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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.

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#### Table of Contents

- <u>1</u>. <u>Introduction</u>
  - <u>1.1</u>. <u>Requirements Language</u>
- 2. BGP-LS Extensions for IS-IS Flood Reflectors
- 3. BGP-LS TLVs for IS-IS Flood Reflection
- <u>4</u>. <u>IANA Considerations</u>
- <u>4.1</u>. <u>Requested TLV Entries</u>
- 5. <u>Security Considerations</u>
- <u>6</u>. <u>Acknowledgements</u>
- <u>7</u>. <u>References</u>
- 7.1. <u>Normative References</u>
- <u>Authors' Addresses</u>

## 1. Introduction

BGP Link-State <u>RFC7752</u> [<u>RFC7752</u>] 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 faciliate <u>IS-IS Flood Reflection</u> [<u>IS-IS-FR</u>] 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 <u>RFC 2119</u> [<u>RFC2119</u>].

## 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	<u>TBD1 (161) [IS-IS-FR]</u>							
Table 1: H	3GP-LS Flood Reflectior	n 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].

0		1										2										3									
0	12	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
+-+	- + -	+ -	+ - •	+	+ - +	- +		+ - +	+ - +	+ - 4			+	⊦ - ·	+	+ - +	+ - +		+ - +	+ - +	+		+	+	+	+	+ - +	+	+	+ - +	
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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 [<u>RFC4271</u>] for a discussion of BGP security. Also, refer to [<u>RFC4272</u>] and [<u>RFC6952</u>] for analyses of BGP security issues. Security considerations for acquiring and distributing BGP-LS information are discussed in [<u>RFC7752</u>].

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

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