

### Large Space IPv4 Trial Usage Program for Future IPv6 Deployment ACTIVITIES UPDATE Vol.9

APNIC 20 Meeting / Policy SIG September 8th, 2005 at Hanoi, Vietnam Naota Sawabe, Yoshiyuki Ezura Tsukasa Ogino, Kosuke Ito, Gaku Hashimoto, Nao Fukushima IPv6 Promotion Council of Japan



# Topic

- Update since the last meeting
  - Result of the regular hearing session
  - A newcomer joined
- Extension of the program end
- Preparation for the second phase of this program
  - Management of Program
  - Execution Policy
- Deployment Plan



# **Regular Hearing Session**

- The current active participants:
  - Large scale ADSL/VoIP service provider
  - Large scale always-on FTTH service provider
  - L3 connectivity/IP-Phone service provider
  - CDN
  - Public Wireless-LAN access service provider
- Newcomer
  - WiMAX-type wireless access provider

\*Another Public Wireless-LAN service provider has terminated their service

- Allocated address space was collected.



## Newcomer Joined

- WiMAX-type wireless access provider (YOZAN Inc.) joined (2005/6)
  - They have 1.9GHz and 280MHz telecom infrastructures
  - Renovation this infrastructure
- YOZAN provide IPv4/IPv6 dual stack wireless access services based on WiMAX (IEEE802.16-2004) technology.
  - Build-out a WiMAX network throughout 23 wards of Tokyo.
    - expand to cover Osaka, Nagoya, etc...
- They start the trial service in June 2005
  - IPv4 address space is used for it



# Results of Hearing (Summary)

- Many of them are very positive toward providing IPv6-based services
  - Many of them are applying for the IPv6 address allocation.
  - The IP-Phone service has already been deployed by IPv6.
  - Large scale ADSL/VoIP service provider began IPv6 trial service (2005/8)
- But, it is difficult to deploy to IPv6 service completely and hard to return the IPv4 address.
  - Most of applications still rely on IPv4 environment and most of users still demand IPv4
  - Most services are going to IPv4/IPv6 dual way.



# Results of Hearing (Summary)

- Report of Trial program extension
  - The proposal with APNIC19 was endorsed by the Executive Council
  - This program extension is very welcomed by the participants
- Explanation of shift condition to program phase 2
- The Trial participants are positive in program phase 2
  - If phase 2 starts, many of them will continue this program
    - As for an actual intention confirmation, it is scheduled to do in autumn



### Active Participants Status:

IPv6普及·高度化推進協議会 IPv6 Promotion Council



#### Individual Case: Nationwide ADSL/VoIP Service

- IPv6 Deployment Plan
  - IPv6 trial service started (2005/8)
    - IPv6 service is provided as IPv6/IPv4 Tunnel.
- IPv4 Address
  - IPv4 address is important for the time being
    - IPv6 service will start IPv6/IPv4 dual way.
- Second phase
  - Examining



#### Individual Case: Nationwide Always-on FTTH Service

- IPv6 Deployment Plan
  - IPv6-ready core routers in placed
  - Replacing the edge routers to IPv6-ready ones gradually
    - Replacement is completed about of 30% by the number base
  - Start preparation of sending application for IPv6 allocation
  - Plan to start IPv6 service in the limited service area
- IPv4 Address
  - IPv4 address is important for the time being
    - IPv6 service starts as IPv4/IPv6 dual way preferably
- Second Phase
  - If the address space is succeeded, they want to use



### Individual Case: L3 Connectivity/IP-Phone service

- IPv6 Deployment Plan
  - Done for IPv6 IP-Phone service
  - Still planning for Fixed IP service
- IPv4 Address
  - IPv4 addresses for Fixed IP service is necessary for the time being till the same functional level of network devices are put into place
  - They want to start IPv6-VPN service by using the IPv4 addresses for IP Phone service (the plan is not submitted)
- Second Phase
  - They want to participate positively



### Individual Case: CDN (Content Distribution Network)

- IPv6 Deployment Plan
  - IPv6/IPv4 dual stack is already possible.
  - It is found that IPv6 is more responsive than IPv4. It could be the value-added service by IPv6
- IPv4 Address
  - IPv4 addresses is still important.
  - It still takes time to causing user's needs.
- Second Phase
  - They want to participate positively



### Individual: Public Wireless-LAN access

- The parent management organization changed in April, 2005, and the number of accounts was reset once.
  - The number of accounts keeps increasing after it restarts.
- IPv6 Deployment Plan
  - Still under R&D for wireless IPv6 connectivity service
    - Try on High-speed authentication and hand-over by MIPS (v6)
    - Try on MIPS + LIN6 for smooth mobility
- IPv4 Address
  - It is also necessary to keep the current IPv4 addresses for a deployment of IPv6 services
- Second Phase
  - They want to participate positively

### Individual: WiMAX-type wireless access provider



- The WiMAX-type wireless access service is scheduled to begin in December this year by YOZAN.
  - This space is used for the trial service.
- IPv6 Deployment Plan
  - Applying for the IPv6 address allocation to APNIC
  - After the address is allocated, they will begin renumbering
  - After Renumbering is ended, they will return IPv4 address in around December this year
- Second Phase
  - We will not participate, if renumbering is completed until beginning of the program



### Second Phase:



### Second Phase was endorsed

- Proposed "The Second Phase of Large Space IPv4 Trial Usage Program for Future IPv6 Deployment ~ Proposal ~" in APNIC19
- Policy proposal was endorsed by the Executive Council (EC) on 13 May, 2005



## Second Phase of Program (1)

- Second phase
  - Program is done to the end of 2008 from 2006
  - Renew the Rule and the Contract
    - the MoU of "Trial Target" will conclude
    - Make the activity report periodically as like now
- Management of Program
  - Operated by IPv6 Promotion Council (IPv6 PC)
  - IPv6 PC will continue the regular report on this activity as is at the APNIC meeting
  - Periodic meeting will be held with JPNIC at the working level



# Second Phase of Program (2)

- Execution Policy (1)
  - Aims at the achievement of "Trial Target" set to each participant

"Trial Target" centers on "Achievement of the business service that uses IPv6"

- Need to show IPv6 service starting plan
- A concrete content of "Trial Target" is adjusted with the participant and decided
- Providing with the trial service is not acceptable as accomplishment of a goal.
- It is necessary that customer will be able to select the IPv6based service in a regular commercial manner.



# Second Phase of Program (3)

- Execution Policy (2)
  - When they cannot achieve the "Trial Target", IPv4 space is promptly collected back.
  - If the participants achieve the "Trial Target" and want to use the IPv4 space, we will adjust that the address can be continuously used.
    - It is an action on the participant who deploy to IPv6 in IPv6/IPv4 Dual service.
    - We will start talking about how to return the 43/8 block to public space with JPNIC/APNIC.



## Second Phase Deployment Plan

- Schedule
  - 2005/08 Announced starting Second Phase to participants
  - 2005/08 Explained the Second Phase to JPNIC
  - 2005/10 Receive a participation confirmation of Second Phase Adjust the concrete content of "Trial Target"
  - 2005/11 Confers on participant's "Trial Target" with JPNIC
  - 2005/12 Conclude the contact and the MoU
  - 2005/12 Close First Phase
  - 2006/01 Starts Second Phase



#### Thank you, and We will update you next time as well.

Any question and comment?

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