Linked Sensor Middleware

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Linked Sensor Middleware

- Middleware that enables **semantic-based** integration of live real world
  - **SPARQL endpoint** for querying unified Linked Stream Data and Linked Data
  - **Sensor Mashup** composer
  - **Wrappers** for collecting and enriching real time sensor data;
  - **Web interface** for data exploration, annotation and visualisation
  - **Mobile Phone** applications
Over 110,000 live data sources

- Webcam: 24570
- Traffic: 469 (LONDON & OHIO)
- Roadactivity: 575 (OHIO)
- Flight: >1000
- Railway station: 251 (LONDON)
- Bike hire: 421 (LONDON)

- Weather: 82365
- Snowfall: 2639
- Snowdepth: 377
- Sea level: 45
- Radar: 1
- Satellite: 12

... and growing!!!
Deployment in Detail

- Web server
- Virtuoso
- CQELS (Stream Proc.)

Data Bus

Stream Sources

Hadoop

Enabling networked knowledge.
Mobile Applications

SPARQL, CQELS

SPARQL-XML/RDF

LSM

Android: 100–200 lines of code

Enabling networked knowledge.
A demo is worth a thousand words