ILLINOIS CENTURY NETWORK
JANUARY 15, 2016 ADVANCED ENGINEERING TASK FORCE (AET) MINUTES

Introductions/Roll Call
At 10:12 a.m. the Advanced Engineering Task Force meeting was convened by Jim Flanagan, AET Chairman who welcomed everyone. Jim proceeded with roll call.

Members via Video Conference (Springfield & Chicago):

Jim Flanagan-Chair, Illini Cloud	Andrew Bullen, Illinois State Library
Mike Dickson	Robert Dulski

Members via Audio Bridge

Amin Kassem, ICCCA Technology Commission	*Tracy Keller, Bloomington SD #87
Rich Kulig, College of DuPage	Herb Kuryliw, Northern Illinois University
Joe Mambretti, Northwestern University	Brian Murphy, Eastern Illinois University
Alan Pfeifer, Sauk Valley Community College	Tracy Smith, University of Illinois

*Representative for Jim Peterson

Members absent:

Troy Brown, IL Heartland Library System	Brandon Gant, CARLI
RJ McGarry, Kishwaukee Community College	Anita Nikolich, National Science Foundation
Michael Shelton, Southern Illinois University	Raj Siddaraju, Spoon River College
Brian Tobin, DeKalb CUSD 428	Glen Trommels, City of Rockford

Staff & Guests:

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

Meeting Minutes - Jim Flanagan, AET Chairman
Jim Flanagan introduced the first item on the agenda, approval of the January 15, 2016, meeting minutes. A motion was made by Alan Phiefer to accept the minutes. The motion was seconded by Andrew Bullen. The motion carried.

Old Business
Software Defined Network (SDN), Adam Ford, Central Management Services
Adam Ford reported that the SDN committee met and completed several proposals, specifically on establishing a statewide research network for SDN initiatives. The plan of action has been approved and the committee will collaborate universities to build out the network. Tracy Keller and Herb Kuryliw commented that they would like to be involved with plan. Joe Mambretti informed board members that AT&T recently converted half of their network and will soon convert the other half. Google has had SDN in production for the past three years and they have saved millions of dollars. Joe stated that he felt it was the perfect time for the ICN to move to SDN.

E-rate Update - Essam El-Beik, Central Management Services
Essam El-Beik report that ICN/RTC staff is responding to the initial filings for Form 470. USAC recently announced that the filing window for the actual E-rate applications, FCC Form 471, will open "no earlier than January 20, 2016, and will close no close no earlier than March 21, 2016. The RFP for Category 2 (internal connections) deadline was January 11th.

We are currently reviewing and processing the responses. This RFP has been implemented as a vehicle/tool for schools and libraries to purchase products/services through a state contract and encourage them to take advantage of the expanded funding that is available through E-rate.

Network Update – Adam Ford, Central Management Services
Adam Ford referred members to page 7 of packet and provided and overview of the written report.

DDoS - Adam reported that Arbor Peakflow is operational and has been used to mitigate some recent attacks. Owning our own license allows us to quickly mitigate attacks, review actual bandwidth and subscribe rate, then make decisions based on analysis. Thus far, it has been very effective at stopping attacks including botnets and zombies. In November, we successfully mitigated a 9.7 gig attack. Robin Woodsome informed members that DDoS is offered to ICN customers at no cost.

Procurements & Contracts - Adam reported that the Cisco maintenance and Arbor purchase RFP is still in progress.

John Leonard stated that the Locate RFP contract is also in progress and informed members that locate costs are extremely expensive. The ICN reports two/three thousand monthly incidents to JULIE. This RFP will assist with driving down expenses. Herb Kuryliw commented that IFiber is going through the same type of evaluation/risk assessment and are considering other cable providers in their region.

John reported that we are in the process of issuing a new Construction RFP that would target vendors for smaller fiber builds.

Backbone & Related Projects - Adam informed members that the distribution consolidation project is still progressing. By consolidating the routers, we will reduce our footprint by merging state and educational entitles onto the same routers. The majority of the Metro E circuits have already been moved and the 7600 ASR equipment is being used to terminate T1 customers. Eventually, the 7600 ASR equipment will be obsolete. Jim Flanagan asked about the disposal of the ASR equipment. Adam stated that CMS has strict rules regarding surplus of equipment. The equipment has reached the end of contractible maintenance and will be sent to property control. Jim asked for additional details regarding CMS surplus to share with committee at the next board meeting.

Adam stated the Router Reflector migration project is complete. Staff is preparing for the IPv6 project and working on a solution to provide IPv4 users access to IPv6 infrastructure.

Adam provided information regarding On Net vs. Off Net and stated that we are looking at offering VRF at a discounted cost to customers to build a Private Education Network.

John reported that the Macomb to Moline via Galesburg POP site build has started. Approximately 30% of the build has been completed. Due to weather constraints, workers have ceased construction and will resume after the weather warms up.

John provided information regarding the IDOT CTA Eisenhower build. We are waiting on a permit from IDOT, once received, we estimate that it will take approximately two weeks to complete. The link should be active in late February or early March. The McHenry build was completed in November. The SIU-E build consists of two different paths, one build to the campus and the second build contains a small lateral to connect the sports stadium. Weather permitting; the build should be complete by the end of January.

Fiber Builds - Essam El-Beik, Central Management Services
Essam reported that we have identified approximately 40 Illinois schools and libraries that are potential candidates for ICN fiber builds. The build of the fiber optic circuit would be managed by the ICN and subsidized by the Federal Communications Commission (FCC) through E-rate. Our E-rate bids responses will include a proposal for a fiber build only cases where it makes sense. The key E-rate rules relevant to the ICN fiber build program are: (1) The FCC has suspended the requirement to amortize over at least three years construction projects that cost over $500,000. (2)The FCC allows the school or library to pay their portion of the construction cost in installments over up to 4 years. We will respond to approximately 40 customers with Internet service that includes a fiber build quote. After the closing of the E-rate form 471 window, we will know how many fiber build projects we have been awarded.

Jim Flanagan asked if we had an approximate cost for schools per mile/foot for installing fiber and connecting to the ICN. Essam stated that it varies by location and vicinity of the build. Some builds may require underground and/or aerial construction. Essam provided an estimate of $50K-$60K on the low end and $150K-$200K on the high end. If a school receives a 70% E-rate discount, the FCC will subsidize 70% of construction costs and school would be responsible for the remaining 30%. Further discussion held regarding state contribution discounts.

Proposed Pricing and Bandwidth of 1Gbps to 10Gbps - Robin Woodsome, Central Management Services
Robin referred members to page 11 of the agenda packet and informed members that we have developed a new pricing for bandwidth of 1Gbps to 10Gbps. Andrew Bullen made a motion to approve the new pricing. Bob Dulski seconded the motion. The motion carried.

2016 Meeting Schedule Revision – Valerie Bolinger, Central Management Services
Valerie Bolinger reported that the October 21st meeting will be changed to September 16th to align with Policy Committee 2016 schedule. Mike Dickson made a motion to approve the meeting schedule. Alan Pfeiffer seconded the motion. The motion carried.

Adjournment
Jim Flanagan moved to adjourn the meeting. Motion by Andrew Bullen and seconded by Mike Dickson. Motion passed and meeting adjourned at 11:15 a.m. The next meeting is scheduled March 18, 2016.