A proposal to deprecate ip6.int reverse DNS service in APNIC

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Overview

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Background

- Use of the ip6.int domain deprecated Aug 2001 (RFC 3152)
- BCP 109, RFC 4159 (Aug 2005) states
  - "The Regional Internet Registries (RIRs) are advised that maintenance of delegation of entries in "ip6.int" is no longer required as part of infrastructure services in support of Internet Standards conformant IPv6 implementations as of 1 September 2005."
- APNIC has stopped accepting new ip6.int domains as of Jun 2004
- Query rate for ip6.int domains is still around 5 queries/minute

Background

- Statistics
  - 54 ip6.int delegation records
  - 23 have corresponding ip6.arpa records
  - 31 with no corresponding ip6.arpa records

Situation in other RIR communities

- LACNIC has consulted its community and is currently considering to cease ip6.int support
- ARIN, RIPE and AfriNIC are expected to present this issue in their respective communities at a later date

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Proposal

- It is proposed that APNIC cease devoting resources to support the operation of this deprecated domain. The cut off date to be determined jointly with the other RIR

Proposal

- Proposed steps to ensure orderly cut off
  - Notify parties who are sending ip6.int queries to APNIC DNS servers, that APNIC is stopping the service
  - Send public announcements
  - Notify root ip6.int to remove APNIC delegation on the cutoff date
  - Remove ip6.int entries in APNIC DNS on cutoff date
  - Report project status in APNIC 21 (End Feb 2006)

Advantages and disadvantages

- Advantages
  - No more confusion to network operators and end users: the clear and consistent message is to use ip6.arpa for IPv6 reverse mapping domains
  - Free (small) APNIC resources to active services

- Disadvantages
  - Legacy IPv6 applications that rely on ip6.int will not get valid DNS results (but due to the sparse population of ip6.int it is not clear whether this is a material change or not)

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Effect on APNIC members

- Members using legacy IPv6 protocol stacks should migrate to a version that supports ip6.arpa

- Members receiving ip6.int delegation from APNIC should cease operating their ip6.int domain

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Effect on NIRs

- NIRs receiving ip6.int delegation from APNIC should cease operating their ip6.int domain

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References

- Randy Bush, RFC3152 Delegation of IP6.ARPA
  - http://www.ietf.org/rfc/rfc3152.txt
- Geoff Huston, BCP 109, RFC 4159 Deprecation of "ip6.int"
  - http://www.ietf.org/rfc/rfc4159.txt

Q & A

- FAQ
  - How do we contact the ip6.int querying parties?
    - There is a good possibility that there are not too many parties involved. APNIC secretariat will deploy tools to track the querying IP addresses and notify the network administrators to stop sending the queries. At this stage it is envisaged that this will be repeated until the queries becomes negligible (< 1 query / minute), or if explicitly requested not to send these notices.

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Questions?

Thank you!

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