

20161207 SLAC SEECS and UNIMAS Meeting

Time & date

Wednesday Dec 7th 8:00pm Pacific Standard Time, Thursday Dec 7th 9:00am Pakistan time, Thursday Dec 27th 2016 12:00noon Malaysian time,

Coordinates of team members:

See: <http://pinger.unimas.my/pinger/contact.php>

Attendees

Invitees:

Wajahat Hussain+, ajmal.farooq@seecs.edu.pk, ? Muhammad Anas Abrar? (SEECS); Saqib+, Aqsa? (UAF); Johari-, Adnan Khan (UNIMAS); Badrul, Ridzuan, Ibrahim (UM); (UTM); Adib-, Fatima (UUM); Fizi Jalil (MYREN); Les+, Bebo-,

+ Confirmed attendance

- Responded but Unable to attend:

? Individual emails sent

Actual attendees:

Wajahat, Les (Saqib stuck in fog/traffic)

Wajahat, Les

Administration

- Membership of pinger-my in <https://groups.google.com>
- Dr. Wajahat and Mr. Ajmal Farooq are in the pinger-my email list. Johari also added them to <http://pinger.unimas.my/pinger/contact.php>

Amity

Tropical cyclone Vardah hit Chennai in India on the Dec 13th. It impacted the Internet, in particular one of Airtel's undersea cables. Les sent email to A. Sai Sabitha to see if PingER from Amity could see any effect.

Saqib also reported that there was also a cable cut between Singapore and Europe on October 4, 2016 in SEA-ME-WE 4. Thus affecting the internet speed in south Asia and south-east Asia. Maybe worth looking at the impact (if any).

UUM Social

From Adib:

- Adib gave a key note [presentation](#) at the **ICSEC2016** at Changmai in Thailand. As a result:
 - Dr. Wanida Putthividhya <wanidap@cs.tu.ac.th> Dept. of Computer Science, Thammasat University, Thailand. Wanida is looking for more than setup a monitor node, she is interested to use pinger data to propose a forecasting model for internet performance. Les has sent her information on getting updated daily information from the SLAC archive via FTP, see [Retrieving Archived PingER hourly data from Anonymous FTP](#)
 - Dr. Charnsak Srisawatsakul <charsak.s@ubru.ac.th> Faculty of Computer Science, Ubon Ratchathani Rajabhat University, Ubon Ratchathani, Thailand wishes to install a PingER Measurement Agent
 - Hopefully, we can collaborate with them and others in the near future.
 - In addition 'Chaisit Choosong' <chaisitc@gmail.com> has installed the PingER traceoute server and the pinger2.pl measurement agent at Rajamangal University of Technology Srivijaya, Thailand. We are working on getting the ping_data.pl gathering agent to work.
- Adib has submitted the paper on Internet Performance and its Reflection on Socio-economic Development in the ASEAN Countries to Social Sciences Review.
- We are still working with SLAC the DoE etc. to get an invite to Adib to visit SLAC..
- Adib has a student starting in September. Adib will look at directing him to PingER. However the student chose another topic.

UNIMAS No update from Johari

pinger.unimas.my was not pingable. **Fixed.**

Student will be back in September and will start the ISO then. Image is ready for RPi. 1.9GB image. Might be too big for GitHub. If limitation on storage then point to mirror.

He now has an RPiV3 with WiFi and Bluetooth which he will be testing in the coming weeks. Should work on RPi2.

The postgrad who was working on anomaly detection quit. Johari will pick up what is left and submit a paper. Student did measurements, trying to get student back

Johari looking at a PingER workshop May 17th 2017 at Unimas.

UAF (Saqib) No update from Saqib 12/14/2016

MA Device at UAF ready, will assign live IP to machine next week, then will contact Les to try and gather data.

Saqib has been talking to Muhammad Asif of the National University of Textiles, Discussed last week to put up MA and get a student. Arshad was the Chancellor.

Huawei working with Arshad to sign an MoU to place a research establishment in Pakistan

There are 4 students: Aqsa Hameed, Saba Muzamil, Tahseen and Sara Masood. T

- Aqsa has completed her research work on "visualization on pingER data" and now working on to publish a conference paper. Here are few details of the research work.
 - The query results can be exported as CSV file. I use the CSV file of Query results from Impala to draw Line and Bar charts by using Google API.
 - She has created a Data warehouse on pingER data. First we transform the pingER text files into CSV files. Then i upload these CSV files on HDFS and populate Impala Tables and queries.
 - Line and Bar charts are created on a webpage running or executed by localhost server. it can be updated as the query results varies.
 - Submitted to International conference, **accepted**.
- Aqsa and Saba are working together. Their goal is focusing on visualization of PingER historical data using warehouse. The idea is to develop a warehouse in UAF university and make it publicly available.
- Aqsa has put together an abstract of a conference paper and submitted to "The 3rd IEEE/ACM International Conference on Big Data Science, Engineering and Applications (BDSEA 2016)" (<http://computing.derby.ac.uk/bdcat2016/>). "Applying Big Data Warehousing and Visualization Techniques on pingER Data", Aqsa Hameed, Dr. Saqib Ali, Dr. Les Cottrell and Bebo White, submitted to BDSEA 2016. Authors can access it via: <https://easychair.org/conferences/?conf=bdsea2016>. Aqsa updated the paper and submitted, the last date for submit is 31st August, 2015. The conference is 6-9 Shanghai.
- Sara Masood - See PingER on Android above
- Saqib will proceed to install Pinger in UAF Pakistan 6/22/2016. There used to be an MA at UAF Les sent the information to Saqib. He has the user id and password, The IP address will change
- Doing case study on SAsia using PingER.

MYREN

- pingersonar-utm.myren.net.my is having problems (not pingable), email sent to Fitzi 8/20/2016, **10/16/2016**

PingER at SLAC

Storage space problem resolved.

Working on the following hosts to be able to gather data

Host	State	last seen	Status
brunsvigia.tenet.ac.za	No data since October 31st, 2016, email 11/21/2016, fixed 24 Nov 2016	Oct 31, 2016	Does not ping
pinger.ictp.it	No data, email 11/21/2016, 11/27/2016, fixed Dec 2nd, 2016	Oct 28, 2016	Does not ping
pinger.ascr.doe.gov	No Data, email 11/21/2016, contact email changed sent again 11/27/2016, fixed Nov 30, 2016	Oct 30, 2016	Does not ping
t2-monitor.ultralight.org	Host changed unable to reach, no dns, email 11/21/2016. Problem with certs and DNS	Aug 12, 2016	
www.hepgrid.uerj.br	Due to a major issue with the cluster's electrical infrastructure we will have to shut down all machines, in order to preserve our hardware. The cause of the outage is still being investigated.	Sept 31, 2016	Does not ping
www.univ-ouaga.bf	Unreliable, No data since June 20th. Several emails but most recent have bounced. Probably will have to disable	June 2016	Does not ping
pinger.nchc.org.tw	Email sent 12/4/2016. Fixed 12/5/2016.	Nov 27, 2016	Does not ping

perfonar-unimas.myren.net.my	No data August 2016, pings., Emailed Fitz 8/20 /2016, 10/16/2016, 11/21/2016, 12/4/2016. Fitz is out of town.	7/31 /2016	Not pingable
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NUST

Dr. Wajahat reported that NUST is now ready to help other sites re-install the PingER software. Some sites have dismantled the monitors and some of the Points of Contact have left. They are trying to make contacts and provide technical help and hardware. There has been some delay in finding the right person. Once they have the contact etc. then they are in a position to fix in a few hours.

Just before the last meeting (September) Mian Abras Abar said he would make a report and email that to me. Sent a reminder to Mian 11/21 /2016 and again 12/4/2016.

Unable to gather data from:

cae.seecs.edu.pk (host is not pingable)

comsatsswi.seecs.edu.pk host was pingable, FIXED 12/6/2016

maggie1.seecs.edu.pk host is pingable, FIXED 12/6/2016

namal.seecs.edu.pk host is not pingable

pinger.comsats.edu.pk host is not pingable

Next Meeting

Next meeting: Wednesday Jan 11th 8pm Pacific time, Thursday Jan 12th, 2016 9:00am Pakistan time, Thursday Jan 12th 2016 12:00noon Malaysian time

Old information

Amity - Java approach (A. Sai Sabitha and Shivanarayan Rajappa)

1. They are using the native java tools, they are not running the [pinger2.pl](#) <<http://pinger2.pl>> script on android since the native java tools have the following advantages
 - a. easier for user,
 - b. no need for prior installation of any software, e.g. load perl interpreter which may require missing skills, especially for a non technical user
 - c. doesn't need a rooted phone
 - d. only the apk needs to be installed to run
2. They have fixed the final sequence number change by using regex, and pushed these changes to github repository.
3. They have installed apache tomcat in the server and plan to use a java file on the server which would connect to the phones that send the request. This java file will then take the input stream received from the phone and write the output stream to a file that would be stored on the server. We are facing some problems regarding a blocked port that is not allowing the phone to connect to the server we are currently working on resolving the issue.
4. SLAC can then regularly pull these files which would be stored based on the month they are received.
5. The Android students have started writing a paper on " implementation of pinger on android " .
6. Next steps:
 - a. Extend the target list by getting the Beacon list from SLAC. It is at <http://www-iepm.slac.stanford.edu/pinger/pinger.xml> on a regular basis and updating the <BeaconList> section at their site. This was part of [pinger2.pl](#).
 - b. Also they will need a utility to clean out old recorded data (say older than 3 months), since it will be gathered from SLAC (via the proxy) and eventually they may run out memory on the Android.

Discussion

To a large extent it depends on how we plan to use this.

- If the phones are just MAs in a fixed location then simply porting [pinger2.pl](#) is easier and probably sufficient.
- If this is intended to grow into a mobile application for general use then it needs to be the Java implementation.

A next step is to get the data from the phone MA to the archive at SLAC. The current method [ping_data.pl](#) requires a public IP address for the phone which may not exist if it is mobile. Getting the MA to put the data to the archive may raise some security issue for the archiver.