# Communication Technologies Advisory Group

Agenda

# November 16, 2017

# **Welcome**

## 10G Architecture - Stephen Neal

## CATV

* Meeting with Housing today to discuss future after Summer 2018. Depending on direction of res hall cable, may need further input from this group regarding administrative CATV

**MDFs**

**Infrastructure Records**

* Wireless maps complete minus crumbs (classroom maps to be reworked)
* 262 buildings (42,600 outlets) in PLA ground.
* Planning underway for fiber inventory

**Building Infrastructure Projects**

* In construction: CVM Main, Biltmore/Robertson, Nelson
* In design: Schaub, Kilgore

**UPS -** Will start FY17/18 replacements early 2018. Meeting this week to discuss plan and make orders

**Campus Network**

* Centrex Replacement NMDF (construction), SMDF (design)
* Backbone IOS maintenance - none needed now
* New alternate fiber route Main Campus to CVM in design
* Firewall Service Module migration has started.
  + Completed CVM
  + Student Health early December
* Fiber project for ACC TV studio - design in review
* Load Balancer Replacement - Moved to production, ComTech services migrated, documentation completed and shared
* VPN Evaluation

**NIST**

* Current focus on gathering requirements for projects with CUI (controlled unclassified information) - appears to be 4-5 projects currently in scope, 4 - 6 more may be in scope through Power America
* Short-term solution focused on AWS

**Data Center**

* COLO planning in progress
* DC2 - planning study for new electrical and mechanical systems
* Layer 1 (fiber) upgrade for DC2 and COLO in planning
* Updating DC Guidelines and Procedures
* Interim projects in DC1 and DC2 under consideration
* DC1 UPS Battery Inspections scheduled for November 28th (7am-4pm) RFC # 2417
* DC2 UPS Battery Inspections scheduled for November 29th (7am-4pm) RFC # 2418
* DC1 Generator Load Bank scheduled for 11/27 (7am-12pm) RFC# 2426
* DC2 Generator Load Bank scheduled for 11/28 (7am-12pm) RFC# 2427
* DC1 ATS Maintenance scheduled for 11/29 RFC# 2428
* DC2 ATS Maintenance scheduled for 11/30-12/1 RFC# 2429

**Access Layer**

* Planning in progress for Big Layer Two (BLT) project (several building already started)
* Access layer IOS upgrades - Mass 3650 updates to be propagated soon.
* NAC replacement POC in Wolf Village A building
  + Replacing 2 closets worth of Cisco switches with HP/Aruba switches - targeting winter break
* Installation of ASR 920 routers to start over the Summer in routed buildings:
  + Talley - delayed,
  + Campus Police - Completed
  + OSCAR Lab - delayed,
  + DC0 - delayed

**Cellular/mobile**

* Indoor - Verizon/Spidercloud - kickoff meeting to be scheduled soon
* Outdoor - Small Cells - all four carriers - URED and Legal to work on standard agreement

**IT Strategic Planning**

* Focus on service portfolio
* Governance team is beginning to circulate recommendations (ITSAC, CITD)
* Space/Tech initiative has an internal draft

**Budget**

* Primary focus for 17/18 remains upgrades to aging access layer
* 10% increase next year to reach sustainable funding - only took 13 years :)

**Unified Communications**

* Partner Updates: UNCG, App State, A&T?
* New 911 system & data integration / ALI gateway
* Life safety infrastructure installation

**Systems & Development**

* Infrastructure Upgrades
  + 2 new Radius servers on VM
* Tools Updates
  + UPS replacement tracking
* Development
  + iTRACS replacement - MVP & testing in October
  + Mobile UPS provisioning
  + Centralized network device config backup and validation

## Wireless

* Waiting on trial unit and pricing for next gen AP
* Adding additional routers this weekend to increase capacity
* Classroom Coverage
  + Efforts underway for adding to classroom database
  + Short-term will maintain [spreadsheet (column G)](https://docs.google.com/spreadsheets/d/1EM_YfPCHXV7BNHRdlUaj0_x6E75tMZblSppfhlmfJgQ/edit#gid=2136708155)
    - Where’s best place to publicize this list?
  + [First 15 classrooms](https://docs.google.com/spreadsheets/d/17DqHC-w0pF1qRnFHFBcmOam1onzsftle29JahvTPm_o/edit#gid=1200782244) (column C - fall 2017 group) - construction started
* Beacon focus group met on 9/11
  + Low hanging fruit is to look at creating a database for folks to voluntarily share info about existing beacons
* EDUROAM (secure SSID )
  + Evaluating alternatives to CloudPath - testing has begun with SecureW2 in AFTC and Hillsborough buildings
    - Moving forward with purchase of SecureW2
    - Working on documentation
  + Given current issues, OIT will not be stressing eduroam as primary SSID
  + Goal is to eventually transition as many stakeholders as possible to use this SSID
    - Eduroam use - see monthly metrics link below
    - Need to “beef up” documentation - particularly around trouble-shooting
* Now tracking wireless metrics as part of overall [monthly metrics](https://oit.ncsu.edu/campus-it/campus-data-network/communication-technologies-metrics/)

### 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” – what is it and who pays
* Funding for server rooms, higher capacity (10Gbs ports), etc.

## Upcoming Meeting Dates

* Next CTAG Meeting – November 16, 2017 - 9:30, AFTC 106