                  OSPFv3 Instance ID Registry Update

Abstract

   This document modifies the "Unassigned" number space in the IANA
   "OSPFv3 Instance ID Address Family Values" registry by dividing it in
   two halves -- one half Unassigned but managed via Standards Action,
   and the other Reserved for Private Use. It updates RFC 5838.

Status of This Memo

   This is an Internet Standards Track document.

   This document is a product of the Internet Engineering Task Force
   (IETF). It represents the consensus of the IETF community. It has
   received public review and has been approved for publication by the
   Internet Engineering Steering Group (IESG). Further information on
   Internet Standards is available in Section 2 of RFC 5741.

   Information about the current status of this document, any errata,
   and how to provide feedback on it may be obtained at
   http://www.rfc-editor.org/info/rfc6969.

Table of Contents

1. Introduction

   [RFC5838] defined the "OSPFv3 Instance ID Address Family Values"
   registry for the purpose of mapping OSPFv3 Instance IDs to different
   address families. The following table lists the value ranges that
   were allocated for [RFC5838] and Unassigned.

   +---------+---+-----------+
   | Value | Description | Reference |
   +---------+---+-----------+
0	IPv6 unicast AF	[RFC5838]
1 - 31	Base IPv6 Unicast AF dependent on local	[RFC5838]
	policy	
32	Base IPv6 Multicast	[RFC5838]
33-63	IPv6 Multicast AFs dependent on local	[RFC5838]
	policy	
64	Base IPv4 Unicast AF	[RFC5838]
65-95	IPv4 Unicast AFs dependent on local policy	[RFC5838]
96	Base IPv4 Multicast	[RFC5838]
97-127	IPv4 Multicast AFs dependent on local	[RFC5838]
	policy	
128-255	Unassigned	[RFC5838]
   +---------+---+-----------+

   In some networks, additional OSPFv3 instances may be required to
   operationally identify specific applications. This need requires a
   pool of Instance IDs that the operator may locally assign for that
   purpose.

   For example, [OSPF-EMBED] describes an application in which IPv4-
   embedded IPv6 addresses [RFC6052] are used to transport IPv4 packets
   over an IPv6 network. While the IPv4-embedded IPv6 addresses do in
   fact represent IPv6 destinations, it would be operationally
   beneficial to be able to easily identify the specific application by
   having a separate space to do so. This benefit is enabled by the
   allocation of a range of Private Use Instance IDs.

This document modifies the IANA "OSPFv3 Instance ID Address Family Values" registry by designating a range as Reserved for Private Use. For the remaining unassigned values, the registration procedure is Standards Action.

2. OSPFv3 Instance ID Address Family Values Registry Update

The IANA "OSPFv3 Instance ID Address Family Values" registry has been updated so that Instance IDs from 192-255 are Reserved for Private Use [RFC5226]. For the remaining unassigned values (128-191), the registration procedure is Standards Action. The registry now shows:

Value	Description	Reference
128-191 Reserved for Private Use	Unassigned this document	192-255 Private Use [RFC5226]

3. IANA Considerations

This document requests the modification of the "OSPFv3 Instance ID Address Family Values" registry as described in Section 2. The reference to [RFC5838] has been removed from the registry for the modified ranges.

4. Security Considerations

This document modifies an IANA registry defined in [RFC5838]. It does not introduce any new security issues.

5. Acknowledgements

Many thanks to Acee Lindem, Stewart Bryant, Nevil Brownlee, Pearl Liang, Ben Campbell, Adrian Farrel, and Richard Barnes for their review and input.

6. References

6.1. Normative References

[RFC5226]   Narten, T. and H. Alvestrand, "Guidelines for Writing
               an IANA Considerations Section in RFCs", BCP 26,
               RFC 5226, May 2008.

6.2. Informative References

[OSPF-EMBED]   Cheng, D., Boucadair, M., and A. Retana, "Routing for
               IPv4-embedded IPv6 Packets", Work in Progress,
               June 2013.

[RFC5838]   Lindem, A., Mirtorabi, S., Roy, A., Barnes, M., and R.
               Aggarwal, "Support of Address Families in OSPFv3",
               RFC 5838, April 2010.

[RFC6052]   Bao, C., Huitema, C., Bagnulo, M., Boucadair, M., and
               X. Li, "IPv6 Addressing of IPv4/IPv6 Translators",
               RFC 6052, October 2010.

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