# Communication Technologies Advisory Group

Notes

# May 3, 2018

# **Present:** Joe, Ed, Vijay, Eric, Shawn, David, Chris A, Keith, Jill, Josh J, Leslie, Mark, Greg J, Greg S, Chris E, Josh G, Kevin

# **Welcome**

**Staffing Update**

* Clayton Maxwell resigned - Systems & Development team
* A new NOC Manager position (reporting to Kristina) will be posted soon
* Alan’s retirement gathering - June 28th 3:45-5:30, Arboretum

## CATV

* Repair work in five residence halls this summer
* Working on new contract with Spectrum

**MDFs**

* Security system upgrades in progress (with SAT)

**Infrastructure Records**

* Classroom maps being reworked
* Fiber inventory in progress - cables only (19% complete)

**Building Infrastructure Projects**

* In construction: CVM Main, Nelson, Schaub, Kilgore, Lang & Comp Labs
* In design: Brooks, Dabney, Kamphoefner, Avent Ferry D
* In planning: 6 new Greek houses

**UPS -** Project complete for the year

**Campus Network**

* Centrex Replacement NMDF, SMDF zones (construction)
* I-440 Widening project
* Backbone updates - Investigating requirements and implementation standards
* New alternate fiber route Main Campus to CVM - installation in progress
* Firewall Service Module migration continues.
  + Peele
  + Avent Ferry - discussions with EAS are underway
  + Hillsborough
  + EB3
* VPN decision made - **Decided on Cisco**, have quote, looking at professional services
  + Will allow for 2-factor for VPN
    - Will begin evaluation immediately after go-live
    - Integrate with DUO

**NIST**

* Demo of the Secure University Research Environment (SURE) will be presented at May (delayed from April) CITD as a result of CTAG suggestion

**Data Center**

* DC1 Decommissioning
  + Continuing to gather inventory
  + Have submitted order for MCNC fiber to provide a 100Gbs connection to DIT’s EDC
  + Evaluating options for resilient connectivity
  + Targeting June 1, 2018 for first equipment installation in EDC (DIT’s Eastern Data Center)
  + Target date for completion December 22, 2019
* DC2 - study in progress for new electrical/mechanical systems
* Interior Layer 1 (fiber) upgrade for DC2 and COLO - RFP at Purchasing
* Updating DC Guidelines and Procedures
* Critical items in progress (UPS capacitor replacements - done, DC2 leak detection system, UPS battery monitoring, DC2 power meter)
* **Poe Server Room Town Hall - MRC136 - May 14, 10-noon**

**Access Layer**

* Big Layer Two (BLT) project - 46 of 58 academic buildings designed (80%)
* Access layer IOS upgrades - 3650 updates for stragglers remain - completed
* Vlan 60 (wired NOMAD) - hoping to decommission mid-May.
* Working on PCI vulnerabilities for NTP and Cisco Smart install and updating network diagrams

**Cellular/mobile**

* Indoor - Spidercloud - design in progress on [next 9 buildings](https://docs.google.com/spreadsheets/d/1daic4iHUd2thrJUQWXu4qh0ho9mE9GhokGRHsOnD30k/edit?usp=sharing)

**IT Strategic Planning**

* Interim Report coming soon (\*think\* we’ll have the final draft this week)
* Initial Evergreen service planning engagement wrapped up this week
* Stan North Martin is leading mechanics phase of IT governance initiative

**Budget**

* Met with Operations Group on 4/10/18 - anyone get any feedback?

**Unified Communications**

* Jabber Multiline
* Remote Worker Tool
* Partner Updates: UNCG, App State, NC A&T, Pembroke
* Life safety infrastructure installation

**Systems & Development**

* Tools Updates
  + Nucleus replacement - up/down, threshold
  + AKiPS -- thresholds and alerts
  + NOMAD changes
* Development
  + Ansible for bulk conf change
  + PCI validation - devices and configs
  + AD Groups for permissions

## Wireless

* Have paid for professional services to help upgrade controllers to 8.x code - May 13 - 15
* New controllers for 8.x code have been installed
* Looking to move to 4 large subnets for wireless users per manufacturer’s recommendation
  + Final building moves this week
* Classroom wireless
  + [Classroom Coverage](https://docs.google.com/spreadsheets/d/1EM_YfPCHXV7BNHRdlUaj0_x6E75tMZblSppfhlmfJgQ/edit#gid=2136708155) - current list
  + 86 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)
  + 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/)

### HCI

### ScaleIO will be platform

### “one-off” VMs (only instance is in DC1) will be first workloads to shift to this hardware

* Plan is to run at least Hyper V in addition to VMWare

**Storage Infrastructure**

* AFS backups are working again
* Changing from Netbackup to Data Protection Suite (Dell/EMC product), shifts backup traffic to Ethernet from Fiber Channel

### 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 - still some need for “flat” networks (even outside the data center)

## Upcoming Meeting Dates

* Next CTAG Meeting – June 7, 2018 - 9:30, AFTC 106