

20121115 SLAC UNIMAS meeting

The UNIMAS PingER Wiki
Meeting notes

Attendees

Johari and Nara at Unimas and Les in the Bay Area. Bebo was unable to be present.

General

The meeting was by Skype at 8pm Pacific time 11am in Sarawak as usual.

UNIMAS have managed to get 1 undergraduate students for their capstone project to use data collected above to perform some analysis/assessment on the end-to-end performance of Internet in SE Asia. This will be a 2 semester project. **Progress?**

Johari plans to get another undergraduate student from the capstone project. The Goal will be to build a PingER web site for UNIMAS. **Progress?**

Workshop

- Unimas plan to have a workshop on Pinger when Les comes in December. Unimas will invite participants from universities in West Malaysia, Sabah and Sarawak, (Brunei and Kalimantan could be added). The idea is to establish regional agreement for types of studies that can be undertaken, the sharing of data and exploration of future projects.
- Unimas have sent an itinerary. It is at <https://confluence.slac.stanford.edu/download/attachments/128455354/Tentative+Itinerary+for+Les+Cotrell+Visit+in+Dec+2012.docx?version=1&modificationDate=1352078021290>.
 - No visa is required.
 - My wife will probably accompany me
 - I will probably leave San Francisco on Sunday Dec 10th at just gone midnight, arrive KL 1:00pm Monday 10th Dec. Visit MIMOS Tuesday Dec 11th. Fly from KL 7:20pm Tue Dec 11th, arrive Kuching 9:05pm same day. Then start at UNIMAS on Wed Dec 13th. Do you have recommendations on where to stay in KL and near UNIMAS?
- Les will give 2 talks of 1.5 hours each. One is of general interest, the other is technical. Les will send abstracts.
 - Bebo suggested that since the flight to Kuching will go through Kuala Lumpur, Les should visit MIMOS and give a talk. Johari has discussed this with Nara.
- The NUST rector sent a memo to the VC of University of Malaysia in Kuala Lumpur suggesting a collaboration with UNIMAS, NUST & SLAC. Les followed up with an email to the UM folks. UM seem very receptive, Nara is following up. Possible ways to advance would include:
 - Inviting to the workshop one or two people from NUST/SEECs who have been collaborating on PingER for some years, have set up a PingER archiving site and manage multiple PingER monitors in Pakistan. Email has been sent to NUST requesting they nominate a person.
 - They could make valuable presentations on hands-on experiences (both technical, political and social) with building the archive site, managing multiple monitoring sites, mining the data, engaging customers (monitor sites contacts and decision makers, the network providers PERN (Pakistan Educational and Research Network), the funding agency (Higher Education Commission), preparing reports for the customers, and the benefits ensuing etc.
 - Putting together a joint proposal (UNIMAS, NUST/SEECs, SLAC, possibly another Malaysian university such as UM) to a funding source for a joint project to set up a monitoring infrastructure for Malaysia educational sites.
 - We set up 3 way Skype meeting to discuss this further, this time of day works for all sites.
- Johari will need to discuss with Nara and engage the VC to see whether UNIMAS can fund the NUST person(s).

Future meetings

There was a council meeting at the end of September. Nara handed out the PingER brochures to the council members. Twelve Universities were at the meeting. They will contact the other universities to provide them with information on the workshop.

UNIMAS PingER

The UNIMAS PingER monitor is working and monitoring several non beacon sites in Malaysia, Brunei and Indonesia. Johari are you looking for hosts in Vietnam, the Philippines, Thailand, Laos etc?

The monitoring will 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.

There is a problem that the unimas monitor is not recording the individual pins. This maybe since the formatting of the output from UNIMAS is strange (i.e. seq => req). Not having the individual ping results means we cannot provide metrics for ipdv (jitter), MOS (needs jitter), out of order packets and conditional loss probability.

When a reasonable amount of data has been gathered then a case study could be made of the connections to the remote sites, to identify and compare the performance. Les has made a quick look at the data and the UNIMAS connections looks rather congested. **Can anything be done?**

ePingER

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

Unimas are going to propose a project to install ePingER hosts in remote Sarawak communities such as Bario in the Kelabit highlands. Initially these would simply be PingER targets responding to pings. Later depending on bandwidth availability etc. They could also be turned into PingER monitoring hosts and a web site.

They have remote sites in Kelabit Highlands in Barrio. There is a wireless network. the hosts are solar powered. They could install an ePinger host and ping from Unimas via the VSAT connection. Could be a month or two to set the host at Bario 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.

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.

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

UNIMAS want to purchase 2-3 ePingER machines. However they have not found a distributor in Asia yet.

Next meeting

Thursday ??th November 8pm Pacific Daylight Time, Friday ??th November 11am Malay time.