

NSF CC-NIE Working Group Meeting

Jan. 16, 2014

Agenda

Time: 2-3pm, Jan. 16, Thursday

Location: UITS Library Subbasement Conference room

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1. Status of the monitoring infrastructure
2. Update from CEN
3. Status of Science-DMZ equipment at Storrs
4. Update from UCHC
5. Next step
6. Open discussion on other issues

Minutes

Present:

Scott, Bing, Bob, Jeff F., Richard (Jones)

1. Status of the monitoring infrastructure

Have placed 4 monitoring devices (with 1Gbps interface cards, donated by School of Engineering), two for monitoring throughput and two for monitoring end-to-end delay. For throughput nodes, probe the throughput to two groups of remote hosts with different ranges of RTTs. Choose two to three hosts in each group. Sampling rate: every 15 minutes. More hosts can be added in the future (particular hosts in institutions with which researchers collaborate with). No control on sampling rate for delay nodes.

Plan to purchase 2 machines with 10Gbps cards as monitoring equipments. They will be placed outside the current gateway router. They will allow us to quantify the performance improvement once we construct the 100Gbps Science-DMZ gateway (which provides multiple 10Gbps to distribution routers).

Richard mentioned an interesting example. In his experiments (where computation can run for hours on a remote site before the results are returned), TCP connections will be closed by the firewall when there is no activity for 3-4 minutes. The Science-DMZ should be able to solve this type of problems.

2. Update from CEN

IMX(?) is partially powered up and in configuration.

The 100G Pt. to Pt. Pluggable Module Unit, EKINOPS 100G Optical Transport Platform, is in purchasing department. This gear is better than Optelian's (that we originally planned) because it will scale better long term and the cost will be slightly lower than Optelian's at the end of the day. The gear takes 2RU of space at each campus and 7RU at CEN's hub. It is also used by NYSERNet.

3. Status of Science-DMZ equipment at Storrs

UIITS is redesigning the core of the network for the future five years. Since the Science DMZ will eventually be merged with the production network (to ease future operation and maintenance), the plan of the Science DMZ will need to be consistent with the new design. We'll wait a bit for the new design to be finalized before finalizing the design for the Science-DMZ.

5. Next step

Need to change meeting time for next semester.

6. Open discussion on other issues

Briefly discussed the new NSF call on CC*IIE. Two new directions: Identity and access management, regional coordination and partnership, are of interest.