

Advanced Engineering Task Force Meeting Minutes May 15, 2015

Introductions/Roll Call

At 10:08 a.m. the Advanced Engineering Task Force meeting was convened by Jim Flanagan, AET Chairman who welcomed everyone. Jim proceeded with roll call.

Members present Heartland Community College:

Jim Flanagan-Chair, Illini Cloud	Scott Armstrong, Kishwaukee Community College
Mike Dickson, Western Illinois University	Robert Dulski, Brookfield Zoo
Brandon Gant, CARLI	Rich Kulig, College of DuPage

Members, Staff & Guests via audio bridge:

Troy Brown, IL Heartland Library System	Alex Cline, President's Technical Counsel
Kevin Findley, Northern Illinois University	Joe Mambretti, Northwestern University
Brian Murphy, Eastern Illinois University	Raj Siddaraju, President's Technical Counsel
Tracy Smith, University of Illinois	Lori Sorenson, Central Management Services

Members absent:

Andrew Bullen, Illinois State Library	Anita Nikolich, National Science Foundation
Jim Peterson, Bloomington S.D./Illini Cloud	Alan Pfeifer, Sauk Valley Community College
Michael Shelton, Southern Illinois University	Brian Tobin, DeKalb CUSD 428
Glen Trommels, City of Rockford	Ed Wagner, Chicago Public Schools
Rob Zschernitz, The Field Museum	

Staff & Guests:

Robin Woodsome, Central Management Services	Frank Walters , Central Management Services
Adam Ford, Central Management Services	Essam El-Beik , Central Management Services
John Leonard, Central Management Services	Michelle Medley , Central Management Services
Valerie Bolinger, Central Management Services	

Meeting Minutes - Jim Flanagan, AET Chairman

Jim Flanagan reported that we have a few new items to add to the agenda, under Other Items add Rate Discussion.

Jim called for approval of the March 20, 2015 meeting minutes. A motion was made by Rich Kulig to approve the minutes. The motion was seconded by Brandon Gant. The minutes were approved.

Old Business

On-Net vs Off-Net Testing – Adam Ford, Central Management Services

Adam reported that testing has been successful. Approximately 16% of Wabaunsee traffic was On-Net and 84% Off-Net. The College of DuPage consumption included 30% On-Net and approximately 70% Off-Net. Additional discussion held regarding traffic flow and the type of traffic that would be considered On-Net.

Software Defined Network (SDN), Frank Walters, Central Management Services

Frank Walters reported that the recently formed SDN committee met. Committee members include; Anita Nikolich, Tracy Smith, Joel Mambretti, Brandon Gant, Jim Flanagan and Frank Walters. The steps necessary for future SDN implementation were discussed by the committee.

Frank commented that staff at the University of Illinois at Urbana-Champaign (UIUC) use SDN methodology and would be a good source of information. Tracy Smith will contact UIUC to arrange a meeting with staff to discuss architecture and implementation. The committee will reach out to various vendors about setting up a test environment. Long term implementation could possibly include configuration of switches at a select number of POP sites, testing with Starlight and/or incorporating into a Cloud environment.

Joe Mambretti remarked that SDN technology is used to resolve multiple problems in various organizations. Starlight implemented SDN approximately six years ago and SDN has now become the practical solution to resolve infrastructure complications. Frank reported that Google implemented SDN architecture and AT&T as well as Verizon are transitioning to SDN. Various organizations have taken steps to adopt SDN in their data centers and are realizing significant savings for wide area network optimization. Joe commented that Google saves millions of dollars each year in their data centers along with Facebook, Amazon and Microsoft.

New Business

Customer Service Orders – Valerie Bolinger, Central Management Services

Valerie Bolinger reported for Robin Woodsome. ICN staff are processing and sending a detailed communication along with broadband service orders to all ICN customers. Customers are expected to sign, date and return the service order. All service orders will be completed and mailed prior to July 1st. Lori Sorenson commented that this has been a big effort to process with the free bandwidth going away and a significant number of customers that have never received a monthly invoice in the past. Based on the recent E-rate window closure, numbers are much higher than anticipated. By applying for E-rate and the discounted rates, many of our customers have found that they can keep the same amount of bandwidth and/or increase their bandwidth with less of a financial impact than expected.

10GE Pricing – Essam El-Beik, Central Management Services

Essam El-Beik reported that we are looking at adjusting the 10GE point to point pricing to be more in line with current market trends and rates. Page 8 of the meeting packet provides an outline of the proposed pricing. Jim Flanagan asked for a motion to approve the new 10GE pricing. A motion was made by Bob Dulski and seconded by Rich Kulig. The motion passed.

E-rate Update - Essam El-Beik, Central Management Services

Essam El-Beik reported the Federal Communications Commission (FCC) directed Universal Service Administrative Company (USAC) to fully fund all Category 1 and Category 2 requests for the 2015 funding year. After reviewing the latest figures for Illinois, it appears there is a total of \$132M recurring funding requests and 190M for one time Category 2 requests.

A public workshop on E-rate funded fiber build projects is scheduled for May 20, 2015. The workshop will include information about the December 2014 second E-rate modernization order which provides schools and libraries with additional flexibility and options for purchasing affordable high-speed broadband connectivity and fiber builds. The workshop will serve as a

mechanism for feedback from participants and the public. Essam plans to attend the workshop and will provide an update at the next meeting.

Essam commented that work for the Statewide Master Contract/Request for Proposal for Category 2 Internal Connections continues. Category 2 allows schools and libraries to receive equipment such as routers, switches, access points and equipment they may need in a school or library to support broadband. The contract will make it easier for schools and libraries to order their equipment via the E-rate process. Customers will have the ability to select a vendor from the Master Contract and submit their E-rate 471 form to receive Category 2 Internal Connections equipment. Target date for completion is July 1st.

Network Update – Frank Walters, Central Management Services

Frank Walters asked AET members to review the Network update provided on page 10 of the meeting packet. Frank reported that most of the items on the report progressing and moving forward.

Egress – Frank stated that we are proceeding with procurement for internal DDoS protection which covers all providers. We are working with providers to establish path to 40G and 100G burstable transport. Discussion held referencing 10G, 40G, 100G link options and path variants.

Backbone – Frank commented that outside of the planned maintenance window, the network backbone has been 100% operational.

Macomb to Moline via Galesburg – Frank reported that bids have been issued, received and we are currently reviewing. No additional news to report regarding builds.

DLM Testing – Jim Flanagan, AET Chairman

Jim Flanagan reported that most of the Illinois School Districts opted for the pen and paper route which is an alternative to the online testing. Most of school districts are very reluctant to use the online testing system since it is bandwidth extensive because of the visual and audio element. Jim stated that only small school districts (10 to 20 students) used the online test.

Illini Cloud – Jim Flanagan, AET Chairman

Jim Flanagan reported that they are working on new pricing that takes into account smaller school districts. They are piloting Identity Management in Bloomington and will expand testing to several other districts.

AET Membership Reappointments – Jim Flanagan, AET Chairman

Jim Flanagan reported on this item. Page 12 of the meeting packet contains a listing of AET members whose term will expire June 30, 2015. Jim recommended that we reappointment the following members for another three year term: Jim Flanagan, IL Chief Technology Officer, Scott Armstrong with Kishwaukee College, Rich Kulig with College of DuPage, Joe Mambretti with Northwestern University, Herb Kuryliw with Northern Illinois University, Brandon Gant with CARLI, Michael Shelton with Southern Illinois University Carbondale, Rob Zschernitz with Field Museum of Natural History and Glen Trommels with the City of Rockford. A motion was made by Mike Dickson. The motion was seconded by Bob Dulski. The motion carried.

Jim stated that we have one member on the board who has not attended meetings for a couple of years. We will reach out to this person and request that another designee be appointed from their organization.

Other Items – ICN Rates

Lori Sorenson requested feedback from the AET members regarding comments received from customers regarding elimination of the free bandwidth. Several customers stated that they will be purchasing bandwidth with another service provider and will most likely drop business with the ICN; however, the customers do not want to give up their IP addresses/DNS hosting.

Currently, IP addressing and DNS hosting is a value-add service. Additional inquiries received regarding minimal bandwidth purchase (1Mb= \$14/month). By purchasing a minimal amount, it places the ICN in a position to provide supplemental services such as IP addresses, DNS hosting and managing BGP. Purchase options were discussed at the last Policy Committee meeting and the committee decided not to require a minimal purchase at this time. The Policy Committee recommended that minimal purchase options be handled in a phased approach.

Lori stated that the ICN collaborated with the Illinois Office of Management & Budget (GOMB) last spring. The minimal purchase option was tabled since we have small library and school customers who connect via T1. It would be difficult for these customers to purchase a 10Mb minimum due to budget restraints. We would like to allow a one year time frame to allow customers time to migrate to Metro Ethernet prior to increasing to a 10Mb minimum purchase.

Jim Flanagan stated that we should consider implementing a T1 line support option for 1.5Mb of bandwidth purchase for our T1 customers, and require a 10Mb minimum purchase for Metro Ethernet connected customers. Lori stated that was a good idea. Frank Walters commented that we should add an automatic waiver for non-broadband connections (10Mb minimum).

Troy Brown commented that he does not anticipate that T1 connections will go away in the near future. Some of our small library/school customers do not have many options available. The only other possible option would be bonded DSL. We need to try and keep these customers on the ICN since we provide the best service connection.

Other Items – AET Membership

Lori Sorenson stated that Raj Siddaraju has expressed an interest to remain on the AET Committee as a representative from Spoon River College. A motion was made by Scott Armstrong to approve Raj Siddaraju as an AET member. Mike Dickson seconded the motion. The motion carried.

Other Items - Adjournment

The next AET meeting is scheduled for October 16, 2015. Jim Flanagan called for a motion to adjourn the meeting. Scott Armstrong made a motion for adjournment. Alan Pfeifer seconded the motion. The meeting was adjourned at 11:08 a.m. The motion carried.