

2021 ANNUAL UNIT REPORTS



HEALTH
SCIENCES
CHIEF INFORMATION
OFFICE

***ADMINISTRATIVE OPERATIONS -
MARCIA SLETTEN***

APPLICATIONS - RAY AVILA

SYSTEMS - PHIL MARQUEZ

INFORMATION SECURITY - MIKE MEYER

TECHNOLOGY SUPPORT - RICK ADCOCK

NETWORK - CHARLIE WEAVER

FOR MORE DETAILS:

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ADMINISTRATIVE OPERATIONS

ACCOMPLISHMENTS

- Procured Major Projects and Systems
 - Network (NW - \$1M budget)
 - InterVision - NW design
 - Approved Networks - Access and Distribution Switches and, B&D - Cabling
 - Security Enhancement - after “The Incident”
 - Carbon Black
 - HSLIC 317 Remodel for 2 new Help Desk positions
- Transferred Budgets to and from CIO
 - Innovation Center - Transferred from HSLIC to CIO
 - HSC Rio Rancho IT - Moved mgt. of IT support to UH
- Prepared 2 Budget Reviews for HSC Leadership
- Projected, prepared and entered the FY22 budget
- Developed the GEER Grant Smartsheet Application for Student Equipment Loaners
- Processed 3 New Funded Positions
 - Job Posting, Interview Scheduling, Hiring Proposal, Onboarding
- Continued Support of IT Teams
 - Pick up packages/mail from Shipping & Receiving/Mailing Services and Delivering, Scheduling Meetings, Time Reporting, Exception Reports
- Developed and implemented the HSC CIO Performance Recognition Plan
- Completed an analysis of Microsoft License costs with various scenarios for budget projections
- Developed proposal for HSC/Health Systems “Fair Share” of costs
- Supported the startup of Innovation Center Proof of Concept (POC) Projects
- Updated the Accounting Procedures Manual
- Updated the Travel Guidelines/Procedure and Travel Request Form
- Completed the transition of HSC CIO web page to the new HSC design

METRICS

- Purchases processed through Nov. 30, 2021
 - 95 Purchase Orders – \$1,728,081
 - 93 PCard Purchases – \$64,709
 - Purchased \$1.79K in goods & services
- Posting for new or replacement positions
 - Postings: 2 for IT Support Tech 1 and 3 for IT Support Tech 2
 - Hired/Onboarded: 4 employees
- Meetings Scheduled – 7 for large groups, 17 recurring meetings, 23 Ad Hoc meetings
- Approved GEER Equipment Loaners:
 - 32 Hotspots, 10 Laptops with Wi-Fi, 7 Laptops w/o Wi-Fi, 9 Webcams
- Approved 115 Workstation Replacement Reimbursements
- 342 total since 2019

APPLICATIONS

ACCOMPLISHMENTS

LMS-Moodle/Learning Central

- Provided HSC Moodle Administration User Support: 207 hours for 550+ HSC Moodle Users
- Administered Learning Central Course for 230+ HSC Employees
- Conducted Individual Learning Central & Moodle Trainings via Zoom for 30+ HSC Employees
- Provided course support for Course Support: 430 HSC Moodle courses
- Worked with HSC Education IT groups and Main Campus LMS teams to help planning activities for the new Canvas LMS environment

SQLServer Database and Applications

- Deployed SQL Server upgrade
- Provided Database maintenance, support and Services to 70+ database applications
- Completed Disaster Recovery and Business Continuity assessment for SQL Server environment
- Migrated application development configuration management environment to GitLab
- Out of 80+ applications, sun-set or migrated all but one ColdFusion application to facilitate the coming year's plan of decommissioning the HSC ColdFusion environment
- Populated Cherwell Configuration Management Database with all HSC Applications information
- Maintained and expanded storage of Moodle LMS environment
- Brought Covid-19 Attestation application and process to a close
- Provided data requests and applications support for Faculty Contracts, School of Medicine, Student Affairs, CON, COP, COPH

ACCOMPLISHMENTS (CONTINUED)

Cloud applications/SharePoint 2010

- Worked with HSC IT, Health Systems IT, and Medical Group IT to provide deployment, and post deployment support and maintenance for Microsoft 365
 - Engaged with Microsoft and end-users to create solutions within M365 SharePoint, Teams, and OneDrive
 - Developed user group and trained organizations and individuals in M365
 - Provided 30+ M365 consults
- Provided support and collaborated with 20+ organizations in migrating content in SharePoint 2010, in anticipation for a March 2022 sunset of SP2010
- Zoom
 - Provisioned 1000+ Zoom Pro licenses
 - Implemented Zoom cloud storage retention policy to manage over-extended Utilization
 - Worked with Classroom Media Technology team to integrate Mediasite for academic support
- Provisioned ~20 users in TriNetX and facilitated upload process to TriNetX
- Collaborated with deployment team in deploying Policy Manager environment and provided post-deployment support
- Staff training to help support SailPoint Identity Management System in 2022

Web

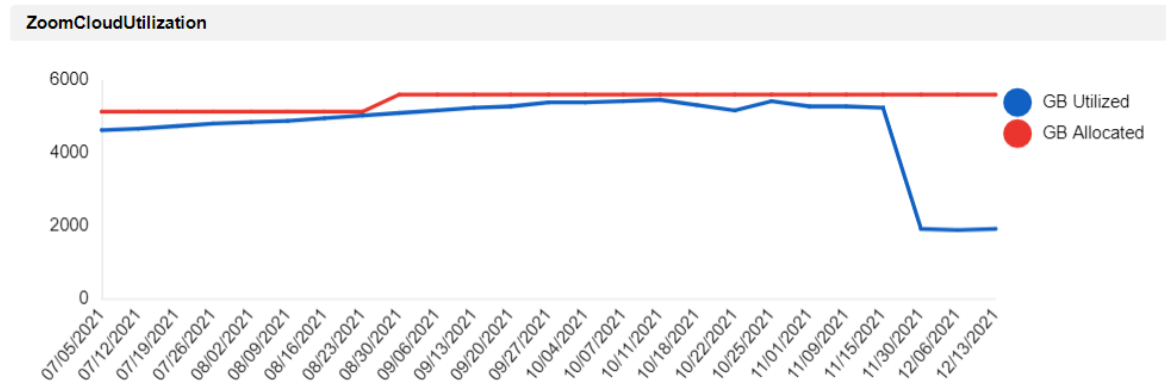
- Assisted Communications team with their efforts in deploying new Website Redesign
- Assisted Communications team in deploying Faculty Directory
- Assisted Communications team in migrating unmhealth.org to offsite hosting

Service Management

- Updated service catalog
- Developed simplified customer interface for service requests
- Inventoried supported application entry points for 2022 consolidation

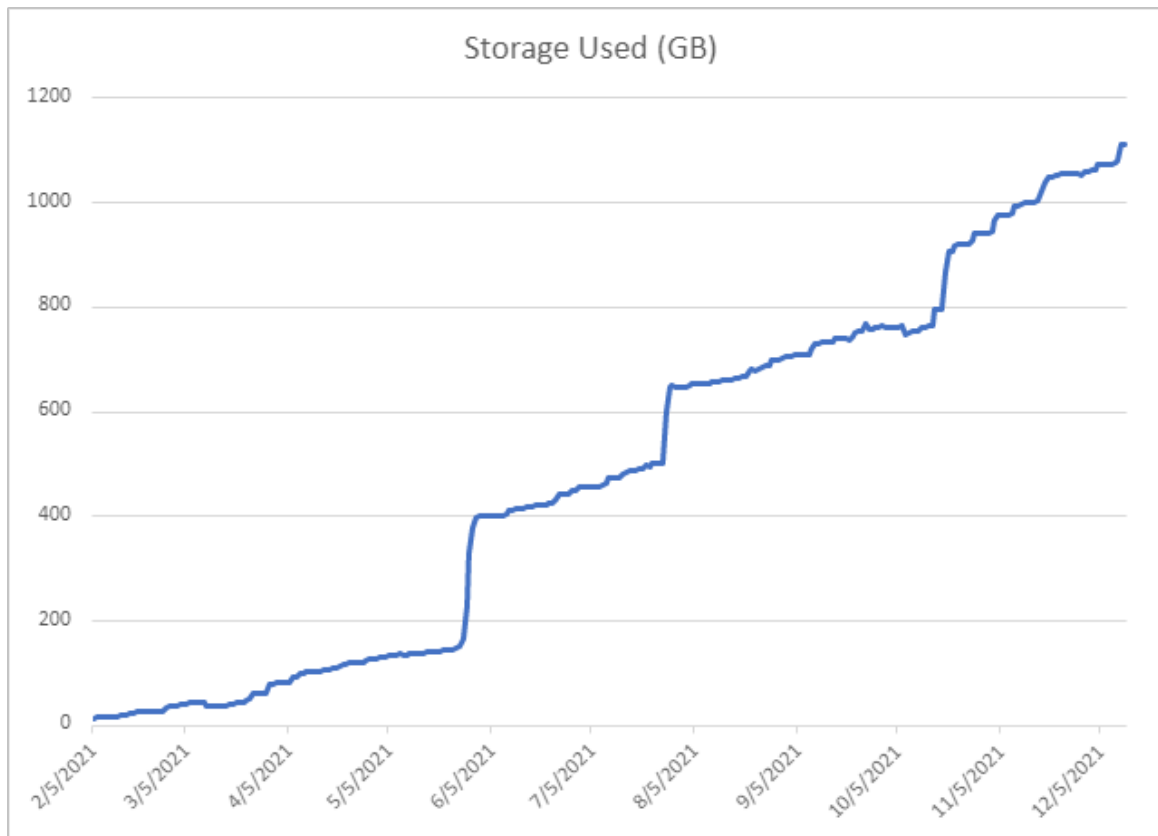
METRICS

- Zoom Cloud Storage Utilization



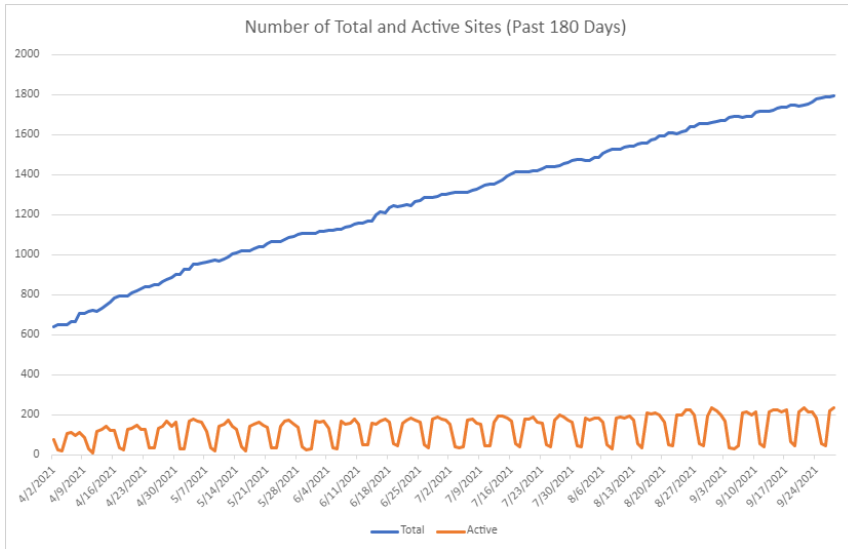
ZoomCloudUtilization
Percent Utilization 34%

- M365 SharePoint Usage
 - 180 Day SharePoint Storage Trend since deployment

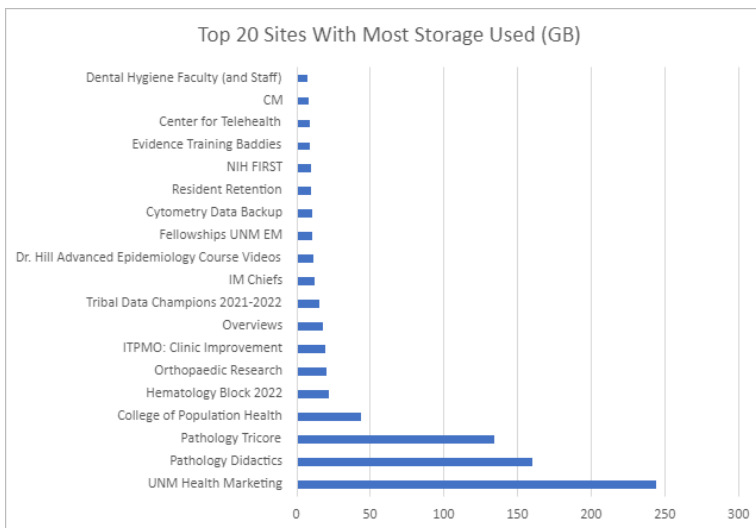


METRICS (CONTINUED)

- 180 Day SharePoint Site Count

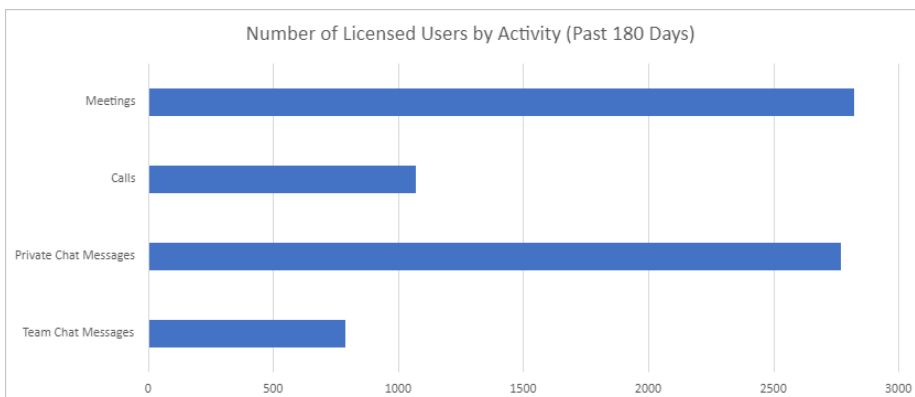


- 180 Day SharePoint User Activity



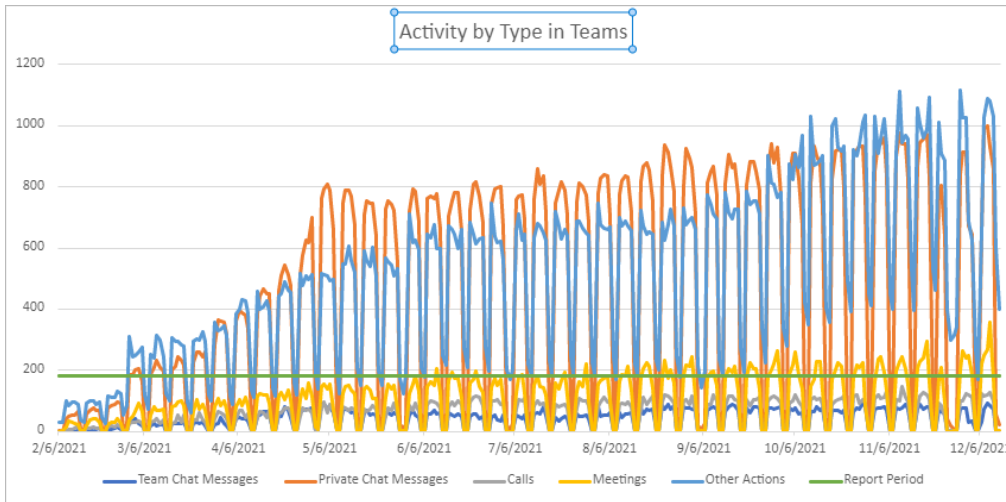
- M365 Teams

- 180 Day Teams Component Usage

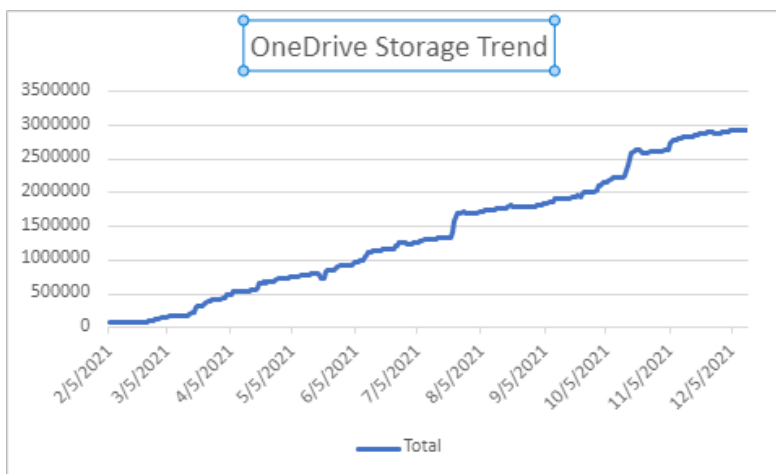


METRICS (CONTINUED)

- M365 Teams
 - Teams User Activity since implementation



- M365 OneDrive
 - Storage Trend since Implementation



SYSTEMS

ACCOMPLISHMENTS

HSC Systems and Storage

- M365: Successfully migrated the active and archived contents of over 20,000 on premise Exchange mailboxes for all current Students, Staff, and Faculty (including HSC, UNMH, SRMC, and UNMMG) to Microsoft Exchange Online. Facilitated the live cut-over from the legacy Exchange Server environment to email in O365.
- M365: Executed a highly successful migration of our live email environment from Exchange Server to M365 Exchange Online while implementing the full suite of Office 365 applications.
 - Avoided the high cost of on-premise hardware refresh and maintenance
 - Provided full collaborative suite of office applications - Word, Excel, PowerPoint
 - Provided shared storage options - OneDrive and SharePoint
 - Provided full communications platform including voice, video and instant messaging platform - Teams
 - Provided same user interface for desktop and browser-based Outlook client
- Disaster Recovery/Backups: Replaced our legacy Commvault tape/disk backup management system with Metallic all cloud backup on enterprise servers and about 50% of network attached storage.
- Security: Supported the security incident with quick response taking compromised systems offline, remediating, and rebuilding as necessary with minimal user impact.
- MFA: Configured and tested Multi-factor Authentication in O365 and worked with UNMH to test, configure, and implement MFA for Citrix and Pulse VPN.
- Root Cause Analysis: Authored the RCA document in support of ISO Root Cause Analysis workflow and worked with Technology Support team to implement in Cherwell

ACCOMPLISHMENTS (CONTINUED)

Interprofessional Healthcare Simulation Center

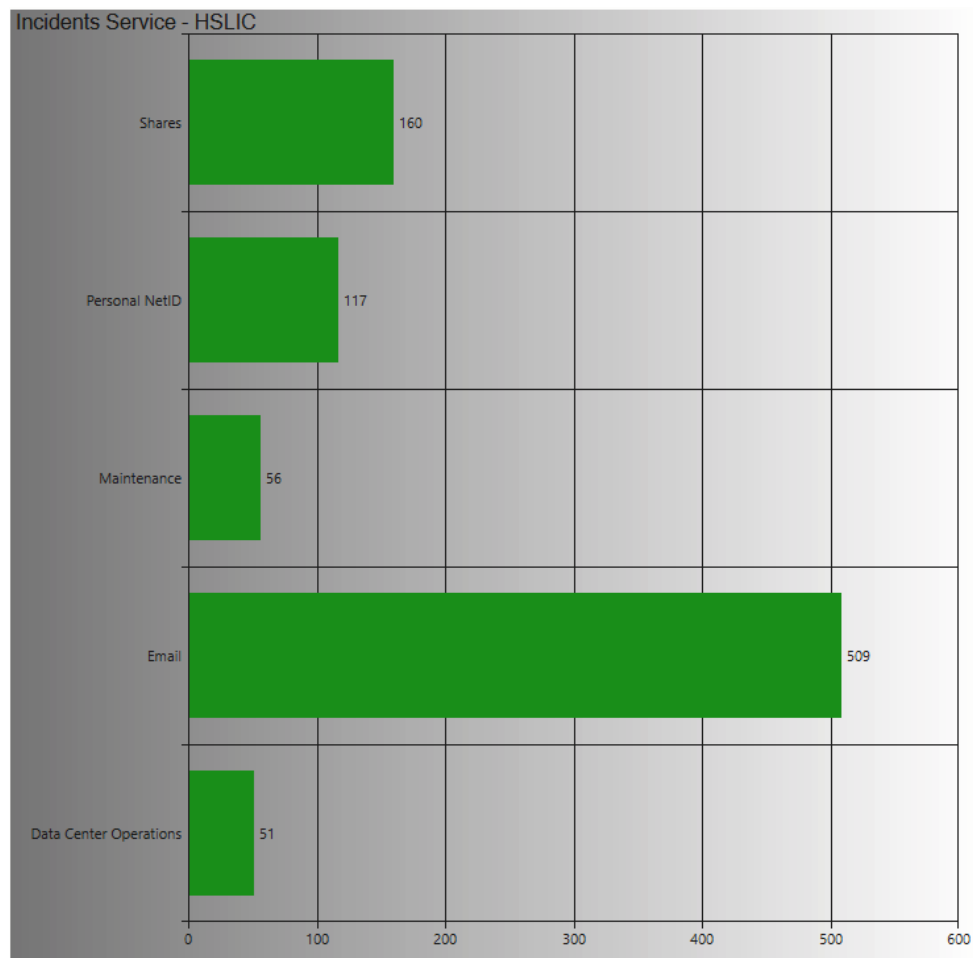
- SimIQ: C. Kiscaden (IHSC) documented Business Continuity and Disaster Recovery processes for SimIQ simulation lab and identified Recovery Time Objectives and Recovery Point Objectives. Documented High Availability architecture and real time monitoring capabilities within SimIQ environment. Video capture and recording redundancy utilizing on site and cloud backups under EMS Platinum maintenance. System data files backed up using HSC Metallic cloud.
- SimIQ: Added additional streaming capability with new virtual streaming serve

CTSC-Informatics Research Storage and Backup

- Disaster Recovery/Backups: Implemented cloud storage (Azure Blobs in Cool/Archive tier) for use as low-cost backup maintaining copies of large research data sets. Provides Nightly copies to synchronize data for disaster recovery.

METRICS

Cherwell Incident Tickets Serviced in 2021



INFORMATION SECURITY

ACCOMPLISHMENTS

The HSC Information Security Office (ISO) played a major role in these 2021 accomplishments. However, these are enterprise achievements that involved many participants in the HSC CIO and Health Systems CIO organizations.

ACCOMPLISHMENT	IMPACT
Joint Network and Information Security (JNIS) Team: Working level team of analysts, technicians and managers that addresses security issues and initiatives across the HSC enterprise.	JNIS played a central role in all the other accomplishments in this list. The relationships and processes developed in JNIS were the primary reasons why HSC responded so quickly to stop the ransomware attack this year.
Cyber Defense: Successfully defending against an enterprise-level ransomware attack, which intended to steal and encrypt as much data as possible.	We identified the attack and stopped it before ransomware was actually deployed. A successful encryption attack would be catastrophic for HSC and its clinical, instructional and research missions.
Multi-Factor Authentication (MFA): Implemented standardized MFA for remote access via Microsoft 365, Cerner access through Citrix and the Pulse Virtual Private Network (VPN).	MFA defeats 99% of credential theft obtained through phishing attacks. Implementation significantly reduced our risk of ransomware and other data breaches. mware and other data breaches.
Endpoint Detection and Response (EDR)/Managed Services: Successfully deployed EDR with managed services in less than three months. Also developed effective workflows to maximize response.	Cybersecurity experts rank EDR second only to MFA as a defense against ransomware. Although it comes at a price, managed services enabled HSC to have a turnkey solution in place in a very short time.
Perimeter Vulnerability Management (VM): Implemented effective vulnerability management for public-facing systems, maintaining zero critical vulnerabilities and zero high vulnerabilities throughout the year.	VM involves scanning for vulnerabilities but also remediation through system security updates and corrections to configuration settings. When we began this in 2020, we had 12 critical and 64 high vulnerabilities. Currently, we have 0 and 0.
Root Cause Analysis (RCA): Established an RCA process and workflow in Cherwell to document RCAs.	RCA is an indication of a maturing IT organization that helps reduce future service outages.

TECHNOLOGY SUPPORT

ACCOMPLISHMENTS

Classroom Technology Unit

- Enabled Zoom recordings to be stored in Mediasite to help with the consumption of available space on Zoom for educational recordings
- Transitioned from on-premise Mediasite storage to the cloud
- Developed the build out of the AV requirements and installation for the Center of Orthopedics Excellence
- Managed the GEER grant which provided laptops and hot spots to students

Enterprise Workstation Management

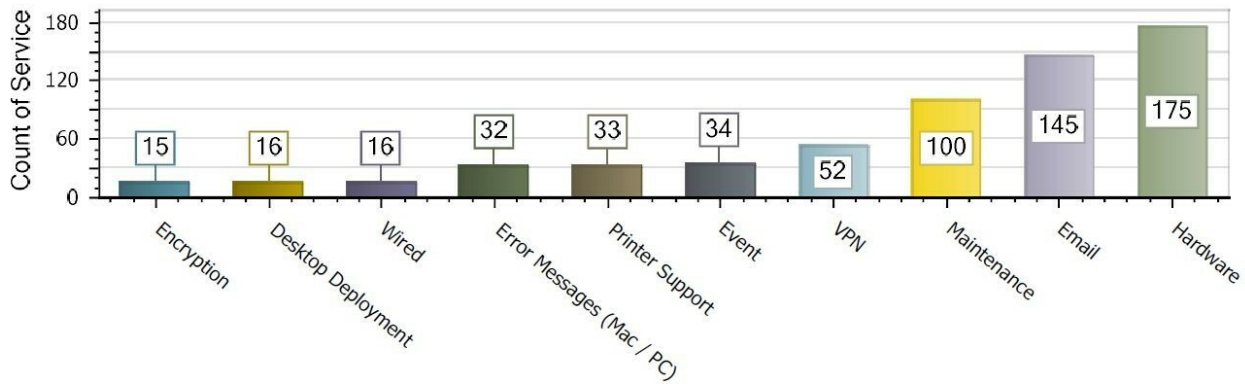
- Microsoft 365
 - Provided live training sessions for email, Teams, OneDrive, etc. for the transition
 - Provided end user support for the email transition
 - Manually re-created all shared email resource permissions post transition
- Enabled forced workstation (PC and Mac) encryption on all HSC workstations
- Consolidated and HSC accounts to a single HSC VPN separate from the UH VPN
- Multi-Factor Authentication (MFA)
 - Enabled and supported MFA for Microsoft 365
 - Supported end users for the MFA for the VPN
 - Developed and implemented method to require all accounts to have registered with MFA to prevent the unwanted registration of devices for possible compromised accounts

HSC IT Service Desk

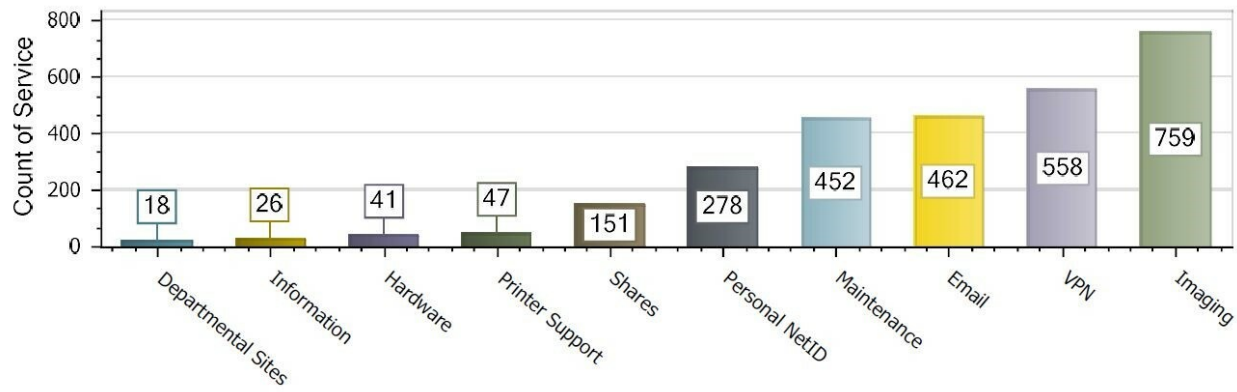
- Hired a supervisor for the HSC IT Service Desk
- Filled various vacancies within the IT Service Desk staff
- Expanded support hours 7:30 am - 5:30 pm
- Provide phone support for the winter break

METRICS

Top 10 Incidents



Top 10 Service Requests



NETWORK

ACCOMPLISHMENTS

- Daily break / fix / service activations
 - 1553 tickets completed YTD
- Network architectural upgrades
 - \$3M in spends
- Distribution switch upgrades
 - Network-wide distribution layer upgraded from Juniper to Cisco platforms
 - 28 HSC switches replaced
 - 21 UH switches replaced
- Access switch replacements
 - UH, HSC, remote clinics
 - EoL 3750 switches replaced enterprise-wide
 - 62 switches; 4200 ports
- DNA Center Network Management prototype operational and in-service
- Network design & implementation for construction and new facilities
 - NHT & Parking Structure, Multidisciplinary clinic, SRMC Ortho, Gallup clinic, Rio Rancho clinic, Roswell clinic
- Maintenance Window
 - Negotiated a dedicated maintenance window for network maintenance activities, first Saturday of the month; 1:00PM – 5:00PM
- Transition of ProofPoint administration and management to the NetSec Team
 - Expanded ProofPoint capabilities beyond email scanning to include TRAP, URL Defense, and phishing button
- Internet edge
 - Increased ISO capacity to five 10G discrete pathways
 - Upgraded edge firewalls to current code revision for problem resolution & performance increase
- Splunk transition
 - Formal transition of ownership of Splunk aggregation platform to NetSec
- Cobalt Blue infiltration detection
 - Early infiltration detection, containment, and cleanup deployed
 - Resulted in untold financial and data loss avoidance

NETWORK

ACCOMPLISHMENTS *(CONTINUED)*

- SolarWinds
 - Containment & management of infiltration
 - Platform expansion to include additional network devices
- NetBrain
 - Tool introduction, turn-up, value analysis
- Cisco Integrated Service Engine (ISE)
 - Security segmentation prototype completed
- Created Enterprise-wide governance body (JNIS)
 - Network / information / cybersecurity
- Implementation of standardized Azure MFA across multiple services
 - 365 environment
 - Citrix Access Gateway
 - Pulse VPN
- Optiv Security Operation Center
 - Providing first-level monitoring & problem resolution
- Endpoint scanning
 - Facilitated removal of McAfee as the standard endpoint virus detection platform
 - Facilitated the placement of Carbon Black as the standard virus detection / EDR platform
- Coordinated environmental discovery & vulnerability scanning into an enterprise-wide activity
 - Sunset Rapid 7
 - Sunrise Tenable
- Outage Management
 - All failures & outages managed to resolution & Root Cause Analysis delivered
 - UH rolling network failures
 - The rabbit incident
 - UH / SRMC fiber cut
 - Data Center outage
 - HSSB core switch failure
 - Internet edge slowdown

METRICS

- Distribution switch replacement: 100% completed