

Enterprise Incremental IPv6

draft-ietf-v6ops-enterprise-incremental-ipv6
IETF86 Orlando

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Enterprise Incremental IPv6

- Guidance and considerations for Enterprises seeking to enable IPv6
- Phased approach
 - Preparation and Assessment Phase
 - External Phase
 - Internal Phase
 - IPv6 Only

IETF85 Atlanta Input

- Updates include comments/feedback from IETF85 (Atlanta)
- Key areas of discussion:
 - Tone of Document (for general reader consumption)
 - MTU Size Recommendation
 - Enterprise Interest to Deploy IPv6
 - Dual Stack / Tunneling text
 - Prefix Size vs. Site considerations
 - PI vs PA space text and considerations
 - NPTv6 Stances and possible recommendation
 - Add Guest Network, CDN sections

Intro Updates

– Introduction:

- Additional text around benefits of IPv6 native and reference to draft-ietf-v6ops-design-choice along with RFC5375

– Section 1.1 – 1.2

- Minor text updates in section 1.1 with some added text and reference to I-D.ietf-opsec-ipv6-implications-on-ipv4-nets in section 1.2

Assessment Phase - Updates

- IPv6 vs. IPv4 security
 - Specific text that IPv4 and IPv6 need to be considered along with interaction between protocol in dual stack
- Security Issues with IPv6 section
 - Remove M-Bit text (setting to force DHCPv6) and addition of text about harvesting of IP/MAC associations for IPv6
 - Text around ARP, ND and issues to consider

Assessment Phase - Updates

– Added Routing Section

- Text around assessment of IPv6 IGP needs including IS-IS, OSPF, RIPng with deltas noted
- Reference to v6ops-design-choides

– Address Planning

- Text noting consideration if using ULAs
- Text describing the considerations around PI and PA space usage (fees, renumbering, multihoming, routing interaction, and site addressing)

External Phase - Updates

– Connectivity

- Modified original text around PI and PA space (to a large extent)
- New text provides clearer information on routing (i.e. BGP , RIR considerations etc)
- New text around ULA usage with NAT considerations (may require discussion in WG given recent debates)

– Server and Applications

- New text, with discussion around path analysis (IPS, Firewall, SLB, NAT64)

Internal Phase - Updates

- Moved security section to top of phase
- Network Infrastructure
 - SLACC still useful for Workstations
 - RAs still needed with DHCPv6 operation (no DF option)
- End User Devices
 - Happy eyeballs reference
 - Correctly monitor IPv6
- Content Delivery Networks
 - Added text with reference to ICP Guidance draft (now RFC as of last week – RFC6883)
- Data Center Virtualization
 - Reference to I-D.lopez-v6ops-dc-ipv6

Summary

- Feedback on new text and content updates, adds and deletes
- Update document
- WGLC following IETF86