                    OSPFv3 Instance ID Registry Update
                 draft-ietf-ospf-ospfv3-iid-registry-update-04

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 [RFC5838].

Status of This Memo

   This Internet-Draft is submitted in full conformance with the
   provisions of BCP 78 and BCP 79.

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   material or to cite them other than as "work in progress."

   This Internet-Draft will expire on October 28, 2013.

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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 as
   allocated for [RFC5838].

   +---------------------------+------------------+-------------------+
   | Instance ID Range | Description | Assignment Policy |
   +---------------------------+------------------+-------------------+
Instance ID # 0 - # 31	IPv6 unicast AF	Already Assigned
Instance ID # 32 - # 63	IPv6 multicast AF	Already Assigned
Instance ID # 64 - # 95	IPv4 unicast AF	Already Assigned
Instance ID # 96 - # 127	IPv4 multicast AF	Already Assigned
Instance ID # 128 - # 255	Unassigned	Standards Action
   +---------------------------+------------------+-------------------+

   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, [I-D.ietf-ospf-ipv4-embedded-ipv6-routing] 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 benefitial to be able to easily identify
the 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 updates [RFC5838] by modifying the "OSPFv3 Instance ID
Address Family Values" registry. If divides the original Unassinged
space in two halves, one half Unassigned but managed via Standards
Action, and the other Reserved for Private Use.

2. OSPFv3 Instance ID Address Family Values Registry Update

The IANA "OSPFv3 Instance ID Address Family Values" registry must be
updated as follows:

```
+---------------------------+-------------+-----------------------+
| Instance ID Range         | Description | Assignment Policy     |
+---------------------------+-------------+-----------------------+
| Instance ID # 128 - # 191 | Unassigned  | Standards Action      |
| Instance ID # 192 - # 255 | Reserved    | 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] should be removed from the registry for the
modified ranges.

4. Security Considerations

This document modifies the assignment policy of 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

   [I-D.ietf-ospf-ipv4-embedded-ipv6-routing]
               Cheng, D., Boucadair, M., and A. Retana, "Routing for
               IPv4-embedded IPv6 Packets", draft-ietf-ospf-ipv4
               -embedded-ipv6-routing-11 (work in progress), April 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.

Appendix A. Change Log

   This section to be removed by the RFC Editor before publication.

A.1. Changes between the -00 and -01 versions.

   o Eliminated rfc2119 keywords, section about Requirements Language
      and corresponding reference.

   o Updated acks.

A.2. Changes between the -01 and -02 versions.

   o Added indicated that this draft updates rfc5838.

   o Clarified the description of the 'Private Use' range to
      'Reserved'.

   o Added the need to remove the reference to rfc5838 from the updated
      registry fields.

   o Updated acks.

A.3. Changes between the -02 and -03 versions.

   o Inserted example of the motivation.

o Updated acks.

A.4. Changes between the -03 and -04 versions.

o Added an explanation of the update to RFC5838 (Abstract and
   Introduction).

o In the Introduction, clarified that the table represents the
   allocation made in RFC5838.

o Added text to clarify the reason we need a Private Use space.

o Updated acks.

o Added a reference to RFC6052.

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