Developing IPv6 Address Guidelines

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2

Agenda

1. Summary of the Current Issues
2. IPv6 Address Guidelines Document
   – Scope
   – Development and Update Process
   – Pros and Cons
3. Conclusion

3

Introduction

This presentation proposes to develop an IPv6 guidelines document

The document provides operational information as a reference for making requests

Background

- The current IPv6 Policy was implemented in July 2002
- There are discussions on the policy review
  - Global IPv6 ML
  - LIR Meetings in JP, JP Open Policy Meeting
  - Questionnaire to LIRs in Japan
- JPNIC has summarized the issues
  - Some are purely policy, some are operational

Summary of the Current Issues

- Policy Related
  - Allocation criteria may not be appropriate
  - Wordings in the policy
- Operational
  - Documentation required for the second opinion request is unclear
- Related to both policy and operations
  - Reverse DNS delegations
  - Psychological barrier in initial allocation
  - Special needs for Portable assignments, transit providers and closed networks

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Policy Related Issues

> Policy should be reviewed under the formally defined policy process

- Allocation criteria may not be appropriate
- Wordings in the policy
- Reverse DNS delegations(*)
- Psychological barrier in initial allocation(*)
- Special needs for Portable assignments, transit providers and closed networks(*)

(*)=also has operational aspects

Operational Issues

Should develop a separate document from the policy to address operational issues

1. Misunderstandings of the intention of some criteria
   – Psychological barrier in initial allocation
2. Does not accommodate special case
   – Portable assignments, special allocations
3. Insufficient practical information for requestors
   – Documentation for requests, reverse DNS delegations, etc

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Problems

- Addressing operational issues in the policy document would:
  – Create confusion
  – Too cumbersome to read
  – Make operations too rigid

The nature of the issues are different

Guidelines Document

- Provides operational information to help requestors

- A reference/FAQ in documentation format
  – Similar to APNIC guidelines document in IPv4

    "APNIC guidelines for IPv4 allocation and assignment requests"
    http://www.apnic.net/docs/policy/ipv4-guidelines.html

Scope of the Guidelines Document

- It will:
  - Highlight important parts of the policy
  - Supplement intentions of the policy with specific examples
  - Introduce examples of special cases
  - Explain documentation and procedures for each requests

- It will not:
  - Define the criteria nor override the policy itself
  - Any changes in the criteria must be reflected in the policy

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Short Term Effects of the Guidelines

Reduce psychological barrier in initial allocations

- Largely due to misunderstanding the intention
  - Most LIRs with IPv6 networks are eligible to receive allocations

- The guidelines will…
  - Supplement the intention
  - Provide examples of eligible networks
  - Provide information on the documentation required

*Refer to "The Current Issues in IPv6 Policy" for more background

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Summary of Anticipated Effects

1. Reduce misunderstandings of the policy
   e.g.)Explain the intention of initial alloc criteria
         Examples of networks that meet the criteria
2. Introduce special case
   e.g.)Examples of portable assignment, special alloc cases
3. Provide practical info for requestors
   e.g.)Highlight important parts of the policy
         Documentation for each requests, reverse DNS delegations, etc

Development and Update Procedure

13

> Must allow flexible updates and incorporate comments from the community

- Flexibility
  - Separate from a formally defined policy process
  - Those with operational expertise produce the draft to reflect the best current practice
- Comments from the community
  - Reviewed by volunteers from the community

Proposed Development and Update Procedure

14

- Draft is developed and updated by the APNIC secretariat and volunteered NIRs
- The draft is reviewed by a "review team"
  - Consists of volunteers from the community
  - Open call for the member
  - Keep an eye on comments from the community

The Policy and the Guidelines

15

> The policy issues should be addressed by the policy. The guidelines provide operational info

- The Policy Document
  1. Provides concepts and defines criteria
  2. Does not provide operational details
  3. Accommodates changes but careful considerations and discussions are required

- The Guidelines Document
  1. Supplements criteria but does not define nor change the criteria
  2. Provides operational details with examples
  3. Flexible to reflect changes in operations

Example I
-Psychological Barrier-

- Guidelines Document
  – Supplements the intention of the initial alloc criteria , provides examples of networks eligible for allocations
  – Provides practical information such as documentation required for requests

- Policy Document
  – The review of the initial alloc criteria may be required in the long term

Example II
-Special Cases-

- Policy Document
  – Defines if special cases such as portable assignments, allocations for special networks should be accommodated in the IPv6 policy

- Guidelines Document
  – Provides specific examples of special cases once it is accommodated in the policy

Why a Guidelines Document

- Helps requestors with practical info(P.11,12)
  – Supplements the policy from operational aspects
  – Provides examples of special cases
- Capable of Reflecting the best current practice due to its flexibility
- Helps other RIRs to acknowledge practice in the AP region

Too cumbersome and inflexible to define operations in the policy

Issues Not Addressed by the Guidelines Document

- It will not solve the problems if the criteria set in the policy is inappropriate
  - The review of the criteria is necessary

- The policy needs to be defined first to put anything in the guidelines doc
  - The policy must be fixed for the following issues: portable assignments, special allocations

Other RIRs

- No such documents in other RIRs so far
  - RIPE NCC has FAQs for IPv6 requests
- Other RIRs are welcome to share the guidelines, but it is up to them

Implementation

No need to include all current issues into the guidelines

- Start with fixed issues first
  - The intention of the policy(psychological barrier)
  - Practical info such as documentation for requests
- Desirable to include all current major issues in the long term but some need further discussions

The guidelines document should be available by the next APNIC Open Policy Meeting

Summary

- Provides practical info for requestors
  - Supplements the policy from operational aspects
  - Examples of specific cases
- Flexible to changes
  - Easily updated than the policy
- Start with what we can
  - Include issues with fixed policies
  - Add more info after discussions
- Draft developed by APNIC&NIRs
  - Reviewed by the review team

Proposal

1. Develop a guidelines document to help requestors in the AP region

2. The development and update procedures:
   - The draft is developed and updated by the APNIC secretariat and volunteered NIRs
   - "Review team" consisted of volunteers will review the draft

References

1. IPv6 Address Allocation and Assignment Policy
   http://www.apnic.net/docs/policy/ipv6-address-policy.html

2. APNIC guidelines for IPv4 allocation and assignment requests
   http://www.apnic.net/docs/policy/ipv4-guidelines.html

3. The Current Issues in IPv6 Policy

4. Suggested Contents of the guidelines

Q&A