Moving IPv6 Documents to Draft Standard

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Where We Are Today

- 37 Standards Track RFCS
  - 5 at Draft Standard, 2 with ongoing updates
  - 32 at Proposed Standard, 25 for over 2 years

Benefits of Moving to DS

- Benefits of the process
  - Gathering implementation reports
  - Finding and fixing flaws in current documents
  - Updating the documents for consistency and to match current thinking
- Increases credibility of IPv6 documents
  - Will alleviate concerns about whether IPv6 is stable enough to deploy

IPv6 Draft Standards

- Includes most IPv6 “core” specifications
  - RFC1981: Path MTU Discovery
  - RFC2460: IPv6 Specification
  - RFC2461: Neighbor Discovery
    - Updated by draft-ietf-ipv6-host-load-sharing-00.txt
    - May require DAD clarification(s)
  - RFC2462: IPv6 Stateless Autoconfig
  - RFC2463: ICMPv6
    - Updated by draft-ietf-ipngwg-icmp-v3-02.txt

“Core” Documents at PS

- RFC2373: IPv6 Addressing Architecture
  - Updated by draft-ietf-ipngwg-addr-arch-v3-07.txt
- RFC2374: An IPv6 Aggregatable Global Unicast Address Format
- RFC1886: DNS Extensions for IPv6
  - Updated by RFC 2874, may remain separate?
- RFC2710: Multicast Listener Discovery

- Drafts are widely implemented, but not stable yet?

MIB Documents at PS (Cont.)

- RFC2465: IPv6 TCs and General Group
  - Updated by MIB for the Internet Protocol, draft-ietf-ipngwg-rfc2011-update-00.txt and RFC2851?
- RFC2466: ICMPv6 MIB
- RFC3019: IPv6 MIB for MLD
- RFC2452: IPv6 MIB for TCP
- RFC2454: IPv6 MIB for UDP
- RFC2851: Textual Conventions for Internet Network Addresses

IPv6 MIB Situation

- MIBs have been low priority for early experimental deployment, but critical for commercial deployment
- Shift is underway from IPv6-specific MIBs to joint MIBs for IPv4/IPv6
- New MIBs will update current “MIB-2” MIBs
  - Need feedback/review by OPS community

Needed IPv6 MIB Work

- Neighbor Discovery MIB
  - Should be undertaken in IPv6 WG
- TDomain/TAddress definitions for IPv6
  - Individual draft in OPS area
- IP Forwarding Table MIB
  - draft-ietf-ipngwg-rfc2096-update-00.txt
  - Can we do this in IPv6 WG?

How to Move Forward on MIBs

- Re-initiating IPv6 MIB design team
  - Need motivated people with available time
  - Please see me or send me e-mail if interested
- Placing priority on IP MIBs
  - Clear that these are owned by the Internet area
  - Other MIBs may be moved to appropriate areas

IPv6 over... Docs at PS

- RFC2464: IPv6 over Ethernet Networks
- RFC2472: IPv6 over PPP
  - Some updates required to match current addressing architecture assumptions
- RFC2470: IPv6 Packets over Token Ring
- RFC2467: IPv6 over FDDI Networks

- Drafts have been stable for some time, do we have implementations? Priority on Ethernet and PPP.

IPv6 over... Docs at PS (Cont.)

- RFC2491: IPv6 over NBMA Networks
- RFC2492: IPv6 over ATM
- RFC2497: IPv6 over ARCnet
- RFC2590: IPv6 over Frame Relay
- RFC3146: IPv6 over IEEE 1394 Networks

- Ownership of these documents is unclear. Does the IPv6 WG own these documents?

Compression Docs at PS

- RFC2507: IP Header Compression
- RFC2508: Compressing IP/UDP/RTP for Serial
- RFC2509: IP Header Compression over PPP

- Documents have been stable. Do we have implementations? Are they ready to advance?

Other IPv6 Docs at PS

- RFC2473: Generic Packet Tunneling in IPv6
- RFC2526: Reserved IPv6 Subnet Anycast Addrs
- RFC2675: IPv6 Jumbograms
- RFC2711: IPv6 Router Alert Option
- RFC2732: Format for Literal IPv6 Addrs in URLs
- RFC2894: Router Renumbering for IPv6

- Documents are stable. Do we have implementations? Are they ready to advance?

Other IPv6 Docs at PS (Cont.)

- RFC3041: Privacy Addresses for Autoconf
  - Updated by draft-ietf-ipngwg-temp-addresses-v2-00.txt
- RFC3122: Extensions to IPv6 Neighbor Discovery for Inverse Discovery
- RFC2874: DNS Extensions to Support IPv6 Address Aggregation and Renumbering

- These documents may not be ready to advance?

Moving Forward

- Prioritize PS docs, finalize and move to DS
  - Remaining “core” documents
  - IPv6 MIBs
  - IPv6 over Ethernet and IPv6 over PPP
  - Others?