



**Compliance, Audit, Risk Management and Legal Affairs (CARL) Committee**  
**October 10, 2023**  
**10:15 a.m.**

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**Discussion Item**

CARL-5      Information Technology Services (ITS) Update

**Background Information**

Donna Heath, Vice Chancellor for Information Technology Services, and Casey Forrest, Chief Information Security Officer, will provide an update on the University's information technology projects and priorities.

Attachment:

5.1 ITS Update Presentation (see below)

# UNCG Information Technology Services Fall 2023 | Board of Trustees Update

October 10, 2023

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**Donna R. Heath**

Vice Chancellor for Information Technology  
& Chief Information Officer

**Casey J. Forrest**

Chief Information Security Officer



# ITS by the Numbers

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- **127 FTE staff positions**
  - Reduced from 151 FTE in FY 20-21
  - Reduction in Force for 24 filled positions
  
- **\$160.1M 5-year total budget (FY 23-24 -- FY 27-28)**
  - Major technology staffing and services restructuring initiatives completed or currently underway have reduced 5-year IT expenditures by \$7M (FY 23-24 -- FY 27-28)
  
- **25 ITS Business Services**
  - The 10 ITS business services presented here account for 88% of the total ITS OTP budget

# The Big 10 ITS Services (88% of total OTP budget)

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- **Connectivity and Internet Services (22%)**
  - 588,853 unique client devices (laptops, phones, tablets, printers, TVs, gaming consoles, kiosks, door locks, HVAC systems, alarms, washers/dryers, vending machines, cash registers, etc.) used the UNCG wireless network during the first 2 weeks of the 2023 fall semester
- **Server Hosting and Storage Services (15%)**
  - 762 virtual systems; 14,000+ cloud managed resources; 700+ TB of storage (if printed and stacked on standard paper, this amount of data would reach the bottom of the Mariana Trench, 7 times)
- **Collaboration and Voice Services (13%)**
  - 30,000+ active email and calendar accounts routing more than 110 million emails annually and generating 120,000+ meeting invitations per month; 2,000+ calls and meetings daily
- **Classroom and A/V Technology Services (11%)**
  - 265 tech-enhanced classrooms supporting 1,651 credit hours per semester; 13 computer enhanced learning spaces providing student access to 413 computer workstations; 127 tech-enhanced conference and event spaces
- **ERP Application Support and Operations (10%)**
  - 96,883,200 Banner ERP transactions over the last year; 11,757 Banner ERP database tables containing 310,280 data elements; 900+ automated Banner ERP jobs execute more than 3,000 times daily

# The Big 10 ITS Services (cont'd)

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- **Client Engagement Services (6%)**
  - 21,944 student, faculty and staff technology support tickets resolved, and 3,381 computers supported and/or repaired in the last year
  
- **Research and Data Management Services (4%)**
  - 3,300+ institutional reports managed in cloud-based reporting platform; 685 operational data reporting views; 435 ad hoc and recurring data report requests and 22 official and operational data dashboards completed over the last year
  
- **Web and Mobile Services (2%)**
  - 13 million page views and 211 million search impressions across more than 300 public UNCG websites; 1,407,215 screen views and 5,000 unique users in the UNCG Mobile app per month (most popular mobile app modules are Student, Spartan Chariot, SOAR, Messages, and UNCG Dining) in the last 12 months
  
- **Identity and Access Management Services (1%)**
  - 46,000+ managed identities; 350,000+ authentications/logins per hour; 8,000+ daily UNCG authentications from UNCG constituents from remote locations across 30+ countries in the last 12 months
  
- **Security and Compliance Services (4%)**

# Security & Compliance Services

4% of ITS FY23-FY27 Total OTP Budget

## Primary Function

Ensure the confidentiality, integrity, and availability of the University's information assets, develop and maintain University-wide security policies and standards, and identify risks and prioritize mitigation strategies.

## Key Measures

### *In the first two weeks of Fall Semester 2023:*

- 1,472 malware infections (2 weeks prior: 27)
- 137,969 brute password guessing attempts (2 weeks prior: 89,519)
- 118 million+ network intrusion attempts (2 weeks prior: 55 million+)
- 66,544 phishing attempts (2 weeks prior: 43,801)
- 297,000+ spam emails (2 weeks prior: 220,662)
- 9,426 blocked queries from known malware URL of IP address (2 weeks prior: 3,413)

## Intrusion Attempts Report

Russia: 1.2M	Taiwan: 51k
China: 1.7M	France: 36k
North Korea: 0	North Carolina: 0

Report Date Range: 8/14/23 – 8/31/23

# UNCG Information Security Management Program Update

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## UNCG Top Cybersecurity Interests

- Managed Detection And Response
- Maintain a Secure Cloud Infrastructure
- Asset & Vulnerability Management
- Access Control Measures
- Security Awareness Education And Training
- Securing the Remote Workforce

## UNCG Internal & External Support & Response

- UNCG Cyber Risk Task Force
- Cyber Liability Insurance - Response Unit
- UNC-SO Security Council - Membership
- Federal Bureau of Investigation - Local Agent
- NC ISAAC Fusion Center - Cyber Unit Manager
- Joint Cybersecurity Task Force (JCTF)

# UNCG Information Security Management Program Update

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## Example Initiatives - FY2023-2024

- Minimum Information Security Controls
- Information Security Audit and Compliance Reviews
- Overhaul ITS Disaster Recovery Plan
- Expand Security Awareness Training & Outreach
- Mature Governance, Risk, & Compliance (GRC) platform
- Integrated response to Office of the State Auditor – IT General Controls Audit

## Information Security Team Composition

- 1 x Chief Information Security Officer
- 2 x Security Systems Engineers
- 1 x Security Operations Engineer
- 1 x Security Operations Analyst
- 1 x Security Specialist
- 1 x Risk & Compliance Manager
- 1 x Risk & Compliance Analyst



# Completed and Upcoming Major Technology Initiatives

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- **FY 21-22:**
  - Faculty and staff transitioned from Cisco VoIP to Microsoft Teams Voice Services
- **FY 22-23:**
  - Comprehensive campus wired and wireless network re-architecture (3,200+ Access Points, 700+ Switches in 103 buildings)
  - Banner ERP environment and multiple ancillary applications transitioned to cloud
  - Students, faculty, and staff transitioned from Zoom and Google to Microsoft 365 email, calendaring, and videoconferencing
  - A new model implemented to right-size technology in learning spaces based on size and usage
  - 6-TECH call center transitioned from full-time staff to student support model
- **FY 23-24:**
  - Student, faculty, and staff file storage services transitioning from Google and Box to Microsoft 365
  - Upgrading the Banner ERP system from version 8 to 9 (major business process changes campus wide)
  - Transitioning from multiple on campus data platforms to Azure data lake
  - Implementing centralized management of distributed technology personnel and assets
- **On the horizon:**
  - Consolidation and integration of campus wide application platforms
  - Automation of manual critical business processes (business process optimization and AI)
  - Right-sizing technology services to align with available funding

# UNCG Information Technology Services Fall 2023 | BOT Update

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**QUESTIONS?**