SQUAC

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SQUAC

Seismic

QUality

Assessment

Contraption?...Consolе?...Contrivance?

Motivation

Provide near real time analytics on station performance based on user defined metrics, data sources and notifications. Blockchain.

Why not MUSTANG

- Large latencies (~day)
- Limited channel coverage
- Predefined metrics
- Configurable but through application layer (R)

MUSTANG metrics can be added to SQUAC

Why not DQA

- Tuned for Global Seismic Network stations
- Large Latencies (~day)
- Predefined metrics
- Configurable but through application layer (Java)
- Day-level granularity

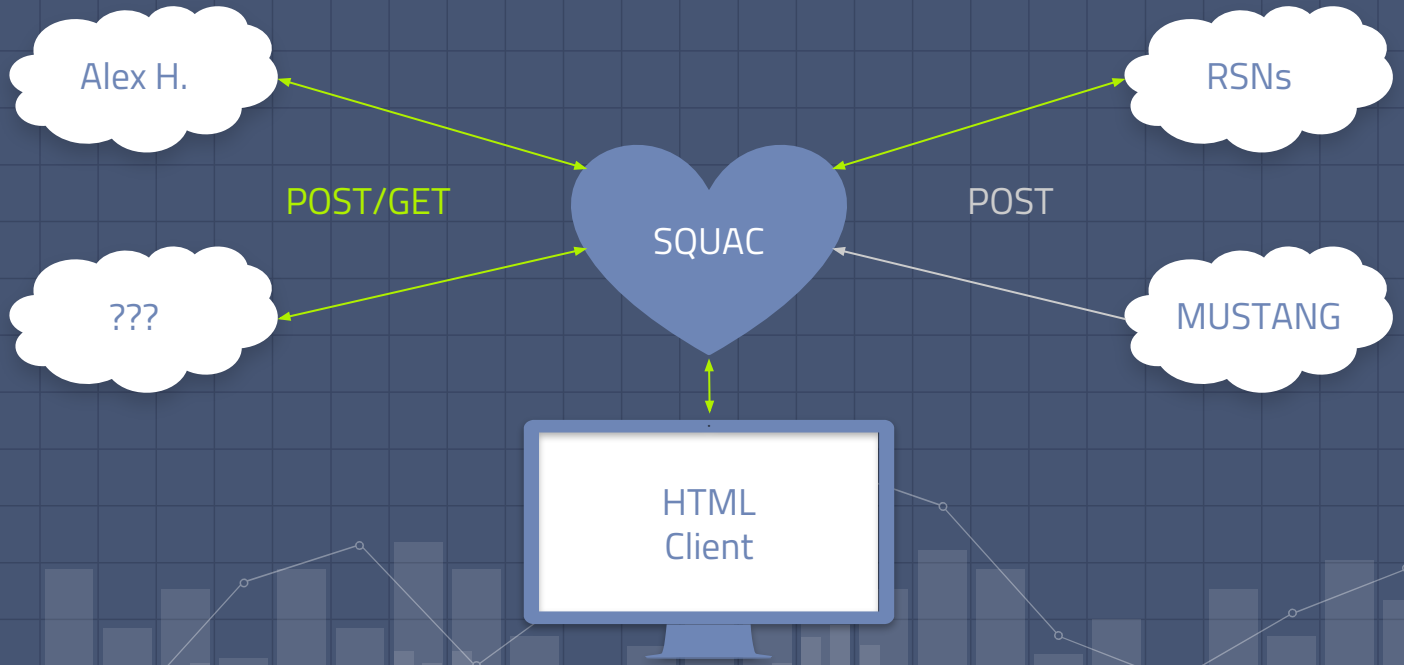
Why not Tableau?

- Business Intelligence Package
- Expensive subscription model per user
- On premises solution requires typically IT support
- Raw data still needs a home

Requirements

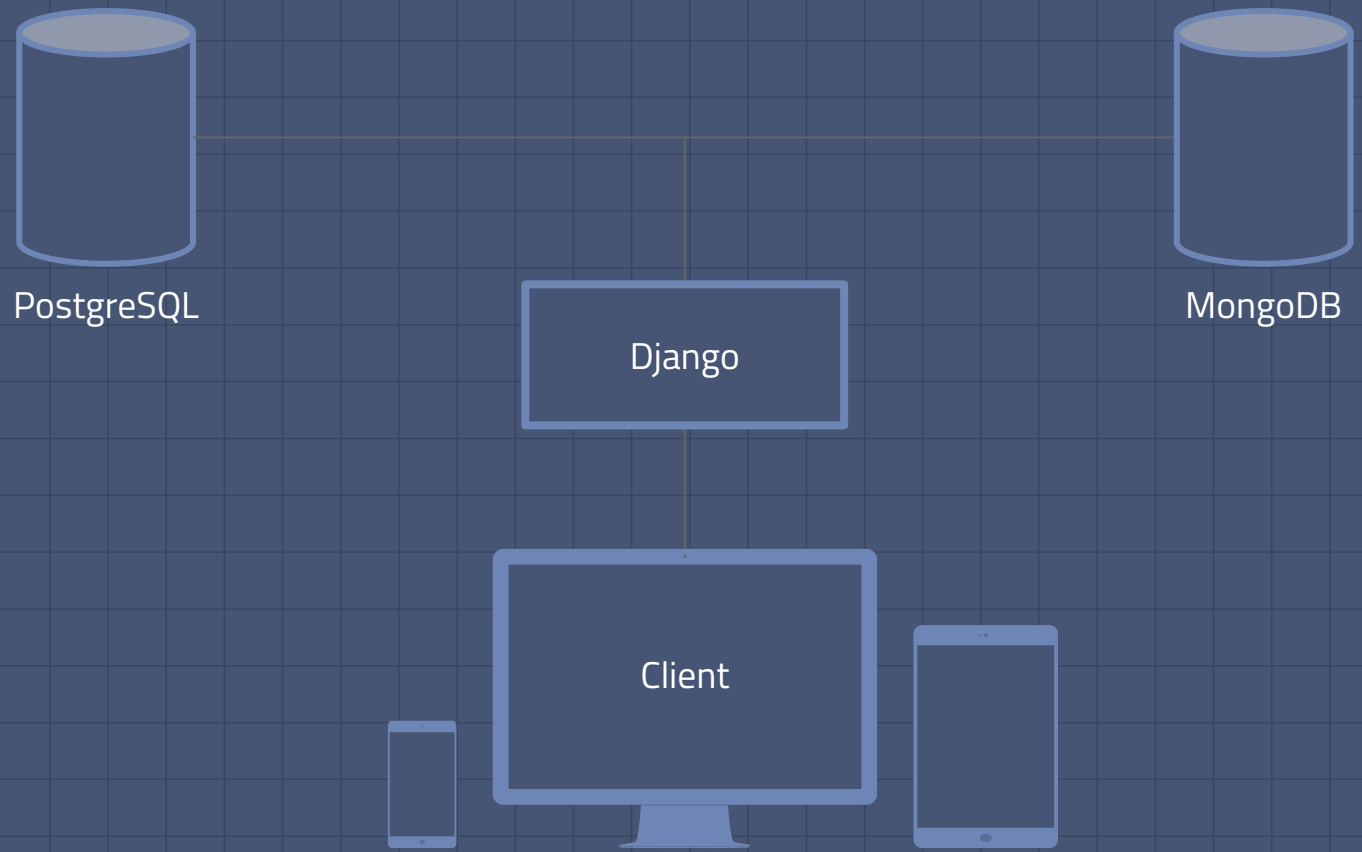
- Source agnostic
- JSON API and HTML UI
- Authentication API (OAuth2)
- Near real time
- Thresholds with Notifications
- Configurable at channel/station or station group level
- Configurable through API and UI
- Application layer abstracted from end user.

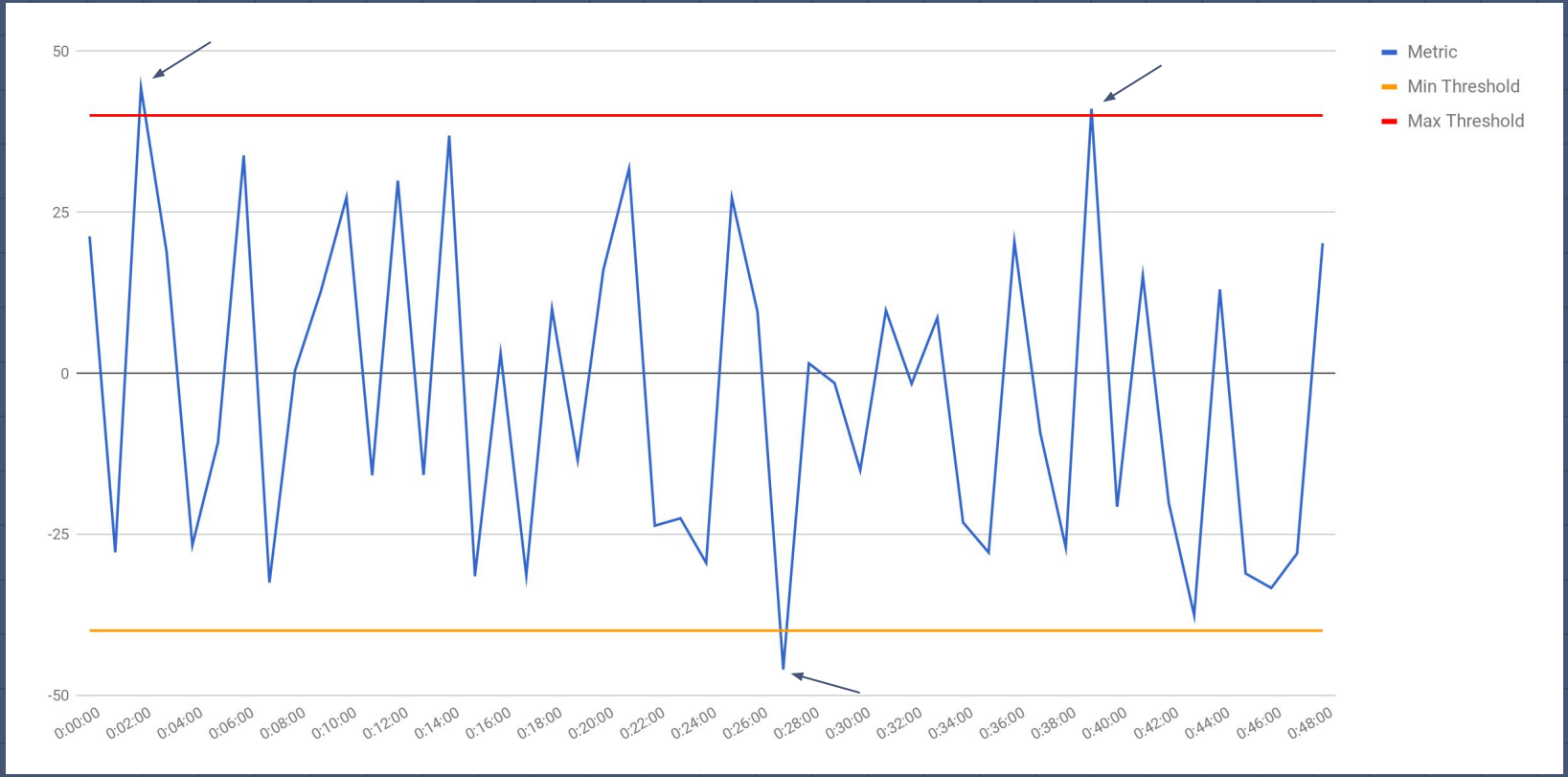
Source Agnostic



Technologies

- Django (Python)
- PostgreSQL and MongoDB
- D3


PostgreSQL
MongoDB
Django
Client



Example of metric thresholds