# Communication Technologies Advisory Group

Notes

# July 12, 2018

# **Present:** Ed Rogers, Mark Williams, Josh Jury, Chris Allen, Keith Boswell, Jill Sexton, Pat Gaddy, David Ladrie, Greg Sparks, Debbie Carraway, Zack Dean, Joe McCoy, Shawn Dunning, Eric Sills, Greg James, Kevin Lee, Doug Flowers

# **Welcome**

Will create a google group for this group

**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-hope to have a decision by next meeting

**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-already testing
		- Will begin evaluation immediately after go-live
		- Integrate with DUO
* Have purchased Infoblox (new DDI (**D**NS, **D**HCP, **I**P Address Management) solution) 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
	+ Send ideas for new strategic initiatives to Greg.
* 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
* Investigating PSTN cost savings options
* 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
	+ Moving into fall 2018, need to begin discussion on 210 funding
* 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