The Current Issues in IPv6 Policy

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Agenda

1. Introduction

2. Issues Categorized

   - Allocation Criteria

   - Other Resource Services

   - Special Cases

   - Wording Problems

3. Summary

Introduction

This presentation introduces the current issues in
IPv6 policy.

It is intended to

have discussions within the community

It does not intend to

propose a particular solution
seek consensus for the issues introduced

Background

- The current IPv6 Policy was implemented in July 2002

- Discussions on the policy review
  - Global Community
    - Global IPv6 ML

  - Japanese Community
    - LIR Meetings, JPNIC Open Policy Meeting(JPOPM)
    - Questionnaire to LIRs in Japan

Summary of the Issues

- JPNIC has summarized the issues based on the sources listed

- The list of the issues submitted to the global IPv6 policy editorial team
  - For the issue management

Issues Categorized

Categorized the Issues as follows:

1. Allocation Criteria

2. Other Resource Services Related Criteria

3. Special Cases

4. Wording Problems

Allocation Criteria

Two types of comments:

1. The criteria itself should be reviewed

    – 200*/48 criteria in initial alloc

    – Utilization by HD Ratio in subsequent alloc

2. The figures in the criteria should be reviewed

    – "200" or "2" years in initial alloc

    – The value "0.8" in subsequent alloc

Specific Cases

Only comments on the initial alloc criteria
are specific enough

- Psychological Barrier
  - Comments from the global & JP community
- Criteria based on the no. of customers
  - A comment from an LIR in JPOPM

Intention of the Policy

Allow allocations to ISPs substantial in size

- 200*/48 as a measure to judge the scale of NWs

- Most LIRs transferring to IPv6 should be qualified

Psychological Barrier

Networks qualified for allocations

**Networks acknowledging
the qualification**
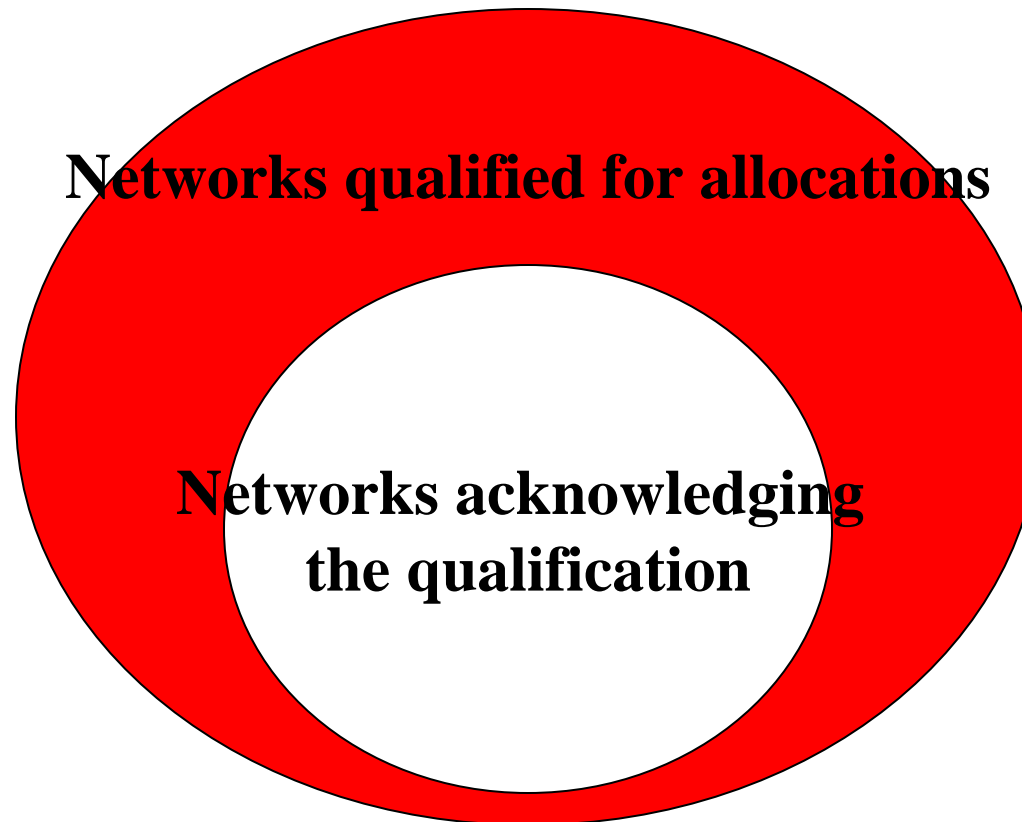
In Reality…

Some qualified networks refrain from allocs

- ISPs without customer assignments
  - Difficult for mobile phone, CATV, xDSL service providers to meet 200*/48 criteria
- Fear of not achieving the plan
  - What if unable to achieve from unexpected reasons?

Reasons for the Barrier

- Misunderstanding the intention
  - Can be resolved by supplementary info
    - Background & intention of the criteria
    - Examples of the qualified networks
  - Refer to "**Developing an IPv6 Policy Guidelines Document**" for details

- The criteria may not be appropriate to accommodate eligible networks
  - Need further discussions before conclusion
  - If so, review of the criteria is necessary in the long term

Alloc Criteria
Based on the No. of Customers

- ISPs without customer assignment can be evaluated by the no. of customers
  - Stating "most LIRs should be eligible" is not specific enough
  - Should have equal no. of customers as the minimum alloc size

- Should allow allocations to LIRs with equal no. of customers as the minimum alloc(4,096)
  - Only applies to those without customer assignments

Summary of Alloc Criteria

- Only comments regarding the initial alloc criteria are specific enough

    1. Psychological Barrier

        - Largely resolved by supplementary info
        - Review of the criteria necessary in the long term

    2. Alloc criteria based on the no. of customers

        - Further discussions necessary

- Others need more specific cases to start further discussions

Other Resource Services

- Second Opinion requests
  - Documentation not clear
  - Necessary to clarify in the future, but no urgent needs

- Reverse DNS delegations
  - Too much burden on ISPs to delegate the zones
  - No urgent needs

Demands not specific enough

Special Cases

- ## Portable assignments
  - Not accommodated in IPv6 except critical infra NWs

- ## Allocations to transit providers
  - Can't reach 200*/48 but require independent address

- ## Closed networks
  - Not connected to the internet but require global addresses

Portable Assignments

- Multi-homed networks
  - Some networks are multi-homed from business aspects
    - Business critical networks such as online game, banking, must minimize the risk
  - Suggestions to allow portable address to networks with ASNs
  - A few Positive comments in JPOPM

- Large multi-national enterprises
  - Networks across the regions with a single routing policy
  - Can't receive allocations even meeting 200*/48 as non-LIRs

Portable Assignments

- Consider balance between requirements & the routing table

- Allocations should not be restricted to LIRs instead of portable assignments?
    - A few comments in JPOPM

- Need further discussions for both cases

Allocations for Transit Providers

- Can't reach 200*/48 but can't receive allocations as they are the upstream

- No strong needs in Japan
  - In other countries?

Need further discussions

Closed Networks

- May connect in the future but no specific plan
  - Common in Japan to test with private IPv6 NWs before establishing the global connection

- Globally unique address for large intra-networks
  - Networks managed by different entities intra-connected
  - Must avoid duplicate address
  - There is a specific case in Japan

Specific Needs are quite clear, but need further discussions

Summary of Special Cases

All cases need further discussions

- Demands exit in Japan
  - Portable assignments for multi-homed NWs
  - Address for closed networks
- No strong demands in Japan
  - Allocations for transit networks
- In other countries…?

Wording Problems

- Helpful to describe unless intentionally removed
  - Address transfers
  - Address returns

- Typos
  - Minor typo reported to the editorial team

Time Frame and Priorities

- Difficult to address all issues at once, so categorized them
  - The time frame for the issues to be addressed
  - Priorities

- The list submitted to the editorial team

Summary

All issues need further discussions

- Substantially Specific Issues
  - Initial allocation criteria
  - Special Cases(portable assignments,closed networks)
- Issues not specific enough
  - Subsequent alloc, figures in alloc criteria
  - Documentation for second opinion
  - Reverse DNS delegations
- Wording problems can be addressed by the editorial team

References

1. IPv6 Address Allocation and Assignment Policy

   http://www.apnic.net/docs/policy/ipv6-address-policy.html

2. Summary of Comments in the Global IPv6 ML

3. The list of IPv6 Policy Issues

4. Developing an IPv6 guidelines document

Q&A