

INFORMATION TECHNOLOGY UPDATE



Tom Jackson
Vice Chancellor for Information Technology and Chief Information Officer
BOT Business Affairs Committee Presentation
February 17, 2023

INFORMATION TECHNOLOGY UPDATE

- Banner and Ancillary Software
- Infrastructure
- Education and Research
- Staffing and Reorganization
- Information Security

BANNER AND ANCILLARY SOFTWARE

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ENTERPRISE APPLICATIONS CRITICAL PROJECTS

Completed

- InfoEd (Extended Support) (Research)
- Preferred Name (Registrar/HR/DEI)
- Oracle ExaData Migration
- DegreeWorks Upgrade (Registrar)
- Conflict of Interest Forms (HR)
- Account Provisioning upgrades (Enrollment Management)

Active

- Acalog/Academic Catalog (Registrar)
- DegreeWorks UG graduation clearance (Registrar)
- Terra Dotta (International Travel)
- Blackbaud Award Management (Advancement)
- WebFOCUS Upgrade
- Preferred Name for students

ENTERPRISE APPLICATIONS CRITICAL PROJECTS

Pending

- Data Upload (Financial Aid)
- Curriculumlog (Registrar)
- Student Education Planner (Registrar)
- Identity Management Upgrades
- Budgeting Analysis Solution/Anaplan (Finance)

Pending

- InfoEd Update (Research)
- InfoEd Additional Modules (Research)
- RAMSaS Reporting (Research)
- Banner Reporting Structure
- Banner-ARMS Interface (Athletics)
- Banner Self Service 9 Student (registrar)

INFRASTRUCTURE

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RESIDENTIAL NETWORK UPGRADES

- All equipment installations complete
 - > New wired switches and WIFI 6 access points
 - > Access point in nearly every bedroom plus common areas
- Site surveys in process
 - > Identify gaps and overlaps in coverage
 - > Leads to equipment tuning
- Issues
 - > Student have problems joining the network
 - ITS operating Student Center help desk and rotating residence hall visits
 - > Some buildings have old category 3 cabling

CAMPUS NETWORK UPGRADES

- New wired network switches and wireless APs
- Goals
 - > Support more wireless devices and improve connectivity
 - > Increase speed of wireless network
 - > Leverage fabric networking to improve security
- Status
 - > Installation began February 1st in the College of Engineering

PERIMETER AND CORE NETWORK UPGRADES

- All equipment installations complete
 - > New perimeter firewalls
 - > New core switches and firewalls
- Goals
 - > Increase core network speed
 - > Implement faster switches and additional redundancy
 - > Leverage firewalls as internal intrusion prevention (IDS)
- Status
 - > Migration to new architecture pending campus network upgrades

NEW NETWORK CONTROL AND MONITORING SYSTEMS

- New Active Directory domain
 - > New computers will be placed in the new domain
- Network Access Control (NAC)
- Network discovery and vulnerability scanning
- Network performance monitoring
- NextGen Antivirus/Endpoint Detection and Response (EDR)
- Security Information and Event Management (SIEM)

EDUCATION AND RESEARCH

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APPLE MOBILE PROGRAM – UNLIMITED POSSIBILITIES (AMP-UP)

- Explore the impact of iPads on teaching and learning
- ITS Responsibilities
 - > iPad configuration, security, and coordinating distribution
 - > Faculty develop
- Spring 2022 iPad Distribution – Students: 3,747, Faculty: 254
- Fall 2022 iPad Distribution – Students: 2,841, Fall: 85
- Spring 2023 iPad Distribution – Students: 101, Faculty: 25
- The university will purchase iPads for the 2023-24 academic year

CLASSROOM AND LAB UPGRADE CYCLE

- Upgrade 20% of classrooms and instructional computer labs each year
- Baseline equipment:
 - > Podium computer
 - > Projector and motorized screen
 - > Sound system
 - > Classroom control system
- Began FY17
- Upgrades aligned with accreditation cycle
- Invested \$5.7 million during the first cycle
 - > Invested \$550K to support blended classrooms during the pandemic
 - > Invested \$500K in classroom upgrades for Early and Middle College

CLASSROOM TECHNOLOGY UPDATES FY22

- Carver – 100, 201, 213
- Corbett – 101, 102, G-03
- Crosby – 102, 103, 104, 105, 110, 113, 201, 203, 204, 205, 206, 209, 210, 215, 301
- GCB – 103, 105, 106 , 107, 108, 109, 111, 116, 201, 202, 205, 208, 211, 218, 310
- Gibbs – 109, 110, 123A, 204, 214, 216, 242, 307, 315, 317, 318, 337
- Sockwell – 104, 114
- Webb – 100, 203, 204, 205, 208, 209, 217
- Benbow – 101, 107, 109, 200, 201, 203, 206, 207, 208
- Proctor – 111, 112, 114, 160, 211, 212, 214, 261, 262, 311, 312, 314
- NSB – 115
- Marteena – 215, 233
- 81 Classrooms
- **Delayed due to supply chain issues**

COMPUTER LAB UPGRADES FY23

- College of Arts, Humanities and Social Sciences
 - > New Mac Studio (67) and PCs (44)
 - > Installed prior to accreditation visit in February
- College of Science and Technology
 - > Planned 68 new PCs
 - > Orders pending
- Planning for classroom equipment upgrades is underway

COMPUTER LAB MANAGEMENT

- All labs will use an ITS base image
- All labs will be part of the university Active Directory domain
 - > College of Agriculture and Environmental Sciences
 - Active Directory domain pending
 - > College of Engineering
 - ITS has assumed management of 25+ COE labs
 - Computers moved to the university's Active Directory domain

COMPUTER REPLACEMENT CYCLE

- Equipment includes:
 - > Laptop
 - > Dual monitors
 - > Docking station, mouse, and keyboard
- Four-year replacement cycle
- Managed centrally
- All faculty and staff office computers
 - > 1900 PCs in initial order
- Pilot rollout began January 30
- Rollout began February 7 in HR

STAFFING AND REORGANIZATION

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ITS REORGANIZATION STATUS

- Filled
 - > Associate Vice Chancellor for Data Governance and Business Intelligence
 - > Director, IT Project Management and Business Operations
 - > Director, Network and System Administration
 - > Director, Enterprise Application Services
 - > Interim Associate Vice Chancellor and Deputy Chief Information Officer
 - > Director, Endpoint Enterprise Management
- Vacant (Filled by interims)
 - > Associate Vice Chancellor and Deputy Chief Information Officer
 - > Director, Client Technology Services

ENTERPRISE ENDPOINT MANAGEMENT

- New department
 - > Separated user support and technology management roles
 - > Focused on management and security of desktops, laptops, etc.
- Endpoints
 - > Must be patched
 - > Must have a secure baseline configuration
 - > Our campus has many custom configurations
- Manages complex systems:
 - > Microsoft Endpoint Configuration Manager (MECM)
 - > Microsoft InTune
 - > Microsoft GPO
 - > Endpoint Detection and Response (EDR)
 - > Delinea PrivMan
 - > Spirion DLP
 - > JAMF Pro

NEW AND VACANT POSITIONS

- Several vacant positions
 - > Working with HR to reclassify per UNC System Office guidelines
 - > Working with HR and B&F on budgetary needs
- New positions
 - > Mainly in cybersecurity, networking, system administration, and endpoint management
 - > Working with HR to create and classify
 - > Must align salaries if new and reclassified positions

INFORMATION SECURITY



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OVERLAPPING NETWORK SECURITY LAYERS

- Segment computers into functional groups
- Isolate by limiting communication between groups
- Use endpoint tools to manage device security
- Use tools between segments to detect malicious traffic
- Use regular scanning to identify problematic computers
- Aggregate logs to identify problematic patterns and respond to specific events

RECOVERY STATUS

- Most office computers and instructional labs restored
 - > Working through some challenges in labs
- Many research systems restored
- Working on specialized systems
 - > Many specialized systems on campus
 - > Additional segmentation and other controls

Questions?