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Deprecation of BGP Path Attribute Values 30, 31, 129, 241, 242, and 243

Abstract

This document requests IANA to mark BGP path attribute values 30, 31, 129, 241, 242, and 243 as "Deprecated".

Status of This Memo

This is an Internet Standards Track document.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on Internet Standards is available in Section 2 of RFC 7841.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc8093.

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1. Introduction

It has been discovered that certain BGP Path Attribute values have been used in BGP implementations that have been deployed in the wild while not being assigned by IANA for such usage. Unregistered usage of BGP Path Attribute values can lead to deployment problems for new technologies.

The use of these unregistered values was noticed when the BGP Large Communities attribute [RFC8092] was initially assigned value 30 by IANA. It was subsequently discovered that a widely deployed BGP-4 [RFC4271] implementation had released code that used path attribute 30 and that applied a "Treat-as-withdraw" [RFC7606] strategy to routes containing a valid Large Community attribute, since it was expecting a different data structure. Because these routes were dropped, early adopters of Large Communities were unreachable from parts of the Internet. As a workaround, a new Early IANA Allocation was requested.

The squatting of values 30, 31, 129, 241, 242, and 243 has been confirmed by the involved vendors or through source code review.

2. IANA Considerations

IANA has marked values 30, 31, 129, 241, 242, and 243 as "Deprecated" in the "BGP Path Attributes" subregistry under the "Border Gateway Protocol (BGP) Parameters" registry. The marking "Deprecated" means "use is not recommended" ([IANA-GUIDELINES]).

3. Security Considerations

There are no meaningful security consequences arising from this registry update.

4. Informative References

[IANA-GUIDELINES]
Cotton, M., Leiba, B., and T. Narten, "Guidelines for Writing an IANA Considerations Section in RFCs", Work in Progress, draft-leiba-cotton-iana-5226bis-18, September 2016.

[RFC4271] Rekhter, Y., Ed., Li, T., Ed., and S. Hares, Ed., "A Border Gateway Protocol 4 (BGP-4)", RFC 4271, DOI 10.17487/RFC4271, January 2006, <http://www.rfc-editor.org/info/rfc4271>.

[RFC7606] Chen, E., Ed., Scudder, J., Ed., Mohapatra, P., and K. Patel, "Revised Error Handling for BGP UPDATE Messages", RFC 7606, DOI 10.17487/RFC7606, August 2015, <http://www.rfc-editor.org/info/rfc7606>.

[RFC8092] Heitz, J., Ed., Snijders, J., Ed., Patel, K., Bagdonas, I., and N. Hilliard, "BGP Large Communities Attribute", RFC 8092, DOI 10.17487/RFC8092, February 2017, <http://www.rfc-editor.org/info/rfc8092>.

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