

## **JET Meeting Minutes**

March 20, 2012

### **I. Participants**

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### **Action Items**

1. Grant Miller will forward the IPv4/IPv6 naming convention recommendation to the LSN for their approval.
2. JJamison will arrange for a technical speaker on QFabric for a future JET meeting.
3. Don Riley will organize a discussion of Internet governance and whether each country should have control of its indigenous Internet. He will invite Jane Coffin to speak to the JET.

### **Proceedings**

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

### **JETnet Roundtable**

#### **DREN: John Baird**

The DREN network services recompetition is still ongoing. The DREN Annual Conference is being held June 18-22 in conjunction with the DREN Users Conference in New Orleans. DREN maintains an informational Website on the status of IPv6 tools and capabilities. It is located at: [www.hpc.mil/cms2/index.php/ipv6-knowledge-base-general-info](http://www.hpc.mil/cms2/index.php/ipv6-knowledge-base-general-info)

#### **ESnet: Joe Burescia**

ESnet is preceding in its deployment of the Internet2 100G network fabric. ESnet is receiving the responses under its second round of applications for ANI testbed use on April 1.

**Internet2: Dale Finkelson**

The new build of the Internet2 network is proceeding as planned. Phase 2 has been completed. Work is starting on Phase 3 deployment with an expected completion date of July 31. Internet2 is still discussing cooperation with Northern Tier. The New York to Washington DC link is on-line. Internet2 is discussing cooperation with GENI for supporting testbeds. They are implementing OpenFlow over service platforms. NDDI and OS3 are implementing OpenFlow and other advanced services.

**Gloriad: Pedrang Radulovic**

The Gloriad link to China was down but has been back up for the last 10 days.

**NOAA: Mark Foster**

The N-Wave Program of NOAA is completed with the implementation of its 5<sup>th</sup> core node in Seattle, in the Weston Building. The connection from there to NOAA's Seattle research site, at Sand Point, is in place. They are building a link to the NOAA Silver Spring headquarters site. They are designing a circuit from Seattle to Hawaii. Buildout plans are being developed for Fort Worth and Miami sites. The Hawaii connection is over a University of Hawaii OC3 using a RadCommunications SPF device that takes Ethernet frames and translates to SONET OC3 frames. The equipment cost is of the order of \$1200 and it provides 142 Mbps throughput.

**TransPac and ACE: Brent Sweeney**

The second U.S.-India workshop on science cooperation on applications over the U.S.-India network link is being held this Thursday and Friday at the Arlington, Virginia Westin Hotel. You may attend this meeting by just dropping in.

**Exchange Points**

**WIX: Dale Finkelson**

WIX is operational. Administrative details are being worked out between the MAX and the WIX in McLean, Virginia. The WIX is hosting a couple of ACE links from Europe plus NGIX and Internet2 links. The WIX Brocade MLX16 device at the WIX has 100 G capabilities. It is linked to the Internet2 100 G network. MANLAN is similarly provisioned at 100 G.

**MAN LAN: Dale Finkelson**

MANLAN is considering how to connect exchange points to the NDDI capability. At the Internet2 Spring Members Meeting in Arlington, dynamic circuits will be demonstrated. JANET will connect to MANLAN which will connect to the meeting site. MANLAN is experiencing a small packet loss on trans-Atlantic service from Europe to the U.S. MANLAN is working with GEANT to resolve the issue.

**StarLight: Alan Verlo**

StarLight is close to announcing its GENI racks project. StarLight is supporting a demonstration in May of orthopedic surgery demonstrations for training. The demonstration will support standard video-conferencing with a private Layer 2 network for high resolution demonstrations of orthopedic surgery. It will be held at multiple sites

including San Francisco, Johns Hopkins, and Sao Paulo, Brazil. StarLight supports a DYNES connection to the University of Wisconsin.

StarLight has a due date of April 2 for abstracts defining user needs for network connectivity to SC13. A full proposal will be due June 1. These applications identify requirements for SINET planning.

**Ames Research Center: Bobby Cates**

Ames is working on implementing their next implementation of the TICs. Ames plans to implement 3 new locations over the next 3 months. Ames is implementing OpenFlow. Ames is moving some capabilities from 1360 to 1380 in Sunnyvale.

**LSN Update: Grant Miller**

Federal agencies are providing recommendations to OSTP on IT science and development priorities as part of the process of developing the OSTP annual science and development priorities memos. LSN identified complexity research, perfSONAR, and cloud computing as priority research areas. In addition Software Defined Networking (SDN) is an important research topic this year that has the potential to develop a disruptive technology. It was noted that the July Joint Techs meeting has a session devoted to SDN.

**Naming of perfSONAR IPv4 and IPv6 tools: Rich Carlson**

Rich Carlson summarized the latest draft of the perfSONAR IPv4, IPv6 naming recommendation. JET members all supported the recommendation which will be forwarded to LSN for its approval (to satisfy FACA requirements).

AI: Grant Miller will forward the IPv4/IPv6 naming convention recommendation to the LSN for their approval.

**QFabric: JJamison**

QFabric is a new technology of Juniper that provides a full point-to-point decision tree so every address is one hop away. It is fast, efficient and inexpensive. JJ will arrange for a speaker to discuss this technology at a future JET meeting.

AI: JJamison will arrange for a technical speaker on QFabric for a future JET meeting.

**Country Control of their Internets: Don riley**

ITU and the UN are debating whether each country should be given control of the Internet within their own country. This strongly affects Internet governance and could be disruptive. Jane Coffin (NIST) is engaged on this topic and could be solicited to talk to the JET at a future meeting.

AI: Don Riley will organize a discussion of Internet governance and whether each country should have control of its indigenous Internet. He will invite Jane Coffin to speak to the JET.

**Meetings of interest:**

March 13-15	GENI Engineering Conference, Los Angeles, CA
March 22-23	US-India workshop on network cooperation, Arlington, VA
April 22-25	ARIN, Vancouver, BC
April 23-25	Internet2 Spring Member Meeting, Arlington, VA

May 3-4 LHC1 meeting in Stockton, CA  
June 18-22 DREN Annual Conference, New Orleans, LA  
July 15-18 ESCC/Internet2 Techs Workshop, Palo Alto, CA  
July 17 JET Meeting at Joint Techs, Palo Alto, CA  
July 18-19 ESCC, Palo Alto, CA  
October 1-4 Internet2 Fall Member Meeting, Philadelphia, PA  
October 11-12 GLIF meeting, Chicago, IL  
November 10-16 SC13, Salt Lake City, UT  
Week of January 13th, 2013 Techs in Paradise (APAN, Jt Techs, ESCC, etc), Honolulu, HI

**Next JET Meetings**

April 17, 11:00-2:00, NSF, Room II-415  
May 15, 11:00-2:00, NSF, Room II-415  
June 19, 11:00-2:00, NSF, Room II-415