

JET Meeting Minutes

March 16, 2010

I. Participants

Action Items

1. Grant Miller will send an inquiry to the JET email list to identify what agencies have an interest in the TIC 2.0 group to represent the interests of agencies in a multi-agency TIC for connectivity to Internet2 and NLR.
2. Eric Boyd and the perfSONAR Executive Committee will keep the JET informed of the plans for the July 7-9 perfSONAR Workshop.
3. Grover Browning will inform the JET of the upcoming NLR all-hands meeting.
4. NASA will keep the JET informed of its August IT Summit

Proceedings

This meeting of the JET was chaired by Vince Dattoria of DOE.

TIC Update: Sean Donelan of DHS

Sean Donelan is the TIC manager for DHS. He provided an update on TIC requirements and implementation.

The recent press and blogger articles on relaxation of TIC requirements are incorrect. There is no change in the TIC requirements. The three goals of the program are:

- Establish a baseline for security capabilities
- Reduce points of connectivity from Federal agencies to the commercial network
- Increasing assessment of those points of connectivity

DHS now has a policy to address all three of these goals at the same time. There are multiple configurations of TICs possible. Department of State is pursuing provision of central points of connectivity for international coordination.

JET members asked if there are plans to provide multiple agency TICs to deal with connectivity to Internet2 or NLR since many agencies have connectivity to these networks at IXs (NGIXs, PNWGP & MAN LAN). Mr. Donevan indicated there is a TIC Working Group that agencies are invited to attend. They are meeting this week to discuss and review TIC 2.0. Agencies are invited to join this working group by sending email to tic@dhs.gov and asking to join the TIC 2.0 Working Group. Agencies supporting Internet2 and NLR connectivity should identify a representative to represent their interests in this working group. Issues include:

- Who pays for a central connectivity point for TICs
- Who assumes security and policy responsibilities for a multi-agency TIC?
- Can a multi-agency TIC deal with the volumes of traffic that multiple agencies will have?

AI: Grant Miller will send an inquiry to the JET email list to identify what agencies have an interest in the TIC 2.0 group to represent the interests of agencies in a multi-agency TIC for connectivity to Internet2 and NLR.

In response to a question from Mr. Donevan Ron Broersma & Paul Love summarized R&E connectivity to Alaska & Hawaii. The University of Alaska has a wave that supports all university connectivity to Alaska. It is connected to the NorthWest GigaPoP. In Hawaii, the Hawaii Internet Consortium (HIC) coordinates Hawaiian science connectivity. DREN cooperates with HIC and the University of Hawaii to connect in Hawaii at Pearl City and Manoa and in the U.S. mainland at Seattle and Hayward. Alan Whinery <whinery@hawaii.edu> of the University of Hawaii is a point of contact for Hawaii connectivity issues. For Alaska the point of contact is Steve Smith <steve.smith@alaska.edu>.

Interdomain perfSONAR testing: Joe Metzger

ESnet, Internet2 and NOAA are planning a joint demonstration of perfSONAR infrastructure deployment and use to address deployment, performance, management and policy issues. They will identify the value of deploying perfSONAR. By the midsummer Joint Techs meetings in Columbus the perfSONAR demonstration group will develop a measurement plan and policies for how to support perfSONAR infrastructure. Primary concerns are policies and identifying the value of the infrastructure. Technical aspects of the demonstration are thought to be straightforward. The demonstration will start with ESnet, NOAA and Internet2. Other interested networks will be added later. Results and recommendations will be reported out to the LSN.

International Networking

Ana Preston and Jocelyn Gerich of Internet2 reported on international R&E networking coordination, particularly for the Middle East. Internet2 is promoting international networking to provide high-performance networking to support research, teaching, learning, clinical, and outreach missions for the Internet2 community. Currently, over 100 international NRENs are reachable. Jonathan Chapman, CIO of Georgetown University, is meeting with 15 Middle Eastern countries in Doha on March 29. First step on international coordination is the negotiation and signing of an MOU on the cooperation. Qatar was the first country network to sign an MOU. Other Middle Eastern countries are not yet ready to sign an MOU. Qatar is connecting their Education City in Doha to 6 U.S. universities by connecting with 300 Mbps (burstable to 1 G) through MANLAN with a backup link to Los Angeles. Gulf Bridge International is laying cable around the Middle East with plans for operation next year.

UAE/ANKABUT has a 100 Mbps connection into MANLAN and plan to connect to 25 campuses of 5 public universities.

Saudi Arabia (SAREN) is coordinating connectivity to KACST, KAUST, and King Fahd University and has signed an MOU for S&T research. A 1 G ring connects these universities with a 10 G link to NetherLight and a pending 2.5 G link to GEANT.

Other cooperations include Oman and SESAME (a synchrotron-light for Experimental Science and Application).

For additional information on Internet2 international networking, please see: www.internet2.edu/international

PerfSONAR Workshop: Eric Boyd

NSF and DOE have funded Internet2, with Eric Boyd as Principle Investigator, to hold a perfSONAR workshop July 7-9 in Washington, DC. The workshop purpose is to create a community consensus on where perfSONAR needs to go and how it should grow to fill the needs of user communities. Potential participants will be requested to submit white papers on why they want to attend plus the issues they see as important.

AI: Eric Boyd and the perfSONAR Executive Committee will keep the JET informed of the plans for the July 7-9 perfSONAR Workshop.

Network Roundtable

DREN

DREN has implemented many management changes from the director level to division management changes. DREN is recompeting its networking contract. The current contract expires in about 18 months. DREN is now under the defense research directorate which provides additional justification for DREN testbed activities. Phil Dykstra will assist with the perfSONAR testbed but it will take a few months for him to have the time to participate.

ESnet

ESnet is tactically increasing its connectivity to the outside world through the Equinexes from 1 to 10 G. This includes both the local loop (done in Chicago) and the building fabric (done in Chicago, Ashburn & Sunnyvale.) ESnet is purchasing dark fiber for connectivity to Brookhaven and a couple of other sites in New York. Responses to the ESnet RFP for ARRA funding are back and will be evaluated soon.

Internet2

The Internet2 router swapouts to MX960s are complete now. MERIT and Great Plains have both implemented a second 10 G connection, with CIC and NOX in progress.

NISN

The NISN core upgrade to 10 G is now completed. With this NISN now has an MPLS based core. Regional links will be upgraded to 10 G to provide end-to-end 10 G connectivity. IPTV is being implemented. The IPTV feed is being pulled off a feed in their central distribution area. As soon as paperwork is completed they will go to operational IPTV. It will be multicast out of Marshall Space Flight Center. NISN is implementing operational IPv6 in the core. They need to do some H/W upgrades for this. They are considering transition to a TIC which will affect their circuit into StarLight. They may backhaul into Goddard. Their connections to Ames & College Park are unaffected by this.

National LambdaRail (NLR)

Internet2 and NLR are cooperating in a joint telepresence project. 60 sites are connected now. NLR has tested 40 Gbps alien waves across its network. 10 vendors were tested and all are good to go. They expect to begin testing 100Gbps shortly. NLR is holding an all-hands meeting May 11.

AI: Grover Browning will inform the JET of the upcoming NLR all-hands meeting.

NREN

NASA is planning to hold an IT summit the week of August 15 in Washington, DC. It will address security and privacy, innovation, and new technologies. It is focused on NASA needs but is open to everyone.

AI: NASA will keep the JET informed of its August IT Summit

TransPac

JGN is pulling its connectivity out of Chicago to peer in Los Angeles. TAJ is expected to be completed mostly by the end of the summer. TAJ is using a one-year donated circuit from Tata.

EOS

EOS is upgrading its link to Internet2 to 10 G for science distribution. They will peer at the MAX.

A-Wave

No changes.

Exchange Points

Ames

Ames is setting up a cloud environment with Bob Grossman. They will use a wave from StarLight, Chicago to Ames to establish overlay transport virtualization.

StarLight

StarLight is supporting the GENIE meeting demonstrations. They are participating in a semi automated optical circuit pilot project with GLIF.

MANLAN

MANLAN is supporting GLIF activities in dynamic networking and management.

CIC

CIC added a 2nd PoP at 600 Chicago. They are peering there with Internet2.

Meetings of Interest

April 6-8	IPv6 Workshop, Kent, OH
Apr 26-28	Internet2 Member Meeting, Arlington, VA
April 29	Internet2 International Interest Groups, Arlington, VA

May 11-12 NLR All Hands meeting, Indianapolis, IN
May 11-12 IPv6 Workshop, Fayetteville, AR
July 7-9 NSF perfSONAR workshop, Arlington, VA
July 10-11 Network Performance Workshop, Columbus, OH
July 11-14 ESCC/Internet2 Techs Workshop, Columbus, OH
July 14-15 ESCC, Columbus, OH
July 14-16 IPv6 Workshop, Columbus, OH
August 16-18 NASA IT Summit, Washington, DC
August 16-19 DREN Networking and Security Conference, Monterey, CA

LSN Update

The LSN has a workshop on Highly Controllable Dynamic Networking, funded by the NSF, scheduled for August 30-September 1 at Ames Research Center.

Next JET Meetings

April 20, 2010, 11:00-2:00: NSF
May 18, 2010, 11:00-2:00: NSF