

Inter-Domain Routing
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Revisions to the BGP 'Minimum Route Advertisement Interval'
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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.

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BGP MRAI Timer Revision

December 2008

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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 [[RFC2119](#)].

2. Background

The Minimum Route Advertisement Interval (MRAI) timer is specified in [RFC4271](#) [[BGP](#)]. This timer acts to rate-limit updates, on a per-destination basis. [[BGP](#)] 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

The suggested default values for the `MinRouteAdvertisementIntervalTimer` given in [RFC4271](#) [[BGP](#)] are deprecated. 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

There are no requests made to IANA in this document.

5. Security Considerations

This document raises no new security considerations.

6. Normative References

[BGP] Rekhter, Y., Li, T., and S. Hares, "A Border Gateway Protocol 4 (BGP-4)", [RFC 4271](#), January 2006.

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[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [RFC 2119](#), [BCP 14](#), February 2001.

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