

IPv6 connection service by KISA

2010. 8. 24

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Overview (1)

● **6NGIX(AS17832)**

- IPv6 Next Generation Internet eXchange
- Native IPv6 Internet eXchange run by KISA
- Provides IPv6 traffic exchange among ISPs and IPv6 connectivity for public/private organizations



● **History of 6NGIX**

- Jan '01 : Allocated IPv6 Address for 6NGIX from APNIC
- Aug '01 : Established 6NGIX
- Aug '04 : Upgraded the performance of 6NGIX
- Nov '07 : KRNIC took over the management right of 6NGIX
- Dec '08 : Migrated the network from KIDC to KINX

● **Now & Then**

- Originally focused on providing the R&D environment for IPv6 based Services and Devices
- Getting more requirements for IPv6 traffic exchange among commercial ISPs to prepare for the post IPv4 exhaustion

6NGIX Peering Status



- Peering Status
 - 16 Korean ISPs
 - 5 Foreign ISPs
 - 16 Domestic Organizations

- Layer 3 Peering Service
- Peering Methods : Leased Line, 6to4 Tunneling
- Routing Protocols : OSPF, BGP, IS-IS, BGP4+

● **6NGIX in KRNIC**

- When allocating IPv6 to ISPs, we let them know about 6NGIX and recommend them to peer with 6NGIX
 - ➔ Lead the local ISPs to peer with the real IPv6 network
- Conducts the 6NGIX-linked IPv6 project with local ISPs
 - ➔ Supports the continuous traffic exchange with the previously built IPv6 service
- Shares the experience and know-how about building and managing IPv6 network with network operators
 - ➔ Lessons network operators' fear about building IPv6 networks
- Creates the successful IPv6 network model in Korea

Create the synergy for IPv6 in Korea by combining 6NGIX peering service with the previous IPv6 allocation work

IPv6 Project of 2009

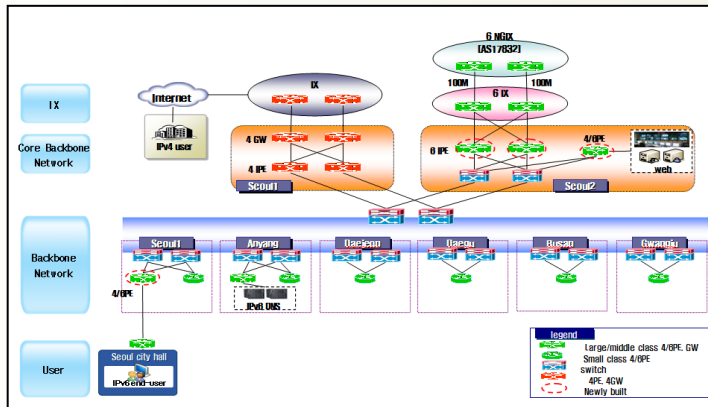
IPv6 Core Network Building Project

In 2009, 3 Major ISPs, 8 local government and commercial service providers participated in 'IPv6 Core Network building project':

- To build IPv6 Core Network as a ISP's production network.
- To increase IPv6 Readiness on ISP's backbone network
- To verify stability for building large-scale IPv6 production network

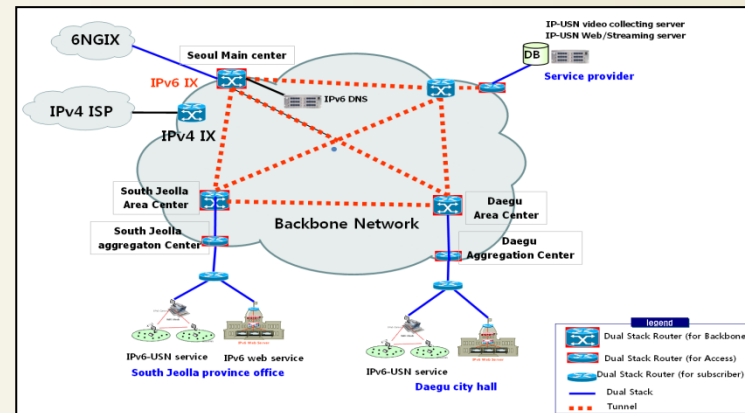
Group A

- IPv6 over MPLS (6PE)



Group B, C

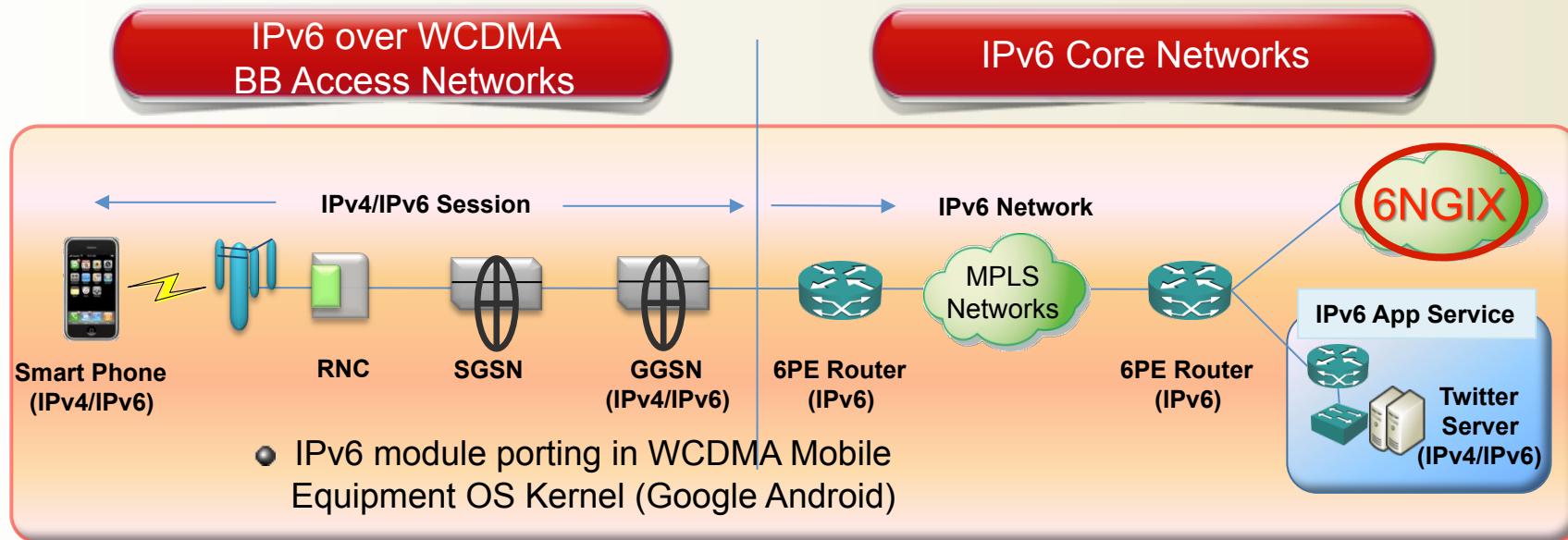
- Dual Stack on existing IPv4 network



- Each group secured more than one path for IPv6 with 6NGIX

IPv6 Project of 2010 (1)

IPv6-based Mobile Service Project

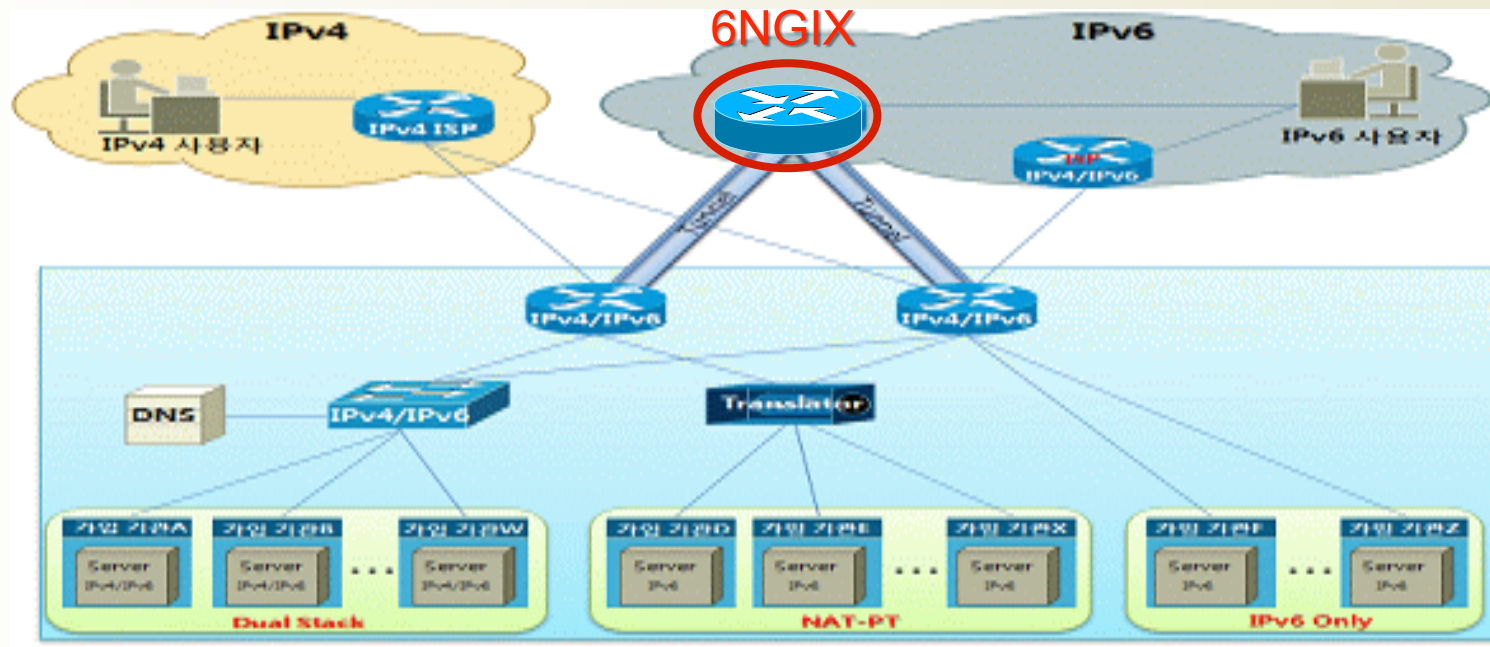


- We are conducting project about IPv6 over WCDMA
- DHCPv6 Development for WCDMA Mobile Equipment
- Supporting IPv6 Communication function between GGSN equipment and Core Networks
- 6PE over MPLS Networks Building
- Interworking between 6NGIX and SKT IPv6 WCDMA Networks

IPv6 Project of 2010 (2)

● IPv6-based Commercial Web Service Project

- Builds the infrastructure and provide the IPv6 based web service with commercial contents providers in Korea
 - provide the IPv4/IPv6 dual stack server hosting
 - peer with 6NGIX and other IPv6 network



Summary

- 6NGIX : the only IPv6 IX in Korea
 - Has been played a key role in IPv6 deployment projects in Korea
- More ISPs are connecting with 6NGIX as the IPv4 exhaustion is getting closer
 - 26 org. (Dec '08) → 37 org. (May '10)
- From 2010, commercial IPv6 traffic will be peered in 6NGIX as ISPs plan to launch commercial IPv6

**If you're interested in connecting 6NGIX,
contact us and get connected!!**

6NGIX Peering Request

- Visit <http://vsix.kr> web site
- Fill in the 6NGIX service peering request form and submit the request to KRNIC

++ Korean IPv6 Policy +++# - Windows Internet Explorer

http://vsix.kisa.or.kr/jsp/eng/#

Internet Protocol version 6

▶ If you want to use 6NGIX services, Please, fill out this form, and click 'Submit' button.

Subscriber Information
Please complete this section in full

· Country : UNITED STATES

· Organization :

· Applicant's name :

· Telephone number :

· E-mail :

Network Information
Please complete this section in full

· Network name :

· AS number :

· IPv4 address : ...

· IPv6 address : ::::/8

SUBMIT **CLEAR**

※ This website will open in Sep 2011

IPv4 Exhaustion Chart Notice >

Reserved Blocks (IANA) 6%

Thank you!

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