

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!