

# Addition of IPv6 servers to in-addr.arpa tree

DNS Operations Sig

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# Summary

- In-addr.arpa is delegated to the root nameservers
  - Indirectly, as a child of arpa.
  - Authoritative NS **a.root-servers.net**
  - Zone content managed by ARIN
    - file upload to roots
- IPv6 AAAA records are going to be added to the root
  - Therefore in-addr.arpa. May inherit the IPv6 'glue' state and become fully visible in IPv6 'native' mode DNS queries

# Issues

- Risks?
  - UDP packet size limits additional answer size
    - Small risk of loss of 'glue' information
    - Risk assessment by RSSAC strongly suggests benefit outweighs risk.
    - Minimum impact in IPv4 means only one IPv6 listing may be visible to some people, 2 should be visible to most
  - IPv6 enabled NS may now find new path(s) are used to satisfy the chain back to the root
    - May not be as optimal (rtt cost) as IPv4 but will work
- Rewards?
  - IPv6 only NS should now be fully functional in reverse-DNS
    - Even when serving IPv4 related data

# Impact on RIR served zones: **NONE!**

- RIR already serve IPv4 and IPv6 reverse on IPv6 enabled NS
  - Hosted in Japan and Brisbane
  - Query load currently low
- No problems expected, but will continue to be monitored

# Questions

Thank You !