

Large Space IPv4 Trial Usage Program for Future IPv6 Deployment ACTIVITIES UPDATE Vol.3

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Topic

- Program Overview
 - Objectives
 - Basic Scheme
- Activities Update since the last meeting
 - Conducting Interviews with the participants after allocation
 - Some notable points
- Considerations

Program Overview (1/2)

Objectives

- Revitalizing the historically allocated address space
- Providing the challenge field for IPv6 age
 - Boosting up development of the “end-to-end” application
 - Exploring new services and business
 - Transferring trial to IPv6 infrastructure with the practical application and service
 - Forming IPv6 address administration scheme in JP

Program Overview (2/2)

- “Time-Limited” Use
 - Mandate transition to IPv6 by the end of 2005
 - Allocation must be returned by then
 - Basic policy presented by Dr. Esaki of WIDE Project at the 11th APNIC Open Policy Meeting

Activities Updates

- Conducting interviews individually with the following kinds of participants:
 - Broadband “Always-On” connection service
 - Large VoIP/ADSL service
 - Public Space “Hot Spot”(wireless) services
 - Contents Delivery service (contents with IP)

Summary of voices:

- Merit of this program
 - Very good for new start-up
 - Can introduce a Fixed-IP service quickly in wide area
 - internal routing table
 - Can introduce new network applications such as contents delivery service and VoIP, etc.
 - > “always-on” P2P application boomed among users right after starting the service

For New Services:

Broadband provider:

- Great increase of needs on “fixed” IP
- /29 per connection
 - Looking ahead of providing /48 or /64 of IPv6
- No limitation of use of “always-on” line
 - Some ISPs regulate user’s server setup or ports
 - whois may be important for user-side servers

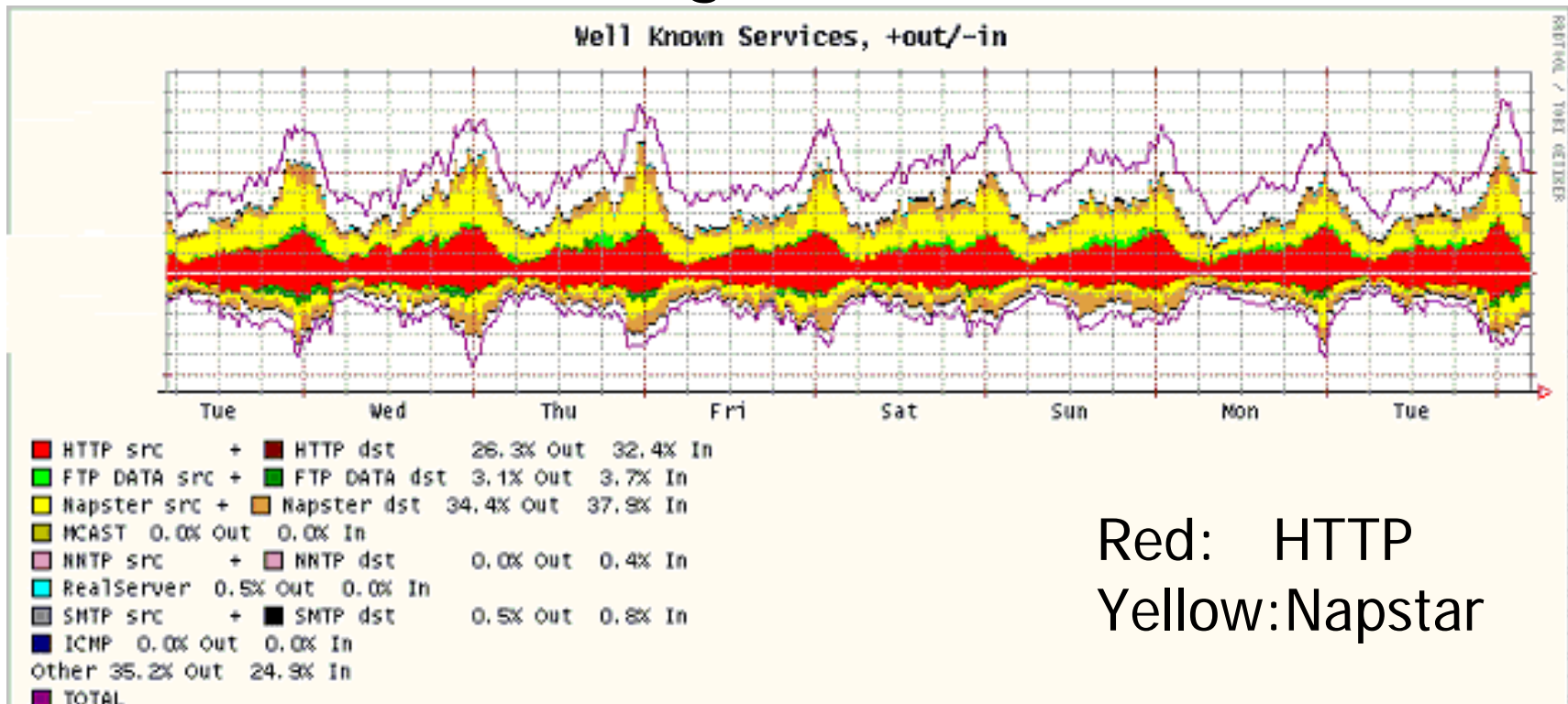
Great increase of P2P usage in packet-wise

- About half of total loads for Napstar-type use
- Increase of query for on-line games

For New Services:

Broadband provider:

- Load monitoring:



For New Services:

(cont.) Broadband provider:

The current hurdles:

- Cannot start the trial with the current judgment
 - Need to pool at least /20 per PoP to give /29 per connection because of difficult demand estimation in rural area
- Slow-start policy
 - Given block by block in small size prevent the aggregation of internal routing table
 - Small ISP is hard to make subsequent request at the beginning

For New Services:

Wireless Provider trial (Hot Spot):

- Hot-spot service covering streets
 - 150 stations in the city
 - Wireless IP-Phone (dialing IP address number)
 - Wireless TV-Phone (navigation for handicapped)
 - Anycast service (location depended information)
- Mobile IP with AAA
- More than 250 users

For New Services:

(cont.) Wireless:

- Lots of addresses for Home Agent and Care-of addresses are necessary
- Able to assign enough number of care-of addresses at the stations: needs of pooling
 - Hard to estimate how many at each station
 - People gathering at one place for event
 - Roaming service from Tokyo
 - The current setting is 13 per station. But it is not enough for popular places

Pool address is not unutilized address!

For New Services:

Contents Delivery Service (CDS):

- New type of service
 - Contents with global IP address for delivery management
 - Can start the CDS trial with this program
 - Hard justification under the current IPv4 policy
 - There is no concept of IP assignment to the contents.
 - Maybe resolved with IPv6 /48 block at each ISP, but cannot wait till IPv6 era is coming

Considerations:

- This program accelerates introduction of new IP services
 - Especially for “Broadband”, “Always-on”, “P2P applications” services
- Experience on this program is valid for reviewing IPv6 address policy

Near Futures:

- Challenge for new realistic services on home and office appliances, sensor devices and industrial equipment, etc. will be continued
 - We need future enhancement on IPv6 address policy to accommodate those new services
- > So, we continue this program for public feedback again

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

Any question and comment?

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