

Draft JET Meeting Minutes

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Action Items

1. Grant Miller will arrange for OMB to talk about IPv6 implementation and requirements at the February JET meeting.
2. James Cook will talk about IPv6 implementation at the February JET meeting
3. Anyone with experience implementing networking to military facilities, please contact Florida LightRail (Dave Pokorney dp@ufl.edu)
4. Brent Sweeney will discuss Path Hinting at the January JET meeting
5. The JET will discuss the NLR/Internet 2 network duality issue at the January JET meeting.

Network Roundtable

DREN

DREN implemented four new nodes. The San Diego connection was upgraded to OC48.

ESnet

ESnet installed a 10 G link between Chicago and Nashville. ESnet demonstrated OSCARS virtual circuits at SC07. OSCARS is being used as an internal ESnet tool as well as an external circuit tool. OSCARS will potentially be demonstrated at the January Joint Techs meeting in Honolulu.

Internet2

Internet2 is supporting several demonstrations at SC07 including a 40 G demonstration at SC07 between FermiLab and the Cal Tech. booth at SC07 using Infinera and Level 3... The dynamic service has been implemented and several programs are interested in using this capability. The pilot system is being tried by several potential users. It supports inter-domain services. The dynamic services demonstration was also presented at the Internet 2 Member Meeting in San Diego. HOPI is functioning again.

NLR

NLR has implemented VLAN provisioning via a Web interface. NLR will have a presence in Boston soon. The NLR Layer 2 connection to MANLAN is functioning...

NREN

NREN has a Web page thin client to reserve NREN. NREN implemented a 10G link between Ames and Goddard Space Flight Center using Qwest. There is a new 10G service for high end computing supported by NISN.

UltraScience Net (USN)

DOD and DOE are co-funding USN. It is using Obsidian and Infinera gear. They are demonstrating a single domain and a live demonstration with scripted testing. The demonstration uses 2 lambdas over Infiniband with advanced scripting and reservation to provide an automated service. Different path lengths were demonstrated up to 8000 miles and very flat (uniform) performance was observed at all distances without using retuning (7.5 – 7.2 Mbps over an 8 Mbps link). They demonstrated RDMA bulk transport only. A USN paper on bandwidth scheduling won the best paper award at an international meeting.

Florida LightRail (FLR)

FLR is adapting to NLR and Internet2 connectivity to Pensacola. FLR is looking for people with experience with connections to military facilities.

AI: Anyone with experience implementing networking to military facilities, please contact Florida LightRail (Dave Pokorney dp@ufl.edu)

MANLAN

MANLAN is implementing Nortel 6500 OME services.

StarLight

StarLight is supporting an SC07 Tokyo to Stockholm demonstration. They supported a Moscow Sputnik demonstration. They are supporting several

supercomputing demonstrations including Moscow, Czech Republic, and CineGrid. They supported demonstration of dynamic services using UCLP and the GLIF meeting in Prague. Then the network was reconfigured in 24 hours to support demonstrations in Barcelona.

Upcoming Meetings

January 20-24, Joint Techs and APAN meetings, Honolulu, Hawaii

January 20-24, JET meeting will be held in conjunction with the Joint Techs Meeting in Honolulu

IPv6 Status

James Cook discussed the status of IPv6 implementation. In general, vendors are offering IPv6 services but users are not using them. DREN has enabled IPv6 on its routers and services but IPv6 toolkits do not exist to support this service. Suppliers have indicated they will implement applications, upgrades, and toolkits for IPv6 in the first quarter of 2008.

Most users are implementing NATS for new addresses in the US. DOD needs IPv6 to support transparency to the proliferation of its equipments and sensors. DREN has implemented IPv6 service in its backbone but local sites have not implemented IPv6 capabilities in their local equipments so users can not use IPv6. New procurements should be IPv6 capable but often are not.

Optical Networking Testbed Workshop 4 (ONT4)

ONT4 will be held March 31-April 2 at FermiLab. It will be focused on critical challenges addressed by optical technologies and service including data access and warehousing.

JET Performance Measurement

JET members, including Internet2, DREN, and NISN have been taking performance measurements of advanced networks. They are focusing on common best practices. Measurements include latency (at least a week of measurements), throughput, and routing. The testing has resulted in fixing routing anomalies (which can reappear). They identified MTU issues in Sunnyvale and PacWave. In general, network upgrades and host upgrades can decrease throughput due to anomalies introduced.

AI Brent Sweeney will discuss Path Hinting at the January JET meeting

AI: The JET will discuss the NLR/Internet 2 network duality issue at the January JET meeting.

Future JET meetings

January 21, Honolulu, Hawaii

February 19, 11-2, NSF, Room 1150