

# Large Space IPv4 Trial Usage Program for Future IPv6 Deployment ACTIVITIES UPDATE Vol.10

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## APNIC 21 Meeting / Policy SIG

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## Report Items

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- End of Phase 1 of this trial
- Outcome of Phase 1
- Start of Phase 2 of this trial

## End of Phase 1

- As of the end of 2005, Phase 1 was closed
  - For a participant has completed to transit to IPv6 service deployment, the address space allocated to has been returned to IPv6 PC by the deadline
    - YOZAN (WiMAX carrier service) has shifted to the real business operation with IPv6 from this trial experience
  - The address space allocated to each of other participants is succeeded to be used for Phase 2
- Phase 1 Report was collected from each
  - At the end of January, 2006, all reports were submitted to IPv6 PC when the regular hearing session was done

## Outcome of Phase 1 Goodness of this trial (1)

- Large Global Address space allocation at one time leads New service deployment
  - Less-expensive “always-on” broadband services for home users
  - Multiple fixed-IP address service
  - Area-wide wireless LAN service which requires a certain address block at each of Access points
  - VoIP/IP Phone service and CDN service
- New findings
  - Ease of large scale network service design which leads less operation cost

## Outcome of Phase 1 Goodness of this trial (2)

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- Start Planning of actual IPv6 transition
  - Each participant considered the real deployment plan which leads to clarify the issues and barriers to solve
  - Some of participants found that IPv6 based service leads cost saving in total
    - Ease of network design, ease of device setting, ease of filtering, ease of device monitoring, etc

## Outcome of Phase 1

### Barriers for transition to IPv6 (1)

- IPv6 Readiness of devices
  - Most of routers, many of PCs are ready
  - Not yet ready in many of necessities for maintaining basic services such as load balancer, security relating server
  - Especially, market availability is quite low (high price if available)
- IPv6 Readiness of Access network to users
  - Many of ISPs has not yet ready which make difficult to provide Native IPv6 service (difficult to aware users IPv6)
  - Some of IPv4 network is not able to accommodate PC with IPv6

## Outcome of Phase 1 Barriers for transition to IPv6 (2)

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- IPv6 Readiness of Software
  - DNS query instability of some of PC OS
  - Many of browsers are not yet ready
  - No Web authentication which creates some security holes
- IPv6 Readiness of Security servers
  - Additional care is necessary for IPv6 DoS and SPAM filtering
    - Care of DoS on unused IPv6 address space

## Start of Phase 2

- IPv6 PC and Continuing Participants have worked to renew the contract in Dec., 2005
- As of Jan. 1<sup>st</sup>, 2006, Phase 2 of this trial has started
  - Term: Jan 1st -> the end of 2008
  - Participant needs to agree to the following conditions:
    - Trial is closed at the end of 2008 (no extension)
    - Need to set the IPv6 service deployment goal within the trial
    - Need to submit the deployment schedule
  - Report regularly (twice a year)



## Participants of Phase 2

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- Nation-wide ADSL/VoIP service provider
- Nation-wide always-on FTTH service provider
- L3 connectivity/IP-Phone service provider
- CDN ASP
- Public Wireless-LAN access service provider

## Goals set by Participants

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- IPv6 Native/Dual connectivity service
- IPv6 L3 service
  - Stable L3 connectivity by IPv6 regardless of base IP infrastructure
- City-wide IPv6 Public Wireless Service
- IPv6 CDN Platform Service

- IPv6 PC will report this trial status in Phase 2 to the APNIC Open Policy Meeting continuously

Any Question?

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