



**TECHNOLOGY SERVICES**

# **Annual Report**

## **FY 2015**

Prepared December 14, 2015

# TABLE OF CONTENTS

<b>Introduction</b> .....	<b>3</b>
Mission and Vision .....	4
Organizational Chart .....	4
<b>Governance</b> .....	<b>5</b>
<b>Teaching and Learning</b> .....	<b>6</b>
<b>Tier One Support</b> .....	<b>8</b>
Help Desk.....	8
Organizational Optimization and Renewal .....	11
<b>Information Security</b> .....	<b>12</b>
Security Audits and Statistics.....	14
<b>Web and Online</b> .....	<b>15</b>
Network Connectivity.....	16
<b>Enterprise Systems and Infrastructure Renewal</b> .....	<b>17</b>
Infrastructure Technology Projects .....	18
<b>Important Links</b> .....	<b>20</b>

## INTRODUCTION

Fiscal year 2015 was one of continued growth for Gallaudet Technology Services (GTS) as we continue to invest in building and upgrading systems and networks, increasing cybersecurity measures and awareness, and to streamline how we provide services in order to meet the evolving technology needs of the campus community.

We have also worked to strengthen collaboration with faculty in order to support the academic mission.

Each year EDUCAUSE ([www.educause.edu](http://www.educause.edu)) releases their assessment of the top 10 IT issues facing higher education for the upcoming year. Many of our priorities in 2015 were in line with the EDUCAUSE recommendations including:

2. Optimizing the use of technology in teaching and learning in collaboration with academic leadership, including understanding the appropriate level of technology to use.
6. Increasing the IT organization's capacity for managing change, despite differing community needs, priorities, and abilities.
9. Developing an enterprise IT architecture than can respond to changing conditions and opportunities.

## MISSION

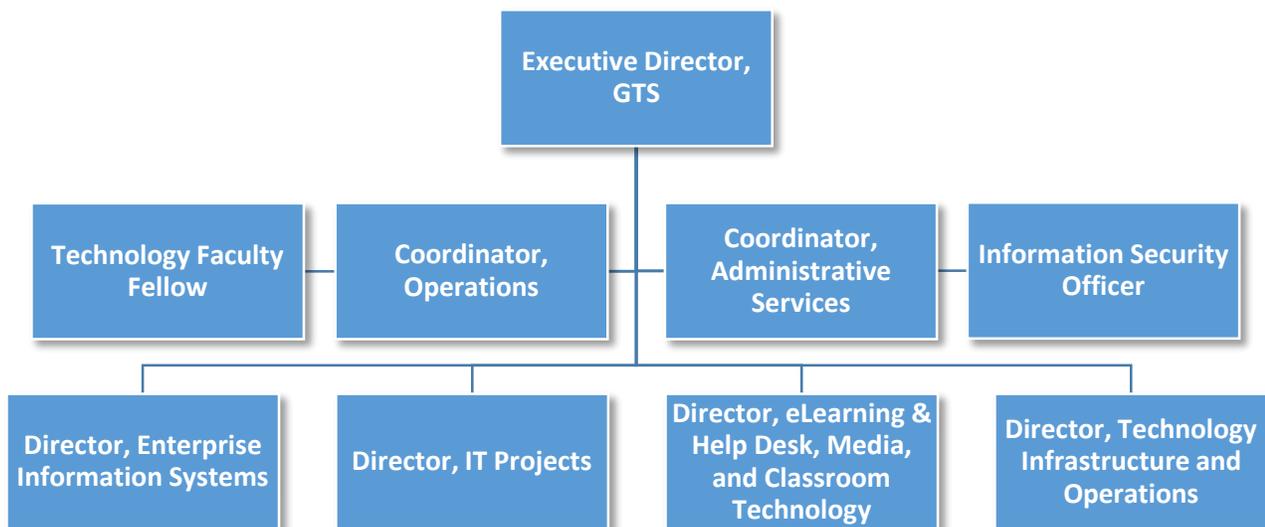
Gallaudet Technology Services provides the essential technology expertise and leadership, technical project coordination, and support to fulfill service needs for information sharing, teaching and learning, and communications resources in partnership with Gallaudet University and Laurent Clerc National Deaf Education Center.

## VISION

In the ongoing pursuit of our core purpose to support the educational missions of the institutions, we offer reliable learning and information as a team of knowledgeable, competent, and passionate service providers.

As a unit that supports complex and multifaceted services ranging from infrastructure to eLearning, we work together to deliver a centralized service experience for the educational environments in accordance with our mission.

Our customer service is driven by optimal results in information integrity, integration, and retention, with a focus on balancing efficiency, quality, and costs.



## GOVERNANCE

With our visible management approach, we collaborate with our stakeholders by contributing technical expertise and leadership to the planning, implementation, and maintenance of systems. (*GTS Vision*)

GTS formed and led three very important stakeholders groups this year. GTS representatives also participated in a variety of campus activities and organizations including but not limited to the President's Cabinet, Marketing Advisory Group, University Planning and Budget Committee, MSCHE Task Force, Staff Advisory Council, and the Crisis Leadership Team.

### Stakeholders Groups

*Administrative Systems Committee (ASC)* – This is an on-going committee made up of representatives from across campus who either use PeopleSoft products or who use data with other software systems that uses PeopleSoft data. This forum allows for planning, coordinating, and information sharing about updates, upgrades, and other data storage or management changes. The structure and focus of this group is currently being evaluated and is expected to evolve in the upcoming year.

*Blackboard Action Group (BAG)* – This ad-hoc group, made up of faculty representatives and GTS eLearning staff, met from 2014 through early 2015 to investigate the Learning Management System's (LMS) current features and features in the next upgrade of Blackboard. They made recommendations on how to maximize awareness and increase the use of existing features and on future development. This group was formed as a recommendation from the 2013/2014 Technology Advisory Council.

*Teaching and Learning with Technology (TLT)* – Based on recommendations from TAC, BAG, and the Tier One Restructuring Taskforce, GTS is in the process of forming a new committee made up of faculty representatives from each academic department. The goal of this committee is to build collaboration between GTS and university faculty as well as to create a network of peer “faculty on demand” mentors to help increase awareness of and competency with technologies that support educational instruction.

# TEACHING AND LEARNING

Increase faculty accountability for student learning and development (*University Goal D: Objective 4*)

## Faculty Fellow

In response to BAG recommendations and other processes and discussions, GTS created a faculty fellow position in August. A faculty member from Academic Affairs was appointed to provide a key link between GTS and academic programs. The faculty fellow will strengthen communication, transparency, and assessment of teaching and learning with technology with the goal of making sure technology supports the academic mission. The faculty fellow, along with the coordinator of administrative services, will lead the newly formed TLT committee. (See page 4 for a description of BAG and TLT)

## How are we doing?

Gallaudet participates in a number of national surveys about student experience and satisfaction on various aspects of university life including technology. This data provides a benchmark to track GTS services over time and to compare our services with cohort institutions. The data also helps GTS keep abreast of trends and top issues in IT and higher education that are most relevant to our institution.

THE UNIVERSITY PROVIDES SUFFICIENT RESOURCES THAT HELP ME EFFECTIVELY USE TECHNOLOGY FOR MY ACADEMIC NEEDS.

COMPUTER LABS ARE ADEQUATE AND ACCESSIBLE.

EMERGED AS STRENGTHS ON THE 2015 NOEL-LEVITZ STUDENT SATISFACTION INVENTORY

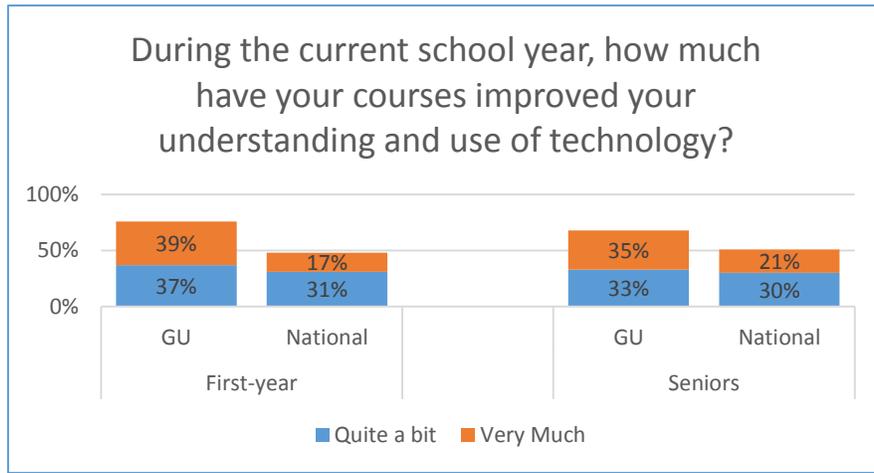
In 2015, students were asked to complete the Noel-Levitz Student Satisfaction Inventory which looks at a wide range of issues. Students are asked to rank how important the issue is to them and then to rank how satisfied they are with how the university provides for this. The ranking is on a scale from 1 to 7 with 7 being very important/very satisfied. The inventory determines as strengths the areas that students rank high in both value and satisfaction.

Two resulting IT-related strengths are:

*The university provides sufficient resources that help me effectively use technology for my academic needs.* (Importance: 5.23; Satisfaction: 6.12)

*Computer labs are adequate and accessible.* (Importance: 6.25; Satisfaction: 5.45)

NSSE (National Survey of Student Engagement) is another survey that assesses first-year and senior student engagement in a number of areas including learning with technology. In 2014, Gallaudet students consistently credit their academic endeavors with increasing their use of technology beyond what is seen in the national average. This response is seen consistently from first-year students and seniors. There could be any number of explanations, but one possibility is that Gallaudet faculty are using technology to engage students at a higher rate than do their peers at other institutions.



## TIER ONE SUPPORT

Improve efficiency and effectiveness of all programs and services. (*University Strategic Goal C: Objective 4*)

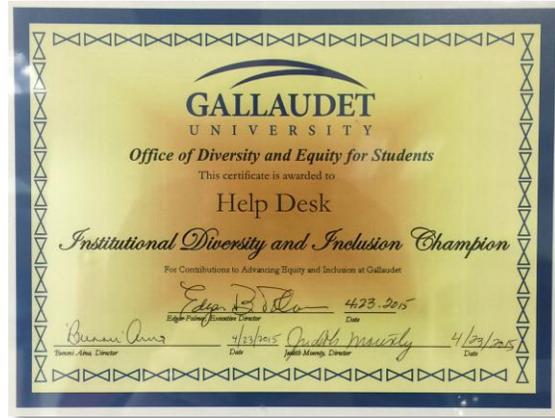
Create environment and support systems to encourage retention and successful completion. (*University Strategic Goal B: Objective 1*)

### Help Desk

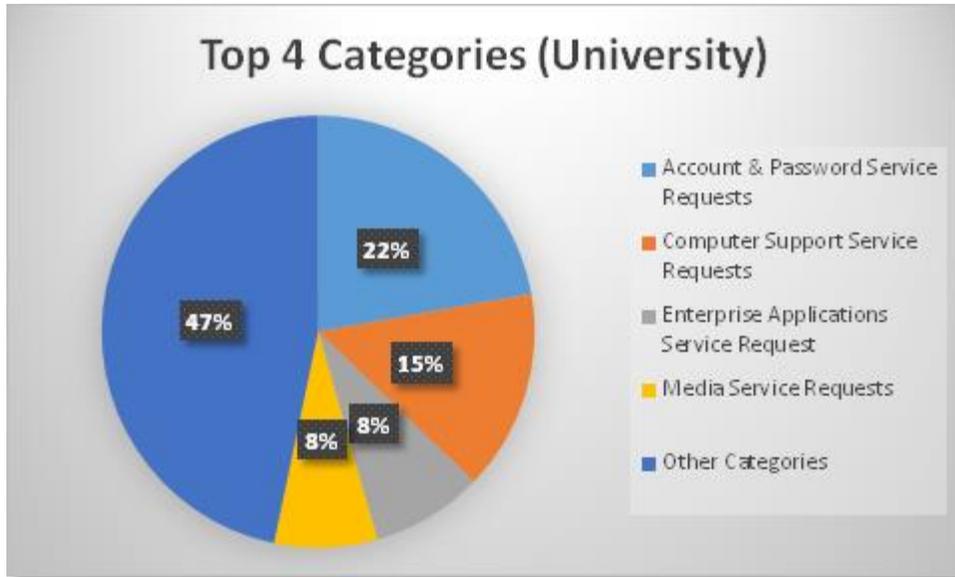
Help Desk tickets are broken down into service requests and incident reports. Service requests are routine requests as part of normal daily operations such as software installations, password resets, new computer set ups, and more. Incident reports are for problems or issues that have and impact on regular operations or a user's ability to work. In FY 2015 the Help Desk received 15,148 tickets; and of these tickets, close to 80% were service requests and 20% were incident reports. There were 15 global tickets (with 341 associated tickets) for incidents that impacted a large number of users.

The top categories of tickets submitted by campus users were for account and password service, computer support, enterprise applications support (Blackboard, Bison, and more), and media service. These top issues constitute 53% of tickets and the rest are distributed over 35 other categories.

The average time it takes to resolve a ticket is five days but the average time to resolve the top category, password reset requests, was seven hours.

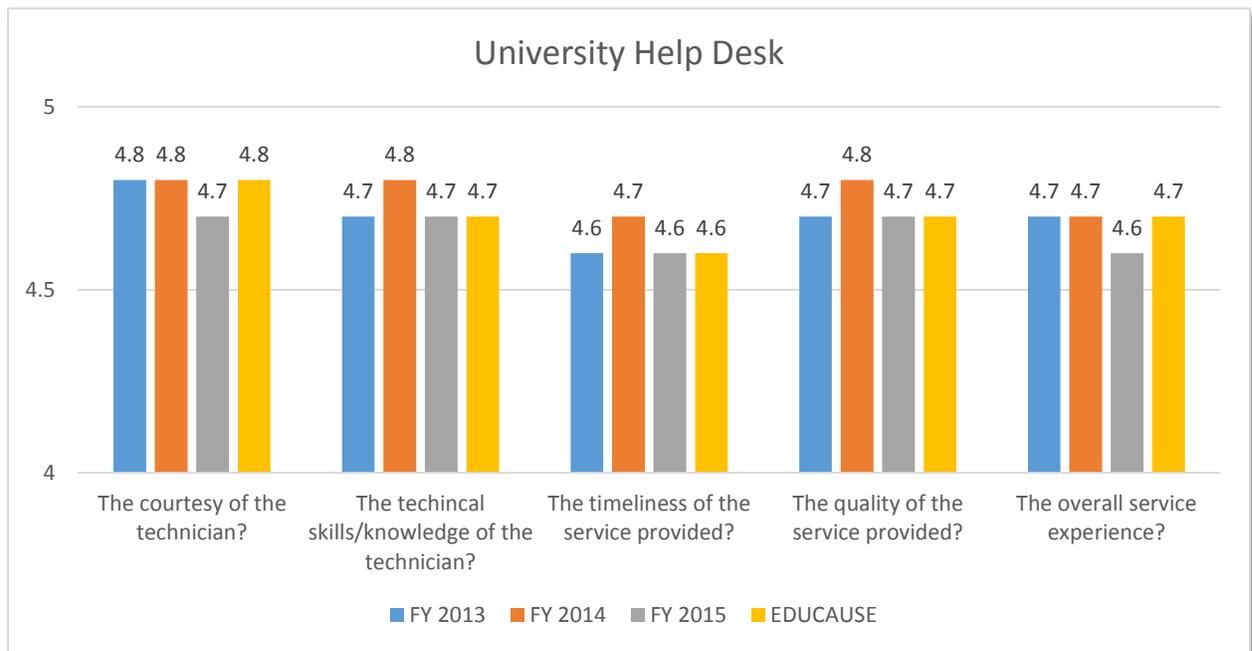


IN APRIL, THE OFFICE OF DIVERSITY AND EQUITY FOR STUDENTS AWARDED THE HELP DESK WITH THE "INSTITUTIONAL DIVERSITY AND INCLUSION CHAMPION" AWARD FOR CONTRIBUTIONS TO ADVANCING EQUITY AND INCLUSION AT GALLAUDET.



When tickets were closed, 5,098 (34%) were randomly sent Customer Satisfaction Surveys. The questions, based on the HDI Customer Satisfaction Index and tracked by EDUCAUSE, asks the requestor to rank, on a scale of 1 to 5, with 5 being very satisfied, the overall service experience as well as timeliness, quality, and courtesy and skills/knowledge of the technician.

In FY 2015, 1,326 surveys were completed. This is a 26% response rate and represents 9% of the total tickets.



## Need Help?

In January 2015, GTS launched a service that, for the first two weeks of the semester, provided a special email address for faculty to request immediate support in the classroom. GTS staff were on call to respond either in person or remotely and staff also made rounds throughout main classroom halls to check in with faculty.

This service was offered again at the beginning of the fall semester and was also provided at the Clerc Center. Forty-four requests were made in January, 51 in August/September, and ClercHelp received 32 requests.



“THIS MAKES A HUGE DIFFERENCE FOR TEACHERS AND STUDENTS AS EVERY MINUTE IN CLASS TIME COUNTS. THANK YOU!” ~SURVEY RESPONDENT

A survey was sent to all university faculty after the fall period and, though the response was low, the overall satisfaction rate of those who indicated they used the service was 4.5 out of 5.

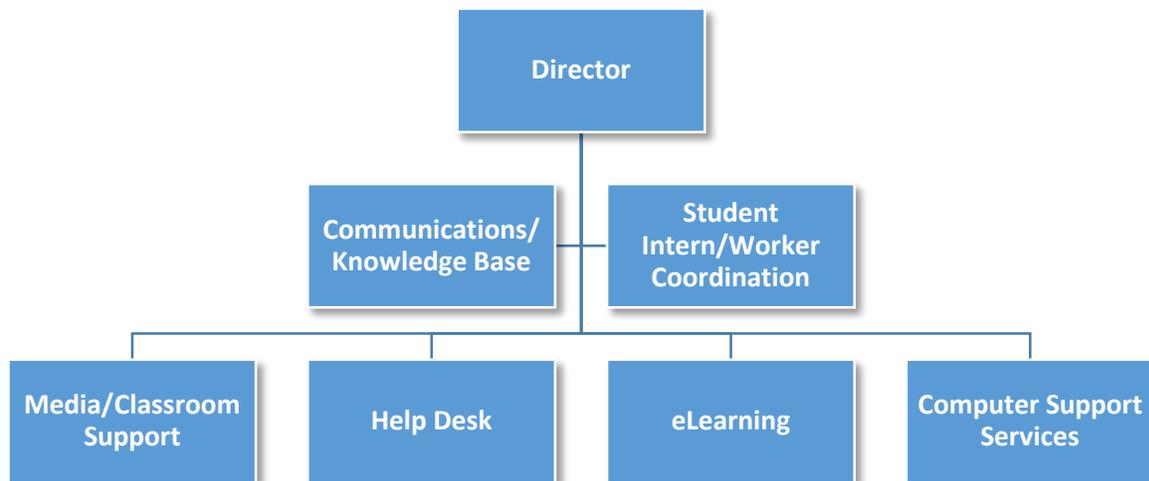
## Organizational Optimization and Renewal

Organizational structure and interdependencies are constantly assessed for continuous improvement in user experience and service delivery. In FY15 there were several major additions and structural changes. The biggest change this year was in the area of tier one support.

Historically IT services were divided into three major areas: Information Technology Services which was primarily responsible for business-level needs; Academic Technology which oversaw academic support and training; and Clerc Center Technology which served Clerc Center needs. A number of years ago it was determined that there was too much redundancy and overlap in the provision of these services and all three were merged under one umbrella that became Gallaudet Technology Services.

However, vestiges of the old divisions remained, particularly in the first level of support and specifically with eLearning being separate from other support services. In May 2015 a task force was convened to assess the tier one services and units, study the structure and make recommendations for efficiency and improved user experience. The task force included all supervisors of the tier one units and a staff-level representative.

The task force recommended integrating the Help Desk, Computer Support Services, Media and Classroom Support, and eLearning units into one overarching unit. This recommendation is expected to increase the flow of communication between the units and to provide students, faculty, and staff with a seamless response to their questions and concerns. The recommendation was implemented July 2015.



# INFORMATION SECURITY

There are three goals for information security:

- *Confidentiality* - To allow information access and disclosure to authorized users—"the right people"—and prevent access by or disclosure to unauthorized ones—"the wrong people."
- *Integrity* - Making sure that only the right people can modify documents.
- *Availability* - Ensuring that information that is created and stored should be available to authorized entities. Information is useless if it is not available.



EVERY YEAR THE CAMPUS COMMUNITY IS REQUIRED TO SIGN THE INFORMATION SECURITY AGREEMENT FORM (T1). IN FY 2015 WE HAD 100% COMPLIANCE.

## New in 2015

**Information Security Officer** – A position for an information security officer (ISO) was created in fall 2014 and filled in February 2015.

**2-Step Verification** – Students were required to enroll in Gmail 2-step verification by November 9. Successful implementation should reduce the likelihood of student accounts being compromised which in turn will lead to a significant decrease and hopeful elimination of spam and phishing emails to the Gallaudet community. Faculty and staff are not required but are encouraged to sign up as well. Significant project milestones include:

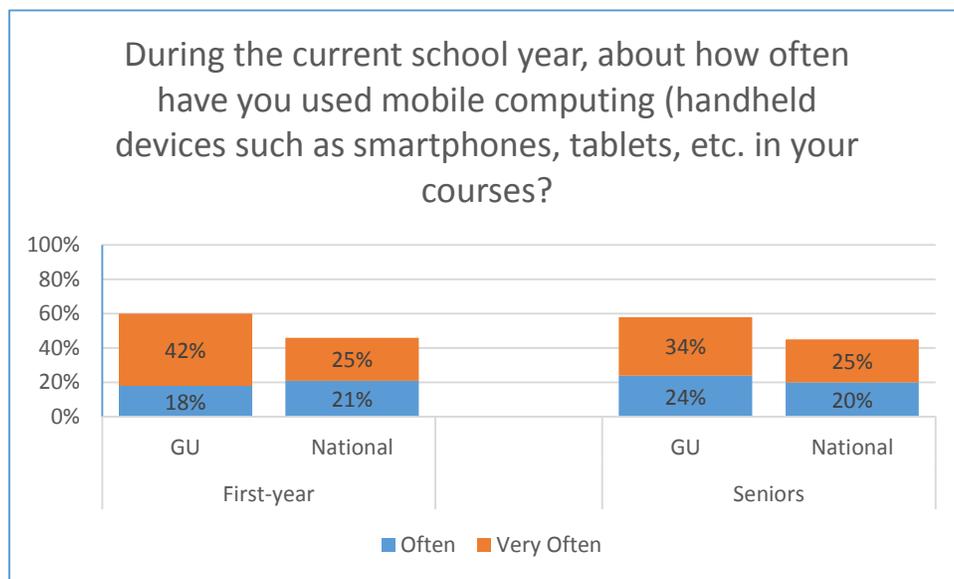
- Collaboration with the Center for Bilingual Teaching and Learning to create information videos in ASL.
- Creation of the GTS cybersecurity webpages for education and training.
- Walk-in clinic for students on November 3, to assist them in turning on their 2-step verification. A contest with prizes was held, snacks provided, and over 300 students were signed up that day.
- Online students were also required to enroll and those that submitted proof of enrollment were entered into the drawing as well. We received an email from an online student thanking us for providing a way for them to participate in our on-campus event.

## In the works

**BYOD (Bring Your Own Device) Initiative** – We are in the research phase of the initiative to explore the demand and use for user-owned devices by students and employees. Areas under review include:

- Creation of a BYOD policy
- Review of current infrastructure to ensure strong cellular coverage (wireless) and appropriate security measures for confidentiality, integrity, and availability.
- Currently moving applicable services to device applications or web-based browsers for availability to all devices.

According to the 2014 NSSE survey, Gallaudet students indicate a higher use of mobile computing as part of their course work than do their counterparts nationwide. This confirms the need for the BYOD initiative.



**Security Awareness Program** – We plan to roll out a security awareness program campus-wide. The primary goal of this program is to educate the campus community about the inherent risks to the confidentiality, integrity, and/or availability of systems and data, and how we can protect these systems and data. Websites will be created containing training material on topics such as sensitive data, staying safe and secure online, e-mail security, mobile devices, and more. Preliminarily, a web page has been created to assist the community in detecting phishing emails.

## Security Audits and Statistics

Currently GTS conducts two audits per fiscal year: a financial audit (penetration testing of financial systems) and the GTS Risk Assessment which is an ongoing review process conducted by staff members and an annual external review process to identify potential risks that could harm the IT infrastructure at Gallaudet University. During FY 2016 GTS plans to expand penetration testing for all of Gallaudet's technology systems up to four times per year.

For fiscal year 2015, there were two reported and documented security incidents (hacks). They are:

- May 29, 2015 - A DDoS (distributed denial of service) compromised a server and caused disruption for a small number of Gallaudet employees for approximately twelve hours.
- July 1, 2015 – A website was hacked and a “Trojan” was installed as the “backdoor” to allow the hacker unlimited access to this host. Three affected sites were compromised and defaced.

NOTE: both incidents were quickly contained (isolated from the rest of the infrastructure) and the vulnerabilities mitigated.

The ISO works with the Department of Public Safety to recover reported stolen/lost devices. For fiscal year 2015, there were 13 reported stolen/lost devices with five devices recovered and returned to their owners.

The ISO also keeps track of all reported emails sent to Gallaudet's abuse and security email accounts. The intent of these emails is to notify Gallaudet of abuse and illegal activity within Gallaudet's email system. For fiscal year 2015, there have been 30 emails sent to the abuse and/or security email accounts. None of the emails warranted investigation because the emails in question were falsely-tagged. It is common to get abuse reports from falsely-tagged email (email determined as spam or phishing by an Internet service provider).

There were two incidents of violations of the GTS Technology (Acceptable Use) Policy for fiscal year 2015. Both of these incidents were minor in nature and a formal “Letter of Warning” was sent to the person and their supervisor(s) for signature and acknowledgement.

## WEB AND ONLINE

Expand all undergraduate and graduate recruitment to become "top of mind" for all deaf, hard of hearing, and hearing students seeking deaf or hard of hearing-related careers.  
(University Goal A: Objectives 1 and 2 combined)

### Website Redesign

GTS participates in the Marketing Advisory Group (MAG), a Cabinet-level committee, to provide guidance and feedback on the technical design, development, and direction of the web redesign. Content migration and development is scheduled to begin in December 2015.

### Intranet Design

Concurrent to the web redesign, another major effort is the development of an intranet. This project will greatly improve collaboration, information sharing, and provide a functional one-stop shop for our community. Content migration and development is scheduled to begin in December 2015 as well.

### Other Web Projects

- Launched a custom site: Gallaudet Scholarship of Teaching and Learning [Gallery](#)
- Clerc Center's [new website](#) completed and launched
- Hosted several web community forums and invited a presenter to discuss successful web redesign processes
- Implemented various features such as:
  - Network device registration
  - Maps module and mobile-friendly web
  - Software store/OnTheHub (DreamSpark)
  - Online student handbook
  - Online internship forms for Career Center
  - Office of Students with Disabilities tracking system
- Migrated web servers to hosted solution

## **Network Connectivity**

Gallaudet has three edge routers operated by two internet service providers that ensure connectivity between the campus and the internet. The systems are redundant and load sharing. Because of this, in the past 12 months the overall up-time (the time that the university is connected to the internet) was 99.9%. However, one of our providers, Allied Telecom, experienced a fault in their network that caused a disruption of service from April 29 through June 19. While the campus remained online via our other provider during this time, capacity was reduced.

During the same 12-month period, connectivity on individual floors in buildings on campus was also at 99%, fluctuating between 99.0% and 99.9%. The only exception was the third floor of the Ely Building which averaged 97.44% for the year.

## ENTERPRISE SYSTEMS AND INFRASTRUCTURE RENEWAL

Continued significant focus this year was on the various ERP (Enterprise Resource Planning) systems, specifically Financial Aid, Admissions, Human Resources, Data Warehouse, and Student Retention and Learning systems.

### **Human Resources (HR) System**

- Successful database split (July 2015)—Separated Campus Solutions (student information) and HR into two separate systems.
- Successful upgrade of the HR system to the latest version.
- Work is underway to modernize and improve HR reporting, self-service, and overall effort to go “paper-less.”
- In FY15, it was decided to proceed and replace eTime, a struggling time and labor management system, with Peoplesoft Time and Labor and Absence Management.
- Read-only manager and employee self-service dashboards and fluid display will be released shortly.
- Entire project expected to be completed mid-summer 2016.

### **Financial Aid and Enrollment**

- Implementation of recommended of the business process automation as identified by a Financial Aid Office (FAO) consultant, and technical recommendations by Sierra Cedar was completed by June 2015.

### **Hobsons CRM (Grad, Clerc, PST/ASL Connect)**

- Work is nearly completed with the graduate school applications and acceptance processes and will launch by spring 2016.
- Clerc Center has begun using the system for their contact management needs.
- Goal to continue to expand to include PST (professional studies) processes and to redo the undergraduate applications and processes in the new database. This work is critical for the success of ASL Connect.
- Long-range goal to encompass all contact cultivation within a single CRM.

### **Peoplesoft Financials Upgrade**

- Work is underway to upgrade the Financials system which is approaching EOL/EOS. This upgrade will allow GTS to move forward with the student system upgrade when version 9.2 is ready which includes full support for mobile student applications—a critical IT goal.

## **Network Infrastructure Upgrade (three year)**

- With commitment over three years, work has begun to upgrade and replace network infrastructure (primarily switches, core equipment, firewall, and phone systems).

## **Infrastructure and Technology Projects**

Building on the assessments and planning from the prior year(s), GTS, with significant support from the capital budget was able to accomplish the following:

- Completion of the Data Center improvements project with the installation of a two-generator power back-up. This project has resulted in greater efficiency and dependability of the backup power system which makes it possible for IT systems to remain operational during times of disruption to commercial power. This massive project was completed within budget and timeline.
- The Benson Hall data center has been taken off-line and all environmentally hazardous fire suppression material has been removed.

### **Construction:**

- College Hall, Room 215—this is a state of the art facility for videoconferencing
- HMB, STM departments—worked with project designers to reduce IT AV costs by over 50%
- MSSD dorm—GTS provides support and input for this project
- A variety of small projects such as installing or replacing televisions in various places on campus
- Space renovations such as:
  - Center for Deaf Documentary Studies workspace
  - Kellogg Conference Hotel third floor renovation, including partial space renovations for the Mental Health Center

### **Classroom Technology:**

- Expansion of CART (Communication Access Realtime Translation) installation in classrooms
- PARCC assessment test (Clerc Center)
- Learning technology upgrade in classrooms

## Infrastructure:

- Campus-wide security network equipment upgrade and relocation (Department of Public Safety)
- GlobalViewer Enterprise for classrooms

## Software and Solutions:

- Room reservation (25Live) implementation for Athletics
- Transition from R25 to 25Live for Campus Activities and Registrar's Office
- University backup system (CommVault) upgrade/migration
- Implemented online training:
  - Family Educational Rights and Privacy Act (FERPA) (Registrar Office)
  - Title IX (Human Resources)
- Clerc Center password expiration change for students
- Email system configuration to reduce spam/phishing
- Upgrades:
  - FileMaker Pro
  - HORIZON server upgrade
  - Internet Explorer 11 deployment
  - Starfish Retention Management Solutions
  - Johnson Control (JCI) NAE/Metasys server upgrade
  - Office 2013 deployment
  - Antivirus (Sophos) server upgrade and deployment
  - Expansion of single sign on service using Shibboleth (IDP)
    - GoSignMeUp (GSMU)
    - Hobsons
    - Lynda.com
- Google apps changes and upgrades:
  - Provisioning APIs upgrade
  - Vault transition from Postini
- Office365 Pilot

## Other Completed Projects

- Enhanced Gallaudet account management (GAM) process for admitted students
- GTS Projects scope/statement of work and service level agreement templates
- Implemented Help Desk after hours support

## IMPORTANT LINKS

[Technology \(Acceptable Use\) Policy](#)

[GTS projects](#) (completed and in progress)

[Metrics](#)

[Cybersecurity](#)