



# Center for Information Technology

2020

Annual Report

HAMPTON UNIVERSITY



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Center for Information Technology  
Hampton, VA 23668



*“Excellence is to do a  
common thing in an  
uncommon way.”*

Booker T. Washington



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# A MESSAGE FROM THE VICE-PRESIDENT

Since the onset of the COVID-19 pandemic, Hampton University's traditional educational paradigm has drastically pivoted from in-person class formats to online remote classroom instruction. As the University moved to remote learning and ensuring that the technology in our instructional spaces is compatible with today's instructional demands, we realigned several longer-term technology objectives to meet the immediate need to provide remote learning. In determining our strategy to mirror technology upgrades with our online student needs, we focused on upgrading the network infrastructure, improving campus-wide classroom technology to support the academic needs, and revising processes to support paperless delivery. As COVID-19 continued into academic year 2020-2021, Hampton made a forward-leaning decision to continue remote learning for the fall 2020 Semester.

According to President Harvey, "Hampton University is pleased to continue its digital transformation journey. Our goal is to support our business practices and academic programs by utilizing technology and data to provide efficient and effective University

services to all of our constituents-students, faculty, administrators, staff, alumni and external partners. This digital transformation will build upon our current technology while increasing our ability to recruit and retain students. It will also enable us to streamline internal processes and procedures as well as expand our presence in the higher education marketplace and increase awareness of our brand as THE Standard of Excellence."

As we prepared for the fall 2020 semester, we made significant progress by continuing to integrate digital technologies into all areas of our academic operations. Despite the challenges, our primary goal remains delivering functional value for students, faculty, and our broader campus community.

Hampton's challenge, to identify digital skills and technologies for sustainable transformation, served as the impetus for the CIT's direction during this turbulent year. We recognized that we had to make rapid and well considered technical adjustments to our technical business model to respond to the ever-changing demands and support the faculty, students, and staff's technology needs.

Dr. Alissa E. Harrison  
Vice President  
Center for Information Technology  
Hampton University

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# CIT LEADERSHIP TEAM

## What does Digital Transformation mean for your Department?

### **Mr. Darian Hawkins**

*Director, Computer Center*

“Digital transformation will allow the Computer Center to provide to the campus community high-availability and high-performance computing services while maintaining high-security. The university’s departments will also experience a significant increase in process efficiency and departmental effectiveness by way of digital transformation.”

### **Mr. Robbie Harper**

*Director, Network Services*

“Digital transformation requires a network that features integrated security, scalable advanced routing, full visibility into traffic traversing the network, and sophisticated analytics. We will transform and implement Cloud Computing, Cybersecurity, Working from Home, Unified Communications and Internet of Things (IoT) services by elevating how and why we do networking at Hampton University.”

### **Mr. Larry Ingram**

*Manager, ATM Help Desk*

“Ensuring that systems remain up and running and enabling students, faculty, and staff to use the technology effectively to resolve issues as they occur. The Help Desk underpins digital transformation – we keep people, processes, technology and data connected, so we operate effectively as a unit.”

### **Dr. Katina Ward-James**

*Director, Educational Delivery Services/Blackboard Administrator*

“To provide training and equip our faculty in this era, we need to use digital tools that transform the remote learning experience. Balancing traditional approaches and actively engaging faculty and students are fundamental to successful delivery of seamless and effective instruction.”



**Ms. Princess Lipscomb**

*Manager, ERP Services*

"Transforming means working to support Hampton University's programming processing by being open to new ways of accomplishing the same goal."



**Mr. Vince Bullock**

*Manager, Office of Web Services*

"Digital Transformation is the power to transport minds into new environments for knowledge, education and exploration. More than ever, Hampton University's Office of Web Services is bringing Historic Hampton University — Home to you."

**Mr. Kevin Ricks**

*Director, Media Productions*

"Digital transformation for Media Productions is more than integrating digital technology into all areas of the business or university — it is how we will fundamentally and physically change Hampton's technology, data, processes, and organization to deliver value to the students which will enhance our operations."

# INFORMATION TECHNOLOGY ADVISORY

As the Chair of the Information Technology Advisory Committee (ITAC), meeting with the empowered representatives who represent the Hampton community has helped to bring needed technology solutions to the campus during 2020. The diverse ITAC members support academic and administrative interests of the faculty, staff, students, and parents of Hampton University by promoting the innovative and transformative use of information technology.

An important aim of this group is to further Hampton's mission and goals through the effective use of information technologies.

More importantly, the ITAC charter is to advise and offer Hampton's leadership recommendations in support of the strategic objectives that support and develop needed guidelines, policies and standard IT practices at the University. As we moved to virtual meetings this year, the ITAC continued to publish meeting notes quarterly, solicited input through surveys, and contributed to the CIT Annual Report. In partnering with the CIT department during 2020, the ITAC leaders offer the following on what it means to support the Digital Transformation of Hampton University for their respective department or office.

Streamlining paper processes for maximum efficiencies and making sure that we offer students self-service access to the information they need to succeed academically.

It will attract the student that see technology integration not as merely a norm, but a necessity.

Digital Transformation at Hampton University means efficiency. Every area on campus can benefit from digitization thus this project.

Bringing our digital footprint into the 21st century so that we can be viewed digitally in a positive light to individuals inside and outside of our community.

Digital transformation is a strategy to improve documentation and communication throughout through technology.

## Committee — ITAC Representatives

Research  
Graduate College  
Business Affairs and Comptroller  
Harvey Library  
Title III /Grants Management  
Student Government Association  
School of Business Representative  
School of Liberal Arts & Education  
School of Engineering and Technology  
School of Pharmacy Representative  
School of Science Representative  
School of Nursing Representative  
HU Online  
Administrative Services  
University Police  
Athletics  
Registrar  
Admissions

Scripps Howard  
Honors College  
Leadership Institute  
Student Government Association  
Student Success Center  
Freshman Studies  
Museum  
Human Resources

### **Ex Officio Members:**

Mr. Robbie Harper  
Mr. Darien Hawkins  
Mr. Larry Ingram  
Ms. Princess Lipscomb  
Mr. Vince Bullock  
Mr. Kevin Ricks Sr.  
Dr. Katina Ward James

# DIGITAL TRANSFORMATION

Digital transformation is more than automating technology across the campus. It is a cultural change that fundamentally changes how we operate. Because of the COVID-19 pandemic, we HAD TO change.

What does it mean to digitally transform Hampton University?

We scaled operationally to deliver value and support the campus' remote instructional requirements. For Hampton, this culture change required that our departments continually challenge how we operated on a day-to-day basis and supported the "New Normal."

At the onset of the COVID-19 pandemic, Dr. William R. Harvey appointed three working groups to actively evaluate the impact that the virus would have our institution as it

relates to health and safety, academics, and finances. As stated in several communications to the students, faculty, staff, and community, the Infections Disease and Prevention Working Group, chaired by Dr. Barbara L. Inman, the Financial Stabilization Task Force, chaired by Mrs. Doretha J. Spells, and the Transformational Revitalization Task Force, chaired by Dr. JoAnn W. Haysbert, have collected, and assessed all information available to date to determine the best and safest way for Hampton to move forward.

Without these three critical task forces' guidance and support, we would not have been successful in starting this digital transformational journey. We must continue



# DIGITAL TRANSFORMATION *CONTINUED*



to challenge the status quo, explore new technologies, and be comfortable with John C. Maxwell's seven principles of "failing forward." Seven Principles for Failing Forward

- **Reject Rejection**

Engaging the ITAC leaders, supporting the Task Force guidance, and meeting with our internal teams, the CIT learned from mistakes and continue to build upon opportunities to manage how we supported Hampton through technology during 2020.

- **Do not Point Fingers**

Changing the culture of how we operate is not easy. Starting in March 2020, the CIT worked to success by taking responsibilities for mistakes and learning from failures.

- **See Failure as Temporary**

By learning from mistakes, we established a perspective of small successes that has led to campus-wide technology, infrastructure, and major program upgrades.

- **Set Realistic Expectations**

Communicating expectations, setbacks as well as achievements has helped

faculty, students, and staff understand how they factor and help facilitate Hampton's digital transformation.

- **Focus on Strengths**

Identifying areas of strength within the CIT helped facilitate transitioning from on-campus to remote instructing operating. Partnering with many of our external departments, and ongoing challenge, is an area of focus as we determine the technology needs to further strengthen the university as we "Fail Forward."

- **Vary Approaches to Achievement**

The CIT's technology areas recognize that using the same actions (activity) does not necessarily result in successful outcomes (productivity). By empowering managers to vary their approach, changes how they operate and has led to be more innovative methods to achieve results.

- **Bounce Back**

Introspections has allowed us to pause and learn from missteps (e.g., conducting after event reviews), and quickly move on from a failure to success.

# TRANSFORMING INFRASTRUCTURE

While Hampton did not start 2020 with a digital transformation strategy, this has been a year of complete course-corrections, changes, and challenges. While informal at this point, Hampton has a plan of action that describes and documents how we are repositioning the institution to strategically reposition and lead in this digital economy. The next sections detail how transforming the infrastructure by innovating, changing many of our operating and business models, and leveraging technology changes to support the shift to remote instruction underpin the Hampton Digital transformation, the integration of digital technology into all areas of Hampton's business, will fundamentally change how we operate and deliver services to students, faculty, staff, and our external customer base. The technology strategy for academic 2019-2020 year focused on the network infrastructure upgrade. Specifically, we replaced the end-of-life and end-of-service equipment. The forward-thinking leadership team's investment of institutional funds to modernize the campus technology before our COVID-19 students departed in March 2020 facilitated a rapid and successful adjustment to a remote learning environment. This plan enabled Hampton University to make the immediate shift to support remote learning during the spring 2020 semester. With funds already allocated to the needed technology projects, Hampton University now had a solid infrastructure foundation to support the immediate need to provide secure, reliable, and professional remote delivery of instruction and support to faculty and students.

The CIT focused on the network, Banner, and Windows requirements. Collectively, we identified those three critical areas because we recognized upgrading each underpins the direction of all future technologies for the campus. The upgrades to complete the

network upgrade, the computer systems, and move to Banner 9 in 2020 supports and establishes the footprint and use of digital technologies across the university.

## *Network Upgrade*

We elevated the state of technology in 2019 with the completion of the five-phase network upgrade project. By providing the much-needed network devices, and cabling installations, we eliminated many redundancies, minimized network device failures, and replaced appliances across the network.

The plan to increase the bandwidth of the existing network from 2Gbps and separating the Administrative / Academic and Residence networks included upgrading the speed of each network to 10Gbps. These actions changed the "As Is" status and resolved many of the issues experienced by our users.

## *Computer Systems Upgrade*

Upgrading computers, servers and other operational equipment allows for more speed and storages space. The Computer Center's efforts to improve the operational functions improved the performance, efficiencies, and security campus wide.

## *Banner Upgrade*

Revising initial planning to support a more coordinated effort resulted in successfully migration to Banner 9 Essentials. The new version will enable Banner users to take advantage of features and functions needed to transform current processes.

## *Website Upgrade*

Transforming branding, typography, navigation, content, and optimizing processes across academic, administrative and departmental websites to elevate the user experience.

## Network Upgrade



Hampton University's 2019-2029 technology plan included an upgrade of the entire network infrastructure. We replaced over end-of-life and end-of-service appliances. With an investment of institutional funds to infuse and modernize the campus technology, the network infrastructure changes started before COVID-19. The modernization enabled Hampton University to make the immediate shift to support remote learning during the spring 2020 semester. The University Network Infrastructure Upgrade, a five-phase project, was fully funded and most devices and cabling upgrades were in place by fall 2020.

Charged with upgrading the campus network infrastructure, the CIT/Networking team has made significant changes that support the University's mission and vision. As part of this ongoing project, the Network Team ordered, inventoried, implemented, and installed

over 1000 network devices, appliances, and equipment. We now recognize measurable bandwidth and service improvements in installing the network switches, firewalls, intrusion detection systems, wireless access points, and peripheral support items. The focus has now turned to configuring, testing, and installing all of this equipment. The installation and deployment by our small networking team was a significant accomplishment. During the deployment of the devices, we replaced old existing network switches. Replacing these devices supports our plan to guarantee that all wired Hampton University users receive up to 1 Gbps connectivity to their desktop. Most individual providers cannot match this capability using their home network.

While our early test results consistently provide significant network speed increases after integrating a new switch, we will continue to monitor and optimize our access. As the new devices are re-configured and tested, we will continue to strategically deploy them to identified campus buildings.

The future of the network infrastructure provides the framework to continue Hampton University's campus-wide digital transformation.

## Computer Systems Upgrade

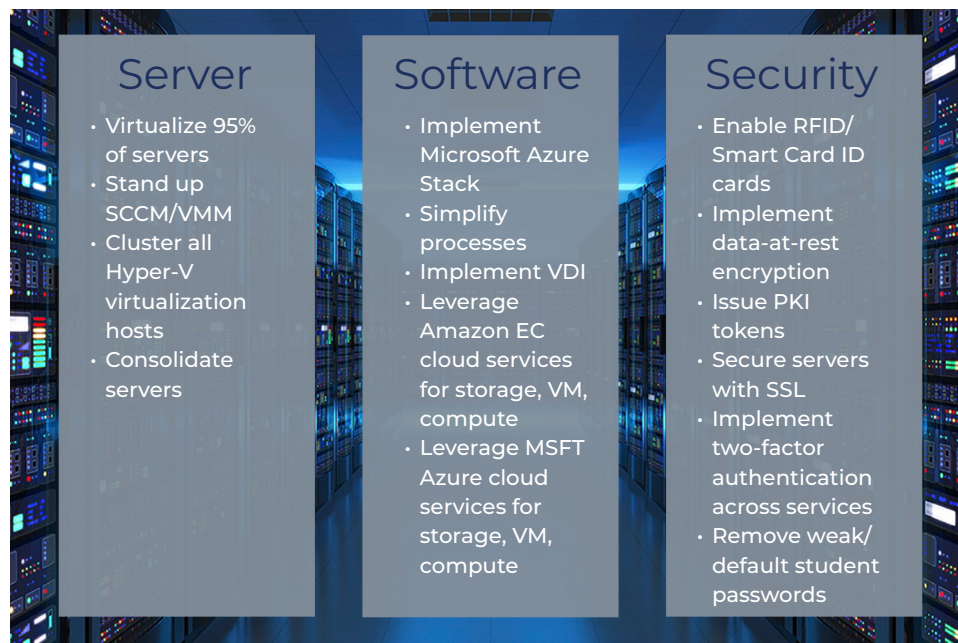
The CIT understands that digital transformation begins and ends with how our technology departments think about each of our respective areas and the manner in which we engage with students, faculty, and staff.

When students and faculty exited the campus, we were forced to communicate differently. Do you remember how faculty cleared campus at the end of a semester? At the end of the spring semester, we had to pivot. COVID-19 required a change to processes because faculty were not permitted on campus. Conditions necessitated new processes.

Aside from being outdated, walking a piece of paper from department to department is woefully inefficient and time consuming.

Although an accepted practice, we had to change, innovate, transform to a digital process. For the CIT, the answer is simple. However, some systems processes are not easily replaced. Our computer center (e.g., computer systems, software, and security) needed to scale to support handling process changes within Hampton University.

The Clearance Process is not the only example transforming the Hampton culture to adapt and support paperless processes. Registration, Admissions, Financial, Human Resources, and other manually driven process, procedures, etc. were areas impacted by the COVID-19 pandemic. The Computer Center supported this effort by implementing changes to the hardware systems, software, and security help to streamline and support users as we moved to digital processes.



## Banner Upgrade



Banner is Hampton's enterprise resource planning (ERP) system. With the internal reorganization of the programming team, Ms. Princess Lipscomb led the effort to implement this core system. As the University's ERP, Banner connects our technological environment and is interconnected with nearly all other systems on campus. Upgrading to Banner 9 Essentials also required support from Mr. Darien Hawkins and the Computer Center. Some of the critical steps that undertaken by his team included:

- Enabling employee self-service options
- Scaling up and out for high availability
- Cleaning up old, bad data from databases
- Implementing Oracle RAC
- Clustering for high availability/high-performance
- Enabling and implementing Banner built-in modules
- Migrating student self-service from Banner 8 to Banner 9

Over the past year, the ERP/Programming team coordinated this major undertaking and received input and involvement from many different departments across the University. Additionally, this effort required coordination with our third-party technology and services providers. Initially, the planned move was scheduled with our Ellucian partner at the beginning of 2020. A victim of the COVID19

pandemic, we had to reschedule and modify and adopt a phased upgrade approach. Scheduling the upgrade to Banner 9 Essentials for the weekend of October 31 – November 2, 2020 allowed the team to bring the most functionality over (from what/where) as part of the upgrade with minimal impact to the university's operations.

While many departments across campus participated in the training, the CIT offered several training sessions to promote understanding of the Banner 9 Essentials upgrade. For example, discussion content addressed "What is Banner 9," "Argos reporting," and other features and functionality of the upgraded software platform. Some of the features that users should note include:

- **No Icon Needed:** Users do not experience web browser compatibility issues with Java. Java is not required for Banner 9 because it is web based and does not require the Java plugin like Banner 8.
- **Single Sign-On:** Users now use their INFOTECH username and password and no longer need a separate Banner login.
- **New User Interface:** Banner 9 Essentials has a modernized user interface with improved navigation and accessibility. While the look and feel of the pages are different, the pages contain all of the same functionalities similar to Banner 8.
- **New Functionality:** Forms impacts how the data can be queried and viewed. New Functionality includes:
  - Filters
  - Better Information, warning messages — better user-friendly messages
  - Adjust columns
  - Sort data within the forms
  - More intuitive look and feel

° No changes to how the data are stored or back-end processes

- **Banner Self Service:** No change — students will continue to use Banner 8 Self Service Module
- **Upgrading Banner:** Quicker notification of upgrades to Banner 9 Essentials
- **HU Customized Reports:** Argos Reporting System is used to seamlessly work with Banner 9 or on its own
- **Shortcuts:** Banner has changed a few of its shortcuts.



## Website Upgrade

In today's digital environment, Hampton University's Web Home presents the most authentic representation of our HU campus life. For those individuals interested in experiencing our historic HU environment, Hampton University on the Web provides a welcoming first impression and is the single most authoritative guide to the University and its mission. Whether your sojourn at HU is long or short, The HU website offers a helpful guide for HU family and guests alike. After departing our Home by the Sea, the Hampton University website remains an enduring reference for visitors, alumni, and members of the community.

During 2020, the Office of Web Services embarked on efforts to improve our online capabilities for a new generation of students and visitors. We adopted a modern content management system in WordPress, a popular and dynamic website development tool which allows us to leverage new HTML technologies in creating an intuitive and flexible environment for making website enhancements. The new platform provides an expansive canvas for showcasing our institution in a form that visitors can appreciate from around the world. New site designs for areas such as the Hampton University Museum, HU Online, and The William R & Norma B Harvey Library are just a few examples of improvements to the look and feel of our expanding web presence. This transition of Hampton University departments to the new platform is currently underway and will continue throughout 2021.

The Computing Information and Technology (CIT) website demonstrates new ways to

showcase current news and content. This includes FAQ (Frequently Asked Questions), Calendars, and helpful Postings about ongoing projects and technology efforts.

Our ongoing investment into dynamic technologies such as online applications and cloud services make it possible to provide fast and easy access to a storehouse of Hampton University information. In addition, a modular architecture makes it possible to incorporate



new and modern design elements and functionality with components available from top creatives all over the globe.

Hampton University's Office of Web Services continues to Develop and maintain an online product that represents the work of hundreds a people and departments across the full spectrum of efforts that Hampton University supports. Our goal is to provide information and answers to all who come seeking knowledge about our HU Standard of Excellence.

## TRANSFORMING ACADEMICS

Before the start of the 2020 academic year, the CIT received institutional funding to continue the campus technology upgrades. In a March 3, 2020 article entitled, “Hampton University Integrating Campus-Wide Network Project to Improve Infrastructure and Bring Technology Upgrades to Campus,” we articulated how this next stage of a multi-phased project would benefit the campus. Hampton’s business management processing software, systems, and device upgrades positioned the CIT to better support the students, faculty, administration and staff. Additionally, the timely upgrade supported future needed innovations.

“The Hampton University Center for Information Technology has taken on the task of improving campus technology with energy and passion. With Dr. Alissa Harrison's

leadership, we will continue to explore new technological innovations that will benefit the entire campus community. At Hampton, we Dream no Small Dreams,” said Hampton University President, Dr. William R. Harvey. An important and integral component of the campus-wide upgrade included classroom technology. In early 2020, while working with the Chancellor and Provost, we crafted a plan to upgrade more than 70 classrooms. By adding over 70 Promethean boards in the academic buildings and upgrading the large classroom auditorium facilities, we transformed these rooms to be “turnkey” instructional classrooms. Faculty can now walk into a classroom that have the bandwidth and technology needed to deliver state-of-the-art instruction.



## Classroom Technology

Transforming classroom technology is a comprehensive two-fold-project upgrade. This upgrade was designed to enhance the University's network and academic classroom spaces to include installing SMART technology (e.g., Promethean or projector displays, podium, camera, soundboard, and computers). Upgrading the infrastructure and classrooms with needed technology helps to position Hampton to provide baseline support for educational delivery. Working with CIT's ATM/Help Desk team, the Media Production team led this effort and implemented new technology to aid in our classroom modernization. This campus-wide effort included working very closely with the Physical Plant Department on campus and other vendors to get the classrooms prepared in time for installation.

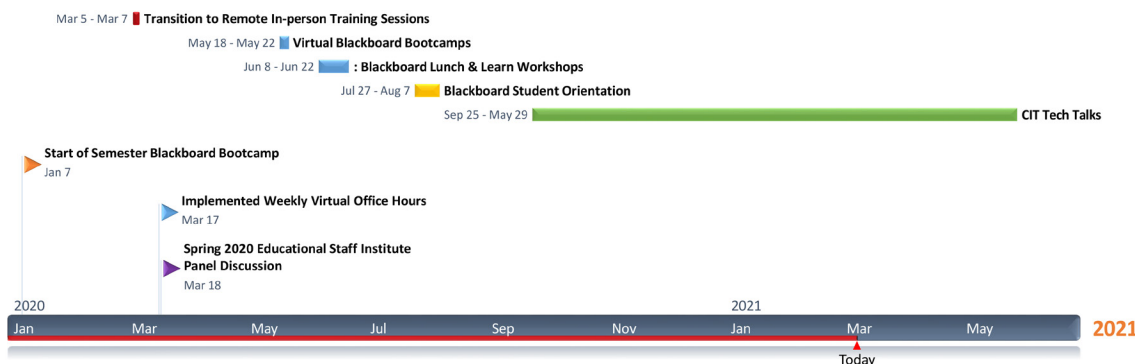
The scope of this project included upgrading seven (7) of the large classrooms with new technology. These classrooms were designed with new LCD Projectors and large 16 X 9 Screens to provide maximum display for the students. The decision to install 70 Dell All in One (AIO) computers in each classroom

supported the plan to establish turnkey smart classrooms.

Lastly, we upgraded other educational interactive display technologies to equipment to support the students' learning process. Furthermore, the redesign of many classrooms accommodates the use of ActivPanel. The majority of educators believe that educational technology accelerates learning in their classrooms by 82%. Designed for the classroom, ActivPanel delivers the highest level of performance for the educational process.

Many professors provided positive responses during the remote training provided as we implemented the classroom technology. While several of the upgraded classrooms had some form of media already installed, others had none. The upgrades have allowed existing equipment in classrooms to be repurposed and moved to rooms that had no media. Overall, improvements to our classroom technology footprint have increased the number of spaces that have some form of technology or media and enable our learning environment for new challenges.

# Blackboard Upgrade



Our Blackboard (Bb) Learn system was upgraded from managed hosted to Software as Service (SaaS)/Continuous Delivery on December 13, 2020. Upgrading to the SaaS Infrastructure will enhance our user's experience, seamless delivery updates, and minimize downtime/service interruptions. Partnering with Amazon Web Services (AWS) using a modern cloud-computing infrastructure offers scaling, efficiency, and security benefits.

The following enhanced features are now available as a result of the upgrade:

- Bb Annotate
- Content Editor
- Blog
- Email Announcements
- Bb Assist

There were numerous training opportunities to ensure faculty were prepared for remote instruction. Vendor Sponsored Workshops were also offered for all faculty on Blackboard Learn, Blackboard Collaborate Ultra, Respondus 4.0 & LockDown Browser and Respondus Monitor.

*March 12-15, 2020: Transition to Remote In-Person Training Sessions (250+ Trained)*

- Adding Content to Online Assignments
- Course Content Presentations with Blackboard Collaborate Ultra
- Creating Online Assessments

*March 17, 2020: Implemented Weekly Virtual Office Hours*

*May 11, 2020: Spring 2020 Educational Staff Institute Panel Discussion*

*January 7, 2020: Start of Semester Blackboard Bootcamp*

*May 18-22, 2020: Virtual Blackboard Bootcamps*

- Getting Started with Blackboard
- Presenting Dynamic Content
- Design Engaging Discussions
- Assessments
- Assignments & Rubrics
- Mastering the Grade Center

*June 8-22, 2020: Blackboard Lunch & Learn Workshops*

- Blackboard Collaborate Ultra
- Creative Online Content Development
- Blackboard Interactive Tools
- Online Student Engagement Techniques
- Blackboard Assignments and Assessments

*July 27-August 2, 2020: Blackboard Student Orientation*

(Freshmen and New Students (500+trained))

*September 25, 2020: CIT Tech Talk: Collaborate Ultra/Grade Center*

## TRANSFORMING CAMPUS

### Pearson VUE Testing Center



The Center for Information Technology (CIT) partnered with Pearson VUE to offer faculty, students, staff, and the Hampton community access to certification exams. In recognizing that education comes in many forms, the CIT established this site at Hampton University to provide some of the options that PearsonVue™ lists as benefits for their authorized testing centers.

We are excited to announce the opening of the CIT/Person Vue Testing Center that will be located on the 5th floor of the Harvey Library. The center will provide on-site, on-demand testing for certification and professional license exams. Access to certification exams will incentivize staff and alumni to achieve additional credentials in their area of experience. The testing center will also provide a community service by welcoming test takers not associated with Hampton University. With the potential to reach a wide array of people in the Hampton Roads area, the new testing center might conceivably support workforce development for this area. Hampton

University and Pearson VUE will provide access to certifications that improve worker qualifications, skills, and knowledge base. From the moment candidates enter the center, they can expect a smooth and reliable experience. They will easily transition from automated check-in and exam readiness through test delivery and quick turnaround times. Most candidates who take a computer-based exam receive their results instantly, allowing them to make immediate plans regarding the next stage of their education or career. The following is just a sample of the exams that are available.

#### Information Technology (IT) Exams

- Alibaba Cloud Certification
- Amazon Web Services
- Android ATC
- Arcitura Education Inc
- Arista Networks
- AT&T
- Avaya, Inc.
- Baidu Certification
- BCS The Chartered Institute for IT
- BICSI
- Blockchain
- Blue Prism
- CertiTrek
- CertNexus
- Check Point Software Technologies
- Cisco Systems, Inc.

View a complete listing of the current [PearsonVue](#) programs being offered.

## Communications: CIT Tech Talks

Effectively communicating technology is one of the most significant challenges within any organization. Explaining the nuances of technology can be incredibly overwhelming for many of our Hampton University users. After publishing the CIT Annual Report for 2019, it became abundantly clear that our department needed to seek additional ways to engage and inform our Hampton community.

Some of the 2020 CIT Tech Talk Topics:

- CIT Tech Talk #1: Zoom 102 - Meeting in a Virtual World
- CIT Tech Talk #2: Blackboard Collaborate/Grade Center
- CIT Tech Talk #3: Security, Privacy, and Password Management
- CIT Tech Talk #4: Upgrading to Banner Essentials

Informal opportunities to learn at work offer a way to promote training during lunch work hours, which is why our department decided to establish “CIT Tech Talks.” Many of the questions asked by staff and faculty center on similar themes. For example, COVID-19 requires all Hampton University faculty, students, and staff members to be mindful of social distancing. Having in-person meetings with more than ten individuals in the same room is discouraged by current guidelines. As such, we now meet using collaborative tools like Zoom, Blackboard Collaborate Ultra, and MS Teams. With Zoom as our administrative and staff meeting tool, our first CIT Tech Talk was a discussion on some of the features and functionality to improve team meeting experiences.

During our second CIT Tech Talk, a discussion on Blackboard and Blackboard Collaborate Ultra use, we offered tips and techniques to improve this tool's faculty experience. With mid-term exams and grading as a factor, many faculty had salient questions on how best to

use the Respondus Lockdown Browser and Monitor tool more effectively.

The CIT offers Tech Talks bi-monthly, and one of the leads from each department will supports each session by conducting Q&A at the end of the session. All faculty and staff are encouraged to attend because our goal is to offer timely information. Information to access the session is posted on the CIT [Website Calendar](#).



# BEYOND 2021

## Partnering for Innovation

The recent technology infrastructure improvements helped Hampton University streamline many of our functional operations. These network, software, and classroom technology upgrades support the administrative capabilities and also increased the effectiveness of delivering remote instruction. Still, the university has additional technology needs that must be met in order for us to deliver the highest quality of remote instruction and support our students, faculty, and staff. Some of the funding received from individual donors and through CARES “jump-started” many of the CIT’s technology improvements during 2020. Specifically, partnerships that resulted in grant offers in 2020 will support many of the 2021 initiatives that will continue the digital transformation.

### Southern Company



The Virginia Natural Gas and its parent, Southern Company, donated \$500,000 to Hampton University to support investments in critical information technology infrastructure upgrades to effectively deliver remote learning. This gift, part of Southern Company Foundation and its subsidiaries’ \$50 million HBCU Initiative, provides HBCU students

with scholarships, internships, leadership development and access to technology and innovation to support career readiness.

The funds awarded to Hampton University will be used to support technology upgrades in the Center for Teaching Excellence to improve remote instruction and delivery; secure a digital transaction management system to streamline processes, secure data, and authenticate signatures; and develop a mobile app for campus communications.

### Technology Upgrades to the Center for Teaching Excellence (CTE)



Technology upgrades to the CTE to provide professional development for our faculty and administrators is the primary and most critical priority for this proposal. Therefore, this proposal requests funds to renovate the existing facility by increasing its technological capabilities.

The CTE is central to digitally transforming the campus to align with the current remote learning environment. The CTE has a qualified,

committed staff who work in partnership with individual faculty. However, there is a dire need to offer greater technical assistance to facilitate the professional delivery of instruction in a manner that will promote student retention and enrollment for Hampton University. The CTE's renovations will support innovative teaching methods, collaborative activities, and faculty development that:

- Provides measurable ways to support faculty
- Provides instructional advancement
- Offers a SMART classroom model for hands-on training
- Includes an experimental lab space to test new hardware and software
- Delivers CTE calendared workshops
- Incorporates technology to further student engagement.

### **Digital Transaction Management/e-Signature (DTM)**



Implementing Digital Transaction Management (DTM) by incorporating an e-signature solution is the second priority for this proposal request. Adopting an end- to-end methodology that includes well-defined e-signature processes will fully enable Hampton University to serve our customers more effectively, efficiently and expeditiously (e.g., faculty, students, staff, vendors, parents, alumni, etc.) in this remote environment.

More importantly, leveraging this technology supports the overall digital transformation strategy of the university to modernize. Many of Hampton University's agreement processes remain manual and fragmented which creates both inefficiencies and reduced effectiveness.

With the shift to remote instruction and learning, Hampton University needs DTM and an electronic signature solution. As the university works to convert many of the manual forms to support remote access to processes, the requirement for DTM is the next step to support digital transformation. Using a cloud-based application will allow our institution to send and sign (securely) and input other data into a document with an automated document workflow. Because Hampton uses Perceptive Content as our grant management software tool, integrating a tool like DocuSign to complement this product will provide our faculty, students, and staff with the ability to:

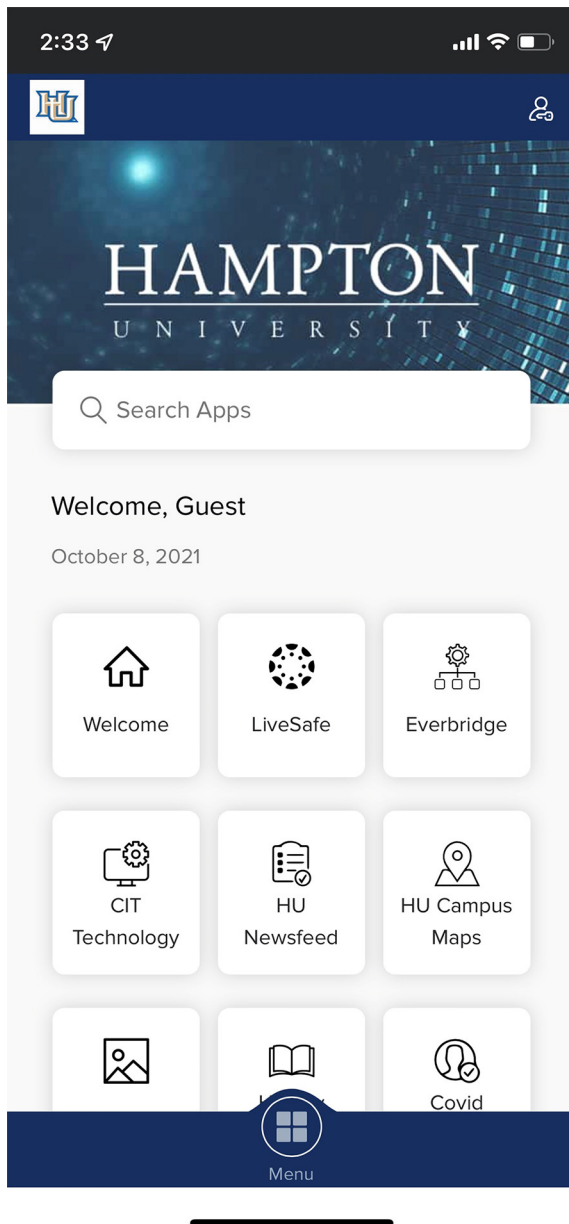
- Easily upload and send documents for electronic signature
- Quickly access and sign documents that require a signature
- Readily check a document's status, send reminders, and view audit trails
- Securely store documents online
- Create templates using existing forms to help streamline the sending process
- Oversee document workflow by identifying / managing recipients and routing
- Make forms available online, allowing for self-service and ease of accessibility.

### **Mobile App Development**



Developing an integrated Mobile App solution is the third priority request for this proposal response. Working with Hampton University's leadership to incorporate approved COVID-19 third party-health Mobile Apps with a new myHamptonU Mobile App will transform how we communicate information campus-wide.

## BEYOND 2021 *CONTINUED*



The goal for implementing an HU Mobile App not to replace traditional communication vehicles like HUNews, Blackboard Announcements or direct email to students. Instead, the myhamptonu Mobile App will deliver personalized messaging to faculty, students, and staff on their smart devices. Additional capabilities include supporting e-learning initiatives as well as augmenting communication across the campus.

In 2020, the University began researching for a brand new campus mobile app for Hampton University students. The mobile app, which will be available on iOS and Android devices, will assist HU students with accessing and managing information pertaining to their studies, course schedules, financial information, account holds and access to Blackboard and University email messages through a single sign-on service. Additionally, we plan to implement other features that will help keep the HU



community safe and healthy during the current COVID-19 pandemic.

Though many vendors were assessed for this project, the current potential candidates were narrowed down to Modo Labs and Unified. Modo Labs, who has a great track record with universities, has helped to create useful tools/services with their mobile app solution with institutions like the College of William & Mary. They also have a handful of helpful tools relating to the COVID-19 pandemic.

Contrarily, the University already has an established relationship with Unified for the campus' MyCampus portal and the previous HU mobile app. Furthermore, they also have a great selection of useful tools that would certainly be put to good use for HU students. What's more, they also have web portal version of their app which could come in handy for students who cannot download the app to their mobile device.

The University is currently still in discussion with both vendors to determine which would be the best fit for our community. It's

anticipated that a vendor will be selected during the 2021 spring semester with development of the app to follow swiftly after. The launch date for the new mobile app is estimated to be around the beginning of the 2021 fall semester.

### **Partnering with AWS Robotics**

Amazon Robotics' (AR) leadership is driven to lead their Technology Division to reimagine what has previously been considered impossible. The company's near-term priority is to innovate "Robotics growth" along a self-imposed continuum. In envisioning the big picture, AR seeks to imagine better products and services by making connections that transform complex problems into elegantly simple solutions. By espousing "We Reimagine Now," Amazon Robotics' fearless resolve propels them to achieve the improbable with real-world solutions to meet tomorrow's challenges today.

As an industry leader, AR recognizes that diffusion of innovation is critical if they are to remain the standard-bearer in the robotics technology space. Most certainly, diffusion of innovation is an important business tool that organizations can use to convince their consumers to engage exclusively with their products and services. Using Roger's 1962 model, diffusion of innovation necessitates understanding trends, factoring the early adopters and laggards, and making a convincing business case to reimagine what is possible now. One method AR uses to inject innovative solutions is through partnerships with forward thinking colleges and universities.

The AWS/Robotics gift of \$500,000 will help to establish a partnership that will establish a robust program that includes internship,

research, professional development, faculty support, STEM educational experiences, and on-site engagement opportunities with both AR and peer institutions.

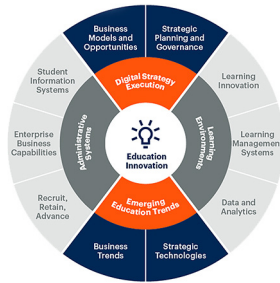
### **Partnering with Microsoft**

Microsoft planning and strategy

- Implement SSO across on-premises AD and Azure AD to allow seamless use of Microsoft 365 (formally known as Office 365) products such as Teams,
- Sharepoint, OneDrive for Business, etc.
- Leverage hybrid on-premises AD with Azure AD
- Leverage products provided by our education volume license reducing the need for some third-party applications
- Further empower students with Microsoft 365 products
- Look to migrate student email accounts from Google Gmail to MSFT hosted Exchange (not on-premises) to simplify student account management
- Upgrade to Hybrid (both on-premises and cloud) Exchange 2016/2019 for faculty and staff with eventual migration to hosted Exchange
- Implement HA (high availability) via DAG and clustering
- Cluster Hyper-V hosts to support VDI implementation
- Leverage Azure storage as a target backup location from within Veritas NetBackup
- Leverage Azure virtual machines to complement on-premises Hyper-V and VDI
- Implement PKI to allow for secure internal and external communications
  - a. Digitally signed email messages
  - b. Encrypted email messages

# CLOSING

As depicted in Gartner's (2020) Education Digital Transformation and Innovation, is essential in positioning Hampton to be more adaptable for the technology change supported the new learning environment and administrative system technology requirements.



*Education — Digital Transformation and Innovation (Gartner 2020)*

Our goal is to leverage research and enable outcomes to digitally transform Hampton's culture through innovation and technology by:

- Developing and executing the digitalization of our internal business processes

- Identifying strategic technologies that impact instruction and learning trends
- Improving functional and business capabilities campus-wide
- Developing a training program to ensure staff, faculty and administrators enhance their research, service provider and classroom delivery proficiency

Granted, the pandemic made change an imperative. Still, our focus was to articulate how technology impacts the university's operation and communicate the functional model to support the institution's ecosystem. The educational evolution from on-campus to remote learning required a shift in our administrative and academic technologies to support the new virtual paradigm. Academic year 2020's annual report documents how the CIT assisted and supported the first phase of digital transformation for Hampton University. A new and evolving way of doing business.

Indeed, this year has been a new and evolving way of doing business.

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