

Router Selection Status

draft-ietf-ipv6-router-selection-06.txt

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Status

- Draft -05 passed WG last call, was submitted to IESG
- IESG had several editorial nits and 2 technical ones:
 - <http://www.icir.org/dthaler/RouterSelectionIssues.htm>
 - Issues 21-27
- Draft -06 addressed all but 1 issue

Editorial nits

- 21 Two-bit terminology confusion [Steve Bellovin]
- 22 Longest match clarification [Bill Fenner]
- 23 Use RFC 3849 addresses in example [Bert Wijnen]
- 25 Editorial nits from Bill Fenner [Bill Fenner]

All were done in draft -06

26 Implicit deletion [Thomas Narten]

Q: Delete all routes if router lifetime $\rightarrow 0$?

A: No, requires explicit deletion (no change in draft -06)

Rationale:

- If a router wants to transition from default \rightarrow more specific only, then will send RouterLifetime=0, but still include the more specific
- Receiver wouldn't know what routes to delete until entire message is parsed, and would have to remember which ones had been seen; this would be a lot of complexity
 - Suresh Krishnan raised this same point (Issue #20) during WG Last Call about handling of duplicate options and resolution was to not require this complexity
- Current behavior is also consistent with Prefix Info Opts
- 2461 says dest cache is updated, but doesn't mention anything else

24 Dynamic routes [Alex Zinin]

27 End-to-end reachability [Steve Bellovin]

- #24: “Routers should not advertise preferences or routes by default. In particular, they should not "dump out" their entire routing table to hosts. Routers MAY have a configuration mode where a filter is applied to their routing table to obtain the routes that are advertised to hosts.”
 - Concerns due to “permit any any” configuration mistakes, and route flap dynamics.
 - Removed problematic sentence in draft -06.
- #27: Draft -05 handled case of router not being reachable, but not path beyond the router.
 - Steve felt this draft needs to handle the latter case too.

Proposed Text [Alex Zinin]

- Routers MAY have a configuration mode where announcement of a specific prefix is dependent on a specific condition, such as operational status of a link or presence of the same or another prefix in the routing table installed by another source, such as a dynamic routing protocol. If done, router implementations MUST make sure that:
 1. Announcement of prefixes to hosts is decoupled from the routing table dynamics to prevent excessive load on hosts during periods of routing instability. In particular, unstable routes SHOULD NOT be announced to hosts until their stability has improved.
 2. The implementation either disallows processing of incoming Router Advertisements on interfaces with the AdvSendAdvertisements flag set to FALSE while sending outgoing Router Advertisements on others, or does not consider routes received in Router Advertisements from other routers as satisfying its own condition for prefix announcement.