RIFT: Routing in Fat Trees
draft-ietf-rift-rift-17

IETF 116
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What’s new in version 17?

• New IPv4 LIE Address – 224.0.0.121 (originally 224.0.0.120)
  • IPv6 address (FF02::A1F7) is unchanged
  • Both addresses are now (temporarily) reserved by IANA

• Specified the normative TIE sorting algorithm
  • Pseudo-code to describe the required comparisons and sorting.

• Normative statement covering flooding implementation interop:
  • “Implementations MUST implement a behavior that is externally indistinguishable from a verbatim implementation of the FSMs and normative procedures given here.”
What’s new in version 17?

• Added some existing well-defined items to common.thrift and encoding.thrift
  • e.g. IPv4 and IPv6 LIE addresses, MIN_TIEID, MAX_TIEID, etc.

• Additional normative changes:
  • If IPv4 forwarding is supported on an interface, `ipv4_forwarding_capable` MUST be set on all LIEs.
  • If a TIE is received with an undefined level, an implementation MUST issue a warning and discard the packet.
What’s new in version 17?

• **Clarified a few additional items:**
  • Added references to the fact that RIFT operates on P2P links.
  • Stated that if MTU is missing on LIEs it’s treated as `default_mtu_size`.
  • Added context in the Security Considerations section about IPv4 broadcast and IPv6 all-routers multicast implementations.
  • Tightened definitions for distance, metric, and cost in the Terminology section.

• **The usual editorial changes:**
  • Roughly 2500 changes
  • Grammar, textual consistency, etc.
  • No more comparisons to existing technology (e.g. OSPF, BGP)
A couple of points for the Applicability draft authors

• AD review brought up some good points about items that warrant being addressed in the Applicability draft.
  • Mis-cabling detection
  • The use of TTL/HL of 1 vs. 255 for LIEs/TIEs
  • IPv4 broadcast and IPv6 all-routers multicast implementation considerations and use-cases

• I’ll reach out to the authors after IETF is over.
What’s next?

• Continuing to work through AD review process.
Thanks