The mission of University Information Technology Services is to provide customer service excellence through technology leadership and expertise in support of the goals of the university while ensuring innovation and security through technology.

We envision University Information Technology Services as recognized leaders in providing Kennesaw State University with world-class technology, services and innovative solutions that empower our campus community to achieve the highest levels of teaching, learning, research, and collaboration.

University Information Technology Services has identified nine core beliefs by which the division is held accountable. These beliefs are the underlying assumptions and principles that influence our work, our attitudes and our behaviors, ultimately driving how we operate.

- **Collaboration** - We believe that teamwork and collaboration are essential to the success of university IT services.
- **Communication** - We strive to build and maintain long-term relationships with our customers through open communication and continuous feedback.
- **Community Engagement** - We treat others with mutual respect and empathy in our pursuit to positively influence and serve our community.
- **Customer Service** - We resolve to take ownership of our customers’ problems until resolved to their satisfaction.
- **Diversity** - We welcome and advance diversity of thought, association and purpose.
- **Innovation** - We embrace, foster and inspire change.
- **Integrity** – We treat the campus community in a fair and honest manner.
- **Security** - We value the privacy of the data to which we are entrusted and remain uncompromising in our commitment to its security.
- **Support of the mission** – We support students, faculty and staff with innovative solutions and responsive services.

During the Fall 2015 semester, University Information Technology Services debuted the division’s new Mission, Vision, and Values statement. The updated text serves as a modern guide for the consolidated technology division at the new Kennesaw State University, reflecting the standards of the university at both campuses.

In a collaborative effort throughout the division, UITS leadership drafted the new statement during 2015 to reflect the division’s responsibilities to the university and its students. The updated statement is more detailed and comprehensive, in-line with the more complex and capable consolidated technology division. Nine specific values are featured, each meant to influence the work of each staff member.

The new statement draws inspiration from previous Mission, Vision, and Values statements from both the Marietta Campus and the Kennesaw Campus, the university’s overall mission statement, as well as the University System of Georgia.

UIOTS projects and goals are guided by the division’s Mission, Vision, and Values - each task reflects the guidelines created for the division and empowers students, faculty, and staff to be successful.

The new UITS Mission, Vision, and Values statement is made available online at http://uits.kennesaw.edu/about
Layered Email Protection at Kennesaw State

Kennesaw State’s email system is safeguarded from malware, phishing attempts, and spam by a layered protection approach that combines advanced, continuously updated security software, real-time threat prevention systems, and an information security aware community.

KSU’s first layer of email security comes in the form of traditional scans and checks that search for known types of phishing attempts, spam, and malware. Incoming emails from outside domains are compared to reputational lists; messages from domains that are known or suspected of generating malicious emails may be removed and quarantined before reaching a KSU inbox.

Messages are also passed through heuristic filters, an automatic process that looks for key phrases or patterns commonly used by spammers and searches a database of unsafe URLs. These spam detection algorithms are sophisticated enough to detect messages with improper spelling, capitalization, and punctuation; the checks can even use optical recognition to detect attempts to bypass anti-spam systems by hiding messages in images. In addition, attached files are compared against a database of known malicious software.

These factors are weighted and each contributes to the decision to pass a message to the inbox. The tools are updated many times each day to detect new threats.

While these resources are excellent for catching and quarantining known threats and do protect against most malicious activity, they may not be as effective against new malware, targeted phishing tactics, or threats that are specifically targeted to the university. If an email passes through this first traditional layer of detection, it enters the next layer of email protection where attachments are analyzed based on behavior.

When a message with an unknown attachment is delivered from a domain outside of the university to an @kennesaw.edu account, UITS employs a system which examines the attachment in multiple virtual computer environments. This advanced tool examines the attachment’s effect on the virtual computer to determine if it is malicious or not, checking if the software accesses portions of the operating system or modifies operating system files. This method is much more effective against new malware or threats which

Continued on Page 3
As part of the Horace W. Sturgis Library renovation, the facility now includes a brand new, heavily trafficked computer lab occupying the majority of the building’s basement floor space. Unlike traditional computer labs housing individual, bulky desktop computers, the new Sturgis Library lab features 153 state of the art virtual machines.

Each day, hundreds of students log-on to one of these new virtual computers in the library lab. Students interact with the machines in a familiar manner – each station features a monitor, a mouse, a keyboard, and a network cable, but there is no traditional case housing a processor, hard drive, memory, or loud cooling fan; instead, the computing is handled by a central data center located on campus and managed by UITS. Essentially, students access only the image of a desktop computer generated by high-powered computer servers. High-speed bandwidth ensures that students encounter little or no latency while accessing these virtual machines.

Students will notice very few surface differences between these virtual computers and a traditional desktop or laptop. The Sturgis Library virtual machines currently run Windows 7 and can be easily upgraded to new operating systems. Students can access the Internet, work in common use programs like Microsoft Office, and save their work to USB storage through ports located on each station’s monitor. During peak activity, students should notice no performance issues using virtual computers, even as the system services many computers at once.

Continued on Page 4
Virtual computing offers several efficiency advantages for the university. The stations use less energy than traditional desktops, generate less heat, and are much easier to manage. Virtual computers need to be upgraded less frequently than traditional desktops. Traditional computers can fail during brief power outages, where just a few seconds of power loss can cost unsaved work; the virtual labs can retain a work session for up to 30 minutes after an interruption.

UIITS technicians can easily perform maintenance on the virtual computing system without the need to access each individual station. Many routine maintenance tasks can even be managed remotely; technicians no longer need to visit each station to address hardware problems like a failed hard drive. Downtime periods for maintenance tasks can be greatly reduced with virtual desktops compared to traditional desktops; reimaging for a computer lab of traditional desktops can take an entire business day, while the virtual labs can be easily imaged and updated during a short period overnight. Processing for these virtual computers is split to two separate locations at campus to ensure that the computers may stay functional even in the event of failure at one of the data center locations.

These virtual computer labs present a few new considerations for KSU community members. Because the virtual computer stations have no dedicated storage, work saved on the computer is not saved to any specific station, and cannot be accessed again after leaving a virtual session. Students using a virtual machine must save their work off of the computer (i.e. to a personal USB drive, through email, or online through a service such as OwlDrive).

The Sturgis Library’s central location and position as a student academic resource has generated heavy daily traffic for the new virtual computer lab. During the lab’s first semester, more than 10,000 unique visitors logged-in to one of the library computers at least once, with more than 80,000 log-ins total. Usage spikes between classes, but remains steady during each day of class; peak times are between 11:00 am to 3:00 pm, when 80-90 percent of the lab is regularly occupied.

“The usage for this lab has been incredible,” said IT Systems Support Professional Murtuza Rizvi. “At any given time, we can see how many students are using these computers and it has been mind-boggling. These statistics have really helped us prepare for other areas where we will be deploying (virtual labs).”

The library lab is the largest virtual computer deployment currently on campus, but it is not the first. UITS has also deployed similar labs at both campuses. Building D at the Marietta Campus features a 120-station lab, the Burruss Building features a virtual computer lab with more than 30 stations, and the Hive Lab at the Marietta Campus features more than 20; smaller deployments exist in Willingham Hall and Prillaman Hall. UITS has deployed approximately 400 virtual desktop stations at Kennesaw State since 2013.

A New Call Center Platform for the KSU Service Desk

The KSU Service desk and campus phone operators aim to noticeably improve customer service through a new call center platform.

Platform 28, launched on Oct. 29, 2015, is the new communications software powering the KSU Service Desk call center. The technology is a dramatic improvement for service desk staff, enabling a level of control, quality assurance, and scalability not possible with the KSU Service Desk’s previous phone communications system. “This system moves us forward compared to other universities,” explained KSU Service Desk Assistant Director Michael Lenna. “It’s really a jump ahead.”

Incoming calls now feed directly into a software-based conditional router that routes calls directly to available agents who receive calls on computer-based softphones. The previous call center system utilized a hunt group that split calls directed to the service desk or campus operators to multiple lines with little ability to control the routing or monitoring of calls. Metrics for the previous were few in number and lacked detail.

Platform 28 powers four separate call queues: faculty and staff technology support, student technology support, AV

Continued on Page 5
The upgraded system provides a new range of call metrics. Managers can dynamically view average hold time, average call time per representative, number of calls per representative, the real time status of each representative, call sound quality, number of calls holding in each queue, where calls are being transferred, and much more. Calls received by the KSU Service Desk and campus operators are not recorded; however, managers now have the ability to monitor calls as they occur, giving administrators the ability to provide better feedback as well as creating training opportunities for operators and technicians.

Platform 28 also enables the KSU Service Desk to easily expand during periods of high activity. With just a headset and training, staff outside of the service desk can login to the service to accept calls using a campus computer; new agents can be configured and receiving calls in a matter of minutes. The previous service desk system did not allow for outside scalability if all existing stations were occupied. Administrators can also set call center messages remotely, notifying callers about known outages or emergencies before they are connected to a representative.

For more information about the KSU Service Desk, including hours of operation, please visit uits.kennesaw.edu/support. The KSU Service Desk can be reached at 470-578-6999 or service@kennesaw.edu for faculty and staff and 470-578-3555 or studenthelpdesk@kennesaw.edu for students.

More than 1,000 Participated in Cyber Security Awareness Day 2015

In October, the UITS Information Security Office hosted Kennesaw State’s 7th Annual Cyber Security Awareness Day.

For the first time in the event’s history at KSU, the event was held twice in 2015: October 21 at the Marietta Campus and October 22 at the Kennesaw Campus. Both days were streamed live through ksutv.kennesaw.edu.

The online video stream and the extra day contributed to record high participation for the event; more than 1,000 attended in person or viewed a portion of the Cyber Security Awareness Day through the online stream.

The 2015 sessions featured returning and new speakers from the U.S. Secret Service, the F.B.I. and the Georgia Bureau of Investigation, as well as local companies including Northside Hospital; Elavon, Inc.; Experis; and Bishop Fox, an IT security consulting firm.

Presenters spoke on a variety of information security related topics ranging from personal identity and financial protection to potential security risks related to new internet connected devices.

Sponsors for the 2015 event included Edge Solutions, Identity Finder, and Southern Computer Warehouse.

UITS will host the 8th Annual Cyber Security Awareness Day in October 2016. Learn more about this annual event by visiting http://cybersecurity.kennesaw.edu
Behind the Scenes with KSU’s Sturgis Commercial

On Thursday, Sept. 3, 2015 Kennesaw State’s new national commercial starring Sturgis, KSU’s live owl mascot, made its on-air debut during KSU’s first-ever football game on CW69.

The commercial was a university-wide collaboration between Strategic Communications and Marketing, Athletics, and University Information Technology Services. Music for the commercial was composed by student Eric Ramos and performed by Ramos and KSU College of the Arts musicians.

The UITS video production team, led by Assistant Director Jennifer Leifheit-Little, shot, voiced, edited, and created motion graphic elements for the commercial, which compares characteristics of KSU students to that of Sturgis, KSU’s Owl Mascot.

The 30-second spot was filmed during a single day shoot at the Kennesaw Campus Onyx Theatre with Sturgis, and handler Daniel Walthers. The dark theatre was lit conservatively for Sturgis’ comfort and to provide contrast between the owl’s colors and the deep black background while also lending to the commercial’s black and gold theme.

Much of the shoot was influenced by Sturgis’s availability and well-being. Filming was scheduled early to avoid molting season, and the concept and scope of the commercial remained limited to keep Sturgis relatively stationary and without requiring his presence for multiple shoot days.

Like with all scripted shoots, the video production team began filming with a list of specific shots. But filming a live animal required the team to be creative and adaptable. The video production team

Continued on Page 7
used the audio from wildlife owl videos to prompt Sturgis to look into the camera or to shift his view. “We shot a lot as scripted, but much of it was reacting to moments and waiting for new moments,” explained Lead Video Specialist and commercial director Ricky Bohan. “You can wait a long time for him to turn a certain way.”

The video production crew utilized a cinema grade RED Scarlet Dragon camera to achieve the commercial’s professional look. Raw footage for the shoot was filmed in 5k resolution, and some shots were taken at a high frame rate to highlight Sturgis’ movements. Professional lenses allowed for striking images, like the macro shot of Sturgis’ eye.

A full day of shooting produced nearly 400GBs of ultra-high resolution video, which was edited and color corrected to produce the 30-seconds of commercial aired.

The commercial’s final shot, a spinning black globe with gold lights fading into the new KSU mountain logo, was also produced in-house by UITS Video Production Motion Graphics Designer Michael Leitmann with design input from Strategic Communications and Marketing. UITS Multi-Media Specialist Wesley Morgan provided the voiceover.

Since the video debuted online in August, the commercial has been viewed online over 30,000 times. It will continue to air through 2016.

You can view the commercial at Kennesaw State’s Vimeo page, here: https://vimeo.com/kennesawstate.

In addition, you can find a behind the scenes video produced by UITS Video Production Services here: https://vimeo.com/138802852

UITs Web Tool Simplifies TAP Application Process

The recently launched, UITS developed web tool for the University System of Georgia Tuition Assistance Program at Kennesaw State has greatly simplified and added new efficiencies to the application process for applicants, supervisors, and KSU Human Resources.

Now, KSU faculty and staff who are eligible to participate in the program (visit KSU Human Resources online at https://web.kennesaw.edu/hr/ to learn more) can easily apply online through an entirely digital process from applicants to supervisors and KSU Human Resources.

Before the Kennesaw State’s TAP application debuted during the Fall 2015 semester, the program relied on applicant completed paper documents that were then entered manually by Human Resources staff into an internal Microsoft Access database.

All KSU faculty and staff can access the application now at the KSU application portal at apps.kennesaw.edu or through the TAP HR web page. Because applicants must access the application tool using a KSU NetID and NetID password, personal information such

Continued on Page 8
as KSU ID number, employee ID number, supervisor, and contact information are prepopulated within the system. Applicants must provide degree and program information.

The application sources course information directly from KSU Banner; applicants can search for requested courses using the course CRN. Before a request can be submitted, applicants must agree to TAP terms through a checkbox certification. Applications cannot be submitted with missing required fields, eliminating the possibility for delayed applications because of an overlooked, missing information.

Once a digital request is submitted, the TAP application greatly streamlines the approval process through the applicant’s supervisor and Human Resources. The supervisor receives an automated email notification when an employee submits a digital TAP request, and is then prompted to log-in to the application and complete the online process for approving or denying the request; if the request is denied, he or she must select a prewritten reason from a drop-down list or provide a customized response.

Once a supervisor approves or denies the application, it then moves to Human Resources for final approval or denial. At any point in the process, the request can be opened back up to the applicant for changes. The application can generate automatic TAP deadline reminders to individual applicants and the KSU Community at large, eliminating the need for manually sent reminder information from Human Resources staff.

The TAP process has become much more efficient and error resistant as a result of the new tool’s introduction. Digitally submitted documents cannot be lost in transit or faxed to the wrong number, and the simplified handoff process between applicant, supervisor, and HR provides less room for delays.

The application has also helped for reporting and compliance. As part of the program, USG institutions are required to provide detailed enrollment reports. These reports were previously assembled manually; now, the application can generate the same reports with a few clicks. The data is accurate and quickly accessible at any time.

“I think, conservatively, we estimate that the new TAP application has made the process 75 percent more efficient,” explained Jacqueline Duncan, Human Resources Director of Process Improvement. “We are able to meet deadlines with much fewer hours and manual labor. One person can handle some tasks instead of three.”

The new KSU TAP application was developed in partnership between KSU Human Resources and UITS Enterprise Systems and Services. To learn more about TAP, please visit https://web.kennesaw.edu/hr/content/tap-other-education-opportunities.

![Employee Information](image)

Applicant identification information is automatically populated through the tool. Other fields use text entry and dropdown menus.

---

**D2L Brightspace Continuous Delivery - New Updates Each Month**

As of January 2016, D2L Brightspace has implemented a new system of continuously delivered system updates.

D2L now receives small updates on the third Friday of each month providing regular improvements and new functionality. This new update model replaces D2L’s previous system of providing large updates once a year during December.

As part of the new continuous delivery model, UITS will offer new training and learning opportunities for D2L. A new UITS-hosted D2L webpage is now available at http://uits.kennesaw.edu/d2l; this page will be updated each month with D2L update information, training opportunities, documentation, and other important information related to D2L.

UITs invites faculty and staff to participate in “D2L Continuous Delivery – What’s New” webinars, facilitated by UITS technology trainers and designed to provide updates on new changes within the service.

Visit our D2L training web page at uits.kennesaw.edu/support/d2ltraining.php to learn more about D2L training and to view upcoming D2L training dates.