RIPE NCC DNS Update

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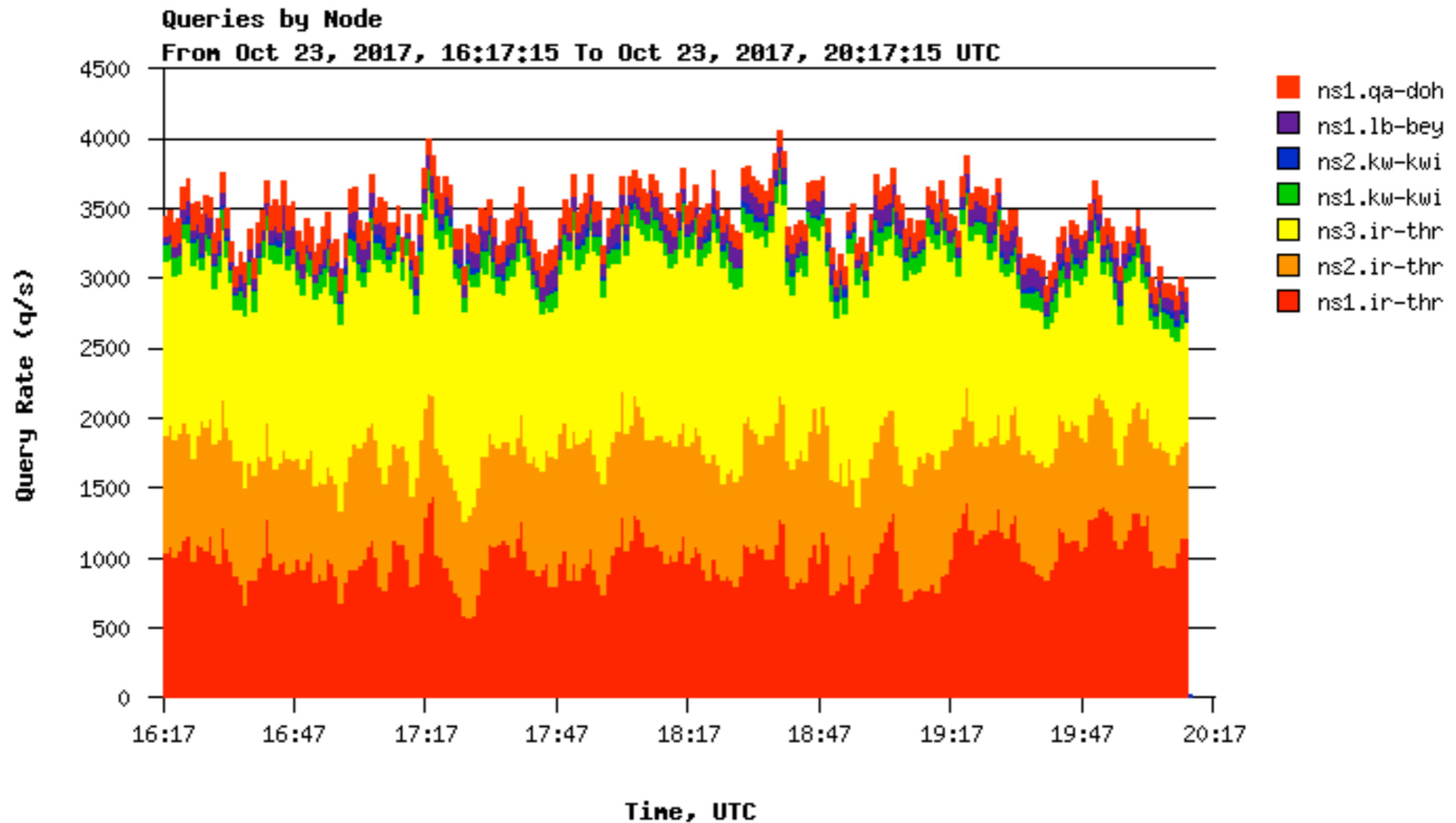# K-root

AS 25152

Status

- ● Growth continues

  - 57 instances (5 new since RIPE 74)

  - Service in underserved places like Greenland and Latin America

- ● Some core sites upgraded to 10 Gbit/s ports

  - Other to follow early next year

K-root nodes in the Gulf region

Query rates in the Gulf region

Queries by Node
From Oct 23, 2017, 16:17:15 To Oct 23, 2017, 20:17:15 UTC

Legend:
- ns1.qa-doh
- ns1.lb-bey
- ns2.kw-kwi
- ns1.kw-kwi
- ns3.ir-thr
- ns2.ir-thr
- ns1.ir-thr

Query Rate (q/s) vs Time, UTC

Authoritative DNS

AS 197000

Hosted instances

- Experimental

- Single-server instances, similar to K-root

- Running one experiment with Anexia IT in Vienna

  - Monitoring traffic levels, route propagation in BGP, server capacity, etc.

- We will accept general applications if our tests are successful

Secondary DNS for ccTLDs

- We are still guided by RIPE 663

- Since RIPE 74, 44 ccTLDs have stopped using RIPE NCC's service

  - One ccTLD has asked for some more time

  - The remaining 32 continue to qualify for service

Zonemaster in production

- Switched in June 2017

- Tests over 500 zones per day

- https://zonemaster.ripe.net

- Test results are also available via RIPEstat's DNS widget

    - Doesn't support pre-delegation checks yet

RIPEstat's DNS widget

DNSSEC

Status of our signers

- Our Secure64 signers are due for replacement

    - Good moment to explore alternatives

- Many alternative signers available

    - OpenDNSSEC, BIND, PowerDNS, Knot DNS

- We are exploring the various options, including the option of not using HSMs

- Read more at https://labs.ripe.net/Members/anandb/the-future-of-dnssec-at-the-ripe-ncc

What is ENTRADA

- Open-source application, developed by SIDN, for processing and indexing DNS packet captures

- Runs on top of Hadoop, using HDFS and Impala

ENTRADA at RIPE NCC

- We use Hadoop extensively

  - RIPE Atlas and RIS data in HDFS and HBase

- We capture DNS query packets on all our DNS servers

  - Rotated after 5 days

- We hope to use ENTRADA to index and analyse this vast treasure trove of data

- Work has started on a test setup

Questions

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