

**Advanced Engineering Taskforce Meeting
May 17, 2013**

The meeting was called to order at 10:00.

Members Present

Name	Affiliation	Location
Jim Flanagan	Illinois Chief Technology Officers	Heartland Community College
Scott Armstrong	Kishwaukee Community College	Heartland Community College
Andrew Bullen	Illinois State Library	Heartland Community College
Ken Davis	Sangamon County ETSD	Heartland Community College
Mike Dickson	Western Illinois University	Heartland Community College
Robert Dulski	Brookfield Zoo	Heartland Community College
Dennis Gallo	O'Fallon CCSD 90	Heartland Community College
Brandon Gant	ICARLI	Heartland Community College
Rich Kulig	College of DuPage	Heartland Community College
Joel Mambretti	Northwestern University	Conference Bridge
Seth Brockmeyer (S Menken)	Illinois State University	Heartland Community College
Brian Murphy	Eastern Illinois University	Heartland Community College
Jim Peterson	Bloomington Schools/Illini Cloud	Conference Bridge
Alan Pfeifer	Sauk Valley Community College	Conference Bridge
Mike Shelton	Southern Illinois University	Conference Bridge
Raj Siddaraju	CC Presidents Tech Council	Heartland Community College
Brian Tobin	DeKalb CUSD 428	Conference Bridge
Glen Trommels	City of Rockford	Heartland Community College
Rob Zschernitz	The Field Museum	Conference Bridge

Members Absent

John Bandy	Memorial Health System	
Troy Brown	Shawnee Library Systems	
Herb Kuryliw	NIU	
Tracy Smith	University of Illinois	

Staff

Lori Sorenson	Central Management Services	Heartland Community College
Kirk Mulvany	Central Management Services	Heartland Community College
Frank Walters	Central Management Services	Heartland Community College
Robin Woodsome	Central Management Services	Heartland Community College
Deb Kelley	Central Management Services	Heartland Community College

AET Membership Appointments

The ICN Policy Committee accepted all recommendations brought forward by the AET. Kirk thanked everyone for their willingness to serve. Welcome to Raj Siddaraju.

March 15, 2013 Minutes

Glen Trommels made a motion to approve the March 15, 2013 meeting minutes. Alan Pfeifer seconded the motion. The motion carried.

Rates for Valued Added ICN Services

The rates for value added services were well received by the Policy Committee. Originally, we planned to ask for a recommendation from this committee to take to the Policy Committee. We did not fully comply with the Open Meetings Act so we will not be able to vote at this time.

The issue regarding IP address portability where former customers use our IP addresses or in some cases have secondary providers and want to advertise our addresses with those providers. We understand customers use other providers for redundancy so we decided to continue to let them retain the addresses at no cost. In the past, address spaces were unlimited so it was not a problem. Most networks only need a small block of addresses so our standard will be a block of 32 IP addresses. If a full class "C" is needed, then there will be \$50 monthly reoccurring fee. The hope is the addresses will be returned. ICN discontinued assigning the full block class "C" a couple years ago.

Many members thought the \$50 charge would be a deterrent. The RTC offices are working with the customers to help them move.

BGP Configuration – the ICN has broken BGP into standard and non-standard configurations. Standard is \$25 per month and non-standard is \$100 per month.

Bursting – PARCC is recommending caching servers. With those servers, they are recommending 30 kbs per testing station. If there are 100 testing stations, then 3 meg of bandwidth is needed. The caching servers must be located at the schools.

The Council of Chief State School Officers recommends 100 meg per 1,000 students for the best use of internet technology in schools.

ICN Staff met with Jamey Baiter, State Board of Education to have the schools do a self assessment and found only 25 percent of Illinois schools have the bandwidth (100 meg per 1,000 students). PARCC is recommending 1 PC per every 2 students. They are doing a second assessment survey on pinging and checking bandwidth using schoolspeedtest.org. PARCC has not selected a vendor. We sent a list to see if it could be cached locally, or put the servers in our network; we would only do that for people on our network. The problem is streaming. Illinois is looking better than any other state; however, the data may be inconsistent.

The first year tests can be paper and pencil. By 2015-16 everyone will test online. There will be 7-9 testing sessions in a 20-day window. DeKalb found for every 200 students, they need one physical lab.

Until everything gets worked out it is hard for the schools to figure out what they need. As a follow up, they asked for estimated costs to get adequate connectivity at the schools. New Jersey is budgeting \$250 million to get their schools ready for PARCC testing. Other states have paid for broadband and physical connection for their K12 schools.

Goglobal from Graphon is an inexpensive tool that can be used to get around bandwidth or device requirements. It is an application virtualization tool that is fairly cheap and works really well. It auto resizes screens and can be ran on several different platforms.

The state is going to have to come up with some significant funding. Capitol funds can be used for inside plant. We are using capital money on the physical fiber construction. There is debate whether or not electronics qualify. Generators probably would be covered.

There could be 2 different options for schools – a lot of schools have the technical capacity but don't have high bandwidth so they could have a caching server installed locally. Schools that might have access to more bandwidth would prefer not to manage the caching server. If they were located on-net, it would be less of a problem.

The demand issue is there are many school districts that have moved to a 1 to 1. In those districts, they may decide to test everyone in 3 days. In that situation, the amount of bandwidth needed might be large. It would be hard for districts to absorb the massive costs to run a test that happens once a year for less than 20 days given the current economic problems; however, this would create the opportunity to allow the schools to use online text books and cut costs elsewhere.

Fiber Project

95% of the fiber and 100% of the conduit has been installed. Champaign to Springfield is mostly done – there are a couple of inside plant jobs underway and we are validating some fiber testing. Springfield to Quincy then to Mt Sterling, Rushville and Macomb should be wrapped up in a couple weeks.

Inside plant work is complete at 41 of 56 of our anchor institutions. Customer premise equipment is installed at 31 of those sites. There are 26 sites that are capable of receiving services. Most sites are in the Chicago area and on the Collinsville to Vandalia route. The next are Effingham to Charleston then to Paris.

The ICN team is working with our partners to tie us into the UC2B network. At that point anything north of Champaign will be able to be connected.

An extension will be required for the Chicago route which will most likely be approved. We are complete to 95th street and are finalizing permits for north of 95th Street. We will utilize IDOT fiber since the CTA line will be under construction.

There is a 3-mile build in Danville to get to the Community College. There is a portion of the route that has heavy utility congestion. We will have to do a route change for a less than one mile run.

NTIA may push us to extend beyond September 30th if we are coming in under budget and have received approval for additional expansions. We will not start work on the new expansions until we get the quotes for Chicago.

The team decided not to pursue using the Canadian National Railroad route because it was hard to get approval to cross the tracks. There is language in their permit agreements that the lawyers can't agree with.

Most all chassis have been installed at the pop and customer sites and are in varying stages of configuration.

Sales and Marketing

There were 8 responses to the RFI for sales and marketing. Conference calls were held with each of the respondents which led us to believe our approach is on target. The RFP should be issued in June or July. Our goal is to have a vendor on contract by the end of the year.

Essam has been reaching out to the providers and responding to inquiries. We are receiving good responses from wholesale market providers. Prices and rates are good and we have fiber in desirable areas.

State Funding

We met with representatives from the Governor's Office and have been ensured that we will have a \$6 million budget for FY14. We went from \$13 down to \$6 million. The documentation prepared for our customers was based on \$6 million.

Funding is separate from rates. The rates will remain as published.

Erate

There is a new FCC funding program titled Healthcare Connect Fund which replaces the Internet Access Fund. This program targets rural healthcare providers including hospitals and consortiums. The fund provides money for equipment, fiber builds, etc. The Telecommunication Fund will remain, but most participants will go to the new fund. The pilot program application deadline is June 2nd. The new funding starts January 2014.

AET Participation by Wholesale Providers

Vendor participation was brought up at both the last AET and Policy Committee meetings. We are a customer-driven network and there are pros and cons. Funding allocations and network policies are driven by education, libraries and museums. It has been good working with this taskforce, there is no one group trying to steer a decision. We could invite them in or maybe form a separate group.

If we have providers as members, the potential could be they would market their services as an ICN board member which could be a problem. In the past, there was a vendor that over-stated their connection with ICN and sold material to K12 schools and then dumped it on us. Libraries, schools and museums are our primary focus. Not for profit and government are secondary. Now it is open to anyone.

School boards set aside time to allow people to address the board and many providers have good information and we value their input. They would have to request time on the agenda regarding a specific agenda topic or we could reach out to the customers once per year. If we were looking for specific information, we would let that be known.

If we receive requests come from customers, we could revisit this.

In accordance with the open meetings act, if someone from the public wanted to speak, they request time in advance.

There are two different topics – customers and vendors. Wholesale providers would be customers. Vendor presentations could be at the end of the meeting so if you weren't interested you could leave. The purpose of having a member from each customer group allows us to hear about issues from all customers.

We have two wholesale customers there are more coming. Not sure they are really interested in attending – they just want the fiber. There are industry groups they participate in.

NG911 Support

NG911 is an IP based 911 system. The system used today was developed in 1965. Addresses, automatic number information, and location information come in with the phone call and are provided by the phone company. The new GIS based system will support text, voice, photo and video. Every 911 center will need an IP connection to whoever hosts the information. The idea is there will be local ESI nets. If Springfield makes a connection to Decatur then that would be our ESI net. Then there may be one in Chicago and we can add those. ICN gives us the ability to do this because everyone is on the network. There is a new standard that applies to all equipment manufacturers and software vendors.

The state is loosely involved in FirstNet. We are involved in discussions regarding connectivity decisions between towers and what state assets are available.

There was a call last week with Internet2. One of the BTOP projects in Illinois contacted them regarding how they can connect and pass traffic for anchor institutions. Our understanding is in order to connect, everyone has to connect to Joel Mambretti then you can work with I2 to register your IP addresses and be able to pass traffic. You have to be eligible or you have to come through a sponsored educational group provider. They do not want to deal with many institutions; they want to aggregate it through a network like ours. They asked if ICN would work with the networks and talk about how technically they could start passing their traffic for I2 onto our network and then on to internet2. There are several different options. We are more than willing but we will recover our costs. We will reach out and talk through everything.

There were no other items for discussion. Andrew Bullen made a motion to adjourn the meeting at 11:50 AM, Scott Armstrong seconded the motion. The motion carried.