

JET Meeting Minutes
May 16, 2017
National Science Foundation
Stafford II, Room 565

Participants (* Teleconference/WebEx Participants)

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Action Items (new)

- Send any suggestions or feedback about the SDN workshop to [Joyce Lee <Joyce.Lee@nitrd.gov>](mailto:Joyce.Lee@nitrd.gov) and [Grant Miller <Miller@nitrd.gov>](mailto:Grant.Miller@nitrd.gov)
- Jeff Smith to return for an additional briefing after EIS protest is resolved.

Action Items (carry over)

- ESnet will give an update on its ESnet6 design and implementation at the July JET meeting

Proceedings

This meeting of the JET was chaired by Kevin Thompson of the NSF.

JETnet Roundtable

○ **Networks**

CAAREN: Andrew Gallo

Nothing new to report

ESnet: Nick Burraglio

They are working on the ESnet6 architecture. Last week, there was a meeting at LBNL with the leads and the architects where they narrowed down what they be looking at going forward, which is likely hybrid architecture.

In addition, there is ongoing work on collaborative projects for modular systems for detecting bad activity/actors that are either SDN based or security based or both. They have 2 projects with NSF. The first project is on authentication across SDX with Duke and Rensselaer; the second project is with XSEDE to add functionality to IDS. ORNL added a 100G which is under test. This will give ORNL a total of 200G. They are also working with the Department of Veterans Affairs on TIC infrastructure.

Internet2: Dale Finkelson

Internet2 is continuing the transition to a MPLS backbone and looking at how to orchestrate the circuits in an elegant way. John Moore is continuing the efforts in long term planning for Internet2's next generation network. While at TNC in Linz John & Dale will work on understanding trans-Atlantic traffic flow balancing.

NEAAR & TransPAC: Predag Radulovic

The transatlantic 100G NEAAR circuit from New York to London is in full production. The circuit has joined the ANA Consortium and they will be working with ANA to fully integrate it. Both NEAAR and TransPAC circuit are now GNA compliant and both circuits will be participating in supporting demos at the TNC. This is a great example of international collaboration as half the bandwidth will come into Seattle and dump into CANARIE and out to the ANA in Montreal. The other half will come into LA and Pacific Wave, be handed off to Internet2, then either to MAN LAN or MAX (still an open question) and then to London for the demo.

NIH: Michael Gill

Nothing new to report

3ROX: Michael Lambert

Nothing new to report

- **Exchange Points**

NASA Ames: Bobby Cates

NASA continues to work on USGS moving onto campus from their Menlo Park facility. Aside from their peering and border traffic setup, they also had a TIC connection. NASA is working with DHS to see if they can have a joint TIC with the NASA facility. This will take about six month to resolve.

They are also working with DHS on a TIC compliant cloud model, specifically for Amazon AWS for the initial effort.

nb: Mark Foster has moved to DOE (SLAC).

MAN LAN & WIX: Dale Finkelson

They will be participating in the demo at the TNC. There are no new connections. He will be taking a look at the requirements for the exchange points to see if a new delivery method is needed.

MAX: Dave Diller

No changes

StarLight: Joe Mambretti

They are preparing for the SC conference. They are planning for 1 Tb bandwidth from StarLight onto the show floor – at least two 100Gs from Washington, DC for the NRL; another that may come into StarLight; NASA Goddard is going to do 100G directly to the show floor and another through StarLight. They are in the middle of discussing the architecture of what's going to be accepting that on the other side since they need 2 Tb on the show floor; they are working with Ethernet Alliance for a 400G fabric on the

show floor. They are also having discussions about the architecture for the interface of the 400G LAN and WAN as well as the DTNs which can drive 1Tb from a single box.

Non StarLight news: GÉANT did an experiment with AARNET to compare a 10 G flow from Europe to Sydney, Australia over R&D network against commodity internet. They were able to do a pristine stream from Europe and Australia and vice versa with no packet losses. For comparison, they tried with ISPs and they were able to get max of 1G for a few minutes before they were shut down as denial of service stack and they had packet loss. They have a write up of this on the GÉANT blog.

○ **Meetings of Interest**

- May 29 – June 2 [TNC17](#), Linz, Austria
- June 5-7 [NANOG70](#), Bellevue, WA
- June 26-26 [US Ignite Application Summit](#), Austin, TX
- July 9-13 [PEARC17](#), New Orleans, LA
- July 16-21 [IETF99](#), Prague, Czech Republic
- August 7-8 [National Research Platform Workshop](#), Bozeman, Montana
- August 26 – September 1 [APAN44](#), Dalian, China
- September 25-27 [GLIF](#) Sydney, Australia
- October 2-4 [NANOG71](#), San Jose, CA
- October 2-5 [ESCC, NSF PIs, & Quilt](#), Albuquerque, NM
- October 5-6 [ARIN 40](#), San Jose, CA
- October 15-18 [Internet2 Technology Exchange](#), San Francisco, CA
- Nov 12-17 [SC17](#), Denver, CO
- Nov 12-17 [IETF100](#), Singapore

LSN Update: Ji Lee

LSN is planning a follow on workshop on operationalizing the SDN. Jack Brassil has asked KC Wang of Clemson for assistance with planning the workshop. They are aiming to hold the workshop sometime in September but the date has not been finalized. They are currently seeking feedback and suggestions for the workshop, including workshop topics. Some of the suggested workshop topics currently include automating the management and control of the infrastructure, security in the SDN environment, and interdomain compatibility.

- Action Item: Send any suggestions or feedback about the SDN workshop to [Joyce Lee <joyce.lee@nitrd.gov>](mailto:joyce.lee@nitrd.gov) and [Grant Miller <miller@nitrd.gov>](mailto:miller@nitrd.gov)

The Broad Band R&D is being established as a task force (TF) under the LSN IWG. The TF charge has been drafted and it is currently under review by the LSN Co-Chairs.

EIS Fundamentals Brief to JET: Jeff Smith

nb: Jeff's slides are available at:

https://www.nitrd.gov/nitrdgroups/index.php?title=JET_Meetings_2017

Jeff Smith of GSA gave a presentation on "EIS Fundamentals". The presentation included an overview of the EIS contract, EIS service areas, and the services that GSA provides (to the agencies) under the EIS contract (see roles & responsibilities). See the presentation for details.

EIS leverages the US government's purchasing power to reduce the telecom and IT service costs by offering CLIN based pre-negotiated class discounts for these services as well as the option of streamlining the acquisition process. See the presentation for the list of service areas and some examples of the services offered.

For EIS, GSA issues designated procurement authority (DPA) to the agencies so that agencies can run their own contract and have a direct relationship with the providers. See the presentation for details of roles and responsibilities. Support services are also provided as needed, e.g. solicitation development, funding/acquisition approach, conduct fair opportunity, evaluate cost, manage inventory, etc.

Additional information about EIS is available at <https://interact.gsa.gov/EIS>. Please contact [Jeff Smith <jeffrey.smith@gsa.gov>](mailto:jeffrey.smith@gsa.gov) if you have any questions.

Questions:

- When an agency goes out for an award, are prices likely less than the catalog prices? Yes, there is still competition as most of these locations are likely to be at a high density population areas. CLIN based structure means that that is the max amount (not going into core-based statistical area (CBSA)).
- What, if any, requirements are there for IPv6? v6 is built into the RFP; they have to support IPv6 functionality and capability. EIS is still in acquisition phase and sensitive to sharing information at this time.
- Action Item: Jeff Smith to return for an additional briefing after EIS protest is resolved.

Next JET Meetings:

The next two JET meetings are on June 20 and July 18, 12-2 Eastern at NSF.