



RIPE NCC

RIPE NETWORK COORDINATION CENTRE

#RIPEstat10

Lightning Talk: Looking back at 10
years of RIPEstat

Christian Teuschel | May 2021 | RIPE 82

10 Years of RIPEstat



2011

2021

Pre-RIPEstat (~2009): REX



- REX = Resource EXplainer
 - "...REX is a one-stop-shop for almost all the information you ever wanted to know about Internet number resources."¹
 - Powered by INRDB = "...a non-conventional database..."²



Image: Freepik.com

[Responsible RIR](#) [Resource Holder](#) [Routing](#) [DNS and Reverse DNS](#) [Network Activity](#) [Black Lists](#) [Geolocation](#)

[Explanation](#)

Most recent information as of 2009-10-02

[Methodology](#)

192.36.148.0/22 is deaggregated in 2 more specific prefixes.
These cover 50.00% of the input prefix

type	prefix(es)	origin(s)	description
Exact match	none		
All less specific	none		
All more specific	192.36.148.0/24	AS29216	I-ROOT DNS root name server i.root-servers.net.
	192.36.148.0/23	AS29216	I-ROOT DNS root name server i.root-servers.net.

History from 2000-10-02 until 2009-10-02

[Methodology](#)

[Show prefix history table](#)

Routing history of 192.36.148.0/22 and related blocks

Origin AS

Prefix

- 192.32.0.0/11
- 192.36.148.0/23
- 192.36.148.0/24
- 192.36.149.0/24
- 192.36.150.0/24
- 192.36.151.0/24

Origin AS	Prefix	Start Date	End Date
AS1880	192.36.150.0/24	2000-10-02	2009-10-02
AS1257	192.36.148.0/23	2000-10-02	2009-10-02
AS2603	192.36.148.0/24	2000-10-02	2009-10-02
AS8674	192.36.148.0/24	2000-10-02	2009-10-02

2010: Work on RIPEstat Started



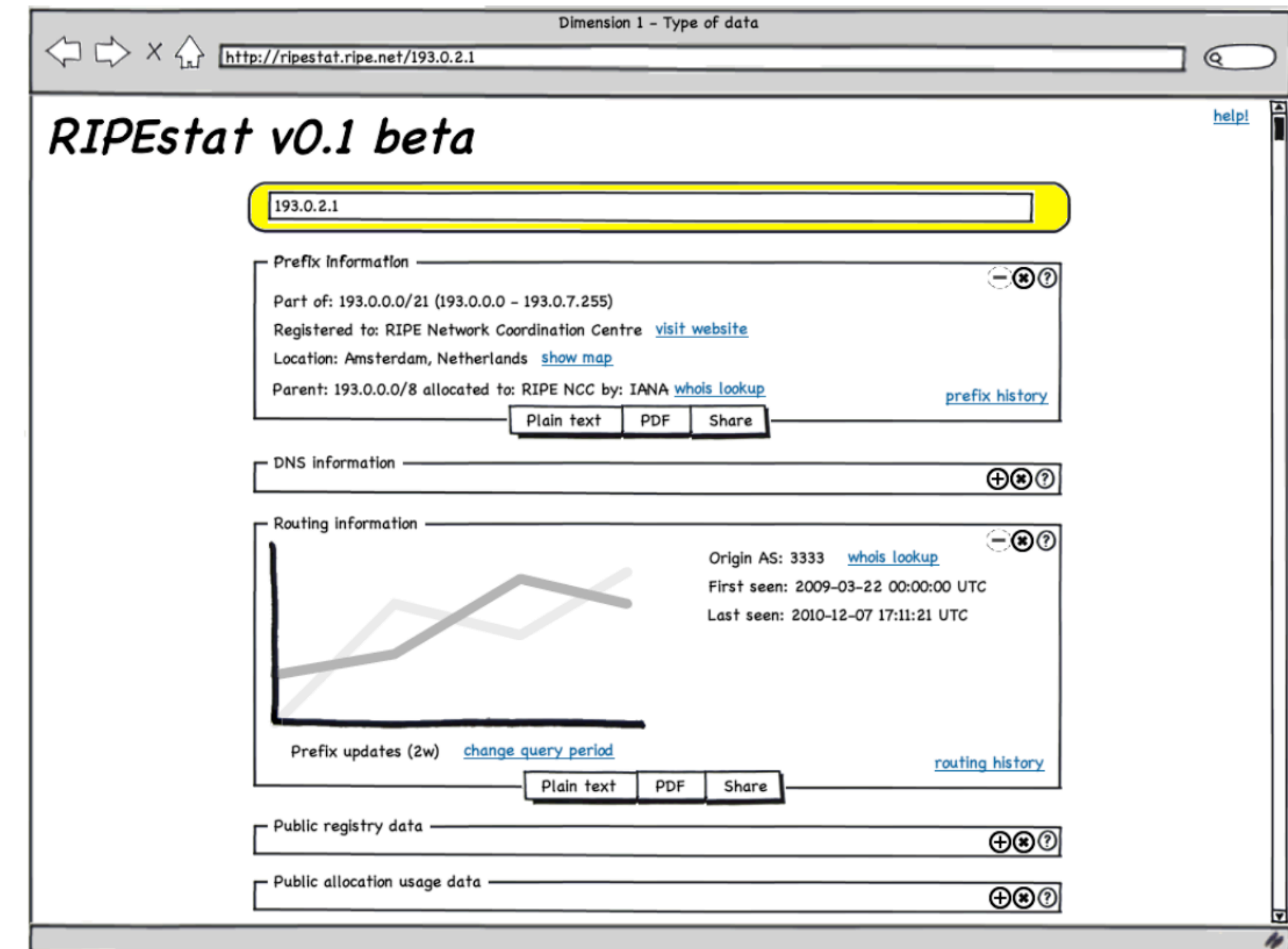
- Problem Statement
 - Many data sources for Internet number resources are scattered across different platforms and tools



2010: Work on RIPEstat Started



- Vision
 - “...basic idea is to combine all information services, as well as other public data sources, into one easy-to-use interface.”³
- Two main types of information
 - “various **STAT**istics related to networking”³
 - “the **STAT**us of various aspects in the network”³



25 Jan 2011: First Public Demo



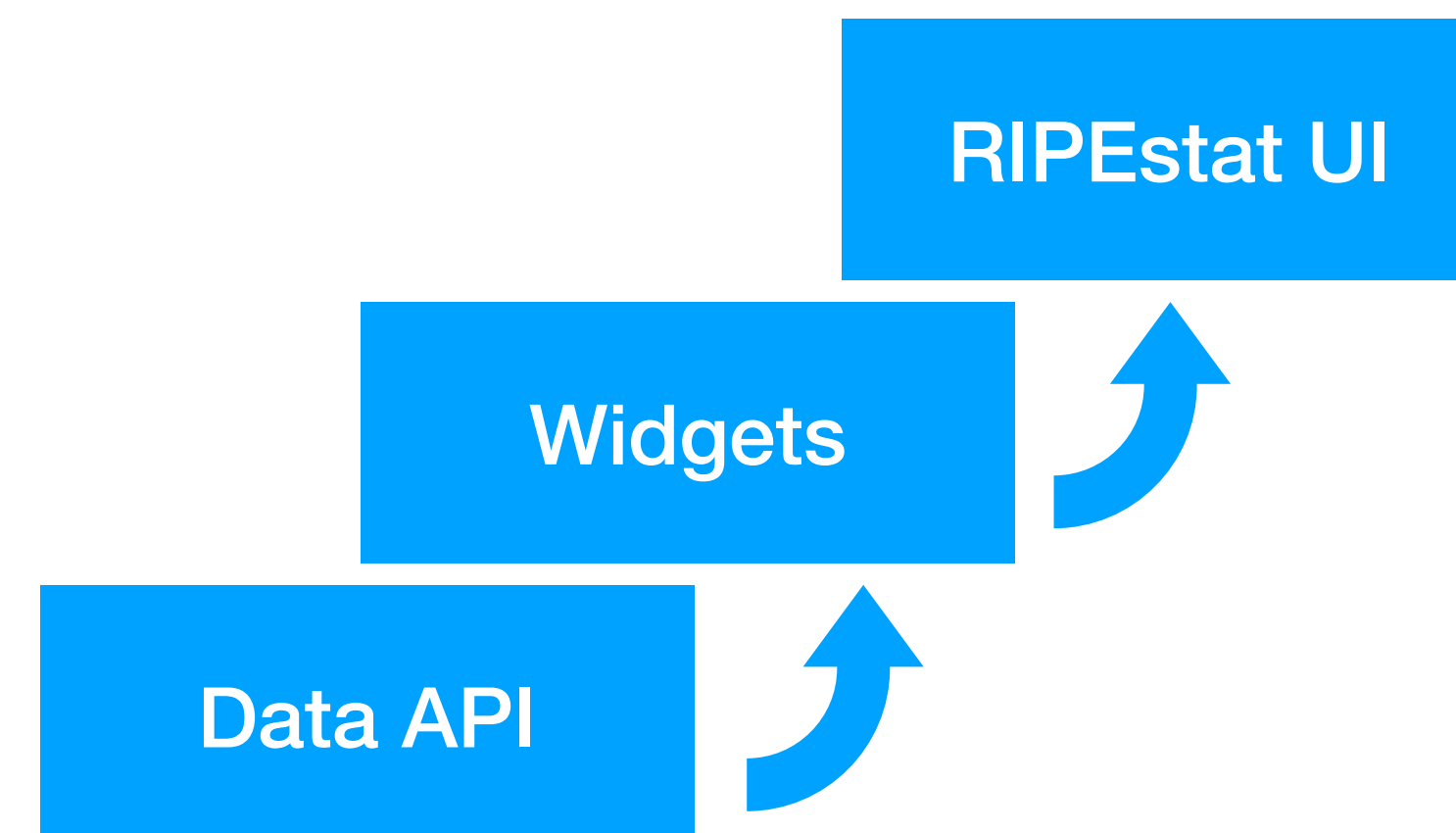
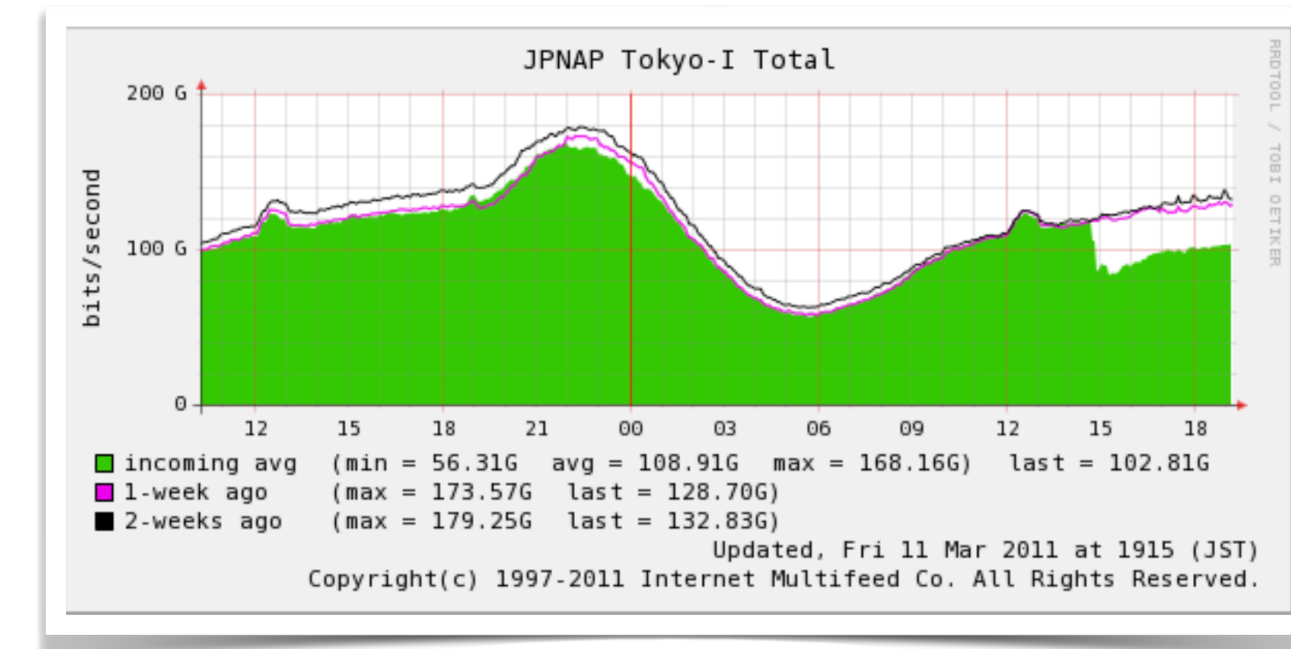
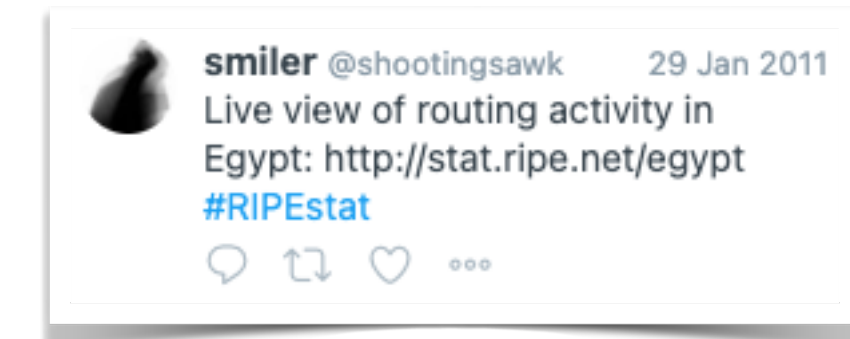
The screenshot shows the RIPEstat website interface. At the top, there is a navigation bar with links for Internet Coordination, Data & Tools, LIR Services, and RIPE Community. The main header features the RIPE NCC logo and the text "RIPE NETWORK COORDINATION CENTRE". Below the header, the "RIPEstat" logo is prominently displayed. A search bar is present with the placeholder text "Enter an AS number or prefix" and a search button. Below the search bar, the current query is shown as "Your network: AS3303, 0.0.0.0/1" and an example is given as "Example: IPv4, IPv6, ASN". A "Sign in" link is located to the right of the search bar. The main content area is divided into several sections. On the left, there is a sidebar titled "Result Boxes for 140.78.0.0/16" with a "Sign in to customise" link. The sidebar lists various tools: Prefix-Overview, Whois, Object-Browser, Address-Space-Hierarchy, Routing-History, Address-Space-Usage, Geoloc, Geoloc-History, Looking-Glass, Reverse-Dns, Blacklist, Visibility, Bgp-Update-Activity, Related-Prefixes, Prefix-Routing-Consistency, and Allocation-History. The main content area features four large boxes, each representing a different tool: "Prefix-Overview (140.78.0.0/16)", "Whois (140.78.0.0/16)", "Object-Browser (140.78.0.0/16)", and "Address-Space-Hierarchy (140.78.0.0/16)". Each box contains a "Download raw data: yaml" link and a "Show: link | specification | methodology" link. On the right side of the main content area, there are two smaller boxes: "The current top queries" and "Your latest queries". The "The current top queries" box lists "140.78.0.0/16" and "127.0.0.0/16". The "Your latest queries" box lists "140.78.0.0/16".

2011: Hitting the Ground Running



- 27 Jan: Egyptian Internet outage
 - <https://stat.ripe.net/events/egypt>
- 11 March: Earthquake in Japan
 - <https://stat.ripe.net/events/japan-earthquake>
- Nov: Introduction of data API
- Dec: Introduction of widgets
- Usage: 10k requests/d

```
163.121.0.0/19
163.121.0.0/20
163.121.101.0/24
163.121.103.0/24
163.121.112.0/22
163.121.116.0/24
163.121.117.0/24
163.121.118.0/23
163.121.120.0/21
163.121.128.0/17
163.121.130.0/24
```



2012

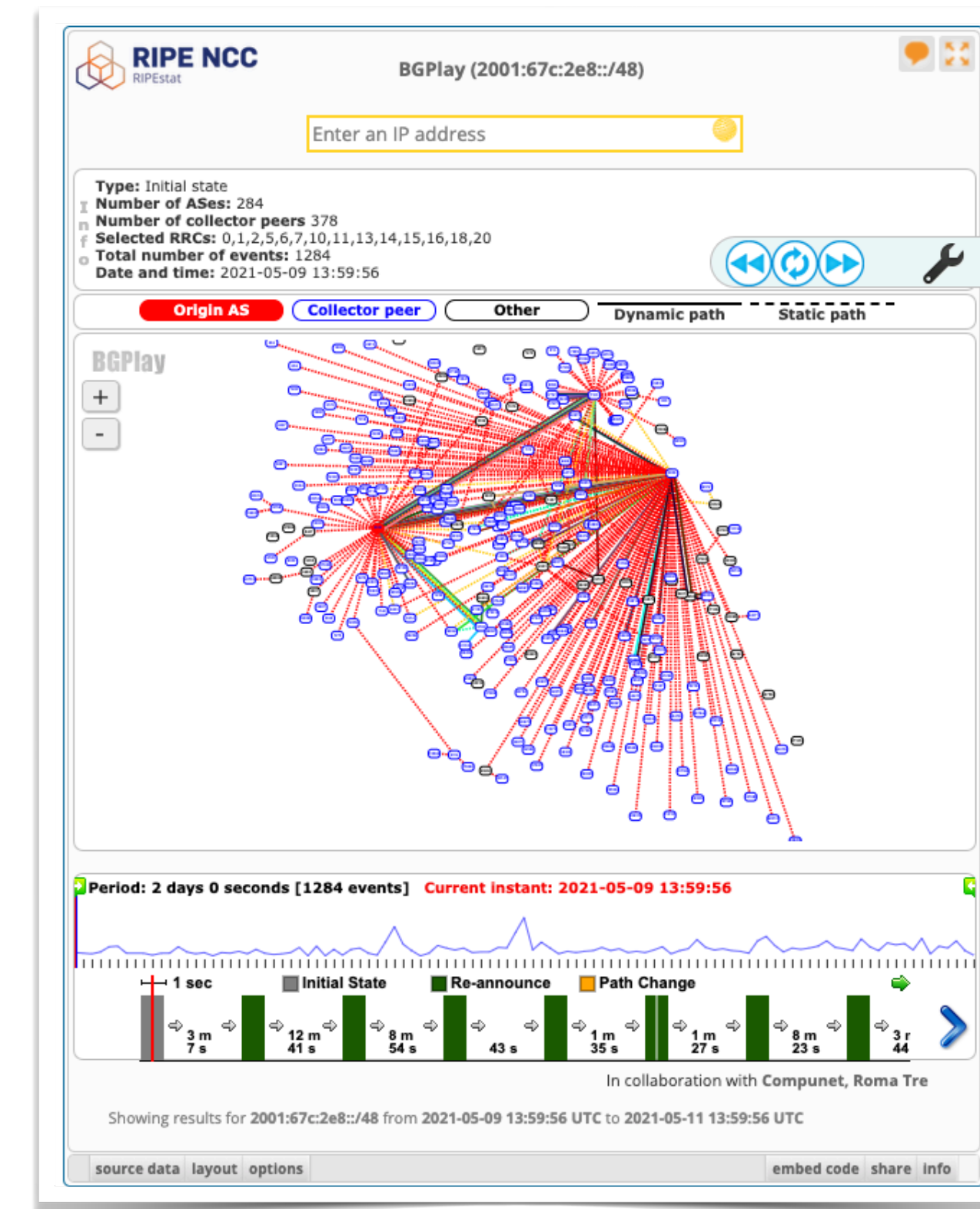
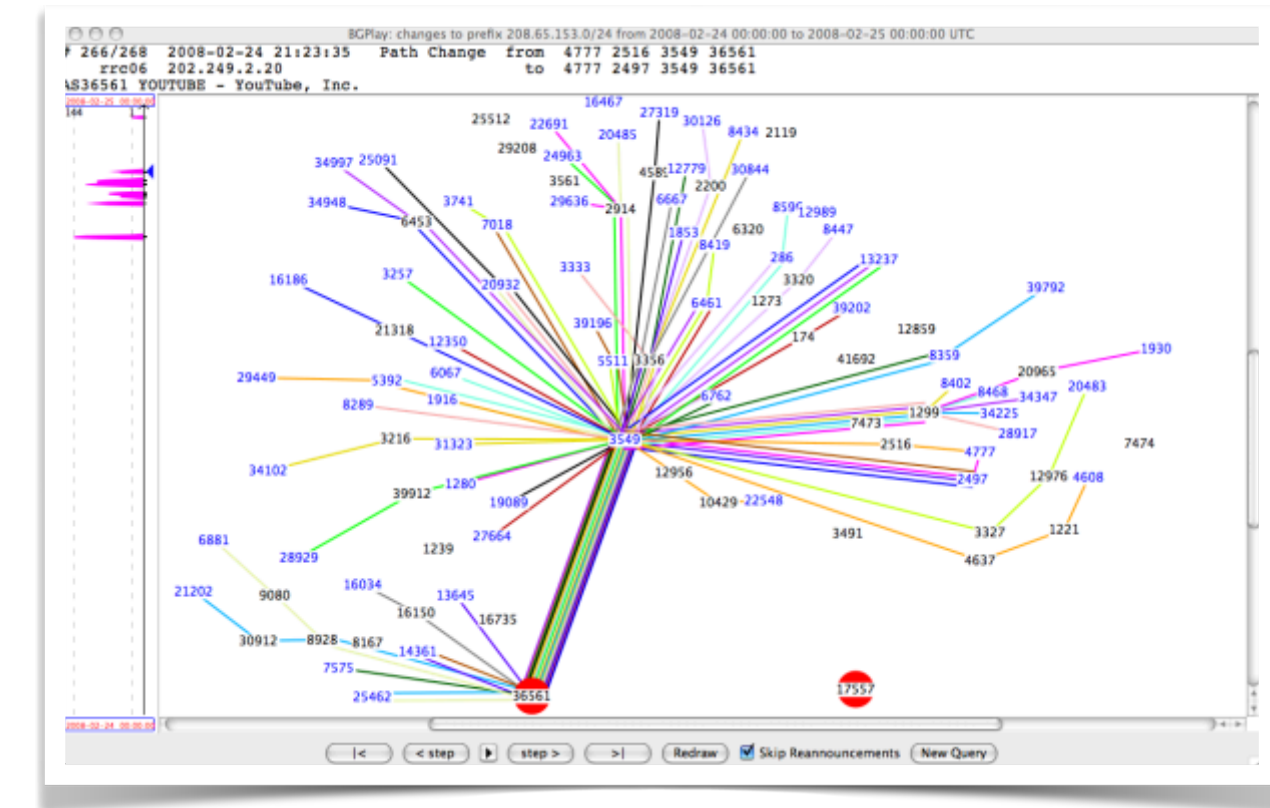


Skipped but see MAT WG session for this year!

2013: The Mighty BGPlay



- First implementation as Java Applet by Roma Tre University
- Reimplementation of BGPlay together with Compunet Research Lab (Roma Tre University) as RIPEstat widget



2013: There's More!



- Integration in RIPE Atlas Probe Traffic and all built-in measurement graphs
- Added support for countries and Country Routing Stats widget
- Usage: first 1M requests/d



2014 - 2016

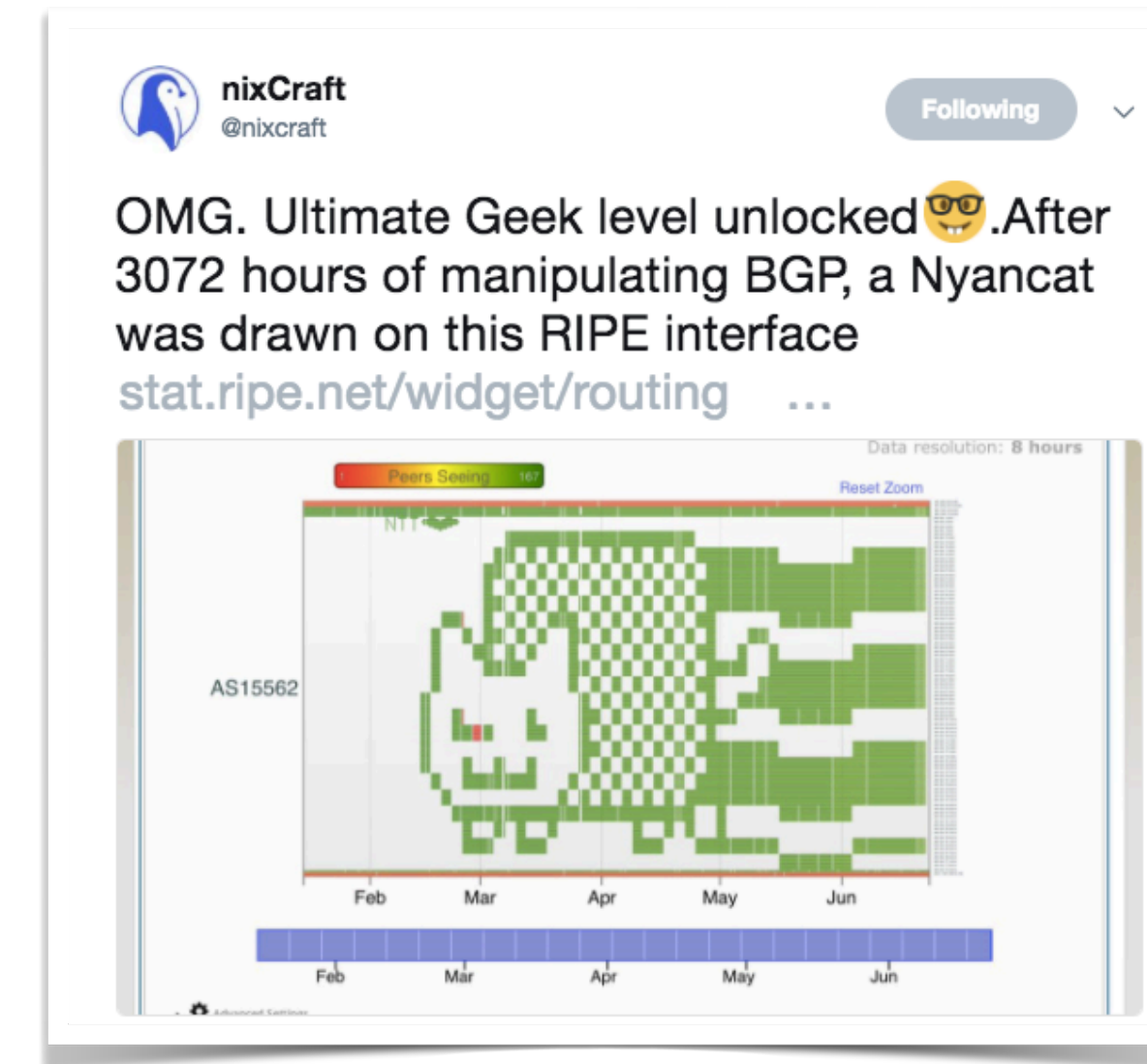


Skipped but see MAT WG session for these years!

2017: Next!



- June: two longest service interruptions (four and three hours)
- BGP Meets Cat⁴
- Release of RIPEstat Country Stats (back then “Country Reports”)
- Changes to RIS⁷ with following backend changes for RIPEstat
- Usage: 50M requests/d



2018

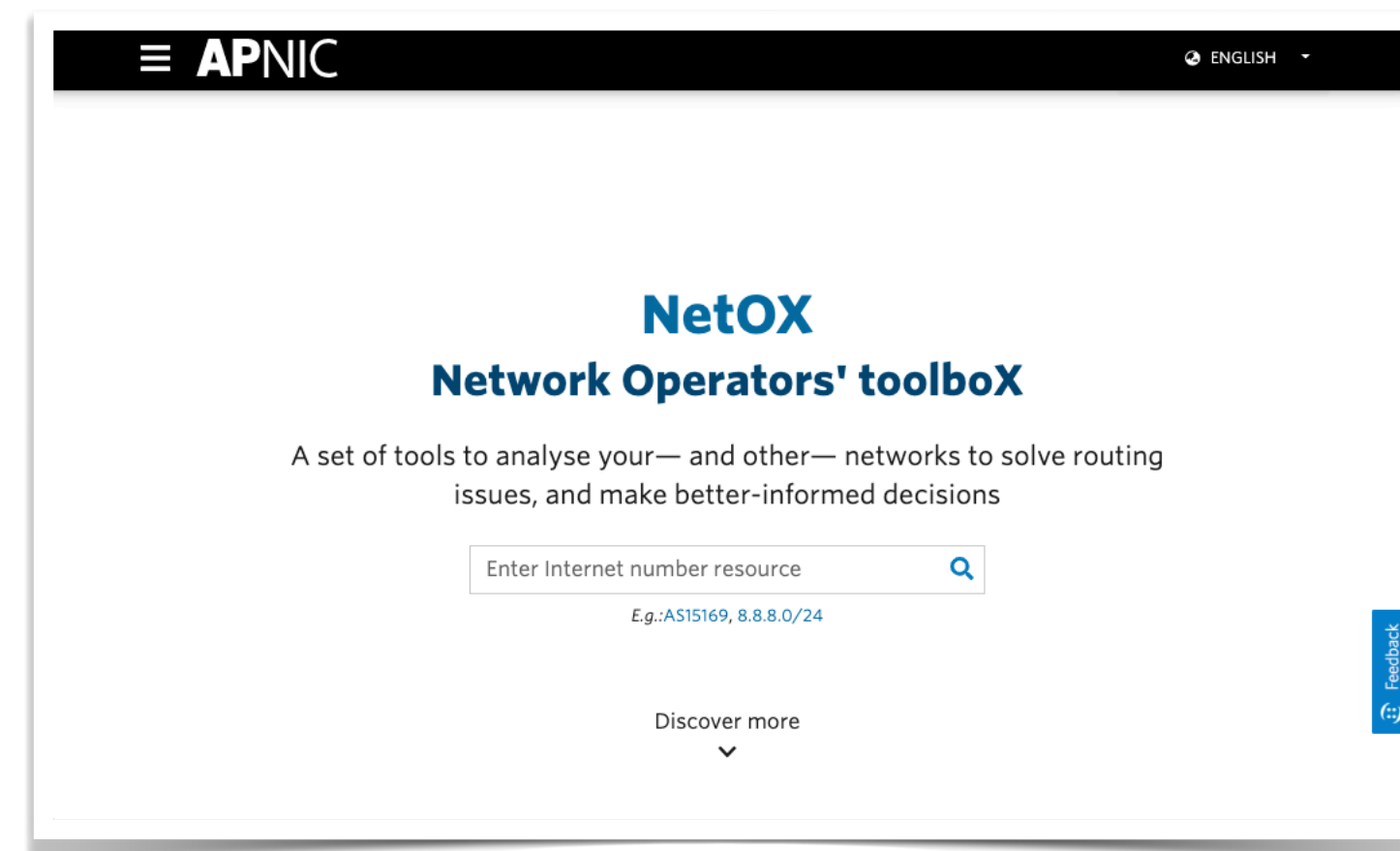


Skipped but see MAT WG session for this year!

2019: Reaching New Heights



- Dedicated UI Engineer joined
- Works started for a new UI
- RIPEstat inter-RIR collaboration started:
 - May: NetOX (APNIC)
<https://netox.apnic.net>
 - August: InfoRedes (LACNIC)
<https://info redes.labs.lacnic.net/>



19 Sept 2019: 100M Daily Requests



100 000 000
requests in one day



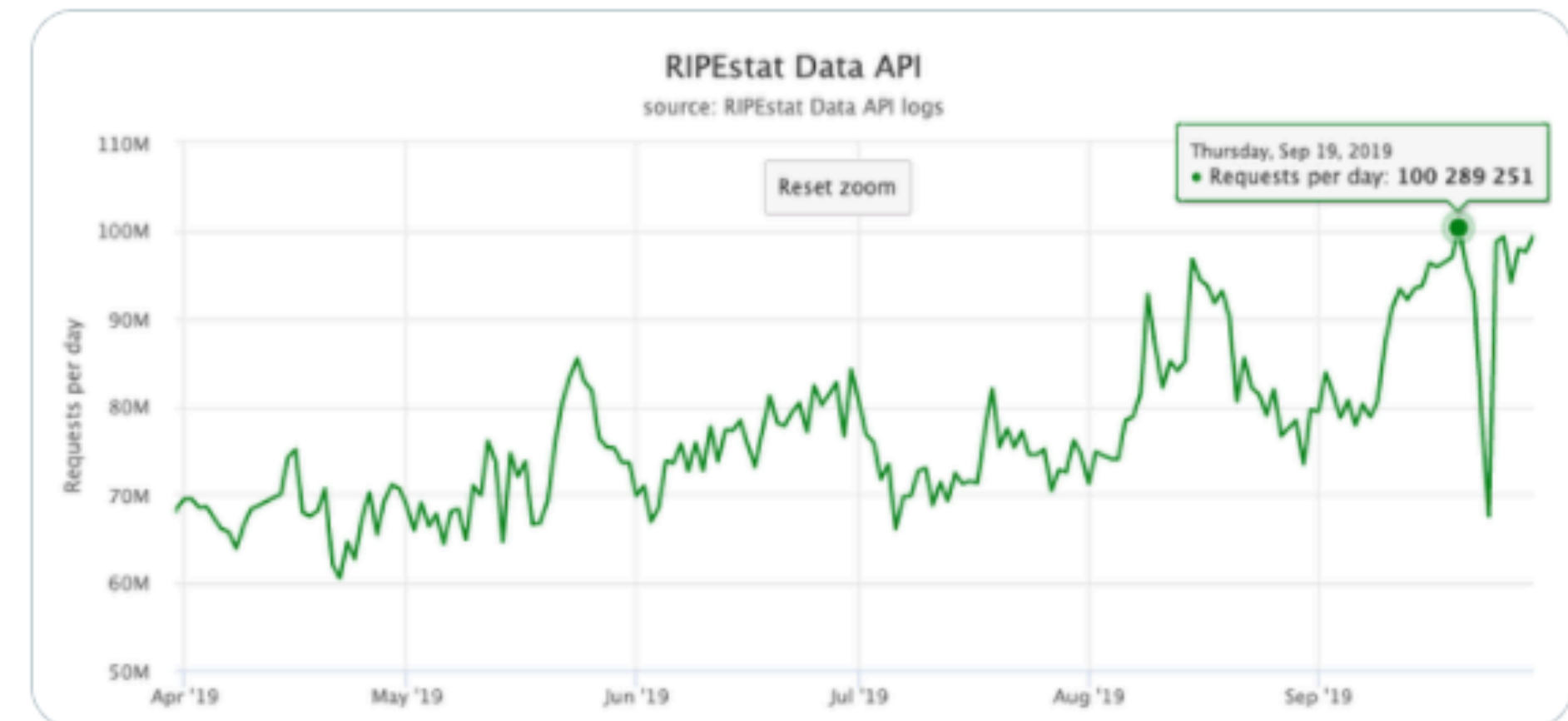
Christian Teuschel
@christian_toysh



100 000 000 requests/day mark was officially reached on 19 September 2019.

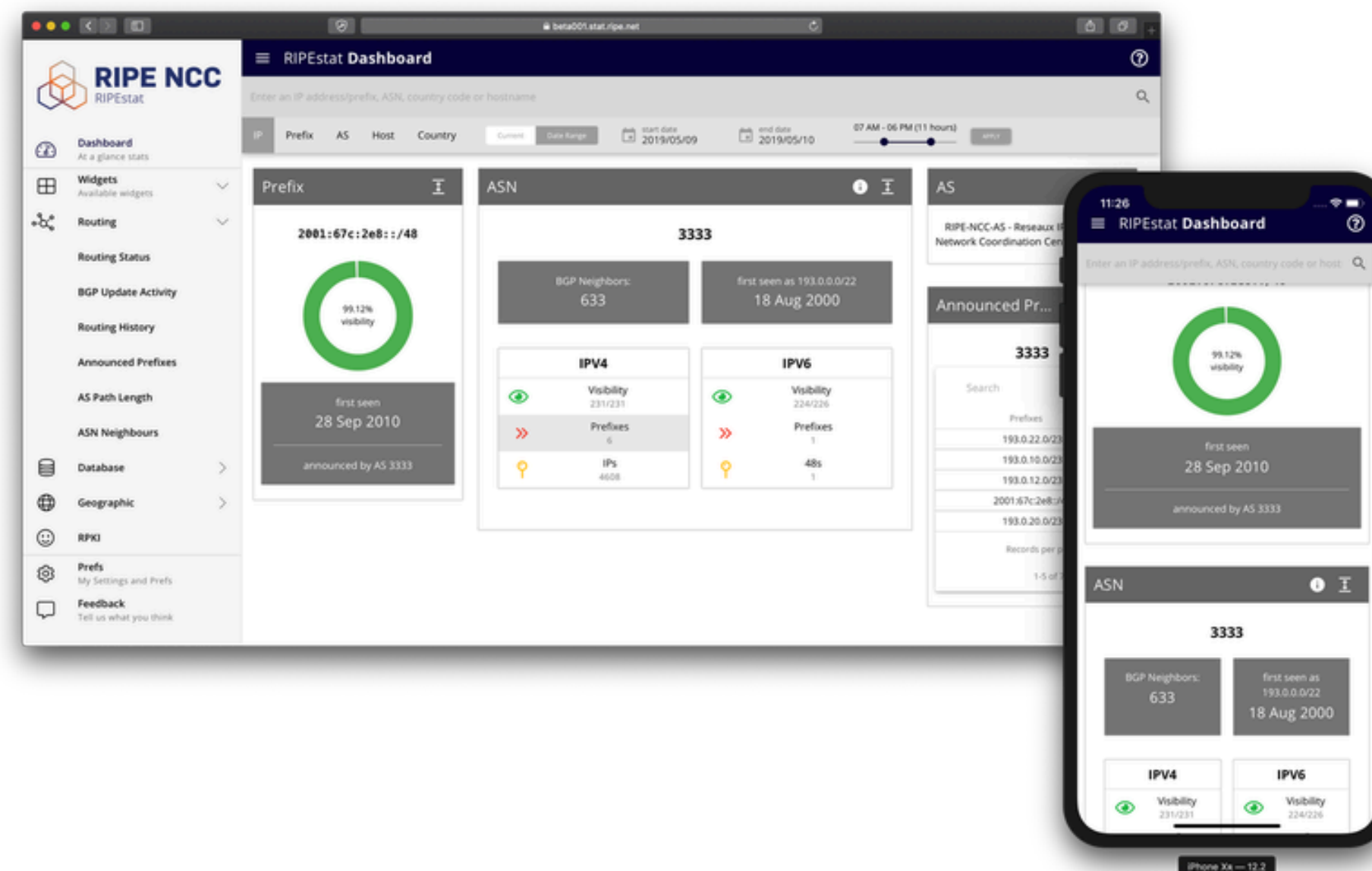
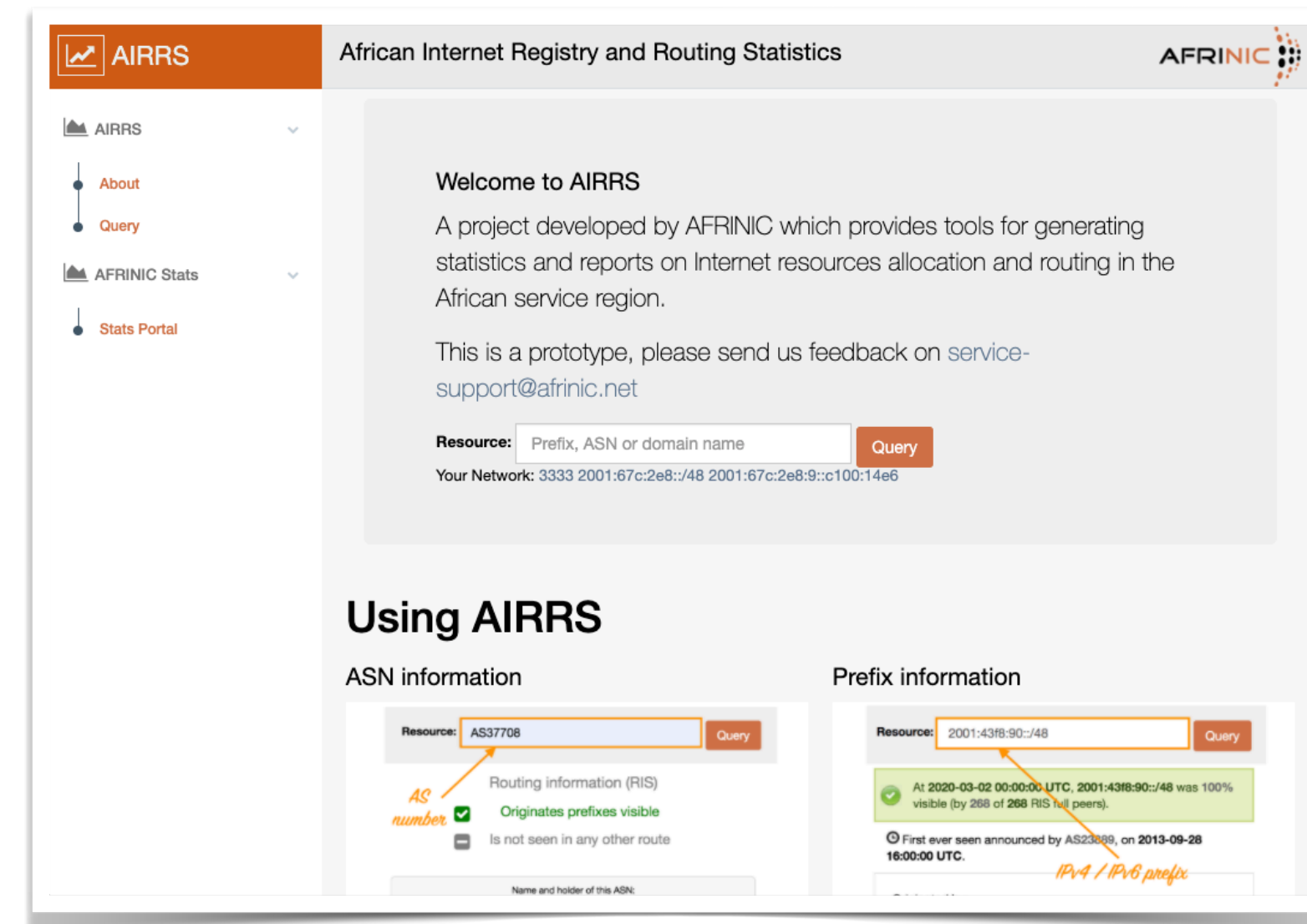
Here's the obligatory (virtual) piece of cake -> 🍰

stat.ripe.net/usage-statistics
#RIPEstat #internet #opendata



2020

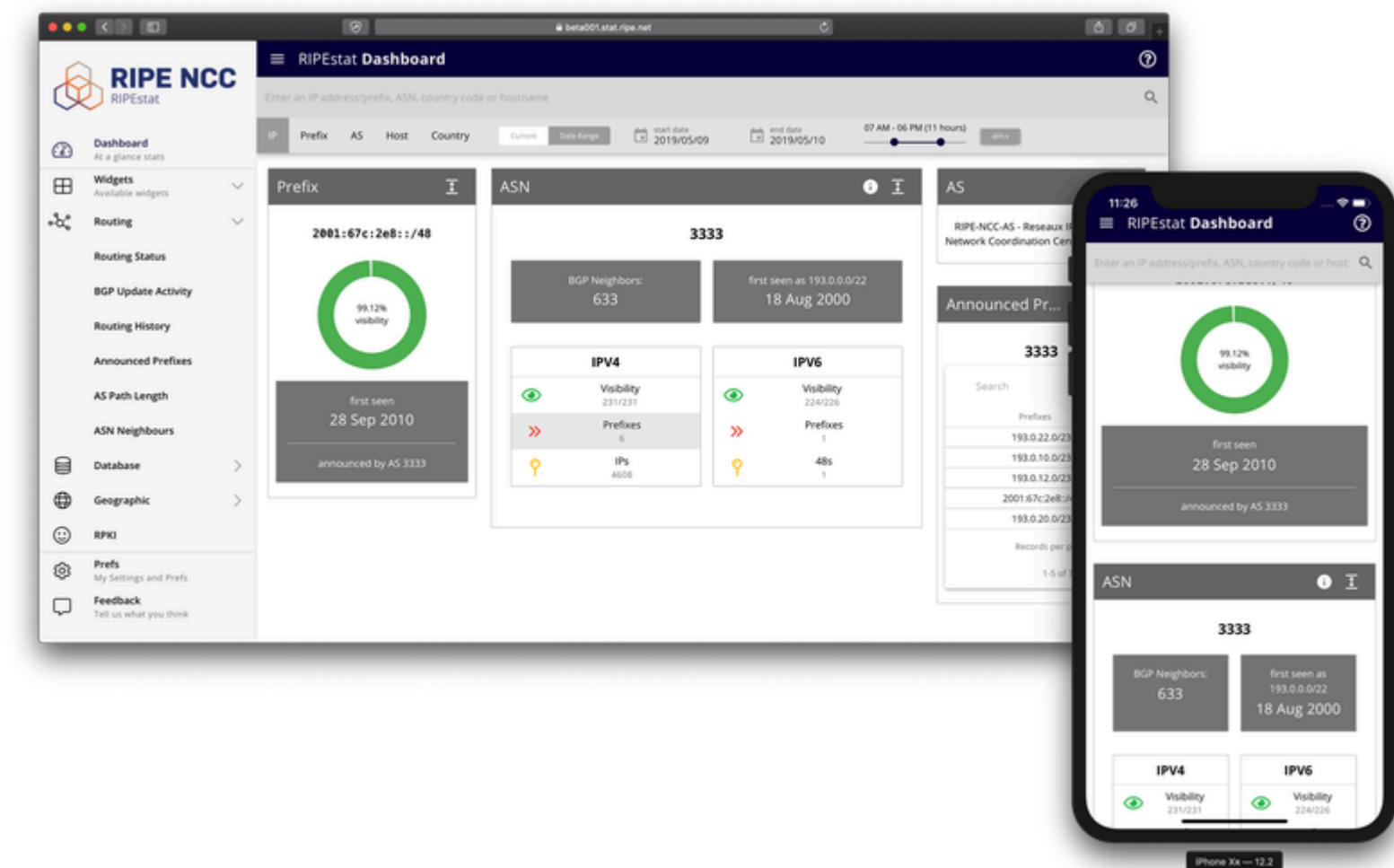
- March: Collaboration with AFRINIC on AIRRS
 - <https://airrs.afrinic.net/>
- New UI has been released as beta release at RIPE 81



2021



- 10 Year Anniversary of RIPEstat
- Release of new UI during RIPE 82



Outlook: 2021, 2022,...



- Expanding to the cloud
- Data API focus
 - Harmonising of API parameters
 - Data quality and service reliability
 - Update of documentation
- Revamp of BGPlay
- Widget API goes open source
- ML support for more insights
- More collaborations



Spelling



- There is RIPE NCC, RIPE DB, RIPE Atlas, RIPE Labs, etc.
- BUT there is

RIPEstat

- Please stick to the correct spelling for us and others.

Thank you users!



NPS 9

New Feedback RIPEstat

searchable index of everything Internet routing

NPS 10

New Feedback RIPEstat

The ease of use

NPS 10

New Feedback RIPEstat

list all CIDRs in containing CIDR range

NPS 10

New Feedback RIPEstat

Breadth and Depth of Information

NPS 10

New Feedback RIPEstat

global coverage, flexible search range, quick response

NPS 9

New Feedback RIPEstat

I love and adore it

NPS 10

New Feedback RIPEstat

quick identification of neighboring cidrs

NPS 10

New Feedback RIPEstat

It gives me the data I was seeking.

NPS 9

New Feedback RIPEstat

nice BGP tool!

NPS 10

New Feedback RIPEstat

global data without limits, amazing; I've already told two customers

NPS 9

New Feedback RIPEstat

searchable index of everything Internet routing

NPS 10

New Feedback RIPEstat

Awesome tools!!! Literally, the best out there. Please keep it free. Thanks.

NPS 10

New Feedback RIPEstat

total internet coverage, no limits (already recommended)

My heart ****and my perpetual gratitude**** go out to the entire Operation & Maintenance team of the RIPEstat Suite for providing us 'small players' with such a high-quality toolset that it gives us a survivable chance in today's extremely fluid Internet. I used The Suite on a regular basis to 'go-against-the-entropy' and to keep our network from falling apart.

Thank you team!



We are hiring!



References



- RIPE Labs

- 1: <https://labs.ripe.net/author/kistel/rex-the-resource-explainer/>
- 2: <https://labs.ripe.net/author/kistel/intro-to-inrdb-the-internet-number-resource-database/>
- 3: <https://labs.ripe.net/author/mirjam/ripestat-live-demo-1/>
- 4: <https://labs.ripe.net/author/cteusche/bgp-meets-cat/>



Questions



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