



Advanced Engineering Task Force Meeting Agenda

January 6, 2017
10:00 a.m.



Advanced Engineering Task Force Meeting Agenda

Meeting Name: Advanced Engineering Task Force (AET) Quarterly Meeting

Meeting Date, Time, Location: January 6, 2017 - 10:00 a.m.

Video Conference: 120 W. Jefferson 1st floor, Chicago 9036

[Join WebEx Meeting](#) Access Code # 807 762 840

Meeting password: icn2017

Join by phone toll free #1-415-655-0002

AET Members

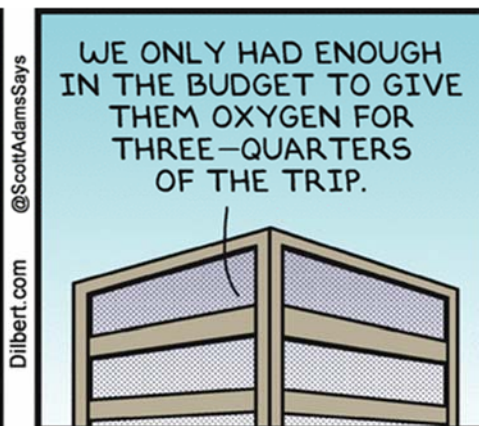
Jim Flanagan, Chair	Mindy Fiscus	RJ McGarry	Shannon Smith
Andrew Bullen, Co-Chair	Brandon Gant	Brian Murphy	Tracy Smith
Troy Brown	Amin Kassem	Anita Nikolich	Glen Trommels
Mike Dickson	Rich Kulig	Matthew Pennell	
Tom Donovan	Herb Kuryliw	Michael Shelton	
Robert Dulski	Joe Mambretti	Raj Siddaraju	

AET Staff & Guests

Lori Sorenson	John Leonard	Robin Woodsome	Frank Walters
Adam Ford	Essam El-Beik	Michelle Medley	Valerie Bolinger

“X” for Attendee “W” for WebEx “V” for Video Conference

Topic	Presenter
1. Introductions/Roll Call	Jim Flanagan/Andrew Bullen
2. Review Agenda, Approval of Minutes [Action] <ul style="list-style-type: none"> September 16, 2016 Minutes 	Jim Flanagan/Andrew Bullen
3. Old Business [Informational] <ul style="list-style-type: none"> Software Defined Network (SDN) 	Frank Walters
4. New Business <ul style="list-style-type: none"> E-rate Update [Informational] K-12 Broadband Initiative [Informational] Network Update [Informational] ICN Services 	Essam El-Beik Essam El-Beik Frank Walters & Adam Ford Robin Woodsome
5. Other Items	Jim Flanagan/Andrew Bullen



**ILLINOIS CENTURY NETWORK
SEPTEMBER 16, 2016 ADVANCED ENGINEERING TASK FORCE (AET) MINUTES**

Submitted for: Action

Summary: Distribution of the September 16, 2016 minutes for review by the AET

Action Requested: Adoption of the September 16, 2016 minutes

Recommended Motion: *The AET adopts the September 16, 2016 minutes with any edits as noted*

**ILLINOIS CENTURY NETWORK
SEPTEMBER 16, 2016 ADVANCED ENGINEERING TASK FORCE (AET) MINUTES**

Introductions/Roll Call

At 10:05 a.m. the Advanced Engineering Task Force meeting was convened by Jim Flanagan, Chairman of the AET who welcomed everyone. Robin Woodsome proceeded with the roll call.

Members at Heartland Community College

Andrew Bullen, Co-Chair, Illinois State Library	Jim Flanagan, Chairman IlliniCloud
Mike Dickson, Western Illinois University	Mindy Fiscus, Area 6 S.E. IL
Robert Dulski, Brookfield Zoo	Shannon Smith, Tuscola CSUD #301

Members via Audio Bridge/WebEx

Tom Donovan, Aptakisik-Tripp SC #102	Matthew Pennell, ROE #20
Amin Kassem, ICCCA Technology Commission	Michael Shelton, Southern Illinois University
Rich Kulig, College of DuPage	Glenn Trommels, City of Rockford
RJ McGarry, Kishwaukee Community College	

Members Absent:

Troy Brown, Illinois Heartland Library System	Brian Murphy, Eastern Illinois University
Brandon Gant, CARLI	Anita Nikolich, National Science Foundation
Herb Kuryliw, Northern Illinois University	Tracy Smith, University of Illinois
Joe Mambretti, Northwestern University	Raj Siddaraju, Spoon River College

Staff & Guests:

Valerie Bolinger, DoIT	Frank Walters, DoIT
Essam El-Beik, DoIT	Robin Woodsome, DoIT
Adam Ford, DoIT	

Meeting Minutes

Jim Flanagan, AET Chairman

Jim Flanagan introduced the first item on the agenda, approval of May 20, 2016, meeting minutes. A motion was made by Andrew Bullen to accept the minutes. The motion was seconded by Mike Dickson. The motion carried.

Old Business

Software Defined Network (SDN)

Frank Walters, Department of Innovation & Technology/Illinois Century Network

Frank Walters informed members that testing has been performed. A few issues were encountered when testing hardware. There are new technologies such as OpenFlow, a standard communications interface that could be used. RFI for SDN is taking longer than anticipated and we are working through the process. Additional discussion held regarding best practices, equipment requirements and future goals.

New Business

E-rate Update

Essam El-Beik, Department of Innovation & Technology/Illinois Century Network

Essam provided report. In preparation for the upcoming E-rate season the DoIT legal and ICN teams are finalizing contracts with the awarded vendors for the Category 2 RFP issued late last year. The awarded vendors are CDW for WLAN/WiFi equipment, Ficek for cabling and

Education Networks of America (ENA) for managed broadband services. The ICN team also investigating potential fiber builds to E-rate applicants. Locations are identified based on E-rate data and the knowledge base of RTC staff. Within the next two weeks we will begin outreach to identified E-rate applicants to explain more about the ICN fiber build program and how to take advantage of the new E-rate rules.

K-12 Broadband Initiative

Essam El-Beik, Department of Innovation & Technology/Illinois Century Network

Essam El-Beik provided an update on the K-12 Broadband and Digital Learning Policy Academy. Key activities of the working group include outreach and conference calls with school districts by Education SuperHighway (ESH). ESH have a target list of school districts requiring broadband upgrades. This list has been shared with Illinois service providers (including ICN) to solicit interest in providing these schools with broadband connectivity. The ICN has responded for those school districts in the vicinity of ICN fiber. Mailings have been sent and a webinar was held in September on the “Illinois Classroom Connectivity Initiative”, the external branding for this work. The second National Governor’s Association policy academy is October 17-19, 2017, in Denver, Colorado. There will be representation from DoIT/ICN, Illinois State Board of Education (ISBE), the Governor’s Office and the Learning Technology Centers (LTC).

Network Update

Frank Walters, Department of Innovation & Technology/Illinois Century Network

Frank referred members to page 11 of the meeting packet. The cross connect with the 10GB Cogent pipe has been completed. We have experienced higher peaks on DDoS attacks and will be changing how we mitigate attacks. The State Master contract for hardware was awarded to CDW-G and the Construction RFP is still in progress. Frank informed members that the Distribution Consolidation project is ongoing, the DeKalb Pop site and IDOT/CTA Eisenhower Construction projects are complete. Fiber work continues. The SIUE, DOC and Vandalia builds are complete. NIU service has been turned up. Additional discussion held regarding future services and how to leverage last mile and fiber builds.

ICN Services

Robin Woodsome, Department of Innovation & Technology/Illinois Century Network

Robin provided a report. The ICN Services team has been updating service offerings along with pricing. The objective is to update the rates and services in time for the start of the E-rate bid response season.

DoIT Security Services & Best Practices

Joe Anderson, Department of Innovation & Technology/Division of Security Services

Joe Anderson provided a report on the DoIT Division of Security Services and emphasized the necessity of strong cybersecurity in state and local governments. There has been an increase of cyber-attacks that has caused increased damages to businesses, governments and individuals. The severity of these attacks is on the rise. Joe elaborated on various best practices and discussed the importance of strong passwords, ransomware, vulnerability assessments and how to educate and share information with employees.

Illinois Cloud

Jim Flanagan, AET -Chairman

Jim provided an update regarding Illini Cloud projects. They are currently involved with the Race to the Top grant project along with 24 school districts. Currently collaborating with K12 Federation and other states on best practices.

2017 Meeting Schedule

Jim Flanagan presented the 2017 meeting schedule. Meetings are scheduled January 6, March 17, May 19, and September TBD. Mike Dickson made a motion to approve the meeting schedule. Shannon Smith seconded the motion. The motion carried.

Other Items

Essam El-Beik shared information with board members about the Mobile Beacon's Wi-Fly Lending Launch Kit. There is still time for schools and libraries to apply. Applications are being accepted through September 30, 2016, and winners will be announced in October. The launch kit provides local community organizations the initial tools they need to create their own digital inclusion programs and serve the digital needs of their communities. The estimated value is \$20,000.

Adjournment

Jim Flanagan moved to adjourn the meeting. Motion by Andrew Bullen and seconded by Mike Dickson. Motion passed. Meeting adjourned at 11:45 a.m. The next meeting is scheduled January 6, 2017.

**ILLINOIS CENTURY NETWORK
E-RATE UPDATE**

Submitted for: Information

Summary: This item provides an update on the E-rate program

Action Requested: None

Recommended Motion: *None*

ILLINOIS CENTURY NETWORK E-RATE UPDATE

We have Master Contracts executed with CDW, Ficek and ENA for the provision of E-rate category 2 equipment and services. This is to enable high speed broadband within a school or library, and consists of routers, switches, wireless access points, cabling and the associated services. Customers will be able to order from the Master Contracts and then submit an E-rate funding request to the FCC. A webinar providing guidance on the use of the Master Contracts will be held this month. A webpage has been created and an email communication will be sent this week.

The breakdown of E-rate category 2 equipment and services by vendor is as follows:

- CDW – WLAN/WiFi equipment
- Ficek – Cabling
- Education Networks of America (ENA) – Managed Broadband Services

**ILLINOIS CENTURY NETWORK
K-12 BROADBAND INITIATIVE**

Submitted for: Information

Summary: This item provides an update on the K-12 Initiative

Action Requested: None

Recommended Motion: *None*

ILLINOIS CENTURY NETWORK K12 BROADBAND INITIATIVE

The State of Illinois continues to work with Education SuperHighway (ESH) to expand K-12 Broadband and Digital Learning throughout Illinois. Key activities of the working group over the past 3 months include:

- The 2nd National Governors Association/Education SuperHighway policy academy was held on October 17th-19th 2016 in Denver Colorado. ICN, Illinois State Board of Education (ISBE), the Governor's Office, Learning Technology Centers (LTC), NGA, ESH and other state representatives attended. Resulting action items focused on Vision/Awareness, District Support and Provider outreach.
- Service provider meeting was held on December 9th 2016, hosted by ISBE, LTC's and ESH. The Illinois Classroom Connectivity Initiative was explained.
- 3 webinars held in December on the ESH Compare and Connect K-12 tool, to facilitate bandwidth upgrade.
- Regarding district support, ESH have projects with 38 districts and plan to work with approximately 66 more districts in the coming months.
- Working group calls continue, held every two weeks.

**ILLINOIS CENTURY NETWORK
NETWORK UPDATE**

Submitted for: Information

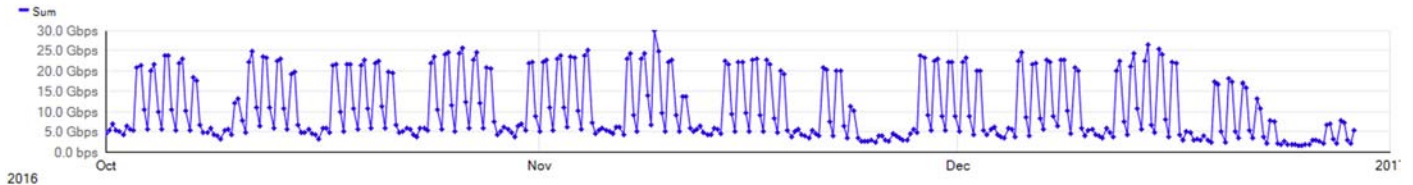
Summary: This item provides an update on the Network.

Action Requested: None

Recommended Motion: *None*

ILLINOIS CENTURY NETWORK NETWORK UPDATE

Interface Aggregate Chart - Max bps In
10/1/2016 12:00:00 AM~1/1/2017 12:00:00 AM



SolarWinds Orion Core Services 2016.2

Egress

- Higher peaks due to DDoS Attacks on constituents
- Peering Fabric Upgraded to 20G (doubling in capacity)

Backbone and related projects

- Distribution consolidation in progress
 - ASR Deployment: completed 20 of 21, we have a capital refresh savings equal to \$4.5M by merging ASR equipment
- IDOT/CTA Eisenhower Construction complete, CTA working on patch details
- Locate process changes have resulted in a cost savings of \$253K (over last 12 months)

Services

- Cloud Exchange up (Office 365 – Azure access for customers/agencies)

Other Notes/Projects

- Moline POP Site move completed – all customers migrated and orders submitted to disconnect Windstream and AT&T OC12's

SDN

DoIT staff has published a Request for Information seeking vendor input. The RFI will allow DoIT to evaluate SDN products and technologies from multiple vendors.

T1 Migration

We continue to migrate customer connections off of T1 Circuits onto Metro Ethernet circuits. June 30, 2017 is the targeted sunset date for this migration, we believe we are on track to meet this date. The T1 consolidation effort has allowed ICN to greatly reduce operational costs related to collector circuits.

**ILLINOIS CENTURY NETWORK
ICN SERVICES**

Submitted for: Information

Summary: This item provides an update on ICN Services

Action Requested: None

Recommended Motion: *None*

**ILLINOIS CENTURY NETWORK
ICN SERVICES**

ICN staff continue work on a full service catalog to include service updates and descriptions, pricing, and examples of application. We anticipate having the catalog ready for publication by July 2017.