Universal Looking Glass

http://bit.do/universallg

http://tiny.cc/ulg-{frontend, backend}
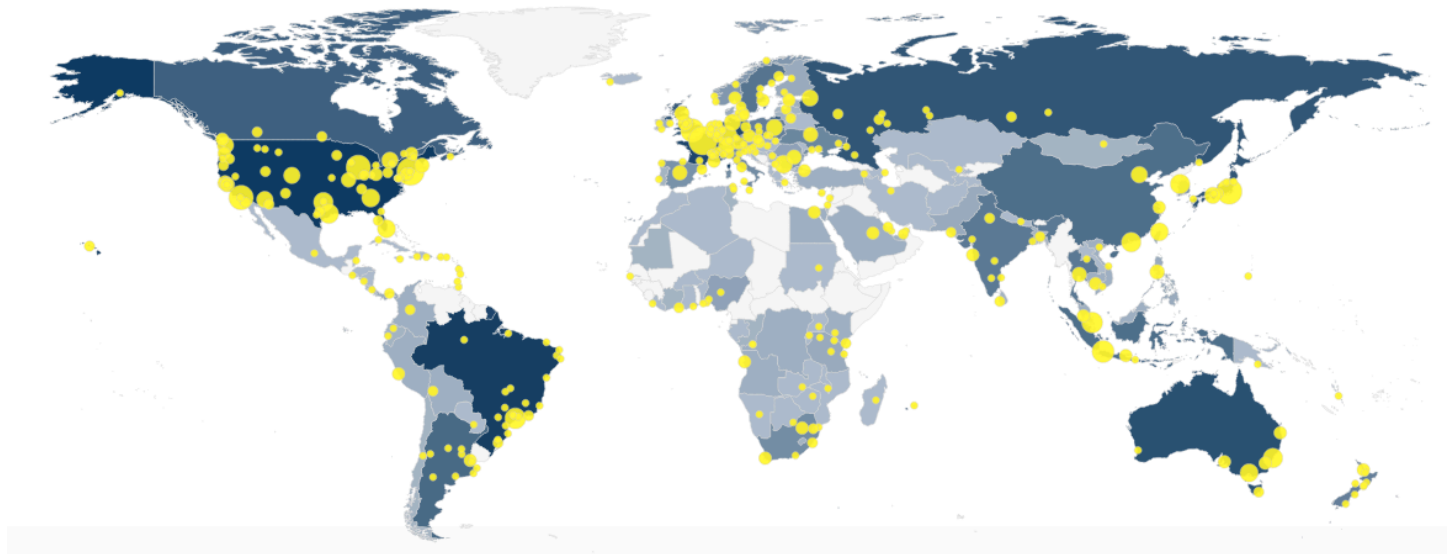

Joint work during the RIPE NCC IXP Tools Hackathon: Benedikt Rudolph, Mathias Handsche, Orlin Tenchev, Alexander Ilin and Mikhail Grishin

Purpose

- Explore data from route collectors
    - Many collectors, worldwide
    - Support many collection projects
    - Support MRT format
- Analysis in familiar Looking Glass UI

Approach

- Collect MRT routing updates from PCH
  - For two days back
  - For two route collectors
- Indexed in a database (SQLite)
- Analysis based on BGPStream (CAIDA)
  - Also supports RIPE RIS, Open BMP, …
- Provide JSON-API
- Provide web interface view of the API
  - Route collectors available
  - Neighbors per route collector + PeeringDB Link
  - Prefixes per neighbor

Architecture: Backend

PyBGPSTREAM

Web API
(Pyramid)

Frontend

BGP record extraction, sorting, and packaging

BGP data acquisition

LIBBGPSTREAM

REMOTE

BGPSTREAM
BROKER

LOCAL

SQLite

- Download
- Process
- Insert to
  DB

PCH

- MRT Routing Updates
- Daily Routing
  Snapshots
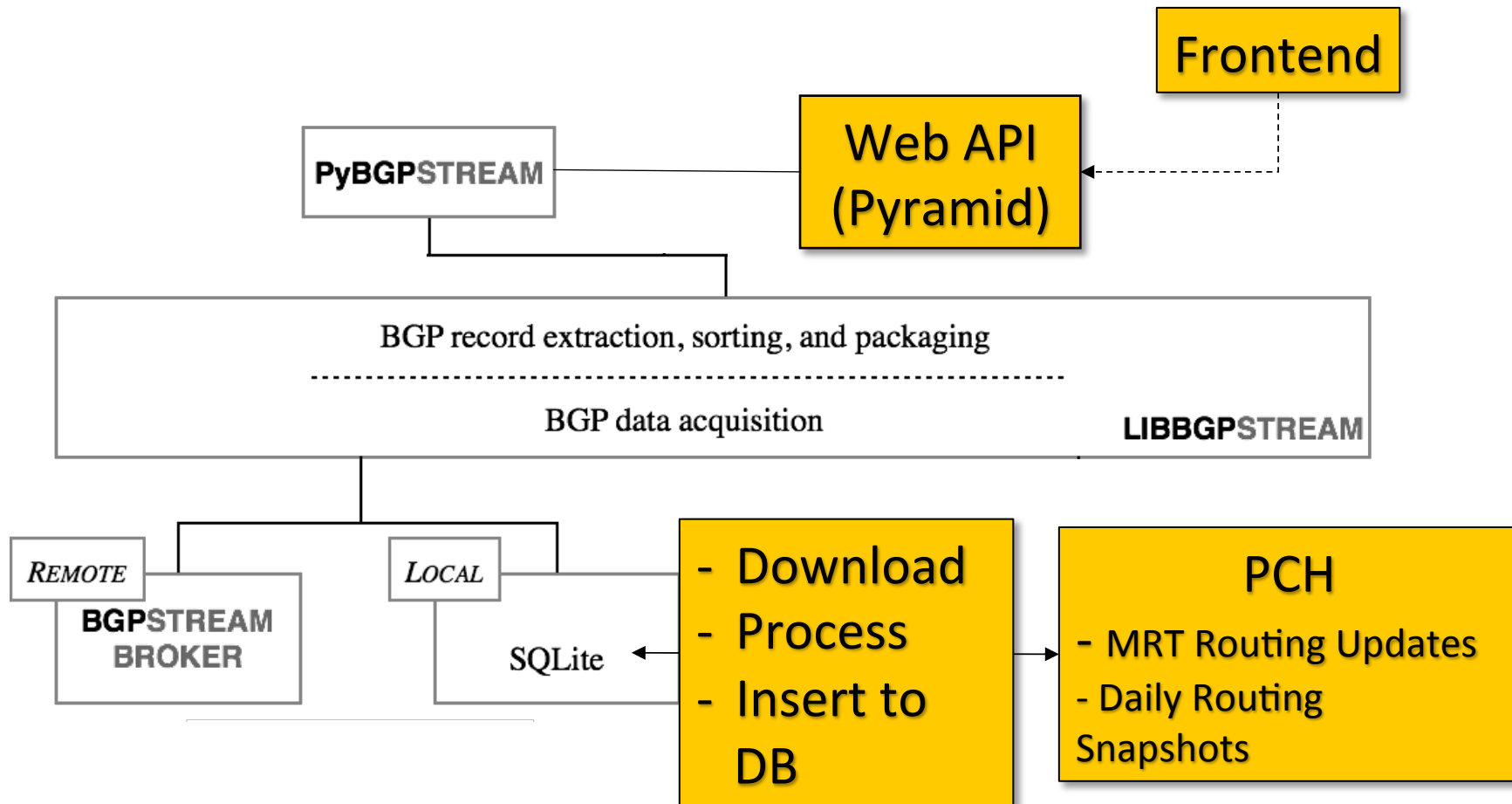
UI: Route Collectors View

UI: Neighbours View

UI: Prefixes View
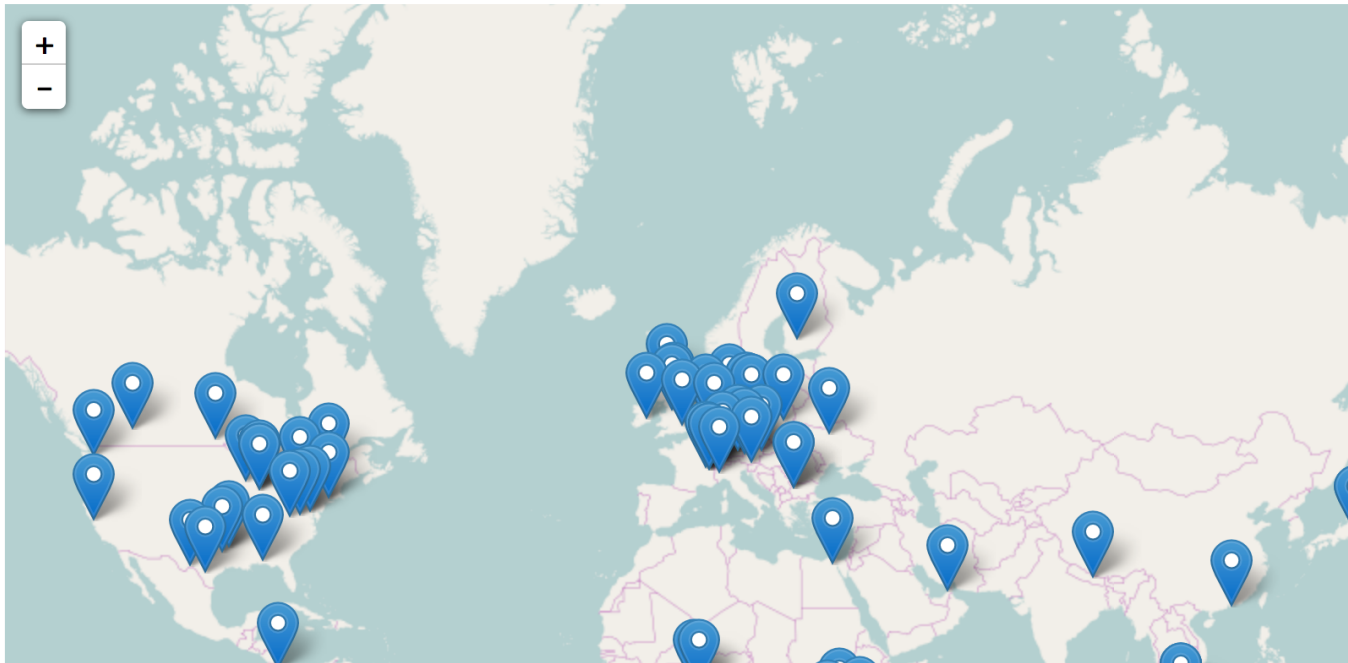
UI: Map of Collectors

Future steps

- Regular updates from PCH to SQLite
- Download all PCH collector data

- Views to be added:
  - route collectors per ASN
  - route collectors per prefix