

Information Technology University Budget Forum 2023-2024

April 10, 2023



AGENDA

- Previous Request Results
- Themes and Requests for 2023-2024
- Discussion

PREVIOUS REQUEST RESULTS: 2022-2023

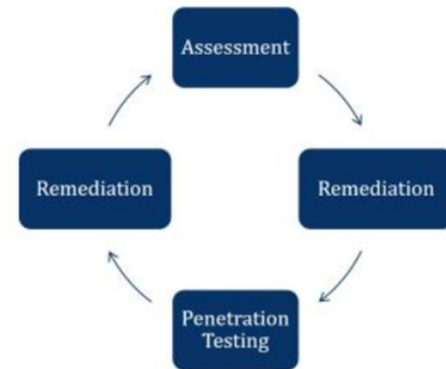
One-Time Funds

Description	Funding Received	Results
Security Infrastructure	\$89,000	Complete
Replace aging servers	\$299,500	Complete
Privacy and Security*	\$73,075	Complete
IGA Identity Management Expansion and Support*	\$45,000	Complete
LMS Data for Analytics	\$57,000	In Process
Collaboration Technology Upgrade	\$44,000	Complete
Technology Commons Refresh	\$34,024	Complete
Cloud backup environment (DR)*	\$45,000	Complete
Digital Signage EOL refresh	\$37,000	In Process

* Includes multi-year services

REDUCTIONS / REALLOCATION IN FY23

- All newly open / vacant positions reviewed, and re-justified or repurposed / reallocated
- **Cyber Insurance policy renewal – cost reduction**
 - Recent security investments at WCU have helped us to be seen as a more favorable risk
 - The market seems to be somewhat stabilizing compared to recent years
 - However, not all universities are seeing a reduction – some increasing, some not able to renew
- **Evaluating NC National Guard Cybersecurity Response Force for Assessment and Penetration Testing – potential cost avoidance**
 - Assessment of information security program, environmental factors, and technical area review to identify potential gaps in coverage and make recommendations
 - IT will utilize the assessment report to prioritize and remediate vulnerabilities and determine acceptable risk levels and document risk mitigation strategy
 - Services provided at NO COST
 - NC Guard will be onsite at WCU 4/24-28



BUDGET REQUEST THEMES

- **WCU Competitive Compensation**
- **Cyber Security and Risk**
- **Unfunded Mandates / Inflation increases**
- **Special One-time Needs**

Identity Management (IdM)

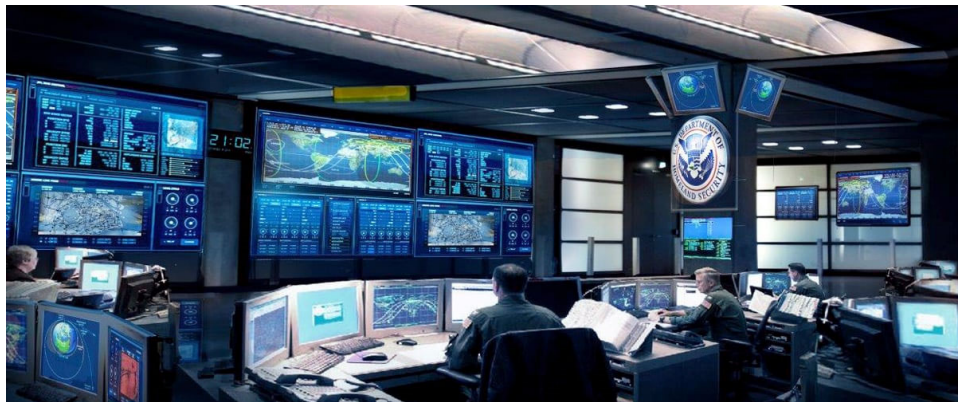
- **IdM is now a critical and highly embedded part of our access creation and management processes**
 - > 99% of the account lifecycle now automated by IdM
 - 100% of modern authentication, SSO, and MFA is administered by the Identity Governance and Administration (IGA) program
- **One-time funding provided consulting augmentation over several years of investment**
- **Ongoing need**
 - **Address operational staffing situation** and 1-deep expertise, especially as cybersecurity efforts continue to expand
 - Continue enhancing security and risk posture through:
 - Adopting registered and device identities
 - Expanding conditional access
 - Automated authorizations
 - Retiring older technologies
 - Continue automation of existing and new business processes and application integrations



Cyber Security Operations Center (SOC)

WHAT IS A “SOC”

A cyber security operations center (SOC) is the command center for a team of information technology (IT) professionals with expertise in information security who monitor and analyze threats to protect an organization from cyberattacks.



An SOC possesses the technology and staffing to proactively scan and monitor system logs, firewall data, network traffic, etc., for known and potential new risks and breaches that threaten information security on a 24x7x365 basis.

Auditors and industry program reviewers have repeatedly recommended having this in place

OUR CURRENT CHALLENGES

Technology

We've implemented a Security Information and Event Management (SIEM) tool to help detect, analyze, and respond to security threats, but our on-premise environment is proving financially challenging and may be unsustainable:

- Vendors' constant changes require repeated upgrade costs (software and hardware)
- We face a continual need for additional storage for log files

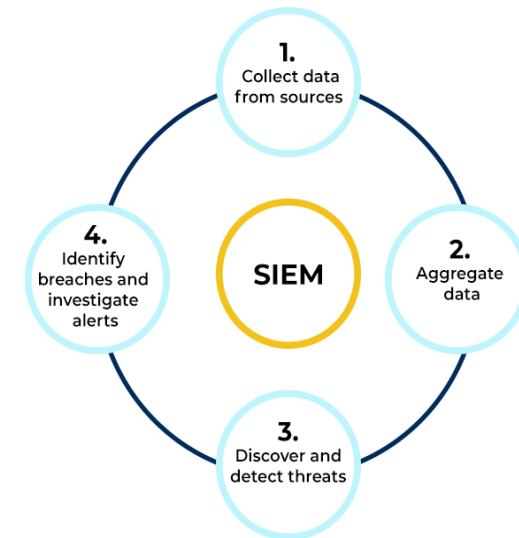
Staffing

- We have an operational security analyst, but funding to staff a 24x7x365 center is a major commitment
- Staff to perform system administration work transitioned from other activities, but not backfilled

Expertise

- One-deep expertise in both cyber security and system administration
- Challenge to stay current on cyber security knowledge and risks across higher ed and other industries

SIEM PROCESS FLOW



OUR RESPONSE – INCREMENTAL STEPS

- **Currently adding / implementing a 24x7 intrusion detection service (IDS)**
 - Purchase of a hardware module to generate Netflow data
 - One-year contract for monitoring and alerting service
- **We are evaluating several options to enable full SOC services (network, servers, etc.)**
 - SOCaaS (SOC as a Service) - technology, services, staffing
 - Technology hosting only
 - Services only
- **A recurring budget allocation will be necessary to enable a SOC**

IT Unfunded Recurring Cost Increases and Initiatives

Incremental Recurring Costs

- Annual cost increases of 3-15% for maintenance and subscription renewals
- Licensing changes and other increases
- Compounded by no additional operational recurring funding since 2018
- Cumulative 4-5year increase examples:

Existing service	% Change	\$ Change
University Operational SW	41%	\$ 404,792
Server Management	81%	\$ 104,400
Cyber Insurance	150%	\$ 36,000
Workflow Automation	28%	\$ 19,254
		\$ 564,446

New Capabilities

- Focus has mostly been on required security-related needs

Security / Strategic Initiatives	Cost
Threat Protection	\$ 151,000
Security and Cyber Logs	\$ 50,000
VPN	\$ 39,000
Wired Port Authentication	\$ 23,000
Anti Phishing	\$ 15,000
Data Analytics	\$ 20,000
	\$ 298,000

Utilizing EOY non-recurring funds and multi-year contract terms is not sustainable long term

Networking Closets on Emergency Generators

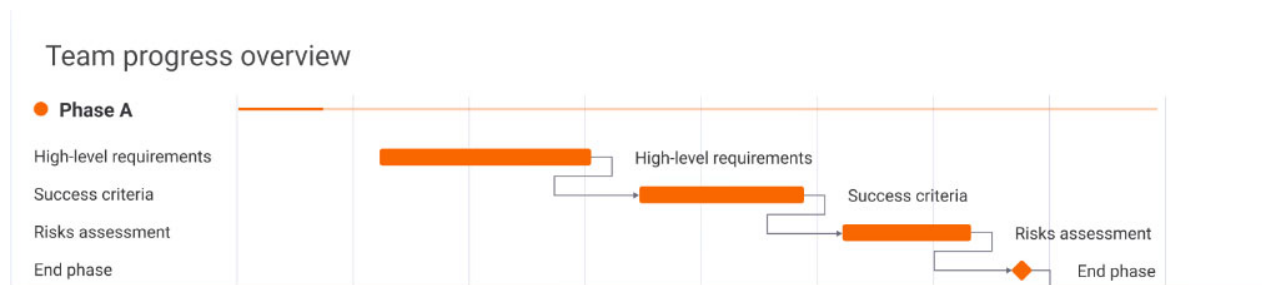


- **Campus standard for new buildings**
- **Allows VoIP telephones and data networks to continue to work in the event of an extended power outage**
- **Retrofitting 16 buildings in 3+ phases**

- **Current Status**
 - **Phase 1 – Complete**
 - ✓ Belk, Bird, HFR, Killian, Killian Annex
 - **Phase 2 – Complete**
 - ✓ Bardo, Camp, Forsyth, UC
 - **Phase 3 – Underway**
 - Cost increases reduced count from 4 buildings to 2
 - Hunter, McKee
 - **Future**
 - Bookstore, Coulter, Ramsey, Reid, Stillwell

Project Portfolio Management

- **Project Portfolio Management (PPM) System**
 - Critical for executing the project intake to completion process
 - Current PPM tool contract expires March 2025
 - System was implemented in 2013 and no longer meets our needs
- **Design and implementation will be a 12-month process**
 - Need to implement and run in parallel with current system
- **One-time funding will be needed for this overlap beginning March 2024**



An aerial photograph of a university campus, likely the University of North Carolina at Chapel Hill, showing various buildings and a large green lawn. The background features a range of mountains under a sky with scattered clouds. The entire image is overlaid with a semi-transparent purple gradient. The word "Questions?" is written in a large, white, sans-serif font in the center-right area. A thin vertical yellow line is positioned to the left of the text.

Questions?