```
12.51,100.14
-cb00:13be3
19:F2:80:119
   09:00:80
1-77
:008:109¢
```

Routing Visualisation on demand with RIPEstat

Vasco Asturiano



RIPEstat?

- Modular & extendable Toolbox
- Web-based framework (website, embedding, sharing, RESTful data access)
- Single-point to Internet related data
- Routing data plays large role





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Routing Data (in under 2mins)

- Represents a network topology state and its changes
- RIS (Routing Information System)
- BGP, IP, DNS, TCP, OSPF, ...
- Railway Public Transport Network







The Players

- AS (Autonomous System)
 - A node : Train station
 - -~1 organisation/ISP



- Peering
 - A link : Railroad track between two stations
 - Adjacency between two ASes





Prefix

-The **postal-codes** within reach of a station

- A group of addresses associated to a node / AS



- AS-path
 - -Hop sequence: Station **route** from A to B
 - A path through the network



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- AS Train station
- Prefix Postalcode
- Peering Link between 2 stations
- AS Path Station sequence from A to B



The Questions

 "How many postcodes were served by a station over time?"





Size Distribution

"What are the most common sizes of postcodes in





Historical State

• "On which stations is a certain postcode available now, and how did this change over time?"





Historical State

- Challenges:
 - Small variations in time
 - Noise filtering
 - See what's active now
 - Dynamic display of sections



Vector Distance

• "Which main hubs is a certain station topologically closer to or farther from?"





Vector distance

• Challenges:

- Represent sense of topological location/distance
- Use to determine topological adjustments
- Geographical distribution



- Web-based, queried on demand
- Visualisations rendered by the client (Javascript based)
- Graphing frameworks: Flot, Highcharts
- GMaps for location



Questions?



