Panel discussion: Future of the Internet

In the panel…

Scott Shenker, University of California, Berkeley

Martti Mäntylä, European Institute for Innovation and Technology (EIT) & Aalto University

Mika Jalava, Stonesoft

Lars Eggert, Nokia

Börje Ohlman, Ericsson

Moderator: Jukka Manner, COMNET/Aalto

TiViT

Scott Shenker, UCB & ICSI

Scott Shenker spent his academic youth studying theoretical physics but soon gave up chaos theory for computer science.

Continuing to display a remarkably short attention span, his research over the years has wandered from computer performance modeling and computer networks to game theory and economics.

Unable to hold a steady job, he currently splits his time between U. C. Berkeley and the International Computer Science Institute (ICSI).

Martti Mäntylä, EIT & Aalto

Chief Strategy Officer of EIT ICT Labs Martti Mäntylä is also a Principal Scientist at the Helsinki Institute for Information Technology and Professor at Aalto University.

His research interests include future-generation communication and computing, where his main focus is on user-centered methods for new digital service design, and also mobile digital economy.

Mika Jalava, Stonesoft

The CTO of Stonesoft Mika Jalava is a member of the Stonesoft Executive Management Group since 2008.

With a Master of Science in Engineering, he leads the product development, product management and technical services in Stonesoft.

Before joining Stonesoft in 1997, he held positions in the Laboratory of Water Resources Research in Helsinki University of Technology and Information technology instructor in Porvoo Commercial College.

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Lars Eggert, Nokia

Lars Eggert is a Principal Scientist at Nokia Research Center in Helsinki, Finland and a member of Nokia's CEO Technology Council and an Adjunct Professor at Aalto University.

Lars has worked on research projects on internetwork architecture, transport protocols, virtual networks and resource scheduling. He is a senior member of the ACM and the IEEE, an individual member of ISOC and an active participant in the IRTF and IETF, where he currently serves as Area Director of the Transport Area. Lars serves on the program committees of several ACM and IEEE conferences and workshops as chair and member, such as IEEE Infocom.

Before joining Nokia in 2007, Lars was a senior researcher at the NEC Network Laboratories in Heidelberg, Germany. He received his Ph.D. in Computer Science in the fall of 2003 from the University of Southern California (USC), where he was a graduate research assistant at USC's Information Sciences Institute (ISI).

Börje Ohlman, Ericsson

Börje Ohlman's interest in information technology and its impact on our society dates back to the late 70's, the day's before PC's existed and before hackers were commonly heard of. He has a Master of Science degree in Computer Science and History of Ideas and Sciences from Uppsala University, Sweden.

Originally a computer consultant, he joined Ericsson in the late 80's to develop signalling for ATM in the ATMOSPHERIC project of the 2nd Framework Programme RACE as well as in traditional standard bodies (ITU-T, ETSI and ATM Forum), moved to IP technology in the 90's, and was active in IETF as well.

Since 2005 he has focused on future networking technologies within the EU FP6 and FP7 projects Ambient Networks, 4WARD and SAIL. In 4WARD he was leading the work on Networking of Information (NetInf). He pursues this interest in the SAIL project where he also coordinates the work on standardization, dissemination and business aspects.

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What will the Internet look like 10 years from now?

What are the main missing building blocks we need?

What are the main driving forces behind Internet's development in the mid-to-long-term future?

The top level goal for the original Internet Architecture was "to develop an effective technique for multiplexed utilization of existing interconnected networks." The term "effective" was further refined by 7 goals in order of preference (see below for list of goals).

Which of these goals are still relevant, which new ones would we need, and what would their order be in the Internet of the future?

1. The Internet communication must continue despite loss of networks or gateways.
2. The Internet must support multiple types of communications service.
3. The Internet architecture must accommodate a variety of networks.
4. The Internet architecture must permit distributed management of its resources.
5. The Internet architecture must be cost effective.
6. The Internet architecture must permit host attachment with a low level of effort.
7. The resources used in the internet architecture must be accountable.

How do you see the evolution of Internet governance,
will the Internet need more strict control?

What about Internet and Censorship?

What about Privacy in the Future Internet?

What's the end user's role in the Future Internet?

Will we have wide-spread deployment of IPv6 10 years from now?

(Alternatively, will IPv4 be dead 10 years from now?)

Questions from the Audience?

Thank You!

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