2021 ANNUAL UNIT REPORT

ADMINISTRATIVE OPERATIONS – MARCIA SLETITEN

APPLICATIONS – RAY AVILA

SYSTEMS & DATA CENTER SUPPORT – PHIL MARQUEZ

SECURITY – MIKE MEYER

TECHNOLOGY SUPPORT – RICK ADCOCK

UH IT NETWORK/NETSEC/JNIS – CHARLIE WEAVER
ADMINISTRATIVE OPERATIONS

MARCIA SLETSEN

Accomplishments

• Procured Major Projects and Systems
  o Network (NW - $1M budget)
    ▪ InterVision – NW design
    ▪ Approved Networks – Access and Distribution Switches
    ▪ B&D - Cabling
  o Security Enhancement – after “The Incident”
    ▪ Carbon Black
  o HSLIC 317 Remodel for 2 new Help Desk positions
• Transferred Budgets to and from CIO
  o Innovation Center – Transferred budget from HSLIC to CIO
  o HSC Rio Rancho Campus – Transferred management of IT support to UH
• Prepared 2 Budget Reviews for HSC Leadership
• Projected, prepared and entered the FY22 budget into Budget Systems
• Developed the GEER Grant Smartsheet Application for Student Equipment Loaners
• Processed 3 New Funded Positions
  o Job Posting, Interview Scheduling, Hiring Proposal, Onboarding Documents
• Continued Support of IT Teams
  o Pick up packages/mail from Shipping & Receiving/Mailing Services and delivering
  o Scheduling Meetings
  o Time Reporting
  o 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 a 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
  o 95 Purchase Orders – $1,728,081
  o 93 PCard Purchases – $64,709
  o Purchased $1.79K in goods & services
• Posting for new or replacement positions
  o Postings: 2 for IT Support Tech 1 and 3 for IT Support Tech 2
  o Hired/Onboarded: 4 employees
• Meetings Scheduled – 7 for large groups, 17 recurring meetings, 23 Ad Hoc meetings
• Approved GEER Equipment Loaners:
  o 32 Hotspots, 10 Laptops with Wi-Fi, 7 Laptops w/o Wi-Fi, 9 Webcams
• Approved 115 Workstation Replacement Reimbursements - 342 total since 2019
HSC APPLICATIONS TEAM

RAY AVILA

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 SQLServer 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

- 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**

![Zoom Cloud Storage Utilization Graph]

- **M365 SharePoint (SPO)**
  SharePoint Storage Trend since deployment

![SharePoint Storage Trend Graph]
180 Day SharePoint Site Count

Number of Total and Active Sites (Past 180 Days)

SharePoint storage use

Top 20 Sites With Most Storage Used (GB)

- Dental Hygiene Faculty (and Staff)
- CMI
- Center for Telehealth
- Evidence Training Eddites
- NIH FIRST
- Resident Retention
- Cytometry Data Backup
- Fellowships UNM EM
- Dr. Hill Advanced Ealderiology Course Videos
- IM Chief's
- Tribal Data Champions 2021-2022
- Overviews
- TIPMU: Clinic Improvement
- Orthopaedic Research
- Hematology Block 2022
- College of Population Health
- Pathology Tricore
- Pathology Didactics
- UNM Health Marketing

- 0 - 50 - 100 - 150 - 200 - 250 - 300
- **M365 Teams**
  - Teams component usage

  ![Teams component usage chart](image)

  **Teams user activity since implementation**

  ![Activity by Type in Teams chart](image)

- **OneDrive**

  ![OneDrive Storage Trend chart](image)
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 cutover 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 Multifactor 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

- Interprofessional Healthcare Simulation Center (Chris Kiscaden + HSC Systems)
  - SimIQ: C. Kiscaden 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 server

- CTSC-Informatics Research Storage and Backup (Marguerite Valencia-Reed + HSC Systems)
  - 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.
• KTBR (Keep the business running) HSC Systems Team Metrics
  o Cherwell Incident tickets serviced this year:
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.

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<thead>
<tr>
<th>ACCOMPLISHMENT</th>
<th>IMPACT</th>
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<tr>
<td>Joint Network and Information Security (JNIS) Team:</td>
<td>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.</td>
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<td>Working level team of analysts, technicians and managers that addresses security issues and initiatives across the HSC enterprise.</td>
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<td>Cyber Defense:</td>
<td>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.</td>
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<td>Successfully defending against an enterprise-level ransomware attack, which intended to steal and encrypt as much data as possible.</td>
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<td>Multi-Factor Authentication (MFA):</td>
<td>MFA defeats 99% of credential theft obtained through phishing attacks. Implementation significantly reduced our risk of ransomware and other data breaches.</td>
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<td>Implemented standardized MFA for remote access via Microsoft 365, Cerner access through Citrix and the Pulse Virtual Private Network (VPN).</td>
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<td>Endpoint Detection and Response (EDR)/Managed Services:</td>
<td>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.</td>
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<td>Successfully deployed EDR with managed services in less than three months. Also developed effective workflows to maximize response.</td>
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<td>Perimeter Vulnerability Management (VM):</td>
<td>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.</td>
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<td>Implemented effective vulnerability management for public-facing systems, maintaining zero critical vulnerabilities and zero high vulnerabilities throughout the year.</td>
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<td>Root Cause Analysis (RCA):</td>
<td>RCA is an indication of a maturing IT organization that helps reduce future service outages.</td>
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<td>Established an RCA process and workflow in Cherwell to document RCAs.</td>
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TECHNOLOGY SUPPORT

RICK ADCOCK

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 Service Requests

- Departmental Sites: 18
- Information: 26
- Hardware: 41
- Printer Support: 47
- Shares: 151
- Personal NetID: 278
- Maintenance: 452
- Email: 462
- VPN: 558
- Imaging: 759
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
    - Network design / implementation completed
      - NHT & Parking Structure
      - Multidisciplinary clinic
      - SRMC Ortho
      - Gallup clinic
      - Rio Rancho Grande clinic
      - Rowell clinic

- Maintenance window
  - Negotiated a dedicated maintenance window for network maintenance activities
  - First Saturday of the month; 1 – 5 PM

2021 NetSec Accomplishments:

- 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
• **SolarWinds**  
  o Containment & management of infiltration  
  o Platform expansion to include additional network devices

• **NetBrain**  
  o Tool introduction, turn-up, value analysis

• **Cisco Integrated Service Engine (ISE)**  
  o Security segmentation prototype completed

**2021 JNIS Accomplishments:**

• **Enterprise-wide governance body**  
  o Network / information / cyber security

• **Implementation of standardized Azure MFA across multiple services**  
  o 365 environment  
  o Citrix Access Gateway  
  o Pulse VPN

• **Optiv Security Operation Center**  
  o Providing first-level monitoring & problem resolution

• **Endpoint scanning**  
  o Facilitated removal of McAfee as the standard endpoint virus detection platform  
  o Facilitated the placement of Carbon Black as the standard virus detection / EDR platform

• **Coordinated environmental discovery & vulnerability scanning into an enterprise-wide activity**  
  o Sunset Rapid 7  
    • Sunrise Tenable

**2021 Outage Management:**

• **All failures & outages managed to resolution & Root Cause Analysis delivered**  
  o UH rolling network failures  
  o The “rabbit” incident  
  o UH/SRMC fiber cut  
  o Data Center outage  
  o HSSB core switch failure  
  o Internet edge slowdown