# Infrastructure Technologies Advisory Group

Agenda/Notes

# February 4, 2021

# Present: Beatrice Richardson ,Kevin Lee, Greg Sparks, Ralph Castanza, Greg James, Dan Deter, Keith Boswell, Jonas McCoy, Aaron Peeler, Chris Allen, Daniel Lucio, Franklin Finch, Gary Li, Ed Rogers, Kirk Main, Mark Williams, Neal McCorkle,VJ Tailor, David Ladrie, Doug Flowers, Eric Sills, Josh Jury, Chris Eichman

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# **Welcome**

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

**Open Position**

* Taking resumes to fill IPAM position - 42 applicants so far

**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

**Server Infrastructure**

* DC2 Data Domain move to EDC (primary backup storage)
	+ Pushing the target out to April 2021

**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**

* VCL - Azure Windows Virtual Desktop (WVD)
	+ Deployed updated spring semester environments for NCSU and Colleges
	+ vcl\_help@ncsu.edu
* RedHat Licensing
	+ A decision has been made to renew our existing licenses with Red Hat for the upcoming year in May 2021.
	+ We will re-evaluate options a year from now to determine where to obtain licenses and support for the subsequent year.
	+ We are making OEL (trial) installation available through CLS. Library and ECE will try to evaluate respective applications.
* Sysnews Monitoring and Notification
	+ At this time we have ~932 systems running in parallel with the current Sysnews Nagios. ~83 more systems are in Zabbix and in the process of being made ‘production’.
		- Retirement date for current Sysnews Nagios / pager.ncsu.edu is 3/1/2021.
	+ The IRIS / ONCALL ( replacement for pager.ncsu.edu and on call calendar ) is now running in production with the latest code.
		- ONCALL Calendar on call groups are now available with multiple groups already trained and populated
		- ‘Ad hoc’ paging, a function currently available in pager.ncsu.edu, is now online within the new IRIS / ONCALL system. Documentation is being finalized and is expected to be shared by the end of week for testing..
	+ New Documentation:
		- ServiceNow KB article(s):

<https://ncsu.service-now.com/nav_to.do?uri=%2Fkb_view.do%3Fsys_kb_id%3D94a40a621bbf14944d506288bd4bcb74>

* + - Onboarding docs:

<https://pages.github.ncsu.edu/oit-csi/documentation/monitoring-information-zabbix.html>

* + - Onboarding FAQ:

<https://pages.github.ncsu.edu/oit-csi/documentation/monitoring-faq.html>

* A Servicenow ANNOUNCEMENT is out detailing the go-live of ONCALL
* The new Systools in Servicenow has been updated with links for Zabbix( Monitoring ), IRIS( Notification layer ), and ONCALL ( on call calendar and group on call management ).
* 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.
	+ 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.
* EPS for Linux desktops and laptops
	+ We have not been able to allocate needed resources to this project.

**Campus Network**

* Now focusing on core firewall upgrade -
	+ Migrated PCI, Research and NCSU-1 to new Palo Alto
	+ Developing a migration plan for the rest of the contexts (migrated HIPAA Wednesday)
* Backbone/core updates - Starting to evaluate various Cisco platforms/architectures, have ordered equipment for lab
* Life Safety Centrex Replacement
	+ NMDF - cutover complete
	+ SMDF - cutover in progress
	+ CMDF - construction in progress
	+ WMDF - construction started
* Redundant fiber entrances - SMDF zone - construction started
* Milton Small bldg - cable termination in progress
* New Greek Village fiber X-connect (PZA Hut) - operational

**Access Layer**

* TUNAMELT project - 3560x switches - designs completed (48%)
* Planning for next big upgrade (FY23 - FY25)

**Data Center**

* DC1 Decommissioning
	+ Dec 1st was official EOL (turn off DC1 networks)
	+ Working on electrical/mechanical system decommissioning plan
* DC2 - almost certain we’ll go with COLO option - awaiting 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. Thanks for everyone getting their stuff out.
* Lake Wheeler MDF - design started, problems with original site (septic field)
* New MDF UPS standard - RFP to hit street this week

**Infrastructure Records**

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

**Building Infrastructure Projects**

* Construction – Student Health, Alpha Delta Pi, Lake Wheeler Islands 1-3

**Cellular/mobile**

* Small cell consultant hired - Gunnerson Consulting
* Indoor - Spidercloud - on hold pending small cell strategy

**IT Strategic Planning**

* Awaiting more information around the University Strategic Plan

**Unified Communications**

* Planning for SRTP rollout (call encryption)
* Investigation of options for spam blocking and text messaging
* **Renewing Cisco EA -- Finalized**
* **Working with NC A&T on joining our Cisco EA**
* **Cisco reversal on phone deprecation in CUCM 14**
* Partner Updates: UNCG, App State, NC A&T, Pembroke
* NC DIT -- Tools, Training, Support -- setting up monitoring, self service
* Life Safety rollout underway -- Working on SMDF transition
* Evaluating hybrid service for cloud integration

**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

## Wireless

* Wi-Fi 6 Project - design: Jordan, Ricks Annex, EB2, Park Shops, Patterson
* Wi-Fi 6 Project - construction: Jordan Addition, Textiles, Leazar, David Clark Labs
* Other Projects - construction: 210 Classrooms (BTEC), Bureau of Mines
* 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.

##  Upcoming Meeting Dates

* Next InTAG Meeting – March 4, 2021 9:30am