TEIN SIP Workshop

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On Thursday the 18th and Friday the 19th of August, 2011, Bill Efthimiou and Leon Li from AARNet delivered a workshop focused on the mechanics of the Session Initiation Protocol (SIP). The workshop was hosted by the Universiti Sains Malaysia, Penang at the School of Computer Science.

The workshop was well attended by various participants throughout the Asian region. A list of the participants attended is as follows:

Title	1st Name	Family Name	Position	Name of Institution	Country
Mr.	Pujan	Srivastava	Java Programmer	intERLab Asian Institute of Technology	Thailand
Dr.	Teck Chaw	Ling	Associate Professor	University Malaya	Malaysia
Dr.	Pornarong	Chotiwan	Deputy Head of IT Center	Faculty of Medicine, Chulalongkorn University	Thailand
Mr.	KHIEV	Samnang	Head of IT Service department	Institute of Technology of Cambodia	Cambodia
Mr.	Alvin	de Gracia	Network Engineer	Advance Science and Technology Institute	Philippines
Mr.	Rene	Mendoza	Supervising Science Research Specialist	Advanced Science and technology Institute	Philippines
Mr.	Ali	Abdulrazzaq	student	National Advanced IPv6 Center	Malaysia
Mr.	Chen Wei	Tan	Lecturer	National Advanced IPv6 Center, Universiti Sains Malaysia	Malaysia
Mr.	Benjamin	Yeoh	System Administrator	National Advanced IPv6 Centre, USM	Malaysia
Mr.	En Mohd Faizal B	Jamil	System Engineer	Insaniah University College	Malaysia
Mr.	Siah Bing	Keong	Research officer	National Advanced IPv6 Centre, USM	Malaysia
Mr	Mansor	Mahmud	CEO	Insaniah University College	Malaysia

The objective of the workshop was to gain a good appreciation for SIP using lecture and hands on labs covering the protocol and some of the associated protocols. This first day of the workshop was focused on covering all the protocols and working through most of the workshop laboratory exercises.

The second day began by completing the laboratory exercises. The practical side of the workshop finished by demonstrating functionality that we were never going to be able to fit into hands on workshop time.

The demonstrations began with SIP Back to Back User Agent. This included explaining why one would use such a feature and how we have implemented this feature in the lab. We also briefly took the class through the product used to implement this feature, which in this case was the Acme Packet ASC.

The second demonstration included the use of TLS security for server to server communications.

The workshop agenda is included as an appendix to this report.

All the workshop lecture material and lab instructional guide, was provided to each participant. The workshop lab was created using 10 different virtual hosts in a VMWARE virtual environment. All these virtual hosts were provided to participants. These virtual hosts can be taken back to the workplace and reused as a reference guide to building a production version of a SIP server. Alternatively, the participant could simply recreate the lab environment for further experimentation and learning.

We concluded the second day, by covering the APAN SIP peering service and what this means to members that wish to join the service. The aim of the service is to enhance inter Institution collaboration, particularly through the reduction in International call costs (zero costs) and enhanced communications via the use of rich media communication such as easy video calls.

All participants indicated a desire to try and join the APAN SIP peering service, although I expect that some will be better positioned to benefit from this service than others. For example, some Institutions/NRENs may suffer from a lack of bandwidth to adequately service the application.

Our POST collaborative work is for each participant to join the APAN SIP-H.323 working group mailing list. Subsequently, through the working group we will collaboratively work together to guide and assist these new potential members to join the SIP peering service. I will be working together with the working group chair and the peering co-ordinator to step through the requirements with the participants and together we will try and provide them with the information and assistance they require to setup the peering.

Further information regarding the APAN SIP peering service can be found at:

http://www.apan.net/wg/sip-sec.php

We also asked each participant to fill in a feedback form, focused around how we can improve the workshop. I have only received one filled in form to date.

Overall, this has proven to be an extreme useful exercise for the sake of sharing technical experience and knowledge, but also to raise awareness of services offered through organisations such as APAN. I am hopeful, that we will observe greater collaboration in months to come if we are able to execute the peering between many of the participant Institutions.