

**NI&S, ITEE and CCS Advisory Subcommittee**  
**October 30, 2017**

William Dougherty welcomed committee members who introduced themselves.

**Discussion About Data Compliance Needs and Sharing Models:** As director of CCS, Marc is the service owner for two large pieces of Software as a Service (SaaS) that the university has obtained. These include Google G-Suite and its core components, and Microsoft Office 365, also with a myriad of services. There has been extensive discussion around data compliance needs and sharing models because of the requirements from a large number of data stewards regarding the privacy required in many arenas, state and federal government, personal information, medical, and internal policies, to name a few. Many requirements must be met for incoming and outgoing data and the proper software and safeguards must be used. Marc explained the complexity of the security issues involved and the need to balance privacy with flexibility an efficiency in using collaborative tools at the university. Data must be shared but sharing must occur while meeting privacy and security standards. As with other issues, the evolving use of the cloud must be considered. Solutions are needed at the enterprise level, and the enterprise must look at what is available, what various groups are using, the requirements, and work to dovetail or improve or replace those solutions.

Included in the issue are also legal agreements the university has in place (such as FERPA) with Google G-Suite and Office 365 within those infrastructures, but Marc pointed out one can accidentally step out of bounds with various add-ons and non-core components. Users need to be educated on what the core comprises. An extensive technical discussion followed. Marc noted that he had tried to create a matrix based on one he had found in his research, showing the large number of software and services offered by the university at the enterprise level. It had low, medium and high risk, and classified what was meant by each. The goal is to provide documentation which gives the user choices, recommendations, and (Virginia Tech) support vs. risk outside the enterprise. It is imperative that users are engaged and made aware of compliance and restrictions, and the tool sets available to keep them in compliance. Marc noted a challenge in refining a policy where users enroll or auto-enroll and sign an agreement—how to get people to read it. He also provided some examples of data security for certain medical files and information.

In considering products and managing data compliance at the enterprise level, any feedback committee members or those in their department can share with Marc and CCS would be extremely helpful. Understanding departmental needs and the data compliance needs will help avoid duplicating effort as solutions are developed. Marc also welcomes being contacted by anyone who may be interested in testing some encryption tools CCS is currently looking at. It would be extremely helpful to CCS.

**Overview of ITEE Improvements to the User Experience:** Claire reported at the spring meeting on the temporary relocation of two user groups and announced that the co-location is now complete and permanent. The call center and service desk, both under the umbrella of 4Help are now co-located in a renovated room in 1770 Forecast Drive. This arrangement is enabling ITEE to improve the user experience. It also is fostering better collaboration between the groups and assisting in cross training. She explained a warm transfer can now be performed for the convenience of the users.

Hours of operation at the Torgersen bridge have been expanded. ITEE is moving forward to centralize service information at 4help.vt.edu. There the user can look at the service catalog, the knowledge base, ask for assistance, see the bridge schedule, and many other things which provide support to the user. ITEE has also expanded a number of partnerships with distributed IT units so that users with their own departmental IT units will have their incident reports received directly by their departments. In addition, ITEE is trying to make it easier for others to provide feedback to them, so as part of the continuous improvement process feedback (questions, suggestions) can be sent to the email address [sc-feedback-g@vt.edu](mailto:sc-feedback-g@vt.edu).

Migrating users to Duo 2-factor authentication by the end of January will have an impact on alumni (Google), and some adjustments are being made to accommodate alumni through the Information Center rather than going through a department such as the registrar. Claire will be meeting with Mary Dunker's team (SIS) regarding implementation. The last four digits of the social security number has been added as a vetting mechanism, so it will not be visible to the service center, but will be used for identification.

**Outdoor Wireless:** Outdoor wireless is the next area of growth in the WiFi arena for Virginia Tech. Steve Lee presented the background and context, current outdoor implementation, future strategy, and wireless 'traffic' information on outdoor wireless service at Virginia Tech. In addition to access areas on the main campus, there is now full WiFi access in the collaboration space at the entrance of AISB as well as at the tables behind 1770 Forecast Drive.

Thus far the emphasis on wireless has been indoors, with around 7500 access points. There are currently 24 access points outside. Because of the type of building construction on campus, there is little outdoor penetration without outdoor access points. On any given day, there can be around 70,000 devices on the wireless network which is a significant amount of data...an estimated 40 terabytes. WiFi growth and demand has consistently grown since the inception of the service. The intent of outdoor expansion is to create a corridor, placing access points where users will want to use WiFi. The Budget Office gives 100% as the % of saturation in buildings, but they estimate outdoor coverage at only 20-40%. The first goal is to provide coverage and then address capacity. A frequent request is for temporary coverage on the Drillfield. Rapid deployment kits have been purchased for this need. The question about coverage for the Stadium was raised, and it is likely this will be addressed in the future along with the DAS coverage there.

NI&S is moving forward to develop an Outdoor WiFi strategy for the entire campus to support the strategic direction of the Beyond Boundaries Initiative and the Campus Master Plan. The goal is to adopt a consistent set of designs so when wireless is deployed, there is consistency for each structure or capital project. In addition, capacity will be considered when WiFi is deployed in collaboration with other departments. With departments and the university, NI&S will consider opportunities. In doing so, concentration will be given to Coverage, Capacity, and Concealment. Steve discussed this in some detail, including the coverage strategy, with the goal of coverage to meet need. The expansion will concentrate on the infinite loop envisioned in the campus Master Plan.

Steve noted that Virginia Tech is participating in a beta analytic service from a wireless vendor; they are gathering data and providing insights to us on how to improve the network; telling us where there are problem areas; and comparing our implementation data with our peers. The feedback they provide can be helpful in many ways, primarily viewing for us what our customers see and what their experiences are to identify areas in need of attention. The vendor is creating a campus population density map of WiFi devices with movement across campus. A one minute video was shown as an interactive coverage map. This tool could be useful in identifying patterns of traffic as NI&S considers placement of outdoor access.

**Health Sciences Technology Division and Roanoke Campus—School of Medicine Transition to VT College:** The Health Sciences Technology Division of Virginia Tech will be an umbrella organization to include (but not be limited to) the Virginia Tech School of Medicine, Carilion Research Institute and other departments co-located on the Roanoke campus. The transition of the Carilion School of Medicine to a Virginia Tech college is still scheduled for July 1, 2018. William noted some things need to be resolved in order to fully absorb the group and that absorption may continue through the end of the calendar year. Infrastructure will need to be in place by the July 1 deadline. There also are some challenges to work with such as (medical) data compliance and security/privacy issues discussed at the beginning of the meeting. Once the school is a part of Virginia Tech, these will become Virginia Tech issues.

**Data Center Conversion to Hokie Passport from Sonitrol.** Mike Moyer reported on the conversion. AISB, 1770 Forecast Drive (RB14), and the switch rooms on campus have been accessed in the past with Sonitrol cards and are transitioning to Hokie Passport access. An HP reader/swiper has now been installed and activated at the Data Center entrance. Anyone who has an old Hokie Passport and needs an updated one with a chip should get a new one from the HP Office. Replacement of access equipment will soon occur in all of AISB, RB14, and the switch rooms. Only the Data Center entrance will require 2-factor authentication (not DUO) with a PIN, so anyone who needs to get in and does not have a PIN should contact Mike or Lylah Shelor. Anyone with current bio-reader access should use the same PIN.

**Quick Status of DAS Agreement and Subsequent Carriers:** Richard provided a brief overview of carrier history with DAS. The previously un- and underfunded DAS project is now being funded by T-Mobile and AT&T as well as the previous vendor, Verizon. DAS agreements are being negotiated and close to being completed. The new partnerships will not be in time to provide more coverage for the current football season. However, Verizon had already planned additional sectors after the current season. It is possible some re-design work may be included going forward to increase capacity at the Stadium. Richard commended Pat Rodgers, Matt Serr, the Virginia Tech Foundation and Real Estate Management for their work in assisting moving this project along. Dr. Jeff Reed will be able to provide Richard with a point of contact for the data traffic collection done during the Clemson game. The data may be beneficial in particular because the company has done previous measurements.

William thanked the committee for their interest and asked that they send any concerns or feedback at any time to [william@vt.edu](mailto:william@vt.edu).