RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC RIS

Routing Information Service

Jad El Cham | MENOG 2023

What is RIS?

- RIS is a routing data collection platform, started in 1999
  - all historical data is publicly available
- Remote routing collectors (RRCs) deployed at Internet Exchange Points
- Collects raw BGP data from peers
  - Stores BGP messages and routing table dumps
- Real time routing information, as opposed to information in databases and routing registries
- Is source of data for many other services

Route collectors locations

23 RRCs

1500+ peers

Why we collect BGP data?

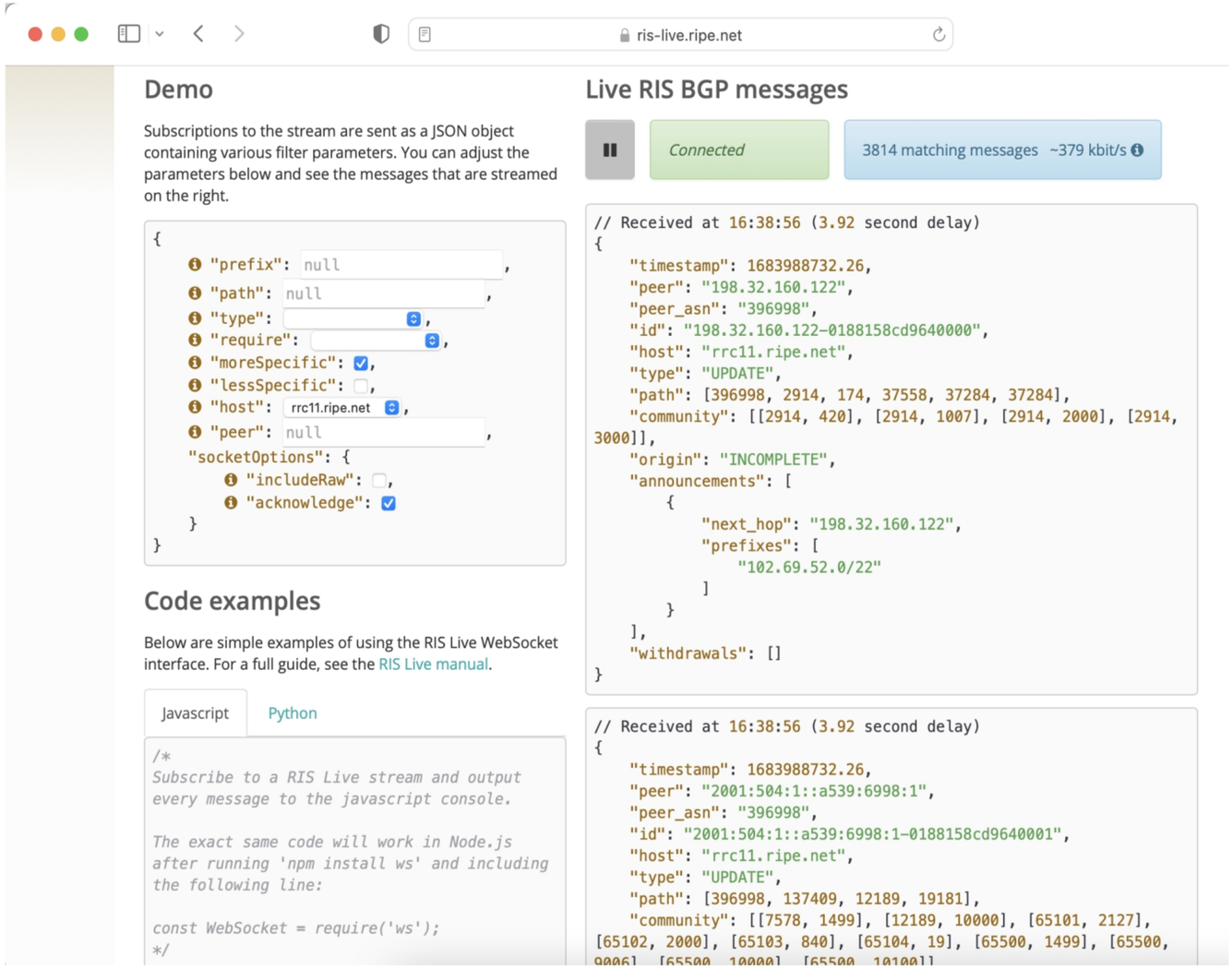
- BGP doesn’t have built-in security mechanism and routing incidents are not rare
- Routing problems and Looking glasses are temporary
- BGP history is recorded to track what is happening and what has happened
- Better visibility → Greater security → Lower risk of BGP hijacks

Who is RIS for?

- Network operators, policy makers
  - To check specific routing incidents
  - To troubleshoot Internet routing
  - To develop future plans based on routing trends
- Researchers
  - To investigate notable events occurring in the Internet (i.e. network disruptions in specific countries, Facebook outage, etc)

How can you use RIS?

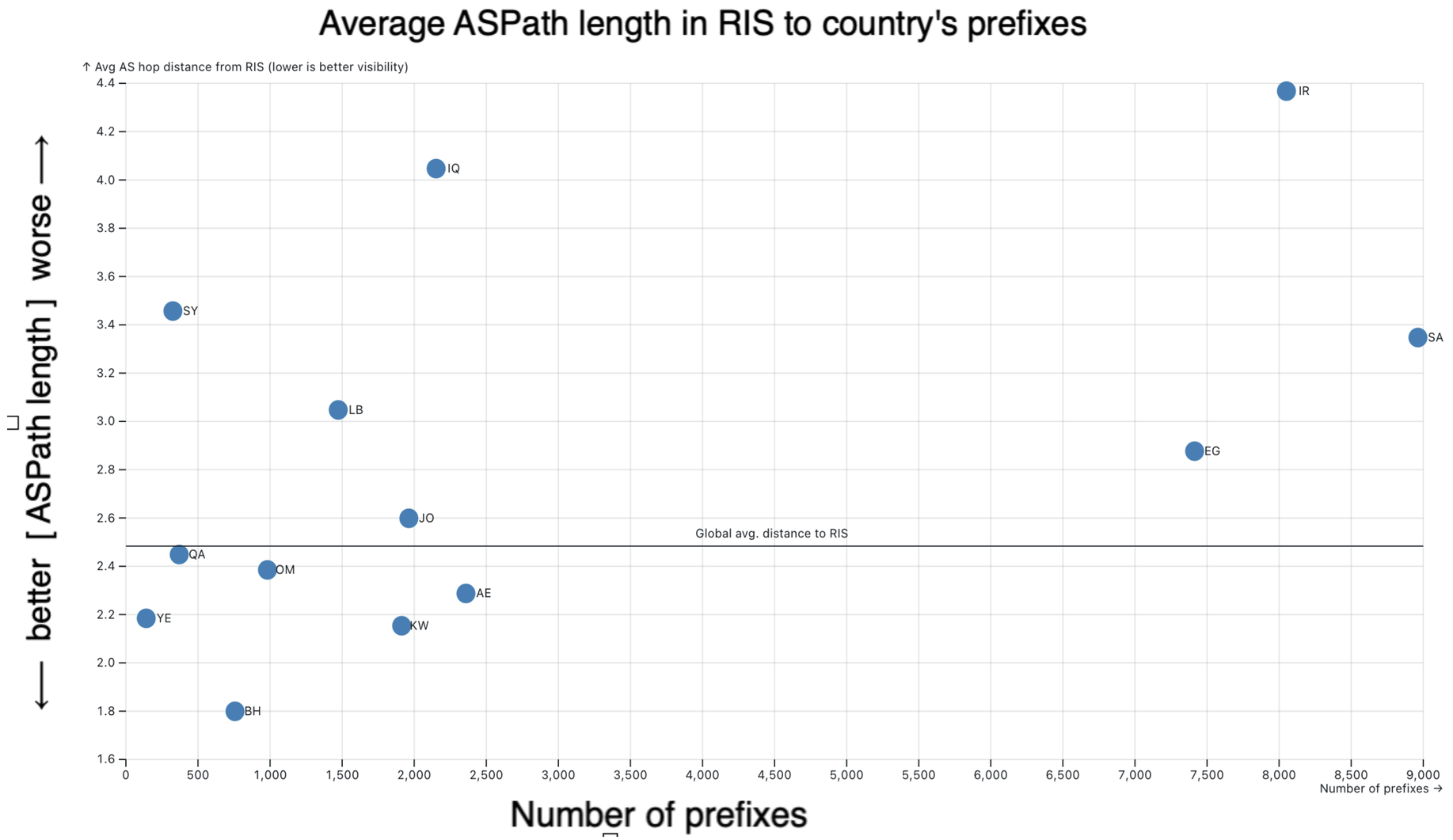
- Available as:
  - Raw data
  - Live stream (RIS Live)
  - Whois query interface (RISwhois)
- Visualisations available in RIPEstat



More tools to use RIS

- Others have developed tools based on RIS data
- bgp.he.net
  - This service uses RIS data and provides a dashboard with various aspects of the Internet routing system.
- BGPalerter
  - This software monitors RIS data in near real-time to detect route hijacks and other incidents.
- https://ihr.iijlab.net/ihr/en-us/ (Internet Health Report) / CAIDA IODA
  - These research projects uses RIS data to build experimental views using Internet routing data.

Distance from countries in ME region



Come peer with us!

- We invite **representative networks** in Saudi Arabia, Iraq, Iran, Syria, Egypt, Lebanon and Jordan to peer with RIS!
  - Send us an email: ris-peering@ripe.net
  - Provide full feed when possible
- Goals
  - Better routing visibility and more security for
    - Your network
    - Your country
    - The Internet

RIS collectors

Collector	Location	IXP	Deployed	Removed	Collector	Location	IXP	Deployed
RRC00	Amsterdam	Multi-hop	1999		**RRC13**	Moscow	MSK-IX	2005
RRC01	London	LINX	2000		**RRC14**	Palo Alto	PAIX	2005
RRC02	Paris	SFINX	2001	2008	**RRC15**	Sao Paulo	PTT-Metro SP	2006
RRC03	Amsterdam	AMS-IX	2001		**RRC16**	Miami	NOTA	2008
RRC04	Geneva	CIXP	2001		**RRC18**	Barcelona	CATNIX	2015
RRC05	Vienna	VIX	2001		**RRC19**	Johannesburg	NAPAfrica JB	2016
RRC06	Tokyo	DIX-IE	2001		**RRC20**	Zurich	SwissIX	2015
RRC07	Stockholm	Netnod	2002		**RRC21**	Paris	FranceIX	2015
RRC08	San Jose	MAE-West	2002	2004	**RRC22**	Bucharest	InterLAN	2017
RRC09	Zurich	TIX	2003	2004	**RRC23**	Singapore	Equinix SG	2017
RRC10	Milan	MIX	2003		**RRC24**	Montevideo	LACNIC multi-hop	2019
RRC11	New York	NYIIX	2004		**RRC25**	Amsterdam	Multi-hop	2021
RRC12	Frankfurt	DE-CIX	2004		**RRC26**	Dubai	UAE-IX	2021

Questions

ris@ripe.net
ris-peering@ripe.net

https://ris.ripe.net