NGN Overview in Korea

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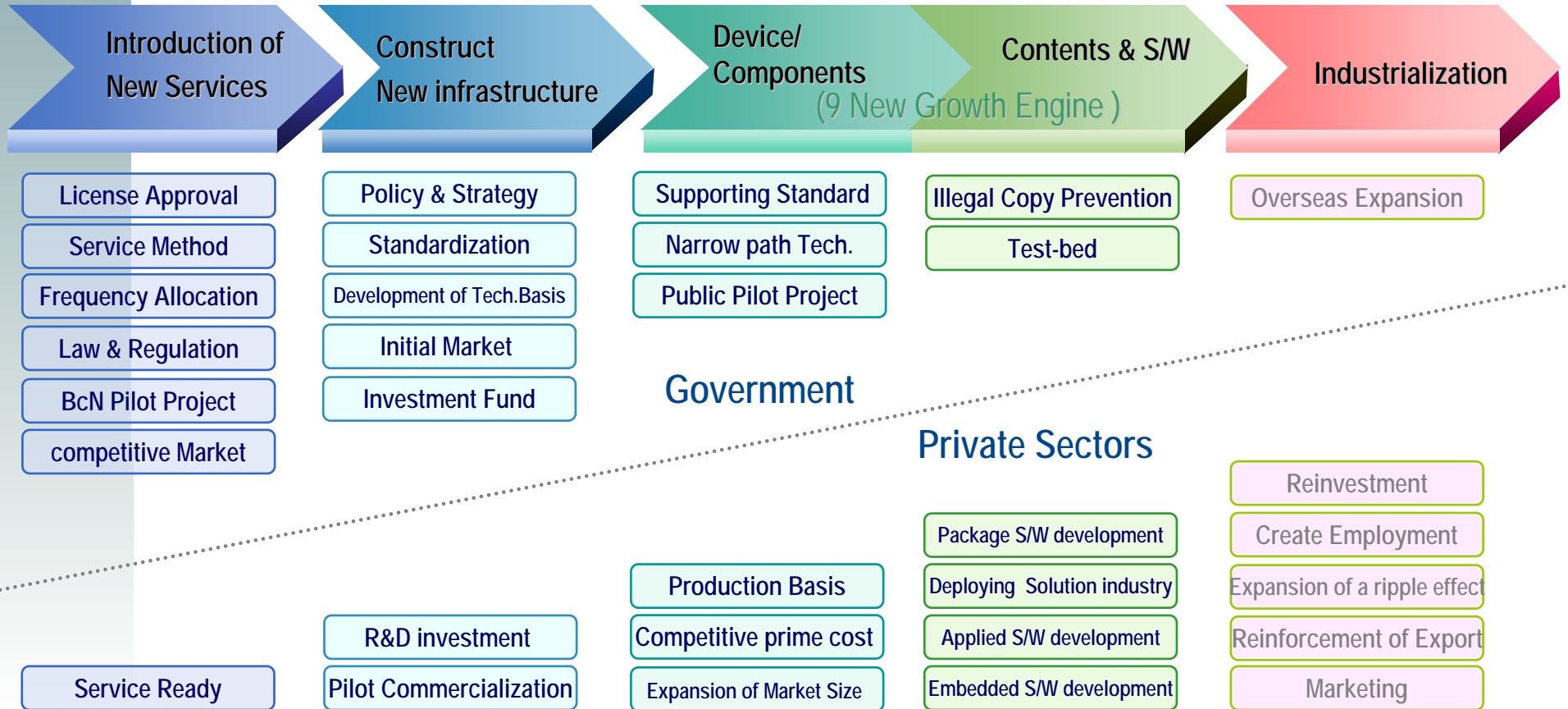
Contents

- Korean NGN Strategy Overview
- Korean NGN Test-bed Environment Overview

Value Chain in IT Industry

Value Chain & Role of Government•Private Sectors

Introduction of New Services	Construct New infrastructure	Device/ Components	Contents & S/W (9 New Growth Engine)	Industrialization

Government

License Approval	Policy & Strategy	Supporting Standard	Illegal Copy Prevention	Overseas Expansion
Service Method	Standardization	Narrow path Tech.	Test-bed	
Frequency Allocation	Development of Tech.Basis	Public Pilot Project		
Law & Regulation	Initial Market			
BcN Pilot Project	Investment Fund			
competitive Market				

Private Sectors

				Reinvestment
			Package S/W development	Create Employment
		Production Basis	Deploying Solution industry	Expansion of a ripple effect
	R&D investment	Competitive prime cost	Applied S/W development	Reinforcement of Export
Service Ready	Pilot Commercialization	Expansion of Market Size	Embedded S/W development	Marketing

IT839 Strategy

- **Triggering positive feedback mechanism in the value chain**

8 New Services

WiBro
(2.3GHz Portable Internet)
DMB

Home Network

Telematics

RFID-based Service

W-CDMA

Terrestrial DTV

IP Telephony (VoIP)

3 Infrastructures

Broadband Convergence
Network (BcN)

U-Sensor Network
(USN)

IPv6

9 Growth Engines

NG Mobile Comm.

Digital TV

Home Network

IT SoC

NG PC

Embedded SW

Digital Contents
  & SW Solutions

Telematics

Intelligent Service Robot

But the traffic is still growing fast !

eDonkey (P2P App.)

Cyworld (Mini Homepage)

Online Games

TTA

Profit

Home Network

IP HDTV

Premium Services

VoIP

Wibro

Moment of Truth

Best Effort

- Fixed price
- Marginal increase in the number of subscribers

Current Biz Model, Sure way to die

QoS Based IP Network

New Biz Model, Dark and foggy way
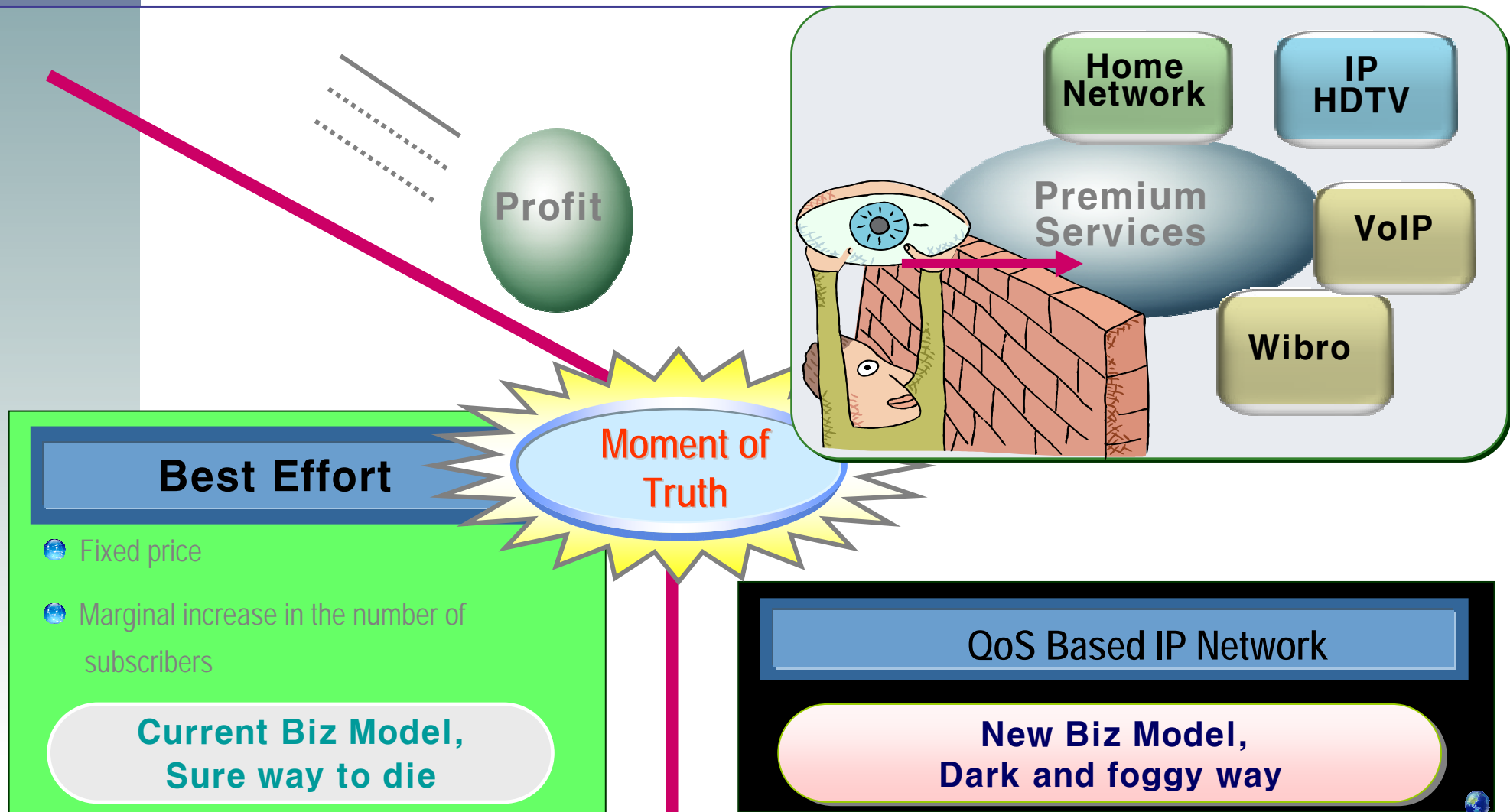
BcN: the way to face challenge

It is really a Moment of Truth,

but the decision is very clear.

Face the challenge,

and BcN is the way to do it.

Summary of BcN Deployment Strategies

BcN Reference Model
to provide guidelines to structures and inter-operability

Open API Platform
to enable SMEs to develop applications easily

KT (Octave)

BcN Pilot Service

Dacom (KGT)

SKT/Hanaro (UbiNet)

BcN R&D Network
to provide Test-bed for BcN applications and solutions

QoS Management System
to insure QoS in BcN services with QoS index & monitoring

BcN Pilot Service Project – 3 consortia

KT Group

KT, KTF
Samsung Elec., Corecess, Core Communications, iCrossTech, CNS, Wooksung, Herit, Uangel
KBS, MBC, SBS, EBS Direct media, Singy, Carrot Korea, SON Korea
KTI

SKT/Hanaro Group

SKT, Hanaro
Samsung Elec., Herit, Xener, Telcoware, Mirinet, Wooksung, Samwoo, Uangel Hulim interactive, SK C&C, Secure soft, Entels, IDC Tech.
SBS, SK communications, MBN, Skylife, Choongchung Broacasting
Daehan cable, SK construction

Dacom Group

Dacom, LGT, Powercom
Wooksung, Acromate, LG CNS, CD Networks, Alticast, Uangel
MBC, BSI, Dreamcity Daum Communications, Inotive
KIST

What is the Killer Application ?

TPS = TV + Voice + Internet Access
    = Already existing markets

➔ Maybe, but no increase in the size of market

Video Phone, Video Conferencing

➔ Perhaps, but requires long time to create substantial amount of new market

e-Learning

➔ Most likely, especially in Korea

What makes BcN based e-Learning a killer application ?

→ tens of billions $USD in private education : big potential market

→ QoS Management : Ensuring high quality in streaming services

→ Channel Selection point in BcN could be at Curbs, not at STBs
Overcome the physical limitation of access lines

→ Time shifting (Uni-casting based)

Example

→ Highly customized e-learning programs

– High quality, HD
– divided into 10 lecturers with different style
– divided into 10 levels by difficulties
– divided into 10 programs by progress
– Time-Shifting → any time, pause & repeat
– Interactive → pose questions and
answered in real time

This is just one example.

Many more to be developed during BcN pilot projects

Vision & Goals of BcN

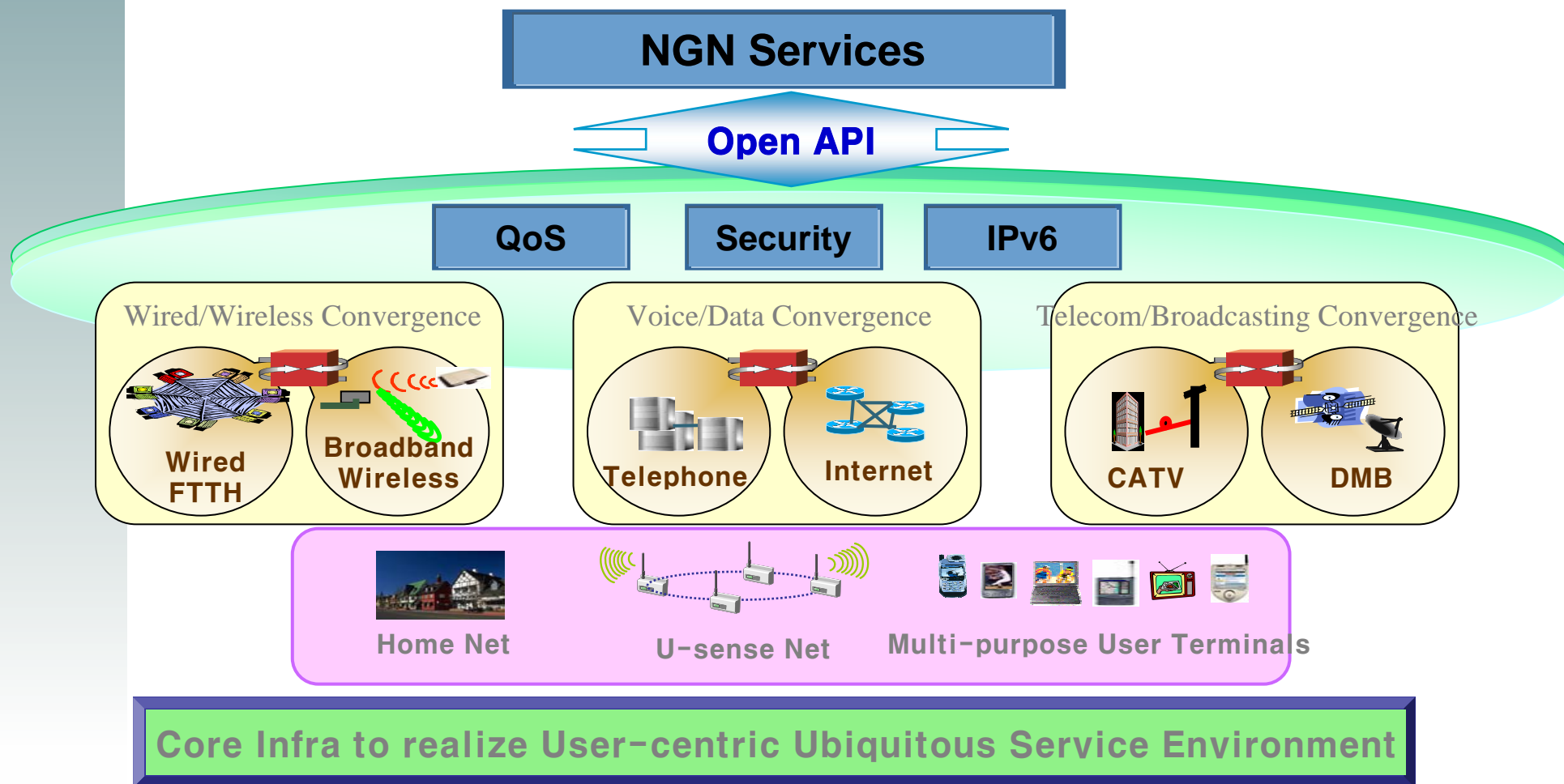| Vision	To provide seamless, broadband, integrated multimedia services anytime, anywhere by the year 2010

Goals

To reach 20 million BcN subscribers by 2010 in Korea

Wired (50~100M)

1,500,000	4,500,000	10,000,000
2005	2007	2010

Wireless (50~100M at most)

500,000	3,500,000	10,000,000
2005	2007	2010

Conclusion

BcN is not something to come in the future.

It is a reality we are facing now in Korea.

BcN Concept

NGN Services

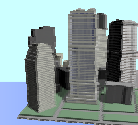**Open API**

| QoS | Security | IPv6 |

Wired/Wireless Convergence

Wired FTTH　　Broadband Wireless

Voice/Data Convergence

Telephone　　Internet

Telecom/Broadcasting Convergence

CATV　　DMB

Home Net　　U-sense Net　　Multi-purpose User Terminals

Core Infra to realize User-centric Ubiquitous Service Environment

Objectives of BcN Test-beds

Non-profit Network to support advanced NGN R&D
Feasibility Testing of BcN Related New Technology and Services

BcN Trial Projects

Commercialization   **BcN Tech. Development**
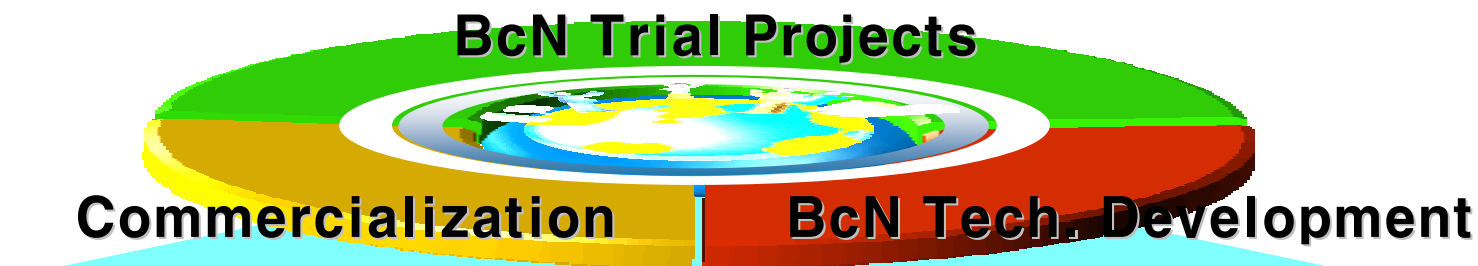
Equip. for testing   **Customers**   **Member Org.**

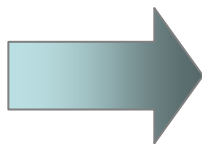| Net. For R&D Test	Net for BcN Trials	Net for R&D Operations
Test-bed for BcN Technology and Services Interop. Testing	Test-bed for BcN Service Trials	Test-bed for Advanced research & International Collaborations

BcN R&D Network 2004

- **6 GigaPoP & 2 Regional PoP**
  - Seoul, Suwon, Daejon, Daegu
  - Gwangju, Busan
  - Regional PoP
    : NCA, Busan IX

- **2.5G~40Gbps Optical Backbone**
  - Seoul – Daejon : 40G
  - Others : 2.5G

- **155Mbps ~ 1Gbps Customer Links**
  - 44 Premium Members
  - 16 Regular Members
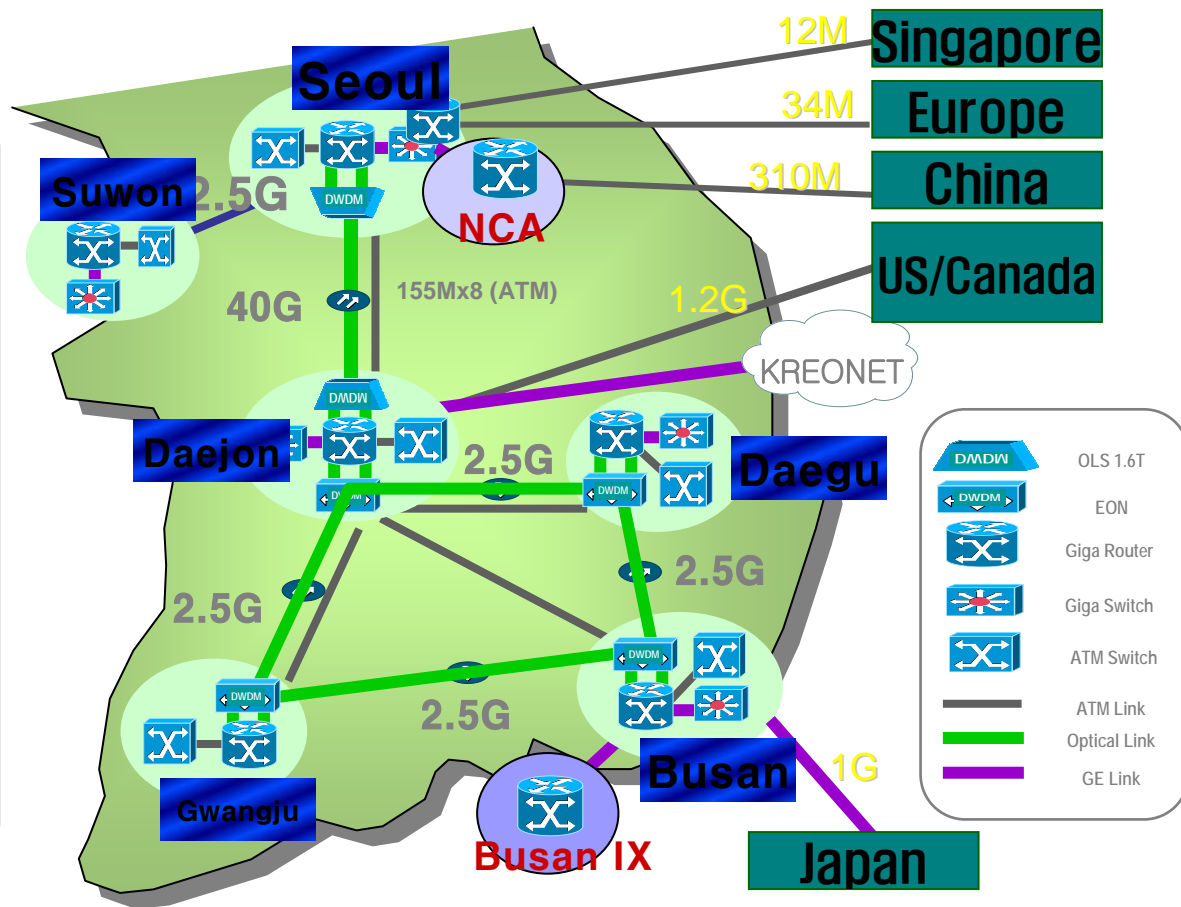
Non-profit Research Org. ➡ **Upgrade for BcN R&D Test-bed**