JET Meeting Minutes
July 21, 2015

Participants

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Action Items
1. Grant Miller will circulate the proposed JET tasking for FY16 to the JET members for comments

Proceedings
This meeting of the JET was chaired by Vince Dattoria of DOE and Kevin Thompson of the NSF.

Network Roundtable
NASA networking: Paul Lang
NASA is testing Mellanox 100G NICs. They may use them in a NASA SC15 demonstration.

3ROX has implemented a 100G link to the U. of Pittsburgh. There is a 10G from the Greenbank radio astronomy site to West Virginia University based on EPSCoR BTOP funding using Frontier fiber. The U. of Pittsburgh is also connected to 3ROX via a 10G link that is being tested.

NOAA indicated they need to discuss future fiber connectivity to Fairmont, West Virginia with 3ROX.

ESnet: Nick Buraglio

ESnet is receiving test equipment for their SDN network. They are using white box switches (not Corsa.) They are planning to refresh data center security equipment. They seek information on the Palo Alto devices. ESnet is conducting a security review of their perfSONAR.

GENI: Heidi Dempsey

GENI held a community meeting along with the GENI Engineering meeting to identify ways to manage GENI in the future. GENI is moving away from being managed by the GENI Program Office (GPO) so they need to identify who would have responsibility for operations and management of GENI. GENI is carrying out Internet2 testing of OpenFlow 1.3. More GENI racks are being installed.

NOAA networking: Dave Hartzell and Robert Sears

NOAA has deployed a 100G DWDM ring using Ciena equipment in the DC area. It is complete except for one 10G segment which will be upgraded in September. This ring supports the NOAA TIC in DC. NOAA is talking to Internet2 and Ciena about upgrading the NOAA backbone to 100G between DC, Denver, and Chicago using the Internet2 channel service. As N-Wave and the NOAA backbone are being built out, NOAA is receiving inquiries if they can support the Department of Commerce TIC requirements.

NOAA has deployed 2 out of their 5 planned TICs. Hawaii and Dallas are completed. Dallas is doing failover testing and will be operational imminently. Hawaii is a multi-agency TIC for the Pacific region and the Department of the Interior shares this facility. The 3 remaining TIC sites to be deployed are DC, Denver, and Seattle. The Seattle TIC is deployed but not yet operational. Denver and DC TICs are scheduled for completion in quarter 4 this year. The goal for the NOAA DC metro TICAP is to eventually obtain DHS approval as a community TICAP. There is not a date at this time for when approval will be granted. The NOAA TIC stack supports a firewall, IDS, and IDP. Each TIC maintains 3-5 links to the Internet.

The NOAA N-Wave staff will be moving to the NOAA CIO office 1 Oct 2015. All current services will remain as is.

Exchange Point Roundtable
NASA Ames Exchange:

Nothing new to report.

StarLight Update: Joe Mambretti via email

The StarLight consortium is preparing to stage multiple international demonstrations for the GLIF annual meeting in Prague, Czech Republic, including those based on the StarLight SDX (funded by the NSF's International Research Network Connections – IRNC - program), and multiple 100 Gbps and SDX demonstrations at SC15 in Austin Texas (approximately 25 separate 100 Gbps SC15 demonstrations are being discussed currently – for the SC14 conference, StarLight directly supported 14 sets of 100 Gbps demonstrations). Preliminary requirements have been forwarded to the SCinet WAN group.

SDN Workshop Summary: Grant Miller

Approximately 70 leading SDN researchers and developers from the academic, Federal, and commercial communities attended the Operationalizing SDN Workshop in Berkeley, California, July 14-16. The focus of the workshop was to develop a roadmap for fielding an initial federated, dynamic, inter-domain SDN network by:

- Identifying the current status of SDN networks and research
- Identifying gaps in inter-domain SDN deployment
- Developing policies, abstractions, technology, and software for heterogeneous SDN inter-domain functionality
- Developing a roadmap for addressing gaps, timing, and responsibilities.

The workshop participants identified that the needs in deploying heterogeneous, inter-domain functionality include:

- New functionality including abstractions, crisp standards, multi-domain functionality, and multi-tenancy
- Manageability including the ability to troubleshoot, verify, provide instrumentation and develop common definitions
- Skills development, particularly workforce development

The workshop discussed deploying an initial inter-domain network functionality for the Science DMZ across the GENI domains. Workshop documentation is being developed to include a roadmap, individual responsibilities, and timing for developing the inter-domain functionality.

JET Tasking for next year: Grant Miller

Discussion among the JET members identified that the JET recommendation to the LSN for tasking next year should include:

- Track technologies: IPv6, SDN, perfSONAR,
- Track TIC deployments to the extent we're able
- Continuation of the JET Big Data Tasking: SCxx Demonstrations
- Workshops:
    - SDN Research Priorities Workshop
    - SDN Wireless Edge Workshop
    - SDN Applications Workshop
- Potential JET meetings outside NSF
    - 3rd week of Nov at SC15 (Austin)
    - Mid-May 2016 at Internet2 Global Summit (Chicago)
    - Late Sep 2016 for TechX

Meetings of Interest:

August 10-14	APAN40, Kuala Lumpur, Malaysia
September 21-23	CANS2015, Chengdu, China
September 28-30	ESCC, Austin, TX
Sep 29-Oct 1	Global Lambda Grid Workshop, Prague, Czech Republic
October 4-7	Technology Exchange, Cleveland, OH
October 5-7	NANOG65, Montreal, QC, Canada
October 8-9	ARIN 36, Montreal, QC, Canada
November 1-6	IETF94, Yokohama, Japan

November 15-20   SC15, Austin, TX
2016
February 8-10   NANOG66, San Diego, CA

Next JET Meetings:
August 18   12:00-2:00, NSF
September 15 12:00-2:00, NSF
October 20   12:00-2:00, NSF
Nov 17   1:30-3:30 CDT, Austin Convention Center, Austin TX
                    nb: This is concurrent with SC15.