

# EUROPE AVIATION ICT FORUM 2013

TOGETHER WE ARE SUCCESSFUL  
Let's collaborate to create  
the ideal journey

17-18 October, Vienna



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# Sydney Airport Big Data

Tell me something I don't know.

17<sup>th</sup> October

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# Contents



- CPH History / Big Data Gartner
- Sydney Project Overview
- What did we learn
- Conclusion

# Copenhagen Airport Pilot (2011)

World premiere of passenger flow management via WIFI

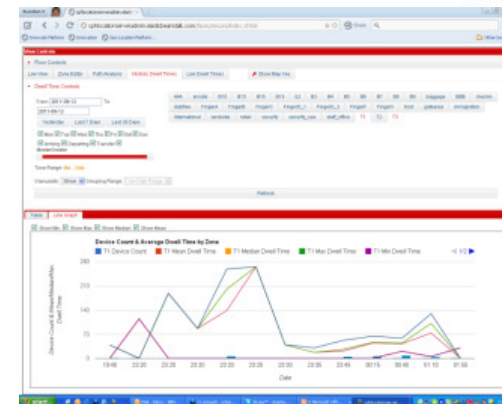
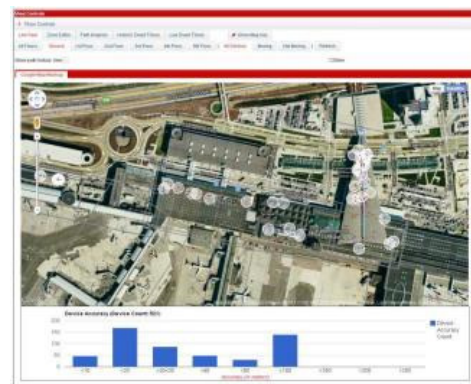
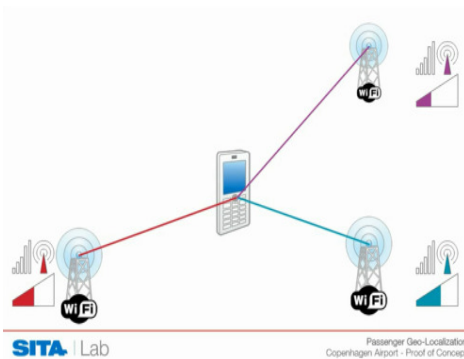


Copenhagen Airports



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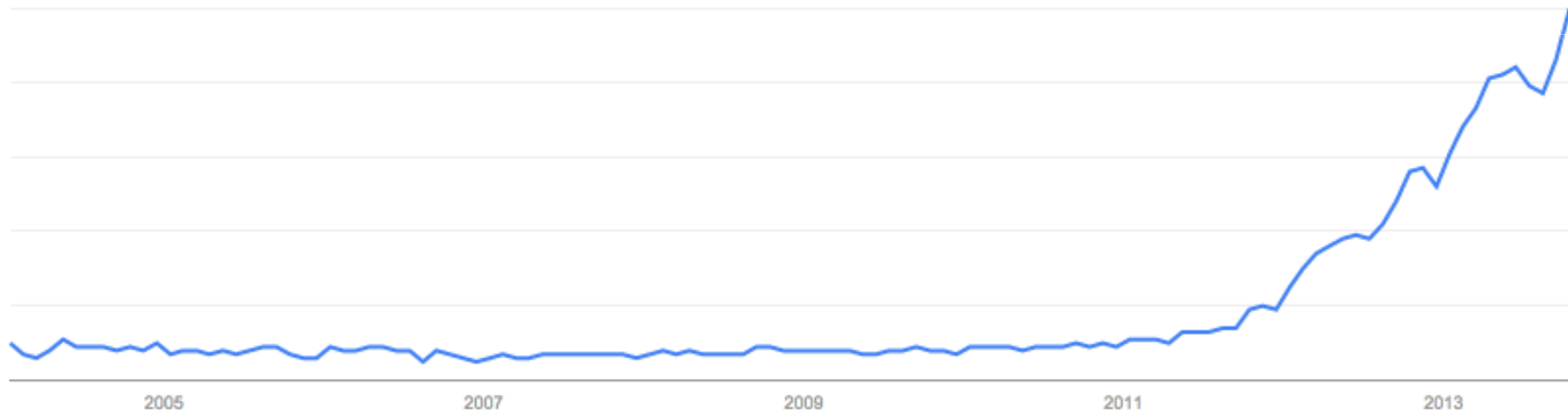


**big data**  
Search term

+ Add term

Interest over time ?

☐ News headlines ☐ Forecast ?

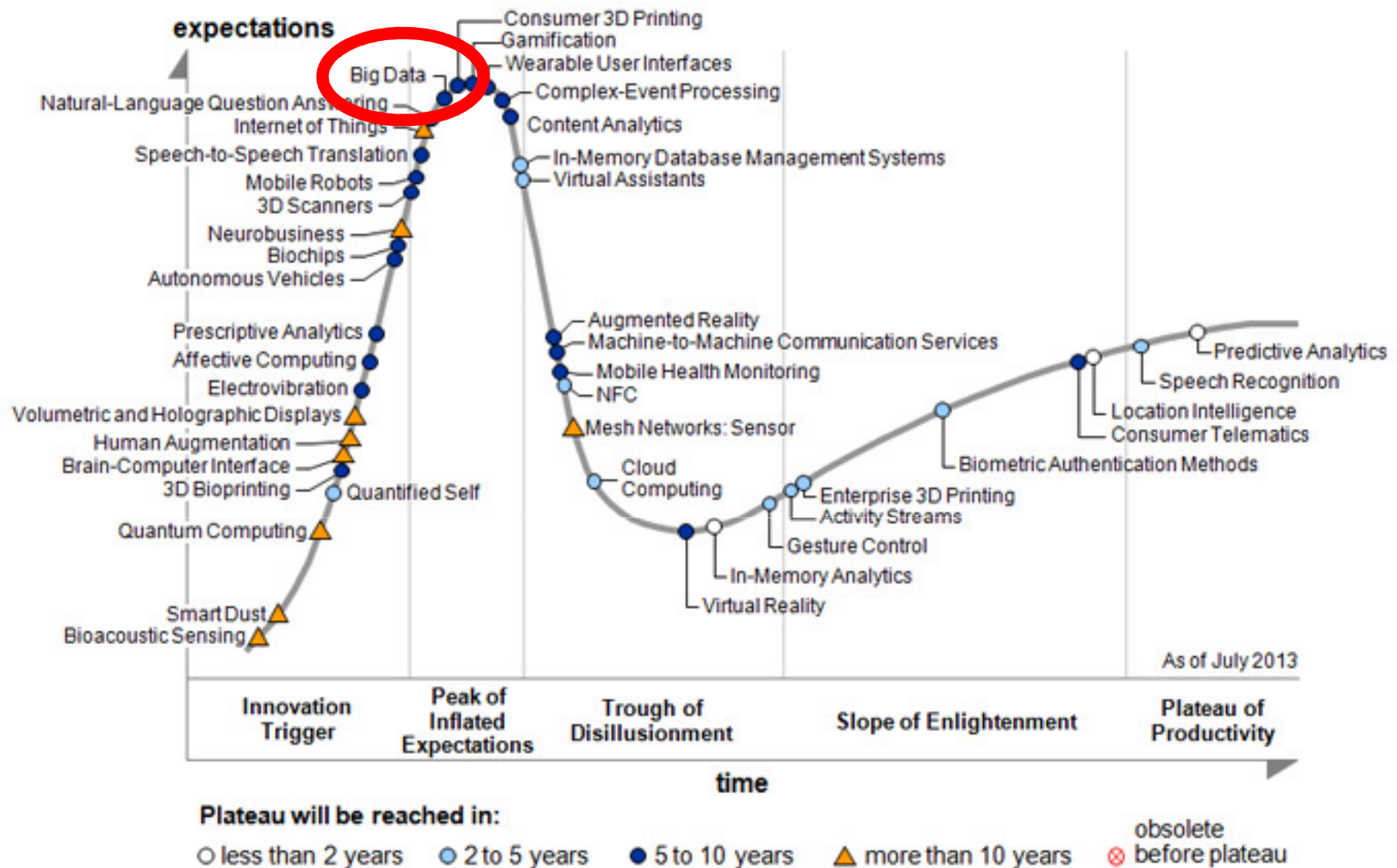


Google Trends, search term “Big Data”

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5 | Sydney Analytics | Confidential | © SITA 2012

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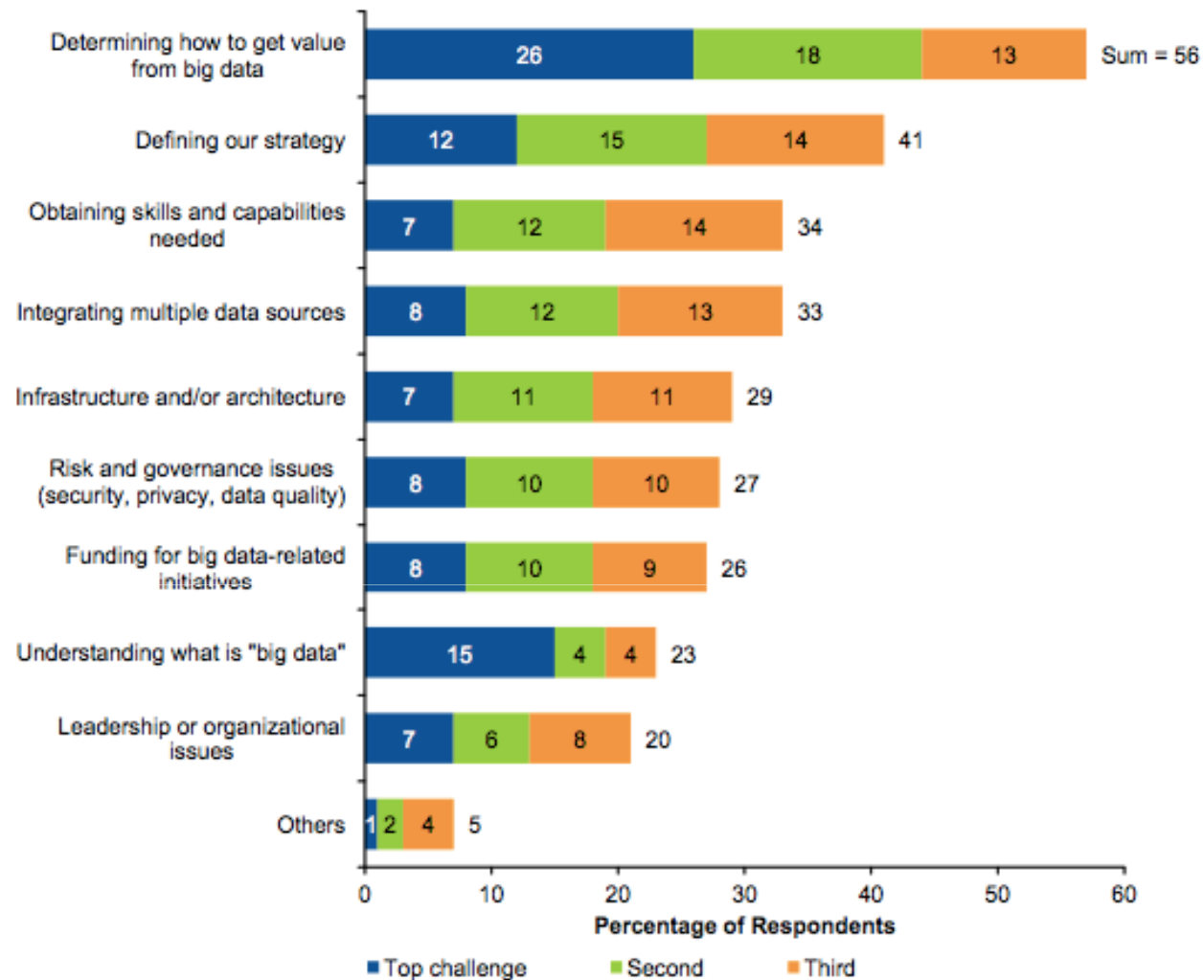


Hype Cycle for Emerging Technologies 2013 Source: Gartner

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Figure 7. Top Big Data Challenges



N = 687 (excludes "don't know" responses)

Source: Gartner (September 2013)

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# Sydney Airport Big Data Objectives

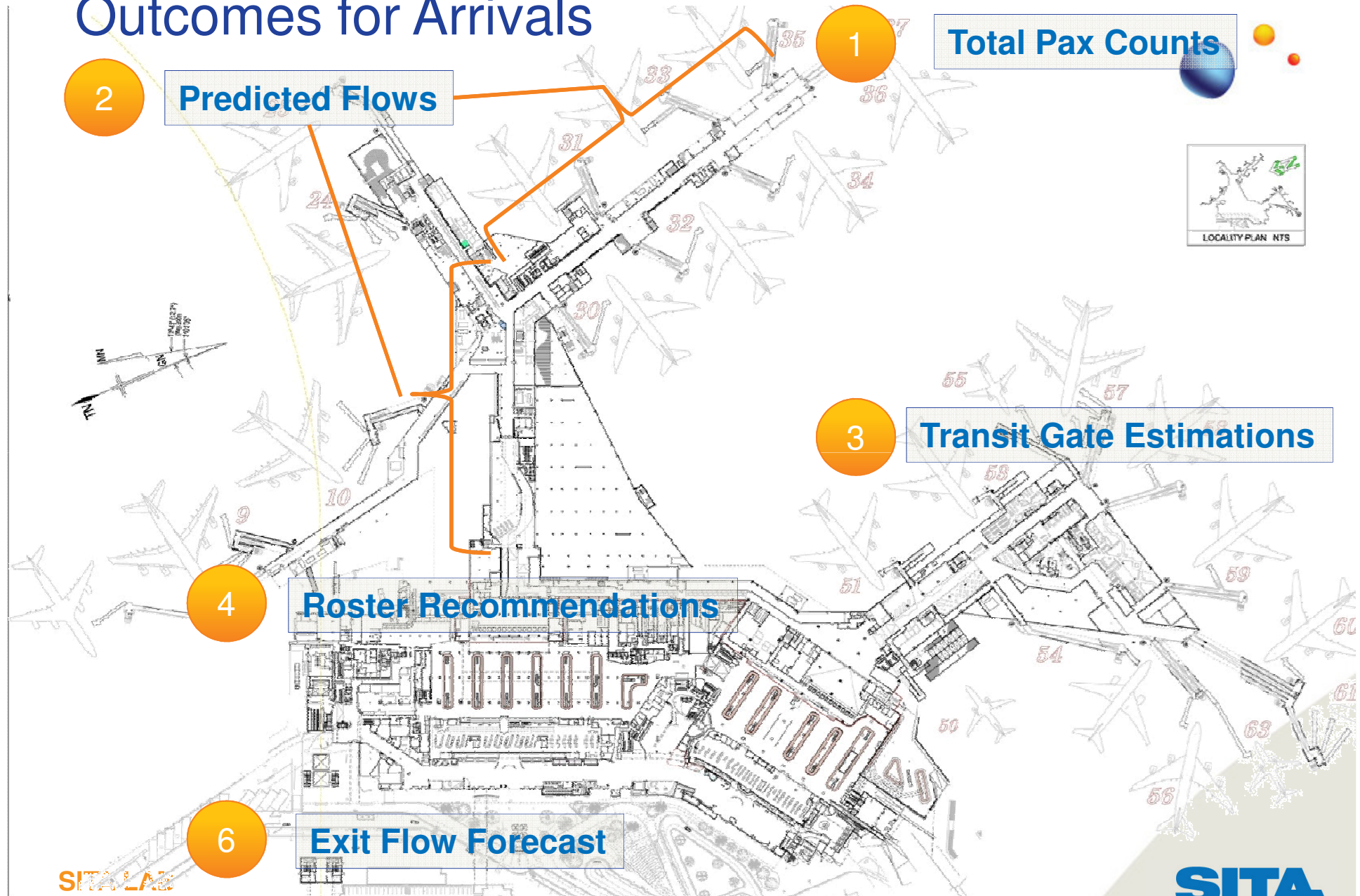


- Predict accurate passenger flows across airport key facilitation zones, *and in particular during an anomaly.*
- *E.g. multiple large body aircraft unexpectedly arriving at same time.*

i.e. Tell me something I *don't* know



# Outcomes for Arrivals



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# Data Sources Used

## WiFi Analytics from iFlow

Used to measure time to walk from gates to immigration and verify predictions

## Flight Schedules

Used to get scheduled flight data.

## FIDS data

Used get estimated arrival times and passenger counts

## Immigration Data

Used to measure processing time at immigration

# What does Big Data architecture look like?



## Visualization & Alerting

HTML5

email/SMS

## ETL

R

Java

## Prediction Engine

Hadoop

## Data Grid

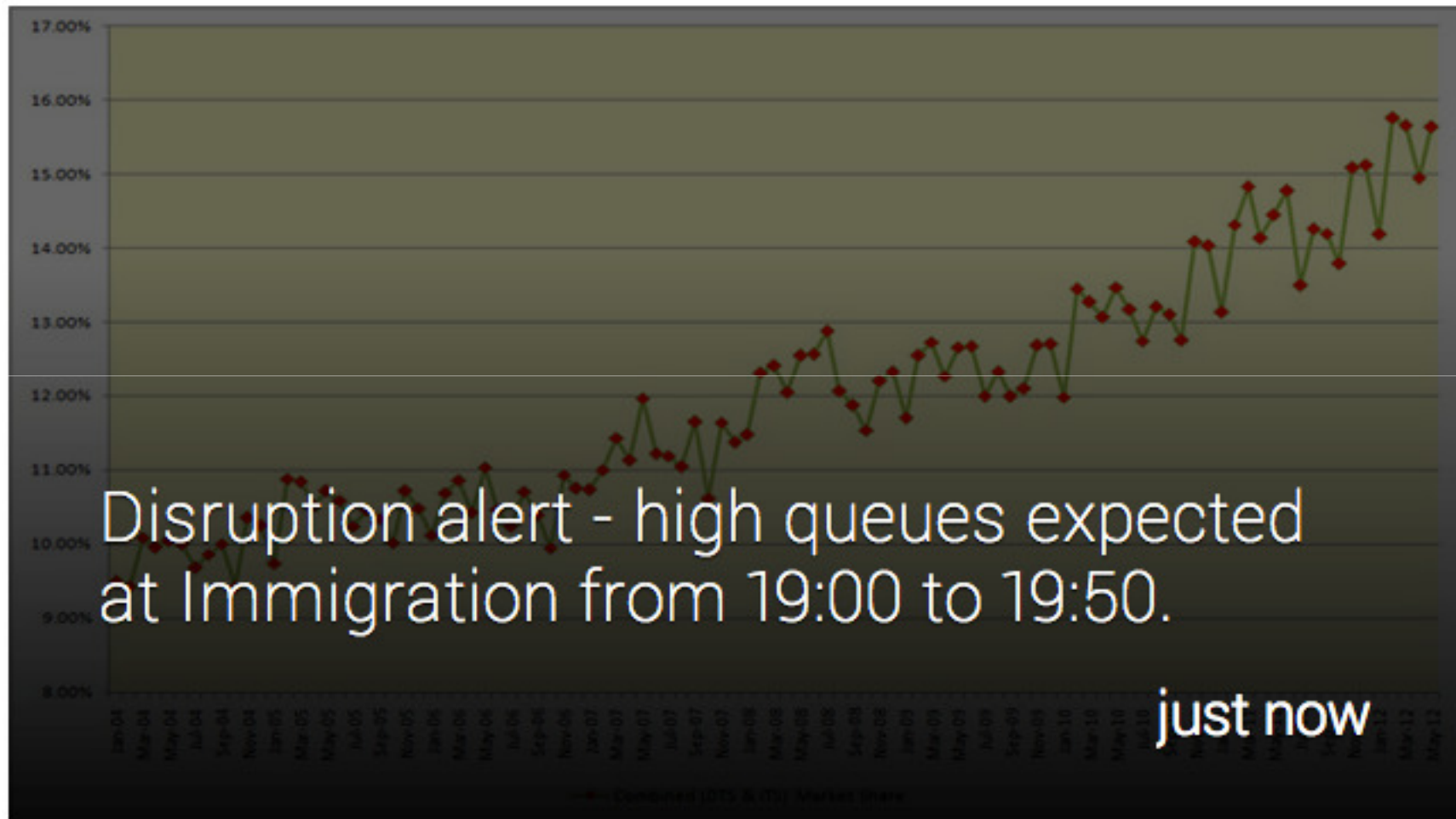
Cassandra

HPCC

Oracle Big Data  
Appliance

IBM Big Insights

# Google Glass Alert



# What did we learn?



- Big Data projects are *not* about the data.
- Big Data projects are about Business Intelligence.
- Don't be lured into conducting a fishing exercise on your data.
- Set the BI objects at start of project, and stay laser focused on these objectives.

# What did we learn?



- You don't need to commit big dollars for dedicated hardware and specialist software.
- Run a starter project on commodity cloud servers and open source software.
- Learn by doing.
- It maybe cheaper for existing staff to learn big data, than a big data expert to learn your business

# Conclusion



- Start small with Big Data
- Focus on the Business Intelligence
- Tell me something I don't know.