

Inter-Domain Routing	P. Jakma	
Internet-Draft	July 28, 2009	
Expires: January 29, 2010		

[TOC](#)

Revisions to the BGP 'Minimum Route Advertisement Interval' draft-ietf-idr-mrai-dep-01

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Abstract

This document revises the specification of the BGP MRAI timer, by deprecating the previously recommended values and by allowing for withdrawals to be exempted from the MRAI.

Table of Contents

- [1.](#) Requirements Language
- [2.](#) Background

- [3.](#) Revision
 - [4.](#) IANA Considerations
 - [5.](#) Security Considerations
 - [6.](#) Normative References
 - [§](#) Author's Address
-

1. Requirements Language

[TOC](#)

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 [\[RFC2119\] \(Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels," February 2001.\)](#).

2. Background

[TOC](#)

The Minimum Route Advertisement Interval (MRAI) timer is specified in [RFC4271 \(Rekhter, Y., Li, T., and S. Hares, "A Border Gateway Protocol 4 \(BGP-4\)," January 2006.\)](#) [BGP]. This timer acts to rate-limit updates, on a per-destination basis. [\[BGP\] \(Rekhter, Y., Li, T., and S. Hares, "A Border Gateway Protocol 4 \(BGP-4\)," January 2006.\)](#) suggests values of 30s and 5s for this interval for eBGP and iBGP respectively. The MRAI must also be applied to withdrawals according to RFC4271, a change from the earlier RFC1771.

The MRAI timer has a significant effect on the convergence of BGP, in terms of convergence time, the number of messages, amongst other metrics. The optimum value for this timer is hard to estimate, never mind calculate and will differ between networks, and probably even different subsets of the same network.

3. Revision

[TOC](#)

The suggested default values for the `MinRouteAdvertisementIntervalTimer` given in [RFC4271 \(Rekhter, Y., Li, T., and S. Hares, "A Border Gateway Protocol 4 \(BGP-4\)," January 2006.\)](#) [BGP] are deprecated. The appropriate choice of default values is left to the discretion of implementors. Implementations SHOULD provide a means to allow operators to choose values appropriate to their requirements, on a per-peer and per-AFI/SAFI basis. Implementations MAY exempt withdrawals from the MRAI timer.

4. IANA Considerations

[TOC](#)

There are no requests made to IANA in this document.

5. Security Considerations

[TOC](#)

This document raises no new security considerations.

6. Normative References

[TOC](#)

[BGP]	Rekhter, Y., Li, T., and S. Hares, " A Border Gateway Protocol 4 (BGP-4) ," RFC 4271, January 2006.
[RFC2119]	Bradner, S., " Key words for use in RFCs to Indicate Requirement Levels ," RFC 2119, BCP 14, February 2001.

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[TOC](#)

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