



RIPE NCC

RIPE NETWORK COORDINATION CENTRE

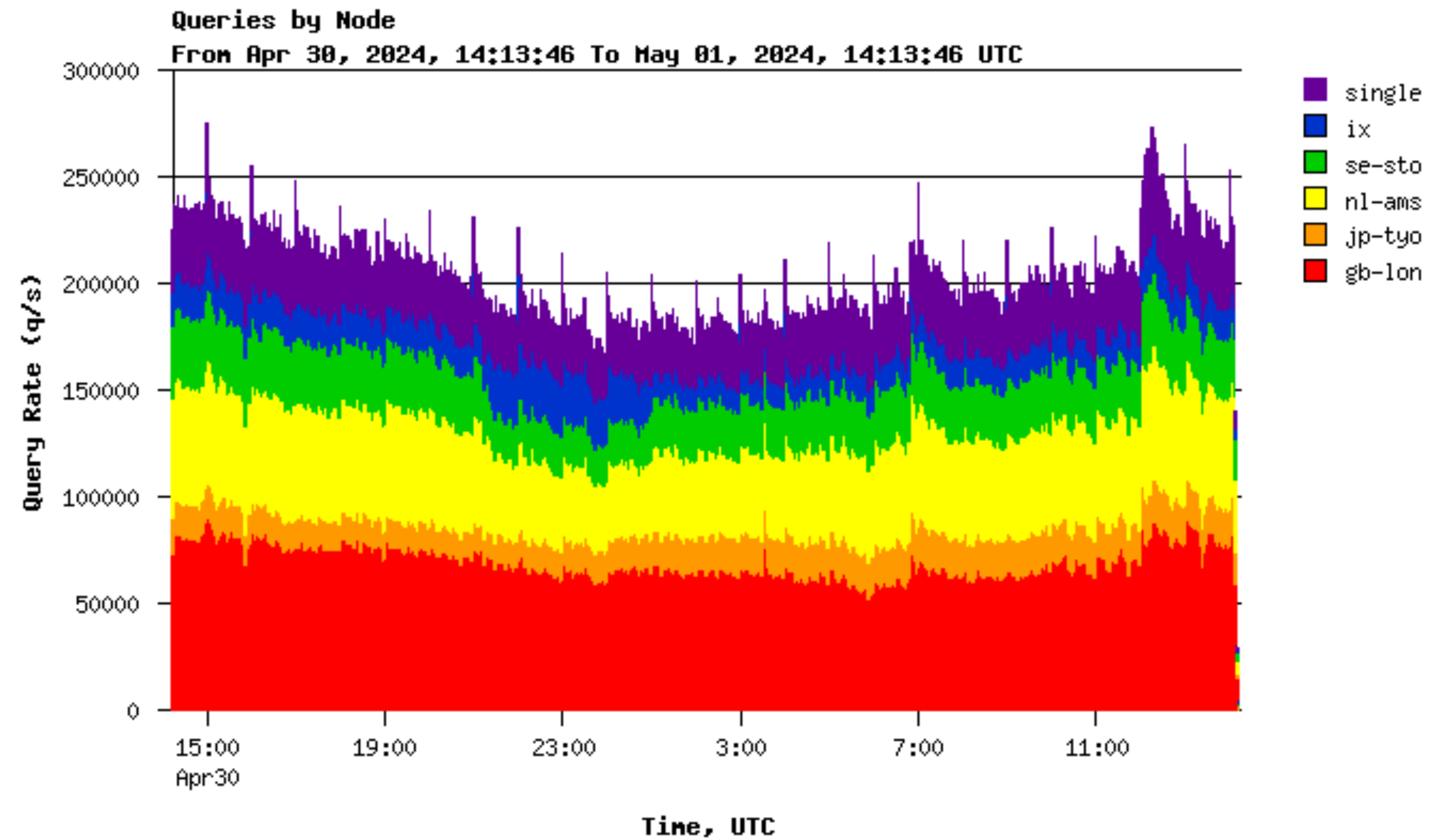
RIPE NCC DNS Update

Martin Pels | 22 May 2024 | RIPE 88



Expansions and upgrades

AuthDNS Tokyo core site



Other changes since RIPE 87



- Three Hosted AuthDNS instances added
 - Maracaibo, Venezuela
 - Kansas City, Missouri, United States of America
 - Yogyakarta, Indonesia
- All AuthDNS servers upgraded to OracleLinux 9
- Migration from Ansible to SaltStack

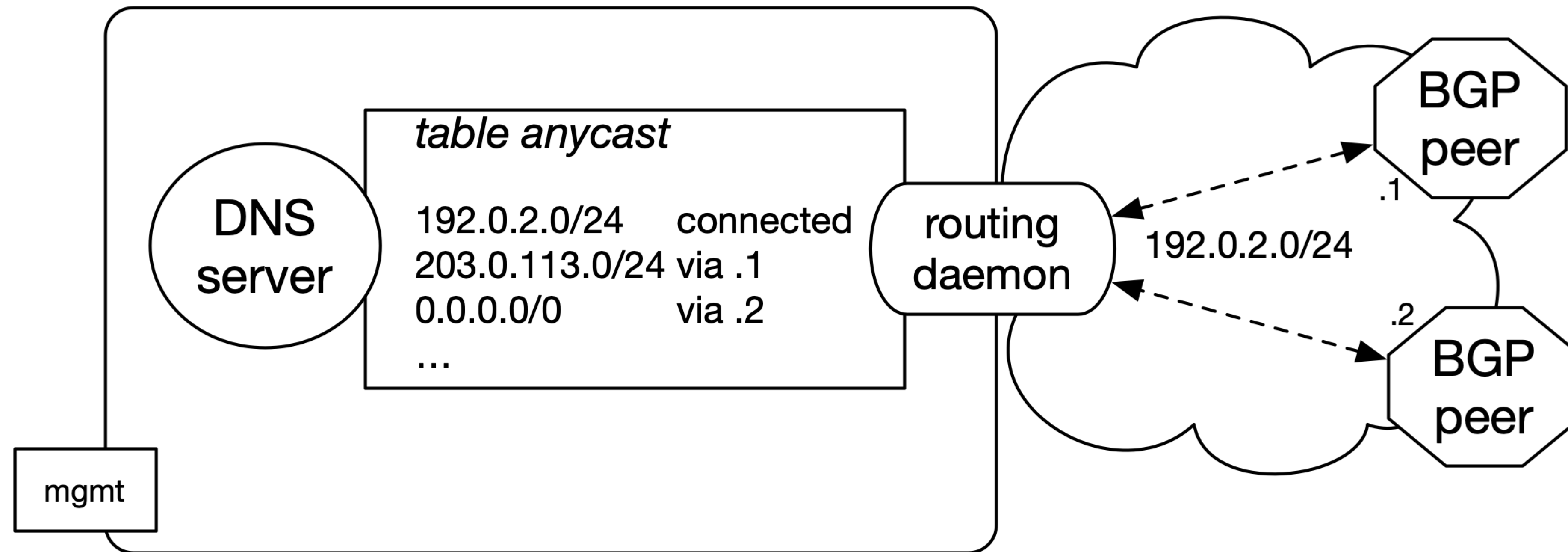


AuthDNS

service degradation

2024-04-15

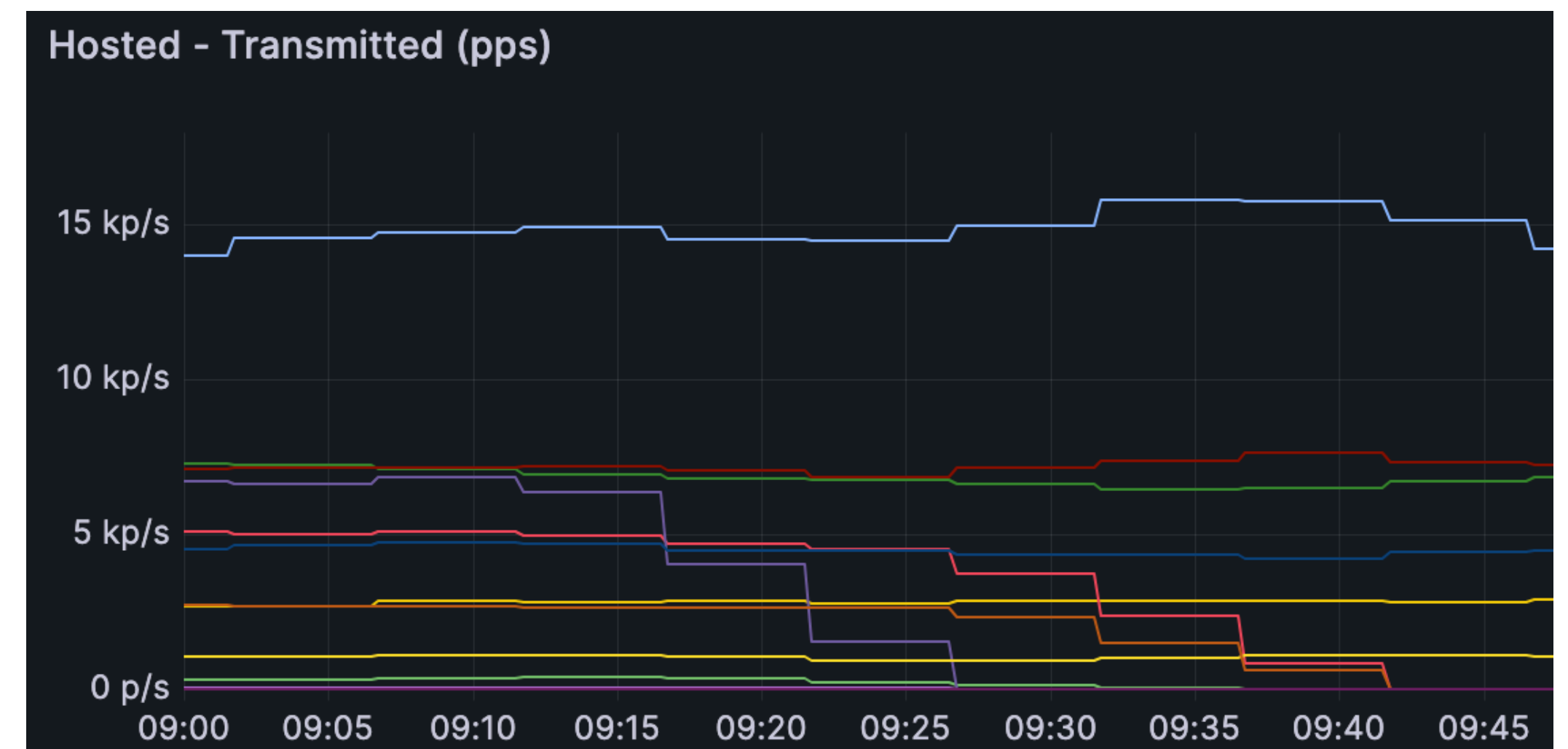
Network setup (Hosted DNS)



Outage 15 April



- Migration to SaltStack, packages not pinned
- New upstream routing daemon release
- Breaking change:
 - Directly connected networks not imported by default
 - BGP routes not installed due to unreachable next-hop
- Timeouts on 8 of 19 AuthDNS sites



Post-mortem actions



- Release pinning of routing daemon packages
- Alerting improvements
- Investigating automated prefix withdrawals

Authoritative DNS services



- *pri.authdns* - Reverse delegations for LIR IP space (RIPEdb)
- *rir.authdns* - Secondary DNS for Reverse DNS from other RIRs
- *manus.authdns* - RIPE NCC zones (e.g. ripe.net)
- *xx.cctld.authdns* - Secondary service for eligible country codes
- *ns.ripe.net* - Secondary service for large LIRs (\geq /16 IPv4)



ccTLDs

RIPE-663 (December 2015)



- Only for ISO 3166 ccTLDs and IDN ccTLDs
- Agreements with fixed lifetime
- Criteria:
 - < 10,000 delegations
 - < 4 other secondary name servers
 - No commercial secondary name servers

ccTLDs with RIPE NCC DNS



- May 2016: 77

- May 2024: 30

ar.	er.	kg.	ne.	xn--mgbpl2fh.	sz.
bi.	gp.	mc.	np.	sm.	tj.
cu.	gu.	mu.	ps.	sn.	tt.
cw.	jm.	mw.	xn--ygbi2ammx.	sy.	ug.
dz.	jo.	nc.	sd.	xn--ogbpf8fl.	va.



ns.ripe.net

ns.ripe.net



```
domain:      X.Y.in-addr.arpa
descr:      example zone
admin-c:    admin@example.net
tech-c:     noc@example.net
nserver:    ns1.example.com
nserver:    ns2.example.com
nserver:   ns.ripe.net
```

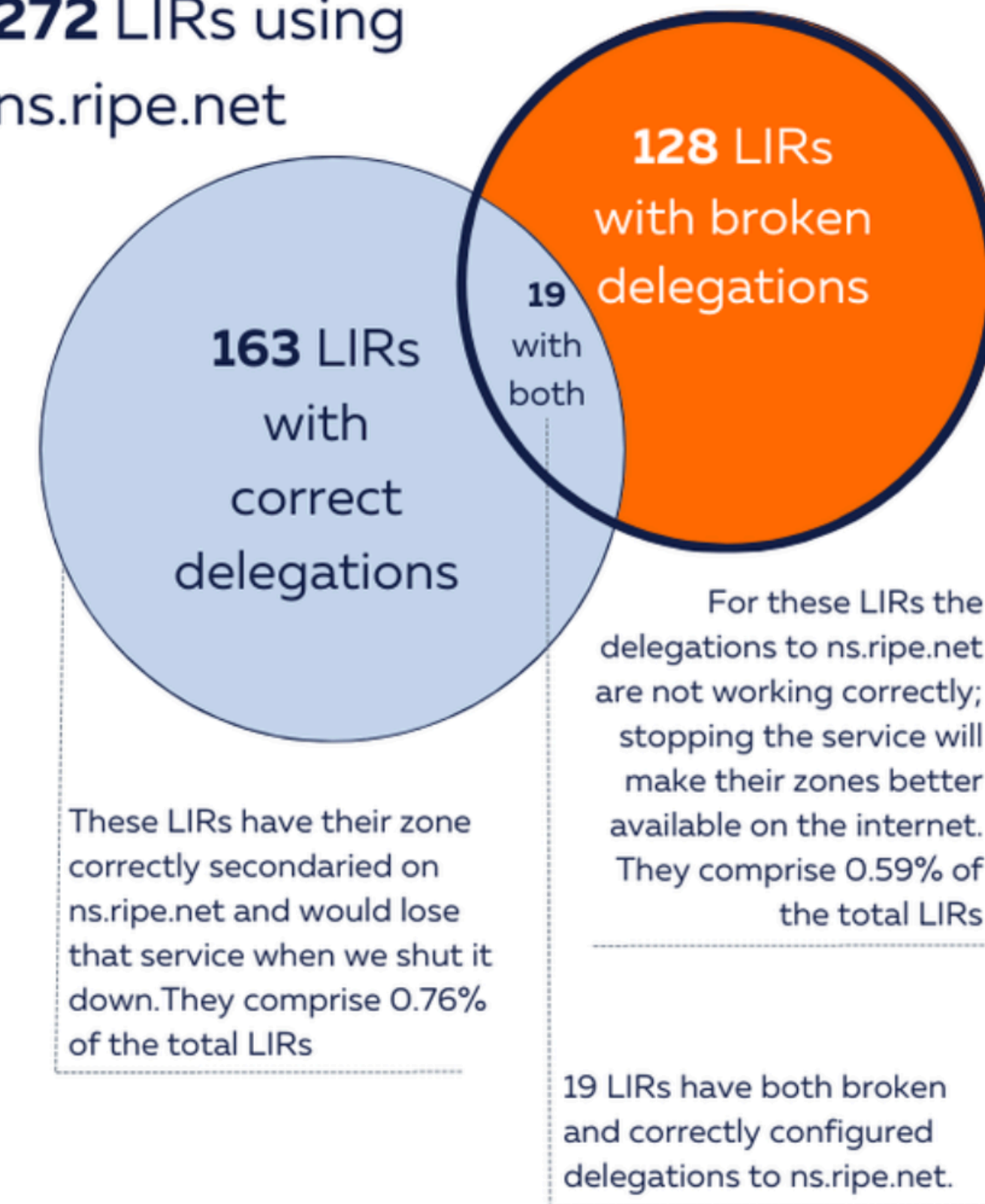
Problems

- Unfair to LIRs with small allocations
- Competition with members
- Provisioning failures
- Unpredictable zone sizes
- Irrecoverable situations
- Strain on RIPE NCC infrastructure



LIRs using ns.ripe.net

272 LIRs using
ns.ripe.net



Total LIRs: **21,568**

Shutdown?



- Proposing retirement of the **ns.ripe.net** service
- RIPE Labs article: <https://labs.ripe.net/author/anandb/retiring-nsripenet/>
- Timeline:
 - *1 July 2024* - Stop accepting new objects and updates
 - *July - December 2024* - Outreach to existing users
 - *January 2025* - Remove all remaining delegations

Please provide feedback!

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Questions



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<https://hosted-dns.ripe.net/>