20101124 - SLAC SEECS meeting

Agenda for SEECS/SLAC meeting November 10th 2010.

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

Italics action items

Introductions

Amber and Sadia will share their CVs. Umar has them.

We need to get SLAC accounts for them - they need to look at https://oraweb4.slac.stanford.edu/apex/oradb1/f?p=134 and http://www2.slac.stanford.edu/comp/slacwide/account/account.html and follow instructions

They need to learn Perl. Umar will go over what the projects PingER and perfSONAR are all about **did this happen?**

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. Anjum is over committed and unable to commit enough time to the PingER project.

Pakistani case study – Zafar, Anjum

We need to make some progress on the Pakistani case study soon.

1. aiou, lhr (never any data), nwfpuet, uettaxila, uob are down for many days: see http://www-iepm.slac.stanford.edu/monitoring/checkdata/).
   a. UOB is being worked on, by Amber who is in Quetta together Kashif Satar. Once they return from Quetta they will work on uetaxila and nwfuet
2. There has never been any data from pinger-rcp.pern, hu (Hazara), kohat, nca, pwr.nu, ustb, since though the hosts are in the NODEDETAILS database there is no dataserver entry for each of then in the database. Should there be? They are identified as monitors. Zafar looked at aiou. Email has been sent to all of them. If no reply will call them. Most of these people are cooperative. NCA have made contacts so expect progress. The last mile for Kohat is very poor, may be dialup.
3. Dr. Anjum is verifying that table.pl at SEECS has all the known Pakistani monitors. Need to study improvements with pingtable.pl time series and the smokeping plots where we have them. If something has been recommended by our measurements and that has happened and made things better that is **very important for the case study.**
   a. UET, UOB, LSE, COMSATS do not have the full set of Pakistani beacons. See matrix. The Pakistani monitoring nodes are supposed to get the beacon list from SEECS. – Anjum said he has a student who can fix but need password so they can fix the nodes so they get the list from the SEECS server. They are fetching their beacons from SLAC. *Anjum is requesting admins to fix. Working on it, but response from admins is not good.*
4. We need to understand the high ping losses for UAAR. Sadia please put together a case study. Zafar discussed with Sadia and she has started something and it will go in the HEC report. The high losses disappeared in Nov.

Despite the lack of progress on the above items there is enough valuable information to get going on the Pakistani case study. Sadia is working on statistcis for the HEC report which will be incorporated into the Pakistani case study. It will have a summary and Appendix. They are focusing on an inter-regional study. This will include routing paths and anomalies, with summary graphs. they are picking one or two nodes per region and then study from it to all other regions. They did not make the Nov 20th date due to Eids. That has been a problem that Anjum has managed to work around. The subsequent reports will be monthly on 15th of the month. Expect to finish by Wednesday next week. Zafar is trying to keep the report below 50 pages.

Table.pl extended for Sadia's Pakistani study, getting new wanmon server at SLAC 3 times as fast help with table.pl execution times

Fahad fixed Smokeping error pointed out by Sadia.

Progress on ICFA Report 2011 - Zafar

Integrate into the report.

1. 2010 Updates on Africa (done)
2. Inland African fibre optics (done)
3. African NREN (done)
4. Mean Opinion Score
5. Regions of the World graphs
6. Throughput graphs (will be handled in December/January)
7. PingER metrics (done)
8. Loss (done)

Zafar has resumed work on the ICFA report. he hopes to make updates and have the initial draft by end Novenber. The pakistani case study may not be ready by then.

Zafar has explained to Sadia and Amber the nature of work. They are currently working on HEC reports. Deadline for Sep-Oct (bi-monthly) report is November 20th. That report will be helpful for writing down Pakistani case study.

Sadia and Amber are working on the Peshawar data. Some of Peshawar node show long RTT to other sites and others have short RTT. Some are going via Karachi.

Les extended the Africa case study to add BGP p[refixes/country, max throughput/country, min-rtt/country

Egyptian PingER monitoring node in final stages of adding, added to NODEDETAILS and TULIP.

Working on Sarawak.

PerfSONAR

Zafar has deployed bandwidth and latency. He believes they are working, but has not seen any graphs so far.

1. Faisal is working with Yee. **Progress - Faisal**.
    a. 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.
    b. 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.
    c. 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 found a problem in the TULIP map, Faisal has fixed it.** Faisal has kept information on the landmarks used RTs etc, which be very valuable later to look at.
3. Zafar - deploy PerfSONAR nodes at SEECS. Second step is to find whether the same can be done at HEC on PERN's network. **Status?**

Possible projects

See https://confluence.slac.stanford.edu/display/IEPM/Future+Projects. Zafar will be working on this

1. Extend the NODEDETAILS data base to allow entry support for whether the host is currenty pingable. See https://confluence.slac.stanford.edu /display/IEPM/Create+a+web+page+with+active+hosts+per+country
2. Extend the PingER map (also use for Pakistani to Pakistani subset map for the case study) - Faisal has taken this on.
    a. This adds ping, traceroute, access to database etc.
    b. The advantage compared to other traceroute maps is that the laundering keeps only good servers
    c. Add in Viper capabilities (i.e. paths with coloring)
3. Get the MatLab license at SEECS and put up a CGB server using it. They had a licenses, it had limited capability and it has expired. Zadar will talk to Ali Khayam to get another license. In the meantime Zafar has a matlab version to work with. Basically the client will call the reflector with the target. The reflector will return the landmarks and RTTs. These (landmarks and RTTs) will be passed to the CBG code that will look up the database for the lat/longs of the landmarks (alternatively the CBG could be passed just the lat/longs andnot need the database, however this may make debugging harder) and then using these lat/longs together with the RTTs find the target and errors.   Zafar has 1 graduate (MS) student who can work on re-implementing CBG in Java.There are 2 students working on the PingER archive.
    a. All of our geolocation techniques are in Java and since there is no sort of a front-end back-end abstraction layer, best solution is to go with re-implementation.
    b. Since all of geolocation code is a single project, integrating CBG as a separate class will be better than trying to create a platform where CBG can talk to the rest of the infrastructure. This way in case of failure we will have just one point to deal with, instead of two. We won't be required to setup extra logging on the second machine running MatLab.
    c. Neither will there be communication overhead due to over-the-internet communication and nor will there be cross-platform issues.
4. Extend Checkdata to provide emails automatically, see https://confluence.slac.stanford.edu/display/IEPM /Extend+checkdata+to+make+it+more+useful
5. Add MOS to pingtable.pl see https://confluence.slac.stanford.edu/display/IEPM/Add+Mean+Opinion+Score+%28MOS%29+to+pingtable. pl+metrics is Radia interested, she will start work on it when done with HEC report, also she is working on her masters classes done, writing theses. **Any progress.**

Future

Zafar invite: Letter of invitation sent to Zafar. **Robyn is working of DS2019**

Two new students to visit SLAC: Amber, Sadia. We want them to overlap with Faisal and Zafar. They want to start early due to funding constraint, i.e start well before June. Aim for Jan Feb 2011. **Any update?**

Arshad will visit SLAC in January, 2010. Invitation letter has been sent.

Les is trying to clear space to visit SEECS in February.

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 Al*i. 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.

AOB

Future meeting time - Les

The next meeting in Wednesday 8th December for people in US and 9th December for people in Pakistan