Discovery of the IPv6 Prefix Used for IPv6 Address Synthesis

Status update to the working group

IETF Behave WG meeting @ IETF#86
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draft-ietf-behave-nat64-discovery-heuristic

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Current status

- IETF Last Call completed
- Got three DISCUSS – two cleared
- The last DISCUSS is mostly pending on getting IANA Considerations section perfect
  - Great progress for -15 version uploaded on Monday, but small tuning may still be required
Changes between -11 and -16

- IANA Considerations have received the main clarifications:
  - Domain Name Reservation Considerations (section 8.1) with reference to draft-cheshire-dnsext-special-names document and answer to questions therein
  - IPv4 Address Allocation Considerations (section 8.2) with references to RFC5736 and draft-bonica-special-purpose and documentation of parameters required for these addresses
  - The requested addresses are now 192.0.0.170/192.0.0.171 (uncertainties removed)
  - The requested name is now “ipv4only.arpa” (uncertainty removed) and with notion that further delegation will not be allowed
  - Clarified that the A record is to be added to servers operated by ICANN/IANA
Changes between -11 and -16

- New section 8.3:

8.3. IAB Statement Regarding This .arpa Request

With the publication of this document, the IAB approves of the delegation of "ipv4only" in the .arpa domain. Under [RFC3172], the IAB is requesting IANA to delegate and provision ipv4only.arpa as written in this specification. However, the IAB does not take any architectural or technical position about this specification.
Changes between -11 and -16

- Clarified what a secure channel is (section 2.2. terminology)
- Clarified that, in the case of DNSSEC is used for securing the discovery, not having a trusted domain results in failure of secure discovery (removed the text that said “MAY query the user”)
  - Text about this was also added to Security Considerations sections
- Clarified reasoning for providing DNSSEC protection for the well-known name (arpa is signed, but it may be that organizations use their own well-known names and should sign also those)
- Clarified that multiple Pref64::/n can be discovered
- Added captive portal as a case that can result in false positive
- Changed NXRRSET to NODATA
- Removed text from the exit strategy section 6 that talked about possible future definition of exit strategy (only configuration knob text remains)
- + some additional minor clarifications, nits, typos, grammar
Next steps

- Completion of the IANA considerations in collaboration (mostly) between IAB, IANA, and Russ Housley
- Once IANA Considerations is done, this is ready to be sent to the RFC Editor