# Infrastructure Technologies Advisory Group

Agenda/Notes

# March 4, 2021

# Present: Andres Carrasquillo, Ralph Castanza, Mike Kastellec, Gary Li, David Ladrie, Kevin Lee, Chris Allen, VJ Tailor, Eric Sills, Josh Jury, Aaron Peeler, Ed Rogers, Keith Boswell, Greg Sparks, Neal McCorkle, Daniel Lucio, Doug Flowers, Dustin Gragg, Mark Williams, Dustin Duckwall,

Reminder: Google group… group-intag@ncsu.edu

**Open Position**

* Taking resumes to fill IPAM position - Closed the position to begin interviews
* Construction Manager position open
* Research Facilitation - positions posted

**ITSM**

* Next Phase of ITSM Planning
	+ Event Management - postponing for now but will gradually ease into early process work
	+ IT Service Catalogs for Colleges and Divisions
* Training
	+ ServiceNow: Getting Smart with Knowledge
	+ ServiceNow: Working in the Platform
* CMDB
	+ SCCM, JamfPro integration is complete
* ITSM Phase 3 highlights
	+ Change Management
		- Expand change management using the ServiceNow platform to campus units with CALS, Engineering, and Extension being the initial teams for adoption.
	+ Knowledge
		- Make additional knowledge resources and features available.
		- Implement Knowledge portal functionality in IT Service Portal.
	+ CMDB
		- Import endpoints from the remaining CMSs (Meraki, Puppet); perform service mapping for 10 OIT service offerings; onboarding OIT storage CIs; expand CMDB to campus units

**Server Infrastructure**

* DC2 Data Domain move to EDC (primary backup storage)
	+ 3/31/2021 - CR [CHG0030594](https://ncsu.service-now.com/nav_to.do?uri=%2Fchange_request.do%3Fsys_id%3Dc4816f2d1b66a0504d506288bd4bcb73%26sysparm_record_target%3Dchange_request%26sysparm_record_row%3D21%26sysparm_record_rows%3D23%26sysparm_record_list%3Dactive%3Dtrue%5EORDERBYstart_date)

**Storage Infrastructure**

* OIT Storage and VM rate refresh FY20-21 published
	+ [Storage Rates](https://oit.ncsu.edu/campus-it/oit-general-storage-services/)
	+ [VM hosting rates](https://oit.ncsu.edu/campus-it/virtual-hosting/pricing-and-billing/)

**Software Infrastructure**

* RedHat Licensing
	+ OEL (7.9 and 8) were made available to install via PXE from Foreman in early February
	+ Library and ECE to evaluate respective applications.
* EPS for Linux desktops and laptops
	+ We have resumed some work to coordinate with CLS and update the documentation.
	+ Target to get initial documentation ready for review and establish the basic reporting functionality for S&C by the end of April.
* Sysnews Monitoring and Notification
	+ At this time we have ~1200 systems running in parallel with the current Sysnews Nagios.
	+ Final shutdown of Nagios / pager.ncsu.edu is set for 3/31/2021
* Weekly Monitoring Work Session/Discussions have begun( 2/1/2021 )
	+ - This forum is being provided for existing customers and onboarding customers to ask questions, break away with CSI members to work on issues, etc. All current Nagios / pager.ncsu.edu groups have been extended an invite. If there is a desire to attend, please send a Servicenow ticket to OIT\_UNIX and we can invite you to future discussions. CSI intends to keep these meetings going through the end of March 2021.
		- Group level training / demo sessions are being scheduled per request. Please let CSI know if you need help and with what areas of the new environment that needs to be covered.
		- A post go-live document is being shared to track future enhancements and requests. This may end up being shared as a public facing Kanban out of github.ncsu.edu.
	+ Please submit a Servicenow ticket to the OIT\_UNIX queue and provide a good contact and current on call group( if you have one ) to begin the process of moving over.

**Campus Network**

* Now focusing on core firewall upgrade -
	+ Next context to migrate to the Palo Alto is Spidercloud on 3/10.
* Backbone/core updates - Starting to evaluate various Cisco platforms/architectures, have ordered equipment for lab
* Life Safety Centrex Replacement
	+ SMDF - cutover in progress
	+ CMDF/WMDF - construction in progress
* Redundant fiber entrances - SMDF zone - construction in progress

**Access Layer**

* TUNAMELT project - 3560x switches - designs completed (48%)
* Planning for next big upgrade (FY23 - FY25)
* New UPS’s - (APC) - first deployments this month

**Data Center**

* DC1 Decommissioning
	+ Working on electrical/mechanical system decommissioning
* DC2 - going with COLO option - awaiting FORMAL approval of funding request
* Parking lot item - “virtual data center” – 9/3/20 conversation confirms there’s still some need for “flat” networks outside the data center (new fabric facilitates this among data centers).
* General service offering for colo - the more we get into this, not sure “general offering” is shaping up to be as standardized as imagined
	+ Intake processes being refined -- email jdperry5@ncsu.edu for intake
	+ Cost model for rack space - [current draft](https://docs.google.com/spreadsheets/d/1MQhV3Q25NK4AuoIJWamuWuV-yl7auDlI6IqyqLAdaUg/edit#gid=826436317) - these costs will hold through June 2021 (in the process of confirming DIT rates but likely no change through June 2022)
	+ Special challenges of tape libraries - need to change tapes on a regular basis, etc

**CATV**

**MDFs**

* NMDF - final design review comments being worked through
* Lake Wheeler MDF - design in progress
* New MDF UPS standard - RFP on street

**Infrastructure Records**

* Outside plant inventory project - creating database and drawings for 500+ manholes

**Building Infrastructure Projects**

* Construction – Alpha Delta Pi, Lake Wheeler Islands 1-3
* Substantial completion - Student Health (last CAT5 buildings on campus minus four Greek houses - to be demolished)

**Cellular/mobile**

* Small cell consultant hired - Gunnerson Consulting

**IT Strategic Planning**

* Awaiting more information around the University Strategic Plan
* Currently drafting a stream-lined cyber infrastructure plan and will circulate draft in coming months (targeting late summer completion)

**Unified Communications**

* Life Safety rollout underway
	+ Working on SMDF transition
	+ Preparing for CMDF transition
* Call Recording EOL / new version is cloud
* Partner Updates: UNCG, App State, NC A&T, Pembroke
* NC DIT -- Tools, Training, Support -- providing 24/7 monitoring as of 3/1/2021
* Evaluating hybrid service for cloud integration
* Planning for SRTP rollout (call encryption)
* Investigation of options for spam blocking and text messaging

**Systems & Development**

* Tools Updates
	+ Developing life safety logging and reporting system
	+ Developing automated provisioning process for UPS deployment
	+ Developing automated process for switch replacement
* Collaborating on architecture for container service
* Pulling outside plant copper into EPIC
* DC2 server cleanup / decom
	+ 4 servers need code refactor
	+ 15 servers to be surplussed

## Wireless

* Wi-Fi 6 Project - design: Jordan, EB2, Park Shops, Patterson, MRC
* Wi-Fi 6 Project - construction: Jordan Addition, Textiles, Leazar, David Clark Labs, Ricks Annex
* Other Projects -: 210 Classrooms (completed)
* Outdoor Wireless: on hold pending advice from small cell consultant
* Now tracking wireless metrics as part of overall [monthly metrics](https://oit.ncsu.edu/campus-it/campus-data-network/communication-technologies-metrics/)
* Look at practicality of loaning out to departmental staff - No movement on testing more handheld devices

**Budget**

* Next years rates staying the same - impacts refresh frequency rates and we’ll continue to lobby for one-time funding to keep the wireless upgrade/expansion moving forward

### Parking Lot Items

* Routing licenses at the BDF level – Interim solution is 50/50 when “desired”, ComTech funds when required. Building level routing is part of design discussions for new core/distribution layer architecture - appears to be the direction as of early 2021.

##

## Cadence of InTAG - shorter? Less frequent (every other month)?

##  Upcoming Meeting Dates

* Next InTAG Meeting – April 1, 2021 9:30am