Carrying IPv6 Router ID in IS-IS Router Capability TLV
draft-xu-isis-ipv6-router-id-00

Abstract

This document proposes a new sub-TLV of the IS-IS Router CAPABILITY TLV, called IPv6 Router ID sub-TLV.

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Introduction

There are several situations where it is useful for the IS-IS routers in one area to establish the correlations between the IPv6 addresses and the capabilities of the other routers in another area. However, in the IS-IS Router CAPABILITY TLV as defined in [RFC4971], which is applicable for both IPv4 IS-IS [RFC1195] [RFC5305] and IPv6 IS-IS [RFC5308], only a 4-octet router ID is contained. Therefore, this document proposes a new sub-TLV of this CAPABILITY TLV to carry an 16-octect router ID. This 16-octect router ID MUST be a routable IPv6 global address of the router originating the CAPABILITY TLV.

1.1. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

2. Terminology

This memo makes use of the terms defined in [RFC4971].

3. IPv6 Router ID Sub-TLV

A new sub-TLV of the IS-IS Router Capability TLV, called IPv6 Router ID sub-TLV is defined to carry a routable IPv6 global address of the router originating the CAPABILITY TLV. The Type of this sub-TLV is TBD, the Length is set to 16, and the Value field contains a routable IPv6 global address of the router originating the CAPABILITY TLV. The scope of the advertisement depends on the application but it is recommended that it SHOULD be domain-wide.
4. Acknowledgements

TBD.

5. IANA Considerations

This memo includes a request to IANA to allocate a sub-TLV type within the IS-IS Router Capability TLV.

6. Security Considerations

This document does not introduce any new security risk.

7. References

7.1. Normative References


7.2. Informative References


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