Deterministic Fast RA
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IETF 60

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Deterministic Fast RA ?

- FastRA works, but isn't dynamic

- Generalize FastRA to provide Predictable, Ordered Delays

- Recon£guration on Router change/failure

How is it deterministic

- Ranks Routers based on preference and Link Local suf£x

- Routers Communicate to each other over a router-to-router channel

- Routers check each others' authorization using SEND ADD

- Delay at least as long as better ranked routers, plus leeway

Router-to-Router Messages

- New ICMPv6 Type

- Codes:

  – Status-Request (current state + request for response)
  – Status (current state)

- Uses same option format as ND, reuse SEND options

- DetFRA Option

Deterministic FastRA Option

- Sent in Router-to-Router messages.

- Used to construct a Ranked Fast Router List

- List is dynamic, new routers check for position.

- Provides Rank and Fixed Delay, and headroom.

- Fastest Router has Fixed Delay of 0.

- Sum previously ranked Router's Fixed Delay + Buffer