20120705 SLAC UNIMAS meeting

Attendees

Tan and Imran at Unimas and Les & Bebo in the Bay Area. Nara was unable to be present he was in KL on an official assignment.

UNIMAS PingER host name

Can we get a DNS name for 49.50.236.98? It is possible, UNIMAS have to talk to person in charge of DNS. They hope to do this next week. The suggested name is pinger.unimas.my.

Extending UNIMAS PingER hosts monitoring

Are there thoughts on extending the PingER monitor at UNIMAS to add remote hosts in Malaysia to the list of hosts monitored? For how to add hosts to pinger.xml see: http://www-iepm.slac.stanford.edu/pinger/faq.html#extra.

They have remote sites in Kelabit Highlands in Barrio. There is a wireless network. the hosts are solar powered. They could be pinged via the VSAT connection. Could be a month or two to set the host at Barrio up. There are other telecenter sites that are similar. They could also put up hosts in these places. These telecenters include: Long Lamai, and Ba Kalalan.

It would also be interesting to extend the monitoring to other more centrally connected hosts in the cities of Malaysia. What about Mimos in West Malaysia (KL) or at Kota Kinabalu (University Malaysia Sabah), Swinburne in Kuching, Miri, Manipal university in KL.

The monitoring would provide an historical record of performance (round trip times, jitter, loss), reachability etc. Based on this a case study could be put together to identify problems in particular the reliability (e.g. MTBF, uptime, MTTF), how congested the connection is, identify problems and possibly identify the causes.

When a reasonable amount of data has been gathered then a case study could be be made of the connections to the remote sites, to identify and compare the performance.

They will work on identifying hosts to ping in Malaysia, and then add them to pinger.xml. Imran will test out the HostList in pinger.xml at his house.

Imran will test out the HostList in pinger.xml at his house. Private IP address maybe a problems since they use NATs at Barrio and probably at Imran's home.

By the next meeting they plan to have made a lot of progress on extending pinger.xml to add a dozen or more hosts in Malaysia,.

ePingER

See https://confluence.slac.stanford.edu/display/IEPM/ePingER+Project

There is also interest in ePingER, e.g. for other major sites in Malaysia and even the Kelabit highlands where its low power requirements and low cost together with the ability to host applications such as a web accessible PingER monitoring station, could be very advantageous to quantitatively study the network performance, and provide reports for decisions makers and funding agencies on how to improve the network.

Les provided information on the hardware to purchase. Looking at https://confluence.slac.stanford.edu/display/IEPM/ePingER+Project it says:

> *The initial two machines were alix2d2 (see http://www.pcengines.ch/alix2d2.htm) models purchased from PCEngines (see http ://www.pcengines.ch/alix.htm) located in Switzerland. The cost is about $110/machine. The machines purchased each have 256MB RAM, on a 500MHZ AMD Geode CPU, with 128KB L2 cache, and a 4GB Flash memory. They have 2 USB and 2 Ethernet interfaces. there is more information at the PCEngines site.*

An ePingER App for an Android or iOS might also be an interesting project.

Funding for visits and students

Since Nara was not available we left this agenda item to a future meeting. Nara reported by email he will provide feedback on funding when he gets back and meet with his VC. He hopes to do so by next week.

From previous notes:

Students have a local superviser in Kuching. We start with a couple of graduate students interested in network monitoring.

- They learn about the PingER and other projects
- They work on assigned tasks working in Kuching
- We meet regularly (e.g. weekly) via phone (Skype) to review progress.
- Meeting includes Les at SLAC, any Kuching students at SLAC, students and supervisor in Kuching
- Daily emails, skype calls & instant messaging to keep in contact
- Tasks will involve programming (typically in perl) of network measurements, analysis and presentation (GUIs) of information

The best of the best graduate students are invited to SLAC for 1 year as an intern/visiting scientist

- Up to 2 students at a time

- They will work together with the SLAC team on projects such as PingEr, perfSONAR
- Depending on the student there may be opportunities for presentations, talks, and contributing to publications

They are funded by Kuching
If interested then fairly early on it would be good to have a face to face meeting in Kuching and/or SLAC to go over expectations, do some publicity, introductions etc.

- A next step is to further engage the UNIMAS vice chancellor. Nara has already talked with the VC, The VC was unable to make this Skype meeting, but we will need to set one up for him to meet with the SLAC end. this would be a good time to discuss resources etc.
- Les has sent some ideas for projects/tasks. A first cut is available.

Next meeting

In 2 weeks time on Thursday 19th July 8pm Pacific Daylight Time, Friday 20th July 11am.

Future

Are there resources and what for:

- Funding for students as time goes goes on as becomes clearer, then seek student & grants
- Funding for face to face start up visits. Spoken to vice chancellor, Skype call between SLAC ann VC at a later time. Schedule a meeting to discuss resources. Visit to SLAC Internal discussions

Consult higher education for funding

- Funding for extended (1 year) internships at SLAC

What kind of students – graduate, BS, MS, PhD …
What are student interests?

- Building network monitoring tools tools (measurement, analysis, GUIs)
- Analyzing data, producing case studies
- Research, writing papers

Identify students

Face to face visits and discussions

Selecting students as interns at SLAC for 1 year and funding

Communications:

- Computing requirements, accounts at SLAC
- Interim email lists and SMS txt messages
- Documentation respository (probably use the SLAC wiki)
- Follow on meetings would include identified students, progress reports etc.

Useful links

PingER home page.

PingER site map

PingER Wiki