

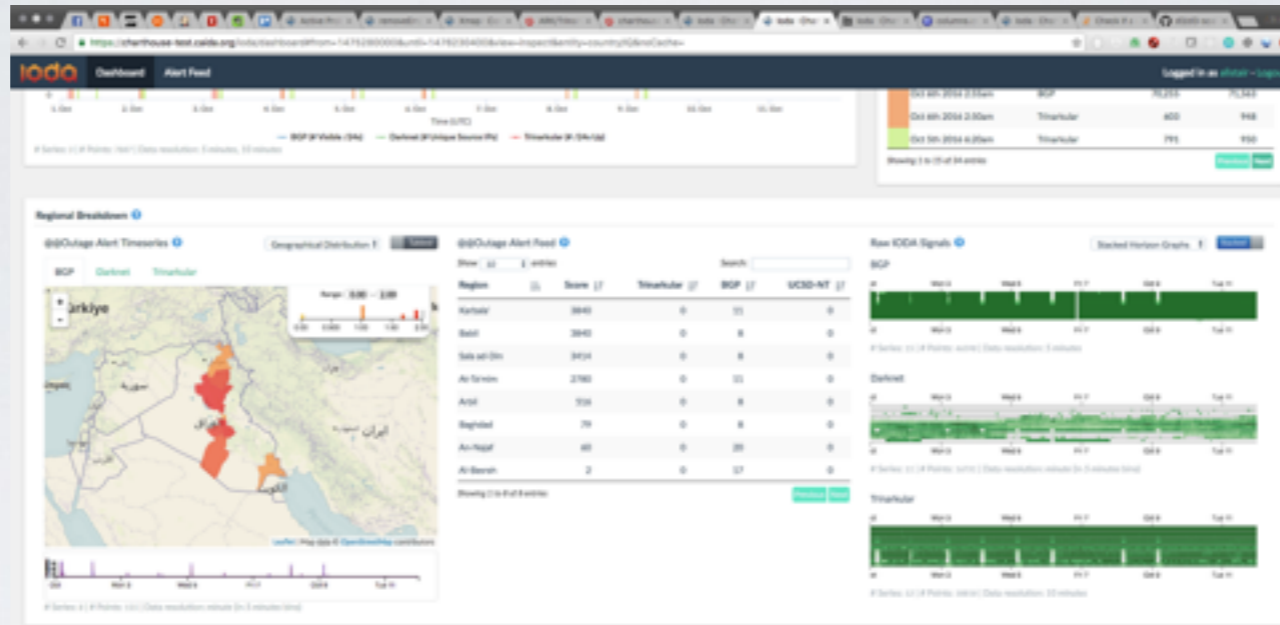
IODA Internet Outages Detection and Analysis

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Challenge

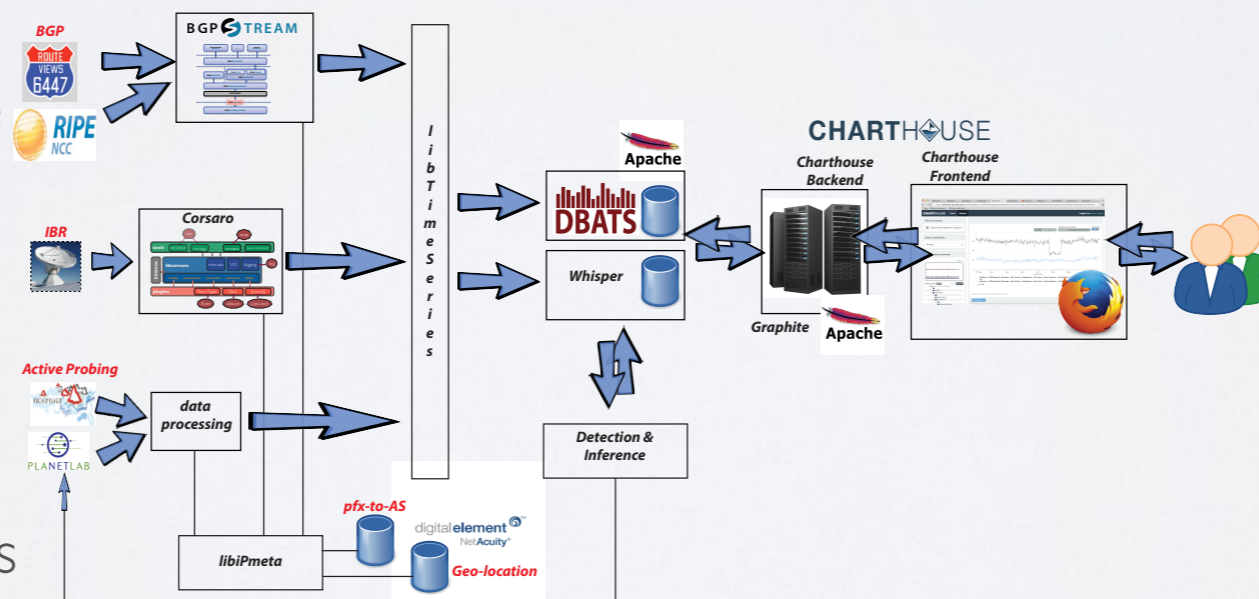
- Real-time detection of Internet outages
- Global view
- Analysis capabilities



Screenshot of the IODA dashboard highlighting outages in Turkey

Solution

- Process data from diverse and distributed sources
- Combine measurements: *control-plane, passive data-plane, active data-plane*
- Modular system
- Interactive visual interfaces



High-level architectural view of the IODA system

Scientific Impact

- Better understanding of network reliability and macroscopic events
- Methodologies for outage detection
- Reference datasets

Broader Impact

- Data and service available to researchers
- Collaborations with industry and government
- Re-usable, open source code and frameworks
- 10 papers, 20 presentations (IETF, NANOG, IMC, RIPE, ...)