

INFORMATION TECHNOLOGY UPDATE



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BOT Business Affairs Committee Presentation
February 18, 2022

INFORMATION TECHNOLOGY UPDATE

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

BANNER AND ANCILLARY SOFTWARE

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ENTERPRISE APPLICATIONS CRITICAL PROJECTS

Completed

- Accessible Information Management (AIMS) (OARS)
- Electronic Transcripts (Registrar)
- Guild (Admissions)
- DataTransfer Upgrade (Admissions)
- Banner Student Housing Attribute (Registrar's Office)

Active

- InfoEd (Research)
- Preferred Name (Registrar/HR)
- Oracle ExaData Migration (5 of 17 databases migrated)
- Budgeting Analysis Solution/Anaplan (Finance)
- DegreeWorks Upgrade (Registrar)
- Banner Self Service 9 Student
- Ethos Identity Services

ENTERPRISE APPLICATIONS CRITICAL PROJECTS

Active

- Account Provisioning upgrades (Enrollment Management)
- Blackbaud Award Management (Advancement)
- Banner-ARMS Interface (Athletics)

Pending

- Terra Dotta (International Travel)
- Data Upload (Financial Aid)
- Blackboard Genius (DEEL)
- Student Education Planner (Registrar)
- Banner Reporting Structure
- Conflict of Interest Forms (HR)
- Graduway (Advancement)
- Identity Management Upgrades

PROCESS AUTOMATION – COMPLETE

- Registrar's Office (3)
 - > Course Withdrawal (x2)
 - > Regular Course Withdrawal (x2)
 - > Request for Alternative Grading (x4)
- Human Resources (1)
 - > Conflict of Interest (4)
- **University Event Center (5)**
 - > **Complaint Form**
 - > **Digital Display Request**
 - > **Event Cancellation/Change Request**
 - > **Student Center Request**
 - > **Account Request**
- Financial Aid (11)
 - > Low Income Statement Parent (x2)
 - > Low Income Statement Student (x2)
 - > Dependent Verification Worksheet (x2)
 - > Independent Verification Worksheet (x2)
 - > Childcare Expense Request
 - > Special Circumstances Appeals
 - > Unusable Enrollment History
 - > Direct Loan Certification
 - > Satisfactory Academic Process Appeal
 - > Homeless Youth-Emancipated Minor
 - > Orphan or Ward of the Court
- **Information Technology**
 - > **Student iPad Agreement Form**

New Processes in Blue

PROCESS AUTOMATION – IN PROGRESS

- Registrar's Office
 - > Enrollment Verification
 - > Grade Change
 - > Graduation Application
 - > Major/Minor Change
 - > Replacement Diploma
 - > Course Add
 - > University Withdrawal
 - > FERPA
- Accessibility Resources
 - > Consent to Release Information
 - > Documentation Request
 - > Verification Request
- **University Event Center**
 - > **Space Reservations**
 - > **Community Event Request**

New Processes in Blue

DATA ANALYTICS

- Original Predictive Analytics Models
 - > Student persistence term-to-term
 - > Four-year graduation rates
- Extending Original Models to Support Student Success
 - > View critical data elements (GPA, Academic History, SAP Score, etc.)
 - > View analysis on impact of grants and scholarship awards
 - > **CAE advisors' pilot will end March 3**
 - > **Updated models available by March 14 for spring advising**
 - > **Will include faculty advisors' pilot group**

Updates in Blue

DATA ANALYTICS (CONT'D.)

- Process Assessment/Improvement
 - > Automation of Student Data Mart error reporting is underway
 - Combining SO created errors with errors identified via internal reports
 - > HR Supervisor List automation underway
 - > Automation of new semester preliminary reports underway
 - > Implementation of new Data Cookbook software underway
- Banner Data Remediation
 - > Began CoED Educator Preparation Program data remediation
 - College of Education has been trained on how to submit data in Banner

Updates in Blue

DATA ANALYTICS (CONT'D.)

- System Office Data Marts
 - > Sharing responsibilities with OSPIE, HR, Finance, and ITS
 - > Student Data Mart closed on time 10 of 11 times to date in FY22
 - > HR Data Mart closed on time 5 out of 7 months to date in FY22
 - > Finance Data Mart now in production
 - > System Office has indicated that a Research Data Mart is on the horizon

Updates in Blue

INFRASTRUCTURE

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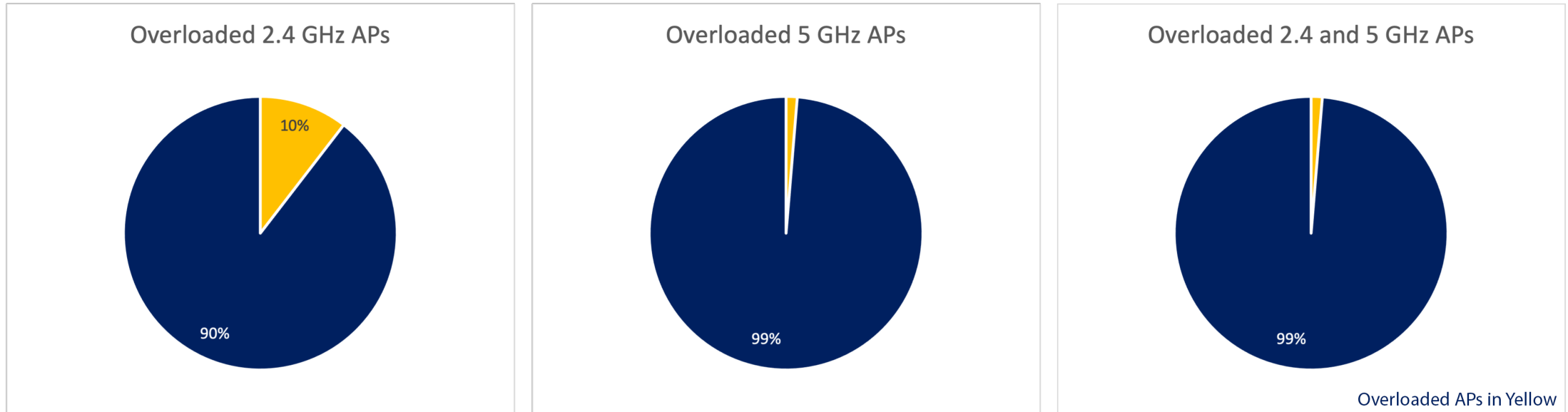
MAJOR INFRASTRUCTURE PROJECTS – COMPLETE

- Harold L. Martin, Sr., Engineering Research and Innovation Complex Online
- IRC Data Center Uninterruptible Power Supply (UPS) Upgrades
- Backup Storage Expansion
 - > Backup retention extended to 90 days

MAJOR INFRASTRUCTURE PROJECTS – IN PROGRESS

- 1020 Wendover Fiber Connection
- Apartments North of Campus Apartments
 - > Most permanent network equipment installed
 - > Permanent connection to campus network underway
- Security Information and Event Management (SIEM) Implementation
- Craig Hall Data Center Fire Suppression Upgrades
- IRC Data Center HVAC Upgrades
- Network Core Upgrade/Fabric Implementation
- Network Access Control (NAC) Implementation

WIRELESS NETWORK OVERLOAD ISSUE



- 1,829 Access Points (APs)
- 122 Overloaded APs, Located Across Campus
- Adding Over 100 APs by Spring Break

ADDITIONAL WIRELESS NETWORK ISSUES

- Older Switches in Residence Halls
 - > Replaced with newer network switches during the winter break
- Excess 2.4 GHz Traffic
 - > Moved additional traffic to 5 GHz during the winter break
- IP Address Depletion
 - > Allocated a Class B space to each wireless network (65K addresses)
- Authentication Issues in February 2022
 - > Added additional Network Access Control (NAC) servers

UPCOMING CAMPUS WIDE NETWORK UPGRADE

- Latest WIFI
 - > WIFI 6 (802.11ax) – designed for a dense campus environment
 - > Increased density – more access points, one per dorm room
- New core switches (implementation underway)
- New distribution and access layer switches
- New network fabric architecture
 - > Increased security capabilities
- \$3.6 million grant application for residential networking

CAMPUS TELEPHONE SYSTEM

- Exploring a cloud migration
- Additional features
- Improved support for remote workers
- Improved business continuity
- Eliminates legacy PRI circuits

EDUCATION AND RESEARCH

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APPLE MOBILE PROGRAM – UNLIMITED POSSIBILITIES (AMP-UP)

- Student Success Program
 - > Leverages iPads for improved learning outcomes
- Pilot Program to Assess Impact
 - > Freshman
 - > Classes (based on faculty research proposal)
 - > Honors
 - > Athletes
- \$7 M investment
- iPad Security Managed by ITS

CLASSROOM TECHNOLOGY UPDATES FY21

- FY21 Delayed until spring due to supply chain issues
 - > 26 classrooms
 - > Merrick Hall – 123, 124, 125, 222, 223, 322, 323, and 327
 - > Craig Hall – 111, 112, 133, 134, 212, 236, 237, 316, 333, 334, and 335
 - > Noble Hall – 210, 308, 311, 313, 314, 315, and 326

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

SCIENCE DMZ

- Governance completed, design and equipment list revised
- Implementation delayed due to supply chain issues

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
- Vacant
 - > Associate Vice Chancellor and Deputy Chief Information Officer
 - > Director, Client Technology Services

INFORMATION SECURITY

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INCREASED FOCUS ON INFORMATION SECURITY

- Federal Government – Financial Aid and Research Data
 - > Potential NIST 800-171 rev 2 compliance
 - > Potential Cybersecurity Maturity Model Certification (CMMC)
- UNC Board of Governor’s CARMC Committee
 - > Utilize campus risk management body
 - > Report top ten information security risks
 - > Implement comprehensive IT Governance Program
 - > Dedicated Cybersecurity Budget
 - > MCNC 27002 Maturity Assessment
- Partners and Vendors

CURRENT SECURITY PROJECTS

- Multifactor Authentication
- Account and Access Management
- Security Information and Event Management (SIEM)
 - > On track to complete audit requirements by June
- PCI Data Security Standard Remediation
 - > Installing new P2PE devices
- Enterprise Endpoint Management
 - > Addressing issues with Active Directory and Wake-on-LAN (WoL)
- SecureShare Rollout
- Vulnerability Management
- IT Federal Student Aid (FSA) Risk Assessment
- Microsoft IPAM Migration
- IT Risk Reporting
- Network Scanning
 - > On track to complete audit requirements by June
- Security Education
- VEAN Immutable Storage

PENDING SECURITY PROJECTS

- Identity Management Replacement
- Infrastructure Configuration Management
- Vendor Management
- Document Management Standards
- Departmental IT Business Continuity Plan

IT AUDIT STATUS



IT AUDITS

- Banner Document Management (Internal Audit)
 - > Completed September 2021
- IT General Controls (State Auditor)
 - > Completed October 2021
 - > Satisfactory Progress Achieved February 2022
- UNC Policy 1400 (Internal Audit)
 - > Completed January 2022
- ISO 27002 Maturity (MCNC, on behalf of the BoG CARMC)
 - > Underway

Questions?