IPv6 Routing Policies Guidelines

draft-blanchet-v6ops-routing-guidelines-01.txt

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Rationale

- 1st raised (in the IETF context) during a IPv6 exchange adhoc wg meeting, some time ago...
- In absence of an up to date document, many operators and community were
  - using RFC2772 (6bone Routing guidelines)
  - to identify which prefixes to take care of (read: filter)
  - In order to apply the “right” routing policies
  - Either in their EGP or IGP
- Furthermore, while discussing with operators and enterprises deploying IPv6, the need of a document has been voiced many times.
- Basic information is spread over many protocol documents, and deep inside. So difficult for a non ipv6-ietf-core-guy to find information.

In a nutshell

- What
  - to take care of (filter/advertise)
  - in routing policies
  - for “special” (mostly protocol-based) IPv6 prefixes
- Structure of the document:
  - For each (special) prefix, identify what to do for:
    - Advertisement and reception of the prefix
    - IGP or EGP context
- -01 version: based on comments from mailing list last fall.

Prefixes

- Unicast:
  - loopback(::1/128), the unspecified (::/128)
  - IPv4-mapped (::FFFF:0:0/96)
  - Link-local (fe80::/16)
  - Unique-local (fc00::/7)
  - Global (2000::/3)
    - (removed the maximum length based on comments)

Prefixes (cont)

- Unicast (cont.)
  - Documentation prefix (2001:0db8::/32)
  - 6to4 (2002::/16)
  - 6bone (5f00::/8 and 3ffe::/16)
  - Default (::)
- Multicast
- Unknown

Within v6ops charter?

- http://www.ietf.org/html.charters/v6ops-charter.html
- Description:
  - “...develops guidelines for the operation of a shared IPv4/IPv6 Internet and provides operational guidance on how to deploy IPv6 into existing IPv4-only networks, as well as into new network installations....”
  - “...The main focus of the v6ops WG is to look at the immediate deployment issues; ...”
- Goals:
  - Solicit input from network operators and users to identify operational issues with the IPv4/IPv6 Internet, and determine solutions or workarounds to those issues. These issues will be documented in Informational or BCP RFCs, or in Internet-Drafts.
  - Publish Informational or BCP RFCs that identify potential security risks in the operation of shared IPv4/IPv6 networks, and document operational practices to eliminate or mitigate those risks.

Next Steps

- Received many comments on current draft (-01), to be included in next version. New version to be issued.
- Looking for comments on the draft.
- Seems to be within the v6ops charter.
- Proposing that the draft be a v6ops working group document