Enterprise IPv6 Deployment Guidelines

draft-ietf-v6ops-enterprise-incremental-ipv6-01

K. Chittimaneni, Google Inc.
T. Chown, University of Southampton
L. Howard, Time Warner Cable
V. Kuarsingh, Rogers Communications
Y. Pouffary, Hewlett Packard
E. Vyncke, Cisco Systems
MTU Size Recommendation

• Add some comment about setting MTU to 1280 to avoid tunnel pMTUd black holes?
  – There may be MTU issues due to pMTUd and the enterprise may choose to set the MTU lower
  – Lower MTU (1280) on non-managed network segments, default on managed segments
Enterprise’s Interest to Deploy Native IPv6?

• Several commenters disagreed with Section 1, "It is thus in the enterprise's interests to deploy native IPv6 itself."

• Is there consensus for or against this statement?
Dual stack where you can, tunnel where you must

- Is there consensus on this?
- Native dual stack is better than any transition technology,
  - transition technologies are only temporary solutions until native dual stack can be deployed.
  - Therefore, if native dual stack cannot be deployed, tunneling may be appropriate.
- IPv6-only is still the end goal.
Prefix Size for Site

• Several commenters disagreed with:
• "Each location, no matter how small, should get at least a /48"
• There is documented consensus on /48 (rfc5375, rfc6177). Do we agree with those recommendations?
• Can add language saying, “adjust as needed”
  – /48 required for multihoming
• “Site”? “Location”?
PI vs PA Space Considerations

- Small firm: single-homed, PA space
- Large enterprise: multi-homed, PI space, BGP
- Medium size
  - Will your ISP originate PI space?
  - Will your ISP route another ISP’s PA space?
  - Do you multihome?
  - Are you willing to renumber if you change ISPs?
NPT66

• One commenter suggested getting PA space from two providers and use NPT66.

• Additional text
  – NPT66 is “Experimental”
  – Not needed for multihoming
  – Not needed for security: use firewall
Still to Be Written

- The Guest Network.
- Content Delivery Networks.
- One commenter suggested: You may want to be more specific by quantitatively describing the impact on VRRPv3 traffic.
- SeND considerations.