Real Time Graph Modelling of the London Bus Network
The Data

• London Open Transport API
• Real-time bus arrivals at every stop
• 130,000 data points a minute
• Also provided:
  • Real-time traffic incidents
  • Real-time road closures
The Plan

01. Build a real time graph model of the London bus network
02. Combine with road incidents
03. Track how incidents affect bus flows
04. Visualise this bus flow – highlight problem areas
05. Predict impact of new incidents
The Set Up

- Amazon EC2 Instance – London
  - Distribute across multiple micro instances
- Node.js server to communicate with TfL
- Apache Storm for stream processing
- D3.js for visualisation
- Node.js for web interface server
Progress

Amazon EC2 instances set up

TfL EC2 IP whitelisted

Zookeeper, Storm installed

Currently setting up Node.js to send and process data streaming requests to TfL