JET Meeting Minutes
September 20, 2011

I. Participants

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Action Items
1) The JET will work with Bobby on an update of their TIC experiences early in 2012.

Proceedings
        This meeting of the JET was chaired by Vince Dattoria of DOE/SC and Kevin Thompson of the NSF.
        Review of the August action items identified that:
-   PSC is interested in developing NPAD for IPv6 in late Fall
-   JET will work on naming conventions for v6 tools over the long-term
-   Don Riley will send the JET his summary of the IPv6 discussions with the Chinese.
-   Anyone interested in StarTap support for SC11 should send a request to: 710engineers@startap.net

JETnet Roundtable
DREN: John Baird
        Unable to give an update due to ongoing procurement activity.

ESnet: Joe Burrescia

ESnet will bring a 100 G wave to Seattle. 10 of the selected 100 G routers are currently being tested - the announcement is expected in 1-2 weeks. The 100 G wave will go from SC to NERSC and to ANL and ORNL. ESnet will also provide three 10 G links for SC11.

Internet2: Dale Finkelson

Internet2 aggregated 2 x 10 G links into a 20 G link on the LA/Seattle route (different providers). They expect to next LAG 2 x 10 G links on the Chicago/Kansas City route in October.

Internet2 expects to provide 100 G for SC11 from DC to New York to Salt Lake City to Seattle. They have run 100 G pings between New York and DC. Additionally they will provide 10 G connections from Salt Lake to Sunnyvale and from New York to Washington.

NOAA: Mark Mutz

The NOAA core buildout is still proceeding. They expect the last core node in Seattle soon. They are also working on the tail circuit to the Asheville, North Carolina site. NOAA expects to demonstrate, at SC11, science visualization demonstrations over high bandwidth from Boulder to Seattle.

NREN: Dave Hartzel

NASA is setting up a LISP network testbed. NREN is testing Cisco Science Network (CSN) in an open cloud consortium.

TransPac: Brent Sweeney LAG'd?

APAN held a meeting in Delhi, India this month. TransPac is starting OpenFlow trials with Japan and Korea using the JGN network. TransPac is replacing the HP switch in LA with equipment that better supports Open Fabric.

ACE implemented a 10 G connection between MAN LAN and Amsterdam. They are implementing a 10 G connection between DC to Frankfurt. GEANT is providing a second link of each of these pairs so they will then have 2 x 10 G LAGed to DC and likewise the 2 x 10 G to MAN LAN.

A-Wave: Don Riley

A-Wave is working on a one-year extension of their NLR contract to provide time to negotiate a new 5-year MOU.

C-Wave: Kevin McGrattan

C-Wave is working with CSN to upgrade the LISP testbed.

Pac-Wave: Jan Evelyth

Pac-Wave is preparing for SC11. They will have a 10 G link to SC11. They have requested a block of VLANS to provide service to different demonstrators.

Exchange Points
PNWGP: Jan Evelyth

Nothing beyond the Pac-Wave efforts.

Ames Research Center: Bobby Cates

Ames is providing two TIC access points. They are providing a best-effort at installing them. They are implementing the DHS-mandated equipment at Ames and GSFC. They expect to monitor some of the data by the middle of October. NASA expects to implement additional TIC access points and to architect access to them. It was noted that many agencies define science flows as outside of TIC space. Open Flow testing is being setup.

AI: The JET will work with Bobby on an update of their TIC experience early in 2012.

Chicago: Alan Verlo
The GLIF meeting was held last week in Rio de Janeiro. StarLight provided support for several demonstrations. They are preparing to work with Ciena for Ciena's Technology Showcase to provide 100 G from StarLight to Ciena's laboratory in Ottawa. They are identifying content to stream to Ottawa. They are working with the LHC1 community to provide for their networking requirements.

MAN LAN: Dale Finkelson
MAN LAN is working with the LHC1 community to provide support for their meeting in a couple of weeks. MAN LAN is combining 2 x 10 G circuits into a 20 G circuit in coordination with Hibernia and Global Crossing. Load balancing will be on a flow basis. MAN LAN expects to transition to a new, 100 G capable switch in the next few weeks.

GLORIAD: Predrag Radulovic
GLORIAD is announcing an expansion of their African connectivity program. U.S. AID is providing $3.5 million in funding over 5 years

IGNITE: Glenn Ricart
IGNITE will provide public announcements shortly. NSF is moving on two tracks:
1. A workshop program: The next workshop is Nov 2-4 in Kansas City, coincide with the GENI Engineering Conference. They are working to implement higher bandwidths and OpenFlow for better service to communities and small businesses
2. Developer Support Group: Develop a core of developers to provide OpenFlow and higher bandwidth.

IGNITE will use existing fiber and bandwidth as assets. They expect to generate new non-profit organizations. Larry Landweber will be visiting university campuses to discuss getting bandwidth directly to the researchers.

GSFC: Bill Fink
With sadness we learned that Pat Gary had passed away the previous Thur. GSFC is carrying on his plans for a 100G disk to disk demo at SC. They are working with Bob Grossman (NCDM), ESnet and the MAX to accomplish this,

JET Focus Topics for FY12
The Large Scale Networking (LSN) Coordinating Group, parent organization of JET, met September 13 for their Annual Planning Meeting that provides networking planning, coordination and programmatic information across all the Federal agencies. The LSN identifies topics of general interest to the LSN for the upcoming year and

develops taskings for JET and its other Team, MAGIC. This year the LSN identified three focus topics with JET tasking in each topic area.

1. Measurement, management, and control of large-scale distributed infrastructures.
   - JET should hold a round-table meeting to monitor the development and deployment of measurement technology and to identify its impacts.
2. Operational Capabilities: Identify approaches and promote best practices for identity management, IPv6, DNSSec, cloud computing and campus interfaces and architectures for large data flows.
   - JET should have a focus topic for a JET meeting discussing approaches, issues, and best practices for campus interfaces and architectures for large-scale data flows to include: TeraPath, LambdaStation, OpenFlow, DYNES, and other approaches
   - JET should hold a JET meeting with the topic of promoting cooperation among networking testbeds including, GENIE, ANI, Magellan Phase 2, IGNITE, and other testbeds
3. Dynamic Optical Networking: Engage the research community to identify the status, technology, research needs, and best practices for dynamic optical networking
   - Hold a JET workshop on dynamic optical networking in coordination with the network research community to identify the status, technology, research needs, and best practices for dynamic optical networking
4. In addition the JET, as its own tasking, will track tool naming

World IPv6 Day: John Baird

A full day of presentations was given at World IPv6 Day, on August 16. Vendor presentations were given by Juniper, Brocade, Alcatel-Lucent and others. Alcatel-Lucent will provide several IPv6 capable boxes at SC11. Microsoft provided the warning that if you turned off IPv6, this constituted an unsupported configuration.

DREN has an MPLS backbone and is trying to move to IPv6Sec but has encountered a large number of small impediments.

Hurricane Electric discussed BGP deployment, see their web site.

Google has not enabled www.google.com for IPv6 but it can enable IPv6 for selected networks. Privacy addresses are incompatible with many enterprise solutions.

On World IPv6 Day, a peak of 68% of SPAWAR's traffic was IPv6. (This was possibly skewed by two large uses that day.) IPv6 traffic, after IPv6 Day was marginally larger than before because some sites maintained their IPv6 capabilities. (It had been running at ~10% prior, after at 12-13%.)

Meetings of interest:

October 3-6:	Internet2 Member Meeting, Raleigh, NC
October 12-14	ARIN, Philadelphia, PA
November 2-4	GENI Engineering Conference, Kansas City, MO
November 11	SC meeting on Green Computing. This is an open meeting
November 12-18	SC11, Seattle, WA
January 22-25, 2012	ESCC/Internet2 Techs Workshop, Baton Rouge, LA
January 22-25, 2012	GLIF meeting, Baton Rouge, LA
January 25-26, 2012	ESCC, Baton Rouge, LA
February 13-17, 2012	APAN, Chiang-Mai, Thailand
March, 2012	US-India workshop on network cooperation, Washington, DC
April 22-25, 2012	ARIN, Vancouver, BC

Week of January 13th, 2013   Techs in Paradise (APAN, Jt Techs & APAN),
Honolulu, HI

Next JET Meetings
October 17, 1100-2:00, NSF
November date, time and location TBA