## **JET Meeting Minutes**

April 20, 2010

## **Action Items**

- 1. Grant Miller will send a message to the JET requesting that if you have an interest in participating in discussions of multi-agency TICs or in commercial participation in TIC architecture discussions please contact: Kevin Kranaks < kevin.m.kranacs@nasa.gov >, Pat Gary < James.P.Gary@nasa.gov > or Ken White < ken.white@msfc.nasa.gov >
- 2. Grant Miller will contact Alan Blatecky of NSF to identify if NSF has any interest in brokering multi-agency TICs.
- 3. The JET, at a future meeting, should discuss high data rate flows causing flapping and router outages potentially due to video transmissions.
- 4. If you have an interest in participating in the JET demonstration of cross-domain implementation of perfSONAR, please contact Joe Metzger <metzger@es.net >

# **Proceedings**

This meeting of the JET was chaired by Vince Dattoria of DOE.

## **TIC Discussion**

Discussion of the TICs identified that JET members would like some way of including commercial vendors in the development of TIC architectures. Ken White volunteered to represent the interests of the commercial vendors and the interests of agencies interested in participating in a multi-agency TIC.

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## **Network Roundtable**

#### AmPath

AmPath suffered a cable cuts on two paths to Brazil. Lesson-learned is that leased capacity should consider geographic dispersion. The earthquake in Chile caused a two-day outage (but the links to the astronomical observatories was out for a much shorter period.) RedClara is upgrading its links and is using Panama on its route to the U.S. AmPath has a perfSONAR box installed and is seeking collaboration with RedClara on perfSONAR.

### A-Wave

No changes.

### C-Wave

The C-Wave rack is ready in Raleigh. C-Wave plans 2 x 10 G waves into SC10.

### **DREN**

Nothing new to report

## **ESnet**

Nothing new to report

#### Internet2

Great Plains, MERIT, CIC, and NOX all added a second 10 G circuit (all to Chicago). Internet2 added a second 10 G circuit from Atlanta to Houston.

## **NISN**

NISN has upgraded its core network to 10 G. They are replacing the SUP 720s at carrier hotels to accept full routing tables. They are also upgrading 3B to 3BXL to accommodate full routing tables. They are very close to having all the H/W upgrades needed to support IPv6. A CNES requirement is being met with routing from Goddard using GEANT, Renatur, and MANLAN. NISN is also working on multicast internal to Goddard, data, video and VoIP.

### NLR

NLR carried out additional vendor testing of 40 G alien waves. They are modeling 100 G. The reach of 100 G is expected to be about the same as the reach of 40 G. 100 G production cards are not yet available for testing. NLR plans to have 2 routed circuits and 3 Layer 2 circuits to SC10.

### **NREN**

NASA is holding its IT Summit in the DC area in Aug. NASA has shut down its internal multicast exchange. ??????

#### TransPac

TransPac is awaiting NSF decision on the new IRNC awards.

## **MANLAN**

Nothing new to report

### NGIX-East

NGIX-East is upgrading its v6 link to Ashburn from 100 M to 1 GE. The Army Research Laboratory is connecting via a local fiber link, with a planned 100 G capability.

## StarLight

StarLight supported a CinaGrid demonstration to Prague, Czechoslovakia. They are supporting a GLIF ITER data flow. JGN2 pulled out of StarLight and rerouted their traffic to CosmoGrid from Amsterdam. JGN2 is discussing peering with NGIX2.

StarLight is extending its HPDM link to RENCI, North Carolina State, and possibly Duke University. They are working with Kevin McGrattan to extend C-Wave to North Carolina. StarLight is working on control plane implementation based on ORCA. A GLIF sponsored project will create a control plane for dynamic provisioning using a common interface. The GLIF fall meeting is in October at CERN and will focus on the LHC network.

## **Ames Research Center NGIX**

Ames NGIX shut down its layer 3 service at the MIX and didn't receive any complaints. Users had transitioned to private peering at layer 3. The Ames exchange is waiting for equipment, 6500 and 7000 that are planned to be implemented in mid summer. They have observed an increase of high rate traffic to SDR causing routers to die, including 762 GSRs. These high data rates may be due to video flows. SAP has problems occasionally mainly due to misconfigurations.

AI: The JET, at a future meeting, should discuss high data rate flows causing flapping and router outages potentially due to video transmissions.

# PNW GigaPoP

April 25-29

Pacific Wave is putting out a call for potential users for SC10.

Internet2 Member Meeting, Arlington, Virginia

## **Meetings of interest**

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May 11-12	NLR All Hands meeting, Indianapolis, IN
May 11-12	IPv6 Workshop, Fayetteville, AR
May 31-June 3	TERENA, Vilnius, Lithuania
July 7-9	NSF/DoE perfSONAR workshop, Arlington, VA
July 10-11	Network Performance Workshop, Columbus, OH
July 11-14	ESCC/Internet2 Techs Workshop, Columbus, OH
July 14-15	ESCC, Columbus, OH
July 14-16	IPv6 Workshop, Columbus, OH
August 9-13	APAN, Hanoi, Vietnam
August 16-18	NASA IT Summit, Washington, DC
August 16-19	DREN Networking and Security Conference, Monterey, CA
August 28-Sej	otember 1: NSF/NASA/LSN Highly Dynamic Networking Workshop,
Ames Research Center, Mountain View, CA	

#### **PerfSONAR Demonstration:**

Joe Metzger is coordinating a demonstration of perfSONAR across JET networks. Internet2, DOE, and NOAA will demonstrate cross-domain capabilities. Additional networks and agencies are asked if they would like to participate. Discussion identified that DREN, and NLR also have an interest in participating. Testing will begin next month.

AI: If you have an interest in participating in the JET demonstration of cross-domain

implementation of perfSONAR, please contact Joe Metzger <metzger@es.net >

# PerfSONAR Workshop

NSF and DOE have funded Internet2, with Eric Boyd as Principle Investigator, to hold a perfSONAR workshop July 7-9 in Washington, DC. The workshop purpose is to create a community consensus on where perfSONAR needs to go and how it should grow to fill the needs of user communities. Potential participants will be requested to submit white papers on why they want to attend plus the issues they see as important.

## LSN Update

The LSN has a workshop on Highly Controllable Dynamic Networking, funded by the NSF, scheduled for August 30-September 1 at Ames Research Center.

# **Next JET Meetings**

May 18, 2010, 11:00-2:00: NSF June15, 2010, 11:00-2:00: NSF