

## **JET Meeting Minutes**

May 18, 2010

### **Action Items**

1. The topic of router flapping will be added to the JET agenda for July.
2. If you need P-Wave connectivity to SC10 please contact Jan Evelyth at: [eveleth@u.washington.edu](mailto:eveleth@u.washington.edu)
3. If you have an interest in attending the July 7-9 perfSONAR Workshop in Washington, DC please send a note to Eric Boyd or Matt Zekauskas with a brief description of why you want to attend, your interests, and your potential contributions.  
Eric Boyd: [eboyd@internet2.edu](mailto:eboyd@internet2.edu)  
Matt Zekauskas: [matt@internet2.edu](mailto:matt@internet2.edu)
4. If you need support for SC from StarLight send your request to: [engineers@starlight.net](mailto:engineers@starlight.net)

### **Proceedings**

This meeting of the JET was coordinated by Paul Love of the NCO.

### **TIC Discussion**

Ken White agreed to represent the interests of JET and Federal agencies interested in multiple-agency TICs in discussions with the TIC office of DHS. Kevin Kranacs agreed to reinvigorate the consideration of Next Generation Internet Exchanges (NGIXs) as sites of TICs. The NGIXs are the hubs of the science networks and cooperation at the NGIXs for use by multiple agencies as TICs could minimize the large costs of maintaining TICs.

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### **PerfSONAR Testing**

Joe Metzger is coordinating cross-domain testing of perfSONAR among the science networks. He received requests from UTN and Brent Sweeney (NLR) to participate in the cross-domain testing of perfSONAR. Other participants include Internet2, DOE, and NOAA. Joe is preparing a description of testing points. They are planning to start perfSONAR testing by the end of May 2010. Policy issues related to releasing perfSONAR testing data will be discussed at the next Joint Techs meeting. ESnet, Internet2 and NLR are expected to freely share their data. Other testing of perfSONAR is being carried out internationally including GEANT.

### **Network Roundtable**

**AmLight: Julio Ibarra**

FIU is being funded by the NSF to implement, with its proposal partners, a project, called Americas Lightpaths (AmLight). AmLight builds on the cyberinfrastructure of the WHREN-LILA project, the first IRNC award for U.S.-Latin America connectivity, which includes two 10G connections between Miami and Sao Paulo (AmLight East) and two 1G waves between Los Angeles and Tijuana (AmLight West). AmLight plans to add a 1G segment from Sao Paulo to Santiago (AmLight Andes), increasing network resources that will support the U.S. astronomy community in Chile. AmLight plans to add a 1G segment from San Antonio Texas to the nearest CUDI POP in Mexico (AmLight Central). AmLight Central will interconnect CUDI, the NREN of Mexico, and eventually RedCLARA to the Texas LEARN network, and to the PacificWave and AtlanticWave exchange points.

**A-Wave: Don Riley**

Nothing new to report.

**C-Wave: Kevin McGrattan**

C-Wave plans to implement a Raleigh site June 15-16. C-Wave plans 2 x 10 G waves into SC10.

**DREN: John Baird**

Nothing new to report

**ESnet: Joe Burescia**

Greg Bell, formerly of LBL, is joining ESnet as Chief Information Strategist. Jon Dugan is now leading ESnet's SCinet effort, Eli Dart will remain involved. The DC MAN went into production this month to support DOE/SC and DOE/IN requirements. The LHC traffic traversing ESnet over the last month peaked at over 11 Gbps. Tier 1 traffic to CERN exceeded 7 Gbps. ESnet traffic, overall, peaked above 12 Gbps. FermiLab to Brookhaven traffic peaked at over 7 Gbps.

**Internet2: Chris Robb**

Internet2 is experiencing increases in traffic due to LHC flows but, since they are not directly connected to the LHC users, they have been harder to characterize. The New York to Chicago link was increased to 20 Gbps. With this the entire footprint is now at 20 Gbps. Separation of traffic issues is being considered. Internet2 is not experiencing huge single traffic flows but the aggregate traffic is increasing. The ION service is increasingly being migrated to the Internet2 backbone service using MPLS. Internet2 added QoS capabilities to implement the ION service. It also supports vanilla IP scavenger service. Internet2 has 28 10 Gigs implemented on the existing T1600 router in Chicago. They may implement dual routers to provide increased capability. Internet2 is providing 2 backbone IP service links to SC10. Jeff Boote is likely in charge of the Internet2 SC service.

**NOAA: Mark Mutz**

NOAA is implementing its N-Wave network. They are receiving hardware from their 2<sup>nd</sup> hardware buy including DC power controllers and Cisco equipment. They will

implement service first in Denver, then in Chicago. A schedule for implementing the services has not yet been established.

**P-Wave: Jan Evelyth**

Alaskan science networking has been deployed from Fairbanks to Seattle. The Pacific NorthWest GigaPoP is therefore decommissioning its Fairbanks node. IEEAF has decommissioned an OC192 circuit from Seattle to Tokyo. Japanese networks are now reachable via TransPac from Los Angeles to Tokyo. P-Wave has received several requests for capacity to SC10.

AI: If you need P-Wave connectivity to SC10 please contact Jan Evelyth at:

[evelyth@u.washington.edu](mailto:evelyth@u.washington.edu)

**NSF IRNC**

Alan Blatecky has responsibility for the IRNC program until a new PM is identified.

**IEEAF: Don Riley**

IEEAF maintained two 10 Gbps transoceanic links from New York to Koenig . Internet2 and SurfNet were stewards for these links. On the Trans-Pacific side, Seattle to Tokyo connectivity was maintained by Wide and PNWGP. All these links have been decommissioned due to the termination of the 7-year no-cost provision of service. A 20 year IRU for fiber in Holland is still in effect.

**PerfSONAR Workshop: Eric Boyd**

There is a perfSONAR Workshop in Washington DC, July 7-9. They have reached their intended limit of 80 participants. July 7 will provide a perfSONAR tutorial. July 8 will provide an overview of perfSONAR. There will be many talks by the participants that are currently being sorted into topics for presentation sessions. There will be breakout groups to develop the workshop recommendations. The workshop will end with a wrap-up session. International participant will be about 1/3 of the conference attendees.

AI: If you have an interest in attending the July 7-9 perfSONAR Workshop in Washington, DC please send a note to Eric Boyd or Matt Zekauskas with a brief description of why you want to attend, your interests, and your potential contributions.

Eric Boyd: [eboyd@internet2.edu](mailto:eboyd@internet2.edu)

Matt Zekauskas: [matt@internet2.edu](mailto:matt@internet2.edu)

**StarLight: Alan Verlo**

StarLight replaced the HDXc with a new device to support GLIF activities. Circuit migration to the new device is under-way. Canadian organizations are looking for connectivity to research sites in the U.S. StarLight is working with Kevin McGrattan on a new 10 G link in Raleigh to support experimental programs including GENIE and I-GENIE. HP research labs is holding a July demonstration at a UCSD showcase. Other demonstrations StarLight is supporting include 10 G to Wayne State and 1 G to Ohio

State as part of the Cluster D GENIE Project. They will use ORCA as the control frame.  
StarLight is open to requests for connectivity to SC10.

AI: If you need support fro SC from StarLight please send your request to:  
engineers@starlight.net

### **ManLan**

ManLan is working with Qatar to implement a second link.

### **College Park NGIX**

The College Park NGIX is working with StarLight to test between StarLight and McLean, Virginia at 40 Gbps across the DRAGON research infrastructure using old Movaz boxes that are unreliable. College Park is expecting vendor responses this week for their proposed upgrade to 100 Gbps.

### **Meetings of interest**

May 31-June 3           TERENA, Vilnius, Lithuania  
July 7-9           NSF/DoE 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 9-13     APAN, Hanoi, Vietnam  
August 16-18   NASA IT Summit, Washington, DC  
August 16-19   DREN Networking and Security Conference, Monterey, CA  
August 28-September 1   NSF/NASA/LSN Highly Dynamic Networking Workshop,  
                                  Ames Research Center, Mountain View, CA  
October 13-15   GLIF Meeting, Geneva, Switzerland  
November 13-19   SC10, New Orleans, LA

### **Next JET Meeting**

June15, 2010, 11:00-2:00: NSF

July 13, 2010, 7:45-10:15PM, University Plaza Hotel, Columbus, OH.

In conjunction with the Summer ESCC/Internet2 Jt Techs