



**I E T F**<sup>®</sup>

# **RFC4291bis to Internet Standard**

---

Bob Hinden

IETF99 Prague

# Status of RFC4291bis



- IETF Last Call – 1 Feb 2017
  - draft-ietf-6man-rfc4291bis-07
- Area Director declared “No Consensus found in IETF Last Call” - 17 April 2017
  - State Changed to “Parked WG Document”
- Considerable discussion on IPv6 mailing List
- New drafts submitted
  - draft-ietf-6man-rfc4291bis-08
  - draft-ietf-6man-rfc4291bis-09

# Changes to rfc4291bis since IETF Last Call



- 08) Removed instruction to IANA fix error in Port Number assignment. IANA fixed the error on 4 March 2017.
- 09) Revised "Changes since RFC4291" Section to have a summary of changes since RFC4291 and a separate subsection with a change history of each Internet Draft. This subsection will be removed when the RFC is published.
- 09) Removed short paragraph about manual configuration in Section 2.4.1 that was added in the -08 version.

# Changes to rfc4291bis since IETF Last Call



- 08) Revised text to clarify that 64 bit Interface IDs are used except when the first three bits of the address are 000, or addresses are manually configured, or when defined by a standard track document. This text was moved from Section 2.4 and is now consolidated in Section 2.4.1. Also removed text in Section 2.4.4 relating to 64 bit Interface IDs.

Interface Identifiers are 64 bit long except if the first three bits of the address are 000, or when the addresses are manually configured, or by exceptions defined in standards track documents. The rationale for using 64 bit Interface Identifiers can be found in [RFC7421]. An example of a standards track exception is [RFC6164] that standardizes 127 bit prefixes on inter-router point-to-point links.

# Changes to rfc4291bis since IETF Last Call



- 08) Added Note: to Section 2 that the term "prefix" is used in different contexts in IPv6: a prefix used by a routing protocol, a prefix used by a node to determine if another node is connected to the same link, and a prefix used to construct the complete address of a node.

Note: The term "prefix" is used in several different contexts for IPv6: a prefix used by a routing protocol, a prefix used by a node to determine if another node is connected to the same link, and a prefix used to construct the complete address of a node.

# Changes to rfc4291bis since IETF Last Call



- 09) Added text to the last paragraph in Section 2.1 to clarify the differences on how subnets are handled in IPv4 and IPv6, includes a reference to RFC5942 "The IPv6 Subnet Model: The Relationship between Links and Subnet Prefixes".

Currently, IPv6 continues the IPv4 model in that a subnet prefix is associated with one link. Multiple subnet prefixes may be assigned to the same link. The relationship between links and IPv6 subnet prefixes differs from the IPv4 model in that all nodes automatically configure an address from the link-local prefix. A host is by definition on-link with its default router, and that unicast addresses are not automatically associated with an on-link prefix. See [RFC5942] "The IPv6 Subnet Model: The Relationship between Links and Subnet Prefixes" for more details.

# Next Steps



- Assess state of consensus to advance
  - We are closer, but....
- Next steps
  - W.G. Last Call
  - Advance to IESG
  - Etc., etc.



# QUESTIONS / COMMENTS?