



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIS Live

Christopher Amin | 23 May 2019 | RIPE 78

Routing Information Service (RIS)



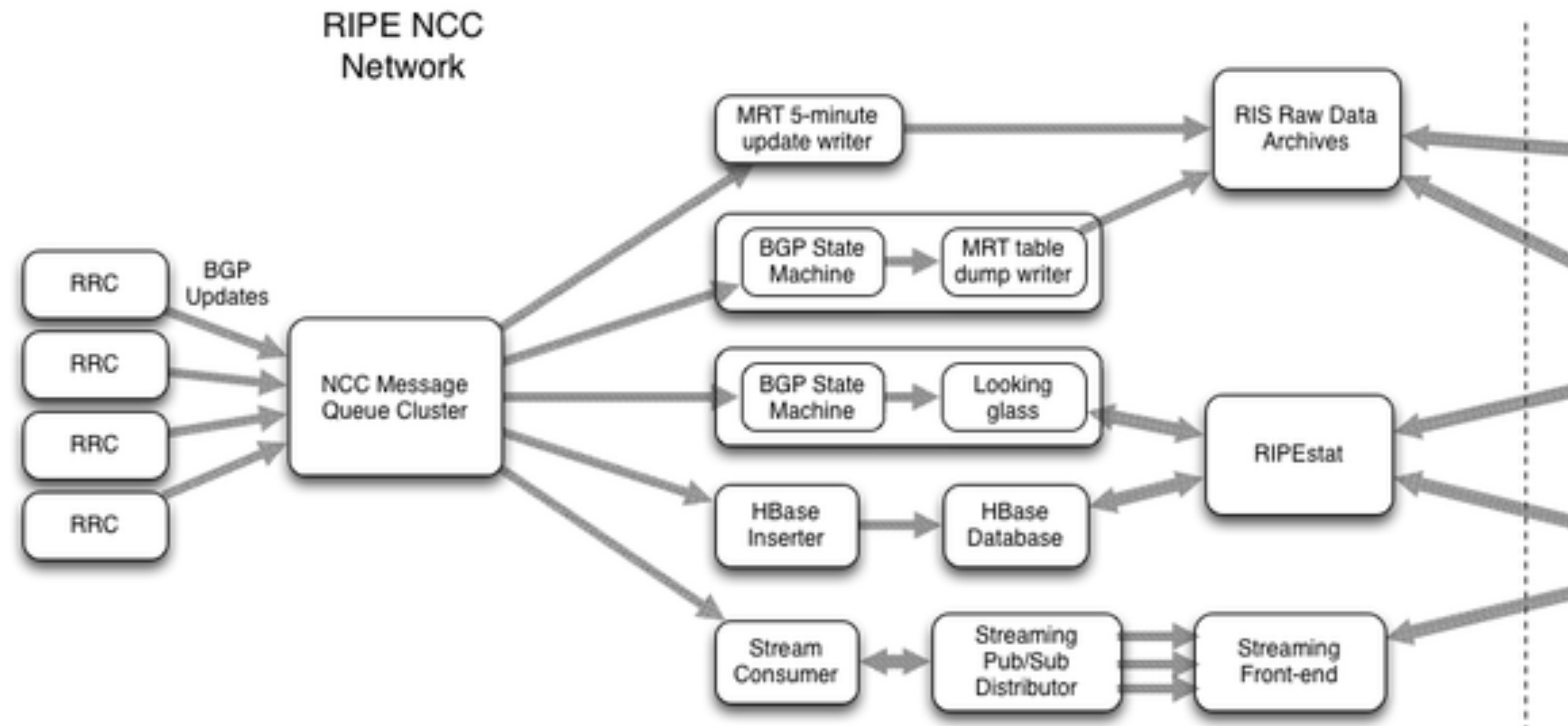
- AS12654
- 24 RRCs in various IXPs
- ~230 full table peers
- Open to peering, especially full table peers!
- Bucharest & Montevideo



Getting RIS Data



- FTP site (global)
- RIPEstat (filterable)
- “Streaming front-end demo” started BGP Hackathon 2015
- ..and continued thanks to bleeding edge tech:



RIS Live Trial



- <https://ris-live.ripe.net/>
- <1s latency from BGP peer to client
- All collected RIS messages available
- JSON format, includes complete raw message as base64
- WebSocket subscriptions
- HTTP full stream (Server Sent Events or JSON Lines)

Live RIS BGP messages



```
// Received at 14:05:05 (0.25 second delay)
{
  "timestamp": 1550235905.09,
  "peer": "91.206.52.130",
  "peer_asn": "58299",
  "id": "91.206.52.130-1550235905.09-3854212",
  "host": "rrc20",
  "type": "UPDATE",
  "path": [58299, 6939, 2914, 12859, 12654],
  "community": [[58299, 1100]],
  "origin": "igp",
  "announcements": [
    {
      "next_hop": "2001:7f8:24::82",
      "prefixes": [
        "2001:7fb:ff02::/48"
      ]
    },
    {
      "next_hop": "fe80::4e5e:cff:fe25:40c4",
      "prefixes": [
        "2001:7fb:ff02::/48"
      ]
    }
  ]
}
```


<https://ris-live.ripe.net>

- You can play with the demo below to get an idea of the data and filters that are provided.
- You can then look at the code examples and [the manual](#) to learn how to integrate RIS Live in your own tools.
- [Fill in the survey!](#)

Please!

Demo

Subscriptions to the stream are sent as a JSON object containing various filter parameters. You can adjust the parameters below and see the messages that are streamed on the right.

```
{
  "prefix": null,
  "path": 3356,
  "type": null,
  "require": null,
  "moreSpecific": true,
  "lessSpecific": false,
  "host": null (all),
  "peer": null,
  "socketOptions": {
    "includeRaw": false
  }
}
```

Code examples

Below are simple examples of using the RIS Live WebSocket interface. For a full guide, see the [RIS Live manual](#).

JavascriptPython

Live RIS BGP messages

Connected

2585 matching messages ~371 kbit/s ⓘ

```
// Received at 10:25:00 (1.18 second delay)
{
  "timestamp": 1558607099.5,
  "peer": "217.29.66.88",
  "peer_asn": "20811",
  "id": "217.29.66.88-1558607099.5-125125839",
  "host": "rrc10",
  "type": "UPDATE",
  "path": [20811, 3356, 3257, 9498, 132772, 137654],
  "origin": "igp",
  "announcements": [
    {
      "next_hop": "217.29.66.88",
      "prefixes": [
        "103.121.157.0/24"
      ]
    }
  ]
}
```

```
// Received at 10:25:00 (1.18 second delay)
{
  "timestamp": 1558607099.5,
  "peer": "217.29.66.88",
  "peer_asn": "20811",
```

Participate



- Play with the demo, see the filtering in action
- Use in your scripts
- <https://ris-live.ripe.net/manual>
- Python, JavaScript, curl...?
- Fill in the survey! (Do you like it? Will you use it? How?)

Future



- Decision in Q3 about launching service and dropping “Trial” tag
- Is this the right direction?
- Do you use it? Will you use it? How?



Questions



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<https://www.ripe.net/participate/forms/apply/ris-live-feedback-form/>