



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

# RIPE NCC RIS Update

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# What is RIS?



- Collecting BGP data since 1999
- 22 collectors with 1336 peers around the world
- Currently at 857 GB of compressed raw data per month
- Live stream of collected data (RIS Live)
- Whois (telnet) query interface (RISwhois)
- Main source of data for RIPEstat

# RIS Collectors

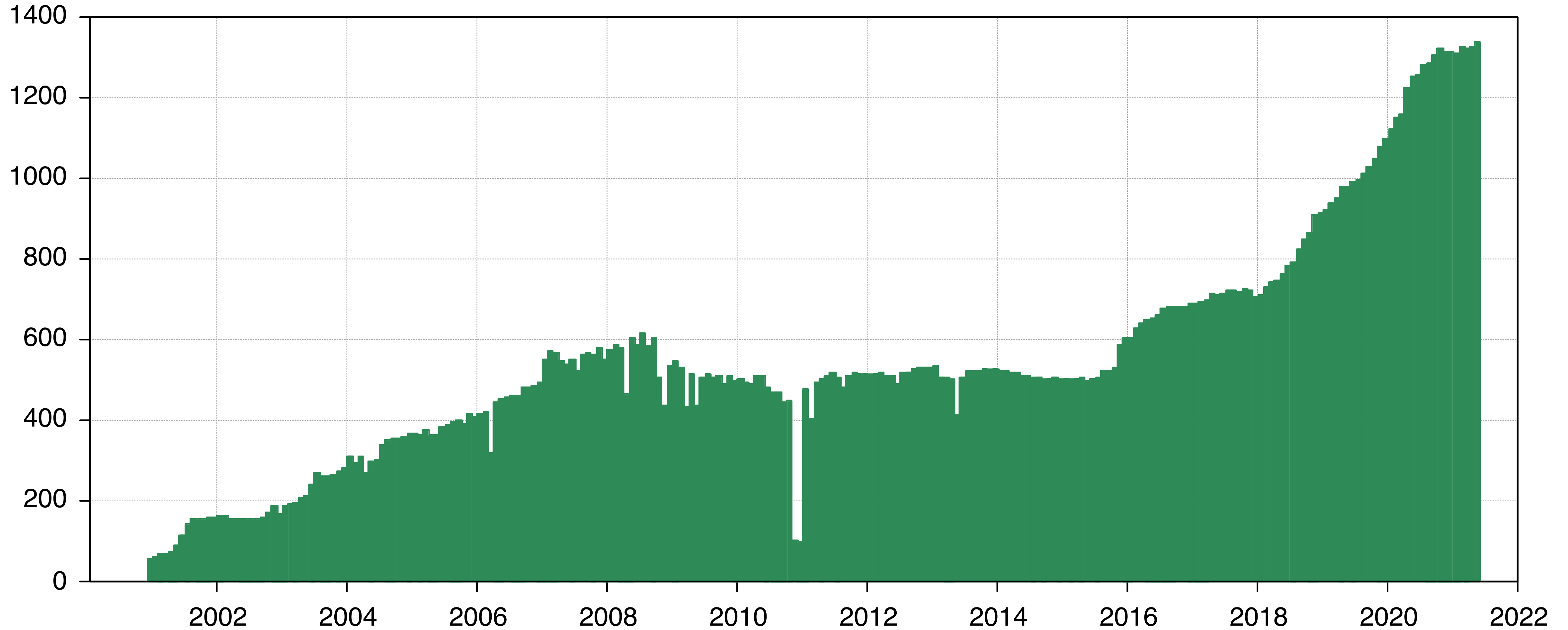


Collector	Location	IXP	Deployed	Removed	Collector	Location	IXP	Deployed	
RRC00	Amsterdam	Multi-hop	1999		RRC13	Moscow	MSK-IX	2005	
RRC01	London	LINX	2000		RRC14	Palo Alto	PAIX	2005	
RRC02	Paris	SFINX	2001	2008	RRC15	Sao Paulo	PTT-Metro SP	2006	
RRC03	Amsterdam	AMS-IX	2001		RRC16	Miami	NOTA	2008	
RRC04	Geneva	CIXP	2001		RRC18	Barcelona	CATNIX	2015	
RRC05	Vienna	VIX	2001		RRC17				
RRC06	Tokyo	DIX-IE	2001		RRC19	Johannesburg	NAPAfrica JB	2016	
RRC07	Stockholm	Netnod	2002		RRC20	Zurich	SwissIX	2015	
RRC08	San Jose	MAE-West	2002	2004	RRC21	Paris	FranceIX	2015	
RRC09	Zurich	TIX	2003	2004	RRC22	Bucharest	InterLAN	2017	
RRC10	Milan	MIX	2003		RRC23	Singapore	Equinix SG	2017	
RRC11	New York	NYIIX	2004		RRC24	Montevideo	LACNIC multi-hop	2019	
RRC12	Frankfurt	DE-CIX	2004		RRC25	Amsterdam	RIPE multi-hop	2021	

# RIS Growth – number of peers



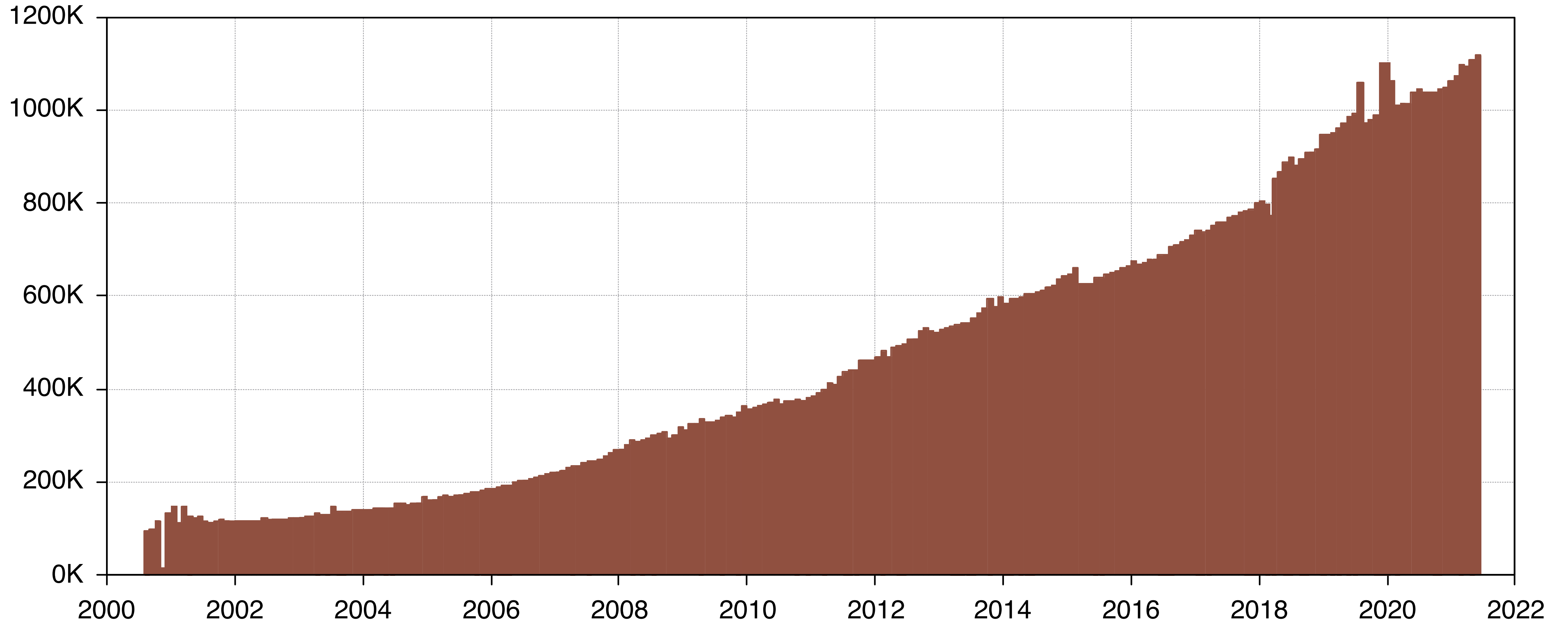
Number of RIS peers



# RIS Growth – number of prefixes



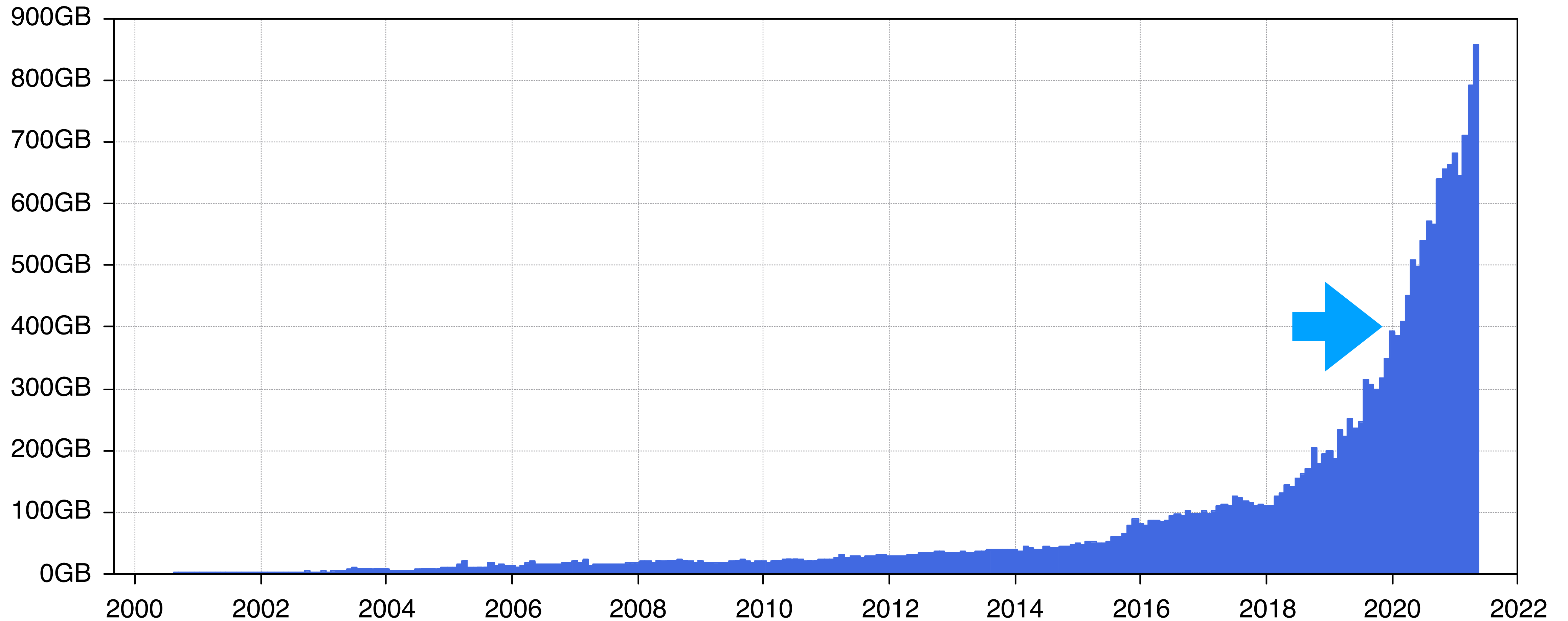
Number of prefixes seen in RIS



# RIS Growth – Raw Data Size



RIS raw data volume per month

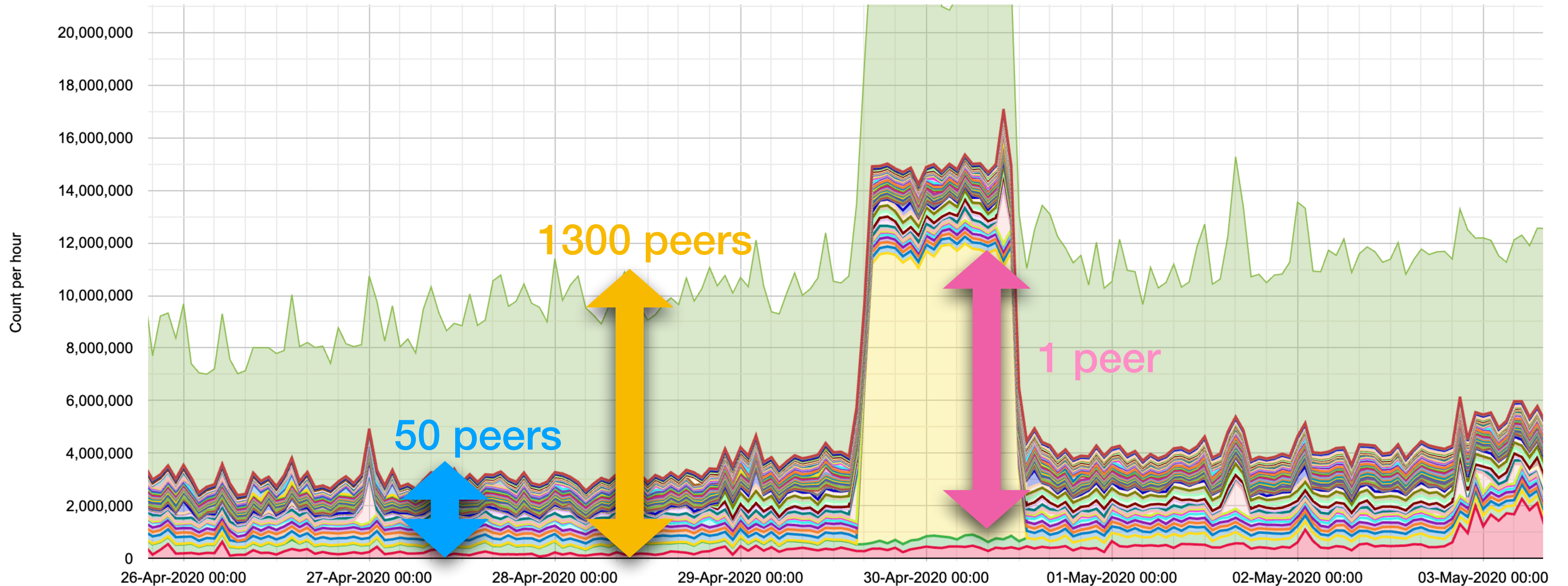




# RIS Growth – "noisy" peers



BGP message counts for top 50 peers and all other peers



# Negative effects of growth



- More data does not bring more diversity in routes
- More peers bring more noise in data
- More input data causes bigger delays for output data



# Serving data files from AWS



- Pilot for serving data files from different platforms
- In addition to what we currently provide
- Currently looking at AWS Open Data Program
- Expect to improve latency and throughput to many locations
- Additional features – s3sync



# Planned Improvements

- Pipeline improvements (shorter delays for output)
- Prototype: per-peer dump files
- Peering coordination:
  - multiple sessions discouraged
  - diversity encouraged
  - not asking for full feed if we already have similar feeds
  - full feeds from “tier1” networks
  - peer metadata
- Multihop RRCs for different regions

# Multihop RRCs

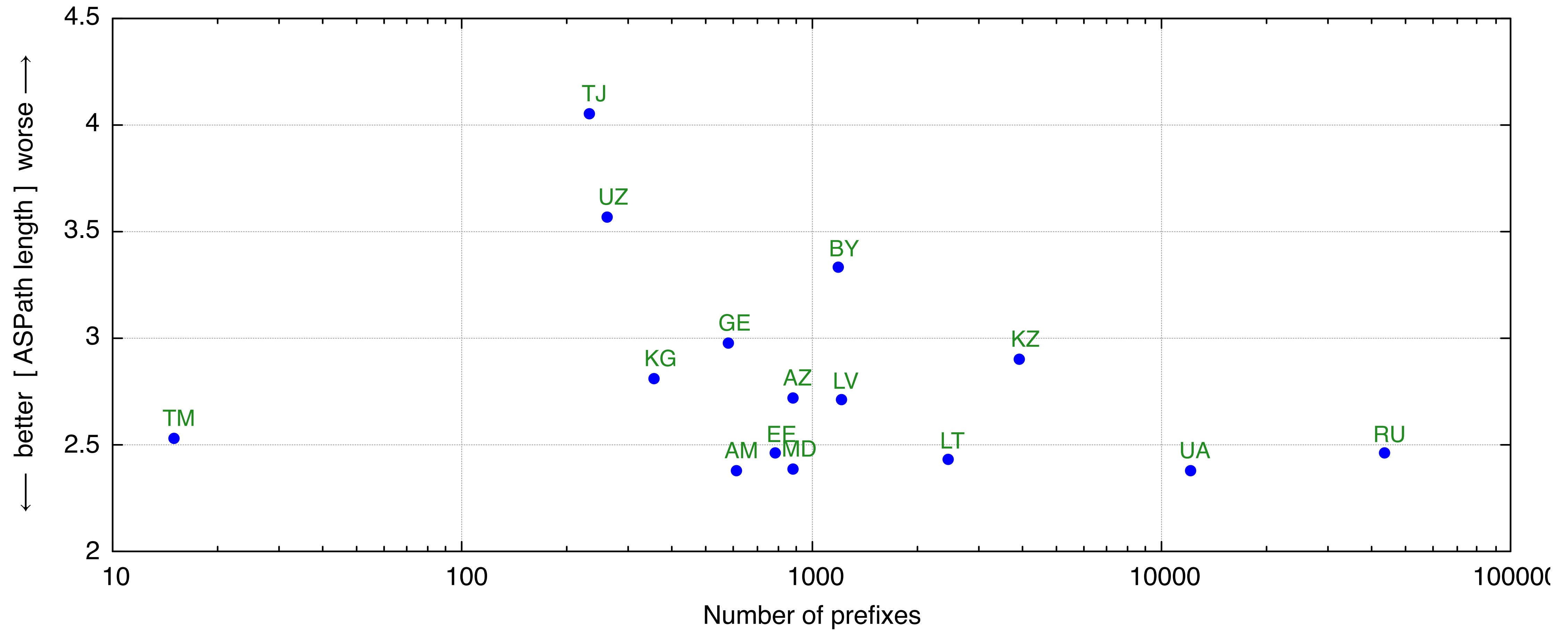


- RRC00 – our first and biggest collector, world-wide, "full"
- RRC24 – LACNIC region
- RRC25 – RIPE region, metadata
  
- RRC26 – Middle East region – soon

# Distance to ENOG Countries



Average ASPath length in RIS to country's prefixes



<https://www.ris.ripe.net/cgi-bin/peerreg.cgi>

# What are your wishes?



- More or less peers?
- More or less locations?
- More or less data?
- Filtered or full feeds?
- ?





# Questions



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