

IT Strategy and Audit Preparation Update



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BOT Business Affairs Committee Presentation
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Technology Strategy Update

- Banner and Ancillary Software
- Infrastructure
- Education and Research
- Staffing and Reorganization
- IT Audit Preparation

Banner and Ancillary Software

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New Web Sites

- New Active and Responsive Design
- Upgraded Content
 - > Removed some stale content
 - > Additional content upgrade post go-live
- Intranet
 - > Personalized landing page
 - > Protected content
 - > Single Sign-On (SSO) and application integration
- New Online Directory
- Launching in December

Banner and Ancillary Applications

- DegreeWorks
 - > Upgrade completed early November
 - > Assessing scribing resource needs
- InfoEd
 - > Implementation in progress
- NextGen Workflow
 - > Launching in November
 - > First workflows focus on students
- EverFI
 - > Pending policy direction
- Banner Data Cleanup
 - > In support of new directory
- Transfer Articulation
 - > Pending software developer
- Banner Upgrades
 - > Early November

Blackboard Upgrades

- Hierarchy
 - > Testing completed
 - > Staging into production
- Ally
 - > Installed, pending rollout plan
- SaaS
 - > On track to cutover in December
- Ultra
 - > Modern user interface
 - > Cutover in Summer 2020
- Banner-Blackboard Interface
 - > Addresses long standing issues
 - > Supports near real time integration
 - > Testing completed
 - > Rollout for Spring 2020

Data Analytics

- Predictive Analytics
 - > Retention and graduation models on track for April 2020 deployment
- Business Intelligence and Analytics Product Research
 - > RFP in draft
- System Office Data Marts
 - > Sharing responsibilities between OSPIE, HR and ITS
 - > HR Data Mart has closed on time for two months
 - > Financial Data Mart kick off – March/April 2020
- Process Assessment
 - > Tuition wavier, early college students, residency codes

Software Acquisition and Implementation

- Expanding Current Review and Prioritization Processes
 - > Improve initial review and resource assessments
 - > Leverage existing applications
 - > Coordinate acquisition with implementation resources
- Partnership Academic Affairs, Business and Finance, and ITS
- Pending

Infrastructure

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Apartment Complex Networking

- Three Apartment Complexes
 - > 468 total beds
- Internet Access Established
- Cabling
 - > Initial cabling completed
 - > Permanent cabling in progress
- Wireless Access Points
 - > Temporary access points installed
 - > Access point relocation following permanent cabling
- Residential Networking Model
 - > Completed
- Permanent Access Points
 - > Pending
- Fiber Connections to Buildings
 - > Pending
- Network Cabinets
 - > Pending

Residential Networking Model

- Cabling
 - > One per common area
 - > One per bedroom
- Wireless Access Points
 - > One enterprise model per common area
 - > One hotel model per bedroom
 - > Hotel models include wired connections
- Provides Superior Wireless Service
 - > Density and bandwidth
 - > Consistent with other leading universities

Infrastructure Projects

- Craig Hall Renovation
 - > On track to finish in December
- Server Upgrades
 - > Completed
- Multifactor Authentication (MFA)
 - > On hold pending apartment networking
- Azure Password Reset
 - > On hold pending apartment networking
- Windows Server 2008 Retirement
 - > Complete in January 2019
- Active Directory Level
 - > In planning
- Ransomware Defense
 - > AD enterprise rollout
 - > SCCM remediation
 - > SCCM/antivirus
 - > Launching in January

Network Access Layer Upgrade

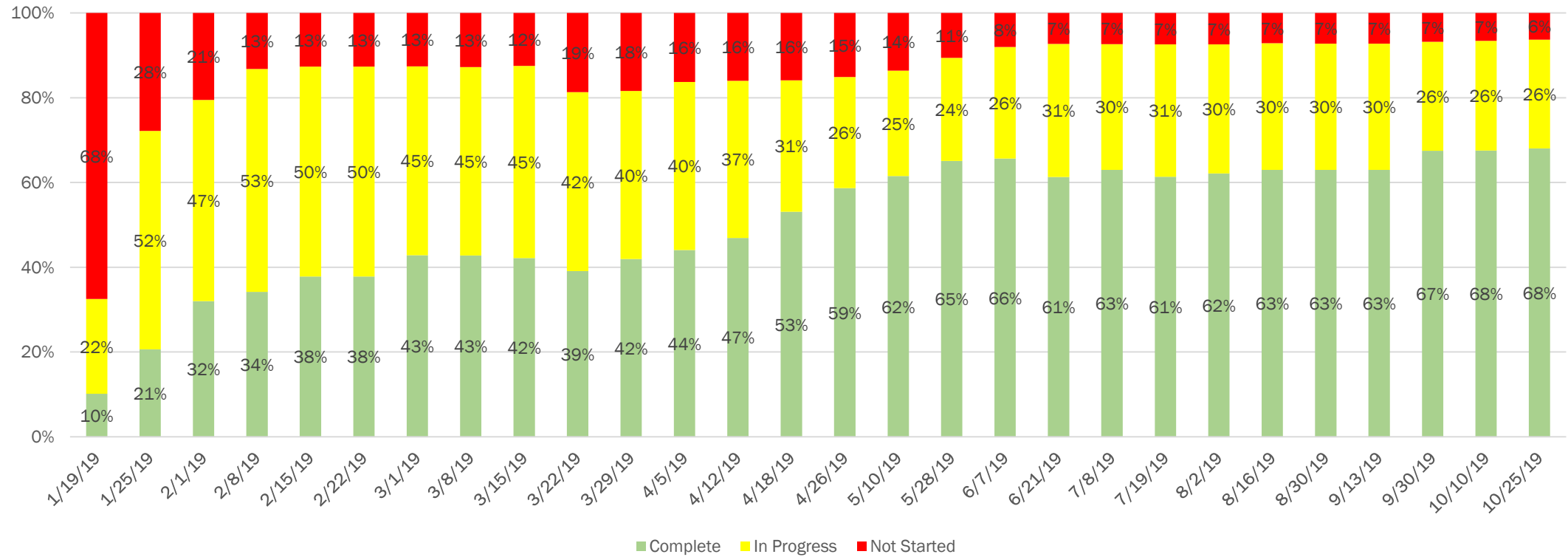
- Phase 1 – Network Management Software
 - > Complete
- Phase 2 – Switch Installation
 - > Complete
- Phase 3 – Network Access Control (NAC) Software
 - > In design
 - > On hold pending apartment networking
- Wireless Upgrades
 - > Cabling ordered
 - > Evaluating equipment from alternative vendors

Telecommunications Room Remediation

- Issues
 - > Safety
 - > Access Control
 - > Temperature
 - > Fire protection
 - > Power management
- Total 210 rooms
- Status
 - > Total – 1,511 issues (up from 1,375 in September)
 - > Resolved – 1,028 issues (68%)
 - > In progress – 388 issues (26%)
 - > Not started – 95 issues (8%)
- Telecommunications Room Standard
 - > Draft complete

Telecommunications Room Status

Telecommunications Room Remediation Item Status



Education and Research

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Winter Projects

- Classroom/Computer Lab Upgrade Cycle
 - > Resolving lingering issues from Summer 2019
 - > Out of cycle upgrades
 - College of Arts, Humanities, and Social Sciences computer lab
 - Joint School of Nanoscience and Nanoengineering computer lab
 - > Pending
 - Reconcile classroom list and update baseline standard
 - Expand faculty development opportunities
 - Consolidate software license management
- Science DMZ
 - > Governance completed, design and equipment list revised

Academic and Client Advisory Committee

- New Governance Committee
- Topics
 - > Google G Suites or Microsoft Office 365
 - > OneID changes
 - > Computer lab software version control
 - > Student technician program

Staffing and Reorganization

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ITS Reorganization Status

- Filled
 - > Associate Vice Chancellor for Information Technology and Deputy CIO
 - > Associate Vice Chancellor for Data Governance and Business Intelligence
 - > Director, IT Project Management and Business Operations
 - > Director, Network and System Administration
- Re-advertising
 - > Director, Enterprise Application Services
- Vacated
 - > Director, Client Technology Services

Organizational Assessment

- Data Collection – Complete
 - > Supervisor and technician interviews
 - > Funding information
 - > Job descriptions
 - > Peer data review
- CIO Panel Review - In progress
- Report and Recommendations – delayed until mid November

Student Technician Pilot

- College of Education
- Started January 2019
- Positive Feedback
 - > Expanding to include applications support
 - > Staff consolidation into ITS
- Expansion to Provide Resources for Endpoint Management Projects
 - > AD enterprise rollout
 - > SCCM remediation
 - > SCCM/antivirus

IT Audit Preparation



Audit Preparation

- Identify Risks
 - > Completed 19 Information Security Assessments
- Prioritized Plan to Address Risks
 - > Annual Security Plans FY 19 and FY 20
- Show Progress Towards Addressing Risks
 - > Information Security Plan FY 19 outcomes

Identify Risks – Information Security Assessments

- Based on ISO 27002 International Standard
- Resource Inventory
- Completed 19 Assessments
- Several Processes In Place
 - > Immature
 - > Need documentation
 - > Need additional staff training on processes

Accomplishments to Date

- Policies
 - > Information Security Policy
 - > Acceptable Use Policy

- Governance
 - > Information Security Advisory Committee
 - > Information Security Incident Response Team
 - > Enterprise Applications Governance Committee
 - > Data Governance Workgroup

- Standards
 - > Access Control – approved
 - > Server Security – approved
 - > Data Center – approved
 - > Incident Response – draft
 - > Endpoint Security – draft
 - > Risk Management – draft
 - > Telecommunications Room – draft
 - > Resource Classification – draft
 - > Change Management – draft
 - > International Travel – draft
 - > Network Device Configuration - draft

Accomplishments to Date (cont.)

- Security Projects
 - > Perimeter firewall upgrade
 - > Virtual Private Network (VPN) upgrade
 - > Core fiber loop
 - > Second NC-REN connection
 - > Network switch upgrade
- Vulnerability Scanning
 - > In progress
- Remediation Projects
 - > CHHS server
 - > Employee domain
 - > Wendover endpoints
- Multifactor Authentication
 - > Banner
- Penetration Test

In Progress

- Remediation Projects
 - > Campus A/V systems
 - > ITS servers
 - > College AD servers
- Network Security
 - > Network Access Control (NAC) software
 - > Network device configuration management software
- Security Education
 - > Launched October 30
- Office 365 Multifactor Authentication
- Governance
 - > Executive Security Review Team
 - > Data Governance Workgroup
 - > Academic and Client Advisory Committee
 - > Research Support Workgroup
 - Will grow into Infrastructure Advisory Committee
 - > Network Access Workgroup
 - Will grow into Infrastructure Advisory Committee
- Organizational Assessment

Information Security Project Roadmap FY20

- Based on Information Security Assessments during FY19
- Focus on areas of greatest risk
- 21 projects
- Estimated to take 18 months to complete

Information Security Project Roadmap FY20 (cont.)

- Active Directory Enterprise Rollout
- Authentication Standard
- Data Handling Standard
- ESRT Procedures
- Incident Response Standard
- Resource Classification Standard
- Information Security Training Program: All Staff
- Information Security Training Program: Standards
- JAMF Implementation
- Malwarebytes Implementation
- Network Device Configuration Standard
- PCI DSS Assessment
- Penetration Testing FY20
- SCCM Cleanup
- SCCM Implementation
- Server Patch Management Strategy & Documentation
- Information Security Assessment Reviews
- Vulnerability Management Program Implementation
- Windows 10 Migration
- Windows 7 Assessment
- Windows Server 2008 Migration

Next Steps

- Continue Development of Processes
- Continue Current Projects
- Implement FY20 Information Security Plan
- Continue Development Multi-year Roadmap

Questions?