RIPE NCC
Tools Update

Robert Kisteleki
RIPE NCC

Robert Kisteleki | RIPE 88 MAT WG | 21 May 2024

RIPE Atlas

RIPE Atlas - Current Activities

- Ongoing: renewing our big data backend

    - *In general, moving to more cost-effective solutions*

    - *Moving our historical data to a different subsystem (with minimal effects on users)*

    - *Revitalising the infrastructure serving our recent / frequently accessed data*

- Current status:

    - Historical data has been copied to an object store (S3), and most of it is already served from there when requested

    - Happening right now: moving "hot data" from on-prem HBase to a cloud-based one

    - The combination is aimed at a <u>significant reduction of data centre costs</u>

- This activity is expected to conclude around summer

RIPE Atlas - Current Activities

- Ongoing: renewing our infrastructure components

  - *Working on containerising components of our distributed infrastructure*

- Current status:

  - Measurement metadata has been removed from on-prem ElasticSearch, is now stored / served from AWS OpenSearch (=> cost reduction)

  - First containerised / cloud-based "controllers" are alive and being tested

  - Containerisation of the other components is ongoing

  - Ultimate aim: reduce associated costs by using as much dynamic capacity as we can

- This activity is expected to conclude around the end of Q3

RIPE Atlas - Current Activities

- Ongoing: User Interface (website/app) renewal

  - *Done: documentation site, coverage & statistics*

  - *Done: measurement creation, probe and measurement listing*

  - Just released: measurement pages, "my dashboard", promotional pages

  - Coming up: probe status pages

  - Coming up: global maps and all other pages

- Please join our on-site RIPE Atlas demo

  - An excellent opportunity to immerse yourself in the UI with our developers

  - You can also provide general feedback

RIPE Atlas - New Measurement Layout

RIPE Atlas - Current Activities

- Ongoing: probe firmware packaging

  - *Reworking the probe package to better match popular Linux distributions*

  - *Main goal is to simplify development, installation and upgrades (maintenance)*

  - *Looking forward to working with package maintainers*

- Current status:

  - Getting ready for a proper RPM release (RHEL 8 and 9)

  - Preparing for Debian and OpenWRT releases

Summary of Earlier Proposals

- Probe farming:

  - Implement the discussed restrictions

- Measurement aggregators:

  - Implement hint of who the actual client is

  - Mandate proper attribution of RIPE Atlas

  - Incentivise aggregators to step up as sponsors

  - Additional requirements may be applied later to ensure sustainability

- Data retention principles:

  - Continue implementation along the proposed principles

  - See Felipe's article about some current cost reduction activities

Summary of Earlier Proposals

- Remove per-hop "late" packets from traceroute:
  - plan implementation

- Measure well-known CDNs:
  - Do not implement as proposed
  - Smaller-scale experiment instead

- Generic HTTP measurements:
  - do not implement as proposed

- Add support for STARTTLS measurements:
  - plan implementation

- Remove support for non-public measurements:
  - no changes now

RIS

Routing Information System (RIS)

- Current activities:

  - Updating the Remote Route Collectors (RRCs) to a new operating system

  - Creating metrics for the behaviour of RIS peers

  - Monitoring for outlier behaviour of peers ("noisy/unstable peers")

  - Improving how we build BGP views from the BGP updates

    - e.g. dealing with stuck routes

- Coming up:

  - Review RIPEstat and RIS data storage solution after RIPE Atlas migration is complete

RIPEstat

RIPEstat

- Availability of data recency information:

  - A backend tracking service is now in place to monitor RIPEstat backends

  - Added a data recency metadata service to expose the freshness of the data:

    - Currently supported data calls: Announced Prefixes, ASN Neighbours, RIS Prefixes

    - Example call: https://stat.ripe.net/data/asn-neighbours/meta

  - Added a dashboard to analyse historical data for internal insight

  - Working on new data calls to integrate into the service

- Planning to initiate a review of product strategy after RIPE 88

Questions

robert@ripe.net
@kistel