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What Will Be Tomorrow’s Network, and
What Space Will Be Available for Handhelds?

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ITU in brief

I. UN specialized agency, concerned with the development of telecommunication networks and services worldwide

II. 141 years old

III. 190 Member States; 650 + Sector Members

IV. Around 790 staff/83 nationalities

V. 2005 budget= CHF 164m (USD 130m)

VI. Secretary-General: Yoshio Utsumi (Japan)

VII. Website: http://www.itu.int
Current big picture trends

I. Growth of Broadband
II. Growth in wireless networks and mobile data services
III. Mobile overtakes fixed
IV. Convergence of IP-based networks with telephone & mobile networks
V. End game: towards ubiquitous, pervasive, grid, mesh, wireless networks, tomorrow’s networks

Source: ITU
Why Tomorrow’s Networks?

Tomorrow’s Networks focus on ubiquitous access to ICT services, in a converged manner.

I. Encompassing the 4A vision: Anywhere, Anytime, by Anyone and Anything

II. Emphasizing the importance of network and service convergence, using Next Generation Networks as underlying infrastructure
The 4A Vision

Any TIME connection
• On the move
• Outdoors and indoors
  • Night
  • Daytime

By Anyone
• On the move
• Outdoors
• Indoors (away from the PC)
• At the PC

Any WHERE connection
• Between PCs
• Human to Human (H2H), not using a PC
• Human to Thing (H2T), using generic equipment
• Thing to Thing (T2T)

Any THING connection

Source: ITU, Adapted from NRI (Japan)
Convergence is the key

Network Convergence

Today
Vertical Networks (single service)

Tomorrow
Horizontal Network (multi-services)

Service Convergence
Content: Bringing the best of two worlds

I. Convergence sets two different regulatory cultures on a collision course:
   ✓ highly-interventionist broadcasting regulation
   ✓ less interventionist culture of telecoms

II. Sensitive topic as the regulation of audiovisual content industries is culturally embedded and tied to national regulatory regimes

III. In Europe being tackled in the audiovisual media services directive
The way ahead

Any Time
Any Device
Any Where

User Centric Experience
Transparent from the underlying technical infrastructure
Both mobile and nomadic
Evolution of handhelds

I. Devices have reduced in size and price
II. Progressive miniaturization and cost reduction brings large diffusion and potential increase in use ICT services
Some stats - Households..

Figure 5: Worldwide digital television adoption rates forecast

Million households

Digital satellite  Digital cable  Digital terrestrial  IPTV

..handhelds..

Figure 3: Global handset sales, 2003-2006 (logarithmic scale)

..and related content

Source: IBM
The next frontier: television tailored for mobile phones

3 Hong Kong is the first mobile operator in Hong Kong to work with local news providers — Bloomberg TV, Phoenix Info News TV, Hong Kong Cable TV—to deliver 24-hour coverage of live streaming of local, international, finance and entertainment news in English, Putonghua and Cantonese.

DMB in Korea
From January 2006 - Governmental subsidy on the usage of Mobile TV
Walk TV - The first DVB-H TV in Europe

The age of DVB-H has started in Italy. “WalkTV”, the new mobile TV with digital technology launched first by 3 in Europe (Italy), begins broadcasting. Customers are able to enjoy RAI1, Canale 5, SKY TG24 and the promo of La3 Live, the first of the channels produced directly by 3 Italia, directly on their tivufonino

Source: H3G
Domotic services

*My Home Web is the BTicino My Home collection of house automation services to manage the home remotely. The My Home Web service customer can thus choose the means of communication which is most convenient at different times: the PC connected to the Internet, while when traveling the mobile phone.*

Source: Bticino
What will your handheld look like in 2015?

“It is not only a portable phone but also a piece of home that you can carry around with you. It's an emotional object that creates a comforting effect by reminding you of a favourite place or special person.”

Source: Nokia
The future is here..

- Ubiquitous Network/Device Communication
- Context Aware Information services
- Ubiquitous Robotic Companion
- Mobility
- Context Aware Communication
- Embeddedness
- WiMax

Source: ETRI
Tomorrow’s Networks??

- Mobility
- Embeddedness
- Intelligence

Ubiquitous
- Network/Device Communication
- Context Aware Communication

Context Aware Information services
Useful links

I. Strategy and Policy Unit
  ✓ www.itu.int/spu

II. Shaping Tomorrow’s Networks Programme
  ✓ www.itu.int/stn

III. Market Mechanisms for Spectrum Management
  ✓ www.itu.int/spectrum

IV. Tomorrow’s Networks Today
  ✓ www.itu.int/tnt
THANK YOU!

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