

20110105 SLAC SEECS meeting

Agenda for SEECS/SLAC meeting January 5th 2011.

Bold face, topics for coming meeting that we need to address

Pakistani case study - Zafar, Anjum

- **Progress on ICFA Report 2011 - Zafar**
- Amber is working on the Pakistani Case study. Can't backtrack to get the traceroutes earlier so its hard to understand the high values of RTT early in the year.
 - We need to start taking and archiving traceroutes between Pakistani monitoring hosts on a regular bases. **This is still pending, will set this up asap.**
 - There is an explanation for differences at the end of the year. A summary of the case study will go in the ICFA report.
- Large RTTs seen between Islamabad and UETTaxila. See <https://confluence.slac.stanford.edu/display/IEPM/SEECS+to+UET+Taxila+link>
 - Running long series of pings (1 week, 10 pings every 10 minutes). Amber will generate graphs to uncover the trends.
 - Need to get TCP configuration parameters for transmit and receive buffer lengths at end sites, and also at edge routers.
- Need table of monitors vs remote sites for Pakistan. Do for a typical month, e.g. November. **Amber will include this in the case study.**
- Need a trend plot Jun-Dec 2010.
- Need number of hosts etc, see <https://confluence.slac.stanford.edu/display/IEPM/Results+for+2010>. **Add this to Pakistani case study.**

PingER

- I am still working on a monitor in Sarawak. It was using Linux selinux that blocks pings & traceroutes. That has been disabled. Now the webserver is down
- Fahad made some small changes to <http://www-wanmon.slac.stanford.edu/cgi-wrap/checkremote.cgi>. He will add some help and also an allyearly tick. **It looks quite useful.**
- I am putting together a talk on "Quantifying the digital Divide: the emergence of Africa" for the American Physical Society in April.
- Les and Umar worked on UNSW, and Les worked on South African Monitoring hosts, updating traceroute.pl and ping_data.pl. Both now work. In addition extensions were made to ping_data.pl to assist in debugging problems. Also fixed Brazil host. **This is working fine.**
- PingER archive site: Database ERD being currently designed and tested.

Added Features for pinger map - Faisal

1. Next he will add a control panel showing the color assignments and the ability to customize the colors. Added custom color range component.

TULIP

- With the move to the new host Faisal had to get a new cookie to allow scriptroute to run scripts on the PlanetLab infrastructure. **Still needs testing.**
- Get the MatLab license at SEECS and put up a CGB server using it. Do not have license for MatLab will do on own machines to test and will migrate when have license. Zafar will contact Arshad and Ali. Basically the client will call the reflector with the target. The reflector will return the landmarks and RTTs. The client will then call the CBG/MatLab server with the relevant RTTs, lat/longs etc. **Bilal has read the TULIP architecture. He has a moderate understanding of how it works. He is modifying CBG code. Now it is ready for integration with TULIP. I will send the reflector/eventhandler, tulip-viz.cgi, Faisal will send the Java code to Zafar.**
- Les spotted an error in reflector.cgi when using function=landmarks and requesting a csv file. **Zafar has fixed.**
- **Two new landmarks have been added in Taiwan.**

PerfSONAR

Problems were fixed. NTP servers were causing considerable clock delay. Added close-by Stratum 1 NTP servers to solve the problem. Nodes were updated to PerfSONAR version 3.2 (Fedora distro). Nodes however are offline since they were disrupting normal traffic. We are waiting for 10 Mbps dedicated connection to switch the nodes back on.

1. Faisal is working with Yee. **No Progress**
 - a. Looking at how to display multiple nodes at a single lat/long or close lat/longs, a grouping problem. Looking at how to handle identical lat/longs. Looked at MonALISA, and other implementations. This has been solved.
 - b. Added Zoom in based on selection feature. User can select a specific region of a map by holding shift key and dragging through the bounds. Will add to the PingER maps.
 - c. For displaying links between hosts, Faisal is using poly-lines to represent great circle routes, rather than just straight lines to present the actual shortest path. Lot of mathematical formulas. Study on implementing Bézier curves which may help better to separate paths.
 - d. Representation of data in XML for links and paths. Writing an API so can get data from perfSONAR and provide to the client.
2. Zafar - deploy PerfSONAR nodes at SEECS. Second step is to find whether the same can be done at HEC on PERN's network. It is working, congratulations!
3. Internet2 Joint Techs meeting at the end of Jan. Can Pak PerfSONAR nodes be up by then?

Possible projects

See [<https://confluence.slac.stanford.edu/display/IEPM/Future+Projects>]. Zafar will talk to the students about these projects.

1. Extend the NODEDETAILS data base to allow entry support for whether the host is currently pingable.
2. Extend Checkdata to provide emails automatically, see [<https://confluence.slac.stanford.edu/display/IEPM/Extend+checkdata+to+make+it+more+useful>]. Many of the ideas in the script node-contacts.pl are a step in this direction.

3. Add **MOS and alpha to pingtable.pl** see [https://confluence.slac.stanford.edu/display/IEPM/Add+Mean+Opinion+Score+%28MOS%29+to+pingtable.pl+metrics] Sadia will start work on it when done with HEC report, writing thesis. **When should we expect progress, don't forget alpha? No started yet.**
4. Improve the PingER2 installation procedures to make it more robust. This might be something for the person(s) in Pakistan who are responsible for installing PingER2 at the Pakistani monitoring sites. They probably have found where the failures occurs. Also look at the FAQ, and ping_data.pl which has been improved to assist in debugging, could it be further improved (e.g. provide access to the httpd.conf file so one can see if it properly configured)? There are 2 students working on the PingER archive. "Is this something they could work on?"
5. **Fix PingER archiving/analysis package to be IPv6 conformant.** Will build a proposal for an IPv6 testbed. They will try various transition techniques. **A proposal has been prepared and that has been submitted to PTA. Adnan is a co PI. It is being evaluated today. A small testbed has been established in SEECS and thve plan to shift some of the network to IPv6. Bilal is part of 3 students involved with PingER and they will be involved with IPv6. They are porting the PingER archive site site to using a database. They have redeveloped the archive site using Umar's documentation. They have set up a small test archive site. They have gathering, archiving, analysis. They will design a new database. They will also try a port of PingER to IPv6.**

Future

- Les is trying to clear space to visit SEECS in February. Current plans are to arrive 2/13/2011, and leave the on the 2/22/2011.
- **The draft letters of invitation for Sadia and Amber have been submitted to upper management at SLAC.**
- **The account requests for Bilal, Amber & Sadia have been submitted. I will send the passwords today.**
 - They need to learn Perl. Zafar explained PingER and PerfSONAR projects in a nutshell to Amber and Sadia.
- Zafar received his DS-2019 on Dec 10 (Fri). Applied for visa on Dec 13 (Mon). Interview date was Jan 3, it has been delayed.
- Adnan Kiani has just been introduced to the PingER project. He completed his PhD degree this year in communications at Brunel University. He will be taking over the liaison at SEECS from Anjum.
- Arshad coming to SLAC in Jan, to start his daughter at Foothill. Falsal looking for a place for them

Paper - Umar, Fida, Zafar

1. SVN for paper, Umar has set it up and it is working. Umar will send out the accounts. Not critical at the moment.
2. Umar will take as the main/first author of the paper. Ali Khayam has put together an introduction identifying the main points. Umar will send in the first draft and put together with feedback from Ali. Umar hopes to be done by Mid December. Umar is currently overwhelmed. Zero progress 11/10/2011. Umar has to submit a camera ready copy in the next couple of days.
3. Adnan is also interested in working on the paper and will talk to Umar.
4. Umar sent draft to Adnan. Umar will be in Pakistan later this month and will get together with Adnan. Fida will be available after December 16th.
5. Fida will send review comment to Adnan
6. **Meeting between Adnan, Umar, Khayam this coming Tuesday then Adnan will start start to work on re-writing the paper.**

AOB

Future meeting time - Les

The next meeting in **Wednesday 12th January 2011** for people in US and 13th January for people in Pakistan.