

Meeting Minutes from Joint Techs 2-Feb-10 (Salt Lake City, UT)

Performance Working Group - Meeting Minutes

February 02, 2010, 12:30 PM - 1:50 PM
US / Canada Mountain

Welcome (5 min)

Co-Chairs: Carla Hunt, MCNC and Chris Hawkinson, CENIC

Community Updates (10 min)

1. Internet2 update, given by Jason Zurawski

See:

<http://www.internet2.edu/presentations/jt2010feb/20100202-PerfWG-zurawski.pdf>

- Software Releases

Last official release of perfSonar -ps and the Toolkit in 2009

Roadmap for 2010 - conversion to RHEL lineage, integrating with Nagios

Longer term - AA integration into ps tools, Configuration management, Possible rewrite of NDT and integration with BWCTL, evaluation of TCP implementation - right now is RENO

- Product Adoption:

USATLAS continues to utilize pSPT, preparing recommendations for Tier 3's

USCMS has no official stance on performance measurement

OSG and some performance tools in VDT distribution

GLIF - MANLAN and dynamic circuit interplay demonstration in 2009

Google MLAB- Deployment continues, NDT development in the past year has been driven by MLAB

- Standardization

Continue to be heavily involved in OGF participation. Four working groups: NM, NMC, NML, NSI

- Outreach

a) SC09

I2 assisted REDDnet in a BW Challenge entry

ION and I2 connections to Portland 20G total

perfSONAR measurement infrastructure at SC'09 covered in Aaron's talk today!

Matt Z will be leading SCinet Measurement next year

b) APAN - next week

- Other

Open positions on the team!

<http://www.internet2.edu/about/staff/careers#nse>

Discussion about backup of measurement data on toolkit hosts. Consider moving data to alternate location for long term archiving. Toolkit not really designed with robust backup capability.

2. eduPERT activity (<http://edupert.geant.net/>) Chris Welti, SWITCH

See:

<http://www.internet2.edu/presentations/jt2010feb/20100202-EduPERT-JTech.pdf>

Help desk for users of R&E network users

Typically, NOC doesn't see a problem and hands off an issue for further investigation

Used to be a central PERT for the entire community

Recently implemented a new model where each NREN has implemented its own PERT

This is a federation of PERTS with some central functions like knowledge base, directory, accreditation, mailing list

Range from 2 days to 2 hours minimum response time

Knowledge Base - barriers to contribution low, community-based review of documents, sometimes mailing lists discussions become documents

Reporting on statistics of number of cases worked by PERTs

Also do on-boarding/organized workshops for new organizations that decide to form a PERT

We are welcome to participate if we have an organization that is interested

Federation based on people and relationships. No tools requirement per se.

Discussion - Does the PERT see emergent community-related performance issues or one offs. Typically, one-offs related to TCP buffering issues.

Community Presentations

Please see slides for each of the community presentations.

Prasad Callyam, Ohio Supercomputing Center (15min)
"How should an active measurement service operate within an experimenter's slice (encompassing Internet2 backbone resources) in the GENI facility?"

See:

<http://www.internet2.edu/presentations/jt2010feb/20100202-callyam.pdf>

Discussion:

What does GENI stand for? Global Environment for Network Integration

What are the metrics for measuring part of a slice? One possibility could be was the slice request fulfilled.

Measurement design so far collects measurement within the same domain as the slice.

Some passive measurement within and outside the slice

How is a slice provisioned?

built on several different substrates

one option is vlan

could be wireless channels

With shared infrastructure, one consideration could be how do I know when another slice impacted my slice?

-queuing and resource utilization considerations

Here in SLC implementation, not possible to request slices that exceed hw capacity.

Katsuhiro Sebayashi, NTT Network Innovation Labs (15min)
"PRESTA 10G, a 10Gbps network interface card (NIC) with highly-accurate traffic-measurement capabilities"

See:

<http://www.internet2.edu/presentations/jt2010feb/20100201-sebayashi.pdf>

Has presta 10G been looked at for bulk data transfer

Approximate cost of a card is 3000.

Dr. Kenji Shimizu, NTT Network Innovation Labs (15min)
"Development of Measurement Archive (MA) capability for PRESTA 10G that is compatible with the perfSonar measurement infrastructure"

See:

<http://www.internet2.edu/presentations/jt2010feb/20100202-shimizu.pdf>

A bit of discussion about the data storage format - why RRD? Not entirely clear why there was a need to develop an HRA interface.