

# 20130109 SLAC SEECs and UNIMAS Meeting

## Attendees

Anjum, Kashif, Johari, Abdullah, Badrul, Hanan, Saqib, Les; Raja, Umar and Bebo were unable to attend and sent their apologies.

## MYREN in KL

Les and Anjum gave talks at MYREN on Dec 12th. Les' is [available online](#), Anjum's is also [available online](#).

## Workshop in Kuching

The workshop brochure is [here](#). The talks from Kashif and Les are linked to [here](#). Johari is preparing a report on the workshop. Johari recommended a future PingEr workshop later this year. This time it would be in Peninsular Malaysia hosted at either UTM or UM. **This should be a topic for the next meeting, i.e. who should host it, dates etc.**

## Funding

There are [rough minutes of a discussion on funding](#) held between SEECs, UNIMAS and SLAC following the workshop. The action items were:

*We will pursue the Exploratory Research Grant for Initial data in order to support setting up three or more PingER monitoring hosts in Malaysia. Potential sites are UM, MYREN, UTM, and UNIMAS. This will be the basis of a larger deployment in Malaysia. This in turn will provide end-to-end active current and archival monitoring data. This can be mined for research in:*

- *understand the intra-Malaysia end-to-end Internet performance, identifying*
  - *bottlenecks,*
  - *poor performance and reasons*
  - *making recommendations for better performance*
- *comparing Intra-Malaysian Internet performance with other regions*
- *looking for correlations across multiple routes*
- *Identifying anomalies*

*The infrastructure can also be used to provide landmarks for measuring RTT to target hosts for geolocation research*  
*Anjum shared proposals from NUST can be used as input to various proposals.*

*Johari will review the proposals and put together a draft.*

Johari has a draft, it needs polishing. He will email it to the team on Monday 14th January. He proposes submitting for a FRGS grant. It will be a 2 year project with a maximum of 150K RM. It is for a single MS student. Both UTM and UM expressed enthusiasm to join. Hanan will be the UTM contact, Abdullah will be the UM contact. The objective will be to set up a PingER monitoring site infrastructure in Malaysia. This will be used to gather end-to-end active monitoring data both within Malaysia, to S. E. Asia and to the rest of the world. This data will be mined to understand the status of Internet connectivity, set baselines, identify problem areas, make recommendations etc.

At a later stage the infrastructure and data can be used for research in: anomaly detection; correlation of performance across multiple routes; and for GeoLocation. Johari would like to see UM and UTM, which are research universities, strongly engaged in the next round of research proposals. Anjum mentioned a paper on [Evaluation of IP Geolocation Algorithms on PingER and PlanetLab Infrastructures](#), by Fida Gilani et. al. submitted to IEEE INFOCOM 2011 UNIMAS. This could be updated with new data and maybe submitted to a different venue. **Anjum will forward a copy of the paper to Johari, Abdullah and Hanan with copies to the team. The idea is to see whether there is interest at UTM, UM or UNIMAS.**

## UNIMAS

There is a problem with the UNIMAS traceroute. It appears pinger.unimas.my is behind a NAT that is not passing the traceroute UDP probes. Other hosts at UNIMAS are not seeing the problem, so Johari believes it may have to do with the IPTABLES in pinger.unimas.my. Traceroute using the -I option (send the probes using ICMP rather than UDP) seems to work (but needs root access). Thus it would appear not to be in the return (ICMP "time exceeded") response. The probes (when not using the -I option) are UDP packets using sequentially ports 33434 - 33465 (for up to 30 hops). It is possible that ports > some number may be blocked. **Johari will set up a guest account for Anjum who will logon and look around and see if he can assist.** The traceroute /ping server is important for the TULIP trilateration project.

Les has started a report on [traceroutes from UNIMAS](#). We have traceroutes from UNIMAS: to Peninsular Malaysia; to a host in the Philippines. It is interesting that it appears UNIMAS does not use TEIN3 or MYREN apart from the route to Singapore. All the other routes Les measured go via the commercial ISP Telecom Malaysia. Also for the Telecom Malaysia routes it appears there maybe some congestion at 58.26.240.61 since the RTTs vary a lot. This is not conclusive since routers give high priority (do it in hardware) to routing packets and lower priority to traceroute packets. **Further work awaits traceroute.pl working at UNIMAS and UTM and possibly UM**

Telekom Malaysia, tested the 500 MBps line from 3rd to 9th of Dec. No major effect was seen (about a 10-14% improvement in RTT). It was not possible to turn off the traffic shaping. As far as I know no [iperf](#) TCP performance memory to memory or [Speedtest](#) or NDT measurements were made.

**Johari suggested and agreed to set up a web landing site for the Malaysian collaboration.** It will contain the objectives, coordinates for the team members etc. The SEECs and SLAC PingER sites will have links to it. It would also be good to have an archived email list for communications.

## UTM

Anjum visited University of Technology Malaysia (UTM) on the way back from UNIMAS to Pakistan. He met with Dr. Hanan. During Anjum's last visit to UTM he had asked Dr. Hanan to deploy PingER monitoring node at UTM. Dr Hanan has now appointed Saqib (PhD student at UTM) to complete the deployment. Dr. Hanan sent a request two to three days ago to the UTM network team for a live IP address. He does not expect a problem. Dr. Hanan has also agreed to explore the possibility of having a PhD student work on the data auto-correlation part for link error detections once the monitoring node is set up. Meanwhile Saquib has successfully installed the traceroute.pl and pinger2.pl software on a private IP address host at UTM.

## UM

Abdullah has passed the information on PingER to colleagues. The UTM team is now:

1. Abdullah Gani - [abdullah@um.edu.my](mailto:abdullah@um.edu.my)
2. Dr Rafidah Md Noor - [fidah@um.edu.my](mailto:fidah@um.edu.my)
3. Dr Nor Badrul Anuar Jumaat - [badrul@um.edu.my](mailto:badrul@um.edu.my)

**Les will send an invitation letter to the above (with a cc to the rest of the team) giving information on the requirements and how to set up and install a PingER monitor, plus other hopefully useful information.**

## NUST

From Arshad: Rector has agreed to support one person visit to SLAC. Raja has been nominated. He has sent a cv to Les and has filled out the DoE form. Les crafted the invitation and it has been sent to upper management for signature Dec 21, 2012. **It currently needs to be reviewed by the SLAC CyberSecurity person.** A meeting has been set up for Jan 10, 2012. We are looking at a start date towards the end of March 2013.

The December report on Pakistani educational node connectivity has been sent to the Rector for distribution to HEC. When finalized (probably by Jan 11th, 2012) it will be posted at:

<http://pinger.seecs.edu.pk/monthly-report/>

## PingER at SLAC

Les is working on a high level paper on PingER to be included in the IEEE Spectrum, February issue. He is also leading the preparation of the [annual report](#) to the International Committee for Future Accelerators (ICFA) Standing Committee on Inter-regional Connectivity (SCIC). Anjum is providing information on Pakistan under a case study. The report is due to Harvey Newman for ICFA on January 18th.

There is a draft [case study of routing from UNIMAS to S. E. Asia, and in particular Malaysia](#) .

## TULIP

Raja got married 25-26 December, so there has been no update since November. He was unable to attend the meeting. He hopes to provide an update soon, when he gets back from Muree.

## Future meeting time - Les

Next meeting Wednesday 30 January 2013 8:00pm Pacific Daylight Time, Thursday 31st January 2013 9:00pm Pakistan time, Thursday 31st January 2013 12:00 noon Malaysian time.

## Coordinates:

| Institute     | name and Email   | Skype ID                          |
|---------------|--|-----------------------------------|
| UNIMAS        | Johari Abdullah ( <a href="mailto:johari.abdullah@gmail.com">johari.abdullah@gmail.com</a> ) | focusit unimas                    |
| UNIMAS        | Narayanan Kulathuramaiyer < <a href="mailto:nara@fit.unimas.my">nara@fit.unimas.my</a> >     | Narayanan Kulathuramaiyer         |
| UTM           | Saqib Ali ( <a href="mailto:saqibutm@gmail.com">saqibutm@gmail.com</a> )                     | saqibutm                          |
| UTM           | Prof. Dr Hanan < <a href="mailto:hanan@utm.my">hanan@utm.my</a> >                            | profhanan or Abdul Hanan Abdullah |
| UM            | ABDULLAH BIN GANI < <a href="mailto:abdullah@um.edu.my">abdullah@um.edu.my</a> >             | abdullahanakgani                  |
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