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BGP-LS Extensions for IS-IS Flood Reflectors  
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## Abstract

This document defines new BGP-LS (BGP Link-State) TLVs in order to carry IS-IS Flood Reflection information.

## Status of This Memo

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[1.](#) Introduction

BGP Link-State [RFC7752](#) [[RFC7752](#)] defines mechanisms to advertise information about the underlying IGP in BGP NLRI to an external entity (e.g. a controller). New BGP-LS TLVs are required in order to facilitate IS-IS Flood Reflection [[IS-IS-FR](#)] extensions.

[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.](#) BGP-LS Extensions for IS-IS Flood Reflectors

This document defines the following BGP-LS TLV code point value in accordance with [RFC7752](#) rules:

| TLV Code Point | Description          | IS-IS TLV                               |
|----------------|----------------------|---|
| TBD1           | Flood Reflection TLV | TBD1 (161) [ <a href="#">IS-IS-FR</a> ] |

Table 1: BGP-LS Flood Reflection TLV Code Points

TLV formats are described in detail in subsequent subsections.

[3.](#) BGP-LS TLVs for IS-IS Flood Reflection

This TLV advertises Flood Reflector details. The semantics and values of the fields in the TLV are described in [IS-IS-FR].

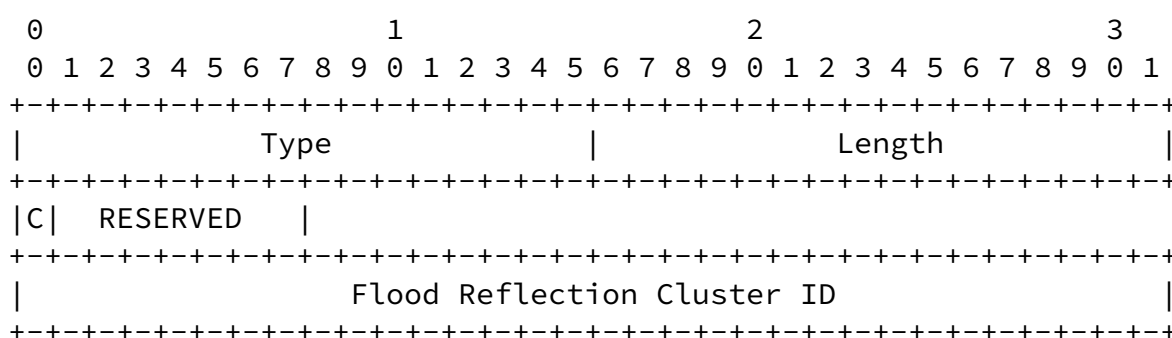


Figure 1: Flood Reflection TLVs

where:

\*Type:\* TBD1

```
*Length:* 5
```

#### 4. IANA Considerations

This section requests entries from the "BGP-LS Node Descriptor, Link Descriptor, Prefix Descriptor, and Attribute TLVs" registry for the following TLVs:

#### 4.1. Requested TLV Entries

| TLV Code Point | Description          |
|----------------|----------------------|
| TBD1           | Flood Reflection TLV |

Table 2: IANA Requests

## 5. Security Considerations

Procedures and protocol extensions defined in this document do not affect the BGP security model. See the "Security Considerations" section of [RFC4271] for a discussion of BGP security. Also, refer to [RFC4272] and [RFC6952] for analyses of BGP security issues. Security considerations for acquiring and distributing BGP-LS information are discussed in [RFC7752].

The TLVs introduced in this document are used to propagate IS-IS Flood Reflection TLVs defined in [IS-IS-FR]. These TLVs represent IS-IS Flood Reflector state and are therefore assumed to support any/all of the required security and authentication mechanisms as described in [IS-IS-FR] to prevent any security issues when propagating the TLVs into BGP-LS.

## [6.](#) Acknowledgements

## [7.](#) References

### [7.1.](#) Normative References

- [IS-IS-FR] Przygienda, T., Bowers, C., Lee, Y., Sharma, A., and R. White, "IS-IS Flood Reflection", October 2021, <<https://datatracker.ietf.org/doc/html/draft-ietf-lsr-isis-flood-reflection>>.
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- [RFC4271] Rekhter, Y., Li, T., and S. Hares, "A Border Gateway Protocol 4 (BGP-4)", January 2006, <<https://www.rfc-editor.org/info/rfc4271>>.
- [RFC4272] Murphy, S., "BGP Security Vulnerabilities Analysis", January 2006, <<https://www.rfc-editor.org/info/rfc4272>>.

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