Temporary Address Extensions for Stateless Address Autoconfiguration in IPv6

(draft-ietf-6man-rfc4941bis-08)

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Overview

- Revision of RFC4941
- WGLC'ed on January 9th-23rd, 2020
- This presentation summarizes recent comments and changes

Implications of multiple addresses

- Concerns raised about possible impact of multiple addresses on network elements
- Outcome from WG discussion:
 - This is a general issue of SLAAC not specific to RFC4941
 - But nice to have a paragraph on this, and also limit the number of concurrent addresses
- Changes incorporated:
 - Two paragraphs added to Section 4
 - Text discussed and agreed upon on the mailing list
 - TEMP_VALID_LIFETIME changed from 1 month to 2 days
 - This limits number of concurrent temporary addresses to 2

Whether to enable by default

RFC4941 said:

"use of temporary addresses SHOULD be disabled by default"

- rfc4941bis removes such recommendation
- Outcome from WG discussion:
 - It would be a very bad signal for the IETF to recommend disabling a mechanism meant to improve privacy
- Notes:
 - BCP188: "Pervasive Monitoring Is an Attack"
 - BCP204: "Host Address Availability Recommendations"
 - All popular IPv6 host implementations enable temporary addresses by default

RFC4941 and privacy

- There was discussion about the extent to which temporary addresses help privacy
- Outcome from WG discussion:
 - Temporary addresses mitigate (i.e., make it harder) address-based network activity correlation
 - They also limit the time window during which a host is exposed via an address that becomes revealed
 - This is a revision of RFC4941. Folks can always pursue work to obsolete RFC4941 if deemed appropriate.
- Changes incorporated:
 - Focus on what temporary addresses achieve (as opposed to "privacy")
 - Change title from "Privacy Extensions" to "Temporary Address Extensions"