



RIPE NCC
RIPE NETWORK COORDINATION CENTER

RIPE Routing Information Service (RIS)

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What is RIS?



RIS

- Routing Information System
- Worldwide network of BGP collectors
- At Internet Exchange Points, or via multi-hop BGP
- Collects raw BGP data from peers
- Stores BGP updates (5m) and routing tables (8h)
- 25 years of history



23 RIS COLLECTORS IN

18 COUNTRIES

1,300+ PEERS

HISTORICAL DATA
AVAILABLE SINCE **1999**



How does RIS work?

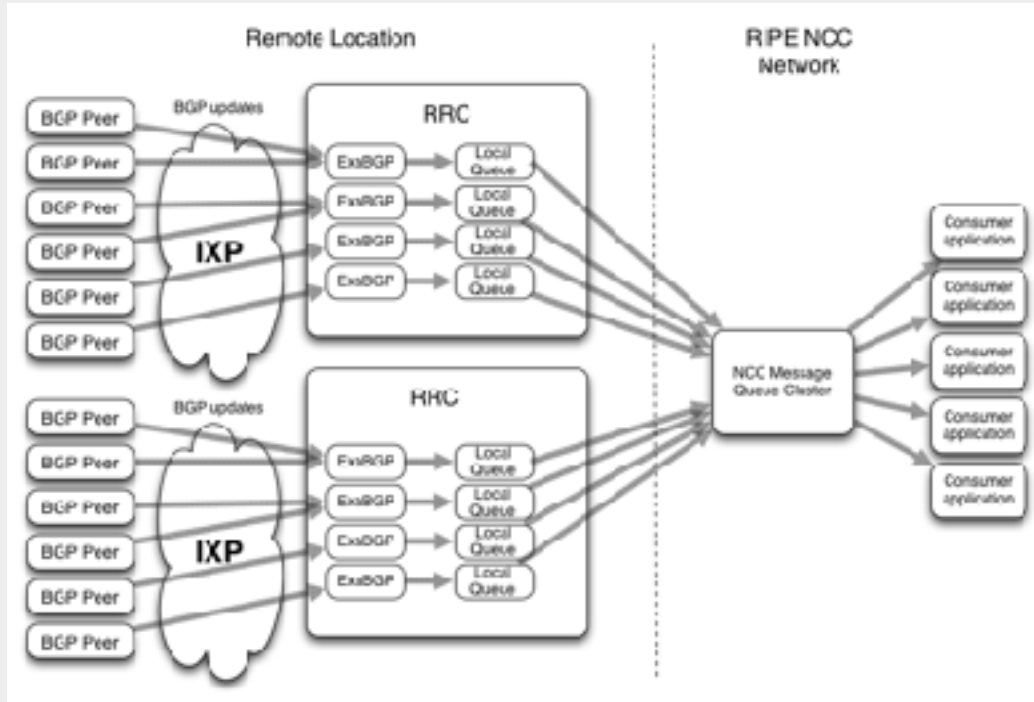


RIS works by Peering and storing data

- RIS uses a globally distributed set of Remote Route Collectors (RRCs), typically located at Internet Exchange Points.
- Volunteers peer with our RRCs using BGP.
- RIS stores the BGP update messages it receives from these peers.
- The RIS Data is publicly available. You can access this data on our website in several forms: MRT files, RIS Live, RISwhois, in RIPEstat.



Or: How does RIS collect data



https://labs.ripe.net/author/colin_petrie/updates-to-the-ripe-ncc-routing-information-service/



RIS data is used by operators *and* researchers

- **Network operators** to troubleshoot Internet routing.
- **Tools developers** to build open source tools that use RIS data (e.g. BGP Alerter).
- **Researchers** to further understand Internet routing (e.g. attribute 28 issues [\[0\]](#)[\[1\]](#)).
- **Policy makers** to develop future plans based on Internet routing trends

What data do we want to collect?

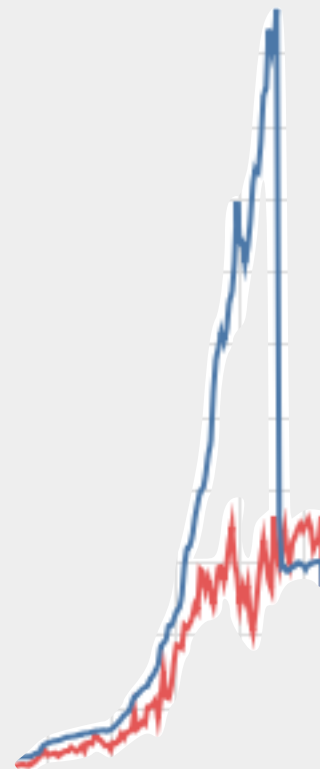


as diverse BGP data as possible

- BGP data volume grows over time
 - #of routes
 - #of updates
- We store indefinitely
- We need to be careful what we store

- We do carefully add new peers
 - Diverse upstreams
 - Internet Exchanges
 - Customer routes

<https://labs.ripe.net/author/emileaben/two-years-of-selective-peering-with-ris/>

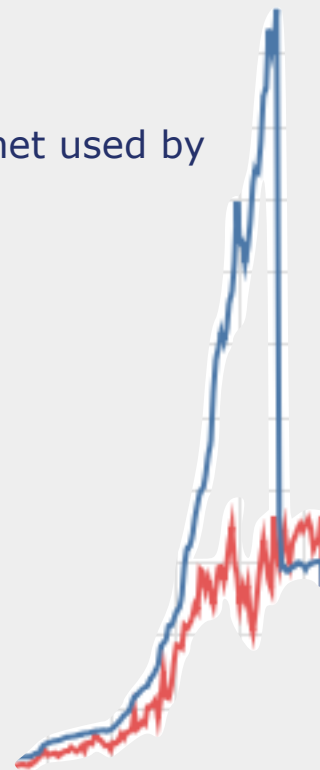


What data do we want to collect?



But peering helps

- By peering you Improve the diversity of the visibility into the global Internet used by thousands of users
- Contribute to the security of the global routing system
- Ensure accurate and reliable routing information about your network





RIPE RIS IN ACTION

Tools using RIS data

RIPESTAT

Use RIPEstat, the RIPE NCC's open data platform for Internet number resources, to conduct registration checks, explore country routing and find abuse contact information.

stat.ripe.net

BGPALERTER

Detect route hijacks and other routing incidents in near real-time with this software.

[github](https://github.com)

INTERNET HEALTH REPORT

Get Internet routing insights from this research project using RIS data to build experimental views.

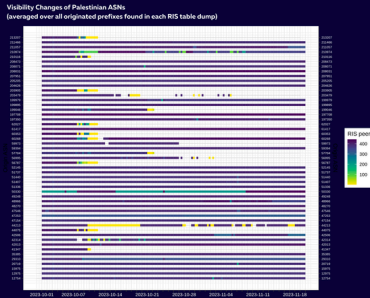
ihr.iijlab.net



RIPE RIS IN ACTION

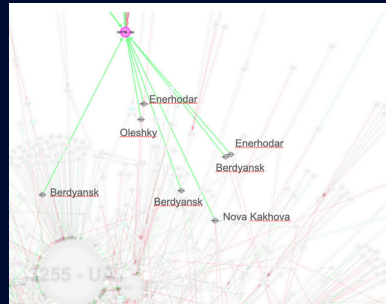
Research with RIS

PALESTINE INTERNET CONNECTIVITY AS SEEN IN BGP



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THE RESILIENCE OF THE INTERNET IN UKRAINE - ONE YEAR ON



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INTERNET COUNTRY REPORTS



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RIPE RIS IN ACTION

Research with RIS

Palestine Internet Connectivity as Seen in BGP Edit

Qasim Lone — 21 Nov 2023
Contributors: Bens Withits, Anasayya Pak
9 min read

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What does Internet routing data tell us about how the Internet in Palestine has fared since the outbreak of war in October.

More from this author

- SAV: Why is Validation S...
- 240/4 As See
- Detecting DI Manipulatio

The war in Palestine continues to have a devastating impact on the local population and vital infrastructure in and around the Gaza Strip. As we are reminded time and time again, the Internet is a vital resource under such circumstances - but according to multiple reports, Internet connectivity and traffic rates across the region continue to suffer severe disruptions.

Since early October, we've been monitoring these effects as seen in the BGP data we collect via our Routing Information Service (RIS). Here, we want to share some observations about how the visibility of Palestinian networks has changed in global Internet routing over the past six weeks, and also to provide a closer look at how the Internet in Palestine connects to the rest of the world.

The view from BGP

When we use BGP data to analyse the impact events have

Unlocking Digital Growth: The Role of IXPs in the Middle East Edit

Jed El Cham — 1 Feb 2024
Contributors: Itzhak Baratz
6 min read

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What does it take for an IXP to be successful? What requirements are these crucial bits of Internet infrastructure meant to fulfill? Do any of these questions have one-size-fits-all answers? A new report from the RIPE NCC explores all of the above and more in the context of Middle East IXPs.

Our latest report examines the current state of Internet Exchange Points (IXPs) in the Arabic-speaking countries of the Middle East and their role in improving connectivity in the region. We look across a number of factors that help define and better understand whether IXPs in the Middle East are effectively meeting the needs of operators and Internet users in the region.

Overview

The report is divided into four main parts. First, we focus on the importance of keeping local traffic

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Find out how researchers use RIS

THANK YOU!

**More information & public data:
<https://ris.ripe.net>**