By default reject propagation when no policy is associated with a BGP peering session.

draft-ietf-grow-bgp-reject-01

Abstract

This document defines the default behaviour of a BGP speaker when no explicit policy is associated with a BGP peering session.

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1. Introduction

BGP [RFC4271] speakers have many default settings which need to be revisited as part of improving the routing ecosystem. There is a need to provide guidance to BGP implementors for the default behaviors of a well functioning internet ecosystem. Routing leaks [I-D.ietf-idr-route-leak-detection-mitigation] are part of the problem, but software defects and operator misconfigurations are just a few of the attacks on internet stability we aim to address.

Usually BGP speakers accept all routes from a configured peer or neighbor. This practice dates back to the early days of internet protocols in being very permissive in offering routing information to allow all networks to reach each other. With the core of the internet becoming more densely interconnected the risk of a misbehaving edge device or BGP speaking customer poses significant risks to the reachability of critical services.

This proposal intends to solve this situation by requiring the explicit configuration of BGP policy for any non-iBGP speaking session such as customers, peers or confederation boundaries. When this solution is implemented, devices will no longer pass routes without explicit policy.

2. 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 RFC 2119 [RFC2119].

3. Solution Requirements

The following requirements apply to the solution described in this document:
4. Acknowledgements

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5. Security Considerations

This document addresses the basic security posture of a BGP speaking device within a network. Operators have a need for implementors to address the problem through a behavior change to mitigate against possible attacks from a permissive security posture. Attacks and inadvertent advertisements cause business impact necessitating this default behavior.

6. IANA Considerations

This document has no actions for IANA.

7. References

7.1. Normative References


7.2. Informative References

[I-D.ietf-idr-route-leak-detection-mitigation]
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