The IETF Will Continue Maintaining IPv4

draft-schoen-intarea-ietf-maintaining-ipv4

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New draft key points

- Internet Evolution and the IETF
- Challenges to the IETF’s Role with IPv4
- Neglecting IPv4 is Not Our Transition Strategy
- IPv4 Requires Ongoing Maintenance
- The IETF is Uniquely Positioned to Maintain IPv4
Background

- Four drafts on conserving IPv4 address space (two presented in detail at IETF112 in November)
  - draft-schoen-intarea-unicast-lowest-address
  - draft-schoen-intarea-unicast-240
  - draft-schoen-intarea-unicast-0
  - draft-schoen-intarea-unicast-127
Lowest address fix is local

- As a reminder, the lowest-address fix is *already* interoperable across the Internet whenever it is applied within any individual LAN
  - No allocation policy questions
  - Backwards compatible for distant networks
  - LAN operators can make use of this address whenever they know that all devices on their LANs support it
Concerns

• We noticed many objections to our proposals based on the fact that they propose IPv4-specific fixes.

• The principal fundamental concerns about these appeared to be versions of:
  − (Why) should the IETF still work on fixing IPv4?
    ... or
  − This will only benefit IPv4 users, who should (just) switch to IPv6.
The IETF’s role

- This has been questioned before, e.g. in one main output of the sunset4 WG in 2016 (draft-howard-sunset4-v4-historic)
  - The community had substantial concerns about this policy, and it did not reach IETF-wide consensus
  - We hope to see if the opposite consensus can be found
Maintaining IPv4

• Still the most-used network-layer protocol in the world
• The IETF is the historic authority on all coordination and interoperability questions, which continue to arise
• Our draft identified 10 recent RFCs that impact IPv4 implementations (some affect both IPv4 and IPv6)
Underdefined status quo

• “[A] matter of common sense that the IETF will fix things that *need* fixing, even if they are specific to IPv4” … but only “serious fixes”

• We’ve encountered lots of opposition to IPv4 work, but no clear policy that we can or can’t do it

• Can we clarify what “common sense” and “serious” mean?
  – NB: unicast 240/4 is already implemented in billions of devices!
Defining the IETF’s role

- Can we get some clear statement of IETF’s relationship to IPv4 maintenance and coordination work in the future?
- Can an alternative consensus be found in light of the lack of consensus for the “Declaring IPv4 Historic” position?
Thank you

Questions or comments?

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or discuss on the intarea WG mailing list!