop Series, the Exchange reaches out to Georgia State professors, seeking to bring what’s on the horizon of educational possibility to Georgia State’s classrooms today. The series includes workshops on creating engaging digital media assignments, tools for situated learning, teaching with iPads and more. These recent efforts are already paying dividends. With support from the Exchange, Georgia State faculty are using technology successfully to increase student engagement. GSU 1010 Instructors are using iPads and other digital campus resources to encourage students to create and share digital media. Others are exploring pedagogical uses of tools such as the ARIS (Augmented Reality / Interactive Storytelling) mobile gaming platform as well as potential uses for online case scenarios, online reading tools, and wearable technologies.

Through its new Digital Skills and Scholarship workshop series, the Exchange is providing opportunities for the entire campus community to develop the kinds of Digital Age skills necessary to succeed in school, find a job, stand out at work, and participate in online public spaces. Course topics range from using productivity software to producing multimedia to using research technology.

In addition to nuts-and-bolts support for users of Desire2Learn, Office 365, and other campuswide instructional tools, the Exchange is a partner in pedagogical problem-solving for instructors looking to improve and explore their practice.

Contact the Exchange

<table>
<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>Library South, Room 106</td>
<td>facebook.com/GSUTechnology</td>
</tr>
<tr>
<td>Downtown Campus</td>
<td>Facebook/GSUTechnology</td>
</tr>
<tr>
<td>Phone</td>
<td>Website technology.gsu.edu/exchange</td>
</tr>
<tr>
<td>(404) 413-4700</td>
<td>Get Instructional Technology Tips &amp; News via Twitter</td>
</tr>
<tr>
<td></td>
<td>twitter.com/GSUTechnology</td>
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<table>
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<tr>
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<tr>
<td>Monday - Friday:</td>
<td>Location: Library South, Room 106, Downtown Campus</td>
</tr>
<tr>
<td>8:00 a.m. - 5:00 p.m.</td>
<td>Phone: (404) 413-4700</td>
</tr>
<tr>
<td></td>
<td>Website: technology.gsu.edu/exchange</td>
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</table>

Professional Services

Julian Allen
Director
Professional Services

Justin Lonsbury
Manager
Instructional Design Services

Janice Maxwell
Manager
Project Management Office

Cassie Wilcox
Manager
Multimedia Communication Services

Mark Zimmer
Manager
Support Services
The Tools to Teach in New Ways

Georgia State’s New Learning Management System: Desire2Learn

In January of 2013, IS&T helped launch the university’s new learning management system, Desire2Learn (D2L). IS&T migrated over 42,000 existing courses and assisted many new users in getting started using the system. Prior to launch, IS&T collaborated with the Center for Instructional Innovation to provide comprehensive support for the change. From dozens of training classes and personalized sessions to town halls and departmental orientation sessions, IS&T’s comprehensive communication efforts played an integral part in ensuring campus readiness for the new system. More than sixty percent of Georgia State faculty currently use Desire2Learn, and many have found the ease of creating online course materials a welcome change.

FROM TECHNOPHOBIE TO TECHNOLOGY CHAMPION

Debra Klausner, LCSW
Clinical Instructor
School of Social Work
Digital Champion

For clinical instructor Debra Klausner, the turnaround with technology adoption began in 2012, after being asked to deliver a few of her classes in a hybrid format. That same year, she attended technology workshops at the Council on Social Work Education’s national conference. Her goal was to gain a greater understanding of how to incorporate technology in her classes. However, her lack of experience using technology made her a bit doubtful about the prospects. “I was a technophobe,” she says. “I was very skeptical, but I was very inspired by that,” she adds.

In her eight years of teaching at Georgia State, Klausner had never taught an online class until this past year. Knowing social work involved assessing how people engage with one another, teaching her courses online didn’t seem plausible at first. With the expectation set by her department to transition some of her classes into a hybrid format, and after learning at the conference about existing successes using technology in social work courses, Klausner decided that she would not only teach hybrid courses, but that she wanted to become an expert at it. Anxious to expand her knowledge, she applied for a grant offered through the Center for Instructional Innovation (CII) to help her get started. The CII awarded her a $3,000 technology grant and she was chosen as one of the CII’s Digital Champions.

The grant is being used to purchase technology equipment and software to facilitate her classes, which are now taught online using Desire2Learn.

Before using Desire2Learn, Klausner says she used the university’s previous learning management system as a place for her students to find the syllabus and other class documents. “Basically it was a paper saver. It wasn’t interactive at all,” says Klausner. In D2L, she now uses the Gradebook component, which automatically calculates student grades and helps her easily track student progress.

Klausner says her focus is to help her students integrate their readings and experiences in the field with online experiences. She says she has learned there are advantages to using technology and knows that many students appreciate professors who incorporate current technology. “I know the university is very focused on student retention and helping students, students who work and students who need some extra academic support. The online format can give people a lot of leeway in their schedule, which allows them to continue to work, maintain family if they have that, and some flexibility in taking classes so they can get their degree and improve their lives,” she added. “So embracing technology for me is part of supporting the urban student here at Georgia State, and also reaching out to the younger generation.”

Klausner also says she received a great deal of support from IS&T’s faculty resource center, the Exchange, where she gets training on D2L and learns software like Photoshop and iMovie to use for her online classes. “I can’t say enough about how helpful they are,” she says. “I do use a computer but I have done things the hard way, and they’ll say, ‘oh, there’s a shortcut to that.’”
The Buzz on Instructional Technology

What Faculty Say About the Exchange and Desire2Learn

“I am a better teacher because of the help I’ve gotten from the Exchange. I really am. I have better ideas of what to do in D2L—not just how to do it, but a better way to do things. I would not have even thought so carefully about some of the decisions had I not talked with somebody who knows technology. I’m a better teacher because I was having those conversations.”

Dr. Jaye Atkinson
Associate Professor of Communication

“I think [D2L] is such a helpful tool. There are a lot of great features that would assist any faculty member and enhance their learning outcomes. The Exchange has also been a great place for faculty.”

Dr. Douglas S. Gardner
Director of Clinical Education and Assistant Clinical Professor
Developer of the first online course for all majors at Georgia State University

Immediate, Virtual Assistance in the Classroom

Roomview

Classroom technology assistance is just a few clicks away thanks to Roomview, the remote resource management software installed in over 300 classrooms across campus. The software allows real-time monitoring and management of classroom audio-visual devices and systems.

Roomview gives technicians the ability to control classroom equipment over the Internet, from the IS&T Help Center or other locations. Technicians can manage classroom equipment from laptops, cellular phones and other mobile devices, reducing the response time needed to provide classroom assistance to faculty.

Event scheduling enables remote startup and shutdown of equipment, without staff visits to each space, allowing the university to conserve energy by ensuring that projectors and other equipment do not use power when they are not needed.

Keeping Pace with the Digital Age

Campus Classroom Upgrades

IS&T recently completed a campuswide classroom technology upgrade, adding new Windows and Macintosh computers, and converting older systems to newer digital technology. The upgrade changed 80 percent of the analog classroom equipment in Langdale Hall to the new digital standard for media.

A Better Way to Host Campus Media

Sharestream Media Server

IS&T implemented the ShareStream video management platform over the Summer of 2013. ShareStream allows faculty and staff to host media for their students and other online audiences. Equipped with a modern interface, users can quickly upload a wide variety of media, which are converted to play on a range of screens, from desktop computers to mobile devices.

ShareStream offers faculty and staff a way to embed, stream, and share videos, audio clips, and interactive media with their colleagues or as part of their course curriculum. In coming semesters, ShareStream will be expanded to allow integration with Desire2Learn, giving faculty the ability to stream class videos and collect multimedia assignments from students, right from their Desire2Learn course interface. Find out more about getting started with ShareStream at: technology.gsu.edu/sharestream.

Easier Access to Updated Online Training

The online training resources Lynda.com and Skillsoft were both updated in 2013. With easier access and more features, it’s simple to log on to a variety of software and professional skills training. Find out more at: technology.gsu.edu/lynda and technology.gsu.edu/skillsoft
Preparing Students for IT Security Professions
Sponsoring Capstone Projects and Internships for Computer Information Systems Majors

Dr. Carl Stucke
Associate Chair
Computer Information Systems

When Computer Information Systems seniors graduate from Georgia State, they leave ready for the workforce, with their professional education and the pragmatic experience they gain from their CIS-4980 capstone project course, taught by Dr. Carl Stucke. “The goal of the capstone is to have a chance, in a real-world environment, to use many of the things that you studied in your program, and also to learn new things, because you never know everything you need when you start a project,” says Stucke when describing the course.

IS&T provides technology projects, internships, and career advisement in support of the CIS-4980 course. This year, IS&T coordinated internships for a team of CIS students, who provided a Payment Card Industry (PCI) Policy Gap analysis, in collaboration with IS&T’s Information Security unit. PCI standards ensure that organizations securely manage and maintain credit card information.

The CIS students analyzed the university’s existing information technology policies in order to determine their strengths and weaknesses toward maintaining PCI compliance mandates. The students reviewed policies for everything from passwords to the organizational structure of Information Security at Georgia State. The team received full credit for their project.

“IS&T has a great collection of people, who are experts on information systems. So being able to connect students to their wonderful staff and their body of knowledge is great,” said Stucke.

Stucke expresses appreciation for IS&T’s support of CIS students. “IS&T has a great collection of people, who are experts on information systems. So being able to connect students to their wonderful staff and their body of knowledge is great,” said Stucke.

In addition to capstone projects and internships, IS&T’s Information Security analyst and CIS graduate Scott Schluerter provides IT security presentations and career advice to CIS capstone classes. He answers specific questions from students about his job field and how to become information security professionals.

Many CIS students are interested in careers in IT security, according to Stucke. “Since Scott is a graduate of our program, he provides some really great insights into what the career is like, what certifications would be helpful, what other things you need to do to prepare to move into this career path, and what was it like to get here. You don’t learn everything in school, so there are a lot of things outside of the academic world that really help you prepare to be an Information Systems professional,” said Stucke.

Stucke says that CIS has a need for a great deal of technology support, and he is excited about the direction and pace of technology. “We not only teach technology but depend on technology to help us educate our students. So IS&T plays a huge role in our profession.”
The Technology That Helped Make History at Georgia State

In Georgia State's centennial year, we provide a look back at a few of the milestones in computing technology that helped the university ensure its place as a leading education and research institution.

1959
William Wels is hired as Georgia State's first Director of Computer and Data Processing.

1968
Georgia State's first hands-on computer course is taught at the Computer Center.
Using computer terminals connected directly to a mainframe, several students interact simultaneously with a computer for the first time.

1976
Georgia State purchases its first minicomputer, an INTERDATA 8/32, the same model computer used to process CGI for the 1982 movie Tron.
On campus, the INTERDATA 8/32 handles long FORTRAN compute-bound jobs.

1985
Novell NetWare servers begin to appear on campus, allowing offices to share printers and files.
Local area networks are spreading, at first using diverse technologies but eventually standardizing on Ethernet, still used today.

1960
Georgia State creates an on-campus computer center, in the School of Business Administration, to operate its new IBM 305 RAMAC.
The computer is the first commercial mainframe to use magnetic disk storage. Accounting 408 is the first course taught using the new computing power.

1975
The registration process is computerized, as networked computers begin maintaining databases of class rolls and printing schedules.
Students register using pencils and ScanTron sheets.

1982
The university's first computer lab opens.
The lab features seven IBM PCs with 5.25" floppy drives, and no hard drives.
The same year, the Computer Center discontinues the use of card readers.

1987
The Computer Center offers training to users of IBM PROFS Notes, the university's first email system.
Training classes in word processing software and laser printing tools are also popular, as personal computer workstations spread across Georgia State.
1991
Georgia State University joins the Internet and becomes an Internet Service Provider to the Georgia State community for the next decade via banks of dial-up modems.

1999
The university adopts WebCT as its first campuswide online learning management system. The University System of Georgia will later adopt WebCT systemwide, before eventually switching to Desire2Learn in 2013.

2004
CatChat wireless network officially launches campuswide, covering every building on campus, as well as the student plaza. 100 wireless access points make up the initial network, growing to over 2,000 access points today.

2010
The same year Apple releases the iPad, 400 students in the university’s Freshman Learning Communities (FLCs) are equipped with iPads and Flip Video Camcorders to pilot the devices for learning.

1994
A cross-organizational team at Georgia State University leads work on GALILEO, the online system that will link all of Georgia’s university, K-12, and public libraries online, with system-wide searching and easier inter-library loan of books.

2002
The Digital Aquarium open-access multimedia lab opens to offer all students on-campus access to high-end video, 3-D modeling and audio production equipment and software, including a professional quality recording studio.

2009
Georgia State is the first university in the state of Georgia to migrate student email to Microsoft’s cloud-based Live@edu platform. As the change is made, the new email system is termed PantherMail.

2012
The VELA research computing system is introduced to provide high-performance, interactive computing. Among other research, VELA is used to model concepts and produce simulations for explorations in the fields of chemistry, physics, biology, and neuroscience.
A Safer Cyber-Campus

Helping Students Protect Their Computers

Computer Health and Security Scans

Beginning in the Fall of 2013, students can schedule appointments at the Walk-Up Student Help Desk to get free “computer health” and security checkups for their laptops. Checkups include scans for malware, such as viruses and spyware. Malware is then removed, and Help Center staffer assist with ensuring that antivirus software and updates are enabled. Technicians can also answer questions and provide information about important security practices to help students avoid future issues.

The Walk-Up Help Desk is located in Room 023 of the Adelphic Learning Center, in the student computing lab.

Increasing Student IT Security Awareness

PhishMe

Cyber criminals use phishing techniques to send fraudulent emails that seem to come from legitimate sources in order to trick unwary recipients into revealing sensitive information, such as passwords or credit card numbers. To help educate students about how to avoid being taken in by phishing attempts, IS&T’s Information Security Office brings PhishMe information security training to campus.

The PhishMe service raises awareness of phishing scams among students through simulated phishing emails. With PhishMe, IS&T security staff select from customizable scenarios that vary from asking students to click embedded links, to opening email attachments, to entering sensitive information and other common phishing tactics. Students who respond to the simulated phishing attempts are immediately given online training as part of the experience in order to help them understand how to avoid being susceptible to future attempts from other sources.

PhishMe awareness training enables students to discern social engineering attacks and make more informed choices before responding to suspicious communications. The program works to reduce the effectiveness of phishing attacks, and the knowledge students gain helps them safeguard their own personal information as well as the Georgia State network.
Proactive Protection for the University’s IT Infrastructure

Security Information and Event Management (SIEM)

Georgia State is among the first universities in Georgia to implement a security information and event management (SIEM) technology for network protection. SIEM technology provides tools for analyzing the security alerts generated by network hardware, system events, and applications, and it also logs security data and generates reports that can be used for compliance purposes.

IS&T has implemented NitroSecurity SIEM to detect, analyze, escalate, and retain records related to network security events on the university’s network. The tool monitors activity and compares events against a database of known indicators. When an event is detected, scripts can help initiate a range of mitigation actions, including issuing new configurations, implementing new policies, and deploying software updates. With SIEM tools, IS&T can also monitor trends in order to better implement and automate future security controls.

Applying Vendor Security Standards to Protect Important Data

Vendor Security Reviews

Georgia State University vendors who process confidential or sensitive information for Georgia State’s technology projects are now required to undergo a formal, comprehensive vendor security review by IS&T’s Information Security Office.

Through the vendor security review process, IS&T acts in an advisory role to university units prior to the purchase of a product or service from a vendor. Our security analysts evaluate the vendor’s security practices and determine if the vendor is in compliance with university policies for maintaining the integrity of data. In addition, IS&T conducts a security maturation assessment that evaluates whether a vendor’s software has any high-scoring “severity and threat” security flaws that need to be addressed.

As a result of the Vendor Security Review process, campus departments can incorporate security and infrastructure requirements into their service agreements and make more informed choices as they choose which software-as-a-service solutions to purchase.

Emergency Notification

Alertus

In collaboration with Georgia State’s Office of Emergency Management, IS&T introduced a new desktop alert feature to the university’s emergency notification system, PantherAlert.

Using Alertus, PantherAlert can now deliver a “pop-up” on-screen announcement in the event of a university or public safety emergency. Alertus also tracks whether computers with the software installed are able to receive alerts, and which computers had users who acknowledged receiving an alert in order to better gauge the effectiveness of the system. IS&T rolled out the service within IS&T-managed campus classrooms and labs, and also offers the service to the entire campus.

The service provides a backup alert in computer labs that may have weaker cellular reception. Alertus also provides a clear visual indicator to students who use headphones and cannot hear alerts announced through the campus PA system, improving the university’s ability to inform and protect students in public spaces.

Top Five Computer Security Tips

1. Install antivirus software to protect your computer.
   Make sure the software is always enabled and kept up-to-date.

2. Create strong passwords that can’t be easily guessed.
   Use at least 10 characters, with a mix of letters, numbers and symbols.

3. Avoid online dangers.
   Be wary of accessing suspicious materials, and avoid interacting with attachments and links in emails that you didn’t expect to receive.

4. Secure your workstation.
   Set your screensaver to require a password, and back up your files to prevent losing important information.

5. Protect personally identifying information.
   Consult information security staff to find out how to properly secure information such as social security and credit card numbers.

Free antivirus software and more information at:
technology.gsu.edu/security
Business Continuity
ENSURING CAMPUS INFRASTRUCTURE TO MEET GROWING NEEDS 24/7

An Expanded Network
The Northern Fiber Loop

Working with its corporate partners, IS&T expanded the reach of Georgia State’s network to 13 new buildings, making for a total of 60 networked buildings across Georgia State’s campuses.

Running through Atlanta’s previously existing central business duct system, the newly completed Northern Fiber loop consists of a reliable, 432-count backbone fiber optic network. The loop features a multiple-ring architecture with redundant hubs to offer increased stability and security.

Georgia State University’s enrollment rates have grown significantly and continue to grow each semester. The Northern Fiber loop will help ensure we can meet the university’s demand for reliable communication and increased network capacity, while providing a solid technology infrastructure for future expansion.

Ensuring Business Continuity and Backup Recovery
Alpharetta Data Center

The new Alpharetta Data Center will ensure immediate access to critical data and systems in the event of an outage at the university’s main data center. The center further stabilizes the reliability of the campus network and critical services, with 24-hour backup, recovery, and support.

In collaboration with Facilities Management Services, the design and construction of the data center began in 2012. The Alpharetta Data Center is located 25 miles from Georgia State’s downtown campus and expands the university’s disaster recovery capabilities by duplicating access to important services in a location safely separated from the university’s primary data center in Library South.

In June 2013, the center began testing systems, and implementation is now underway. The Alpharetta Data Center is scheduled for completion by fall of 2014.

Cultivating Innovation
As IS&T’s new Deputy CIO, Sallie Wright works to maintain organizational continuity and encourages the kind of collaboration that fosters successful innovation at Georgia State.

Wright brings a vision of transitioning the role of IS&T from a commodity provider to a strategic partner in the university community.

In her first year, Wright has focused on strategic planning and pioneering projects that will attract prominent researchers, help Georgia State achieve its goal of doubling research funding, and introducing advanced technologies that support the mission of the university.
Expansion in the Cloud
CLOUD COMPUTING

A Platform to Simplify Access and Allow for Growth

PantherMail Student Email Upgrade to Office 365

Over the Summer of 2013, IS&T upgraded more than 30,000 active student email accounts from Microsoft’s Live@edu platform to Microsoft Office 365 for Education. The Office 365 platform gives students a professional mailbox, with greater storage capacity than ever before.

The upgrade also allows students to use their CampusID password to log in to email, rather than a separate email password, making it easier for them to get started using email.

Both the student email system and the faculty and staff email system have recently been moved to the same Office 365 cloud platform. In addition to email, Office 365 allows for services, such as instant messaging, document sharing, remote file access, and collaboration environments. These new services are being made available to the university community in phases throughout 2013.

New Tools to Support a New Strategy

WordPress

A cross-organizational project team, partnering Public Relations and Marketing Communications with IS&T, recently worked to update the university’s website. When more than 5,000 pages were moved into WordPress, the university’s new cloud-based content management system, the resulting web platform applied a new set of technology tools to the task of online communication.

The new website is designed to:
- Enhance the university’s ability to tell its story with rich media content.
- Make it easier for visitors to use search engines to discover Georgia State’s content.
- Improve mobile access to the site.

By leveraging software-as-a-service, open-source solutions, and software plugins, the new web framework allows the university’s communication professionals to focus on engaging content, rather than the technology used to create it.

Office 365 Collaboration Tools

- Exchange Email Service
- SkyDrive Cloud Storage
- Lync Chat
- Microsoft Web Apps Document Sharing
Across Boundaries
A RESOURCE TO THE UNIVERSITY AND BEYOND

Integrating Systems to Meet Needs Across Campus

*Panther Profile*

Many of the systems that IS&T helps maintain must work across organizational boundaries to support multiple business processes. The directories that store profile information about members of the university community are an example. Working with departments from the Division of Enrollment Services and the Division of Finance and Administration, IS&T created Panther Profile to ensure that students, faculty and staff have self-service options for updating the information that describes them in the web-based campus and email directories.

Panther Profile allows users to indicate a preferred name, which can be different than their legal name, to display in the campus directory and their email profile. It also allows faculty and staff to manage the office phone number that is listed in the campus directory, and enter an additional location and phone number.

The PantherCard E-Photo portion of the application allows students, faculty and staff to submit a photo online to be used on their PantherCard. Online photo submission streamlines the process of obtaining a PantherCard for students who attend INCEPT and makes it easier for students, faculty and staff at satellite campuses to obtain a new PantherCard efficiently.

Cross-Institutional Training to Meet Statewide Compliance Standards

*The University System of Georgia Ethics Policy Refresher Course*

When the Board of Regents (BoR) needed assistance creating a course that would provide required refresher training in ethics to all University System of Georgia employees, they contracted IS&T to help create it. IS&T's instructional designers and multimedia developers worked with the BoR to take a new approach to the refresher course, simplifying the course's structure and post-curriculum assessment as well as producing an eleven-minute video that covers this year's ethical topics through a series of simple scenarios.

The course has been tested with a number of universities and will be released to all USG employees in coming months.

Student Technology Fee

In 2013, IS&T helped coordinate allocation of over $6.7 million in funding from the Student Technology Fee. 94 projects were funded across the university.
Positioned for the Future
UPCOMING AND IN-PROGRESS PROJECTS

Improved Remote Support Tools for Workstations
Microsoft SCCM and SCOM

IS&T will soon begin using Microsoft System Center Configuration Management (SCCM) to make it easier to deploy changes and ensure better consistency across the many workstations that IS&T helps support. SCCM will provide system updates management, software distribution, and network access protection, as well as allow IS&T technicians to remotely inventory and control managed systems.

SCCM will be used with System Center Operations Manager (SCOM), which provides a single interface to show state, health and performance information for managed computers. The software can provide alerts to draw attention to unusual activity, such as unavailability of a system on the network, slowed performance, configuration issues and potential security concerns.

The software will also be available for use by workstation support teams in other departments.

Integrated Systems to Offer Efficiency and Cost-Savings
Active Directory Workstation Authentication

Working in collaboration with technical staff throughout the university, IS&T has begun moving the campus Novell network to Active Directory (AD), the industry standard for file and print directory services. Active Directory offers centralized management of users and workstations, which allows technicians to easily analyze and resolve workstation issues remotely.

Active Directory also increases network security and improves the scalability of network systems, enabling our infrastructure to grow as the university expands. Users of workstations in offices, classrooms and labs across campus will benefit from the shift to Active Directory with easier login, which uses CampusID and password for authentication, instead of a separate Novell login username and password.

The shift from Novell to Active Directory is scheduled for completion by June of 2014.

A Single Password to Access All Major Systems
Quest One Identity Management and Password Manager

IS&T has initiated the replacement of Georgia State’s current Novell identity management system with Dell’s Quest One Identity Management and Quest Password Manager. Combined with the move to Active Directory, the new identity management solutions will allow the university to eliminate dependence on older Novell User IDs and complete the move to using CampusID and password for sign-in to essential systems. With this toolset, the university will be able to build future provisioning interfaces faster and more efficiently.

In addition, CampusID password self-service will offer expanded options for users, such as confirming password reset requests via cellphone text message. The additional options will make it easier for users to manage their own passwords, and for the IS&T Help Center to efficiently assist users with password issues.

Also Coming to Campus

- Microsoft SharePoint Collaboration Tools
- Online Licensed Software Distribution
- Edublogs Personal and Group Online Sites
- Qualtrics Survey and Analysis Tools
- Pharos Wireless Printing
- Visix Digital Signage
- Video Surveillance System
- LastPass Secure Password Manager
Our Services
PROVIDING INNOVATIVE SERVICES TO THE UNIVERSITY

The Tools for Better Technology Support

IS&T Technology Services and Support Website
During the months before Georgia State University officially launched its new website in Wordpress, IS&T's technology website, technology.gsu.edu, was at the forefront of the transition. The website was used to explore the capabilities of the new system, as IS&T staff created and organized content about available technology services and support, discovering how the tools could best be used and reporting issues that were found as the tools were tested.

Services for Students, Faculty and Staff
IS&T's new website creates a one-stop-shop for university technology information. The website provides easy access to information about technology resources and support, including overviews of available services, a direct line to the IS&T Help Center and step-by-step documentation on a range of available technology tools.

System Status
IS&T also maintains an online status page as a complement to the website that provides real-time updates on the state of major systems such as email and wireless.

Find Us Online
Services: technology.gsu.edu | Support: technology.gsu.edu/help

IS&T Help Center
Phone: (404) 413-HELP (4357) | Email: help@gsu.edu

Follow Us on Facebook
facebook.com/GeorgiaStateIST

Instructional Technology on Twitter
twitter.com/GSUtheExchange

Our Services & Support
Just a few of the services IS&T provides to students, faculty and staff. Visit our website for information and support for these services.

Email and File Storage
PantherMail Student Email
Office 365 Faculty & Staff Email
Send a File - Large File Transfer
LockerBox & Lab Drives
Network Drives
Wireless Network

Training and Learning Resources
Desire2Learn
TurnIn
Wimba
Respondus
Collaborate
ShareStream
iTunes U
Training Workshops
Skillsoft
Lynda.com
Gartner: IT Library

Software Purchase

Computer Purchase
Labs and Classrooms
Equipment Checkout
Virtual Computing Lab
The Exchange
Digital Aquarium

Research Computing
Supercomputer (CARINA)
Blade Center (OCTANS)
Batch / Interactive Computing (VELA)
Grid Computing
Research Software
Visualization Wall
InCommon Federation

Telephone and Network Services
Telephones for Purchase
Lines and Services
Network Services

Accounts and Passwords
CampusID
Novell UserID
Guest and Affiliate Accounts

Security
Antivirus Software
Virtual Private Network
Firewall
Encryption
Malicious Software Alert
Security Assessments
Leading in Our Industry
AWARDS AND RECOGNITIONS

Expert Staff: Certifications Attained in 2012/2013

Crestron Digital Media Certification - Engineer (DMC-E)
  - Tony Culberson
  - Jim Deegan
  - Michael Lenna
  - Willie Magee
  - Stephen Nicholas
  - Jo-El Rowell
  - Mark Rubesch
  - Yaw Sarpong
  - Kevin Tucker

Certified Technology Specialist (CTS)
  - Jim Deegan

F5 Configuring BIG-IP Local Traffic Manager (LTM)
  - Jamie Thaubald

Programming with Java I
  - Beryl Thomas

AutoCAD Essentials I
  - Beryl Thomas

Managing Organizational Knowledge
  - Courtney DuBois

BlueCat Proteus IPAM Administration
  - Rick Scott
  - Jim Young

HDI Desktop Support Technician (HDI-DST)
  - Chris Bernard
  - Verna Brooks
  - Tony Culberson
  - Andy Farr
  - Gabriel Liegey
  - Willie Magee
  - Stephen Nicholas
  - Mark Rubesch
  - Yaw Sarpong
  - Kay Spencer
  - Clinton Taylor
  - Kevin Tucker
  - Lakashal Turner

HDI Desktop Support Manager (HDI-DSM)
  - Michael Lenna
  - Mark Zimmer

Training Crestron Digital Media Certification - Technician (DMC-T)
  - Tony Culberson
  - Stephen Nicholas
  - Willie Magee
  - Jo-El Rowell
  - Mark Rubesch
  - Yaw Sarpong
  - Kevin Tucker

HDI Support Center Analyst (HDI-SCA)
  - Adrienne Burns-Person
  - James Edwards
  - Ashante Stewart

HDI Support Center Team Lead (HDI-SCTL)
  - Miranda Pedescleaux
  - Charles (Brad) Underwood

HDI Support Center Manager (HDI-DSM)
  - Mark Zimmer

2012 Chancellor's Customer Service Award

Chancellor Hank Huckaby recognized Georgia State University with an outstanding customer service award for 2012 in the category of process improvement. The Bronze Level Award was given to the university in recognition of the iPads for Student Registration - Incept initiative, which IS&T helps support.

2012 Cybersecurity Leadership and Innovation Award

IS&T received the 2012 Cybersecurity Leadership and Innovation Award in Education from the Center for Digital Government, a national research and advisory institute on IT best practices. The Cybersecurity Leadership and Innovation Award program recognizes the commitment of government agencies to keep confidential data secure despite ever-evolving threats. IS&T accepted the award at the FOCUS 12 Security Conference, hosted by McAfee.
Faces in IT at Georgia State

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Thank you for letting us serve your technology needs.
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