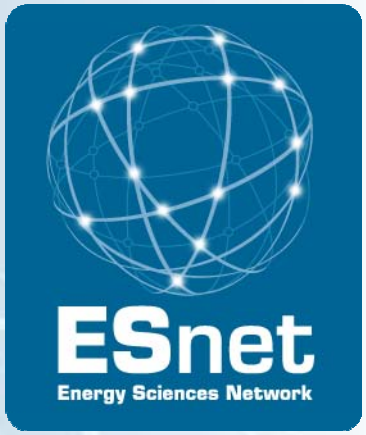


PerfSONAR JET/LSN Demo

Joe Metzger, Network Engineer

ESnet Network Engineering Group

Columbus, OH

July 13, 2010

Status

Domain	Latency Deployed	Latency Scheduled	Bandwidth Deployed	Bandwidth Scheduled
ESnet	Yes		Yes	Partial
Internet2	Yes	Partial	Yes	Partial
NOAA	Yes		Yes	Partial
NLR	Yes		Yes	
NASA			Yes	Partial
UEN	Yes	Partial	Yes	Partial

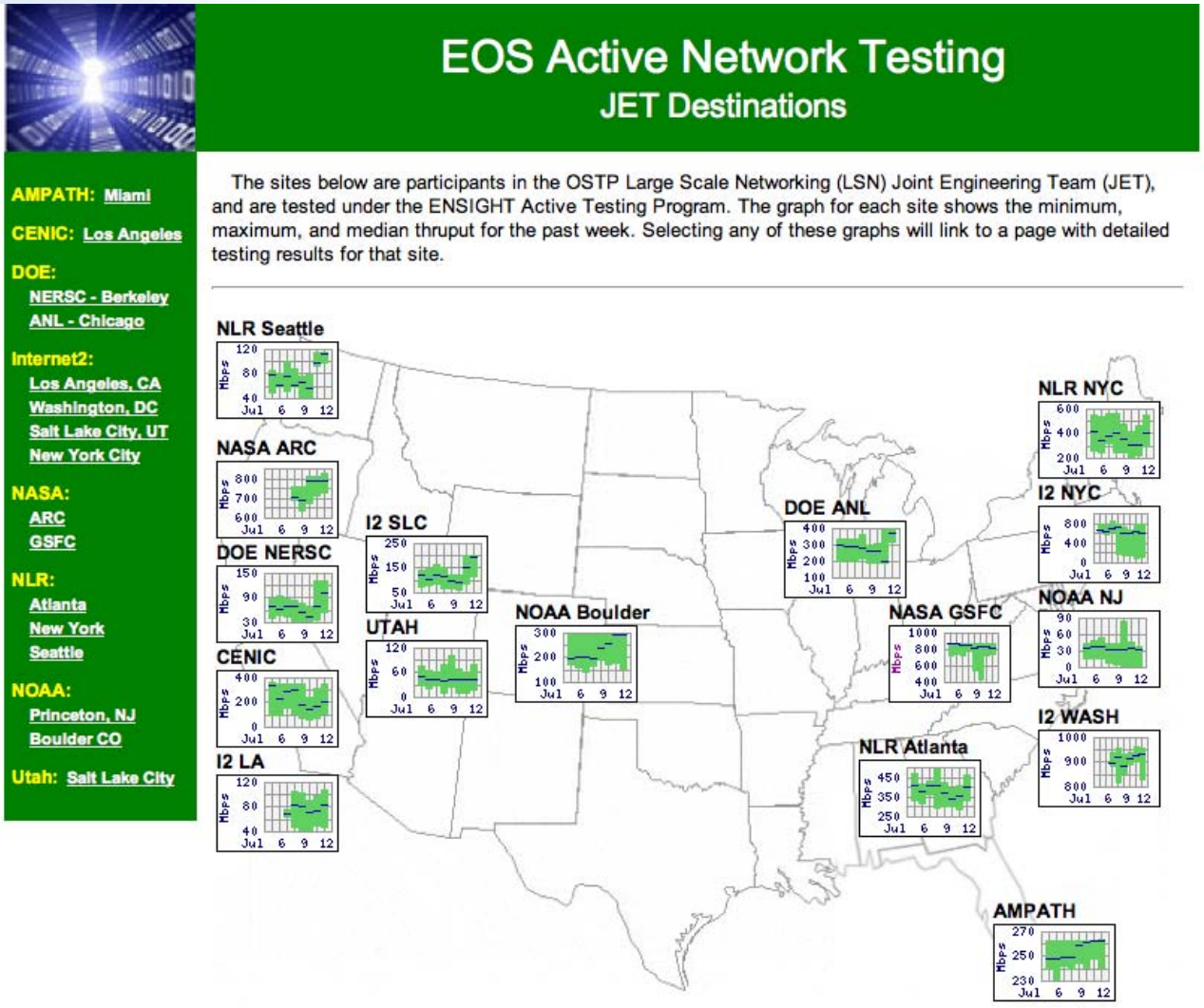
http://code.google.com/p/perfsonar-ps/wiki/JETPerfSONARDemo

Active Tests Internet2 Perspective

Active Data Sets

http://ggf.org/ns/nmwg/tools/iperf/2.0 @ http://ndb1.internet2.edu:8086/perfSONAR_PS/services/pSB									
First Host	**First Address**	**Second Host**	**Second Address**	**Protocol**	**Duration**	**Window Size**	**Bandwidth Limit**	**Bi-Directional**	**Line Graph**
anl-pt1.es.net	198.124.252.117	nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	TCP	30	4		Yes	-- Select --
anl-pt1.es.net	198.124.252.117	nms-rthr.salt.net.internet2.edu	64.57.17.196	TCP	30	4		Yes	-- Select --
anl-pt1.es.net	198.124.252.117	nms-rthr1.salt.net.internet2.edu	64.57.17.210	TCP	30	4		Yes	-- Select --
bandwidth.chpc.utah.edu	155.101.3.61	nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	TCP	30	4		Yes	-- Select --
bandwidth.chpc.utah.edu	155.101.3.61	nms-rthr.salt.net.internet2.edu	64.57.17.196	TCP	30	4		Yes	-- Select --
bandwidth.chpc.utah.edu	155.101.3.61	nms-rthr1.salt.net.internet2.edu	64.57.17.210	TCP	30	4		Yes	-- Select --
nersc-pt1.es.net	198.129.254.22	nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	TCP	30	4		Yes	-- Select --
nersc-pt1.es.net	198.129.254.22	nms-rthr.salt.net.internet2.edu	64.57.17.196	TCP	30	4		Yes	-- Select --
nersc-pt1.es.net	198.129.254.22	nms-rthr1.salt.net.internet2.edu	64.57.17.210	TCP	30	4		Yes	-- Select --
nettest.boulder.noaa.gov	140.172.5.21	nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	TCP	30	4		Yes	-- Select --
nettest.boulder.noaa.gov	140.172.5.21	nms-rthr.salt.net.internet2.edu	64.57.17.196	TCP	30	4		Yes	-- Select --
nettest.boulder.noaa.gov	140.172.5.21	nms-rthr1.salt.net.internet2.edu	64.57.17.210	TCP	30	4		Yes	-- Select --
nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	nms-rthr.salt.net.internet2.edu	64.57.17.196	TCP	30	4		Yes	-- Select --
nms-rthr-eth2.newy32aoa.net.internet2.edu	64.57.17.82	nms-rthr1.salt.net.internet2.edu	64.57.17.210	TCP	30	4		Yes	-- Select --

Active Tests NASA Perspective



Test Results Summary

- There is significant variability on the cross-domain paths being tested.
  - Some are actively used paths with significant cross traffic
  - Some paths are mostly idle
  - **Some paths are not allowed by policy**
- Bandwidth results
  - Many show high, stable performance
  - Some show significant variability
  - Some are asymetric, probably due to test infrastructure configuration issues

Lessons Learned – Initial Comments

- BWCTL tests are far more prevalent than the latency tests
- Having a mostly full mesh of both the latency and the throughput yields a better and more rounded picture
- Exposing the data for 3rd party access is problematic from a policy and technical perspective. However, this data is necessary for good troubleshooting.
- Exposing the data for fixed site and tests is useful, but being able to dynamically bring up sites and graphs would be even more useful to active troubleshooting.
- Not everyone is setting up IPv6 interfaces for measurement at this time
  - More thoughts on how to balance IPv6 measurements might be necessary.

Next Steps

July - Collect Lessons Learned

August - Write up a report