

SUMMARY FOR ARCHITECTURE & NEW TECHNOLOGY COMMITTEE

DATE: January 22, 2018

TIME: 10 a.m. – 12 p.m.

LOCATION: Dumke Room, Eccles Broadcast Center

IN ATTENDANCE:

Mark Beekhuizen	David Blackburn	Steve Dean	Tim Ebner
Jeff Folsom	Matt Irsik	Sylvia Jessen	Josna Kotturappa
Jim Livingston	Jim Logue	Steven Seal	Chris Stucker
Jon Thomas	Daniel Trentman	Rob White	Thomas Wolfe

COMMITTEE SUPPORT: Scott Sherman, Emily Rushton

UNABLE TO ATTEND:

Rebwar Baesmat	Derick Bingman	Pieter Bowman	Joe Breen
Demian Hanks	Matt Harting	John Levandowski	Chris Roberts
Wes Tolman			

AGENDA ITEMS DISCUSSED:

- Campus-wide IT training task force or subcommittee
- Software Anywhere follow-up
- Anycast DNS
- UConnect using RFC 1918 space
- Facilities' utility meter project
- Active directory standards report
- Open floor

Campus-wide IT training task force or subcommittee

Steve Hess, Chief Information Officer, explained that the Deloitte study conducted in 2015 found the University lacking a comprehensive IT training program across the organization. Hess covered a few ways in which UIT staff are trained and said a needs assessment across campus should be developed so that more training opportunities can be provided for IT employees. He placed a formal request for volunteers to join a campus-wide IT training task force/subcommittee, and several in the room volunteered. Hess will lead that group to come up with recommendations for a campus-wide effort.

Software Anywhere follow-up

Cory Stokes, UOnline director and associate dean for Undergraduate Studies, presented on the increasing need to make software more easily available to students both on- and off-campus. Stokes took this topic to the SITC meeting on January 16 with a proposal to expand the Marriott Library's pilot project involving the use of an application called Software2. SITC ultimately decided additional exploration was warranted and recommended Stokes take the topic back to ANTC.

Stokes then asked the committee for guidance, with consideration given to the fact that the Learning Spaces/student computing fees project proposals are rapidly approaching. A lively discussion followed. Several points were brought up, such as: the need to have a unified product that serves as both a software catalog and shopping cart (Software2 does not provide a way to purchase software); the need to look at all options, not just Software2; and the need to conduct more focus groups across a broader range of students, faculty, and colleges. Additionally, one member pointed out that the Software Anywhere working group appointed by ANTC last year did some quality work, but progress and meetings stopped before any recommendations could be made.

It was suggested to bring the working group back together, appoint a new chair, and require a recommendation from the group within a couple of months. Members in the room suggested names of people to be included in the working group, in an effort to include participation from a wide range of groups on campus. Finally, CIO Steve Hess suggested Deputy CIO Ken Pink as the new chair, and there was agreement around the room on this.

Anycast DNS

Trevor Long, associate director for UIT Network & Core within UIT Network and Communications Infrastructure, presented on the need to improve the U's Domain Name System (DNS) service using a technology called Anycast. Long's group has been testing Anycast, and it has proven to make the U's DNS service much more robust. Long explained that Anycast is now open for anyone on campus to use. He covered some of the new configurations, and proposed disabling old DNS IP addresses by July 31.

A brief discussion followed, with one member asking for clarification on private IP space vs. the public interface and how that's configured at the U. Long explained that the idea is to keep everything internal to the organization by having a single internal view for campus.

Finally, the committee voted to approve turning off old DNS IP addresses (specifically, NS and Fiber) in favor of the Anycast solution by July 31, with some flexibility on the date allowed.

UConnect using RFC 1918 space

Long gave this presentation as well – a proposal to move the general UConnect to RFC 1918 (private IP) space before Fall 2018, due to the ever-increasing problem of running out of public addresses to use on UConnect. Long explained that the demand is rapidly growing every semester. He clarified this would only impact the general UConnect pool on campus, not groups who have a department-specific UConnect, and also clarified there would be no change to clinical UConnect, as it is already on RFC 1918 space.

An in-depth discussion followed, especially in regards to how public IPs are assigned for departments/groups on campus who require them for business or research reasons. A suggestion was made to have one pool of public IP addresses that every department pulls from versus assigning each department their own “chunk” of space. Long agreed to take this idea back to the Network Architecture Community of Practice (CoP) to get a recommendation.

There was enough disagreement in the room regarding the original proposal that the committee recommended Long take this topic back to the Networking Architecture CoP (along with the suggestion above) to have a final discussion and recommendation before coming back to ANTC in February for approval.

Facilities’ utility meter project

Chris Benson of Facilities Management presented on the status of a large-scale utility meter project currently being implemented by his office, which is tasked with sustainability and energy management. He explained that the state of Utah requires building-level metering for all major utilities. Currently, the U has about 100 meters integrated for real-time monitoring. The rest must be manually monitored. There are challenges with this because, in many cases, Benson’s team doesn’t know where existing meters are (or if they exist) and whether they’re functioning correctly. If the device can’t be integrated and connected to a data acquisition device, it must be replaced. He walked through the metering network architecture, data modeling, and a network diagram, and explained that his team now has clear priorities by building. Physical meter locations are now documented, and all capable meters have been integrated to automatically read and monitor in real time. Future steps for the project include repairing and connecting more meters and issuing an RFP for a monitoring-based commissioning project to significantly expand the use of analytics on lower campus. He also asked the committee to make the metering team aware if a change is needed to an IP address or port.

The committee then briefly discussed ways in which to improve sustainability and reduce energy consumption on campus.

Active directory standards report

Dave Huth, director for Product Management (CTO), gave an informational update on this. A few months ago, University hospitals and clinics engaged with Microsoft to review how Active Directory could be reconfigured and/or better utilized to manage access into hospital applications. A working group was formed and is now working on a report of recommendations to apply to the hospital applications. Some of those recommendations have been determined to be campus-wide and not localized to just hospitals and clinics. Once the report of recommendations is complete, it will be brought back to ANTC for consideration.

Open floor

Randy Arvay, Chief Information Security Officer, presented a proposal to change the current firewall method at the U to be a default-deny model, which is industry best practice. A lively discussion followed, with some members concerned that some legitimate traffic to the U would be blocked with this new method. One member recommended the process for dealing with exceptions should be quick, and several in the room agreed. After further discussion, the committee voted to approve taking the default-deny recommendation to the Network Architecture CoP as a working group effort in order to bring something back to ANTC in March.

Action summary			
Action	Topic	Person/Group	Next step
Approved	Anycast DNS	Committee	UIT will turn off old DNS IP addresses in favor of the Anycast solution by July 31 (some flexibility on the date is allowed).
Approved	Open floor – change to current firewall method	Committee	Network Architecture CoP will review the proposal by Randy Arvay and come back to ANTC with its recommendation in March.