



Interconnection of networks between network operators and Breitbandmessung

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Eine Version dieses Dokumentes in deutscher Sprache finden Sie auf der Webseite der [Breitbandmessung](#).

1 General

With the help of Breitbandmessung of the Federal Network Agency, end users can quickly and simply see the speed of their Internet access and thus define the efficiency of their stationary and/or mobile broadband connection.

The test was developed for the Federal Network Agency by zafaco GmbH.

The measurement peers (data reference systems) used as part of the Breitbandmessung are operated by zafaco GmbH in an independent autonomous system (AS211319). This AS is accessed via the AS33981 upstream provider (Core-Backbone). In addition, the AS211319 is represented at DE-CIX in Frankfurt am Main and via Globe Peer remote in Hamburg, Düsseldorf and Munich and it endeavours to interconnect (peer) with other telecommunication networks.

This document explains the organisational and technical prerequisites for an interconnection.

2 Interconnection of networks

Breitbandmessung (AS211319) endeavours to interconnect the IP network with the networks of other telecommunication companies and ISPs, as long as this is technically feasible and neither the stability of its own network or that of third parties is impaired. In doing so, business standards and field-proven methods are applied. Interconnection is accomplished on a settlement-free basis.

Interconnection is implemented on a selective basis to ensure the stability of both its own network and that of third parties. Interconnection is accomplished at the DE-CIX Frankfurt Internet Exchange or via Globe Peer in Hamburg, Düsseldorf and Munich.

If you have any queries about peering, please email us at:

peering@breitbandmessung.de

We will answer your queries as quickly as possible. You will receive feedback about the status of your query.

Please ensure your query includes the following information:

- Company
- Address
- Contact person and contact data in case of questions
- NOC contact person and contact data
- Network information for an interconnection (AS, exchange location etc.)
- Network region
- Link to the PeeringDB entry

3 Requirements for an interconnection

The general requirements (peering policy) to be fulfilled by a peering partner (peer) are defined below.

- The peer has a publicly routable AS.
- AS211319 supports both IPv4 and IPv6. The peer configures both variants - if available - for peering.
- The peer keeps his/her PeeringDB entries - in particular the NOC information - up-to-date.
- The peer agrees to process NOC requests as fast as possible, to fix problems and to report back on the status of requests.
- Unless agreed in advance, it is not expected that more than 5000 prefixes will be transmitted per session.
- Both parties only exchange routing information via BGP signalling.
- The peer must use the same peering AS at each peering point and announce a consistent set of routes.
- Transit or third party provider routes may not be announced. Only the routes of the peer and its customers are allowed to be exchanged.
- The peer must filter route announcements from customers by prefix.
- Neither party is allowed to violate the peering relationship by participating in activities such as showing a default route to the other or otherwise forwarding traffic for non-explicitly announced destinations, resetting next hops, selling or passing on next hops.
- Moreover, the peer must agree to actively participate in the resolution of security incidents, denial-of-service attacks and other operational problems.

4 Depiction of the path

The AS211319 broadband measurement operates a Looking Glass to ascertain the accompanying path from the entered destination address in order to depict a currently used path between the broadband measurement network and an arbitrary destination network.

Further information is directly available at the Looking Glass website:

<https://lg.breitbandmessung.de>

5 Legal Notice

Breitbandmessung was developed by zafaco GmbH for the Federal Network Agency.

Please contact us if you have any questions about the contents, structure and area of applicability of this document, or any suggestions.

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