The First Japan-EU Symposium on the New Generation Network and the Future Internet

Core R&D for New Generation Network and Future Internet

June 9, 2006

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What is New Generation Network?

- **NXGN (NeXt Generation Network):** NGN
  Replacement of legacy telephone networks using IP-based networks to provide triple-play/quadruple-play services over them

Industry is investing their resources to NXGN deployment.

- **NWGN (NeW Generation Network)**
  A network with Clean-slate Designed architectures and main protocols different from IP-based networks, they can be post-Internet/NGN

NICT is contributing to promote R&D on NWGN.
An image of a network evolution

Legacy Telephone NW

Cellular Phone NW

The Internet

Started ⇒ NXGN(NGN)

Future ⇒ NWGN

NXGN: Next Generation Network (NGN)

NWGN: New Generation Network
Japanese Strategy for NWGN

All Japan Forum ⇒ NWGN Promotion Forum established

NICT NWGN Strategic Headquarter established

Core of NWGN Architecture Research ⇒ AKARI Project started

Network Testbed ⇒ JGN2plus started

Funding for R&D on NWGN in Industry, Academia & NICT

\[ \begin{align*}
2.1 \text{ billion for NWGN technology} \\
3.6 \text{ billion for photonic network technology} \\
1.5 \text{ billion for ubiquitous network platform}
\end{align*} \]

Collaboration with EU, NSF & C&K

2008 Fiscal Year
Proposed discussion topics in this session

- What requirements and demands for an ubiquitous information society in 2020s should be considered?

- What are the main design principles for NWGN/FI architecture?

- What are the key technologies that make impact on a NWGN/FI architectures and protocols?

- What kind of applications can be considered to make impact on NWGN/FI architectures and protocols?
All the elements should be redesigned.

Study Items for NWGN Architecture
Can IP Protocol alone handle the explosion of information in 2020s?

Applications
- Web
- Email
- Video/Audio

TCP/IP

Access Networks
- Ethernet (LAN)
- Wireless (LMDS, WLAN, Cellular)
- Cable
- ADSL
- Satellite

“Narrow Waist”
Let’s climb up to the top!