



RIPE NCC

RIPE NETWORK COORDINATION CENTRE

RIPEstat

Internet Measurement Day:
Serbia

Christian Teuschel | 12 Sep 2022 | Internet Measurement Day - Serbia

What is RIPEstat?



- Open data platform for RIPE NCC data
 - RIPE Database, RIS and RIPE Atlas
- Information service for Internet-related data
- Data insights for Internet number resources, hostnames (FQDN) and countries



RIPEstat Data Sources Available



- More than 35 different datasets
 - RIPE Database (INR, IRR) and other RIRs
 - BGP routing data (RIS)
 - RIPE Atlas, M-Lab, Speedchecker etc.
 - Geolocation
 - RPKI
 - More details at <https://stat.ripe.net/data-sources>
- New datasets are constantly added!
 - E.g. new feature to check multiple DNS-based blocklists in real-time

The MLAB logo features the text 'MLAB' in a bold, sans-serif font, with a horizontal line under the 'M'. It is enclosed in a white rectangular box with a subtle drop shadow.

MLAB

The Broadband Speedchecker logo includes the word 'BROADBAND' in a large, bold, black font, with a speedometer icon integrated into the letter 'O'. Below it, the word 'speedchecker' is written in a smaller, red, lowercase font. The logo is contained within a white rectangular box with a drop shadow.

BROADBAND
speedchecker

The MaxMind logo features a network diagram of blue nodes and lines above the text 'MAXMIND' in a blue, spaced-out, sans-serif font. It is presented in a white rectangular box with a drop shadow.

MAXMIND

The Spamhaus logo displays the word 'SPAMHAUS' in a bold, blue, sans-serif font, enclosed in a white rectangular box with a drop shadow.

SPAMHAUS

...

RIPE 82



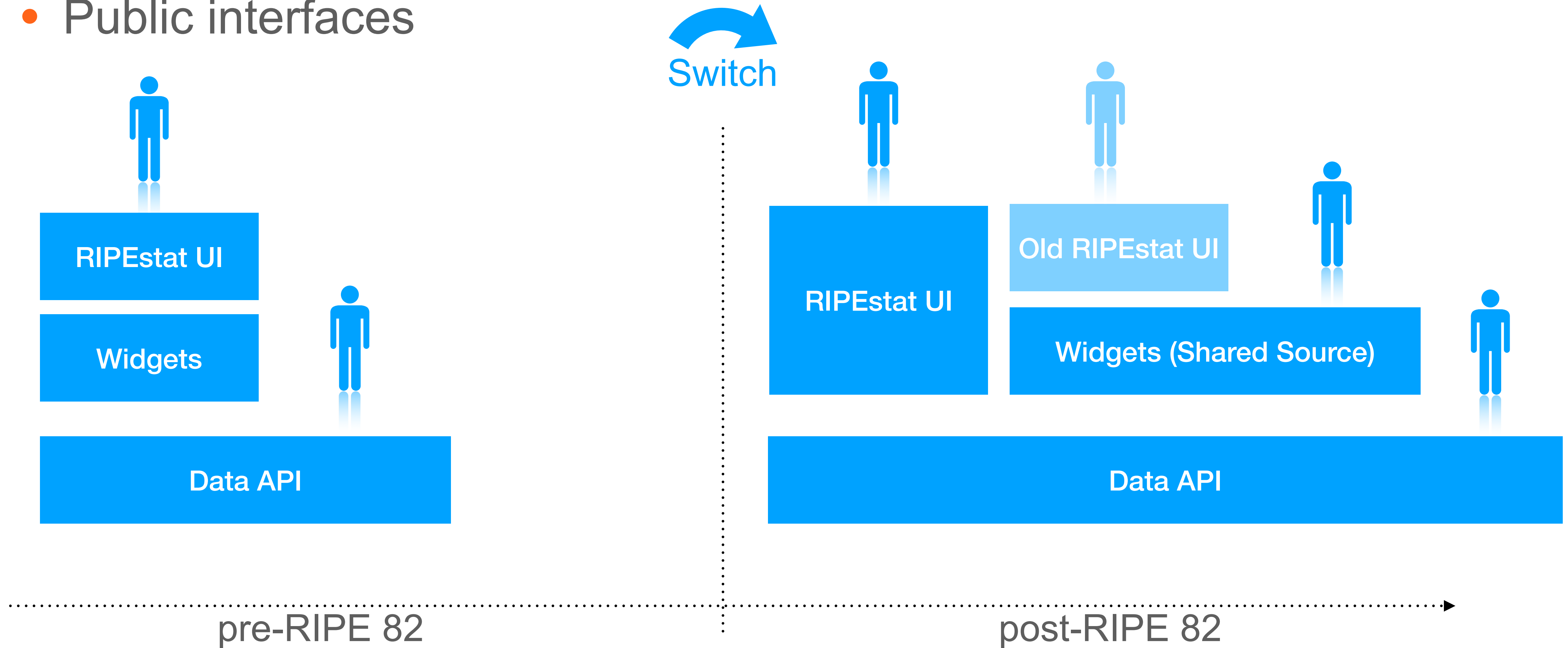
- RIPE 82 meant significant changes to RIPEstat UI
- And 10 Year Anniversary of RIPEstat



RIPEstat APIs after RIPE 82



- Public interfaces



RIP Estat UI2020

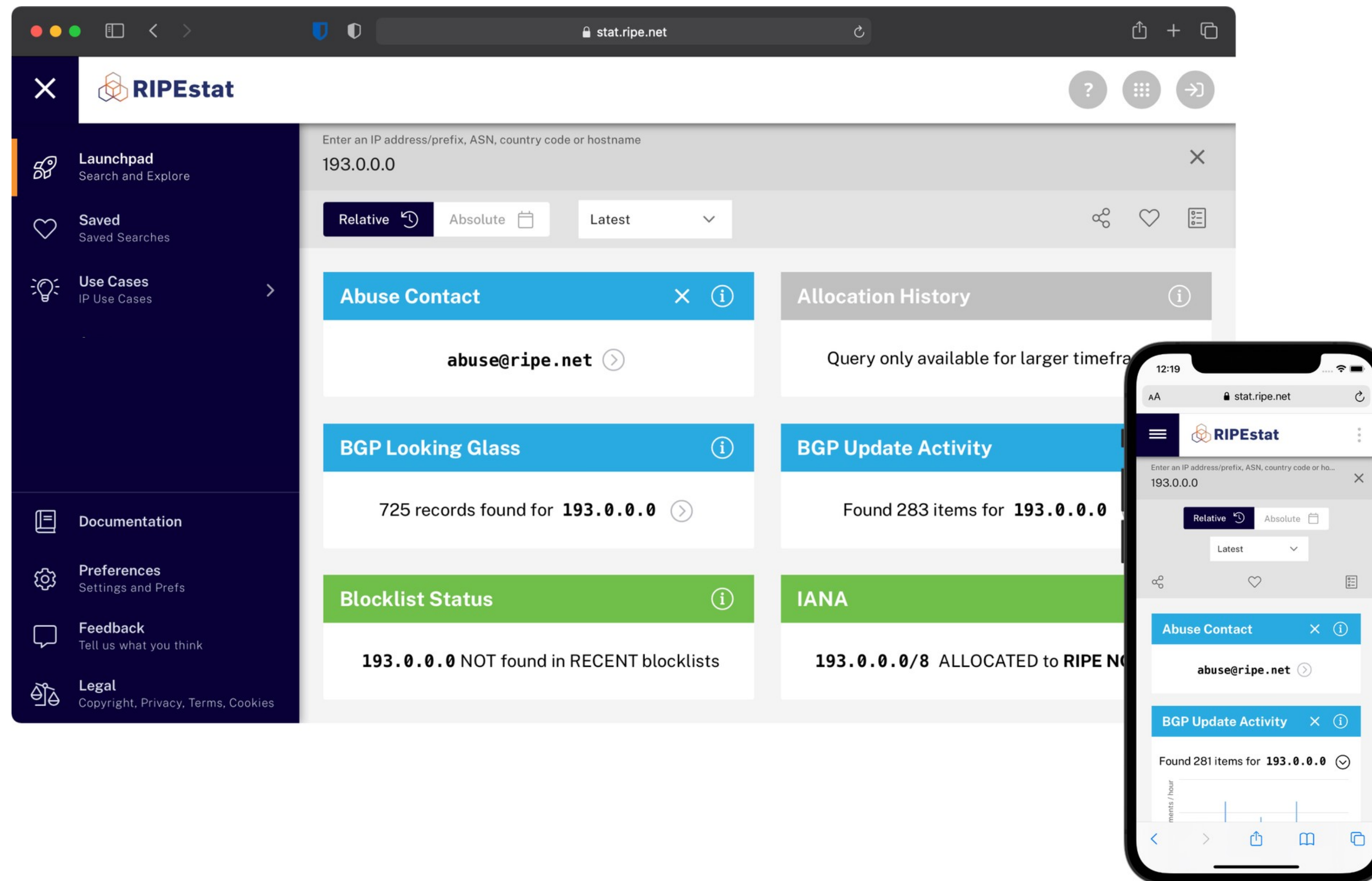


- Guiding principles and benefits of the new UI
 - Responsive and mobile friendliness
 - Self contained “app”
 - User-driven presentation/configuration
 - Universal search context
 - Shareability

RIPEstat UI2020



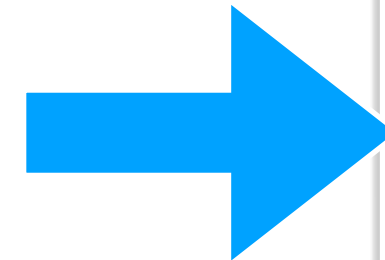
- Mobile friendliness is built in!



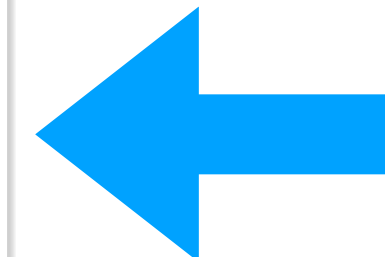
RIPEstat UI2020



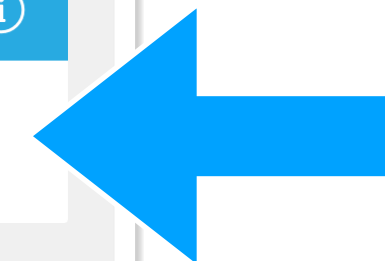
Side Menu



“Universal Search”



Info Cards



RIPEstat UI2020



- Help is built in too!

1 Universal Search (resource, absolute or relative timeframe)

With the universal search bar, there is a single search context that applies to all your info. Search for any resource and add relative or absolute timeframes to filter results.

Feature tour

Documentation

RIPEstat UI2013 Or UI2020



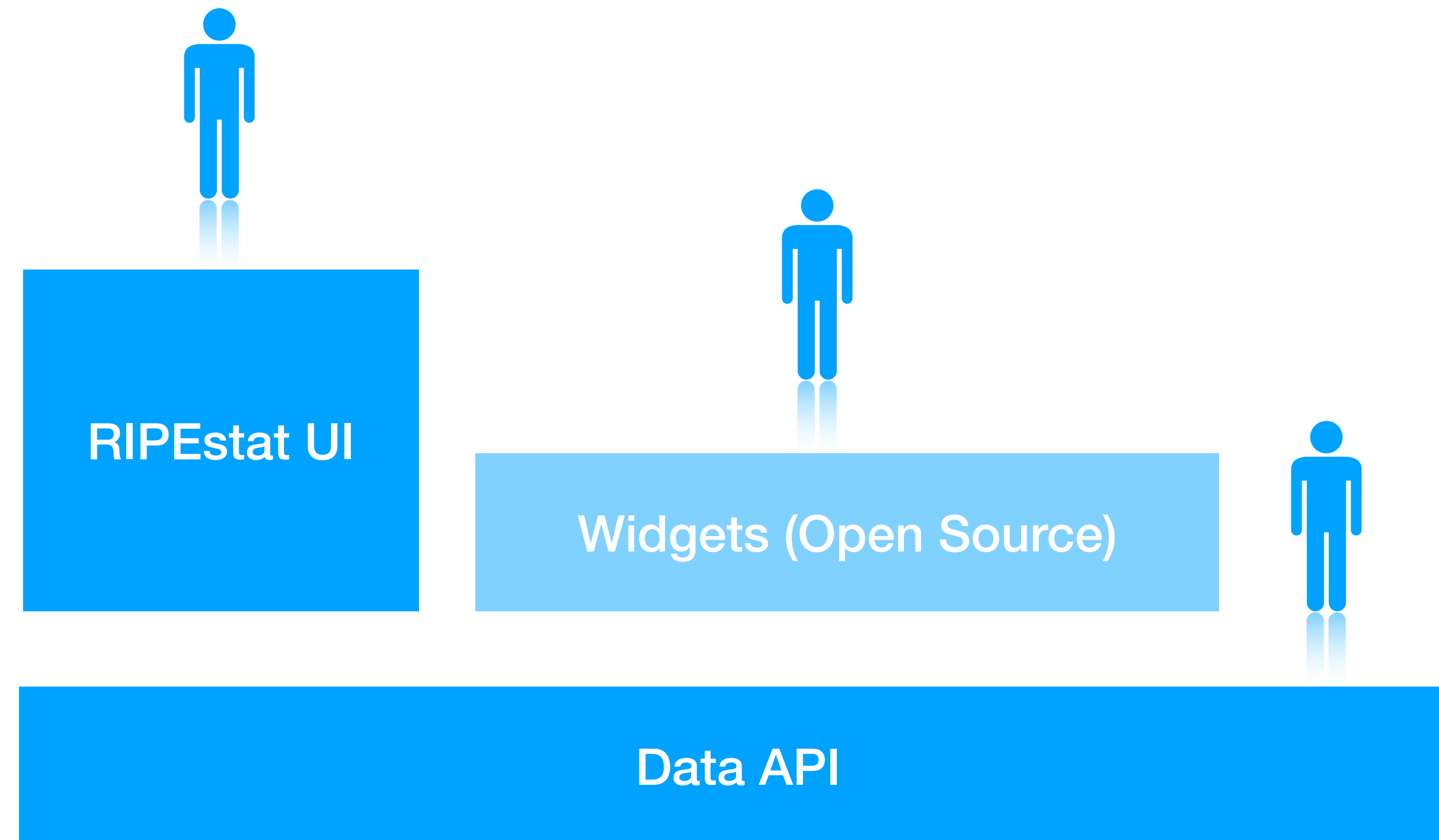
- Choose UI that best suits your needs (for the time being)

The screenshot shows the RIPEstat website with a blue navigation bar at the top. The bar contains the RIPEstat logo, the text "Looking for the old interface?", and a button labeled "Go to the old UI". A large blue arrow points from the text "UI2013" on the right towards this button. Below the navigation bar, the main content area features the heading "Providing open data and insights for Internet resources" and a paragraph describing the service. A button labeled "Go to the RIPEstat app" is positioned below the text, with a large blue arrow pointing from the text "UI2020" on the right towards it. At the bottom of the screenshot, a laptop and a smartphone are shown displaying the RIPEstat interface on their respective screens.

RIPEstat APIs in the Future



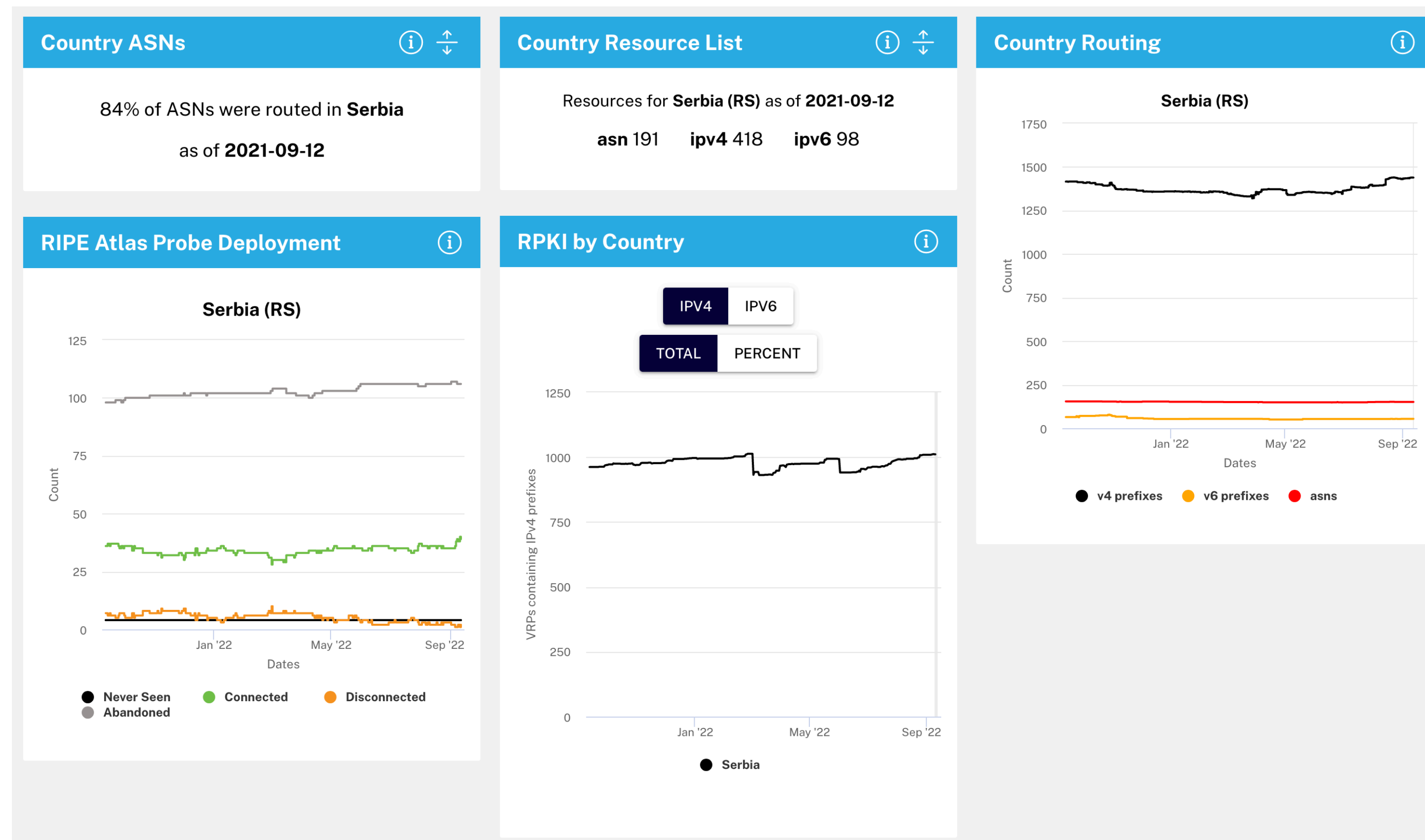
- Public interfaces



UI Highlights



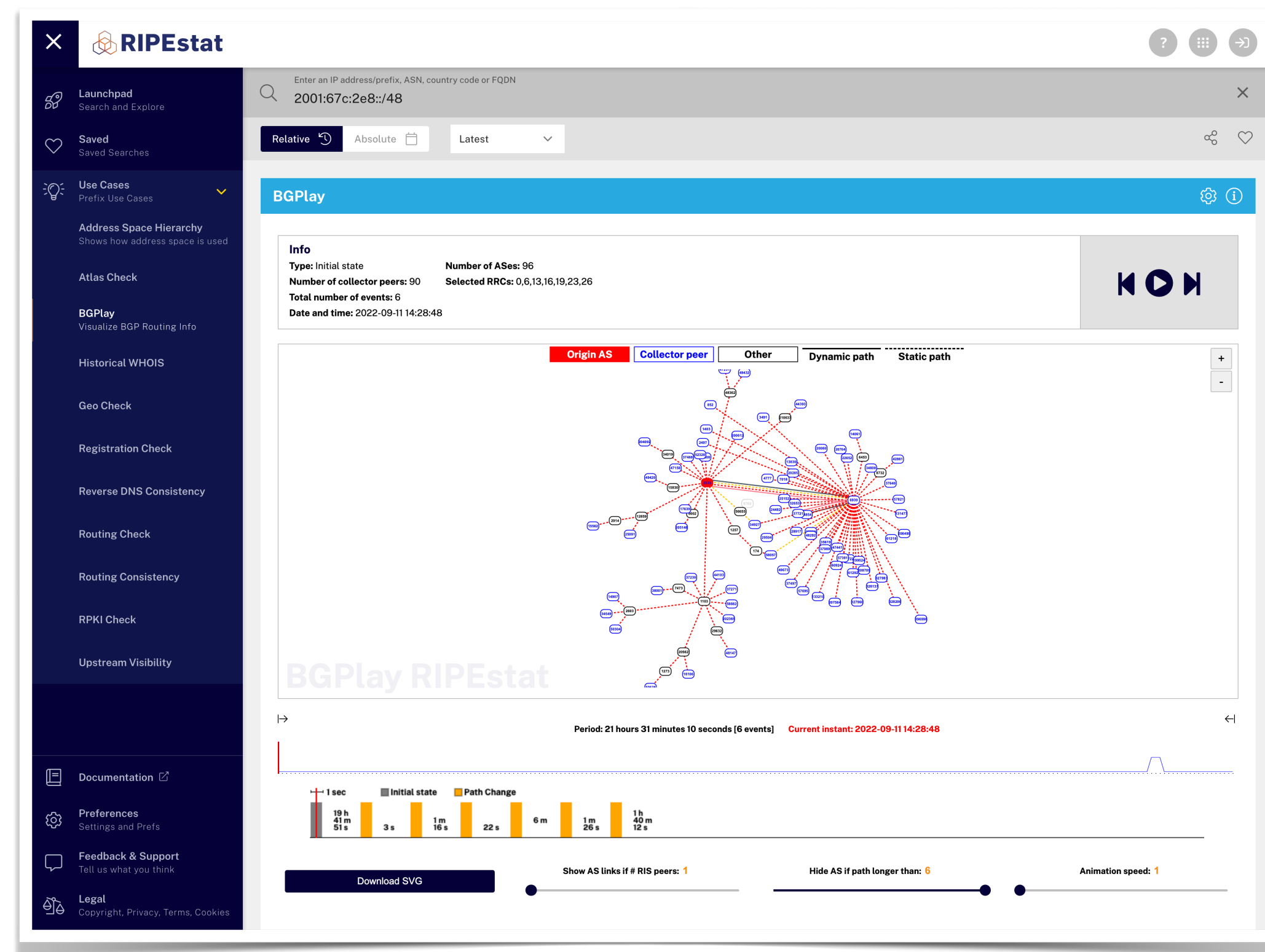
- Country Statistics for Serbia



UI Highlights



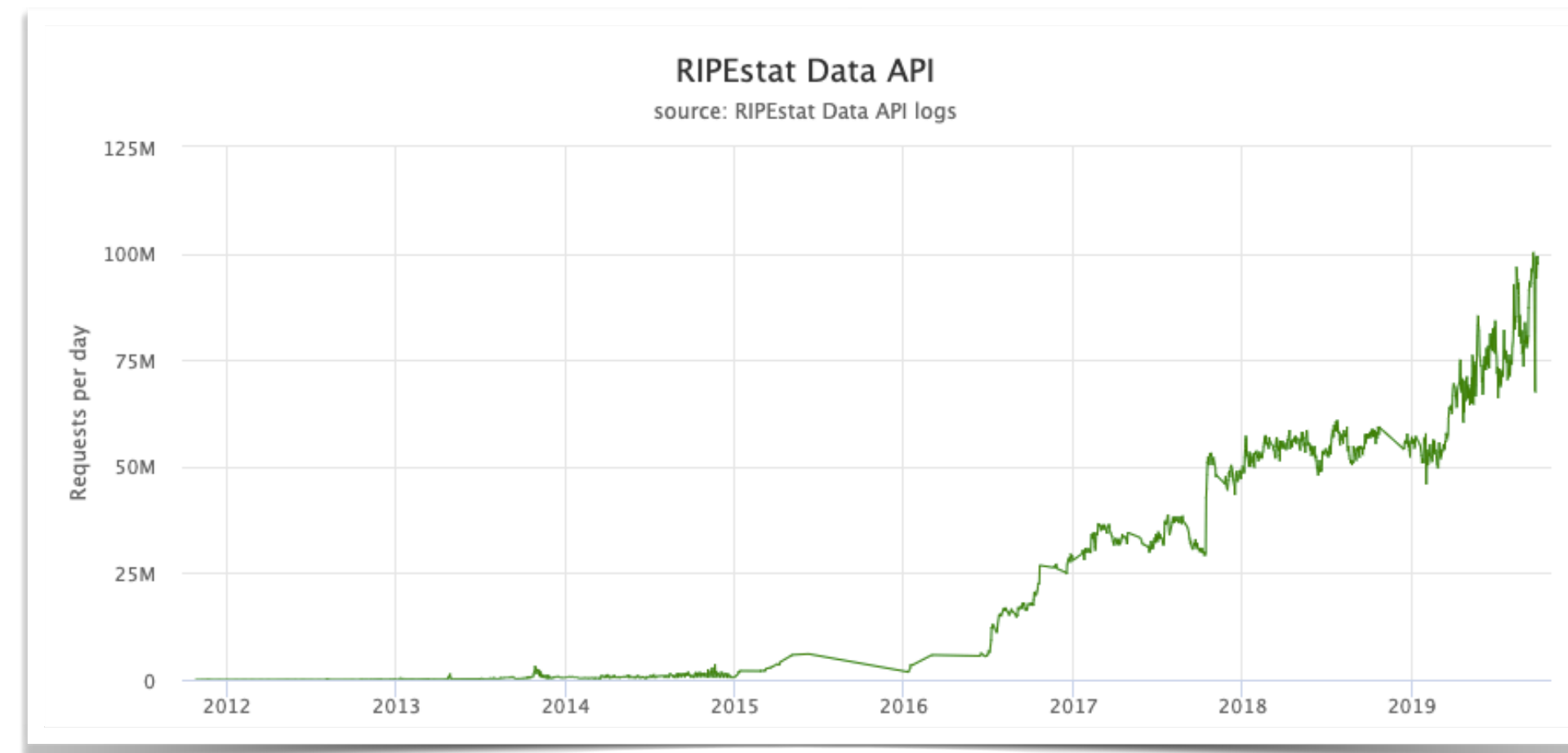
- BGPlay
 - Visualises state of BGP routing as seen by RIS (ris.ripe.net)
 - BGPlay has many use cases:
 - Visibility analysis (IPv4/IPv6)
 - Route flapping
 - etc.



RIPEstat Data API



- Core of RIPEstat
- Powering RIPEstat UIs and many other use cases



RIPEstat Data API



- JSON-RPC API

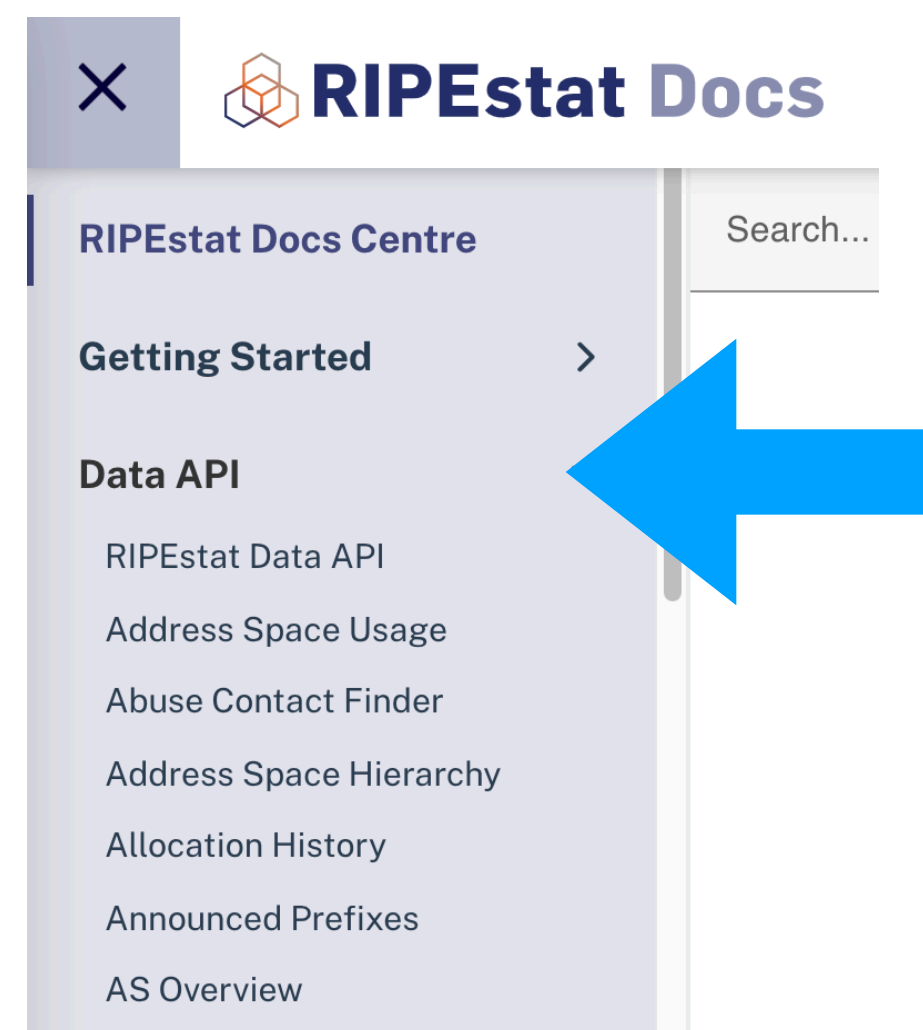
- E.g. https://stat.ripe.net/data/prefix-overview/data.json?max_related=50&resource=193.0.20.0%2F23

- More than 50 data calls

- Documentation

- <https://stat.ripe.net/docs/>

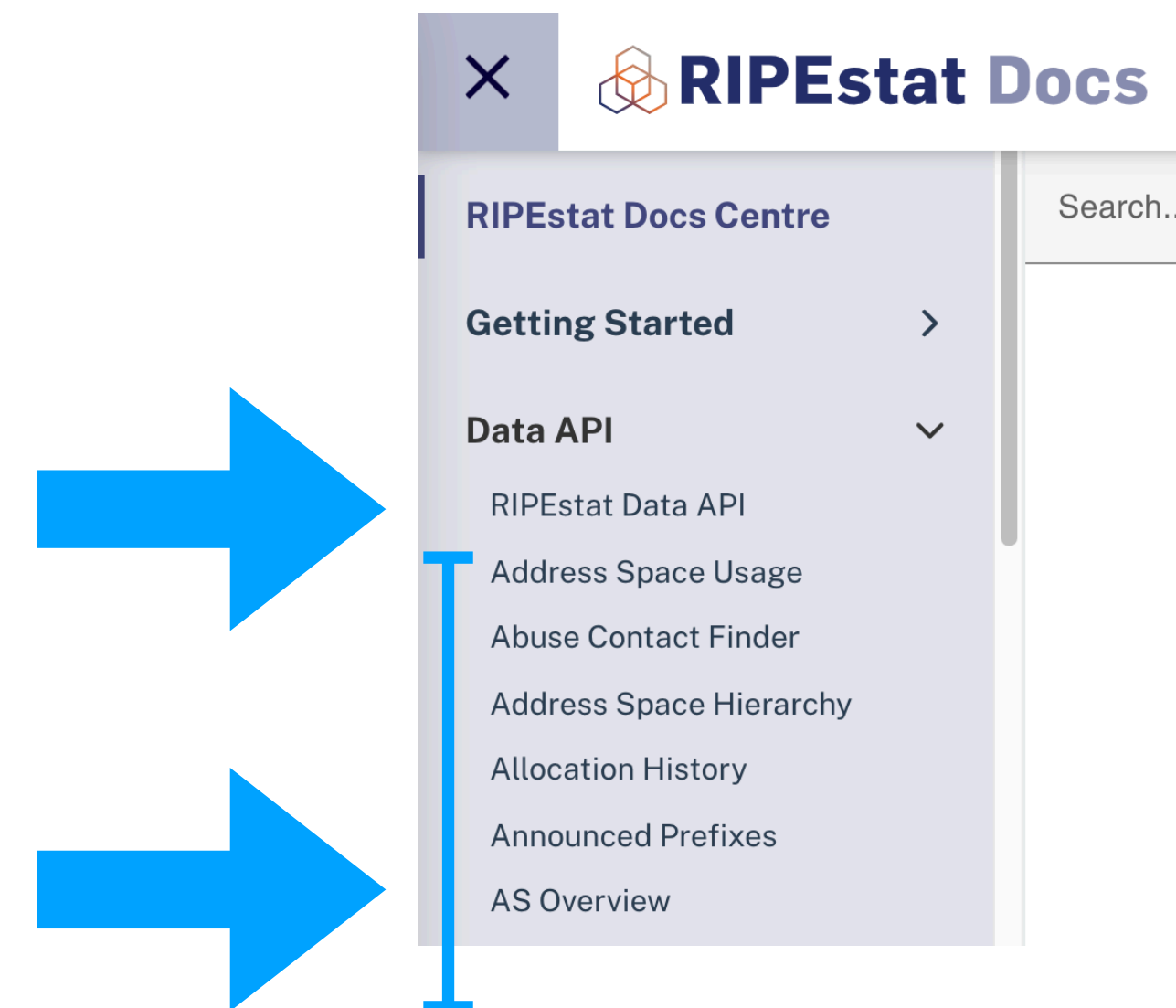
```
{
  "status": "ok",
  "server_id": "app007",
  "status_code": 200,
  "version": "2.0",
  "cached": false,
  "see_also": [],
  "time": "2019-11-11T18:28:08.396599",
  "messages": [],
  "data_call_status": "supported",
  "process_time": 40,
  "build_version": "2019.11.8.144",
  "query_id": "20191111182808-3673124b-6c94-4265-8dd0-48e6a3fdd6ab",
  "data": {
    "rrcs": [
      {
        "peers": [
          {
            "origin": "IGP",
            "last_updated": "2019-11-11T07:40:52",
            "as_path": "9304 174 1299 1764 1853 1205",
            "community": "",
            "asn_origin": 1205,
            "prefix": "140.78.0.0/16",
            "next_hop": "198.32.160.39",
            "peer": "198.32.160.39"
          },
          {
            "origin": "IGP",
            "last_updated": "2019-11-11T07:18:23",
            "as_path": "2497 3356 1853 1853 1205",
            "community": "",
            "asn_origin": 1205,
            "prefix": "140.78.0.0/16",
            "next_hop": "198.32.160.42",
            "peer": "198.32.160.42"
          },
          {
            "origin": "IGP",
            "last_updated": "2019-11-11T10:15:03",
            "as_path": "397143 395853 46450 2914 1764 1853 1205",
            "community": "46450:11111",
            "asn_origin": 1205,
            "prefix": "140.78.0.0/16",
            "next_hop": "198.32.160.58",
            "peer": "198.32.160.58"
          }
        ]
      }
    ]
  }
}
```



RIPEstat Data API: Using It!



- General use
 - URL structure and parameters
 - Register as a regular user
 - etc.
- Specific API endpoints



RIPEstat Data API: Using It!



- Select a specific API endpoint in the documentation

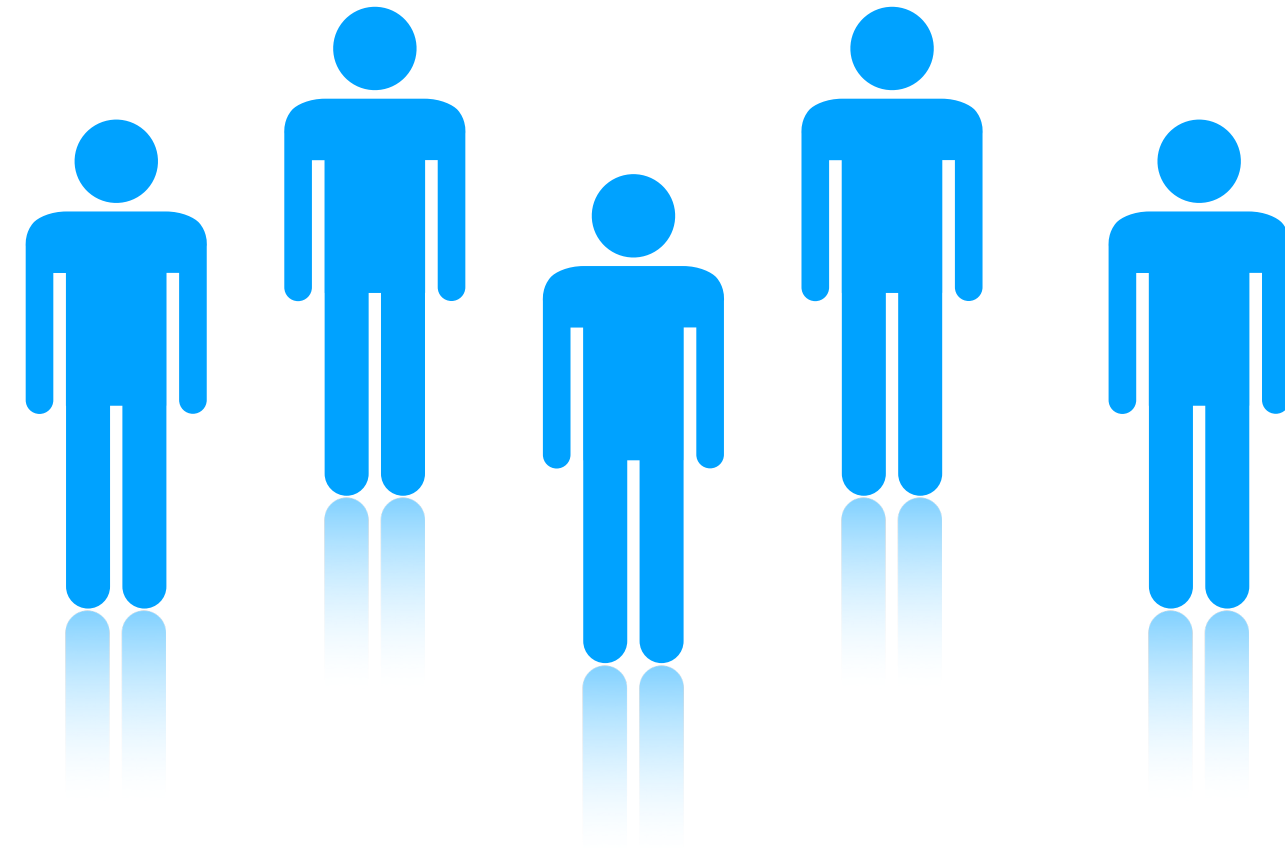
The screenshot shows the RIPEstat Docs website. The left sidebar contains a navigation menu with the following items: RIPEstat Docs Centre, Getting Started, Data API (expanded), RIPEstat Data API, Address Space Usage (selected), Abuse Contact Finder, Address Space Hierarchy, Allocation History, Announced Prefixes, AS Overview, AS Path Length, AS Routing Consistency, ASN Neighbours, ASN Neighbours History, Atlas Probe Deployment, Atlas Probes, Atlas Targets, BGP State, BGP Update Activity, BGP Updates, and BGPlay. The main content area is titled 'Address Space Usage' and includes a search bar, a description of the data call, a REST client snippet for the endpoint `GET /data/Address-Space-Usage/data.json?resource=193/23`, and a JSON response viewer showing an error message: `{ "messages": [{ "info": "This data call does not exist on RIPEstat. See https://stat.ripe.net/docs/data_api for available" }], "see_also": [], "version": "1.0", "data_call_name": "Address-Space-Usage", "data_call_status": "supported", "cached": false, "data": {}, "query_id": "20211213152747-9e1834c7-e29d-4c72-b3ba-f8215838aeae" }`. Buttons for 'HIDE', 'EXPAND', and 'TRY IT' are visible.

Development Outlook



- User Interface
 - Further improving new UI
 - Open sourcing widget UI (= building block of old UI)
- Service improvements
 - Reliability and performance
 - More testing
- Data quality improvements
- Data API revamp
- Open for more collaborations on data

Feedback - Three Pillars



<https://ripestat.featureupvote.com/>



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Questions



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