

JET Meeting Minutes

October 19, 2010

I. Participants

Guy Almes	TAMU
John Baird	DREN
Joe Breen	Un Utah
Grover Browning	Indiana U
Joe Burescia	ESnet
Rich Carlson	DOE
Bobby Cates	NASA/Ames
Greg Cole	Gloriad
Vince Dattoria	DOE/SC
Phil Dykstra	DREN
Jan Evelyth	PNWGP
Dale Finkelson	Internet2
Dave Hartzell	NASA
Kevin Kranitz	NASA
Paul Love	NCO
Kevin McGrattin	Cisco
Grant Miller	NCO
Mark Mutz	NOAA
Kevin Oberman	ESnet
Peter O'Neil	MAX GigaPoP
Don Riley	Univ. Md
Brent Sweeney	GRNOC/Indiana U
Kevin Thompson	NSF
Brian Tierney	ESnet
George Uhl	NASA/GSFC
Steve Wolf	Cisco

Action Items

1. If you would like Phil Dykstra's script for DNSSec queries, please contact him at: phil@sd.wareonearth.com
2. If you wish to peer with the Taj network please contact Jan Eveleth <eveleth@u.washington.edu>
3. Joe Metzger and Brian Tierney should send a message to the JET members to identify interest in participating in perfSONAR testing.

Proceedings

This meeting of the JET was coordinated by Vince Dattoria of DOE and Paul Love of the NCO.

Roundtable

DREN: Phil Dykstra

DREN now has a 1 G link into the KIX, formerly the LA access point, for connectivity to CENIC. The ARL DNS root server went down and DNSSEC queries to several servers were interrupted. DREN would like to be able to do ARL DNSSEC queries but a firewall interferes with this. Fragment packets caused troubles. Phil Dykstra has a snippet of Perl script to do DNSSEC queries. For the ISI 2000 large TCP windows flows will be blocked sometimes. Phil Dykstra has a NutCP program for testing on Dell 710 servers. They were getting memory corruption on D copies but the problem was resolved with Dell 710 updates.

There were 11 unallocated IPv4 /8s until recently. There are now 7 unallocated /8s.

AI: If you would like Phil Dykstra's script for DNSSEC queries, please contact him at: phil@sd.wareonearth.com

C-wave: Kevin McGrattin

C-Wave is moving equipment around to support SC10. RENCi will be connecting up to C-Wave soon.

ESnet

Peering with TATA is up at 3 locations. Expect the decision on 100G transport very soon.

Internet2: Dale Finkelson

Internet2 is evaluating responses to their RFP for optical gear to light up their BTOP USUCAN network. The proposals will be evaluated this month and will use some NTAC personnel. They plan to use Juniper T1600 routers for 100 G. Internet2's plans to provide 100 G for SC10 are looking pretty good.

NLR: Grover Browning

NLR is working to implement circuits in support of SC10. They are finalizing the design of their 40 G and 100G network.

NOAA: Mark Mutz

NOAA is completing its core configurations. Links to their end-sites are being implemented. Customers are expected to be connected in the next few weeks beginning with NOAA's Princeton lab, GFDL, and Oak Ridge.

NREN: Dave Hartzell

NREN upgraded its link to CENIC in the SF Bay area to provide 10 G between Ames and JPL.

TransPac and ACE: Brent Sweeney

TransPac received responses for its RFP to provide the networking services for the next generation of TransPac (TransPac3). The network will look essentially the same.

The ACE RFP was issued September 1. At a workshop in India in December, TransPac will demonstrate data movement over a 2.5 G circuit.

Exchange Points

Pacific Wave: Jan Eveleth

Pacific Wave is preparing for SC10. They will also be supporting GLIF and CineGrid. GLORIAD/Taj is now connected to a 1 G port and peering is started.

AI: If you wish to peer with the Taj network please contact Jan Eveleth
<eveleth@u.washington.edu>

Ames Exchange: Bobby Cates

The Ames Exchange is turning up its Nexus 7000 switch at StarLight. They are focusing on SC10 to provide 10 G waves. After SC10 they will start up a testbed on Open Cloud Consortium.

ManLan: Dale Finkelson

ManLan is proceeding with its plans for equipment change-outs. Functionality will remain the same.

MAX: Peter O'Neil

MAX is supporting NASA waves to Chicago for SC10. They are preparing for NOAA's N-wave. They will be implementing 100 G switches. They are replacing their older Movaz equipment and testing new 10 G equipment. They expect the new equipment to be functioning in the first quarter of 2011.

Meetings of interest:

November 10 IPv6 meeting in Washington DC, Contact John Baird
<baird@hpcmo.hpc.mil>
November 13-19 SC10, New Orleans, LA
January 30-February 3 2011 ESCC/Internet2 Techs Workshop, Clemson, SC
February 3-4 2011 ESCC, Clemson, SC
February 3-4 2011 Network Performance Workshop, Clemson, SC
February 3-5 2011 IPv6 Workshop, Clemson, SC
July 10-13 2011 ESCC/Internet2 Techs Workshop, Fairbanks, AK
July 13-14 2011 ESCC, Fairbanks, AK
January-February 2013 Techs in Paradise

Meetings of the JET in January and February 2011

With the Winter ESCC/Internet2 Techs Workshop slated for the 1st week of February, it was agreed to collapse the JET's January and February meetings into a single meeting held in Clemson, SC, during Jt Techs.

perfSONAR Update: Brian Tierney

Last year the JET networks completed a Phase 1 demonstration project on perfSONAR, coordinated by Joe Metzger. Joe Metzger is completing a white paper on

the testbed and its findings. There is an interest in adding new partners in the testing including U.S. science networks. International networks also have an interest in participating in perfSONAR measurements including GEANT, GLORIAD, KISTI, and other APAN members. There is a sublist of the JET members coordinating the perfSONAR testing.

AI: Joe Metzger and Brian Tierney should send a message to the JET members to identify interest in participating in perfSONAR testing.

Testing has identified suboptimal paths on IPv6 perfSONAR. This is often due to lack of vendor support. ESnet and Internet2 will carry out additional IPv6 testing and will develop a plan for moving forward on IPv6 perfSONAR testing.

GLORIAD/Taj Project Update: Greg Cole

GLORIAD is a consortium to provide networking infrastructure to support science applications. They received stimulus money of \$2.3 million for the Taj program. Taj also received a donation from Tata that is used to provide 1 G circuits with exchange points in Mumbai, Hong Kong, Singapore, Egypt and Europe. China provides funding to Taj to increase U.S. Chinese connectivity to 10 G. NORDUnet Funding for the next 5 years of GLORIAD is \$5.6 million. Canarie cooperates closely with GLORIAD for cross U.S. connectivity.

The first Egypt/U.S. R&E link is expected to be operational in March 2011 and operational at 1 G by November. The Korea-China-U.S. circuit is upgraded to 12.5 G. The U.S.-Russia circuit is upgraded to 1 G. The U.S.–Nordic link is operational at 12.5 G.

For the complete GLORIAD briefing please see the JET site at:
<http://www.nitrd.gov/Subcommittee/lsn/jet/JetMeetingDetail.aspx>

Next JET Meetings

November 17, 9:00-12:00 (CST), Ernest N Morial Convention Center, New Orleans, LA,
Room 268 (*nb* this is during SC10)
December 21, 11:00-2:00, NSF only if there is an explicit need
February 1, 2011, 7:45-10:15PM (EST), The Conference Center and Inn at Clemson
University, Clemson, SC. (*nb* this is during the Winter Jt Techs)