



Public Peering Exchange Traffic with Google



Overview of the Verified Peering Provider (VPP) Program

Google's VPP program enables IXPs to provide their members with reliable access to all public Google services — such as YouTube, Search, Workspace, Cloud APIs, and Google Cloud Platform (GCP) — without requiring a direct peering setup.

Learn more:

https://peering.google.com/#/options/verified-peering-provider

https://www.youtube.com/watch?v=Yg-qV6Fktjw

BIX.BG as a Google VPP – Silver Tier

The Silver Tier status confirms that BIX.BG maintains redundant connectivity to Google in Sofia, ensuring high availability and optimal routing for all members.

It also verifies that BIX.BG meets Google's technical and operational standards, providing a reliable and fully supported path to Google's services.

Interconnection Between BIX.BG and Google

BIX.BG (AS47697, Layer-3 IX model) and Google (AS15169) are connected through two diverse 100G PNIs, with full router-level redundancy on both sides.

The setup is dual-stacked (IPv4/IPv6) and ensures a private, resilient, and high-performance path to Google's network.

Connectivity Scope and Reachability

Through this setup, all BIX.BG members can reach Google's public services via the BIX.BG Public Peering platform using the Route Servers.

This includes all Google-owned networks (AS15169 and related AS-SETs).

No additional BGP sessions with BIX.BG or Google are required — all traffic is aggregated behind AS47697.

How Members can Connect

Connecting to Google via BIX.BG is simple and included in the standard peering service.

To activate the route exchange, members should:

- 1. Announce their prefixes to BIX.BG's Route Servers (IPv4 and/or IPv6).
- 2. Ensure IRR and RPKI records for these prefixes are accurate and valid.
- 3. Send a short request to <u>provisioning@bix.bg</u> requesting activation of Google connectivity.

No specific BGP communities are required, and there are no additional costs for members.

Peering DB and Routing Information

Members do not need to update or maintain any Google-related details in their own PeeringDB records.

All routing and AS-SET information required by Google is managed directly by BIX.BG (AS47697).

However, members should keep their IRR and RPKI data accurate to ensure their prefixes are correctly validated and accepted by the Route Servers.

Managing Incoming Traffic

Google applies a complex and dynamic routing policy, using multiple available paths and various advanced metrics to optimize traffic delivery.

Therefore, it is normal if not all traffic from Google is routed via BIX.BG.

Outgoing Traffic Directed to Google

Members will receive BGP paths that begin with the AS sequence 47697 15169.

In some cases, their routers may not automatically prefer this path.

If members wish to prioritize connectivity to Google via BIX.BG, they can adjust their routing policies — for example, by increasing the local preference for prefixes learned through BIX.BG where the AS path begins with 47697 15169.

Operational Model and Troubleshooting

All operational interactions related to this service are managed by BIX.BG.

In the event of a connectivity issue or route propagation concern, members should contact the BIX.BG NOC at noc@bix.bg, which coordinates directly with Google's Network Operations Center (NOC) when necessary.

Google does not provide direct support to individual peers connected through the BIX.BG Layer-3 IX model.

BIX.BG Ltd.

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