**APrIGF Seoul 2013**

**Workshop Summary Reports**

### Workshop Title: Broader World of Network – Giga Internet

### <http://2013.rigf.asia/workshop-proposal-20/>

Date: 09/06/13

Time: 09:30-13:00

Track: Access

Moderator: Dr. June-Koo Rhee, KAIST  
Panelist

: Dr. James Larson, KAIST   
Daniel Ho, OpenNet  
Dr. Hong-Ik Kim, CJHV  
Gerrit W. Bahlman, Hong Kong Polytechnic University   
Toshihiro Yoshihara, NTT  
Hyunglin Park, KT

This workshop discussed the potential for implementation of the “Giga Internet”, or next generation high-speed networks, which have garnered increased interest due to mass storage of digital contents, such as UHD and 3D, supply of 802.11ac based Giga-bit-class wireless terminal, and expansion of Fiber-to-the-home. The Giga Internet could provide Internet connection speeds up to 1 Gbps. The APrIGF theme, ‘Towards a Better Internet’, lends to discussions of increased Internet speeds to provide prospects for Internet ecosystem changes and advancing the region towards a more widespread information and knowledge society.

James Larson gave an overview of broadband policy goals until now, and future planning in the US and the giga-city challenge. He noted the US Federal Communications Commission warned the US would lose its “technology lead” without sufficient government investment. There have been a few private small-scale gigabit initiatives.

Daniel Ho gave details on plans from OpenNet to build a large high-speed fiber grid in Singapore, including in-home wiring, in partnership with regional ISPs. He noted that building code standards will enable large scale implementation.

Toshihiro Yoshihara gave a status update of FTTH services, including gigabit Internet access from NTT.

Dr. Gerrit Bahlman discussed the history and current status of the Joint Universities Computer Centre Limited, which is a consortium of all the government-funded universities in Hong Kong.

Dr. Hong-Ik Kim talked about environmental changes in the Internet industry and how the increased market competition affects the ability of HelloNet to implement new high-speed networks. In Korea there is already high Internet penetration, and there are several things to consider when delivering new services.

The second part of the session was a panel discussion on fundamental considerations in such a big undertaking, namely who would provide the funding. James Larson commented that this would require fiber, that mobile would not be sufficient for the upgrade. Toshihiro noted this new network would consume a lot of energy and there would need to be ways to mitigate that, or find energy efficient means to implement it. Dr. Sun-moo Kang commented there is a lot of competition to provide the gigabit Internet services as a new standard. Dr. Bahlman added that there would be a huge impact on entertainment, but also for education with the advent of more powerful networks. There could also be implications for attitudes to the status quo in terms of how people live, work, and learn. Daniel Ho reminded the panel that the last mile to the end users, like other deployments, would present the greatest challenge. Hyung-Jin Park talked briefly about their trials as a service provider and noted that users did not see a difference from 100Mbps, asking what is the service target for this project? Hong-Ik Kim noted that the competition is key to sustainable growth, and another business model for the Giga Internet would probably be necessary.

The Chair summarized those points and asked the panelists for final comments on how to make the Giga Internet successful.