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# 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].

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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	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 | House ID # 128 - # 191 | Unassigned | Standards Action | Instance ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use [RFC5226] | House ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 192 - # 255 | Reserved | Private Use ID # 255 | Private Use I
```

## 3. IANA Considerations

This document requests the modification of the "OSPFv3 Instance ID Address Family Values" registry as described in  $\underline{\text{Section 2}}$ . The reference to  $\underline{\text{RFC5838}}$  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", <u>BCP 26</u>, <u>RFC 5226</u>, 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", <u>draft-ietf-ospf-ipv4</u>
  -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 <u>rfc2119</u> 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  $\frac{\text{rfc}5838}{\text{registry fields}}$  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 <a href="RFC5838">RFC5838</a> (Abstract and Introduction).
  - o In the Introduction, clarified that the table represents the allocation made in <a href="RFC5838">RFC5838</a>.
  - o Added text to clarify the reason we need a Private Use space.
  - o Updated acks.
  - o Added a reference to <a href="RFC6052">RFC6052</a>.

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