

*IPv6 Task Force Meeting
13 September 2001, Barcelona*



Korean IPv6 Deployment Strategy

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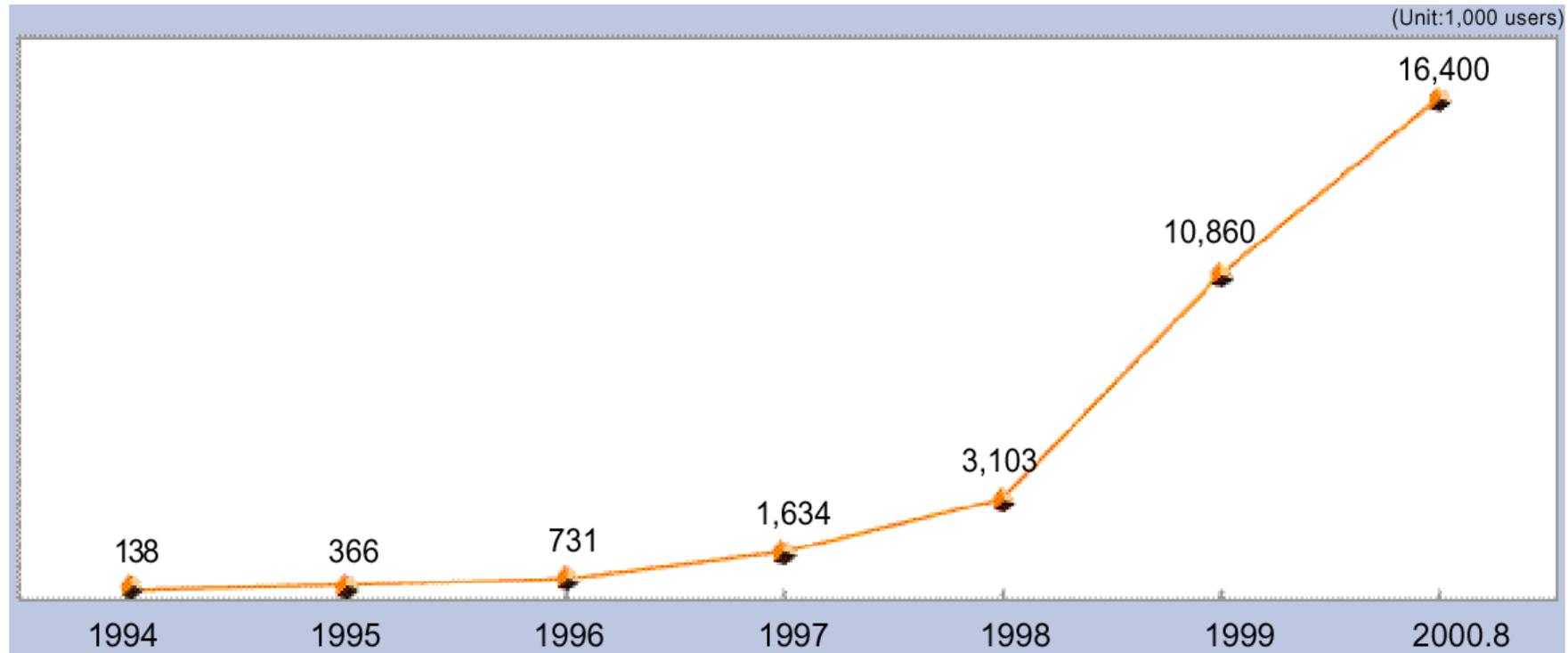
ETRI (Electronic Telecommunication Research Institute)

Outline

- *Background*
- *Deployment Strategy and activities*
- *Future Plan*

Status of Internet in Korea

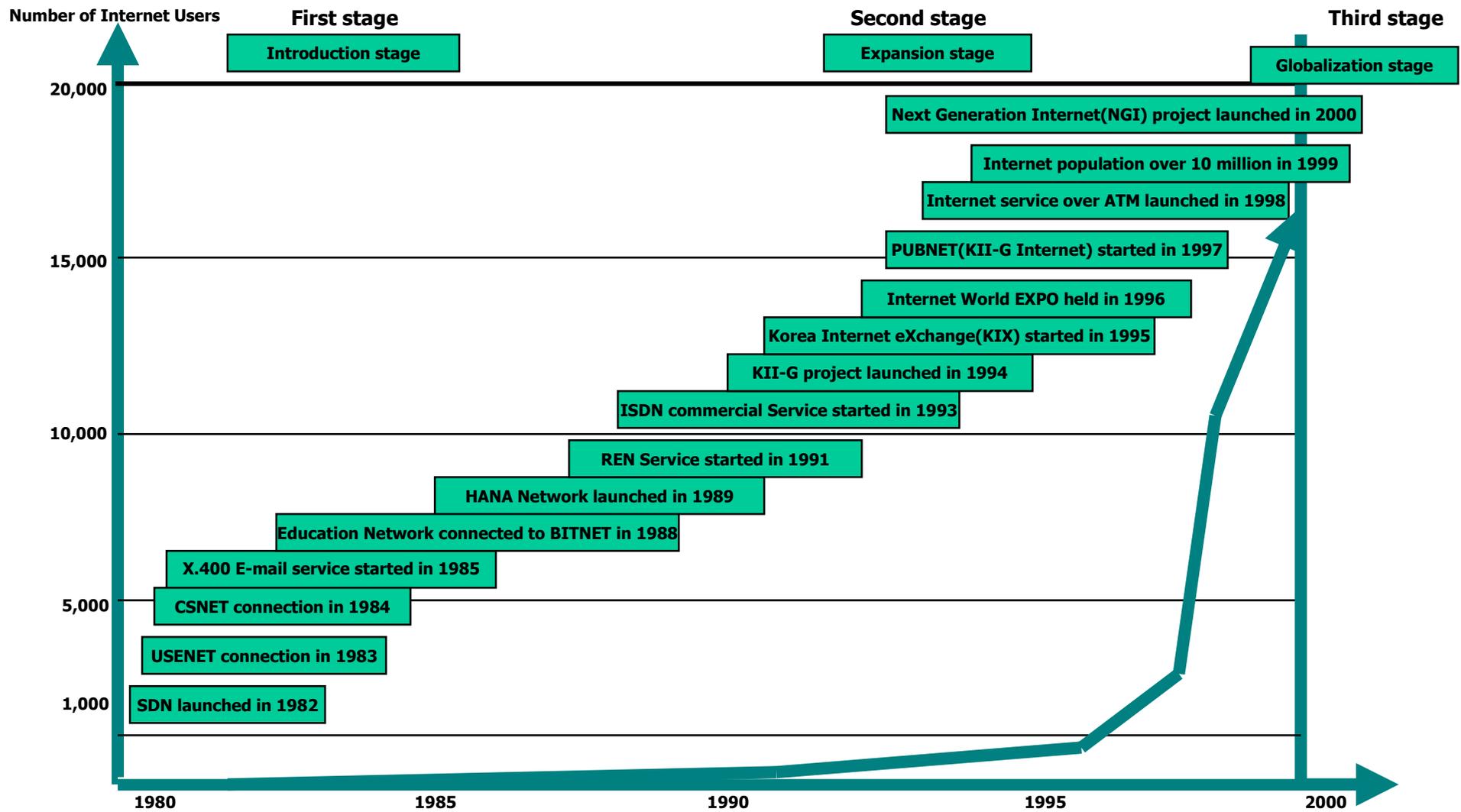
Internet Users in Korea



<Source: KRNIC – Korea Network Information Center, August 2000>

As of August 2001, 21 million users are 45% of the Korean population.
More than 30 % of Internet users use High speed Internet.

Internet History in Korea



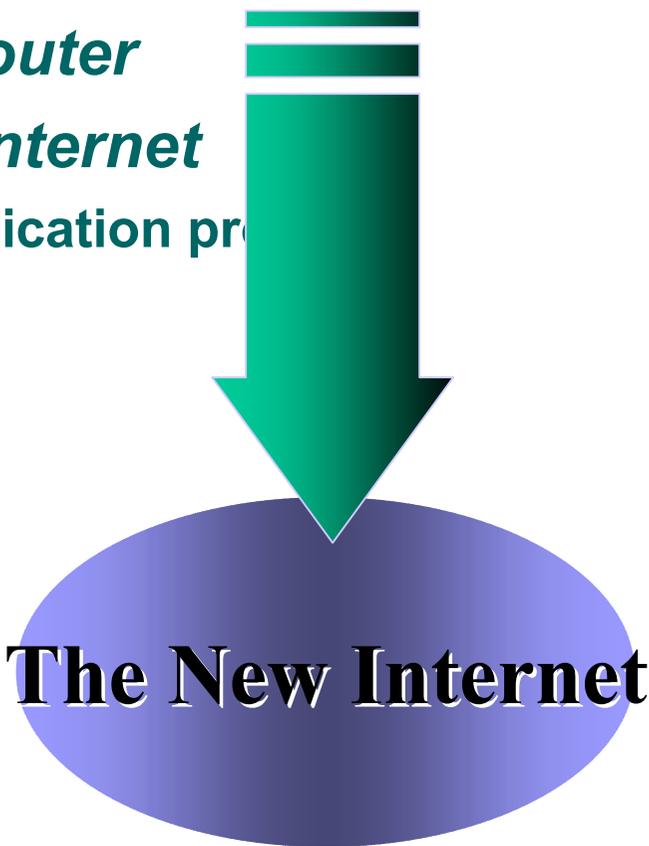
(Unit:1,000 persons)

<Source: KRNIC>

ETRI

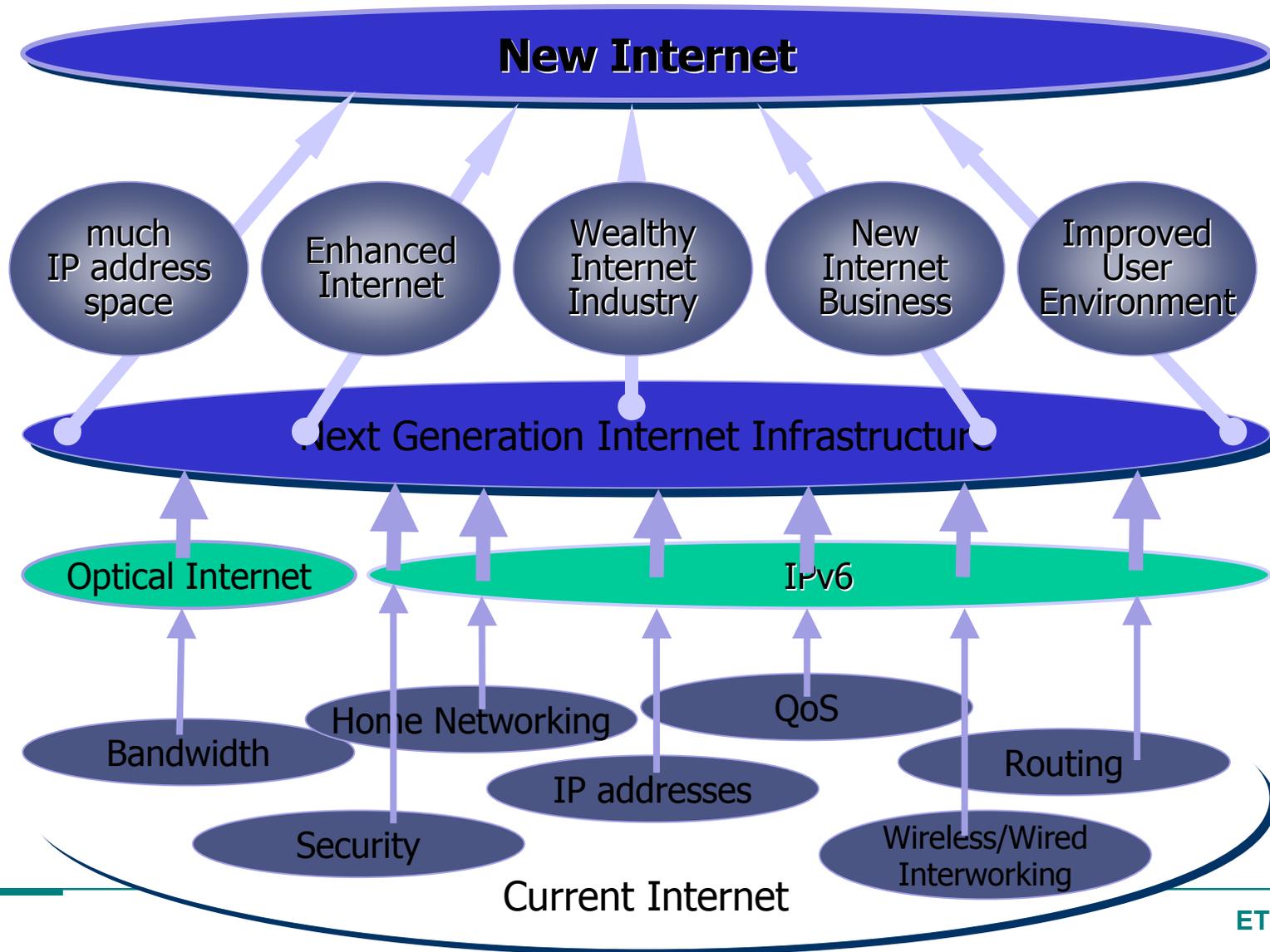
Main efforts in the 3rd stage

- *Establishing a new Internet Infrastructure using*
 - Optical transmission technology
 - MPLS
- *Development of Gigabit/Terabit router*
- *Technology for Wireless Mobile Internet*
 - Client terminal, server, Wireless application pro
- *Home Area Network*
 - Gateways
- *Multimedia Applications*
- *Internet Protocol version 6 (IPv6)*



The New Internet

Vision of the New Internet



Chicken and egg problem

Official Announcement for IPv6

<on Feb 22, 2001>

- *It is urgent to create the environment to introduce IPv6, a new Internet address system*
 - It will prepare for and carry out the “next-generation Internet infrastructure plan”

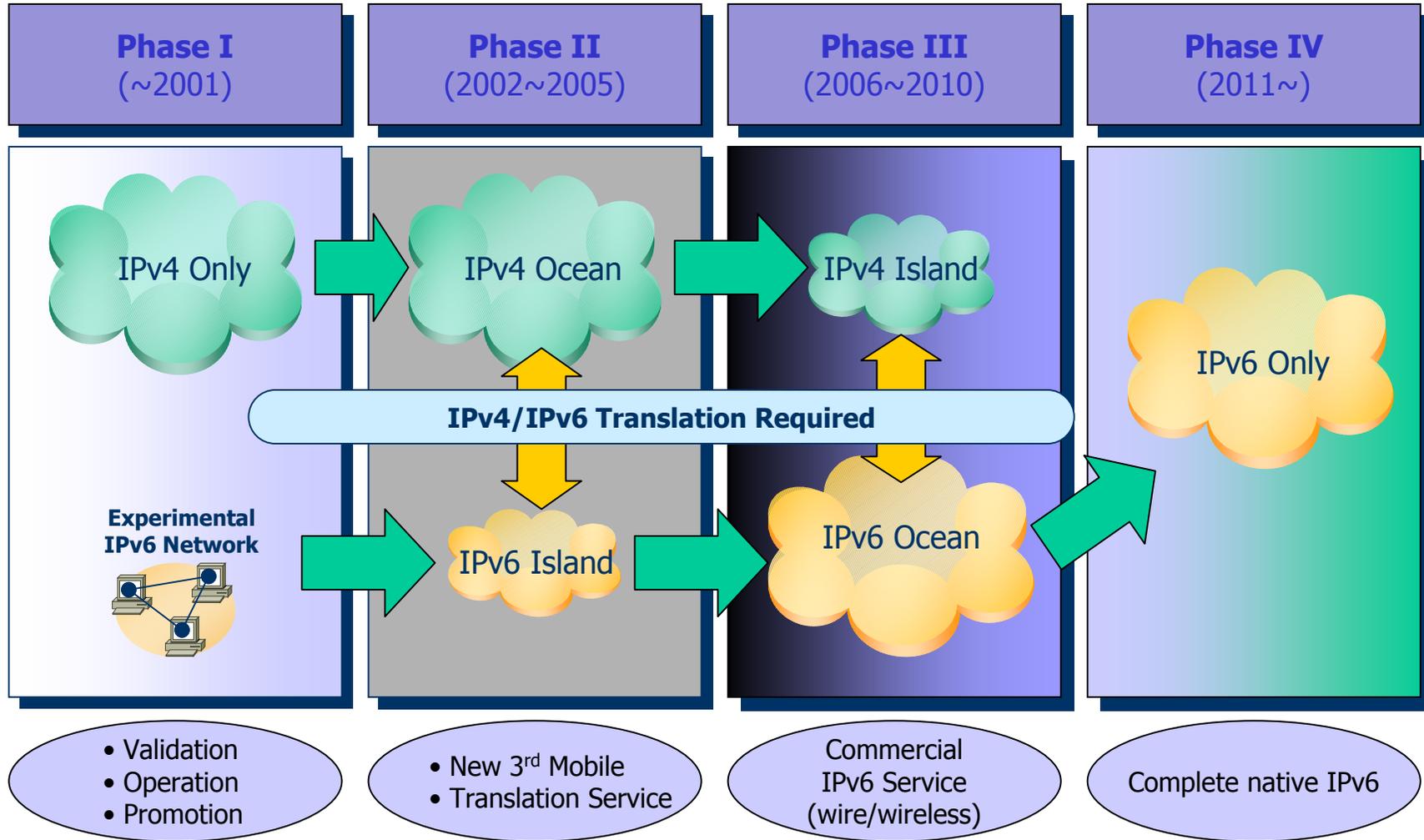
- *Korea government plans to develop IPv6-applied high speed Internet equipments*
 - It will include routers, IMT2000 terminals and information home appliances by investing 46.8 billion won of government budget and 36.8 billion won of private fund, a total of **83.6 billion won (us\$ 83 M) until 2003.**

Strategies for IPv6 Deployment

Objectives of IPv6 Deployment

- ***Creating new Internet businesses by***
 - Providing Enhanced Internet
 - enabling E2E networking paradigm without IP address space shortage
- ***Improving Internet user environment***
 - Autoconfiguration

Providing Deployment loadmap



IPv6 Forum Korea

- *Launched at 17 March 2000*
- *Mission*
 - Promote IPv6 improving the market and user awareness of IPv6
 - Promote new IPv6-based applications and solutions
 - Promote interoperable implementations of IPv6 standards
 - Resolve issues that create barriers to IPv6 deployment
 - **Develop domestic strategies for the deployment of and transition to IPv6**
 - **Guide the international standardization activities of companies in Korea related to Internet, especially IPv6**
- *Meetings*
 - Plenary meeting bi-monthly
 - Working Group meeting frequently – IPv6 Network operation, service, mobile, Home appliance, Testing, Promotion, Security etc.
- *61 Organizational Members, a lot of individual members*

■ *6TALK - ipv6 TrAnsLator of Krv6 - Since 2000*

- Development of IPv4/IPv6 Transition Technologies
- NAPT-PT, BIA, DSTM ..
- Based on Linux OS
- www.6talk.net

■ *6ANTS - Since 2001*

- Development of Auto-Configuration Networking Technologies
- www.6ants.net

■ *6NEAT - Since 2001*

- Development of Native IPv6 network and application technologies
- Participating 6WINIT project
- www.6neat.net

IPv6 Related Projects

- *Establishing a new Internet Infrastructure using*
 - Optical transmission technology
 - MPLS
- *Development of Terabit router, edge router*
 - Mandates IPv6
- *Development of 3G Mobile technologies*
- *Home Area Network*

■ *6Bone in Korea since 1996*

- Experimental and Tunneling IPv6 Network (over IPv4)
- 30+ organizations have involved in 6Bone-KR

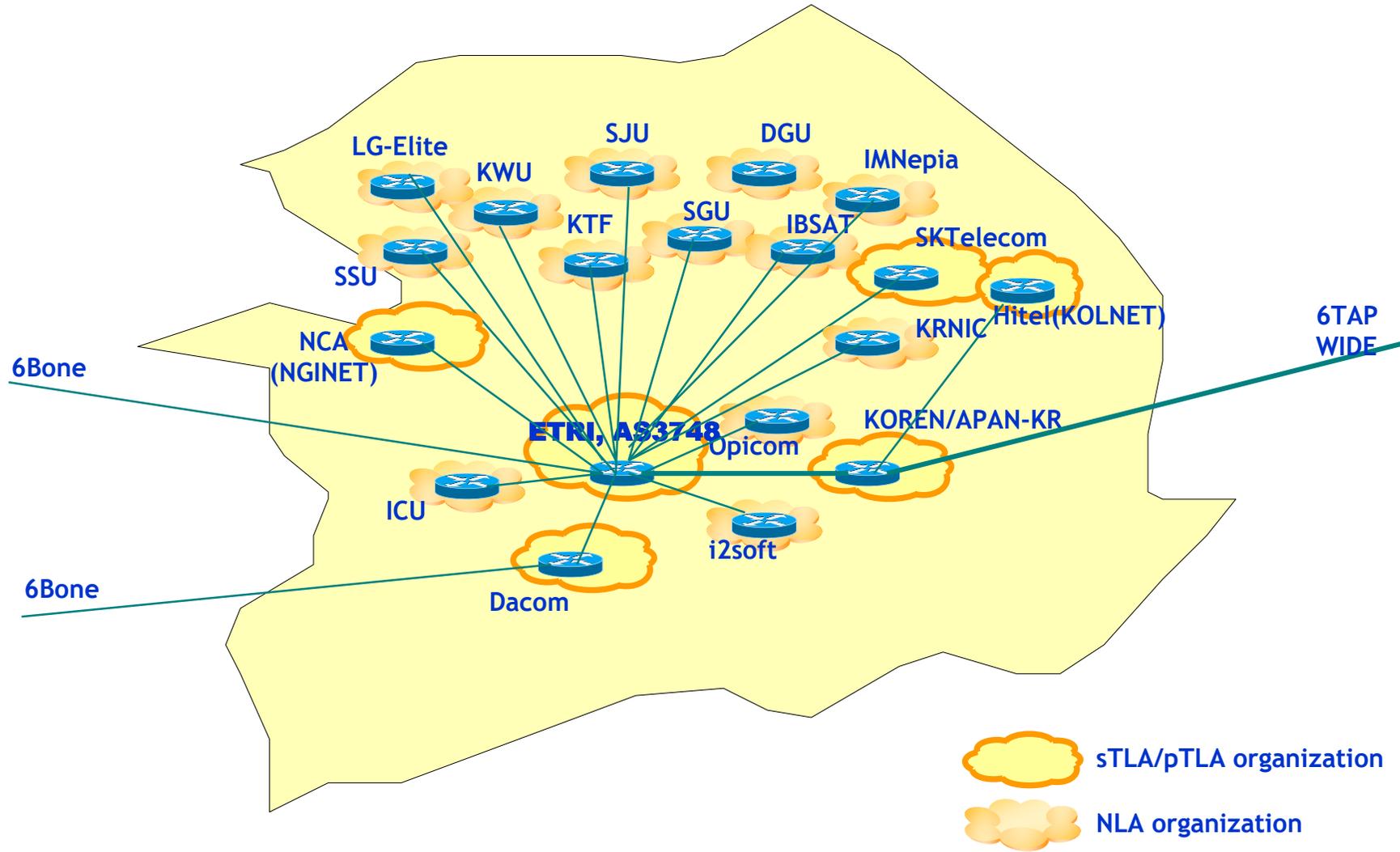
■ *2 pTLAs*

- ETRI/KR, 3ffe:2e00::/24 (98/5)
- APAN-KR, 3ffe:8040::/28 (99/7)

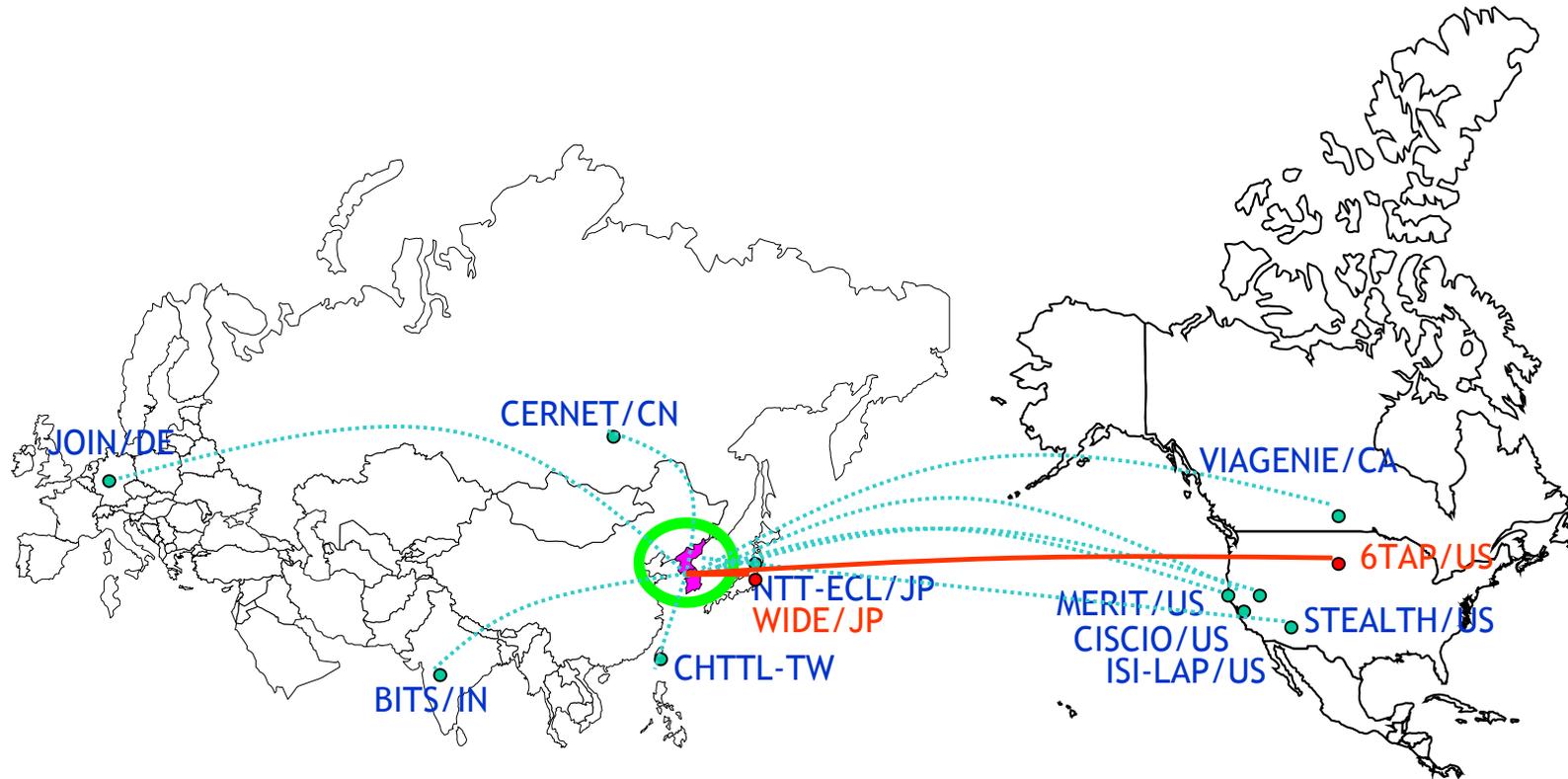
■ *Now, most of all IPv6 Forum Korea member organizations are setting up their own IPv6 LANs*

- *www.6bone.ne.kr*

6Bone-KR Topology



6Bone-KR & KOREN (APAN-KR)



- IPv6-in-IPv4 Tunnel (6Bone-KR connectivity)
- — IPv6 native link (KOREN/APAN-KR connectivity)

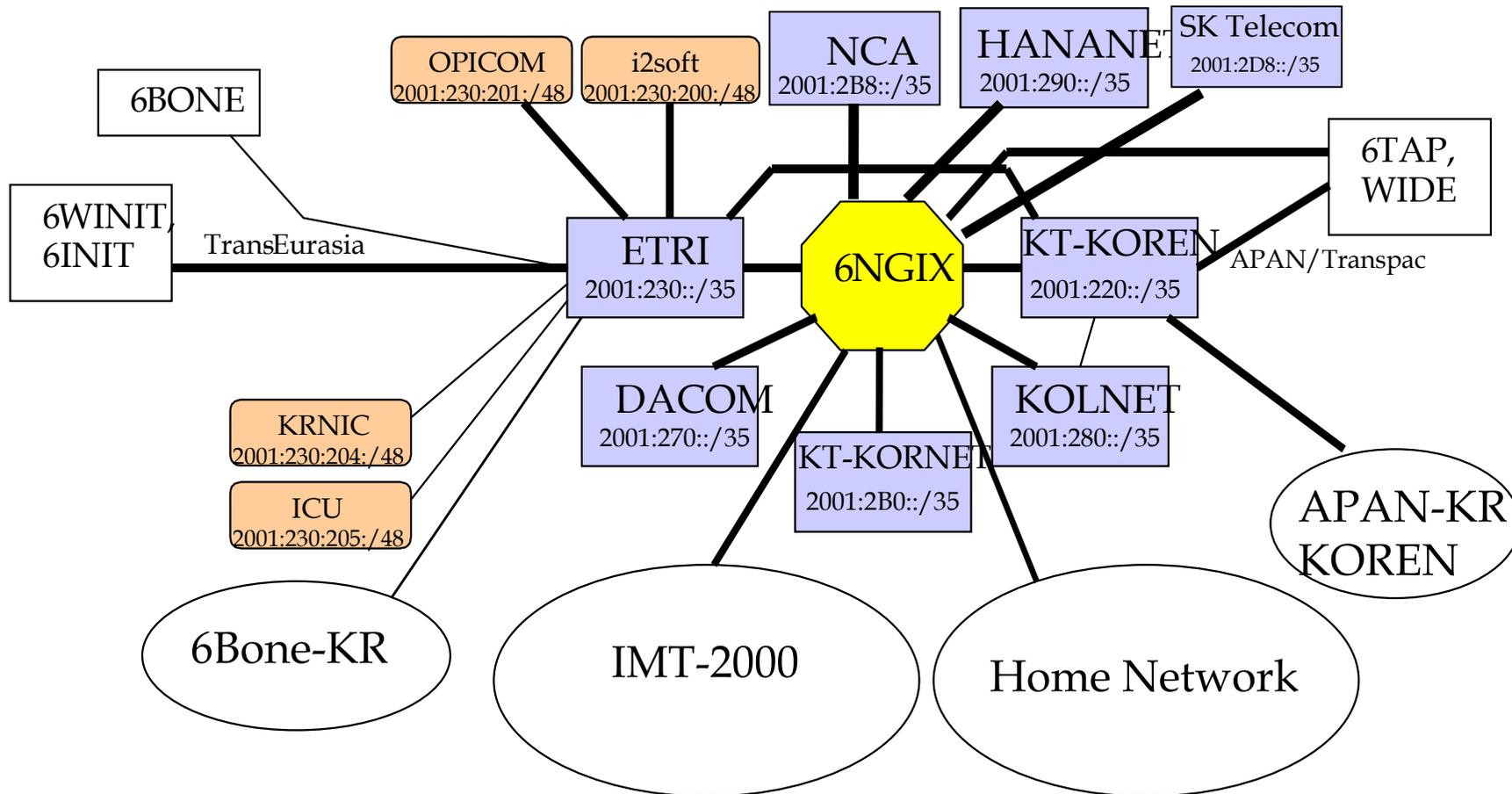
sTLAs in Korea

■ 9 sTLA organizations

■ APNIC (whois.apnic.net) – 8/29 (28%)

- KIX-KR-19991006 2001:220::/35
- ETRI-KRNIC-KR-19991124 2001:230::/35
- DACOM-BORANET-20000908 2001:270::/35
- KOLNET-KRNIC-KR-20000927 2001:280::/35
- HANANET-KRNIC-KR-20001030 2001:290::/35
- KORNET-KRNIC-KR-20010102 2001:2B0::/35
- NGINET-KRNIC-KR-20010115 2001:2B8::/35
- SKTELECOMNET-KRNIC-KR-20010406 2001:2D8::/35
- ...

Commercial & Research Network Deployment



Future Plan

- *More detailed and concrete loadmap*
- *Continued IPv6 Forum Korea activities*
 - ISP, Manufactures, .. Become more and more interested in IPv6 and consider seriously, and prepare
- *IPv6 Council for real business*
 - ISP, manufactures, Government, Research center
- *IPv6 Task Force in Asia*
 - For the cooperation among Asian counties