

Division of Information Technology

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Interim Vice President for Information Technology and Chief Information Officer (CIO)





2020 SIGUCCS BEST OF CATEGORY AWARD

COMPUTING NEWSLETTER

"BETTER TOGETHER" - THE DIVISION OF IT 2019 ANNUAL REPORT

2020 SIGUCCS BEST OF CATEGORY AWARD

STUDENT CREATED MATERIALS

2020 COMPUTER LAB SIGNAGE CAMPAIGN FOR OPEN ACCESS LABS



AS OF JULY 2021, THE DIVISION OF IT PROTECTS:

787,402 ACTIVE IDENTITIES



44,574

UNIQUE DEVICES
ON THE TEXAS A&M NETWORK

EACH DAY

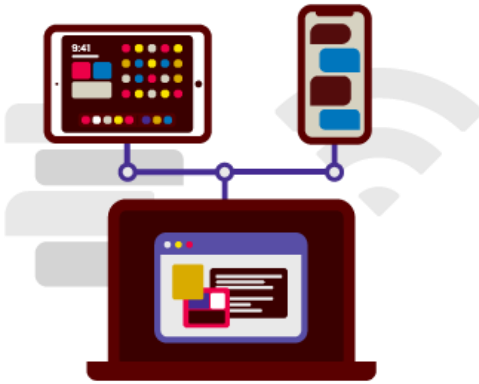
AMONGST TOP 10 LARGEST PHYSICAL
CAMPUSES IN THE NATION

19.4
MILLION
SQ FT

OF WIRELESS
COVERAGE

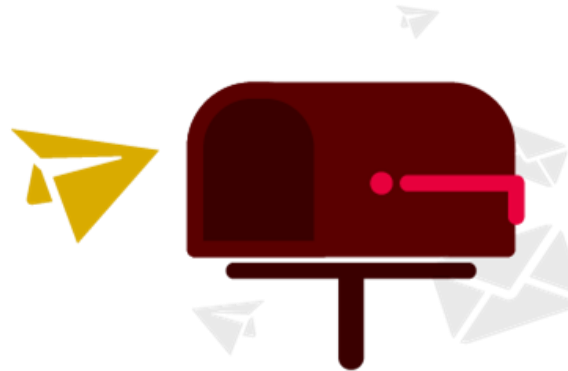


WE BLOCK
1 MILLION
CONNECTIONS TO MALICIOUS WEBSITES
BLOCKED BY THE CAMPUS
FIREWALL DAILY



HAVE MOVED 324 TERABYTES PER DAY

- Equivalent of 81,000 digital movies
- Library of Congress moves 25 TB of data per day
- Digitizing all of the books in the Library of Congress, would take about 10 Terabytes



220 MILLION EMAILS PER MONTH

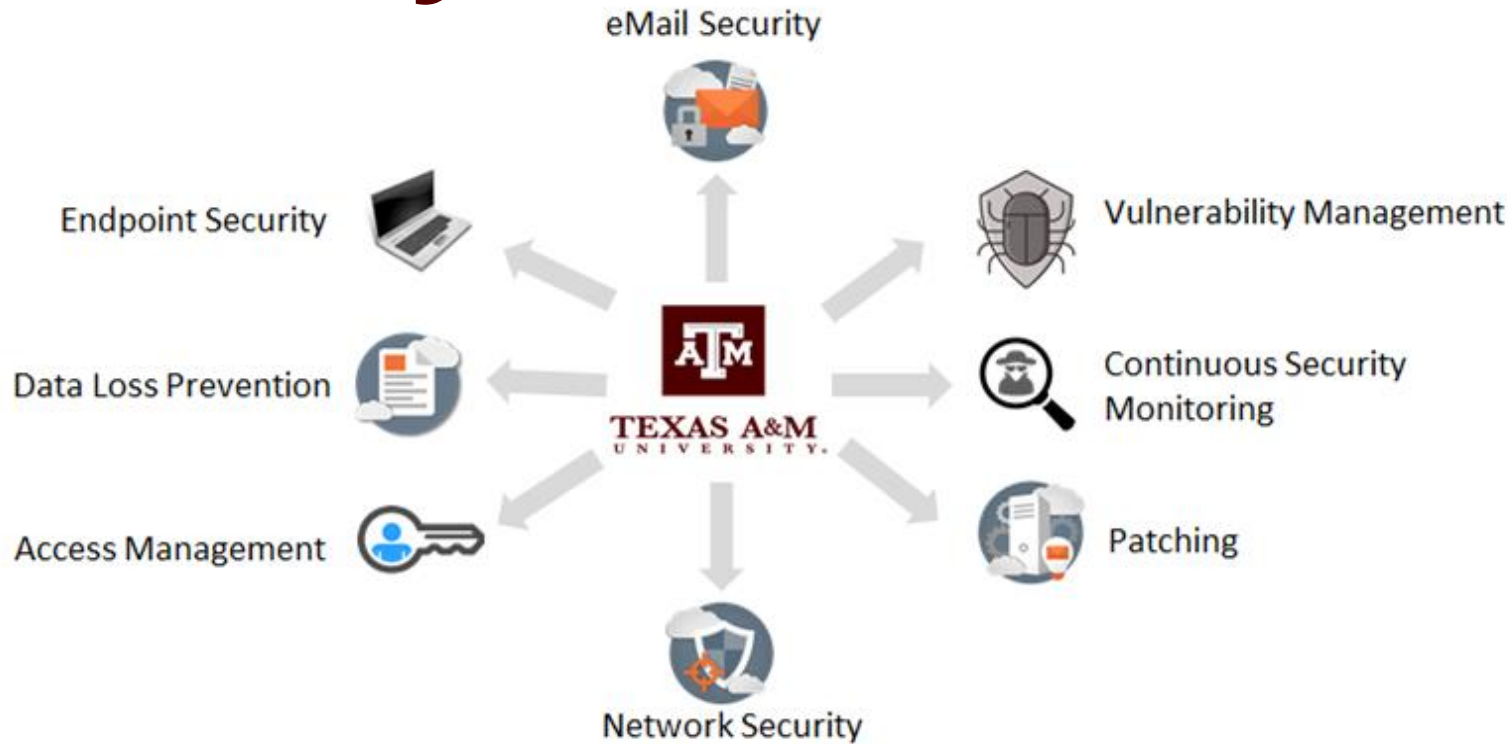
- If printed, on one sheet of paper per email, the stack would be 72,232 feet high, or 13.68 miles tall



4,000 MILES OF CABLE IN NETWORK

- Equivalent of driving from College Station, TX to Spokane, WA and back

Security Precautions



96% of all network traffic blocked as threats or attacks, last month.



95% of all emails blocked as malicious, everyday.



Over **20 Billion** attacks blocked *every month*



Over **30 Million** Malicious emails blocked from delivery *every month*




Over **6 Million** files scanned for classified/sensitive information *every month*



Over **1.3 Trillion** data points indexed and monitored via SIEM *every day*



Best Security Practices for Travel

	Before Traveling	While Traveling	After Traveling
Domestic Travel	<ul style="list-style-type: none"> Ensure your device is password protected and encrypted 	<ul style="list-style-type: none"> Turn off WiFi and Bluetooth, when not using Bring your own charger 	<ul style="list-style-type: none"> Change your password(s)
Foreign Travel	<ul style="list-style-type: none"> Enable and Use Multi-Factor Authentication Be aware of security restrictions for some countries Assume that in some countries, your usage and device will be compromised. Follow Export Control regulations 	<ul style="list-style-type: none"> Travel with the fewest devices and data possible Delete all data and applications you won't need while traveling Strongly consider taking a loaner device Avoid public, unsecured WiFi networks 	<ul style="list-style-type: none"> Sanitize Your Devices Change your password(s) Return the loaner device 

File Security

- The Texas A&M Google drive is not considered HIPAA, FISMA, CUI, ITAR/EAR, or GLBA compliant
- Google does advertise compliance with FERPA in its core G Suite for Education
- Teams, SharePoint and OneDrive are secure enough to hold Federally regulated or University confidential (HIPAA) data
- College or Department file servers may or may not be compliant with data regulations, please talk with your College IT staff
- Products like Dropbox are not compliant and using them through personal accounts is prohibited by System regulations



Multi-Platform Support

The IT teams on Campus support a wide range of operating systems

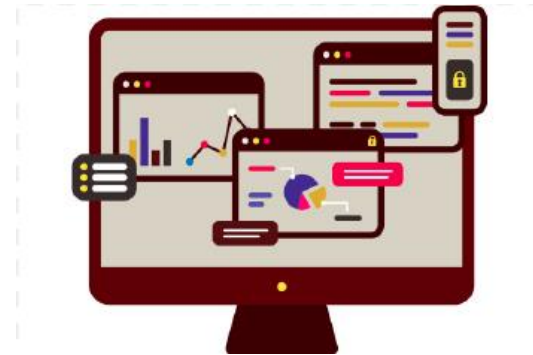
- We have hundreds of Linux workstations and Servers
- We have hundreds of Mac devices
- We have thousands of Windows devices
- We have thousands of IoT devices



Future Platform Support

The Academic and Research platforms of the future are going to be even more complex.

- Cloud vs On-Premise
- 5G / 6G data systems – massive data movement needed
- Operating systems that are virtualized and containerized
- Artificial Intelligence (AI) and Machine learning (ML) platforms
- Huge data lakes
- Number of devices per person increasing
 - cell, laptop, tablet, watch, clothing, medical devices
- Massive data traffic increases for autonomous vehicles
- Ever increasing security requirements from our State and Federal partners and funding sources



Key Programs that are Needed

- A new updated network that supports the Research of today and the Research of the future
- A new updated network that support our academic environment and the learning pedagogy of the future
- The migration to a common Microsoft 365 platform
- Significant enhancements to our Security programs around detection, response and prevention

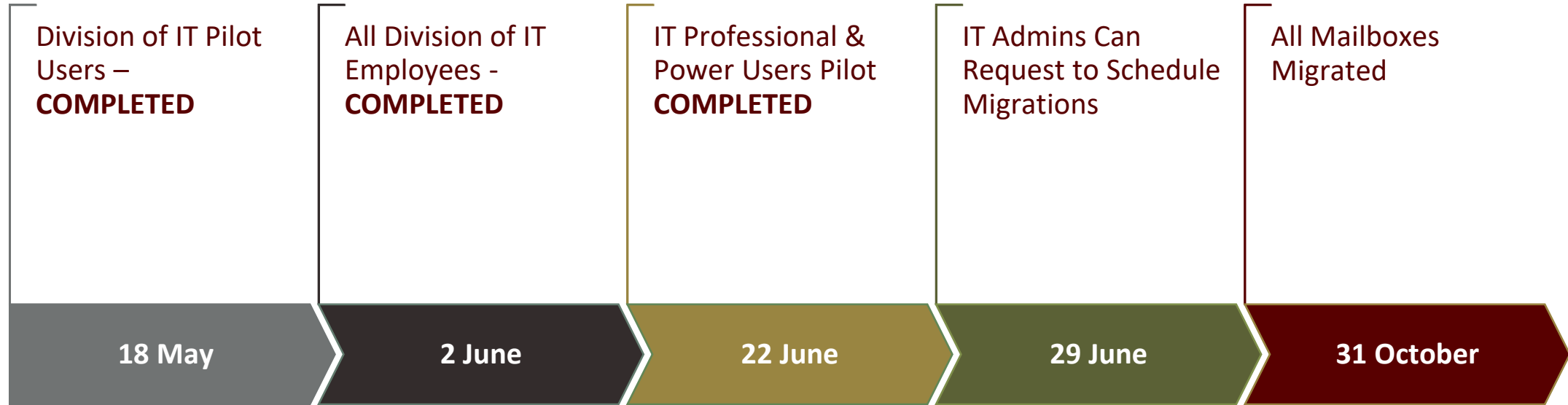


Microsoft 365 Migration

- Migrate from on-premise instances of Microsoft Exchange and Skype for Business to Microsoft (Office) 365 Exchange Online and Microsoft Teams.
 - Improved end-user experience with enhanced availability
 - Increased security
 - Additional functionality
 - Significant cost savings
- 37,262 mailboxes to be migrated
- Microsoft 365 Utilization to date
 - 24,111 active Teams users (16% increase in 6 months)
 - 37.9M OneDrive Files (52.8% increase in 6 months)
 - 1,069 attendees have attended Microsoft Summer Training Series
- Customized training is available to faculty and staff:
<https://it.tamu.edu/microsoft-365/resources/live-training.php>



M365 Migration Schedule



Networking Updates

- Palo Alto Firewalls implemented in internet border network to increase security
- Upgraded Network systems to provide additional growth capacity as our Academic systems return to F2F operations
- 257 New wireless access points added since March 2021
 - 8,200 wireless access points on campus
 - Plan add approximately 500 more wireless access points by September 2021



Open Discussion & Questions

