



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Tools and Services - An Update

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RIPE NCC



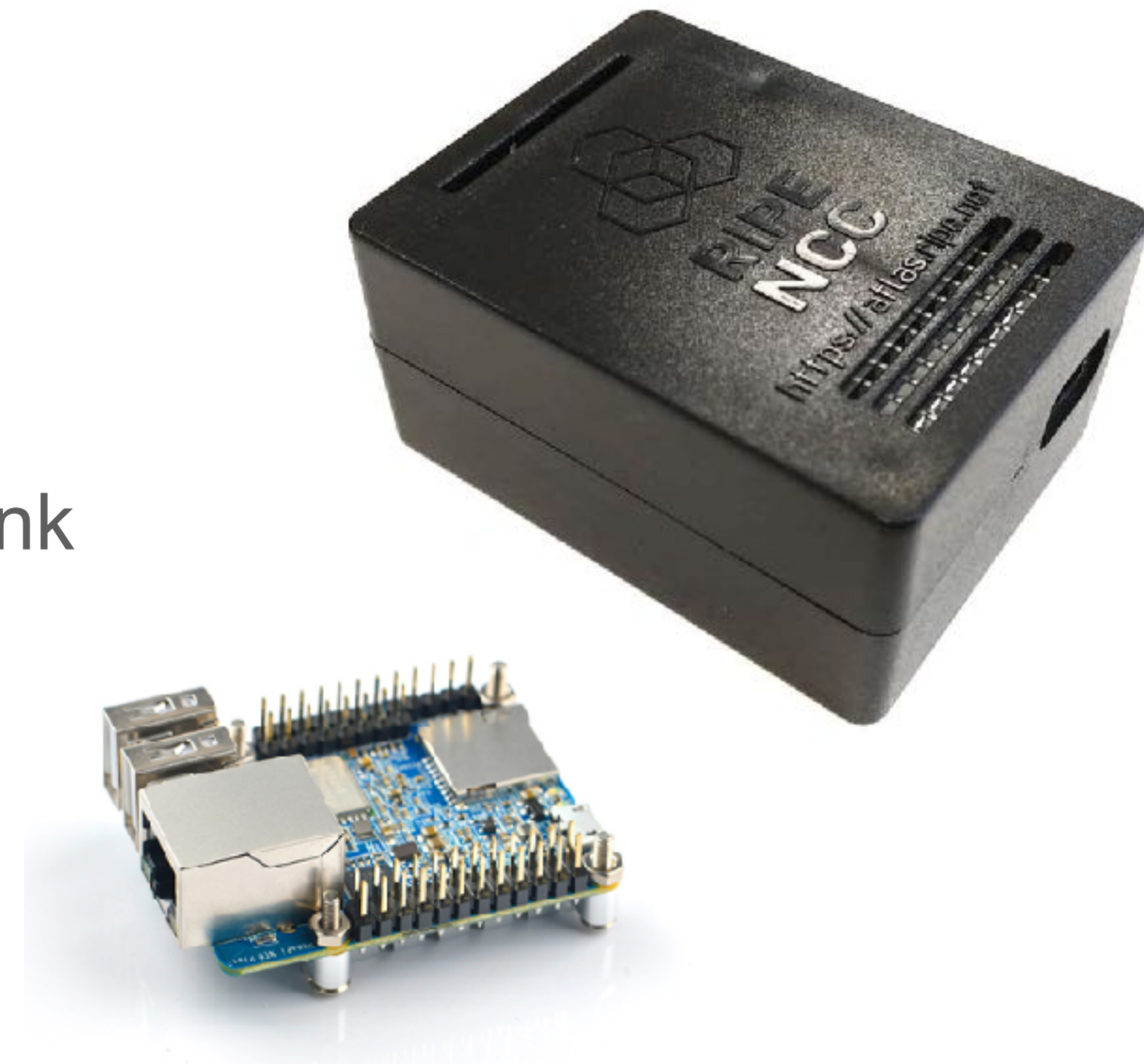
RIPE Atlas

RIPE Atlas Probes



Probes perform a variety of active measurements: ping, traceroute, DNS, HTTP(S), SSL/TLS, NTP

- **11,000+ probes connected**
 - **In Denmark: 147**
- Now distributing Version 4 probes
 - NanoPi NEO Plus2 with 512MB RAM and heat sink
 - Further information: atlas.ripe.net/docs/probe-v4/
- Stock and distribution
 - Currently waiting on next batch of probes



RIPE Atlas Anchors



Anchors are probes with enhanced measurement capacity

Set up at special locations to act as highly reliable measurement targets

- 650+ anchors connected
- 250+ of these are VM anchors
 - A non-hardware option for anchor hosts



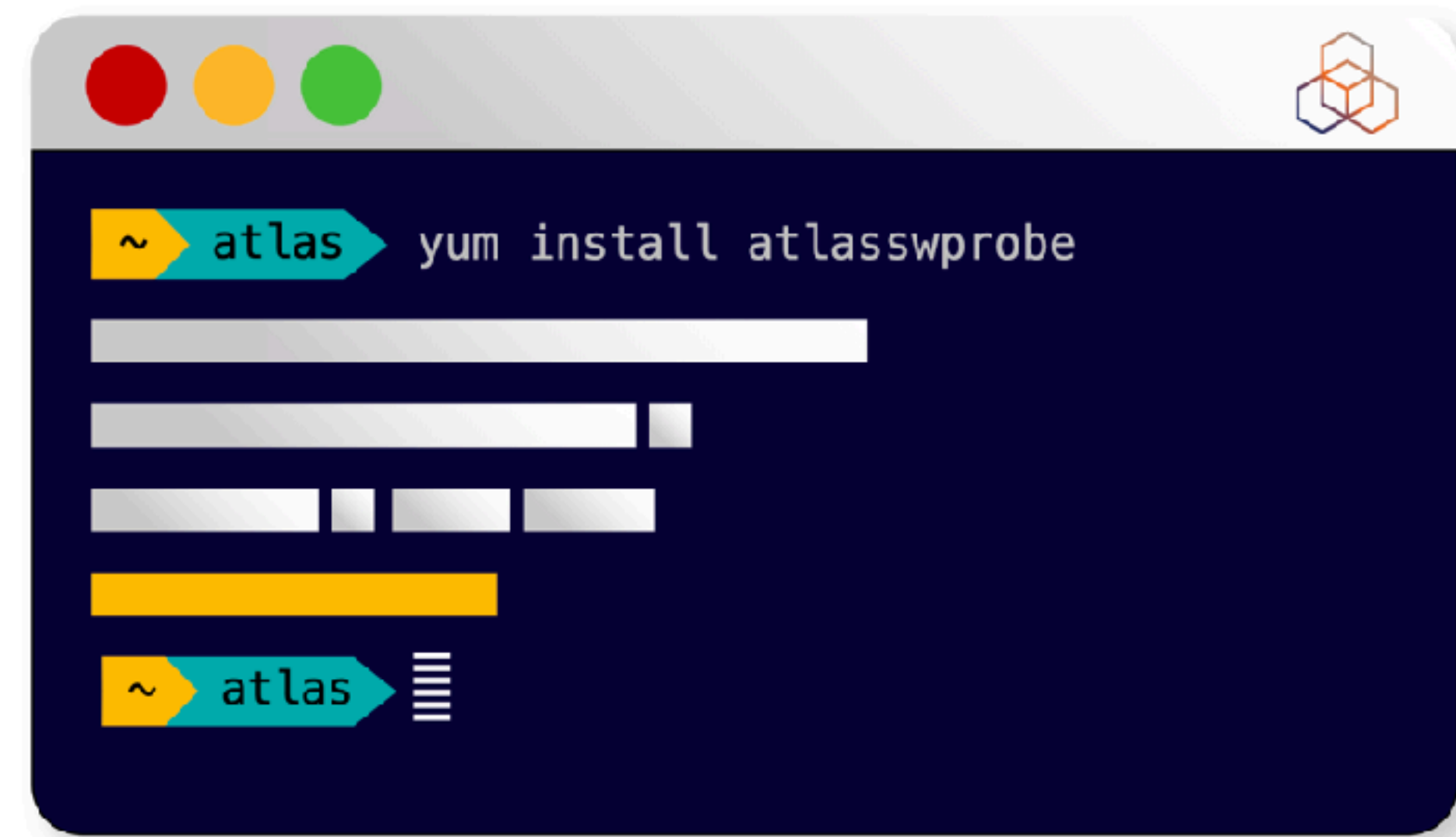
RIPE Atlas Software Probes



Released on 12 February 2020

They work just like regular probes

- **280 software probes registered**
- Install and run on your virtual machines, home routers, servers, etc.
- Currently supporting:
 - CentOS 7 and 8; Debian (9 and 10) and Raspbian; Docker; Turriz Routers



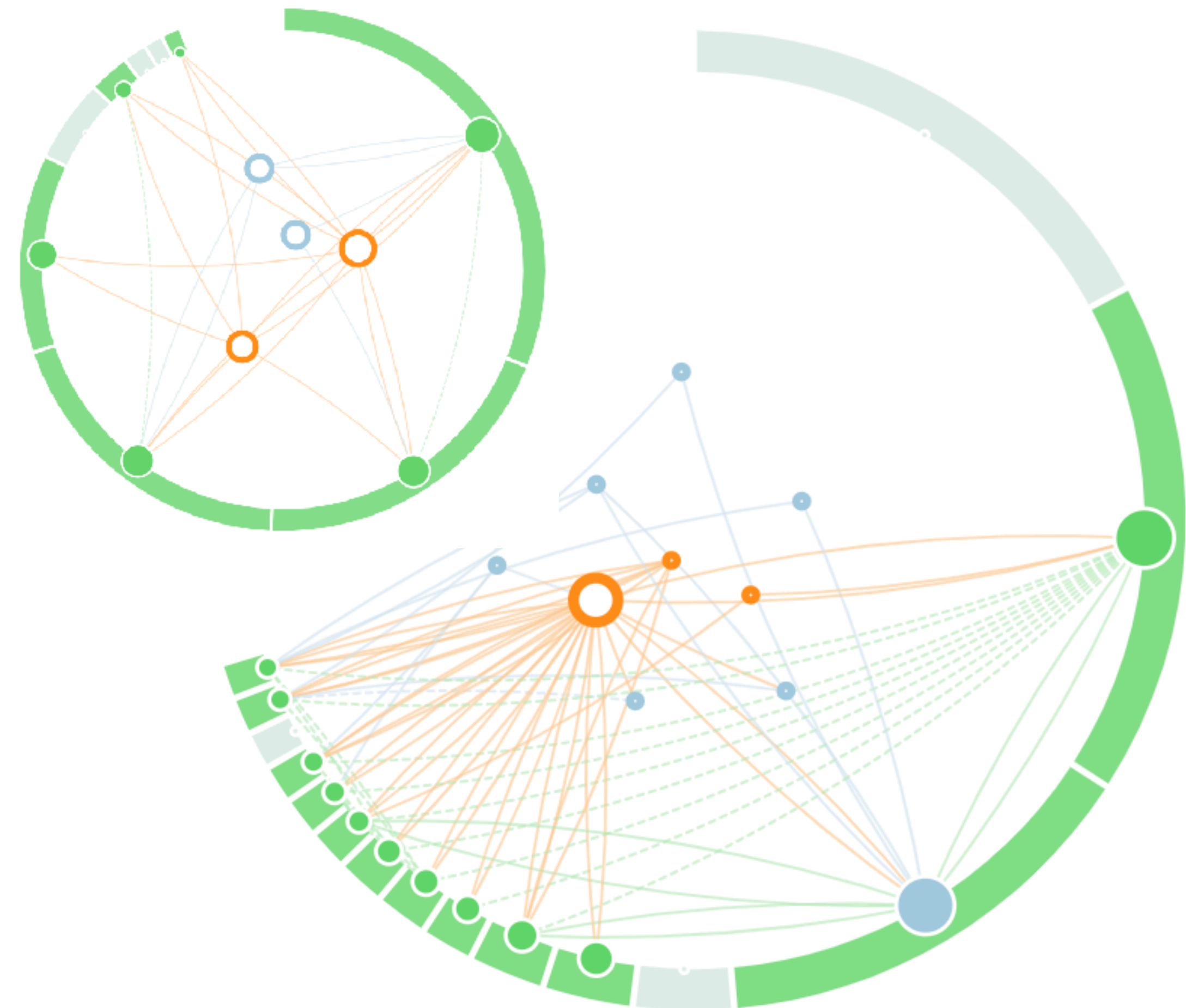
User-to-User Connections



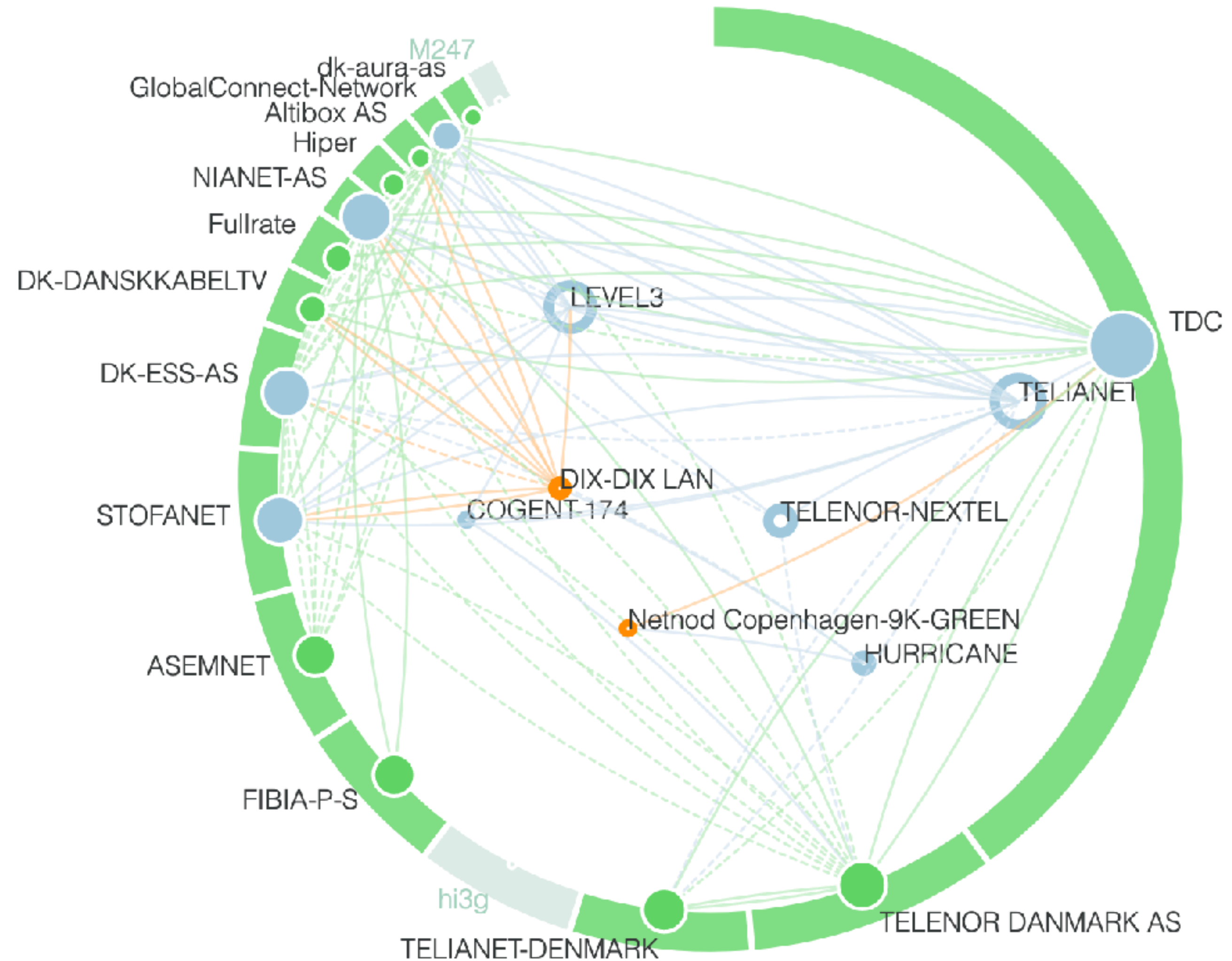
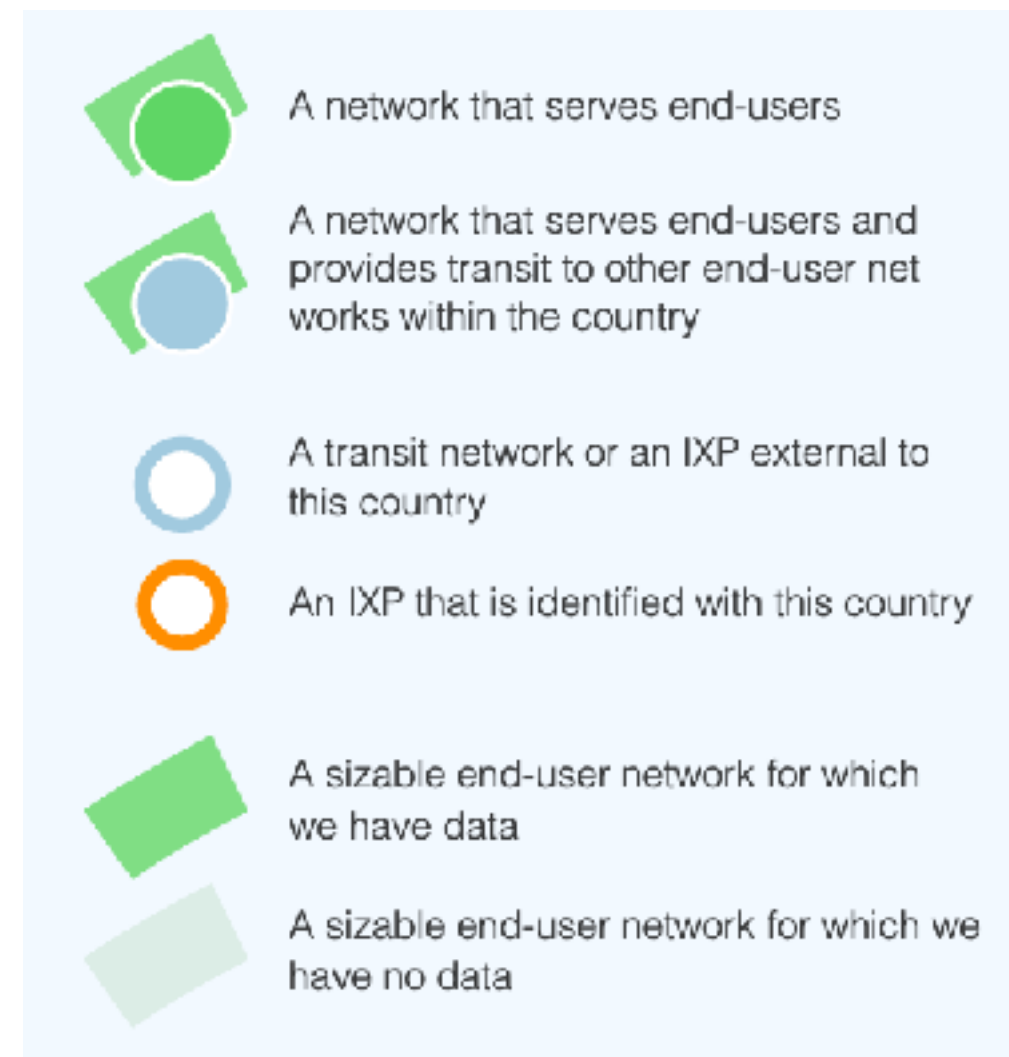
Visualisations that sketch the different ways in which end-users are interconnected within a country

- Paths between networks (end-to-end)
- Do they go through an IXP?

- <https://sg-pub.ripe.net/ixp-country-jedi/>



Denmark





RIPEstat

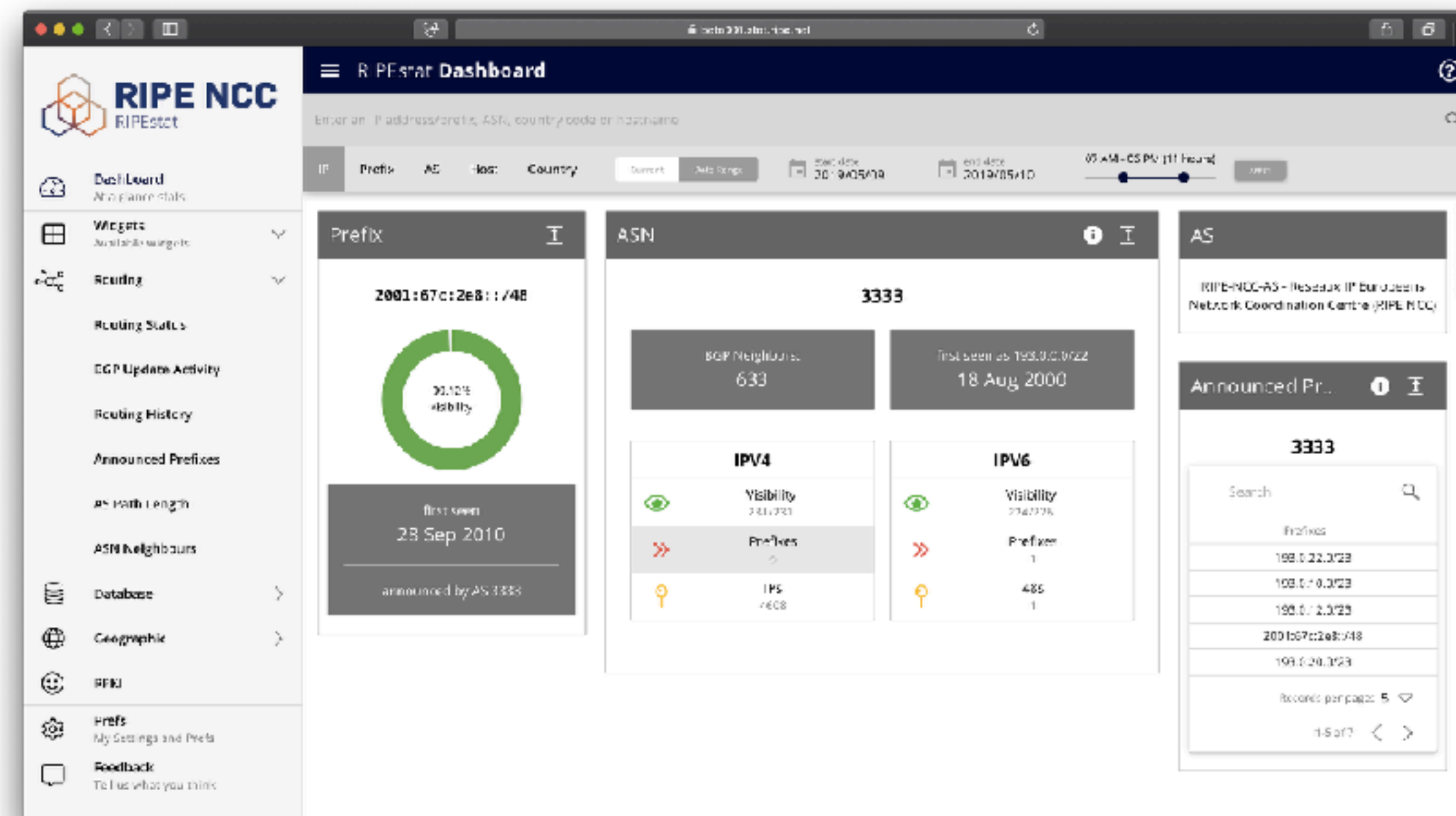
A New RIPEstat UI



New prototype UI, available to all users

Will replace the existing frontend

- Faster, more modern interface
- Mobile-friendly



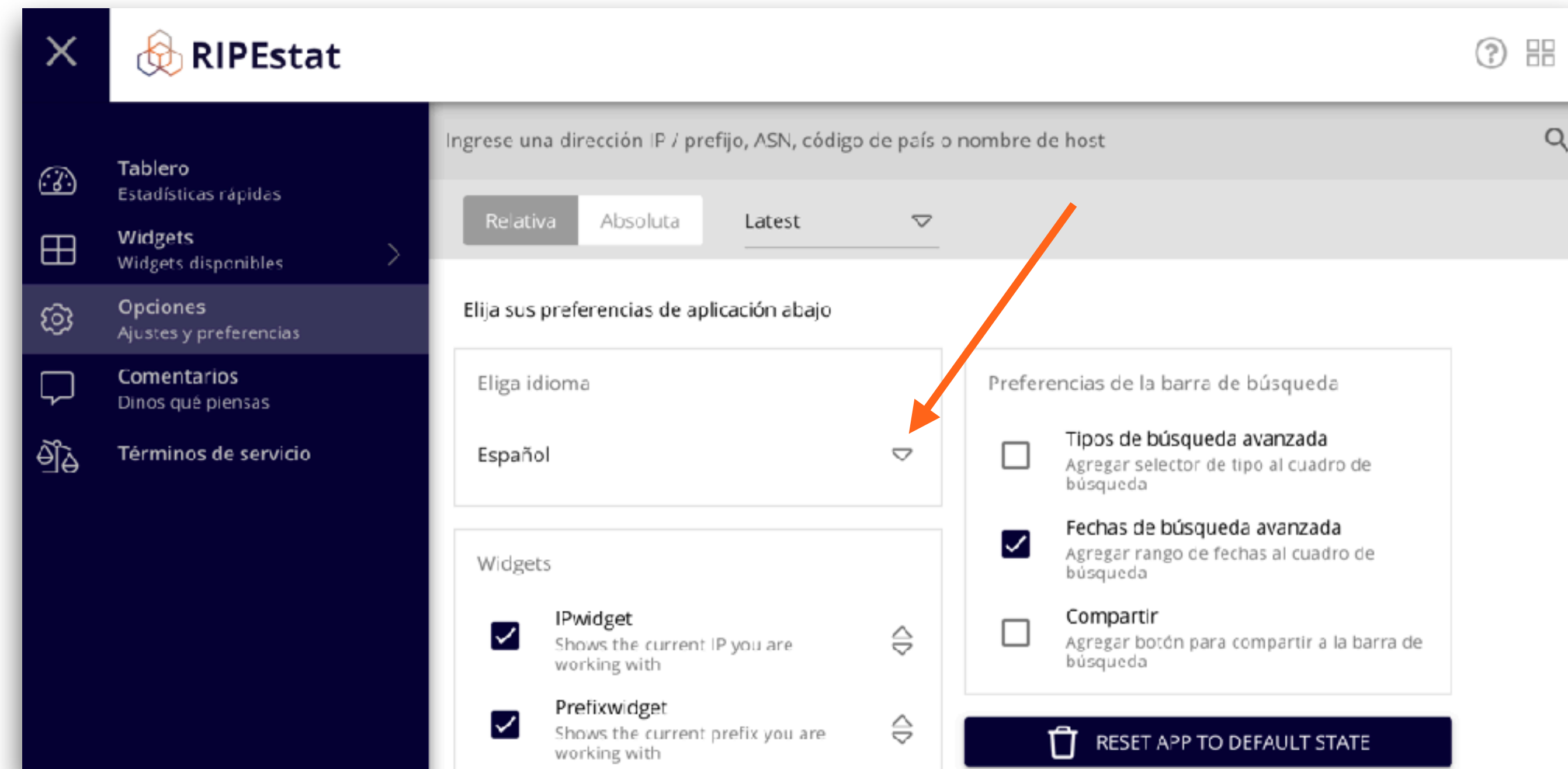
<https://alpha-ui.stat.ripe.net>

New Translation Feature



Reliable translations in the RIPEstat prototype UI

- Translations for key interface elements
- Support for eight languages
- Users can upload translations





RIPE RIS

RIS Data

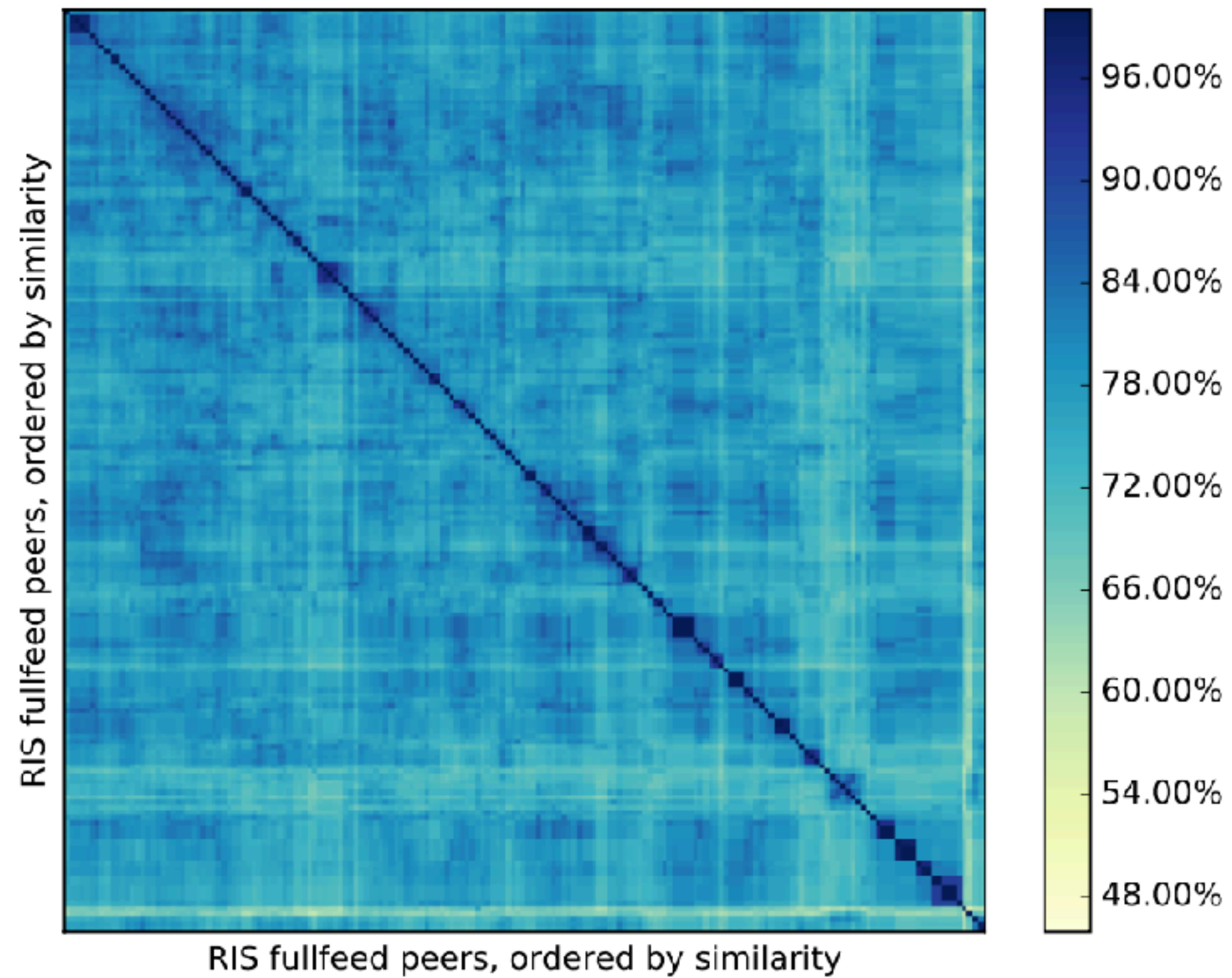


- Do we have redundancy in the data?
- Is RIS diverse enough?
 - And what does this mean for RIS Live, BGPlay?
- Current strategy: add route collectors at IXPs
 - Do we need a different strategy that provides more diversity?
- <https://labs.ripe.net/Members/emileaben/how-diverse-is-ris>

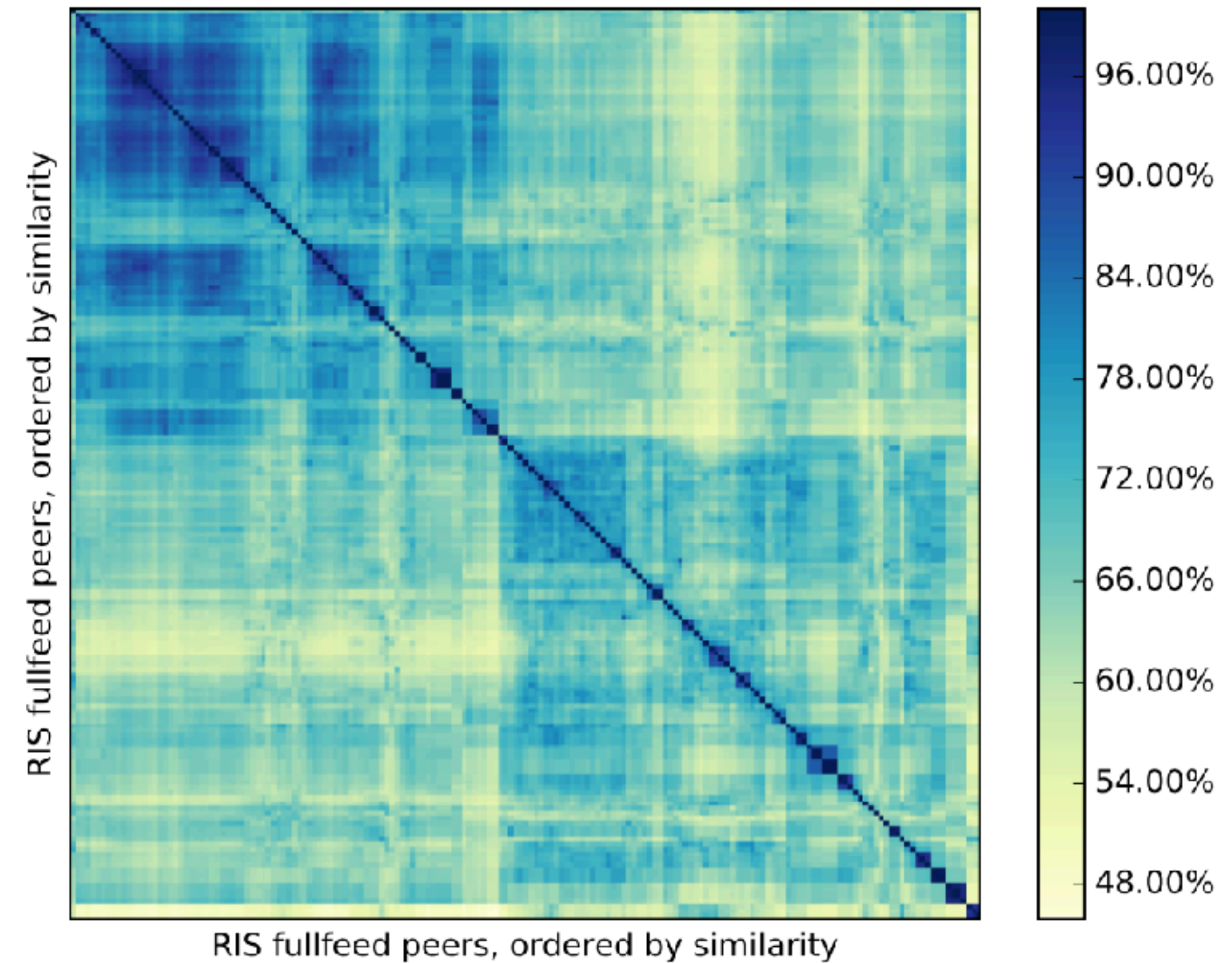
RIS Diversity



Similarity matrix for RIS peers IPv4



Similarity matrix for RIS peers IPv6



RIS Live



Stream BGP data in **real time**. Monitor and detect routing events anywhere in the world as those events occur

- Choose from a variety of filters to see whatever BGP messages are of interest to you

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

The screenshot shows the RIS Live interface. At the top, there is a pause button, a green 'Connected' status indicator, and a blue box showing '5749 matching messages ~1097 kbit/s'. Below this is a code editor displaying a BGP message in JSON format:

```
// Received at 23:20:31 (63.99 second delay)
{
  "timestamp": 1581632367.23,
  "peer": "37.49.236.246",
  "peer_asn": "2613",
  "id": "21-37-49-236-246-23984820",
  "host": "rrc21",
  "type": "UPDATE",
  "path": [2613, 6893, 6730, 174, 16509],
  "community": [[6893, 11301]],
  "origin": "igp",
  "announcements": [
    {
      "next_hop": "37.49.236.246",
      "prefixes": [
        "130.137.86.0/24"
      ]
    }
  ]
}
```


Other Tools and Visualisations



- We provide a host of other other prototype tools and visualisations supported by RIPE Atlas and RIS
- Detailed list available on RIPE Labs:
 - <https://labs.ripe.net/tools>

The screenshot displays a social media-style feed of four tool prototypes. Each entry includes a thumbnail image, a title, a 'PROTOTYPE' label, a description, and engagement metrics (comments, likes, dislikes).

- RPKI Webtest**: A terminal window with a green smiley face. Description: "RPKI Webtest lets you quickly figure out if a network you are using is dropping RPKI invalid BGP announcements. Try it now." 0 comments, 1 like, 0 dislikes.
- RIPE Atlas Population Coverage**: A world map with colored regions. Description: "This is a prototype web portal, which demonstrates the deployment of RIPE Atlas probes within eyeball networks based on Internet user population estimates per Autonomous System Number (ASN) per country." 0 comments, 0 likes, 0 dislikes.
- IPv6 RIPEness**: A horizontal bar chart showing IPv6 readiness ratings. Description: "IPv6 RIPEness is a rating system which awards stars to RIPE NCC members depending on indicators of IPv6 preparedness." 0 comments, 0 likes, 0 dislikes.
- IPv6 enabled ASNs**: A line graph showing the percentage of networks over time. Description: "This graph shows the percentage of networks (ASes) that announce an IPv6 prefix for a specified list of countries or..." 0 comments, 0 likes, 0 dislikes.



RPKI

RPKI in Your Region



Country	% Addresses	Accuracy
DK	40%	100,0%
NL	76%	99,9%
NO	43%	100,0%
SE	49%	100,0%
FI	69%	99,9%
DE	51%	99,9%
FR	77%	99,4%
BE	24%	100%%
IT	12%	99,9%

source: <https://lirportal.ripe.net/certification/content/static/statistics/world-roas.html>

Sign Your ROAs Today!



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You are editing: Reseaux IP Europeens Networ...

RPKI Dashboard 2 CERTIFIED RESOURCES ALERTS ARE SENT TO 1 ADDRESS

2 BGP Announcements 2 Valid 0 Invalid 0 Unknown

3 ROAs 3 OK 0 Causing problems

BGP Announcements Route Origin Authorisations (ROAs) History Search...

Discard Changes Delete ROAs Causing Problems Not Causing Problems + New ROA

<input type="checkbox"/>	AS number	Prefix	Most specific length allowed	Affected announcements	
<input type="checkbox"/>	AS Number	Prefix	Max length		📄 ↺
<input type="checkbox"/>	AS21222	193.0.24.0/21	21	0	✎ 🗑
<input type="checkbox"/>	AS2121	2001:67c:64::/48	48	1	✎ 🗑
<input type="checkbox"/>	AS2121	193.0.24.0/21	21	1	✎ 🗑

Show 25 of 3 items



Questions



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