



NGN in Korea

Chae Sub Lee

Vice Chairman of SG13

ETRI, Korea



IT Trend in Korea



Infrastructure

Communication Network

Internet


Broadcasting

Digital Technology

Network Technology

Computing Power



Digital Data
101001101


•Digitalization



•Wide Network Coverage



•Enhanced Computing Power



Vision & Goals

Vision

- Build a state of the art information infrastructure in the world
- Create an environment to use high-quality multimedia services
- Prepare core foundation of IT Industry growth momentum

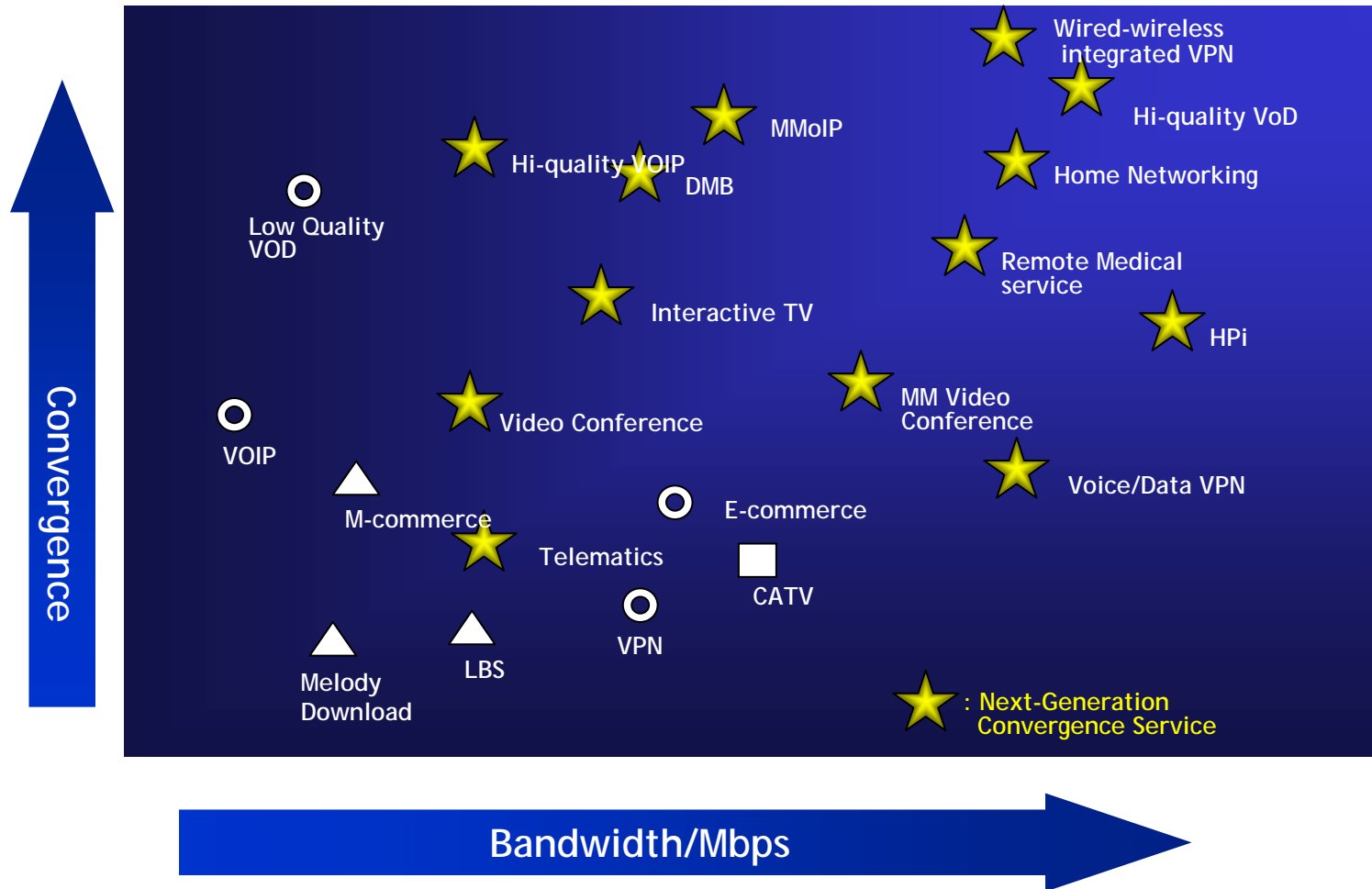
Goals

- Build an integrated network with the bandwidth of 50 ~ 100Mbps that can offer seamless multimedia services to 20mln wired or wireless service subscribers between the heterogeneous networks





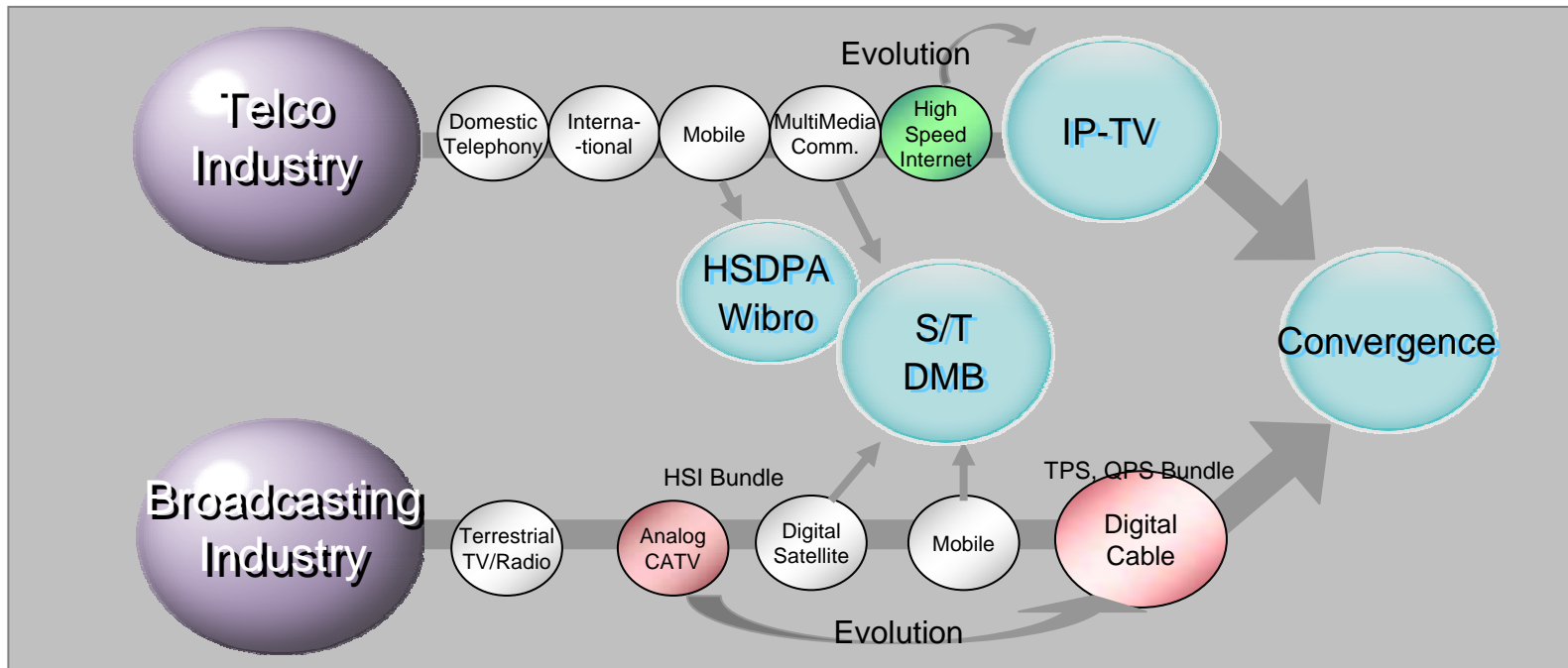
Service Prospect





Digital Evolution Trend in Korea

- o Development of Digital Technology & Broadband Network leads to Bundle & Convergence Service over other sector (Between, Telco & Broadcaster)
 - Evolution : IP-TV, Digital Cable
 - Convergence : Satellite / Terrestrial DMB

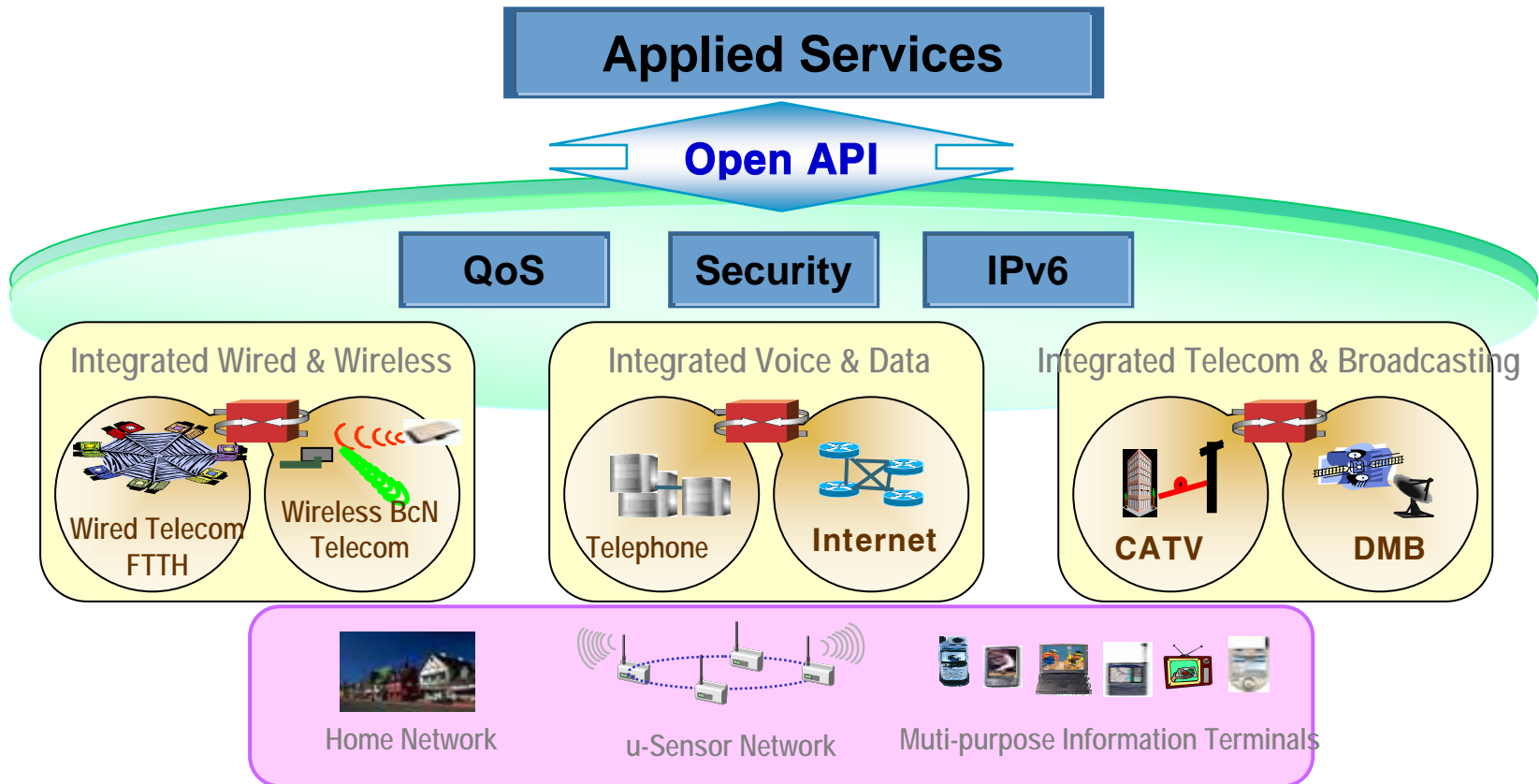


* Ref: ITU TSB IPTV Consultation meeting (Doc. iptv026e)



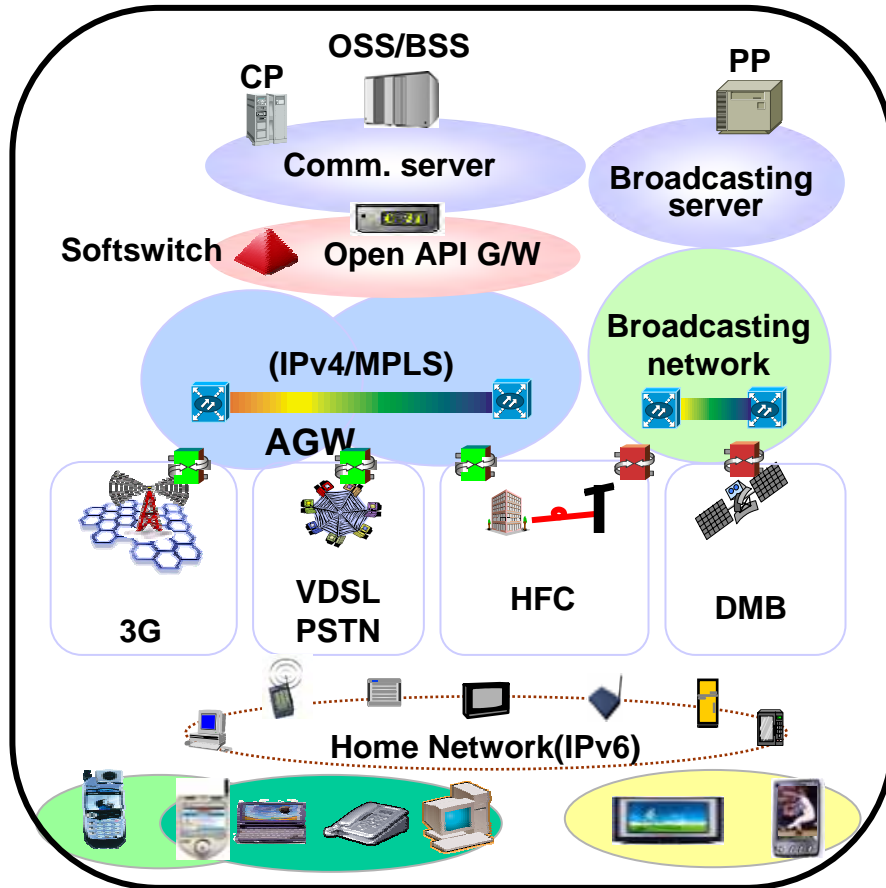
Broadband Converged Network (BcN)

Integrated network of the next generation, where the users can safely access to BcN multimedia services ; quality-secured integrated Voice/Video/Data at anywhere and anytime





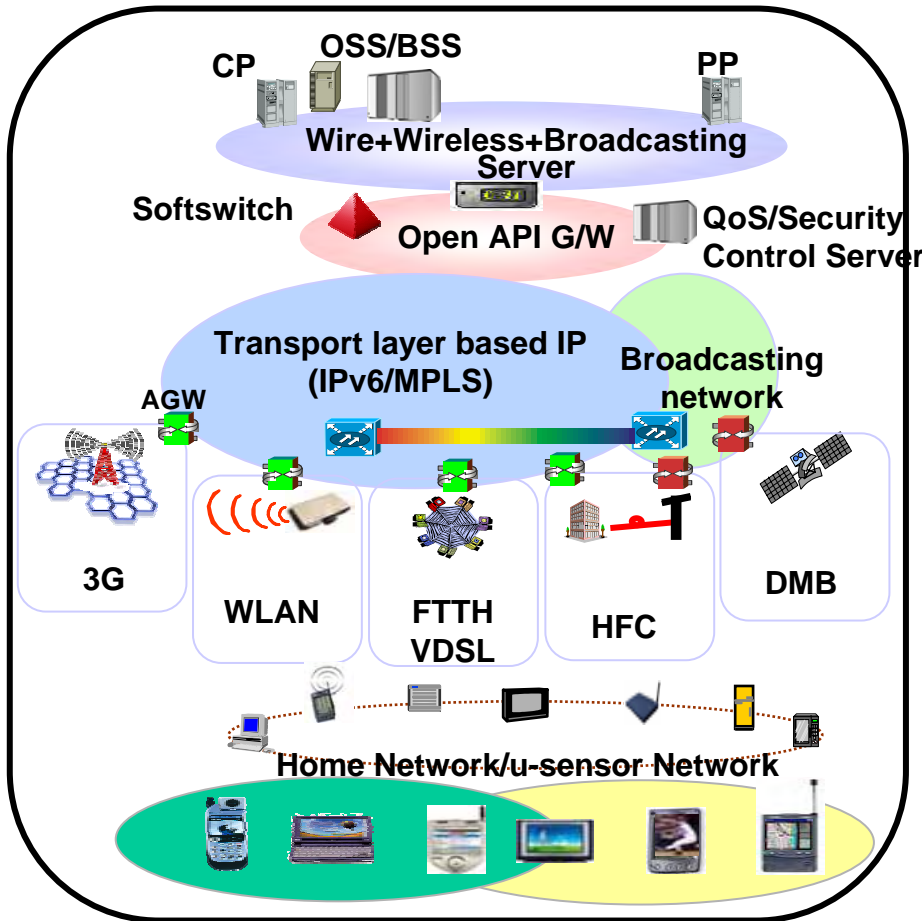
1st Step (2004 ~ 5)



- Integration of Voice and Data network based on Open Architecture
- Service Convergence between Wired and Wireless
- Expansion of FTTC(VDSL/HFC)
- Introduction of New Service
 - ▶ FTTH
 - ▶ Terrestrial DMB, Satellite DMB
 - ▶ IPv6 based Home Network



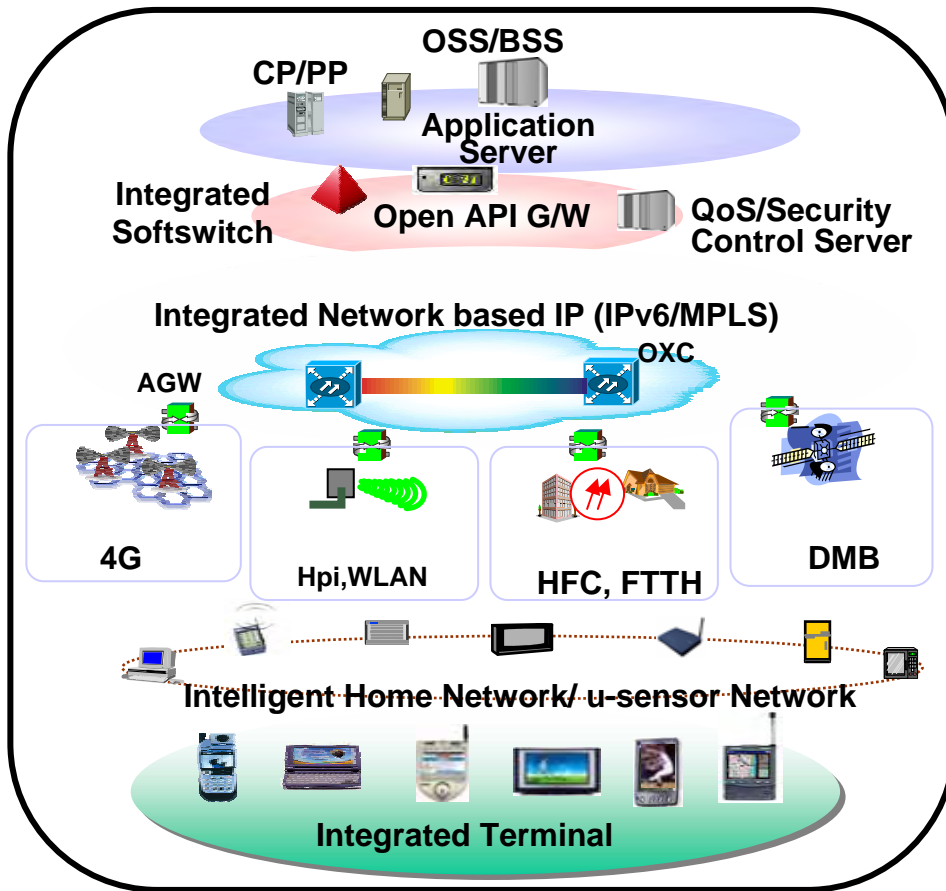
2nd Step (2006 ~ 7)



- Convergence of Wired & Wireless network
- Transport layer based IPv6/MPLS
- Service Convergence of Communication & Broadcasting
- Expansion of FTTH
- Introduction of New Service
 - ▶ HPI and interactive DMB
 - ▶ Ubiquitous Sensor network



3rd Step (2008 ~ 10)



- Converged Service Over Single Transport Layer
 - ▶ Voice Network
 - ▶ Internet
 - ▶ Mobile Network
 - ▶ Broadcasting
 - ▶ High-speed Data Network
- Supporting New Service Requirements
 - ▶ Broadband
 - ▶ QoS
 - ▶ Security
 - ▶ Mobility
 - ▶ Multicasting

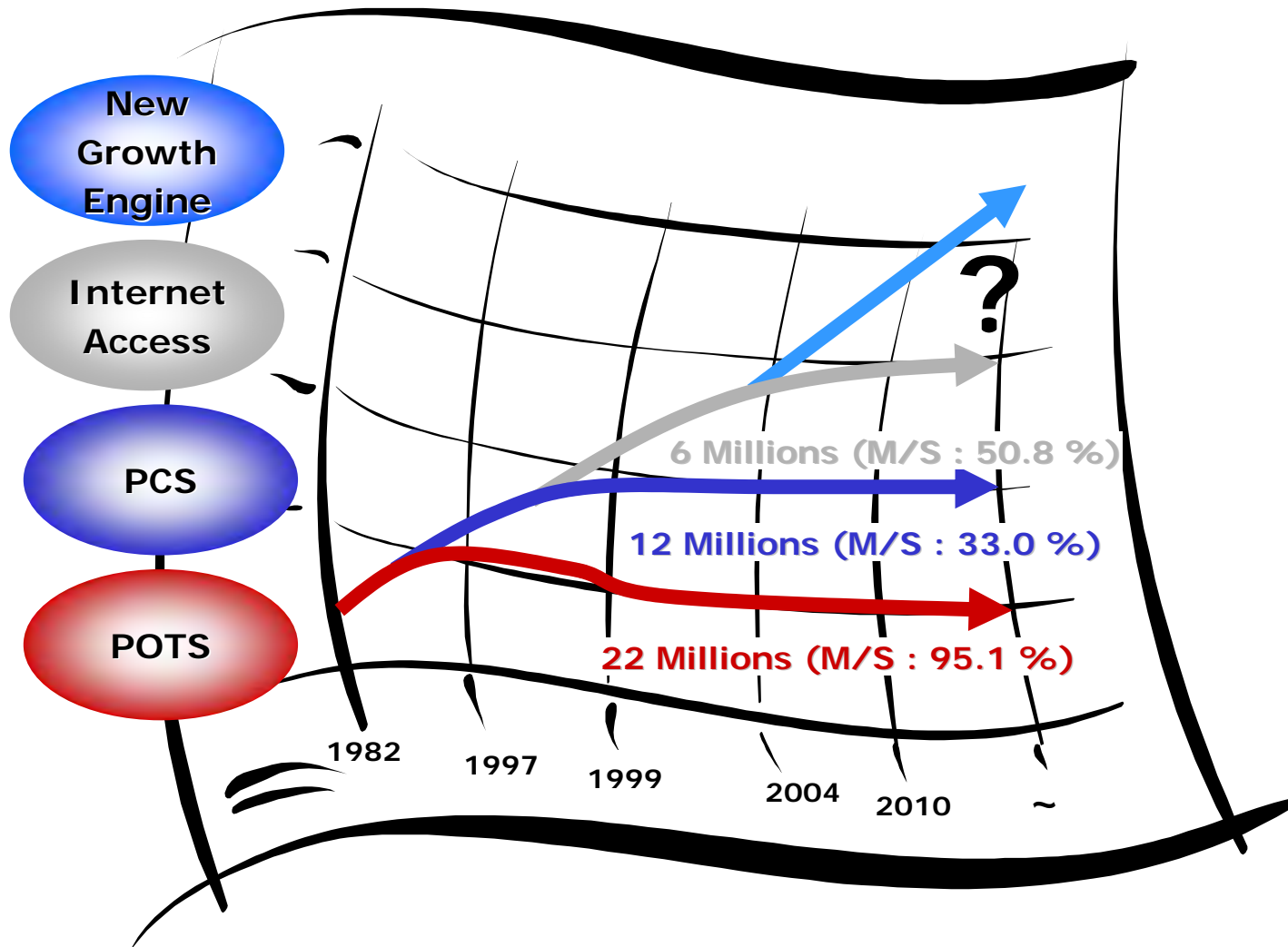


BcN trial services

	Leading company(ies)	Coverage	Service Launching	Services
Octave Consortium	KT	600 subscribers across 3 cities (Seoul, Daejeon, Daegu)	Oct. 2005	22 services (Telephony & Data applications)
UbiNet Consortium	SKT, Hanaro Telecom.	600 subscribers across 3 cities (Seoul, Busan, Daegu)	Sep. 2005	32 services
Gwanggaeto Consortium	Dacom	350 subscribers in 5 areas (Seoul, Gyunggi, Bucheon, Busan, Gwangju)	July 2005	25 services
Cable BcN Consortium	Cable providers	700 subscribers in 7 areas	Soon	Not announced yet



Growth of KT : History





The Octave Project

Service

From network provider to total solution provider

Strategic
Direction

Differentiated services on differentiated infrastructure

- step 1: basic application services over the Octave infra
- step 2: innovative ICT-based life/work application services over the consolidated Octave infrastructure

Analogy

From plain seaside to water park

Best Effort Internet



- Free/cheap, Unstable Quality, Unmanaged, Insecure



Quality-guaranteed,
secure IP network



- Fee-based, Guaranteed Quality, Managed, Secure

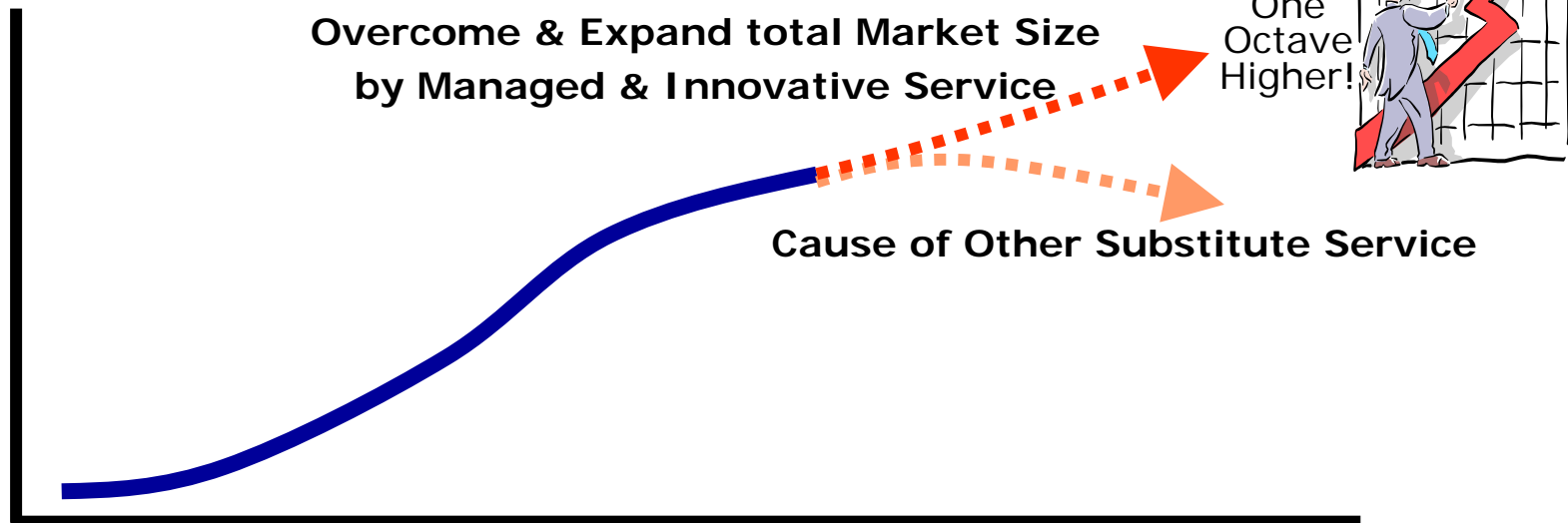


Octave Concept

● Now : Broadband Service & Managed Service

- Broadband Service Market almost saturated and will decrease due to other substitute service like Wibro, 4G, etc..
- To expand market size, Managed & Innovative Service needed
- For Managed & Innovative Service, New Signaling Structure and New Device will be invested

➔ Octave Project





Octave Service

- New Application Services that will Take Up Broadband Internet Revenue
 - Providing octave service and device to the home with broadband access
 - Reaching up to the next octave level : twice the size of the current broadband revenue



KT Octave Device

Managed Broadband Network (Megapass/NESPOT/Wibro)



Octave Network

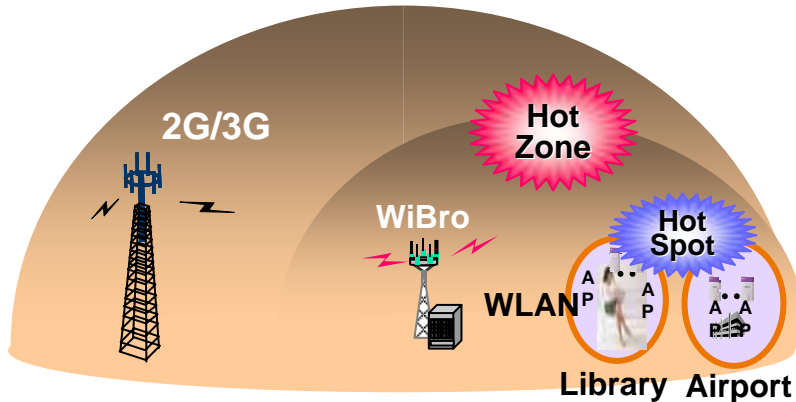
- Single/simple/cost-effective network infrastructure for existing & new services





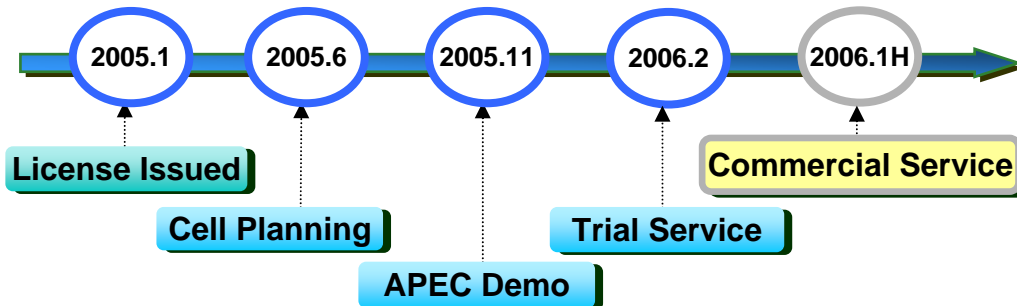
WiBro

Coverage



- 2G/3G : Voice-oriented, wide-area, narrow-band
- WiBro : Cities, broad-band
- WLAN : Hot-spot

Milestones



APEC 2005 Demonstration



KT Wibro Demonstration in Shuttle Bus



KT Wibro Devices

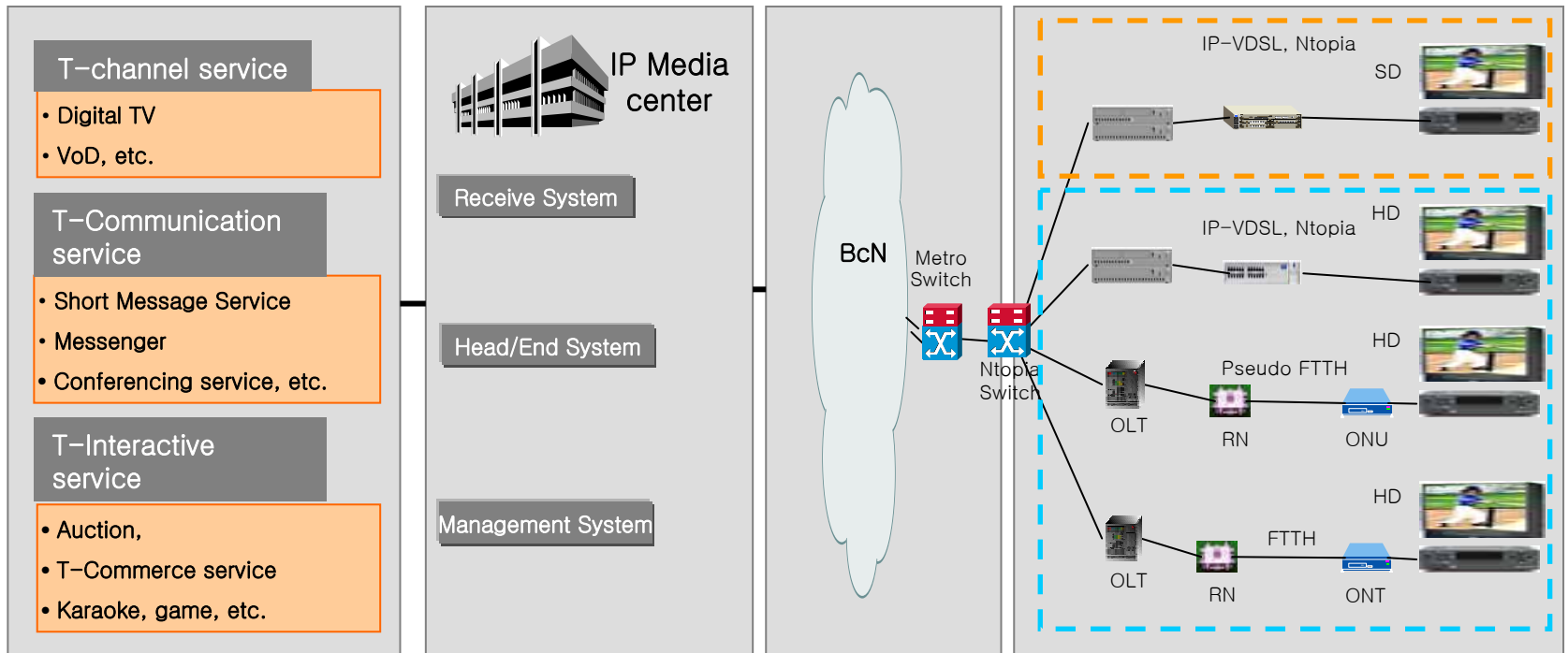
- Wireless TPS
- IP Multicasting (VoD & MoD)
- Portals, Games, LBS's



IP-Media

- **TPS (Telecom. + Broadcasting + Data), may be launched in 2006.**
 - **Telecom. : T-communication**
 - **Broadcasting : T-channel**
 - **Data : T-interactive**

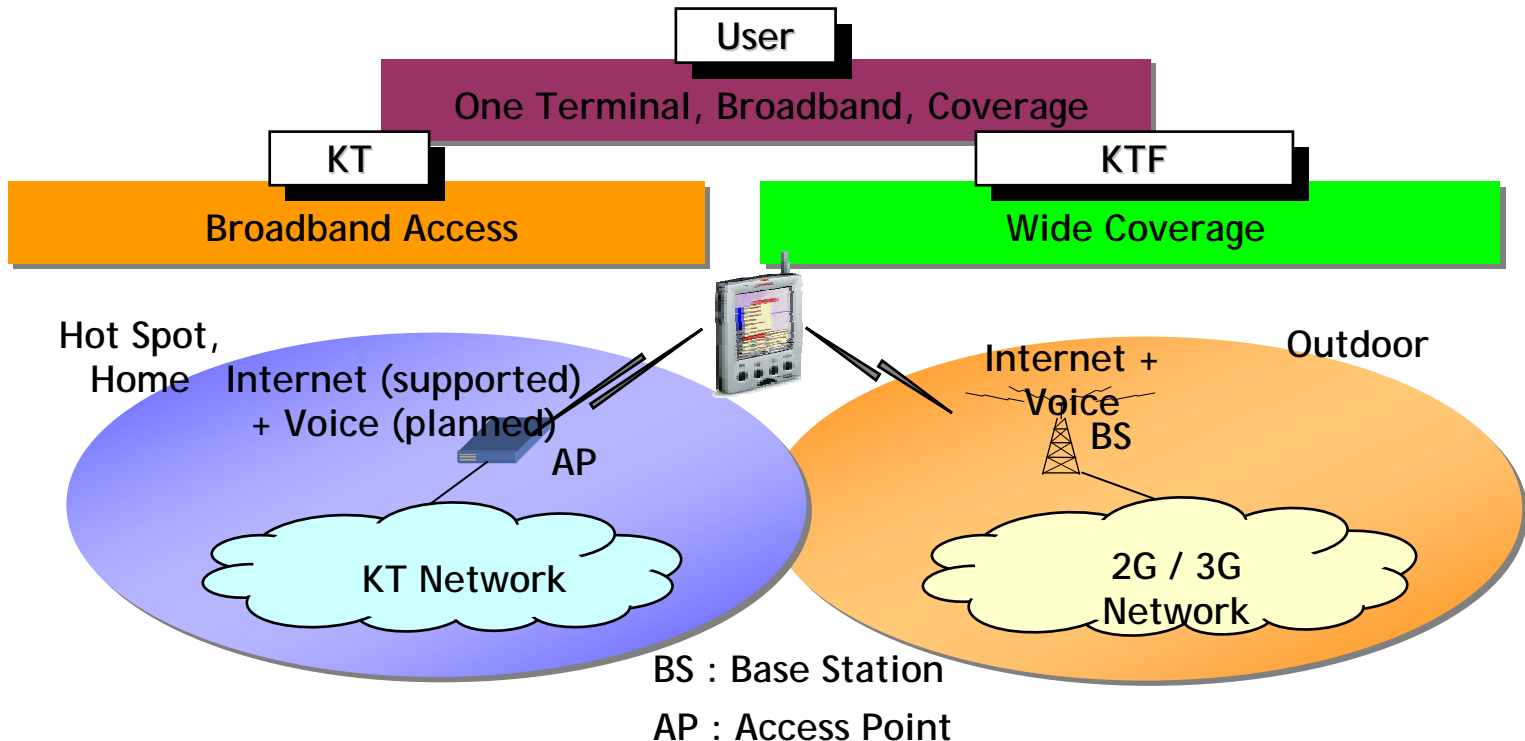
Configuration





Nespot-Swing

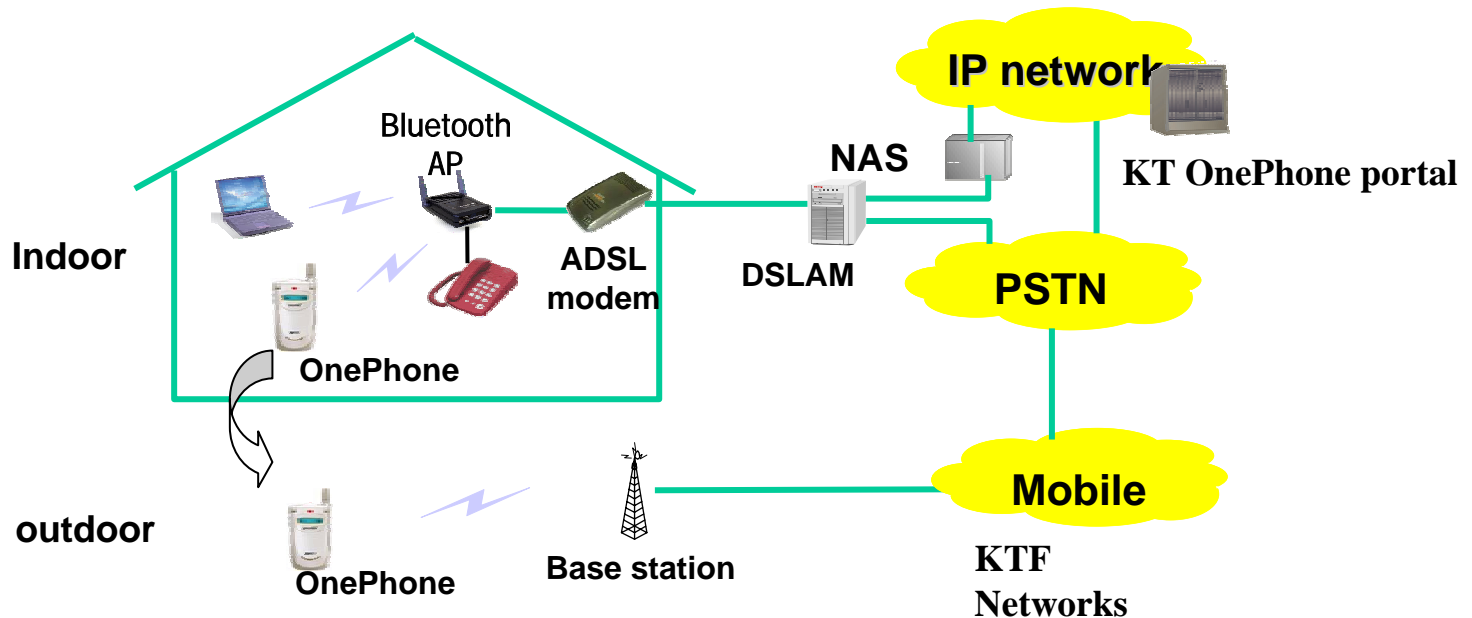
- o Integrated mobile phone and Wi-Fi module
- o Provides voice (CDMA) and data service (wireless internet service)
- o Cellular phone + Wi-Fi module





One-Phone

- o Integrated mobile phone and landline service using bluetooth technology
- o Cordless phone and mobile phone are integrated into a single terminal
 - Outdoor : Cellular phone
 - Indoor : Cordless phone based on bluetooth technology
- o Provides voice and data service (wireless internet service)
- o Cellular phone + Cordless phone





**Thank you for
your attention !!!**