



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

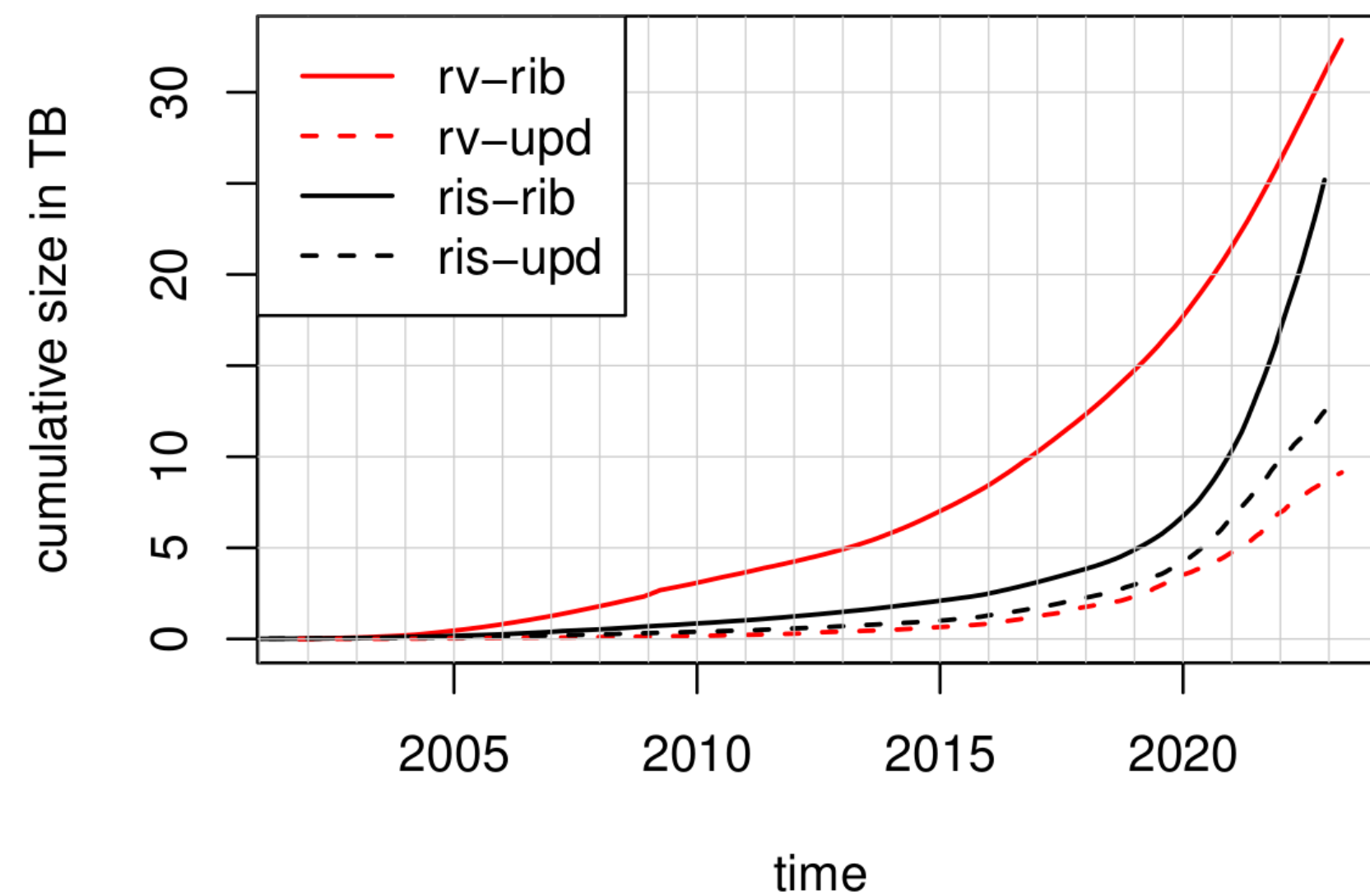
# RIS

Name | Date | Event

# Route Collectors



- <https://www.ris.ripe.net/peerlist/all.shtml>



Img src: Thomas Krenc!

Name	Physical Location	Type	Scope	Raw Data
RRC00	Amsterdam, NL	multihop	global	<a href="#">data</a>
RRC01	London, GB	IXP	LINX, LONAP	<a href="#">data</a>
RRC03	Amsterdam, NL	IXP	AMS-IX, NL-IX	<a href="#">data</a>
RRC04	Geneva, CH	IXP	CIXP	<a href="#">data</a>
RRC05	Vienna, AT	IXP	VIXP	<a href="#">data</a>
RRC06	Otemachi, JP	IXP	DIX-IE, JPIX	<a href="#">data</a>
RRC07	Stockholm, SE	IXP	Netnod	<a href="#">data</a>
RRC10	Milan, IT	IXP	MIX	<a href="#">data</a>
RRC11	New York, NY, US	IXP	NYIIX	<a href="#">data</a>
RRC12	Frankfurt, DE	IXP	DE-CIX	<a href="#">data</a>
RRC13	Moscow, RU	IXP	MSK-IX	<a href="#">data</a>
RRC14	Palo Alto, CA, US	IXP	PAIX	<a href="#">data</a>
RRC15	Sao Paulo, BR	IXP	PTTMetro-SP	<a href="#">data</a>
RRC16	Miami, FL, US	IXP	Equinix Miami	<a href="#">data</a>
RRC18	Barcelona, ES	IXP	CATNIX	<a href="#">data</a>
RRC19	Johannesburg, ZA	IXP	NAP Africa JB	<a href="#">data</a>
RRC20	Zurich, CH	IXP	SwissIX	<a href="#">data</a>
RRC21	Paris, FR	IXP	France-IX Paris and France-IX Marseille	<a href="#">data</a>
RRC22	Bucharest, RO	IXP	Interlan	<a href="#">data</a>
RRC23	Singapore, SG	IXP	Equinix Singapore	<a href="#">data</a>
RRC24	Montevideo, UY	multihop	LACNIC region	<a href="#">data</a>
RRC25	Amsterdam, NL	multihop	global	<a href="#">data</a>
RRC26	Dubai, AE	IXP	UAE-IX	<a href="#">data</a>

# Prototypes



- [https://ris.ripe.net/docs/40\\_Prototypes/10\\_per\\_peer\\_dumps.html](https://ris.ripe.net/docs/40_Prototypes/10_per_peer_dumps.html)
- Peer metadata:
  - Location of RIS peers (for multihop collectors this matters!)
  - Feed type: For now only route collectors (we have 3)
- Per peer MRT dumps
- Hourly MRT dumps
- RIS API : How does this work relative to BGPstream?

# Data is Too Raw?



- Take out things we know are interesting/or not
  - Noisy peers/prefixes
  - Session reset
  - Path hunting

- Data derivatives:

- AS-Hegemony
- RISwhois dumps

```
(base) eaben@eaben-pro ~ % whois -h riswhois.ripe.net dump | egrep -v '^%' | egrep -v '0.0.0.0|/0' | head -10
```

13335	1.0.0.0/24	419
38803	1.0.4.0/22	419
38803	1.0.5.0/24	418
2519	1.0.16.0/24	372
141748	1.0.32.0/24	381
18144	1.0.64.0/18	380
23969	1.0.128.0/17	426
23969	1.0.128.0/18	426
23969	1.0.128.0/19	426

# New MRT Processing Pipeline



- More Timely
- Same amount of data but less volume

The screenshot shows a web browser window with the address bar containing 'data.ris.ripe.net/rrc00/2023.04/'. The main content area displays the title 'Index of /rrc00/2023.04/' followed by a list of files. Each file entry includes a blue hyperlink to the file name, the date and time of the last modification, and the file size. The files are organized chronologically from April 1st to April 7th, 2023. Each day has three files with sizes of 2G, 389M, 383M, 382M, 383M, 384M, 383M, 384M, 387M, 388M, 388M, 385M, and 386M respectively.

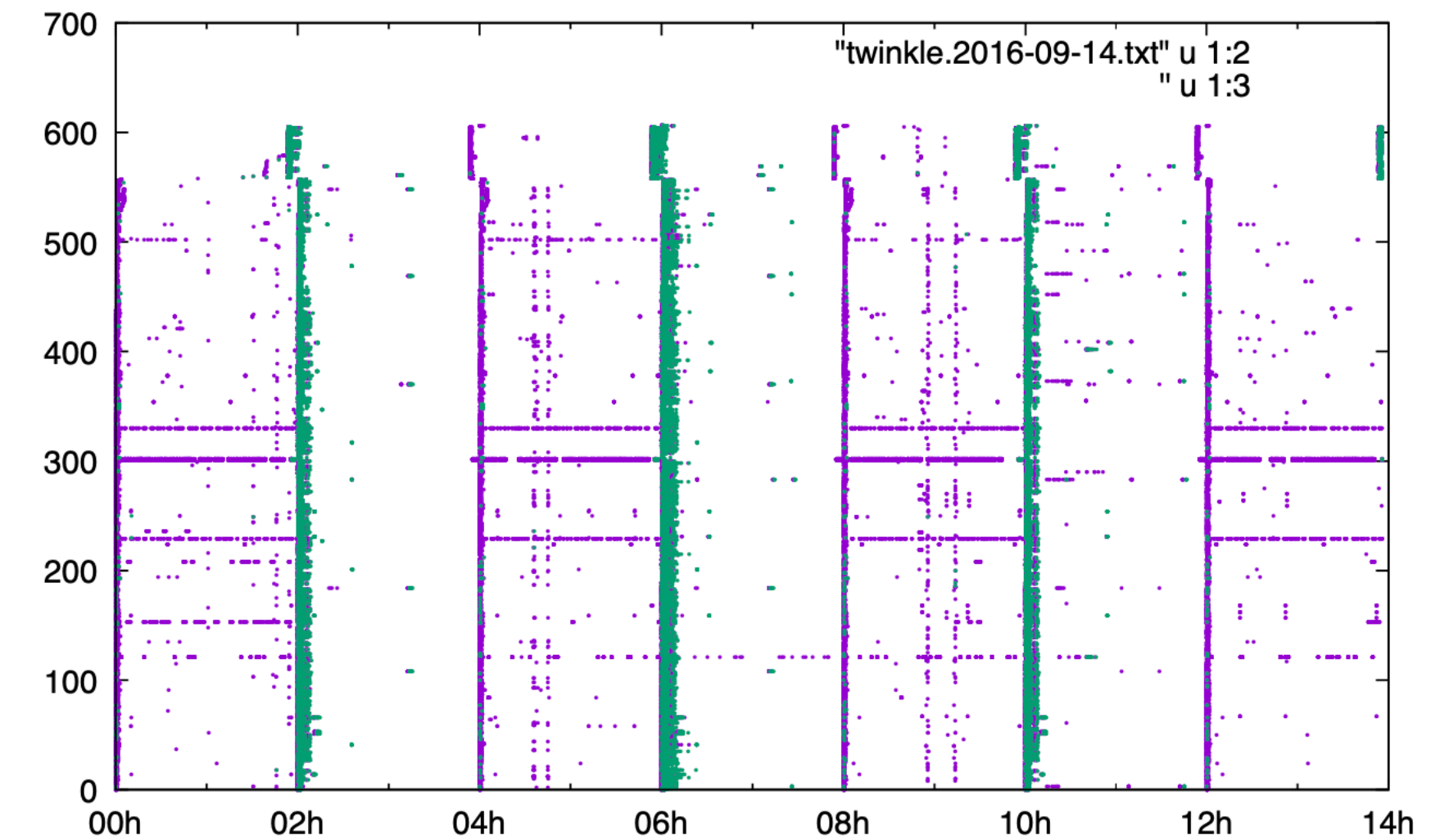
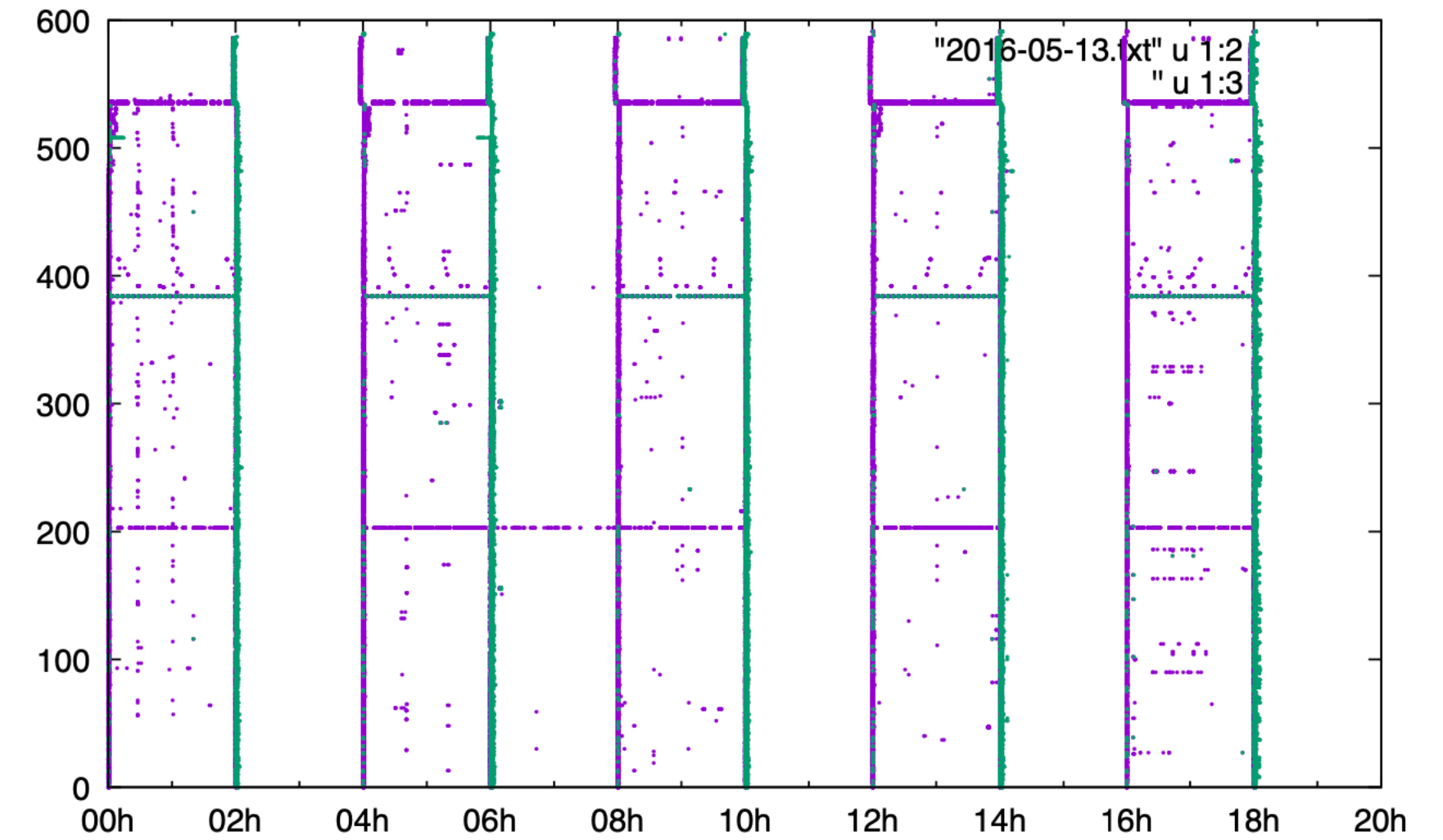
File Name	Date	Time	Size
<a href="#">../</a>			
<a href="#">bview.20230401.0000.gz</a>	01-Apr-2023	02:47	2G
<a href="#">bview.20230401.0800.gz</a>	01-Apr-2023	10:09	2G
<a href="#">bview.20230401.1600.gz</a>	01-Apr-2023	18:12	2G
<a href="#">bview.20230402.0000.gz</a>	02-Apr-2023	02:43	2G
<a href="#">bview.20230402.0800.gz</a>	02-Apr-2023	10:05	2G
<a href="#">bview.20230402.1600.gz</a>	02-Apr-2023	18:35	2G
<a href="#">bview.20230403.0000.gz</a>	03-Apr-2023	00:10	389M
<a href="#">bview.20230403.0800.gz</a>	03-Apr-2023	08:09	383M
<a href="#">bview.20230403.1600.gz</a>	03-Apr-2023	16:09	382M
<a href="#">bview.20230404.0000.gz</a>	04-Apr-2023	00:09	383M
<a href="#">bview.20230404.0800.gz</a>	04-Apr-2023	08:09	384M
<a href="#">bview.20230404.1600.gz</a>	04-Apr-2023	16:09	383M
<a href="#">bview.20230405.0000.gz</a>	05-Apr-2023	00:10	384M
<a href="#">bview.20230405.0800.gz</a>	05-Apr-2023	08:10	387M
<a href="#">bview.20230405.1600.gz</a>	05-Apr-2023	16:09	388M
<a href="#">bview.20230406.0000.gz</a>	06-Apr-2023	00:09	388M
<a href="#">bview.20230406.0800.gz</a>	06-Apr-2023	08:09	385M
<a href="#">bview.20230406.1600.gz</a>	06-Apr-2023	16:09	386M
<a href="#">bview.20230407.0000.gz</a>	07-Apr-2023	00:09	386M

# Beacons



- Up for revamp
- What do we want to see?
  - /24, /25, /28
  - anycast
  - zombies
  - rpki
  - (Your idea here)
- Keep some stable
  - Multihop + large IXPs
- 2x /19 (IPv4)

IPv4 prefix	IPv6 prefix	type	origin RRC (IXP/multihop)	peer location(s)
84.205.64.0/24	2001:7FB:FE00::/48	beacon	RRC00 (multihop)	global
84.205.80.0/24	2001:7FB:FF00::/48	anchor	"	"
84.205.65.0/24	2001:7FB:FE01::/48	beacon	RRC01 (LINX/LONAP)	GB
84.205.81.0/24	2001:7FB:FF01::/48	anchor	"	"
84.205.67.0/24	2001:7FB:FE03::/48	beacon	RRC03 (AMS-IX, NL-IX)	NL,DK
84.205.83.0/24	2001:7FB:FF03::/48	anchor	"	"
84.205.68.0/24	2001:7FB:FE04::/48	beacon	RRC04 (CIXP)	CH,FR
84.205.84.0/24	2001:7FB:FF04::/48	anchor	"	"
84.205.69.0/24	2001:7FB:FE05::/48	beacon	RRC05 (VIX)	AT
84.205.85.0/24	2001:7FB:FF05::/48	anchor	"	"
84.205.70.0/24	2001:7FB:FE06::/48	beacon	RRC06 (DIX-IE)	JP
84.205.86.0/24	2001:7FB:FF06::/48	anchor	"	"
84.205.71.0/24	2001:7FB:FE07::/48	beacon	RRC07 (NETNOD)	SE
84.205.87.0/24	2001:7FB:FF07::/48	anchor	"	"
84.205.74.0/24	2001:7FB:FE0A::/48	beacon	RRC10 (MIX)	IT
84.205.90.0/24	2001:7FB:FF0A::/48	anchor	"	"
84.205.75.0/24	2001:7FB:FE0B::/48	beacon	RRC11 (NYIIX)	US
84.205.91.0/24	2001:7FB:FF0B::/48	anchor	"	"
84.205.76.0/24	2001:7FB:FE0C::/48	beacon	RRC12 (DE-CIX)	DE
84.205.92.0/24	2001:7FB:FF0C::/48	anchor	"	"
84.205.77.0/24	2001:7FB:FE0D::/48	beacon	RRC13 (MSK-IX)	RU
84.205.93.0/24	2001:7FB:FF0D::/48	anchor	"	"
84.205.78.0/24	2001:7FB:FE0E::/48	beacon	RRC14 (PAIX)	US
84.205.94.0/24	2001:7FB:FF0E::/48	anchor	"	"
84.205.79.0/24	2001:7FB:FE0F::/48	beacon	RRC15 (PTTMetro-SP)	BR
84.205.95.0/24	2001:7FB:FF0F::/48	anchor	"	"
84.205.73.0/24	2001:7FB:FE10::/48	beacon	RRC16 (NOTA Miami)	US
84.205.89.0/24	2001:7FB:FF10::/48	anchor	"	"
	2001:7FB:FE12::/48	beacon	RRC18 (CATNIX)	ES
	2001:7FB:FF12::/48	anchor	"	"
84.205.82.0/24	2001:7FB:FE13::/48	beacon	RRC19 (NAP Africa JB)	ZA
84.205.88.0/24	2001:7FB:FF13::/48	anchor	"	"
	2001:7FB:FE14::/48	beacon	RRC20 (SwissIX)	CH
	2001:7FB:FF14::/48	anchor	"	"
93.175.149.0/24	2001:7FB:FE15::/48	beacon	RRC21 (FrancelX PAR/MAR)	FR
93.175.148.0/24	2001:7FB:FF15::/48	anchor	"	"
	2001:7FB:FE16::/48	beacon	RRC22 (InterLAN)	RO
	2001:7FB:FF16::/48	anchor	"	"
93.175.151.0/24	2001:7FB:FE17::/48	beacon	RRC23 (Equinix Singapore)	SG
93.175.150.0/24	2001:7FB:FF17::/48	anchor	"	"
93.175.153.0/24	2001:7FB:FE18::/48	beacon	RRC24 (multihop)	LACNIC region
93.175.152.0/24	2001:7FB:FF18::/48	anchor	"	"



# Peering Coordination

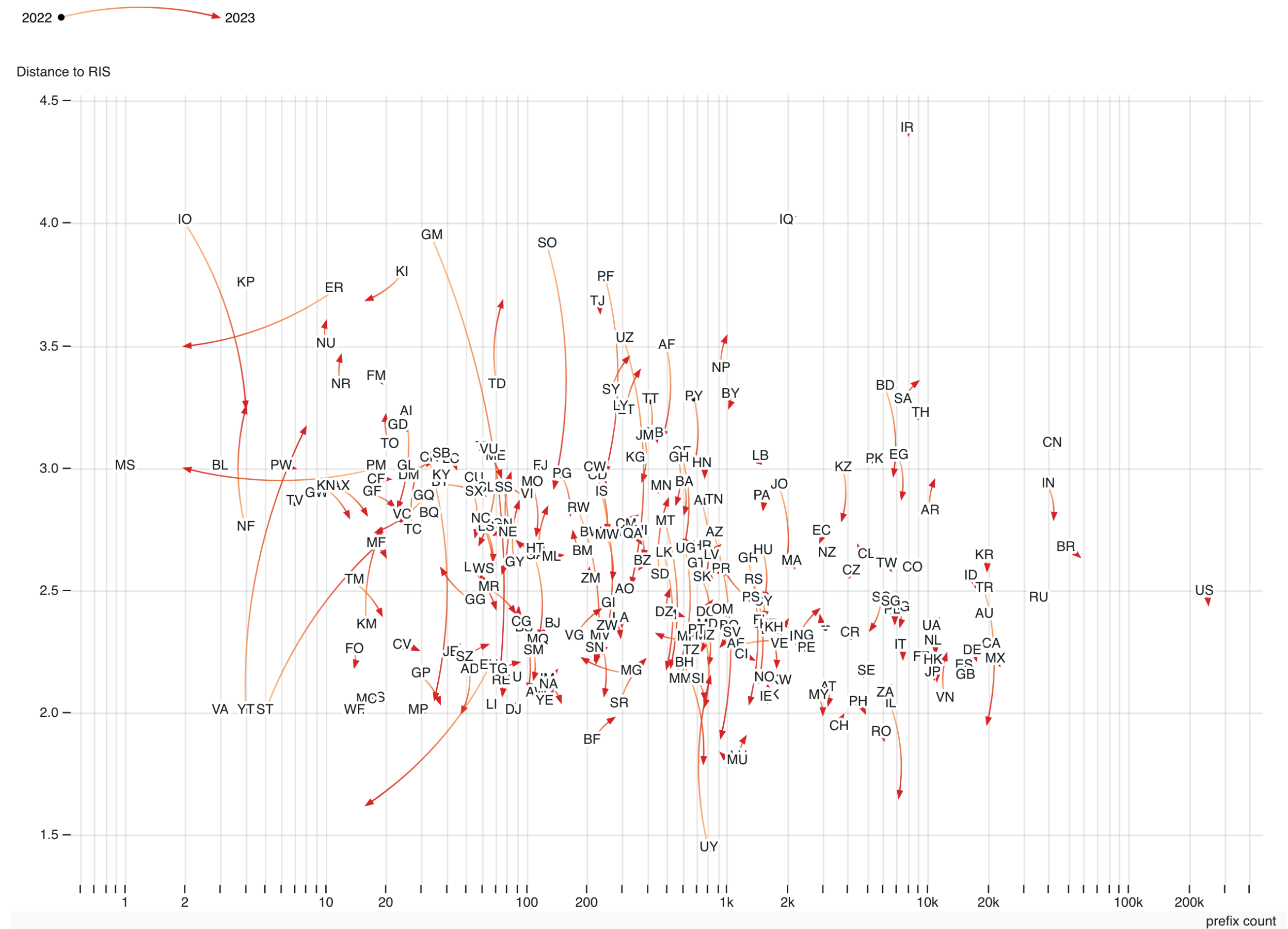


- Less passive (form), more active (we ask)
- Tried AS701 (hard)
- Personal Use ASNs (whole new universe)
-

# How Far Is RIS From X?



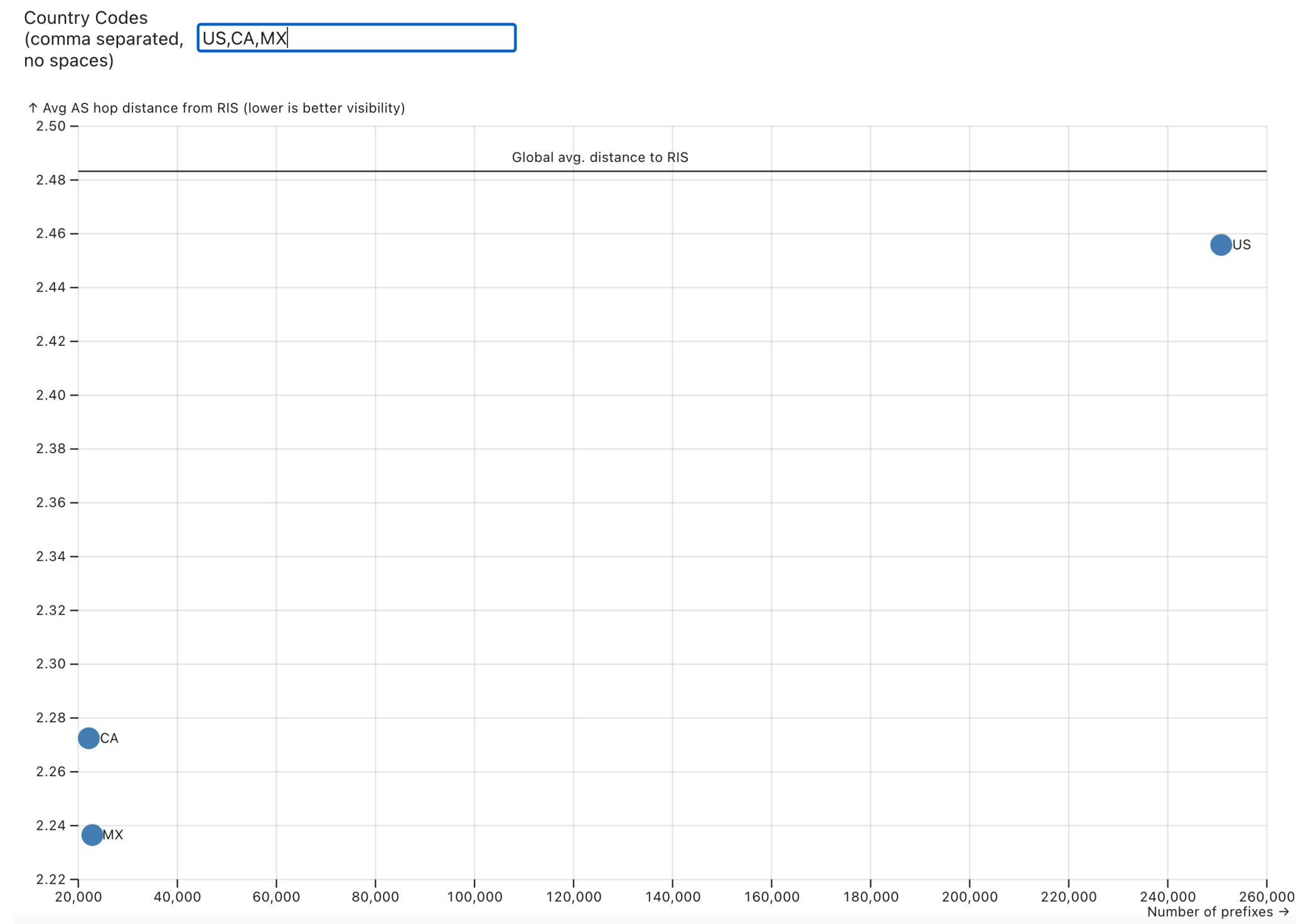
- X = countries
- <https://observablehq.com/@emileaben/ris-distance-comparison-2022-2023>







- <https://observablehq.com/@emileaben/what-peers-would-decrease-as-distance-to-ris-most>



# “Public kafka”



- Ways to get data from us
  - MRT files : dumps / updates
  - RIS-live : stream
  - Experimental: Direct Kafka