ANNUAL REPORT

FY2020

GEORGE MASON UNIVERSITY | Information Technology Services

WHO WE ARE

Information Technology Services (ITS) is Mason's central IT organization. We provide IT resources, systems, services, and support to the university community. Six groups comprise ITS, and in FY2020, ITS employed more than 220 employees and 150 students.

ALIGNED WITH OUR PRINCIPLES

- Engage with our customers and partners to align resources
- Incorporate lifecycle planning to develop sustainable services
- Value our people by encouraging their professional growth, promoting their well-being, and recognizing excellence
- Ensure that information technology assets are protected and monitored to reduce university risk
- Deliver solutions that catalyze student success
- Respond with agility to changing technology needs

OUR GROUPS

- Academic Strategies
- Enterprise Applications
- Enterprise Infrastructure Services
- Enterprise Service Delivery
- IT Security
- Learning Support Services

PROVIDING SERVICES AND SUPPORT TO MAKE MASON GREAT

- Application Integration
- Aquia Data Center
- Blackboard & Collaborate
- Business Intelligence & Databases
- Collaborative Technologies
- Communications & Project Management
- Computer & Software Resources
- Data Governance & Integration
- Email & Telecom
- Virtual Computing Lab

- Enterprise Applications
- GMU-TV
- Infrastructure & Network
- IT Security
- STAR Lab & CLUB
- Systems Integration
- Technology & Classroom Support
- Technology Enhanced Classrooms
- Videoconferencing & Telepresence
- Web Content Management

ENLIGHTENED BY OUR VISION

To inspire life-changing learning and success for our students and for the entire Mason community by providing superior technology and collaborative solutions

GROUNDED BY OUR MISSION

Collaboratively implement and support technology that enriches teaching and learning, research, and university operations

GUIDED BY OUR VALUES

Communication
Innovation
Integrity
Respect
Teamwork

INFORMATION TECHNOLOGY REPSONSE TO COVID-19

As the COVID-19 pandemic upended higher education in 2020, institutions relied on digital alternatives to missions, activities, and operations. ITS incorporated pandemic planning and support into existing organizational structures and workflows.

The following technology activities and investments were executed during the spring and summer months of 2020 to adjust operations and plan for the fall.

- **Two-Factor Authentication (2FA) for Office 365**: Accelerated rollout of 2FA for Office 365 (email, calendar, and OneDrive for Business, etc.) to enable additional technology resources that support continuity of operations from home.
- **Digital Collaboration Tools Acquisition and Rapid Development**: ITS assessed and acquired electronic collaboration tools and supported user migration to full-scale remote work and online teaching environment.
  - » Microsoft Virtual Desktop Infrastructure: Accelerated the rollout of a new Microsoft Virtual Desktop Infrastructure to provide remote workers using personal devices with a secured connection to Mason applications.
  - » Microsoft Teams: Accelerated the implementation of MS Teams for faculty and staff.
  - » Webex: Created accounts for all faculty and staff.
  - » Zoom: Executed a three-year contract to acquire Zoom videoconferencing and configured for faculty, staff, and student use.
- **Endpoint Protection Tools Acquisition and Rapid Development**: ITS initiatives geared towards expanding and enhancing centralized endpoint device management services for faculty and staff.
  - » Cisco Umbrella: Acquired and deployed Umbrella, which serves as a protection tool that evaluates websites to determine if the sites are malicious, contain viruses, or have malware.
  - » Microsoft Defender Advanced Threat Protection (ATP): Acquired and deployed ATP, an improved antivirus solution, to Mason-managed computers.
- **Hardware Acquisition for Emergency Telework**: Acquired and reimaged 50 Mason-owned laptops and acquired 160 new laptops for faculty and staff to telework. ITS purchased 50 mobile devices and configured them for telephone and hot spot use.
- **Hardware Acquisition for Classroom Technology**: Acquired webcams to promote hybrid learning options in existing and new classroom spaces.
- **Learning Management System (LMS) Support for Remote Instruction**: Implemented unplanned technology within Blackboard to support the transition to remote instruction.
- **Technology Practices to Support Campus Health**: Worked with campus stakeholders to contribute to pandemic health management, particularly in the areas of workplace safety management, health screening, and surveys gauging the readiness of students, faculty, and staff to return to campus.

PROJECTS THAT IMPROVE INFORMATION SECURITY

- Developed an expanded, comprehensive IT Security awareness and training program for Mason employees

- Established and implemented firewall rules to require the use of the Mason Virtual Private Network for remote access of highly sensitive applications

- Evaluated Mason's security posture to identify where Mason is doing well in information security and find areas where more resources or attention are needed

- Salesforce Shield features and integrated Splunk with Salesforce to enable ITS to monitor Salesforce event logs and track changes in fields with sensitive data.

- Minimized risks of improper configuration or unbounded resource utilization and helped standardize logging policies by implementing Splunk on critical Unix servers

- Conducted architecture definition and technical implementation of 2FA at Mason to define when, where, and how users authenticate to systems

- Created a controlled virtual computing environment to support research involving Controlled Unclassified Information (CUI) and well as other research at Mason

- Implemented a zone-based Firewall Security structure for zones that support Mason's Banner ERP system; this first wave of iterative configurations informed the roadmap for completing the remainder of university-wide efforts

- Developed the infrastructure to deprecate the use of phone calls and SMS text, which are costly and considered less secure, and migrated telephony users to other 2FA options

- Improved security posture of MicroStrategy and increased efficiency with regards to provisioning users and changing user permissions to reporting

PROJECTS THAT IMPROVE THE ACADEMIC, RESEARCH & ADMINISTRATIVE EXPERIENCES

- Overhauled the internal authentication, authorization, and accounting mechanisms into one centrally managed and more secure service

- Partnered with Enrollment Management to acquire an enterprise solution and transitioned 18 call centers to support a centralized, one-stop-shop call and contact support center for students

- Partnered with the Global Education Office to implement a system to review and approve courses and establish an approved course inventory for students interested in global education/study

- Refreshed and renovated the classroom technology for 27 University Registrar classrooms— 5 located in Hazel Hall on Arlington Campus and 22 located on Fairfax Campus

- Reconfigured the registration process to include a field to capture/verify contact information and option to opt-out of receiving Mason Alert text messages to communicate emergency information in a timely manner

- Migrated Mason's Lynda.com environment and user history to the new LinkedIn Learning platform as a part of the acquisition of Lynda.com by LinkedIn

- Developed and administered a survey to collect faculty feedback on the services and resources offered by ITS that support their teaching and learning

- Engaged with Cisco's Advisory Services group to execute a series of network infrastructure assessments to deliver a customized report, roadmap, and implementation strategy for scaling Mason's networks

- Produced foundational Development Life Cycle policies and procedures that ITS can implement for all development teams

- Created a custom website for the Global Education that can receive, review and process applications of interested first-year students to the Global Gateway and STEM programs

- Successfully upgrade ~1,600 Mason-managed machines from Windows 7 to Windows 10 to address compliance requirements to run Mason standard software, including Duo 2FA, and Microsoft's end of life date

- Finalized the technical requirements and selected the solution to replace the Enterprise File System (EFS), known as the MESA 'M' Drive

PROJECTS THAT IMPROVE THE ACADEMIC, RESEARCH & ADMINISTRATIVE EXPERIENCES

- Redesigned and expanded Enrollment Central into a centralized service model, inclusive of Admissions, Financial Aid, Student Accounts, and the Registrar, to better support students

- Migrated Central Authentication Service (CAS) and Shibboleth authentication services to Unicon, a cloud service provider, which reduced the load on Mason administrative staff and hardware/software infrastructure

- Created the process and infrastructure for Patriot Web to capture chosen first names and pronouns of students, faculty, and staff and feed into university systems that receive Banner data (e.g., Blackboard, Salesforce, Handshake, etc.).

- Transitioned the payment system for the summer programs of the Office of Admissions' Washington Scholars Program to Touchnet, where interested students can easily register and pay their deposits

- Developed an environment to allow faculty and staff to run high-level summary reports related to research and monitor sponsored activity

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PROJECTS THAT IMPROVE THE WAY MASON DOES BUSINESS

- Reviewed and refreshed the 2010 version of the Project Management Framework to align with the priorities and requirements present at Mason and ITS

- Implemented, Cornerstone, a centralized employee LMS integrated with Banner for better delivery and tracking of employee compliance training, exams and certifications, and linking relevant training to employee performance reviews

- Developed a cloud-based analytical platform and predictive tools built upon Mason data, joined with publicly available data sets, and visualized through MicroStrategy.

- Created workflow to implement and manage organizational billing for printing on Canon printers across campus

- Implemented a solution to build linkage between academic, HR, and financial data to enable academic units to build program-based profit & loss statements and created active reporting structures

- Developed and configured Project Online to support Project Management and Portfolio Management framework processes and automate project resource tracking and planning needs

- Selected, configured, and implemented the TeamDynamix integrated IT Service Management tool to replace EasyVista with improved ease of use, integration, and reporting capabilities

- Upgraded to MicroStrategy 2019 for continued product support and access to new products and features; Mason servers were moved into a central BIS zone for consistent security, maintenance, and monitoring

- Established the infrastructure to enable Enterprise Data Integration Services (EDIS) to use the Informatica suite of tools for data movement and integration and begin providing data as a service to Mason data consumers

PROJECTS THAT IMPROVE THE WAY MASON DOES BUSINESS

- Upgraded Banner 9 version of the Financial Aid Self-Service pages (part of Student Self-Service) to provide a more modern user experience

- Implemented and configured Project Online to support current Portfolio Management process, BIS & EDIS operations, Admissions operations, and the new Project Management Framework process.

- Redesigned the undergraduate and graduate deposit sites to allow integration with Banner and Salesforce and increase efficiency for admissions operations

- Developed the budget reports distributed by the Budget Office to the colleges and units at the start of the fiscal year via MicroStrategy

FY20 BY THE NUMBERS

1,644,126
Total ITS Website Page Views

111,943
ITS Website Mobile Views

17,632
ITS Website Tickets Submitted

7,757
University Courses Supported

5,848
STAR Lab Users
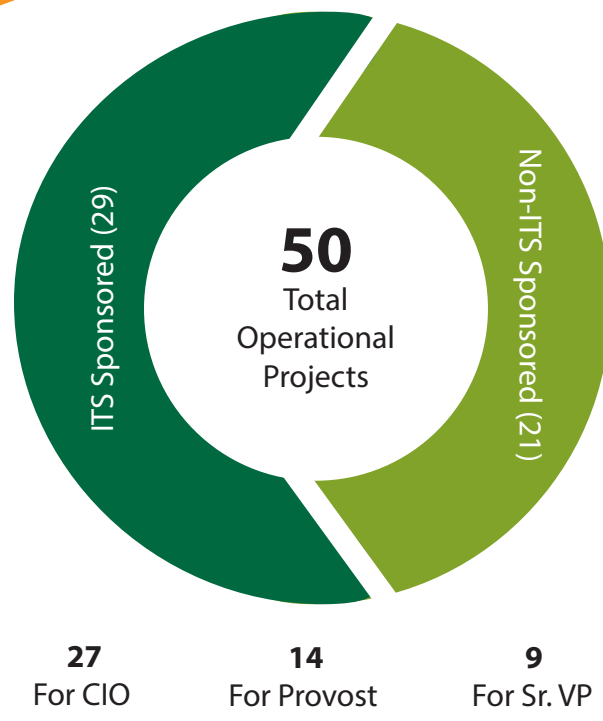
4,738
Virtual Computing Lab (VCL) Users

43,728
VCL Total Sessions

4,758
Collaborative Learning Hub users

CLUB

50
Total Operational Projects

ITS Sponsored (29)

Non-ITS Sponsored (21)

27
For CIO

14
For Provost

9
For Sr. VP

STRATEGIC/ CAPITAL

MANDATES/ MAINTENANCE

EXCEPTION

(16) **(25)** **(9)**

50 PROJECTS SUBMITTED THROUGH GOVERNANCE

TDX: First Call Resolution
41,782

64,333
TDX: Total Tickets Submitted

24,320
Mobile Mason Users

47% FACULTY/STAFF
52% STUDENTS
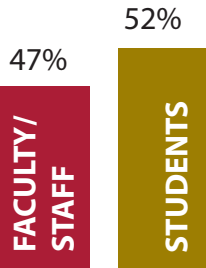
42,639
Support Center
Calls Answered

18,299
Total Zoom
Meetings

81,518
Zoom Meeting
Hours

6,243
Dynamic Forms
Used
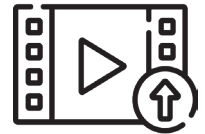
314
Classroom Spaces
Supported

24,277
Duo Users

113
ASRB
Requests
Finished

9,761
MS Teams
Meetings

402,525
MS Teams
Messages

1,351,623
Kaltura Video
Plays

79,594
Kaltura Video
Uploads

myMASON

42,790
Avg. Monthly Users

1,594
Banner Users

Banner **9**

8,036
LinkedIn Learning
Courses Viewed

1,774
LinkedIn Learning
Avg. Monthly Users

1,150,756,378
Inbound Email Messages

87% MESSAGES REJECTED

141,263
Webex Total
Events

46,590
Office 365
Accounts

8,268,165
Total
OneDrive
Files

710
Servers

NON-VIRTUAL **200**
VIRTUAL **510**

Bb

39,529
Bb Users

86%
Faculty Bb Users

2,224
MicroStrategy Users

659,444
BI Reports Delivered

25
TB of
OneDrive
Storage