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Update to OSPF Terminology

Abstract

This document updates some OSPF terminology to be in line with inclusive language used in the industry. The IETF has designated National Institute of Standards and Technology (NIST) "Guidance for NIST Staff on Using Inclusive Language in Documentary Standards" for its inclusive language guidelines.

This document updates RFC2328, RFC5340, RFC4222, RFC4811, RFC5243, RFC5614, and RFC5838.

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1. Introduction

This document updates some OSPF terminology to be in line with inclusive language used in the industry. The IETF has designated National Institute of Standards and Technology (NIST) "Guidance for NIST Staff on Using Inclusive Language in Documentary Standards" [[NISTIR8366](#)] for its inclusive language guidelines.

This document updates [[RFC2328](#)], [[RFC5340](#)], [[RFC4222](#)], [[RFC4811](#)], [[RFC5243](#)], [[RFC5614](#)], and [[RFC5838](#)].

2. Update to RFC2328

The base OSPFv2 specification [[RFC2328](#)] defines the synchronization of databases as two routers forming a "master/slave relationship". All instances of these terms are replaced by "leader/follower", respectively.

The Master (MS) bit in the database description packet is renamed the Leader (L) bit.

The operation of OSPFv2 is not modified. The Leader/Follower terminology and Leader (L) Bit definition changes impact the following sections: 7.2 "The Synchronization of Databases", 10 "The Neighbor Data

Structures", 10.1 "Neighbor states", 10.2 "Events causing neighbor state changes", 10.6 "Receiving Database Description Packets", 10.8 "Sending Database Description Packets", 10.10 "An Example", and A.3.3 "The Database Description packet".

3. Update to RFC5340

The base OSPFv3 specification [RFC5340] defines the database description process between two routers as one being "designated to be the master and the other is the slave". All instances of these terms are replaced by leader/follower, respectively.

The Master/Slave (MS) bit in the database description packet is renamed the Leader (L) bit.

The operation of OSPFv3 is not modified. The Leader/Follower terminology and Leader (L) Bit definition changes impact section A.3.3 "The Database Description packet".

4. Update to RFC4222

This Best Current Practice (BCP) document describes "Prioritized Treatment of Specific OSPF Version 2 Packets and Congestion Avoidance" [RFC4222]. There is an example OSPFv2 packet sequence in Appendix C, (2), that refers to the "slave" in a database exchange. This reference will be renamed to "follower".

5. Update to RFC4811

This Experimental document specifies "OSPF Out-of-Band Link State Database (LSDB) Resynchronization" [RFC4811]. Section 2.4 includes a Database Description packet figure and a description of the attendant encoding changes for Out-of-Band Resynchronization. In the figure and the description, all instances of MS when referring the Database Description packet bit are renamed to "L". There is also a reference to "Master" in this section that is renamed to "Leader".

6. Update to RFC5243

This Informational document describes an "OSPF Database Exchange Summary List Optimization" [RFC5243]. The Introduction, Section 1, references "Master or Slave". This will be replaced by "Leader or Follower". Section 3.0 includes an example of the optimized database exchange. In this example, all instances of "Master" will be renamed to "Leader" and all instances of "Slave" will be renamed to "Follower".

7. Update to RFC5614

This Experimental document specifies the "Mobile Ad Hoc Network (MANET) Extension of OSPF Using Connected Dominating Set (CDS) Flooding" [RFC5614]. "Changes to the Neighbor State Machine", Section 7.2 contains modifications to the neighbor state machine updated from [RFC2328]. In this transition to "2-way" state, all instances of "Master" are renamed to "Leader" and all instances of "Slave" are renamed to "Follower". Additionally, instances of "MS" in reference to the Database Description packet bit are renamed to "L". Additionally, in "Receiving Database Description Packets, Section 7.5, the parenthetical "master or slave" is replaced by "leader or follower".

8. Update to RFC5838

This Standards Track document specifies the "Support of Address Families in OSPFv3" [RFC5838]. "Database Description Maximum Transmission Unit (MTU) Specification for Non-IPv6 AFs", Section 2.7 contains a Database Description packet change figure which include the "MS" bit. In this figure, the "MS" field will be renamed to "L" field.

Additionally, in Section 2.4., first paragraph, "Changes to the Hello Packet Processing", the text is updated to remove the non-inclusive terms pertaining to unreachability handling as follows:

```
When an OSPFv3 router does not support this specification and an
interface is configured with the Instance ID corresponding to a
IPv4 AF, packets could be routed toward this interface and
dropped. This could happen due to misconfiguration or a router
software downgrade. Packet reception and dropping on an
interface not configured with the packet AF, e.g., IPv4 is
possible because a router that doesn't support this specification
can still be included in the SPF calculated path as long as it
establishes adjacencies using the Instance ID corresponding to
the IPv4 AF. Note that OSPFv3 Router-LSAs and Network-LSAs are
AF-agnostic.
```

Figure 1: RFC 5838, Section 2.4 - Updated First Paragraph

9. Acknowledgements

Thanks to Dhruv Dhody and Adrian Farrel for review and comments.

10. IANA Considerations

IANA is requested to rename bit 0x01 in the "Database Description (DD) Packet Flags" registry to "Leader (L-bit)" and to add a reference to this document.

11. Security Considerations

This document updates the terminology used in OSPF RFCs without any modification to the specifications of the protocol. As such, the security characteristics of OSPF do not change.

12. References

12.1. Normative References

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