Inter-Domain Routing
Internet-Draft
Intended status: Informational
Expires: May 21, 2020

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November 18, 2019

Provide for method to know accepted and rejected NLRI. draft-mauch-bgp-accepted-00

Abstract

This document defines a method to receive accepted and rejected NLRI over a BGP peering session.

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Table of Contents

1. Introduction 2
2. Requirements Language 2
3. Solution 2
4. Acknowledgements 3
5. Security Considerations 3
6. IANA Considerations 4
7. References 4
7.1. Normative References 4
7.2. Informational References 4
Author's Address 4

1. Introduction

BGP [RFC4271] operators face challenges when attempting to troubleshoot external BGP sessions. Commonly operators debug BGP sessions with commands that display the results of advertised or received routes.

When operating a network, you can easily verify you are sending routes to a BGP peer, but you have limited ability to understand the external partner device. Common debugging tools such as a looking glass or contacting a remote operator via e-mail, telephone or other out of band methods is required.

This proposal intends to provide an automated method to see the NLRI eligible for selection that pass any filtering methods provided by the peer software stack.

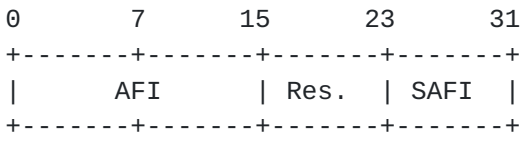
2. Requirements Language

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] when, and only when, they appear in all capitals, as shown here.

3. Solution

The requesting device will send a BGP message of type XXX to the partner device requesting the list of the NLRI. (excerpted from rfc2918)

Message Format: One AFI, SAFI encoded as



The meaning, use and encoding of this AFI, SAFI field is the same as defined in [BGP-MP, sect. 7]. More specifically,

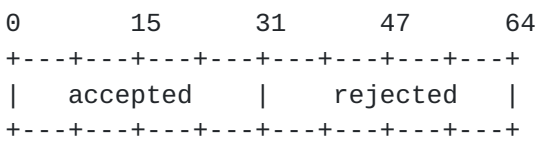
AFI - Address Family Identifier (16 bit).

Res. - Reserved (8 bit) field. Should be set to 0 by the sender and ignored by the receiver.

SAFI - Subsequent Address Family Identifier (8 bit).

Responses will include:

Message Format: per



Count of NLRI accepted (unsigned 32-bits)

Count of NLRI rejected (unsigned 32-bits)

List of NLRI accepted (NLRI list in same format as UPDATE)

List of NLRI rejected (NLRI list in same format as UPDATE - infeasible)

4. Acknowledgements

The authors would like to thank the following people for their comments and support: XXX.

5. Security Considerations

This message MAY be subject to rate-limits by a partner device to protect itself from CPU or other resource exhaustion. A suggested interval is to not permit more than one request per 60 seconds.

6. IANA Considerations

This document has unknown IANA Considerations

7. References

7.1. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <https://www.rfc-editor.org/info/rfc2119>.

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[RFC4760] Bates, T., Chandra, R., Katz, D., and Y. Rekhter, "Multiprotocol Extensions for BGP-4", RFC 4760, DOI 10.17487/RFC4760, January 2007, <https://www.rfc-editor.org/info/rfc4760>.

[RFC5492] Scudder, J. and R. Chandra, "Capabilities Advertisement with BGP-4", RFC 5492, DOI 10.17487/RFC5492, February 2009, <https://www.rfc-editor.org/info/rfc5492>.

7.2. Informational References

[RFC2918] Chen, E., "Route Refresh Capability for BGP-4", RFC 2918, DOI 10.17487/RFC2918, September 2000, <https://www.rfc-editor.org/info/rfc2918>.

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