BcN Deployment Strategies in Korea

Aug. 11, 2005

NCA

Table of Contents

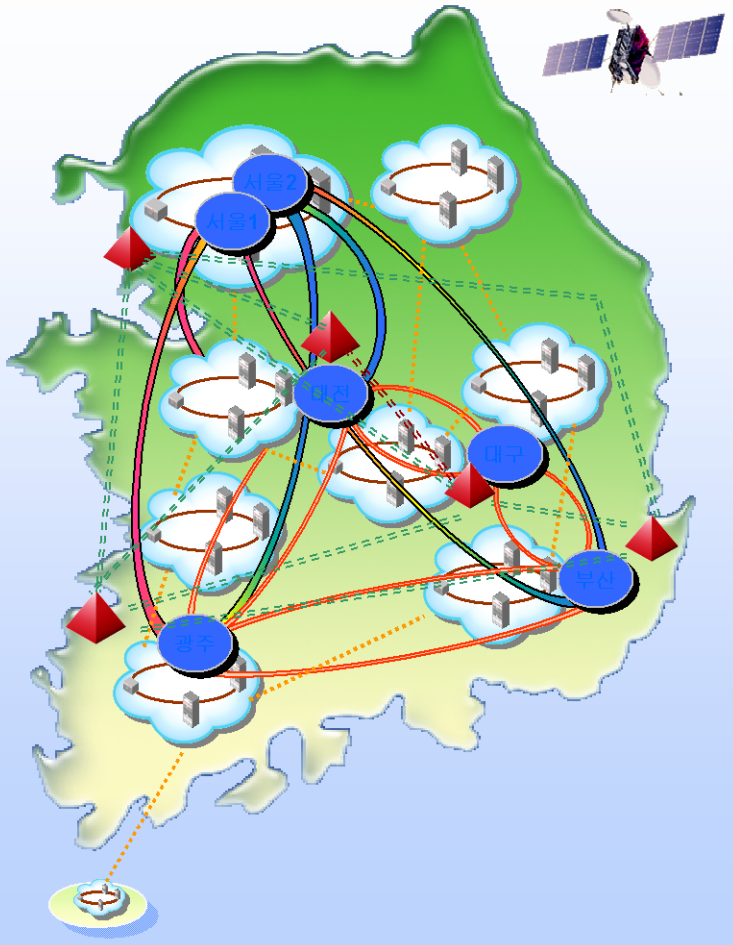
I Status of IT Korea

II IT839 Strategy

III BcN deployment strategy

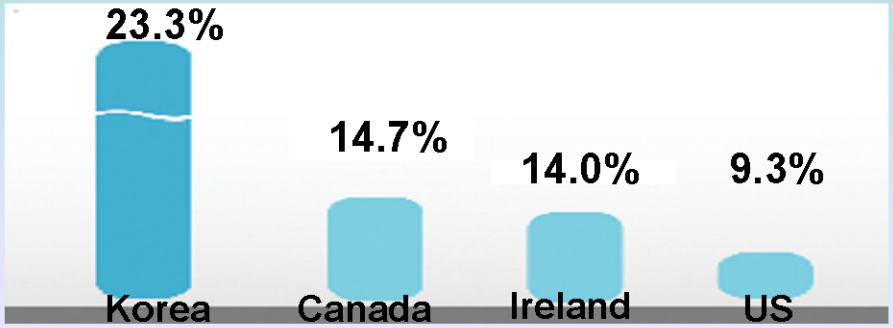
Status of IT Korea : Infrastructure

Broadband Network



Global Broadband Penetration

※subscription per 100 persons



(Source: ITU Internet Report, 2004)

Korea's Broadband Penetration

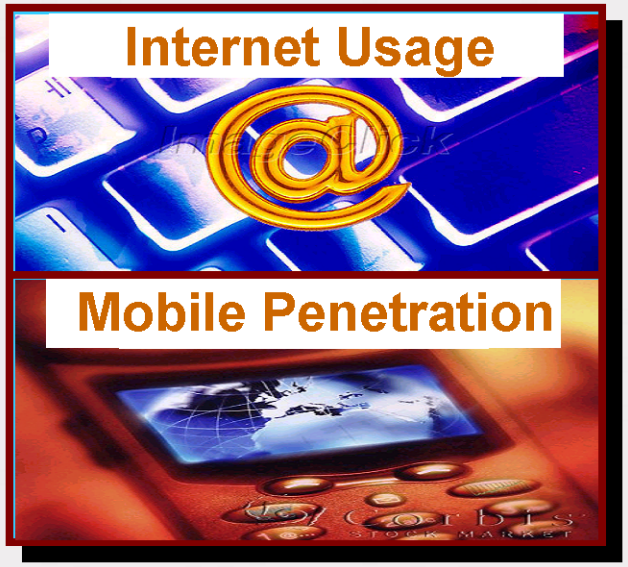
House-holds

- Penetration : 76.7%(Dec. 2004)
  - Available to over 97% of population

Schools

- All Primary & Secondary Schools Connected to Broadband (Sept.2000)

Status of IT Korea : Services



- 31.6M (70.5%) Users (Dec.'04)
- 36.6M(76.1%) Subscribers(Dec.'04)
- 32.5M 3G(CDMA 2000-1x,EV/DO) Service (Dec.'04)

2004

Video On Demand (VOD)

Ring back tone service

Multimedia Message Service (MMS)

Location Based Service (LBS)

Mobile Game

Short Message Service (SMS)

Graphic image download

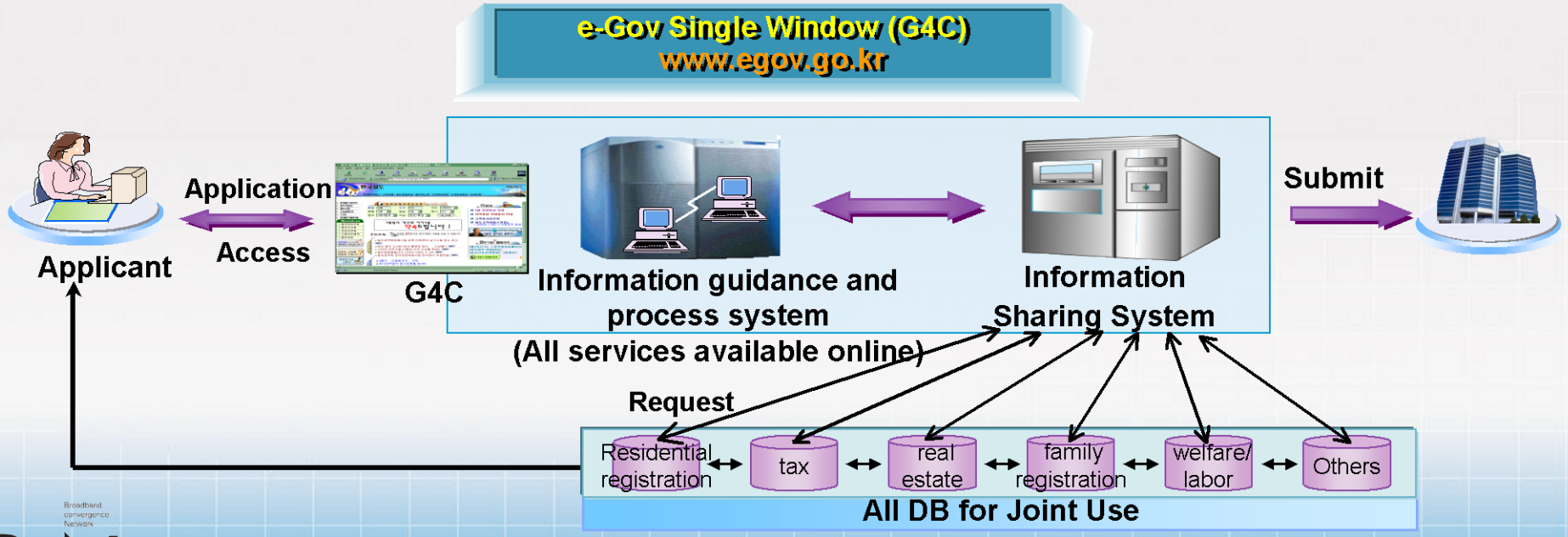
Ring tone download

1998

Status of IT Korea : e-Government

World-class e-Government System

- E-Government for Major National Systems (customs, procurement, tax)
- Joint Use of Administrative Information (residential registration, real estate, tax, etc.)
- Online Public Services thru Single Window (G4C)



Key Success Factors of IT Korea

Advanced Gov. Policies & Quick Response from Private

Gov.

- Privatization & Introduced Facilities-based Service Providers' Competition
- Developed Tech. & Industries (TDX/CDMA/ADSL)
- Established KII and Created Demands

Company

- Intensively Invested in Broadband, CDMA, etc.
- Adopted e-Commerce & IT in Traditional Industries

Individual

- Tech-savvy Consumers
- High Enthusiasm for Education

Table of Contents

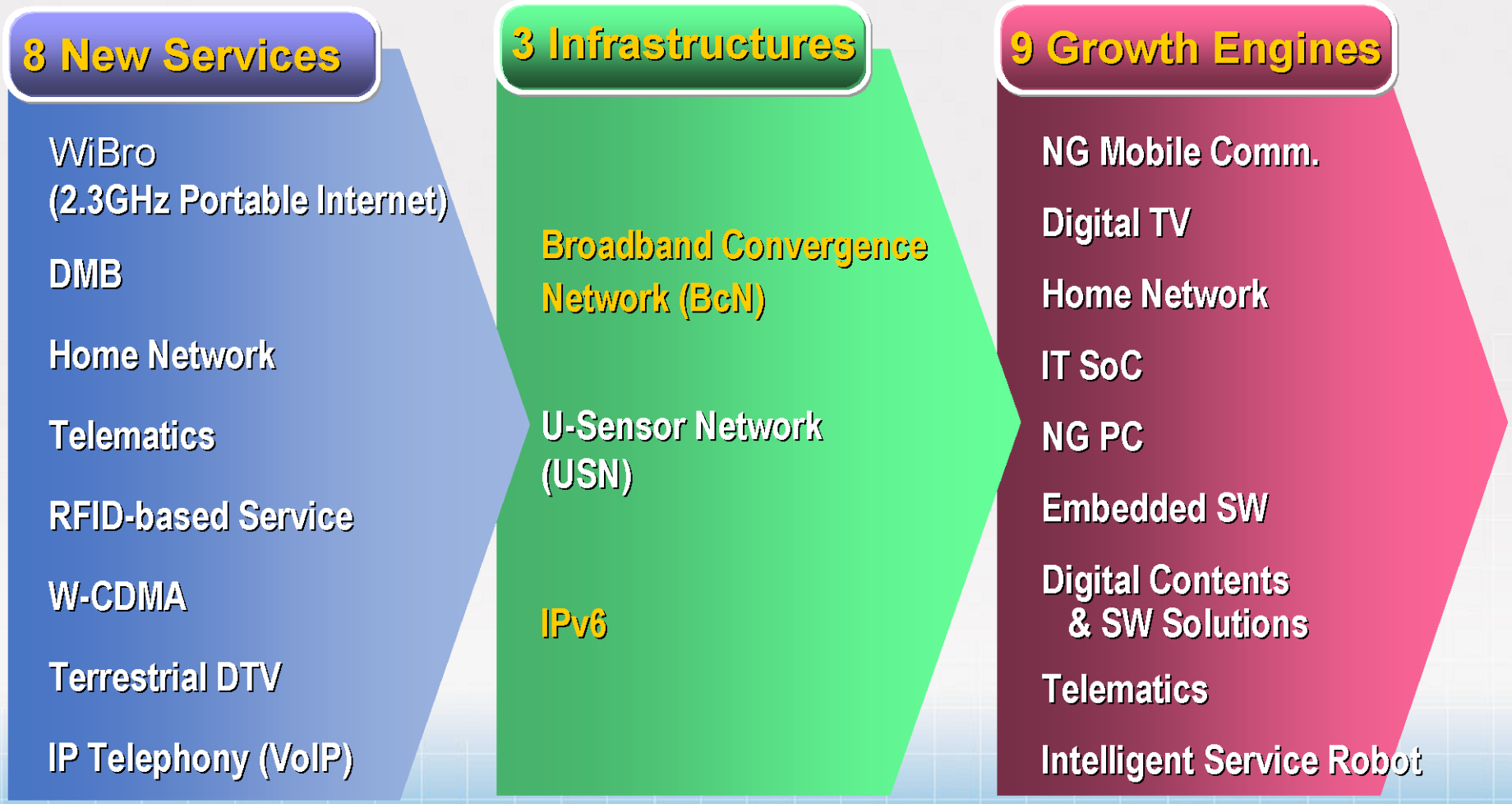
I Status of IT Korea

II IT839 Strategy

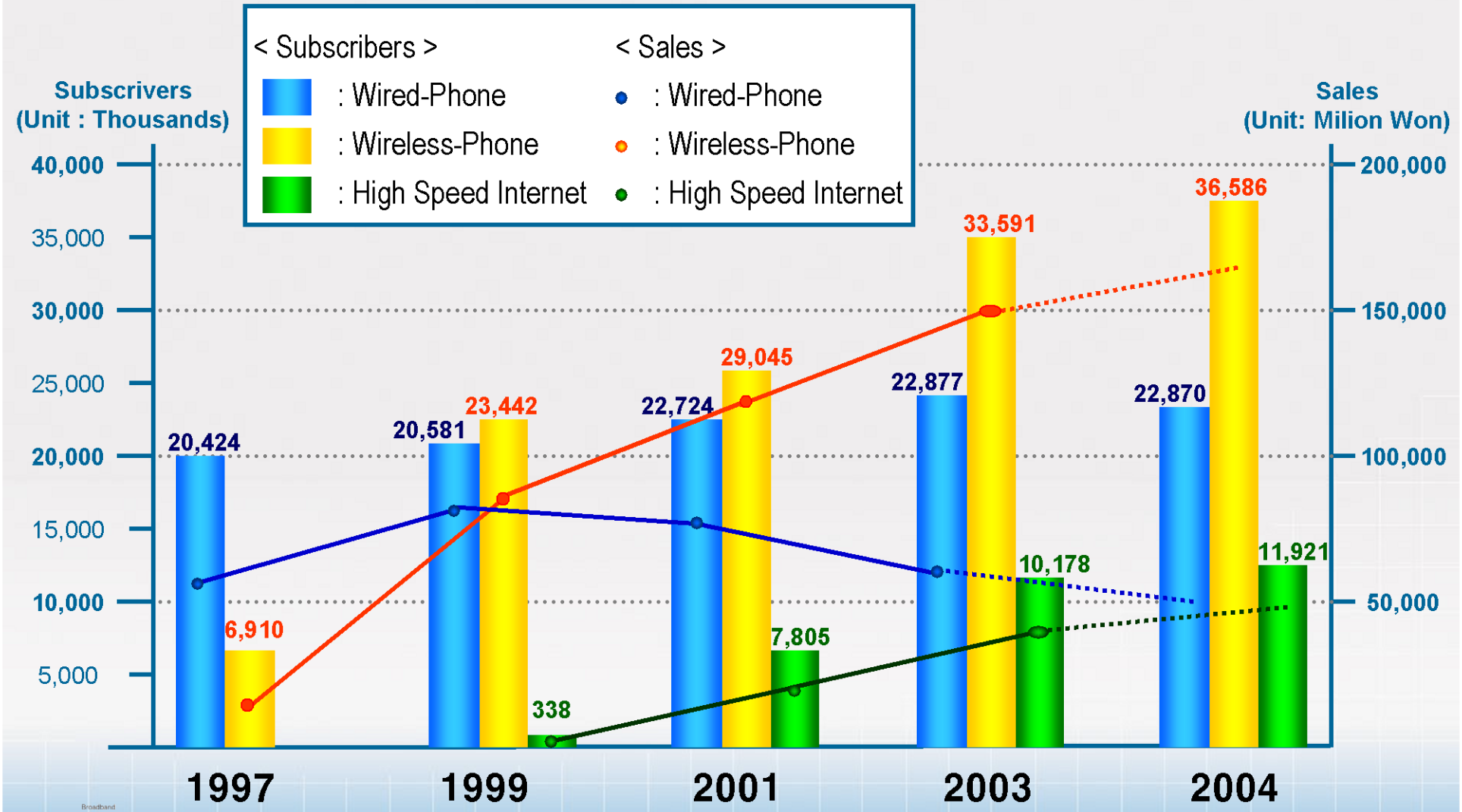
III BcN deployment strategy

IT 839 Strategy

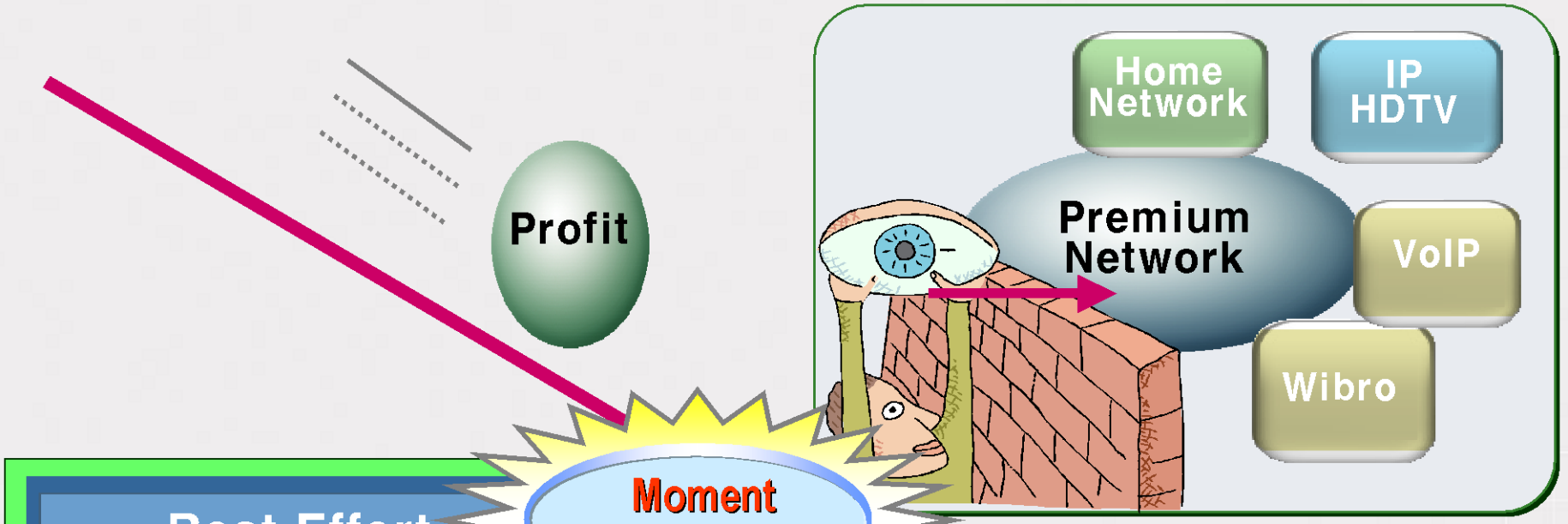
Triggering Positive feedback in the value chain



3 Major telecom services in Korea
➔ reached or close to market saturation



Moment of Truth : stagnate or face the challenge ?



Best Effort

- Fixed price
- Marginal increase in the number of subscribers

Limitation of Profit Model

QoS Based IP Network

New Business Model ?

Table of Contents

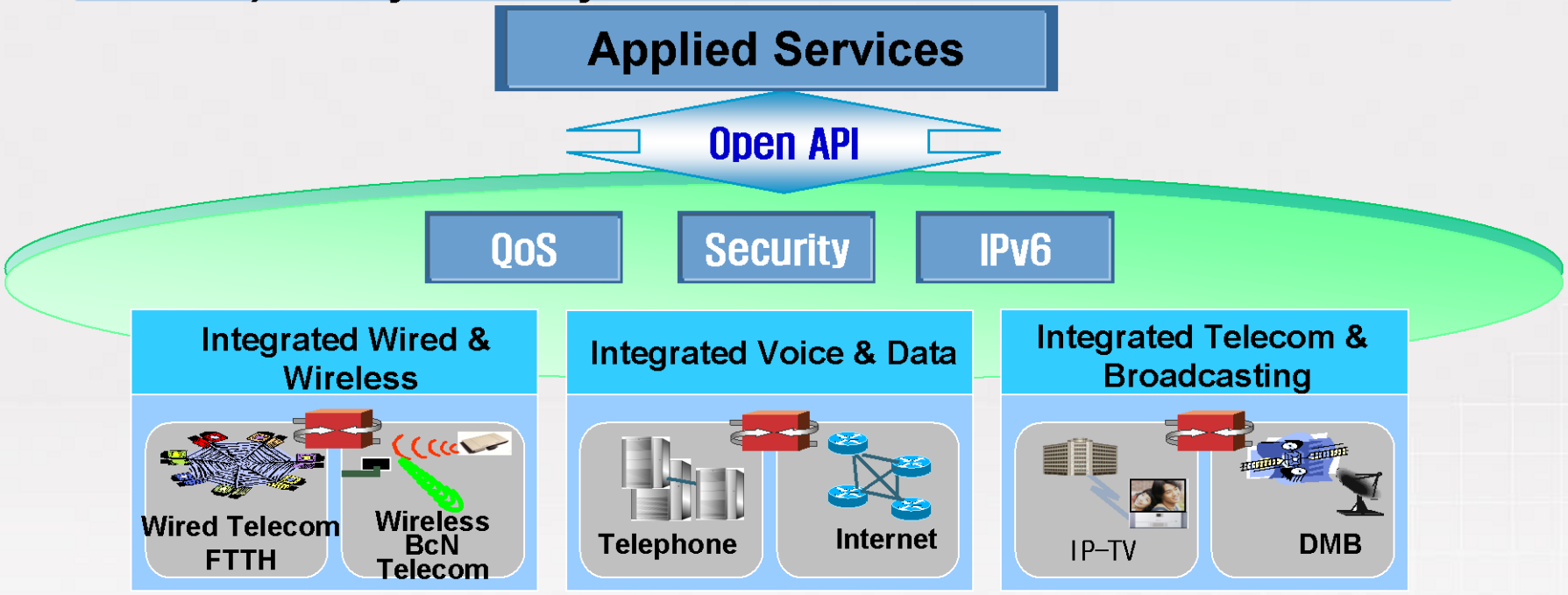
I Status of IT Korea

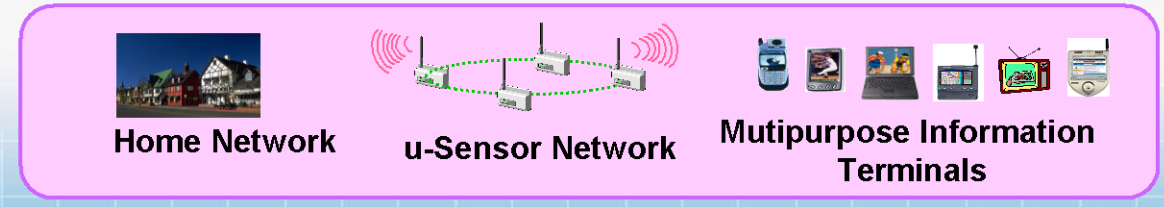
II IT839 Strategy

III BcN deployment strategy

Concept of BcN

BcN is a next generation network that provides integrated multimedia services seamlessly(telcom, broadcasting & internet) at anytime anywhere





Vision & Goals of BcN

Vision

To provide seamless, broadband, integrated multimedia services anytime, anywhere by the year 2010

Goals

20 million BcN subscribers by 2010 in Korea

Evolution of BcN

		Present (2004)		BcN (2010)
Service & Control Network	• Evolve into an open telecommunication network that can deliver intergrated services between different network			
	Service	Proprietary	→	Open API
	Control	Individual Network Control	→	Softswitch control
Transport Network	• Ensure quality and Security and provide tera-scale transmission speed			
	Exchange	ATM Switch / Router	→	MPLS / GMPLS
	Transport	SDH / SONET	→	OXC / DWDM
	Security	Host / Application Security	→	Integrated Network
Subscriber Network	• Increase the bandwith of network access speed(1.5~2Mbps → 50~100Mbps) • Realize a ubiquitous environment(Information appliances, telematics, USN etc.)			
	Fixed Line	XDSL / HFC	→	HFC / FTTH
	Wireless	3G / WLAN	→	WiBro / 4G
	Broadcasting	CATV (HFC)	→	DCATV / DMB
	Home Network	N/W Access by IT Devices	→	Home G/W, Wired and Wireless N/W
	U-Sensor N/W	Smart Card (Chips)	→	RFID / UWB

(Source : MIC)

Major Promotions (I)

Backbone Network

- QoS certificate evaluation; SLA Provisioning
- Build integrated security management system by detecting or blocking harmful traffic
- Convert IPv4 to All-IPv6
- Build open network that can provide seamless services between heterogeneous networks

Broadband Access Network

- Build wired subscribers' networks (such as FTTH) that can provide 50~100Mbps services
- Build wireless subscribers' networks, such as wireless LAN, portable Internet and 4G mobile
- Build bilateral Video delivery network integrated with digital CATV or DMB networks

Ubiquitous Access Environment

- Enforce top-grade building certification to expedite optic cable network construction for intranets
- Promote model projects and loan funding to supply home networks
- Build u-sensor network that enables communications via electronic chips on entire objects

Major Promotions (II)

Build & Operate Advanced BcN R&D Network

Build & Operate R&D network

- Build networks around the major 6 cities nationwide to create a conducive environment for advanced technology development around the major 6 cities nationwide
- Provide networks suitable for needs of users, such as telecom service providers, equipment manufacturers and research institutes
- Promote BcN related research, such as IPv6, QoS, Security, etc.

Promote Model BcN projects

- Develop Broadband Service models (wired & wireless integration, integrated voice & data , etc.) and provide model services
- Lead international standardization of BcN technologies and services

Facilitate International Joint Researches

- Build advanced research networks with Asia Pacific regions (U.S., Japan, etc.) and Europe
- Support international joint research on advanced sectors, such as IT, BT, NT, etc

Major Promotions (III)

Technology Development

- The government and private sector jointly develops core technologies, such as optic transport & exchange and optical subscribers' network

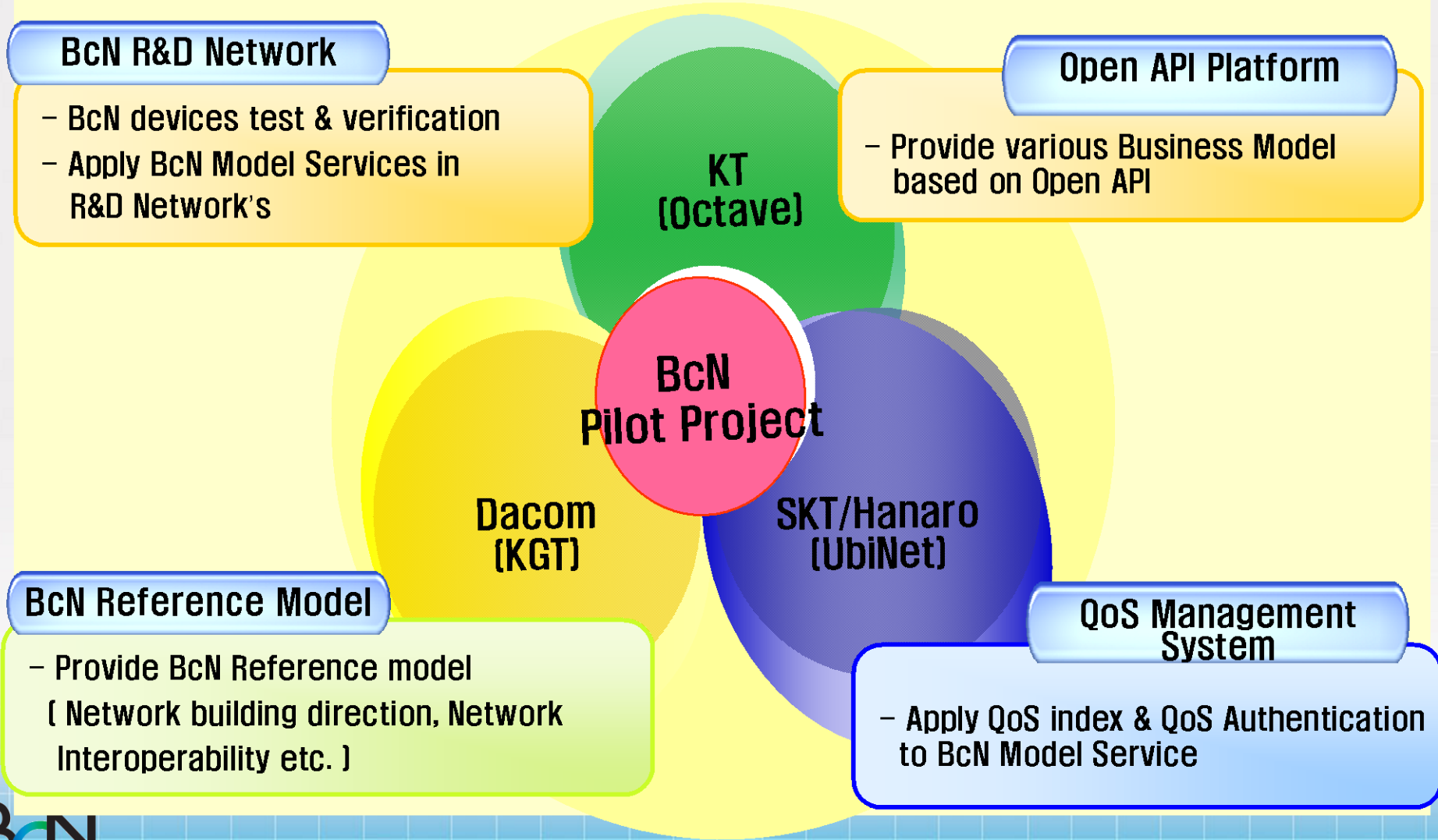
Facilitation of Application

- Promote model projects, education and PR to realize e-life based on BcN

Maintain & Modify the Law & Regulation Systems

- Revise law & regulations systems related to voice & data by classifying services and service providers, and alleviate entry barrier
- Promote legal system revisions to provide tax exemption and financial supports, and support construction of infrastructure facilities, such as telecom pipelines and offices

Stimulating investment in BcN Deployment



BcN Pilot Project – 3 consortia

KT Group	SKT/Hanaro Group	Dacom Group
KT, KTF	SKT, Hanaro	Dacom, LGT, Powercom
Samsung Elec., Corecess, Core Communications, iCrossTech, CNS, Wooksung, Herit, Uangel	Samsung Elec., Herit, Xener, Telcoware, Mirinet, Wooksung, Samwoo, Uangel Hulim interactive, SK C&C, Secure soft, Entels, IDC Tech.	Wooksung, Acromate, LG CNS, CD Networks, Alticast, Uangel
KBS, MBC, SBS, EBS Direct media, Singy, Carrot Korea, SON Korea	SBS, SK communications, MBN, Skylife, Choongchung Broacasting	MBC, BSI, Dreamcity Daum Communications, Inotive
KTI	Daehan cable, SK construction	KIST

OCTAVE

광개토 BcN Leader

Construction Objectives by Phase

Infrastructure Construction Phase (2004~2005)	◆ Build IP-based voice & data integration network for wired and wireless networks ◆ Provide IP-based wired & wireless interworking services and implement FTTH ◆ Implement unilateral DMB and apply IPv6 to home N/W
Full Construction Phase (2006~2007)	◆ Integrate individual wired or wireless networks as the IP network, and preliminarily with the broadcasting network ◆ Implement IPv6 in transport network and expand FTTH ◆ Implement the bilateral DMB and provide services ◆ Implement ubiquitous sensor network (USN)
Completion Phase (2008~2010)	◆ Integrate wired, wireless and broadcasting networks as the IP-based network ◆ Build IP-based integration transport network ◆ Complete infrastructure for quality-assured services, with the help of FTTH, HPI, 4G, etc. ◆ Fully build USN and implement intelligent integrated terminals

Vision & Goals of BcN

Vision

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Goals

20 million BcN subscribers by 2010 in Korea

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THANK YOU!