

GROW  
Internet-Draft  
Intended status: Standards Track  
Expires: 31 August 2026

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27 February 2026

Extension for BMP Peer Header  
draft-lin-grow-bmp-peer-interface-00

Abstract

This document defines new BMP peer types that allows the per-peer header to carry its corresponding interface information, especially in order to distinguish BGP peers established based on interfaces.

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## 1. Introduction

When BGP establishes a peer relationship using a Link-Local address or unnumbered address, the local outgoing interface must be specified for the relationship to be established successfully. In other words, BGP Link-Local or unnumbered peers may only be distinguished by interface information.

However, the per-peer information in a BMP message does not include interface information, making it impossible to distinguish which BGP Link-Local peer or unnumbered peer the reported BMP message originated from.

This document defines new BMP peer types that allows the per-peer header to carry its corresponding peer interface information.

## 2. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

## 3. New BMP Peer Types

## 3.1. Definition

This section defines new BMP peer types for reporting the BMP messages that need to be distinguished through peer interface information.

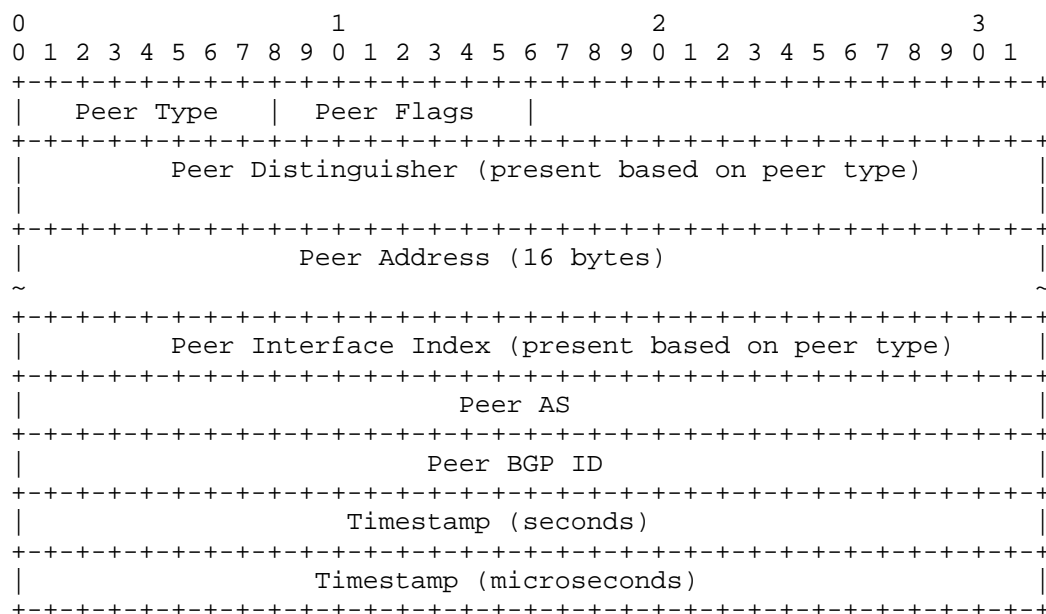
The peer types are defined as follows:

- \* Peer Type = TBD1 (RECOMMENDED value 4): Global Instance Interface Peer.
- \* Peer Type = TBD2 (RECOMMENDED value 5): RD Instance Interface Peer.

BMP messages using the peer types defined in this document MUST include peer interface information.

### 3.2. Format

For new BMP peer types defined in this document, this section defines a interface per-peer header. It is defined according to per-peer header of [RFC7854], as shown below:



Compared with per-peer header of [RFC7854], the Peer Interface Index is added to indicate the interface used to establish BGP peers. Other fields are defined in Section 4.2 of [RFC7854] and Section 4 of [RFC8671].

### 4. Operational Considerations

TBD

## 5. Security Considerations

TBD

## 6. IANA Considerations

TBD

## 7. References

### 7.1. Normative References

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- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <<https://www.rfc-editor.org/info/rfc8174>>.
- [RFC8671] Evens, T., Bayraktar, S., Lucente, P., Mi, P., and S. Zhuang, "Support for Adj-RIB-Out in the BGP Monitoring Protocol (BMP)", RFC 8671, DOI 10.17487/RFC8671, November 2019, <<https://www.rfc-editor.org/info/rfc8671>>.

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