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Expanding the IPv6 Address Prefix Reserved for Documentation
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Abstract

To reduce the likelihood of conflict and confusion when relating documented examples to deployed systems, an IPv6 unicast address prefix is reserved for use in examples in RFCs, books, documentation, and the like. This document adds an additional prefix to the existing reserved IPv6 prefixes, 2001:db8::/32. This document describes the use of the IPv6 address prefix 3ffe::/16 (formerly 6bone) as a reserved prefix for use in documentation.

Table of Contents

1. Introduction

The address architecture for IPv6 [RFC4291] does not specifically allocate an IPv6 address prefix for use for documentation purposes. The current IPv6 documentation prefix of 2001:db8::/32 defined in [RFC6890] is not large enough for many design, lab, and documentation requirements. An example of this limitation is apparent when doumenting a multi-provder ISP network address plan. An additional, larger allocation would help address these needs.

2. Expanded Documentation IPv6 Address Prefix

The additional prefix allocated for documentation purposes is 3ffe::/16.

3. Operational Implications

This assignment implies that IPv6 network operators should add this address prefix to the list of non-routeable, bogon IPv6 address space, and if packet filters are deployed, this address prefix should

be added to packet filters intended to prevent public routing of such address space.

Because this address prefix has previously been used for the 6bone, and subsequently the 6bone was shutdown, this address prefix is already listed in many non-routeable tables, filters and lists. It was also depreferred in [RFC6724] which limits its usability. In addition, the address prefix was returned to IANA and is available to be marked for documentation purposes.

This is not a local-use address prefix, and the filters may be used in both local and public contexts.

4. IANA Considerations

IANA is to record the allocation of the IPv6 global unicast address prefix 3ffe::/16 as a documentation-only prefix in the IPv6 address registry. No end party is to be assigned this address.

5. Security Considerations

IPv6 addressing documents generally do not have any direct impact on Internet infrastructure security.

However, the assignment of a new address space for documentation purposes does mean, as indicated above, that these addresses SHOULD be added to any filters required by individual operators to prevent their use for globally routed destinations.

6. Acknowledgements

The authors acknowledge the work of Geoff Huston, assisted by Anne Lord, and Philip Smith, in authoring the previous proposal for the IPv6 documentation prefix.

7. References

7.1. Normative References

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