# FANTAIL

## Facilitating Advances in Network Topology Analysis

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AIMS 2024

# GOAL

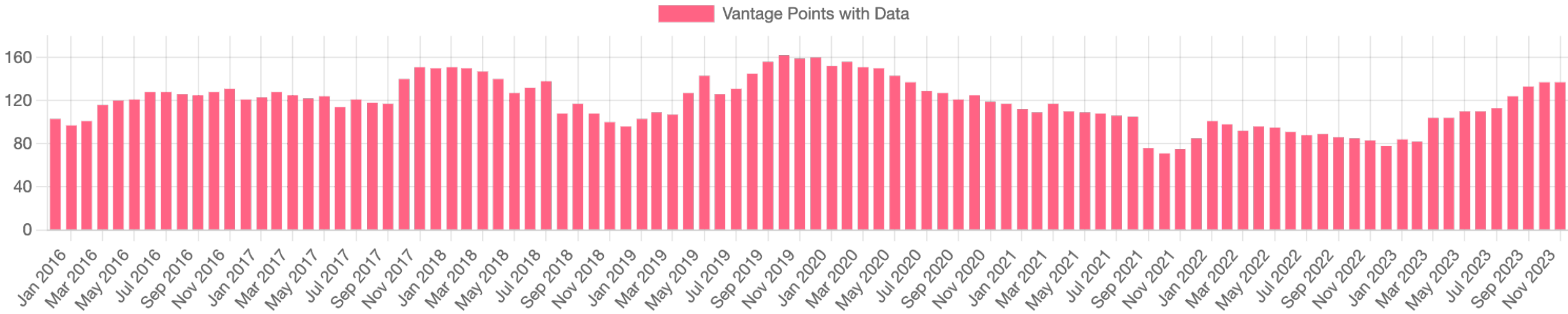


**Simplify the identification and collection of traceroutes which answer a targeted question.**

# PROBLEM



## You don’t know if the traceroute matches your needs until after downloading it



# OVERVIEW

- **Frontend UI**
- **Backend API**

# FANTAIL UI

https://fantail.caida.org

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- **Frontend UI**
- **Backend API**

# FANTAIL UI

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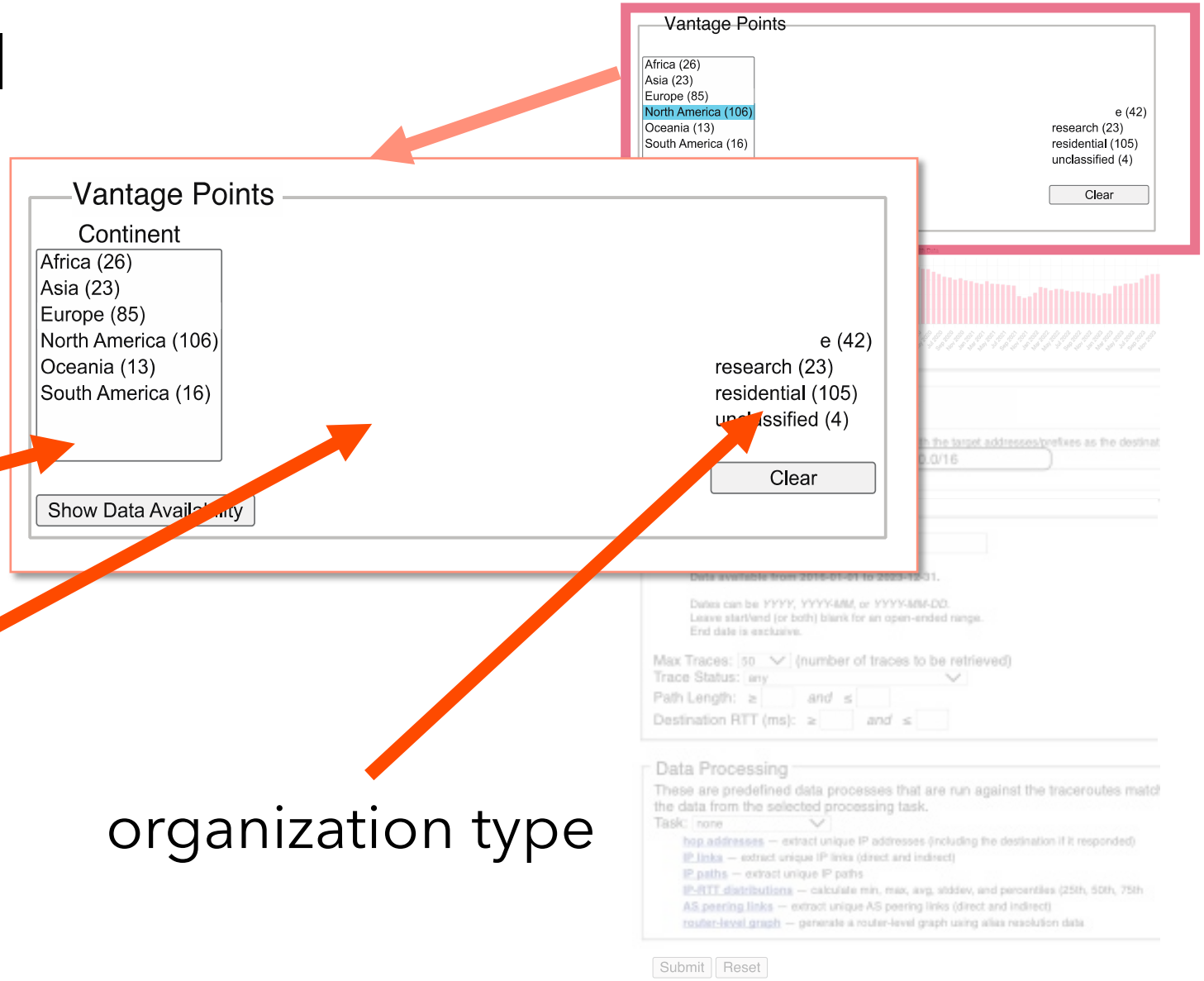
- **Select vantage points**



# FANTAIL UI

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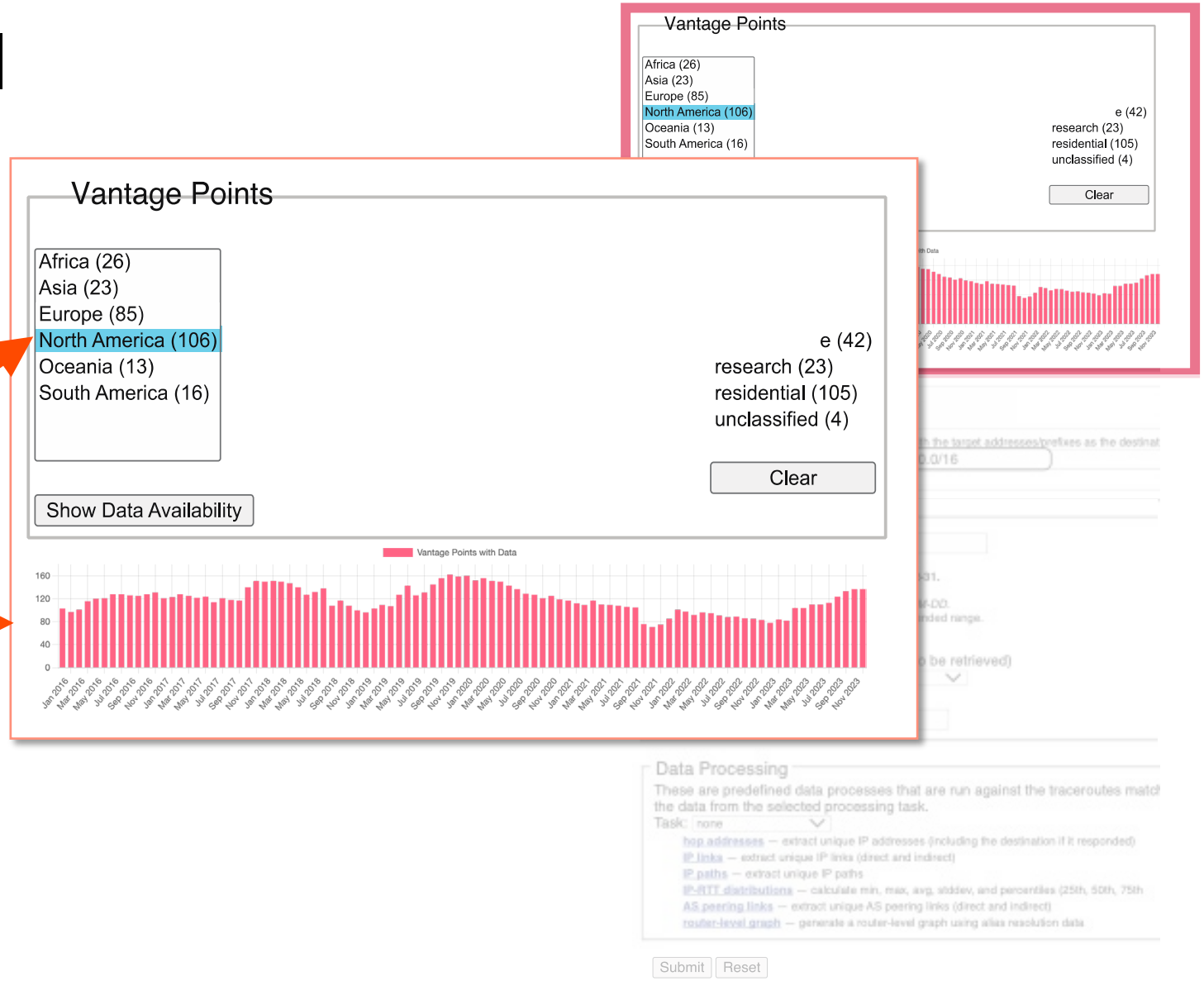
- **Select vantage points**

Selected filter

Amount of traceroutes matching filter.



# FANTAIL UI

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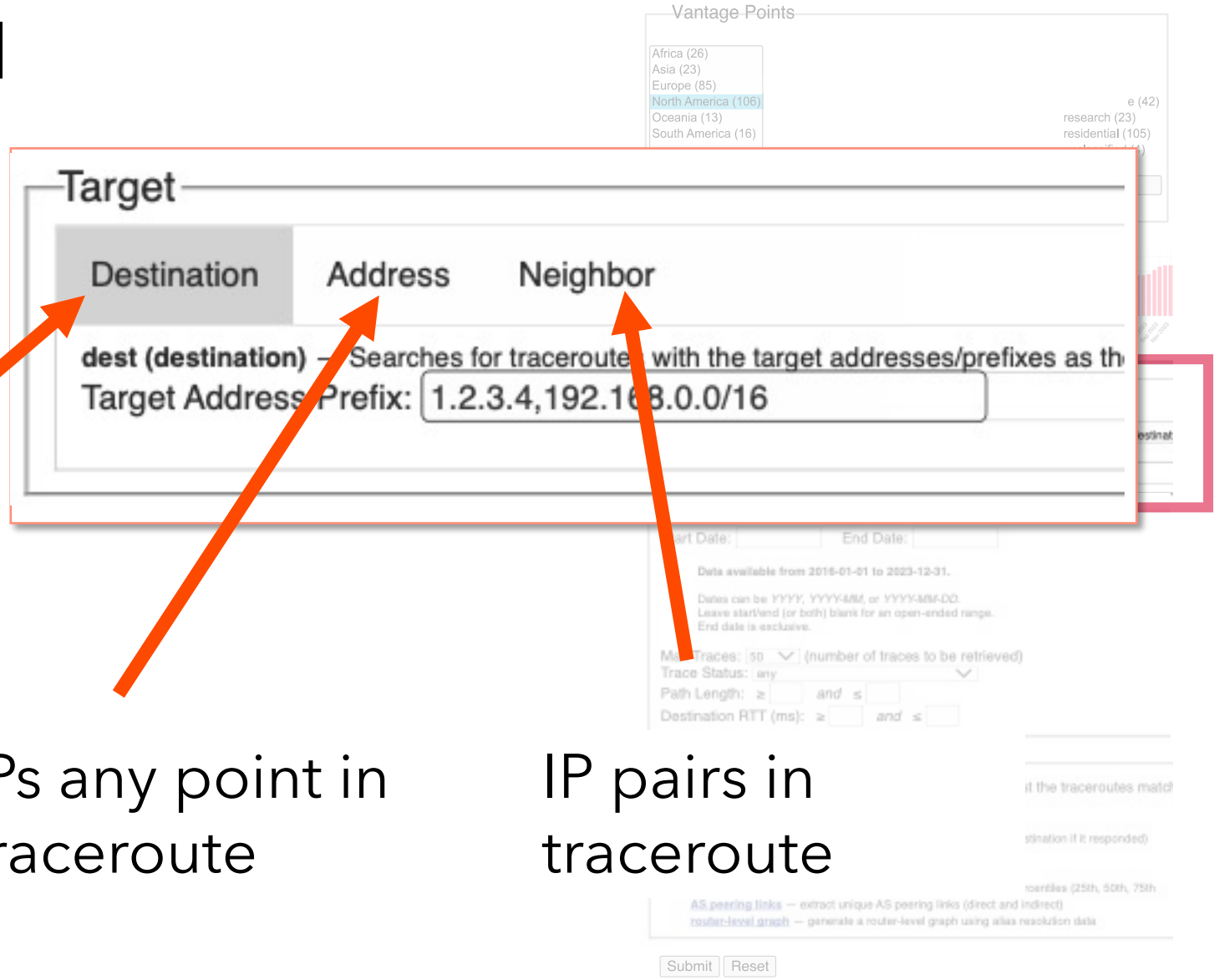
- Select vantage points
- **Select Target Prefixes**




IPs destination of traceroute

IPs any point in traceroute

IP pairs in traceroute

# FANTAIL UI

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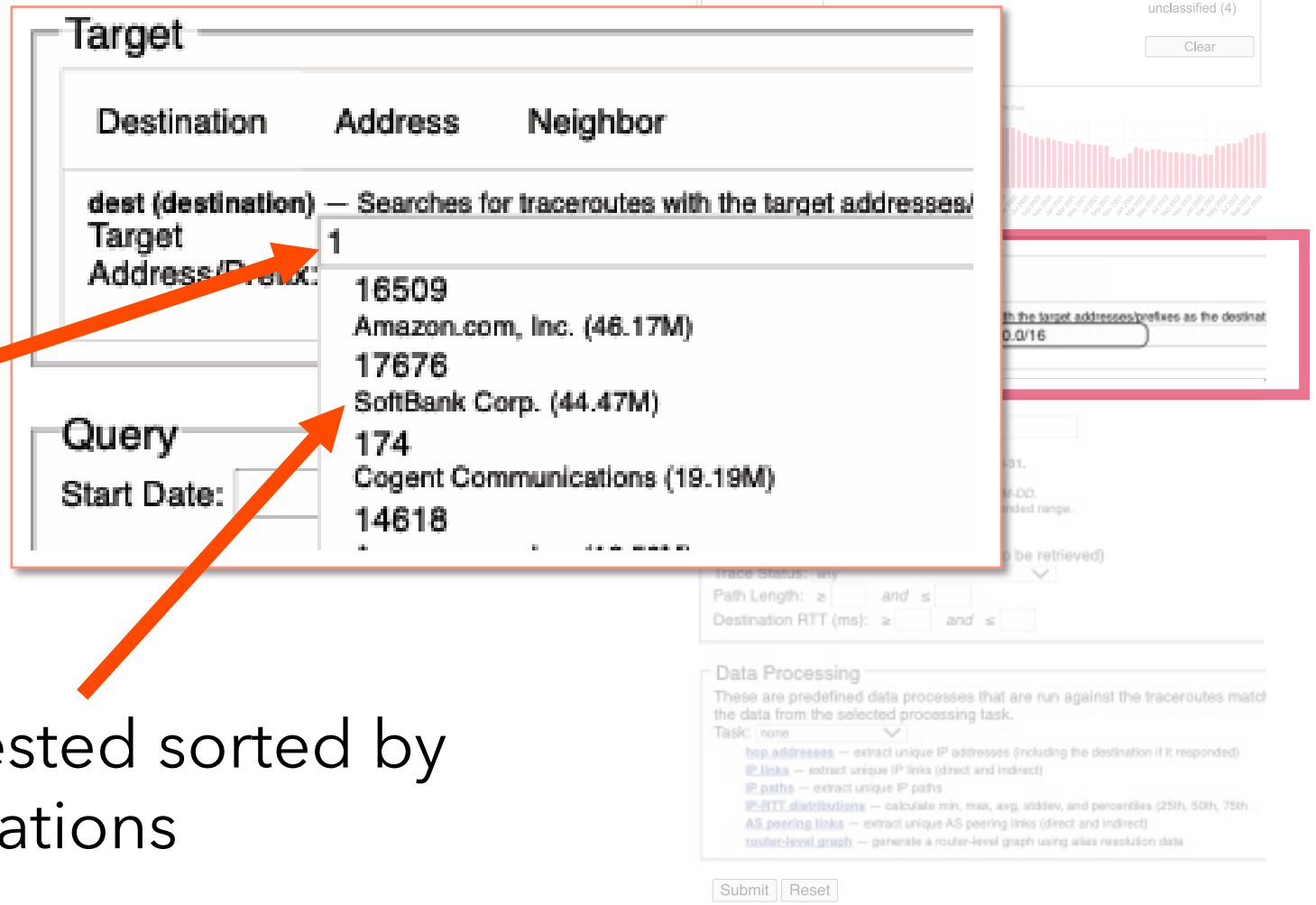
Coming Soon!!!

- Select vantage points
- **Select Target Prefixes**
  - **suggestions**




Suggestions from first front of the string both Country and ASN

Suggested sorted by destinations

# FANTAIL UI

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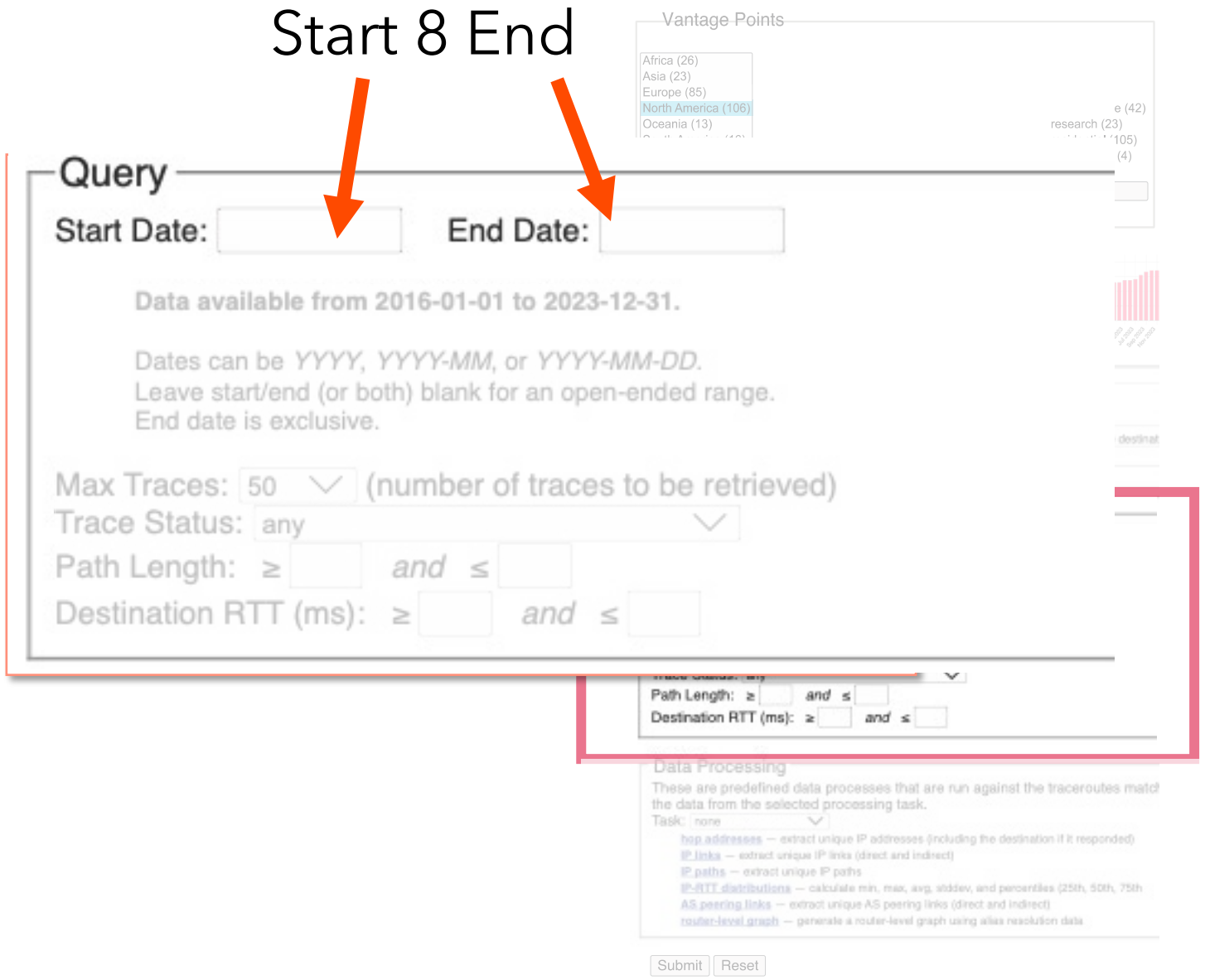
- Select vantage points
- Select Target Prefixes
- **Select Start +End**



# FANTAIL UI

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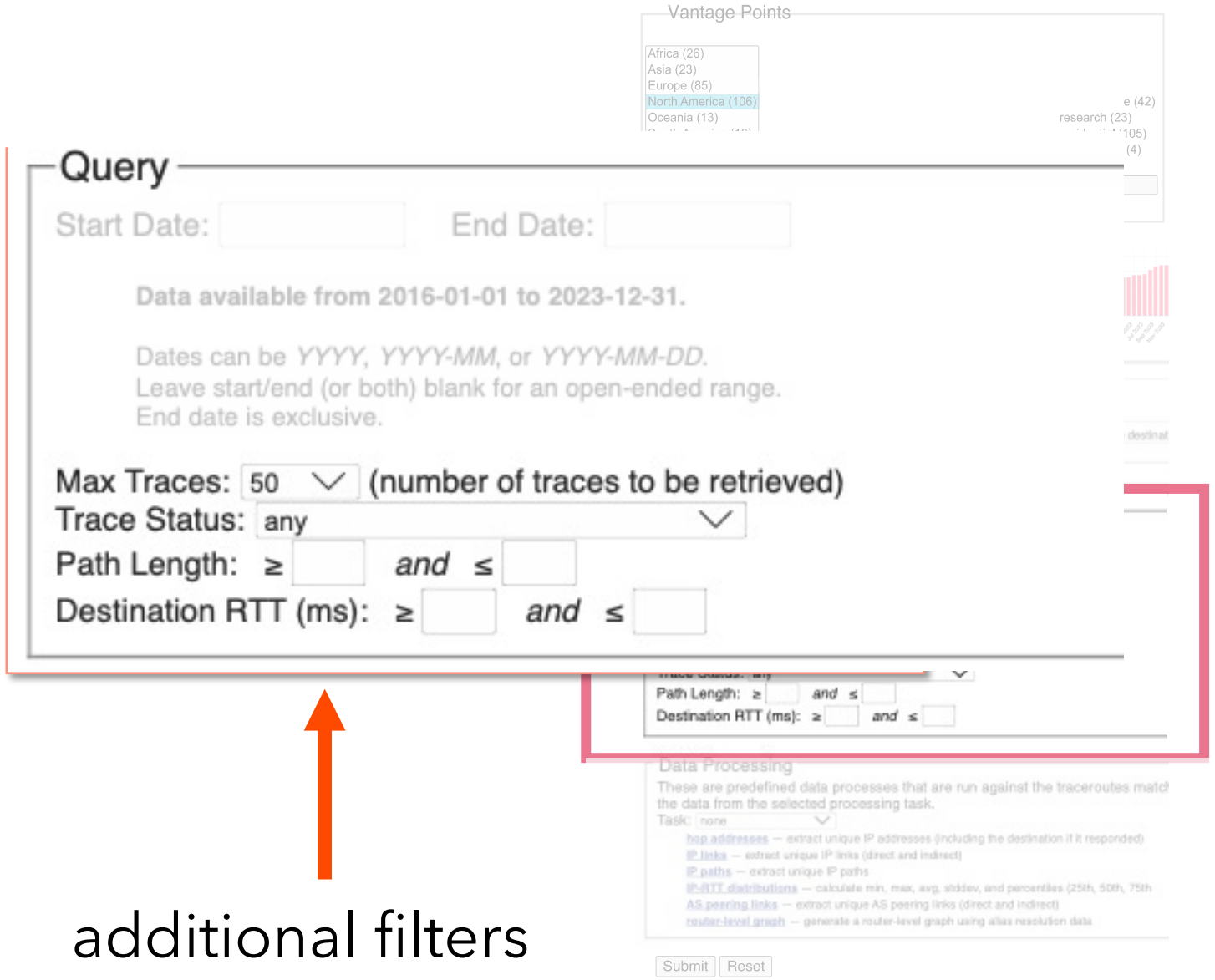
- Select vantage points
- Select Target Prefixes
- Select Start +End
- **Select additional Filters**
  - MAX TRACES
  - Traces Status
  - Path Length
  - Destination RTT (ms)




additional filters

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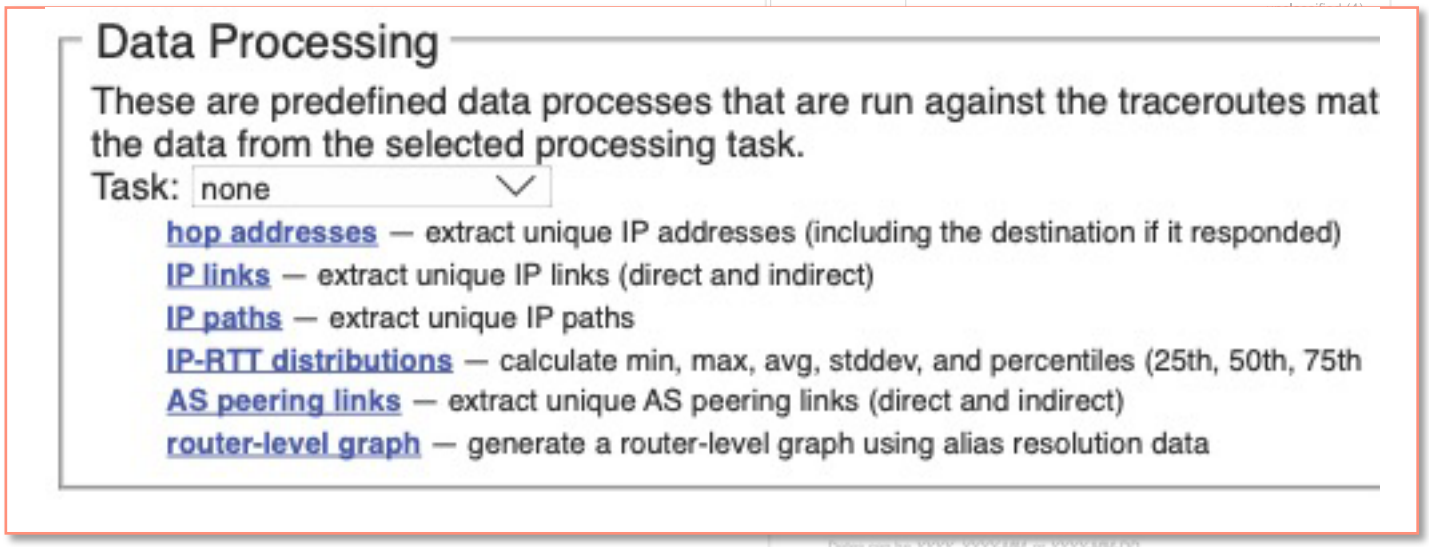
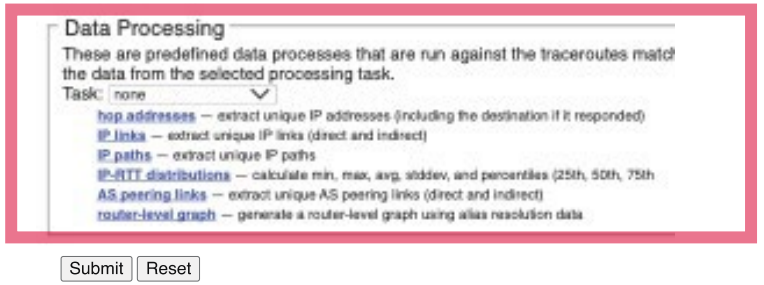
- Select vantage points
- Select Target Prefixes
- Select Start +End
- Select additional Filters
- **Data Processing**
  - none
  - extract: IPs, IP links, IP paths, AS paths, router graph
  - IP RTT distributions



# FANTAIL UI

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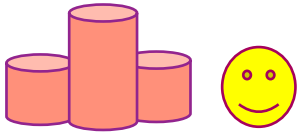
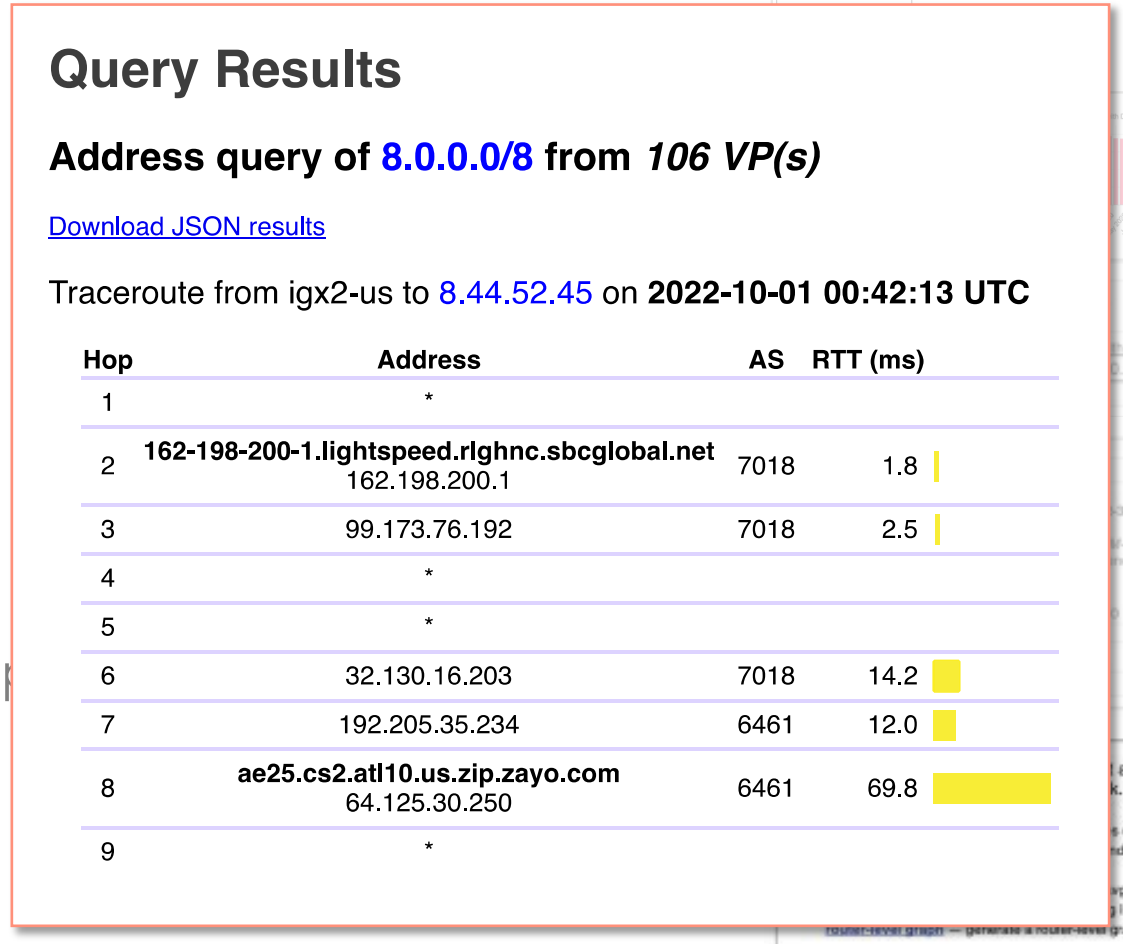


Data!

- Select vantage points
- Select Target Prefixes
- Select Start +End
- Select additional Filters
- Data Processing
  - none
  - extract: IPs, IP links, IP paths, router graph
  - IP RTT distrbitiouns
- **Submit!**



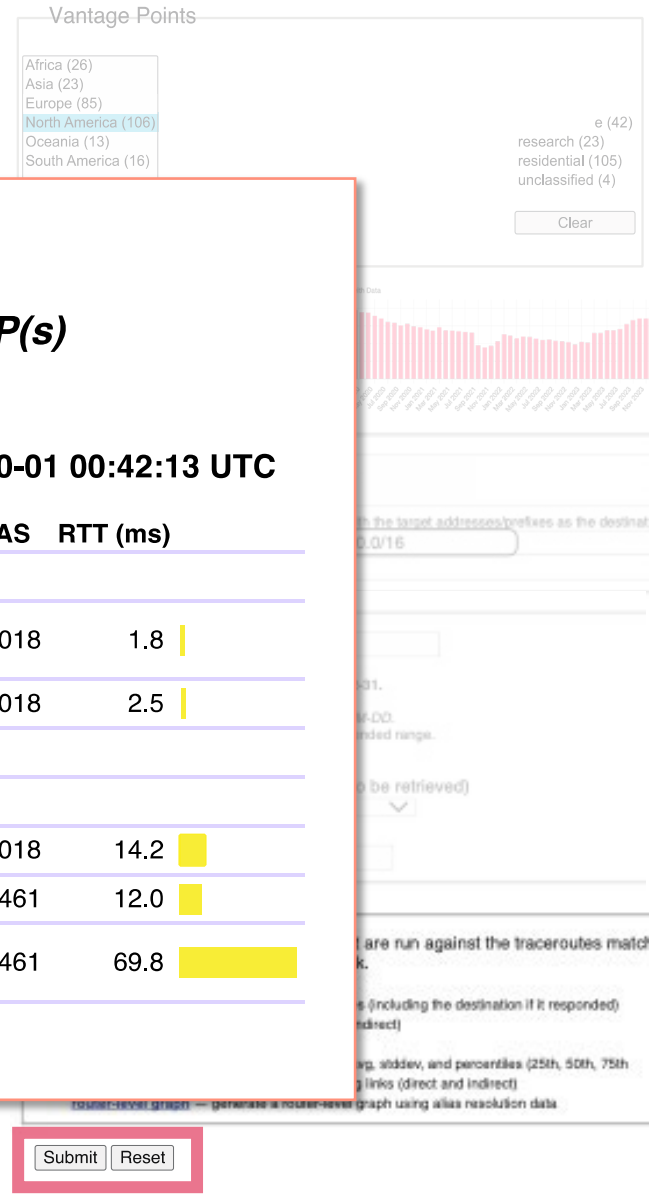
## Query Results

**Address query of 8.0.0.0/8 from *106 VP(s)***

Download JSON results

Traceroute from igx2-us to 8.44.52.45 on **2022-10-01 00:42:13 UTC**

| Hop | Address | AS | RTT (ms) |
|---|---|---|---|
| 1 | * | | |
| 2 | **162-198-200-1.lightspeed.rlghnc.sbcglobal.net** 162.198.200.1 | 7018 | 1.8 |
| 3 | 99.173.76.192 | 7018 | 2.5 |
| 4 | * | | |
| 5 | * | | |
| 6 | 32.130.16.203 | 7018 | 14.2 |
| 7 | 192.205.35.234 | 6461 | 12.0 |
| 8 | **ae25.cs2.atl10.us.zip.zayo.com** 64.125.30.250 | 6461 | 69.8 |
| 9 | * | | |

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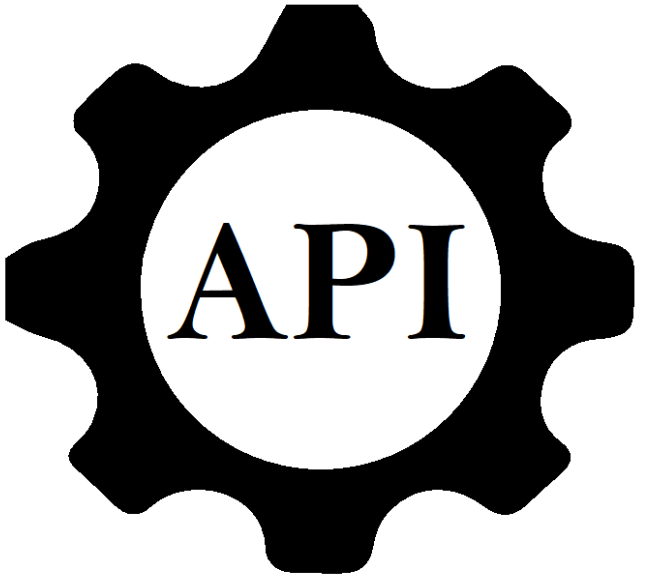
# OVERVIEW



- Frontend UI
- **Backend API**




https://www.caida.org/projects/fantail/docs

# Questions?

**FANTAIL**

**fantail.caida.org**