

Annual Report 2018

Campus Connected



VCU Technology Services



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Technology drives transformation.

The VCU Technology Services team is committed to delivering and supporting systems and infrastructure that support VCU's pursuit of preeminence as a nationally recognized urban research university. This report provides just a sample of the many ways we use technology to support the important work outlined in VCU's new strategic plan, Quest 2025: Together we Transform.

We strive every day to make a difference, to move forward, and to help everyone in the VCU community unflinchingly serve the public good.

Improved Services

Academic Technologies

Labs and Classrooms: Both laptop kiosks (and expansion bays), located in Cabell, were upgraded with new units outfitted to accept new Dell laptops. In total, four kiosks with a total of 60 bays and a total of 60 laptops were upgraded.

Learning Systems: Kaltura - Over 5TB of storage was in use as of June 30.

Over 6,100 pieces of media added and over 365,000 media entry views during the year.

Media Support Services Video Production and Teleconferencing:

The active user list currently stands at 1,080 Pro and 321 Basic users. The expanded user base accounted for a total 13,626 meetings this fiscal year.

Administrative Systems

The **BI/Analytics** team introduced four dashboards during the year. These included two dashboards supporting the VCU Administration division, one dashboard supporting the Division of Finance, and one dashboard supporting Human Resources.

The two dashboards for VCU Administration were deployed to executive leadership, and the Office of the President.

Application Services

A university-wide license and business associate agreement (BAA) for the **DocuSign** electronic signature service was established. DocuSign is a cloud-based application, accessible from anywhere and anytime on most devices, offering an audit trail of signatures. RAM-SPOT for material transfer agreements, HR Benefits open enrollment, and Graduate School degree candidacy applications are just a few examples of the DocuSign usage.

Upgrading the **Central Authentication System** (CAS) to version 5, improved security, reliability, and functionality.

The university's web content management system, **TerminalFour** site manager was upgraded to the latest version. The upgrade introduced an intuitive new user interface and increased the performance of the system, benefiting the 500+ VCU users who edit their websites without the need for specialized software.


Google's advanced **MDM and MaaS360**, both mobile device management tools, were deployed for customers on the medical campus who potentially handle clinical data such as the School of Dentistry, Pharmacy, Nursing, College of Health Professions, and Massey Cancer Center. Passwords are enforced on all devices and accounts are configured in accordance with HIPAA guidelines.

Smartsheet for project management became the preferred choice across campus with 145 licensed users and numerous collaborators managing projects of all sizes and complexity in Smartsheet.

Telecommunication Services

VCU Telecommunications transitioned 9,620 voice mail subscribers and 100 caller menu and information only services across VCU and the VCU Health system to the **AVST** voice messaging platform.





Enhanced Improvements Provide the VCU Community With Optimal Experiences

Academic Technologies

The Media Support Services Engineering and Design team completed managing the audiovisual integration for the Institute for Contemporary Art.

Labs and Classrooms successfully transitioned to a new Student Response System. Top Hat brings a wealth of new features, greater ease-of-use, easier onboarding procedures, and better overall experiences for students at a reduced price-point with no need to purchase physical clicker devices.

The Wilder School underwent a migration to their new space in the Raleigh Building. The addition of two new computer labs and six additional classrooms came online for a total of 42 new systems. This upgrade nearly doubled the school's academic computing footprint.

Administrative Systems

Fischer Identity Management data model was developed with real-time Banner views for employee and student data.

In collaboration with VCU Procurement, JAGGAER Procurement servers were configured. Interface development for the system implementations began with the modified Banner software.

Application Services

Web Services led the way to improve VCU's web accessibility during the ADA web initiative.

Collaboration Services was instrumental in reviewing options for replacing the University mass mail system. They worked closely with University Relations and the Provost Office in updating the mass mail policy. Then testing and implementing LSoft's Maestro product, a hosted solution. Maestro is an extension of the LSoft Listserv software, which

has been in use for many years at VCU. Maestro provides html formatting and click rate tracking, two features that have long been sought after. Since it is browser accessible and authentication supplied with a VCU eID password, no standalone client or separate ID is needed. Maestro was officially launched for all mailings on July 9, 2018.

Web Services built a new cloud-based authentication system for CAS, Shibboleth, and LDAP as part of the Infrastructure as a Service initiative (IaaS).

The Web Services team collaborated with Information Security and Network Services to utilize the F5 service to meet General Data Protection Regulation (GDPR) requirements. This effort allowed all systems behind F5 to be GDPR compliant without any effort from the webmasters running the websites and applications on these servers.

The mobile application AiM FiRE was implemented for the VCU Facilities Management Division.

Information Security

The Campus Card Services, University Computer Center, Network Services, and Information Security team managed a project to realign the VCU retail IT infrastructure to meet regulatory standards. With the efforts

by members of various Technology Services teams, a new and compliant network and IT infrastructure was built to house the retail IT systems in VCU.

IT Support Center

The IT Support Center renovated and consolidated operations into a modern workspace. The new workspace creates a welcoming and professional environment that reflects the quality of service offered. The staff likes the renovation, and a happier team leads to better customer experiences.

Telecommunication Services

For VCU Health's new Community Memorial Hospital and adjacent CARE facility in South Hill, Virginia, Telecommunication Services implemented an Avaya system, serving approximately 500 stations with caller menus, AVST voice messaging, and e911 services.

University Computer Center

Collaborating with Endpoint Computing, the University Computer Center assisted in the build out and support for the new Microsoft System Center Configuration Manager environment. This project saved funds by building part of the infrastructure on an existing Virtual Machine environment.

Introduced New Services



VCU 2Factor

2Factor provides the VCU community with a second layer of security by requiring two different channels of multi-factor authentication. The first factor is the eID password. A second factor is issued through a push smartphone notification generated by DUO. The process better protects user logins from remote attacks that may exploit stolen credentials.

Google Drive

G Suite for Education's Google Drive File Stream (DFS) is a new desktop application that functions similar to a mapped network drive on your Mac/PC. DFS was introduced in October of 2017.

Team Drive provides team collaboration in Google Drive. 104 teams are actively sharing documents in their team drive. Google's calendar and resources saw a refresh with a new look in February.

Additional features are continually being added from Google, such as better management for large events, and including a message when changing meeting details. VCU became an early adopter of the new Gmail user interface in May, including features like snoozing emails and suggested replies and follow-ups.

SiteImprove

SiteImprove is a powerful dashboard for VCU websites. The tool checks the health of a site, including broken links, misspellings, accessibility errors, and more. Websites can be checked for errors on a fixed schedule or by demand. In the SiteImprove dashboard, configurable reports are available to email website administrators and content editors to fix prioritized issues.

Service Through Numbers

Academic Technologies

- Learning Systems: Average number of courses in Blackboard for the year: 25,097
- Echo360 Total Captured Lecture Views: 402,724 Views
- Kaltura - Unique Viewers: 3,285
- LON CAPA: 16,572 student users
- Learning Systems completed tickets: 3,517

- MSS Classroom Support: room checks completed by Tech Squad: 5,510
- 329 audio-visual systems user training sessions performed
- 1,924 audio-visual systems issues addressed

- MSS Video Production and Teleconferencing: 110 video productions completed
- 13,626 Zoom meetings hosted

- 622 new Zoom Pro accounts issued to faculty and staff
- MSS: total dollar amount of equipment integrated, \$2.7 million
- Total audio visual integration projects: 50 total projects, with 26 projects completed (note: one project can have many audio-visual systems)
- \$ 8,165 saved on replacement lamps and saved \$ 6,553 on electric energy (that only accounts for displays: Projectors and LCD monitors) for a total operational cost savings to VCU of \$14,719
- 487 support tickets resolved
- Over 46,000 downloads of software packaged by LCC

Administrative Systems

- 174,931 reports run in VCU Reporting Center
- 50,480 Research Dashboard visits with 143,208 drilldown reports run

Campus Card Services

- Responded to 12,589 service tickets
- 4,549,151 Point of Sale transactions; Total sales \$19,500,811
- 10,597,711 building access transactions

Endpoint Computing

- 51,786 subscribers of the VCU Alert notification service
- 478 alert notification devices (Alertus beacons)
- 10,797 VCU computers running full screen alert notification software
- 132 digital signage (AxisTV) installations capable of displaying alert notifications
- 2,731 VCU computers receiving regular security updates through the Endpoint Patch Management service via LanDesk

Information Security

- 14,151 network intrusion attempts stopped
- 59,650 security events triaged
- Observed a 31% decrease in compromised accounts since previous year
- Observed 144% increase in reported phishing scams

IT Support Center

- Phone call answer rate: 95%
- Walk up Customers: 8,119
- Support chat/email
 - 1,315 Chats
 - 5,377 Emails
- 203,576 gradeIT pages scanned

Network Services

- Average daily concurrent connections: 18,618
- Average weekly bandwidth downloaded: 132.6 TB
- Average weekly bandwidth uploaded: 14.1 TB
- Current number of wireless access points: 3,758

Telecommunication Services

- 31,044 active, installed telecommunications services; a 4% increase over FY17

University Computer Center

- Completed 326 jobs for server builds and decommissions at the UCC and Harris Hall centers
- There were 1,621 service desk requests resolved
- There are over 1,300 servers housed and maintained at the UCC and Harris Hall centers. There are an additional 663 virtual servers



Celebrating Victories

Academic Technologies

Media Support Services Video Production and Teleconferencing were active in the retirement of hardware conferencing codecs located in centrally supported classrooms.

While useful, hardware codecs were expensive to purchase and posed many challenges to our systems programmers.

Campus Card Services

The Division of Student Affairs Welcome Week Committee requested assistance from Campus Card Services (CCS) to turn their paper/ticket attendance system into an electronic format. With over 100 events occurring during Welcome Week, the CCS system tracked attendees, made data accessible, and made

the process, faster and more manageable. We had 9,822 attendees and processed 11,314 transactions. Staff were onsite to work events and to assist with training and troubleshooting. The event was a huge success.

Information Security

Integration of multi-factor authentication into CAS, VPN, and a variety of other IT systems has helped protect the personal and University data from hackers and scammers using stolen credentials.

Strategic Communications

Technology Support Services' Strategic Communications won two national communication design awards during the past year.

The Explore Lynda campaign, promoting the Technology Services' funded online training resource, received the Award of Excellence. **Two is Better than One**, the campaign, promoting the University's 2Factor authentication rollout, received the Best of Category Award.

These awards mark Strategic Communications' tenth consecutive year of being awarded nationally for communication design in higher education.

University Computer Center

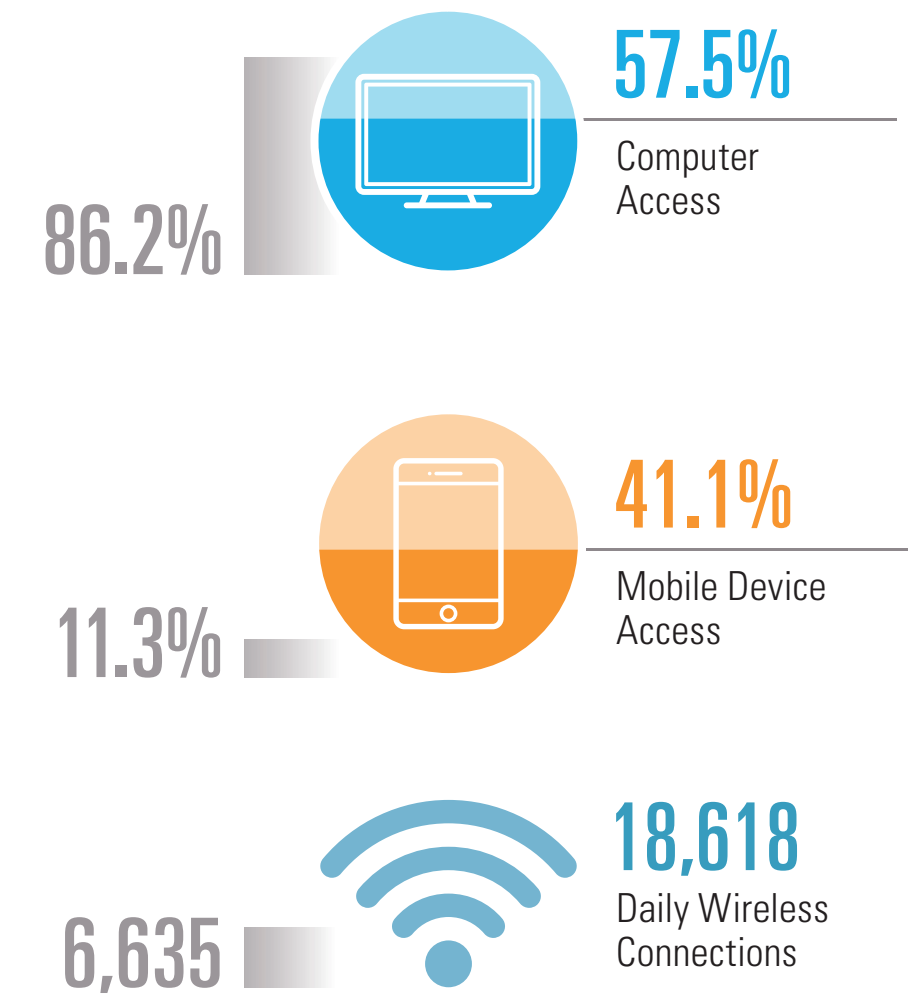
The UCC was involved in several projects that required close coordination between the UCC staff, Network Services, Applications development groups, Security group and Project Management. The PCI project was an upgrade of aging applications and hardware to new software, running on new equipment in a virtual environment.

Campus Connected

The electronic devices that people choose to use continually evolve and change. One thing, however, remains the same. The VCU community must be connected.

This graphic illustrates the device and WiFi trends for the first day of the VCU academic year in 2012, against recent numbers from 2018.

2012 VS 2018





VCU Technology Services

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