# Communication Technologies Advisory Group

Agenda

# July 12, 2018

# **Welcome**

**Staffing Update**

* Changes resulting from Alan’s retirement announced in March now effective
* NOC Manager position (reporting to Kristina) - interviewing 4 candidates
* Network Tools Developer - conducting phone screens

**CATV**

* Working on new contract with Spectrum for new service for this fall

**MDFs**

* Working to determine location of NMDF (Poe or Winston) - working with UA

**Infrastructure Records**

* Fiber inventory in progress - cables only (37% complete)

**Building Infrastructure Projects**

* In construction: CVM Main, Schaub, Lang & Comp Labs, Kamphoefner, Delta Zeta, Sigma Phi Epsilon, Avent Ferry D, Dabney, Brooks  
  In design: CMAST, Butler

**Campus Network**

* Centrex Replacement NMDF, SMDF zones (construction)
* Backbone updates - Investigating requirements and implementation standards
* Firewall Service Module migration continues.
  + Down to 3 contexts to migrate
* VPN decision made - **Decided on Cisco**, have quote, looking at professional services
  + Testing going on now internally - expect to implement next 2-3 months
  + Will allow for 2-factor for VPN
    - Will begin evaluation immediately after go-live
    - Integrate with DUO
* Have purchased Infoblox and will be developing and communicating migration plan soon.

**Data Center**

* DC1 Decommissioning
  + Continuing to gather inventory
  + Order complete for MCNC fiber to provide a 100Gbs connection to DIT’s EDC
  + Evaluating options for resilient connectivity
  + Working towards first equipment installation in EDC (DIT’s Eastern Data Center) this month
  + Target date for completion December 22, 2019
* DC2 - study completed for new electrical/mechanical systems
* Interior Layer 1 (fiber) upgrade for DC2 and COLO - RFI complete
* Planning for move of first equipment to EDC

**Access Layer**

* Big Layer Two (BLT) project designs - 44/47 academic buildings (94%), 7/58 admin buildings (12%)
* PCI - Finalizing network diagrams for review with Kerry

**Cellular/mobile**

* Indoor - Spidercloud - design in progress on 6 buildings. List: [SpiderCloud](https://docs.google.com/spreadsheets/d/16ZpdmpP7JNH1_P2tvzCISjmNXMzE-VyaEY1KrZv3uPc/edit?usp=sharing)

**IT Strategic Planning**

* Will be brainstorming additional initiatives during next [steering team](https://oit.ncsu.edu/governance-strategy/strategic-planning/university-it-strategic-plan-teams/) meeting
* Service Planning
  + Have selected external partner for CMDB - still working to name process owner

**Budget**

* Received funding for FY 18/19 phase of CAT5 upgrade projects
* Added DC2 needs ($7 million) to the campus IPL ([integrated priority list](https://docs.google.com/spreadsheets/d/1iOInj8RG-3s-9ceWRcFi46F9sHIAMOLbAyFvB_rAwco/edit#gid=387967991))

**Unified Communications**

* Partner Updates: UNCG, App State, NC A&T, Pembroke
* Collaboration on collaboration and conferencing at NCSU

**Systems & Development**

* Tools Updates
  + Nucleus replacement - up/down, threshold
  + AKiPS -- thresholds and alerts
* Development
  + VLAN validation tools in the VMWare environment
* Network Tools Developer

## Wireless

* Have paid for professional services to help upgrade controllers to 8.x code -
  + Migrated about 200 APs on Monday night
  + Rest of migration plan to be published this week with goal of completion by end of July
* Classroom wireless
  + [Classroom Coverage](https://docs.google.com/spreadsheets/d/1EM_YfPCHXV7BNHRdlUaj0_x6E75tMZblSppfhlmfJgQ/edit#gid=2136708155) - current list
  + 77 out of 237 110-classrooms remain - most will be done this summer
* Beacon focus group met on 2/27/18
  + Agreed to meet again in the fall
* EDUROAM (secure SSID) - **Aruba 8.x upgrade has put this project on hold**
  + Released SecureW2 to OIT as next text group, most issues are with High Sierra.
  + Working on SecureW2 documentation, collaborating with Walk-in Center and Help Desk - not planning to highlight as preferred method at NSO
  + Goal is to eventually transition as many stakeholders as possible to use this SSID
    - Eduroam use - see monthly metrics link below
* Now tracking wireless metrics as part of overall [monthly metrics](https://oit.ncsu.edu/campus-it/campus-data-network/communication-technologies-metrics/)

**Storage Infrastructure**

* Changing from Netbackup to Data Protection Suite (Dell/EMC product), shifts backup traffic to Ethernet from Fiber Channel - target to complete end of August
* Backup capacity challenges have been encountered that appear to be related to database moves to Exadata - deduplication seems to not be effective between Solaris DB backups and Exadata backups
* [Inventory](https://docs.google.com/spreadsheets/d/1j_qQgCwSBvMwthNNKpPHnAxlzGbFc5LDl6AZFtopqJU/edit?usp=sharing) of OIT storage services underway
* Plan to offer a tier 3 storage offering (NAS and block accessible near-line SAS storage with large, 6-8TB, slow, 7200rpm, disks) this FY

### Governance Revamp

### Infrastructure Technologies Advisory Group? InTAG

### Parking Lot Items

* Routing licenses at the BDF level – when and how much should occupants pay? Interim solution is 50/50 when “desired”, ComTech funds when required
* “virtual data center” – 4/5/18 conversation confirms there’s still some need for “flat” networks (even outside the data center)

## Upcoming Meeting Dates

* Next CTAG Meeting – September 6, 2018 - 9:30, AFTC 106 (planning to skip August unless there’s strong desire to meet)