# Infrastructure Technologies Advisory Group

Notes

# November 15, 2018

# **Present:**

# **Welcome**

Now have a Google group… group-intag@ncsu.edu

**Staffing Update**

* NOC Manager position (reporting to Kristina) - Evaluating resumes

**JEMS (Jack Exemption Management System) Decommissioning**

* When new ports patched, look for open ports, then any VLAN 99, and finally utilize a port that’s been inactive for 180+ days
* Need a process to notify folks when a port is unpatched - suggestion is send to all PCR admins for given building
	+ https://sites.google.com/ncsu.edu/unpatch/home

**CATV**

* Working through contract hurdles with Spectrum for new service

**MDFs**

* NMDF (Poe) - Awaiting proposal from designer for elec/mech upgrade.
* Poe. No date yet for push to remove non-ComTech equipment but will be after processes are in place for hosting non-OIT equipment in DC2/EDC

**Infrastructure Records**

* Fiber inventory in progress - OSP cables only (62% complete)
* Working with Univ. Architect Office on telecom utility mapping
* EPIC - replacement for iTRACS

**Building Infrastructure Projects**

* In construction: CVM Main,, Dabney, Brooks, CMAST, Butler
* In design: Lambda Chi Alpha, Weaver Labs, Patterson, Research 3, Polk
* Completed: Lang & Comp Labs, Delta Zeta

**Campus Network**

* Centrex Replacement NMDF, SMDF zones (construction)
* Lake Wheeler Rd.: initial estimate complete, working on design study for MDF
* Backbone updates - Investigating requirements and implementation standards
* VPN decision made - Working with NWN to do configuration and installation of production boxes
	+ Client testing going on now within OIT- expect to implement in the next 2-3 months
	+ Will allow for 2-factor for VPN
		- Thought now is to go live with 2FA on the rollout
		- Integrate with DUO
* Migration last night.
* Construction in progress on AFTC infrastructure lab expansion/upgrade.
* Redundant fiber entrances - SMDF zone - planning started

**Data Center**

* DC1 Decommissioning
	+ Continuing to gather inventory
	+ Evaluating options for resilient connectivity
	+ The target date for completion December 22, 2019
* Interior Layer 1 (fiber) standard - RFI responses under review
* Intake processes being refined
* New ISP contract for non-University tenants - RFP bid open Jan. 10

**Access Layer**

* Big Layer Two (BLT) project designs - 45/47 academic buildings (96%), 24/63 admin buildings (38%) - Target date for completion: summer 2019
* PCI - Reviewing Pen test results

**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**

* Instead of adding new initiatives, focusing on inventorying enterprise scope efforts already underway that support the goals - there are lots
* Service Planning
	+ CMDB workshop held in September, apparent that change management revamp needs to happen in conjunction and as a critical path before rolling out CMDB

**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))
	+ Cooling enhancements, generator replacement, UPS replacements, other power concerns. The goal is to increase density in DC2.
* High level [overview of connectivity rate](https://docs.google.com/presentation/d/1ocL2Wv5DcxG2opX48dXxHjJbZbjYm-GQV40W0JgxRDE/edit#slide=id.p)
	+ How did central funds get reallocated?

**Unified Communications**

* Partner Updates: UNCG, App State, NC A&T, Pembroke
	+ Security updates
* Call Center - Callback queue development
* Investigating PSTN cost savings options
* Collaboration on collaboration and conferencing at NCSU

**Systems & Development**

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

##  Wireless

* Made a change on the 2.4Ghz bad that appears to have helped classroom issues
* Classroom wireless
	+ [Classroom Coverage](https://docs.google.com/spreadsheets/d/1EM_YfPCHXV7BNHRdlUaj0_x6E75tMZblSppfhlmfJgQ/edit#gid=2136708155) - current list
	+ 7 out of 237 110-classrooms remain - all by end of calendar yr.
	+ Future: need to begin discussion on 210 classrooms funding
* Beacon focus group met on 2/27/18
	+ Agreed to meet again in the fall
* EDUROAM (secure SSID) -
	+ Working on SecureW2 documentation, collaborating with Walk-in Center and Help Desk
	+ The 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

### Need to figure out future of ITSAC-I and any relationship to this group

### 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 InTAG Meeting – December 6, 2018 - 9:30, AFTC 106
	+ Currently scheduled for Jan 3 and Feb 7 as next dates