



# The Future of Wireless:

**View on Beyond 3G  
and Activities in SK Telecom**

Hyaee Kyeong Lee  
Manager, SK Telecom

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# SK Telecom Overviews

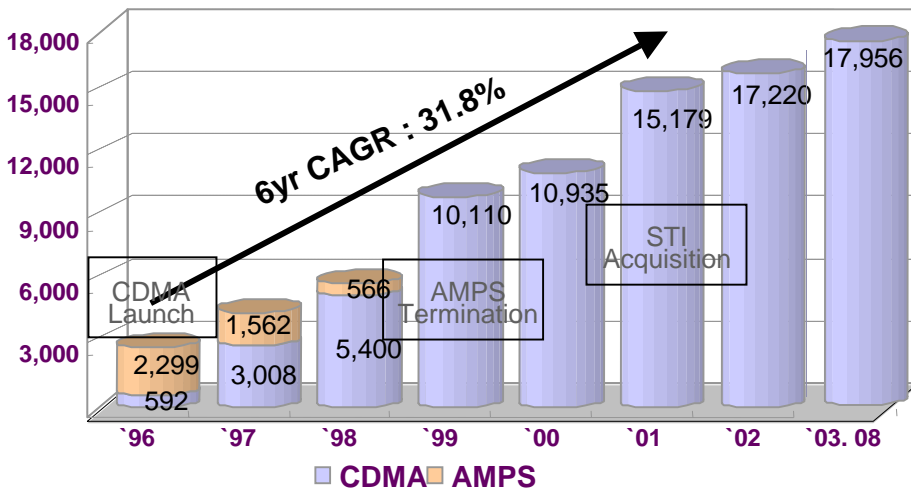
- Pioneering CDMA Leader

## Pioneering History

Mar 1984	Established
Jan 1996	<b><u>World's first commercial CDMA cellular service launched</u></b>
Oct 1999	Handset based wireless Internet service (n.Top) launched
Oct 2000	<b><u>World's first commercial CDMA 1X service launched</u></b>
Dec 2000	3G (W-CDMA) license awarded as the top winner
Oct 2001	Integrated multi-access Internet portal (NATE) launched
Feb 2002	<b><u>World's first CDMA 1x EV-DO service launched</u></b>
Nov 2003	W-CDMA service launched

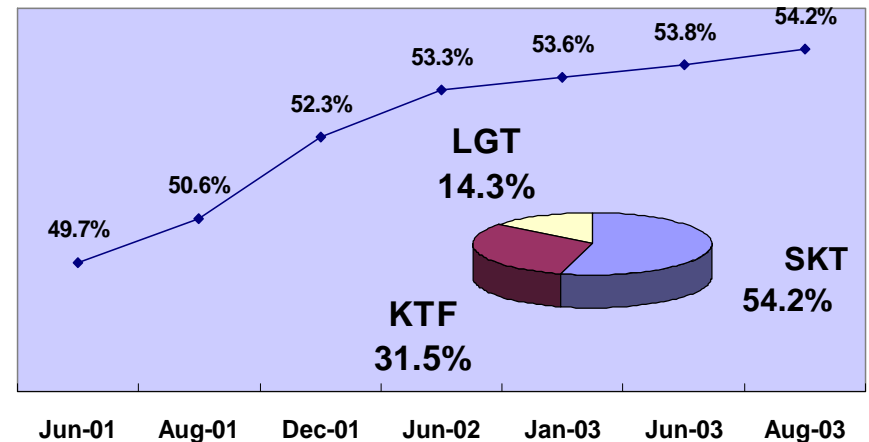
## Rapid Subscriber Growth

Subs (thousand)



## Strong Market Leadership

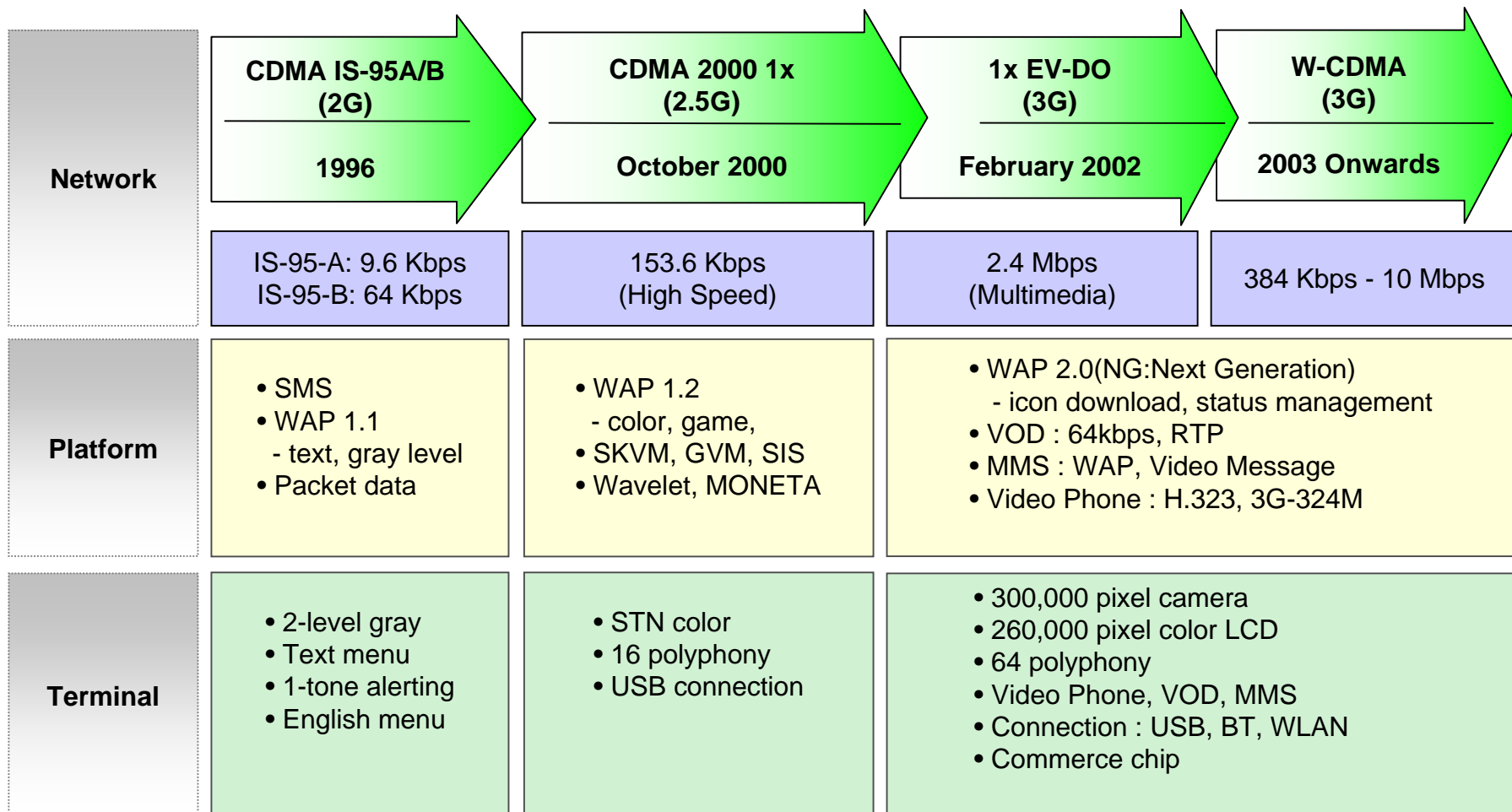
[SKT's M/S in Korea cellular market]



# SK Telecom Overviews

## - Network/Platform/Terminal Evolution to 3G

- The suitable platforms and terminals are developed in accordance with the evolution of network.



# SK Telecom Overviews

- "June" Service

- ❑ 1xEV-DO High Quality Video using MPEG4



**Mobile Movie**



**Hot Key**



**Music Video**



**Video Mail**



**Traffic Information**



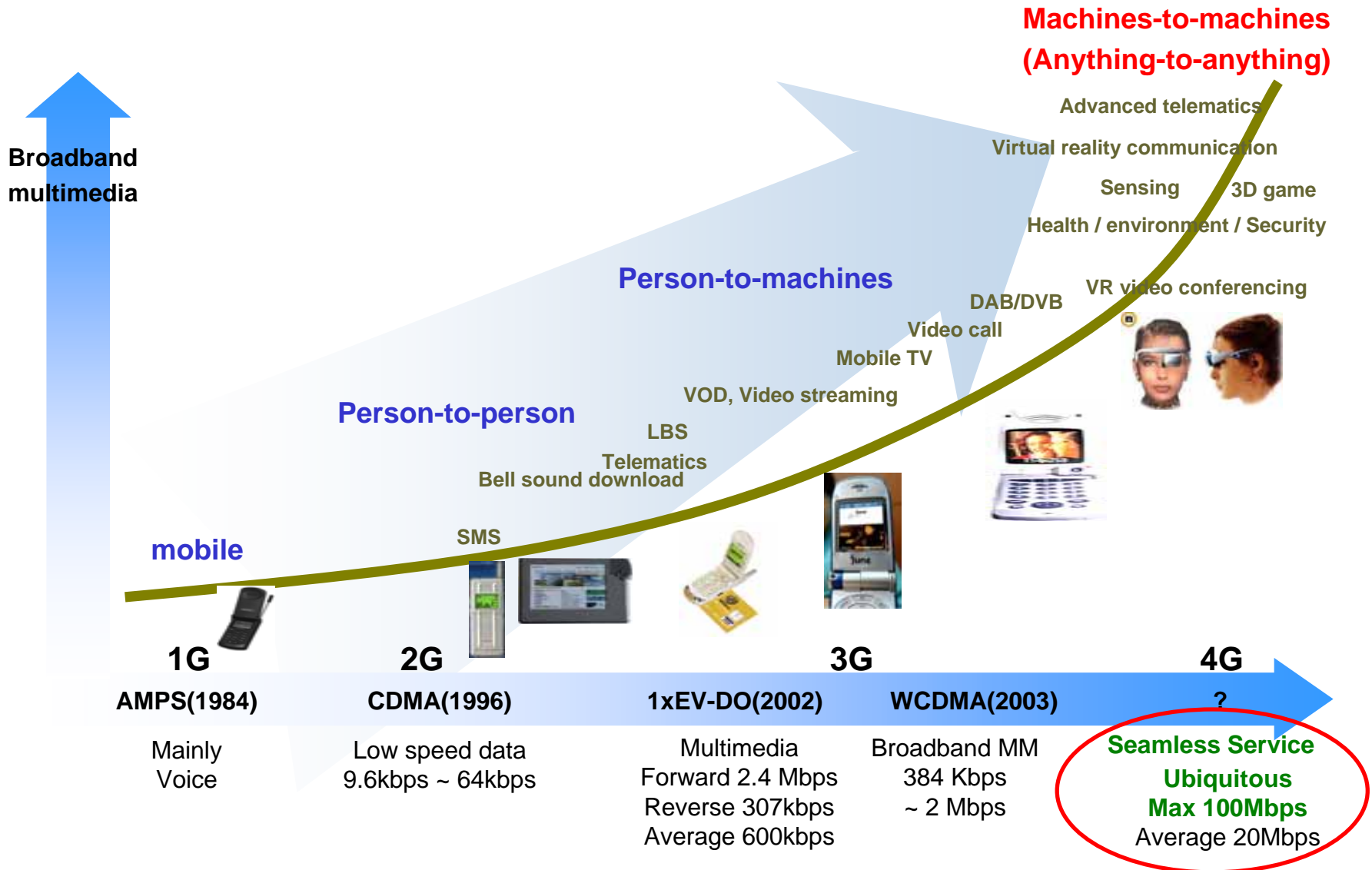
**Real Time News**

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# View on Beyond 3G

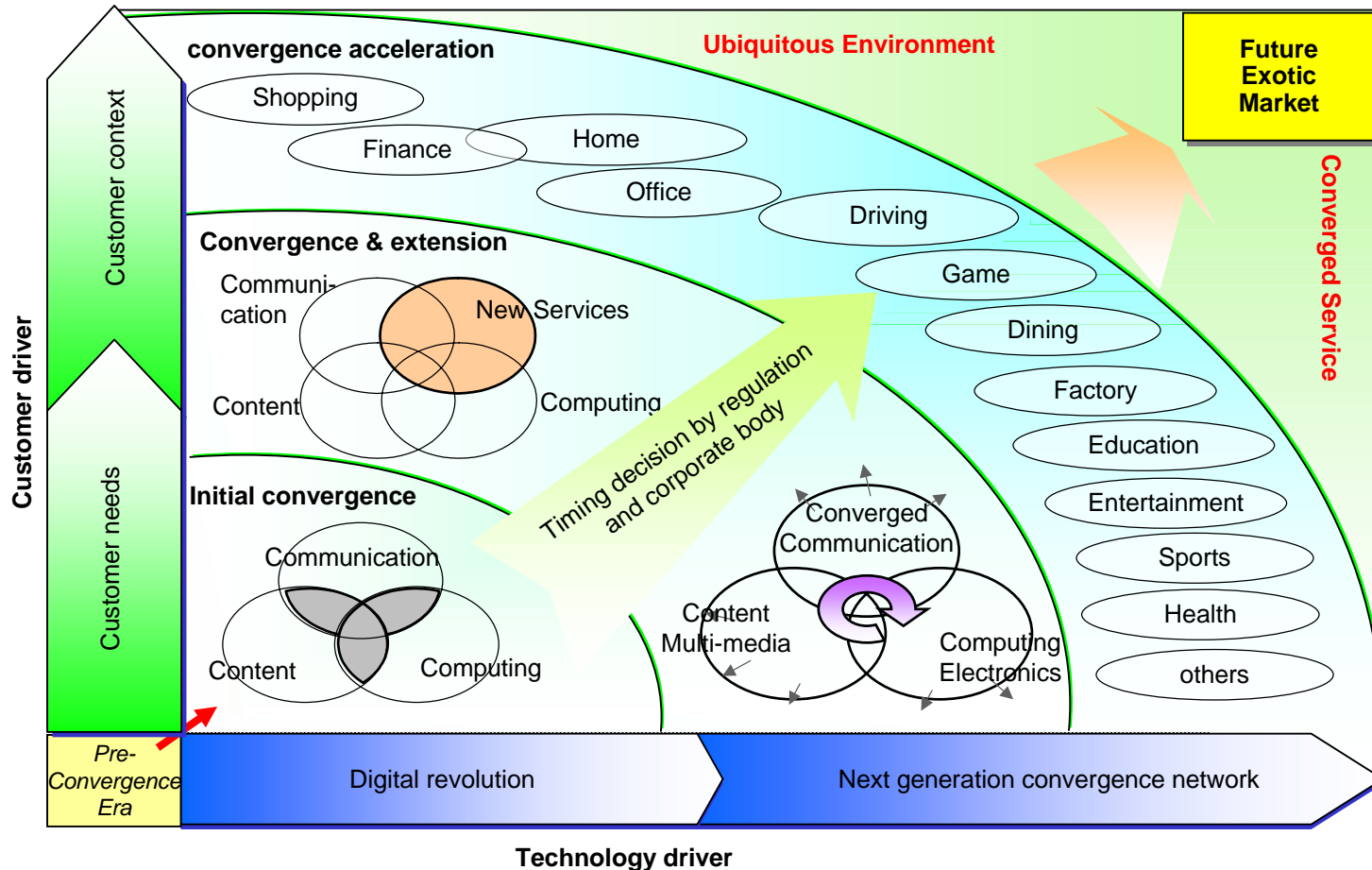
– Mobile Service Evolution



# View on Beyond 3G

– Convergence vs. Ubiquitous environment

- ❑ Four drivers including convergence : **Technology**, **Customer**, **Regulation** and **Corporate Body**
- ❑ Convergence activation → Emergence of ubiquitous environment



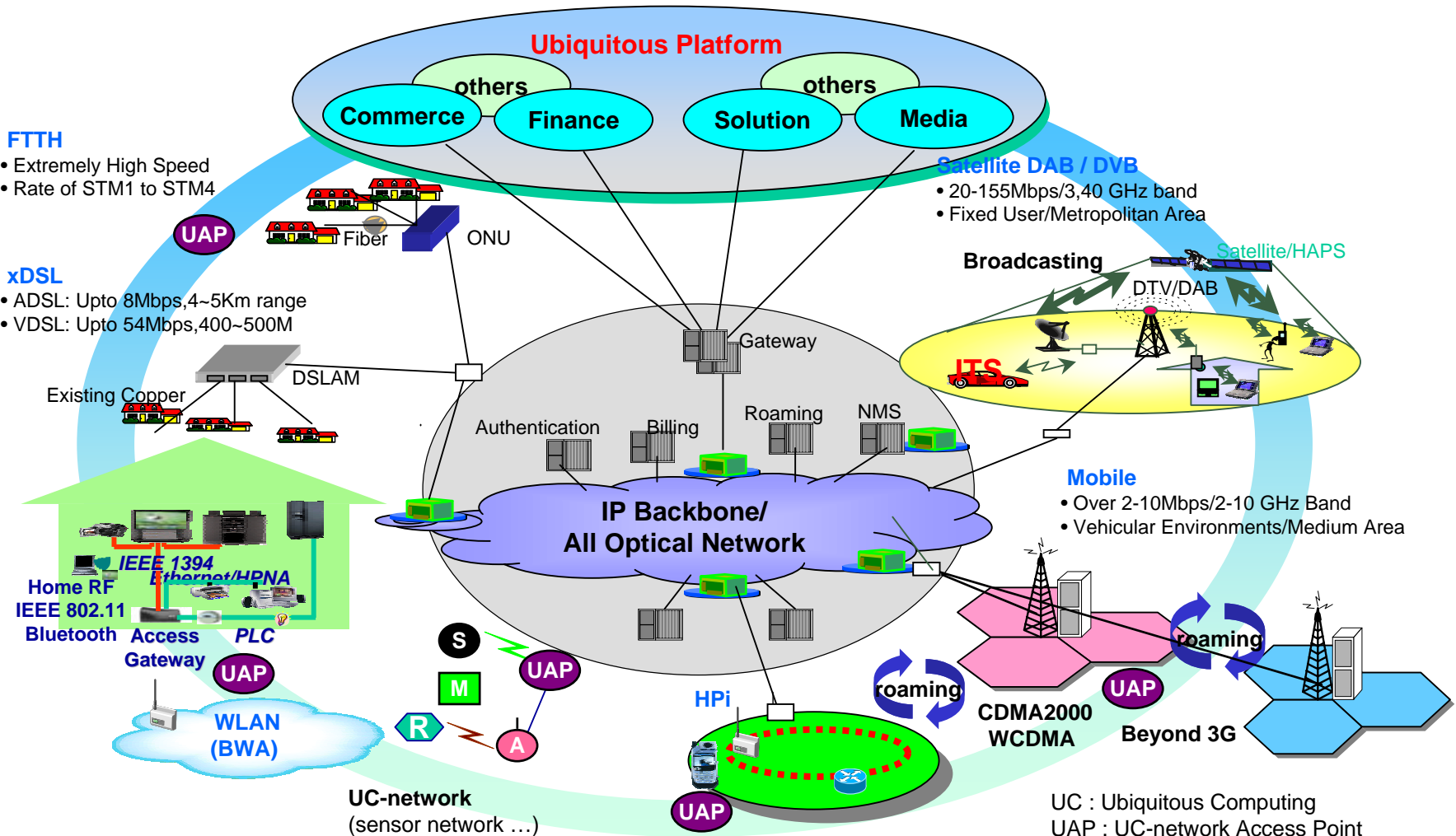
“ Corporate body has to prepare to react to convergence due to customer, technology and regulation ”



# View on Beyond 3G

## – Ubiquitous Network

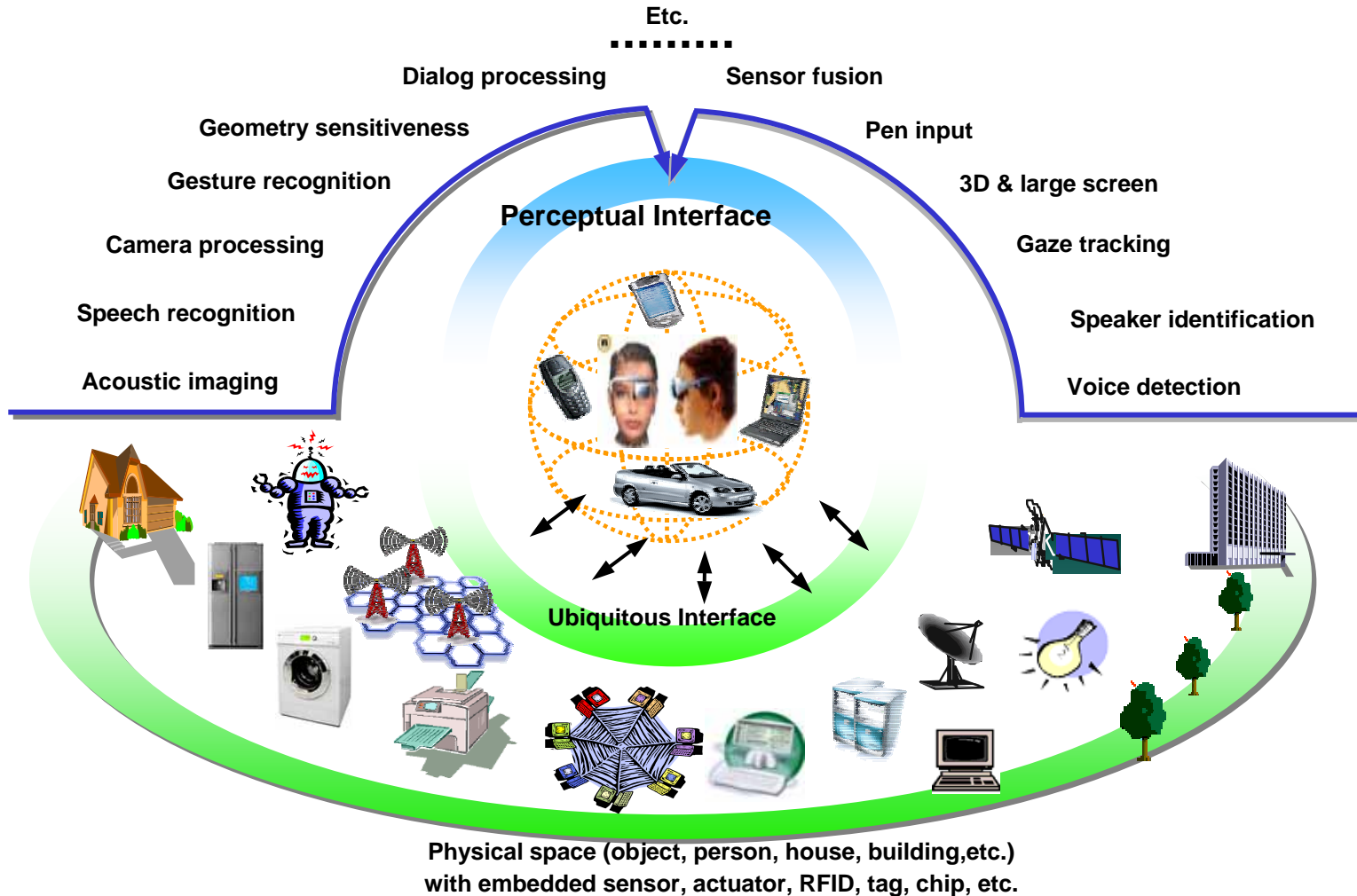
- Ubiquitous network includes the ubiquitous platform, wire/wireless network, ubiquitous computing and terminal



# View on Beyond 3G

## - Ubiquitous Terminal

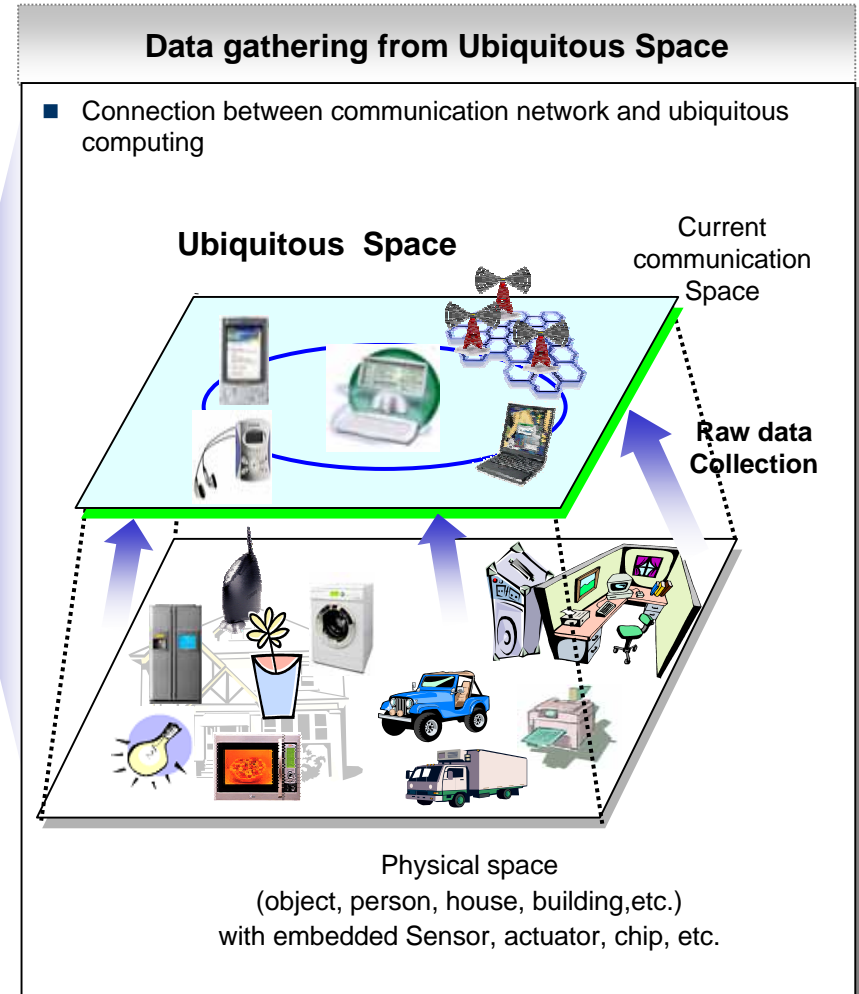
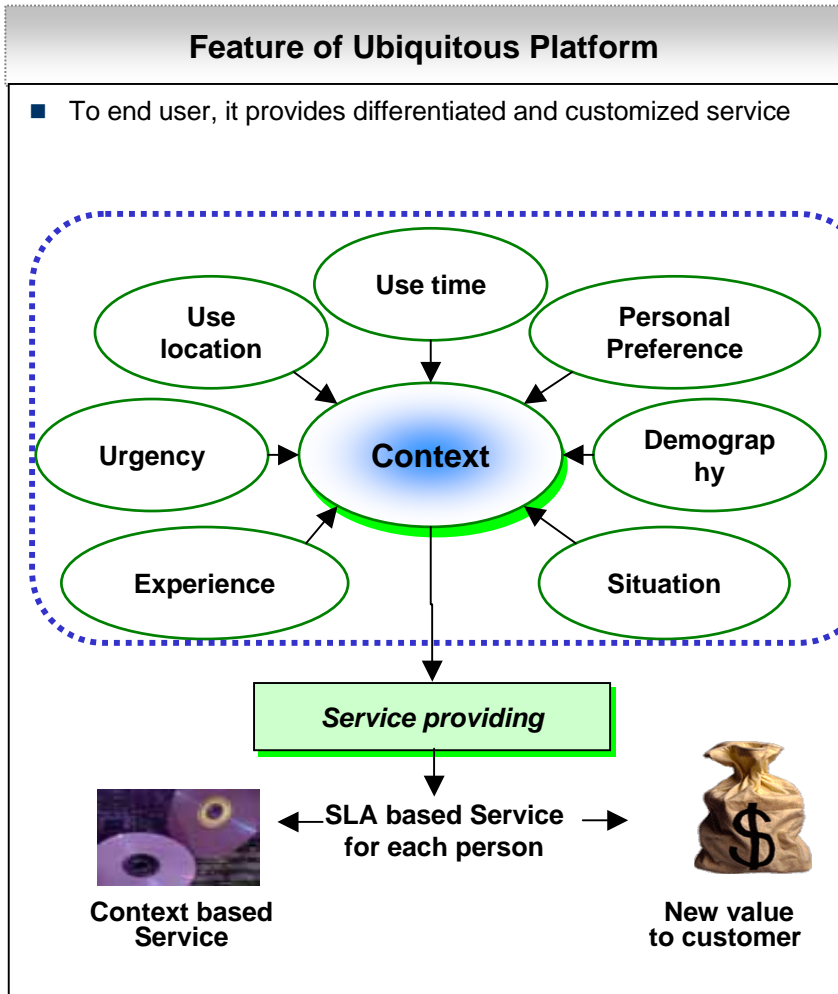
- Convergence terminal with perceptual and ubiquitous interface accelerates **ubiquitous computing**



# View on Beyond 3G

## - Ubiquitous Platform

- Intelligence and context based platform manipulates raw data from ubiquitous space connected by communication networks



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# Activities on Beyond 3G

## - Requirements

### Requirements for Beyond 3G

#### - **Ubiquitous Mobile Access**

1. Seamless multi access services via different networks
2. The most suitable network according to place, time, cost
3. Adaptive terminal (SDR)

#### - **High Capacity**

1. Higher Spectral Efficiency:
2. Multiple Antenna: Smart Antenna, Diversity Techniques
3. Adaptive/multi carrier modulation, New multiple access schemes, powerful code

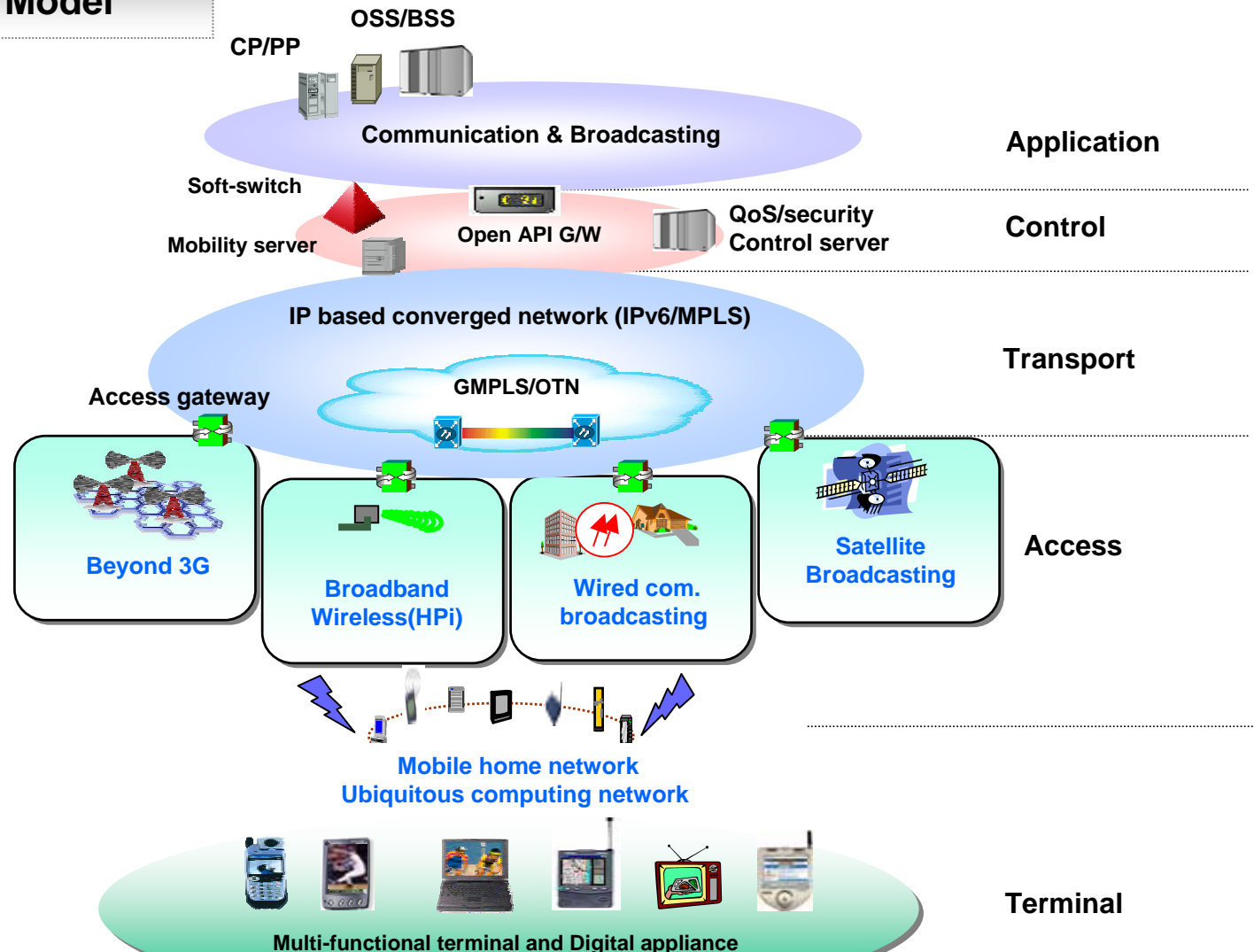
#### - **Low Cost Service**

1. All-IP network
2. End-to-End QoS to support various services and application class
3. Separation of service, control, transport

# Activities on Beyond 3G

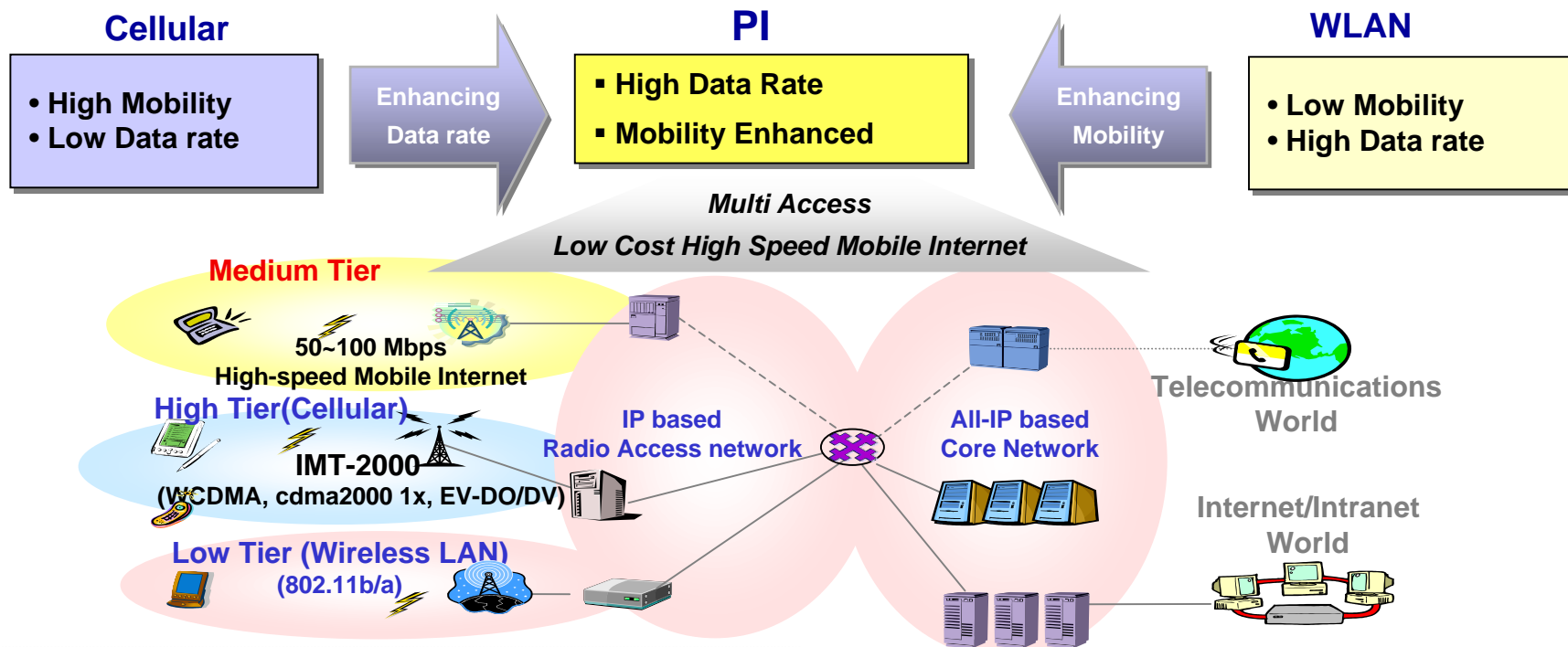
- BcN : Broadband convergence Network

## Standard Model



# Activities on Beyond 3G

– PI : Portable Internet



## Development Status

3Q 2003: Start Standardization for 2.3GHz Portable Internet Service at TTA

\*1Q 2003: HPi Project launched (ETRI, SEC, SKT, KT, KTF, Hanaro)

### • Specifications of HPi

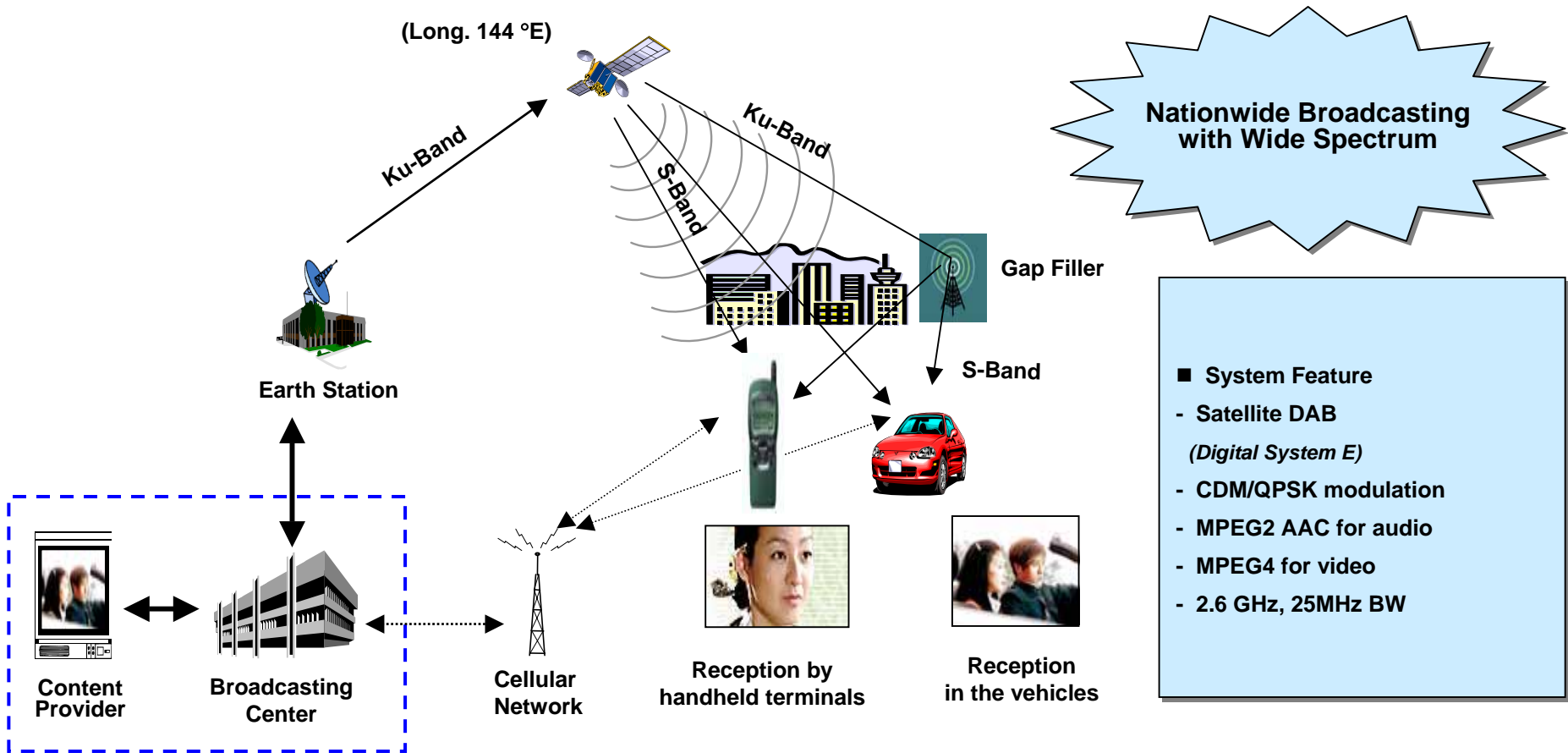
Channel Bandwidth	10MHz	Data rate per User	Upload:128Kbps~1Mbps,Download:512Kbps~ 3Mbps
Cell Coverage	100m/400m/1Km(Pico,Micro,Macro)	Mobility	Max 60km/h
Max Data rate	34Mbps(HPi-10) 50Mbps(HPi-10m : MIMO)	Multiple Access /Duplex	OFDMA / TDD

# Activities on Beyond 3G

## - Broadcasting Service

### ❑ PMSB (Personal Mobile Satellite Broadcasting) Service

- Video, Audio, Data for the vehicle and personal mobile terminals





# Summary

- ❑ **3G Service by SK Telecom**
- ❑ **Concepts of convergence/ubiquitous communication**
- ❑ **Trends of network/terminal/platform for Beyond 3G**
- ❑ **Activities in SK Telecom**
  - **BcN(Broadband convergence Network)**
  - **PI(Portable Internet)**
  - **PMSB(Personal Mobile Satellite Broadcasting)**