

ORACLE®

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CON7352: Transforming Streaming Analytical Business Intelligence to Business Advantage

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Accelerate Your
Digital Transformation
in the Cloud

Sept 21, 2016

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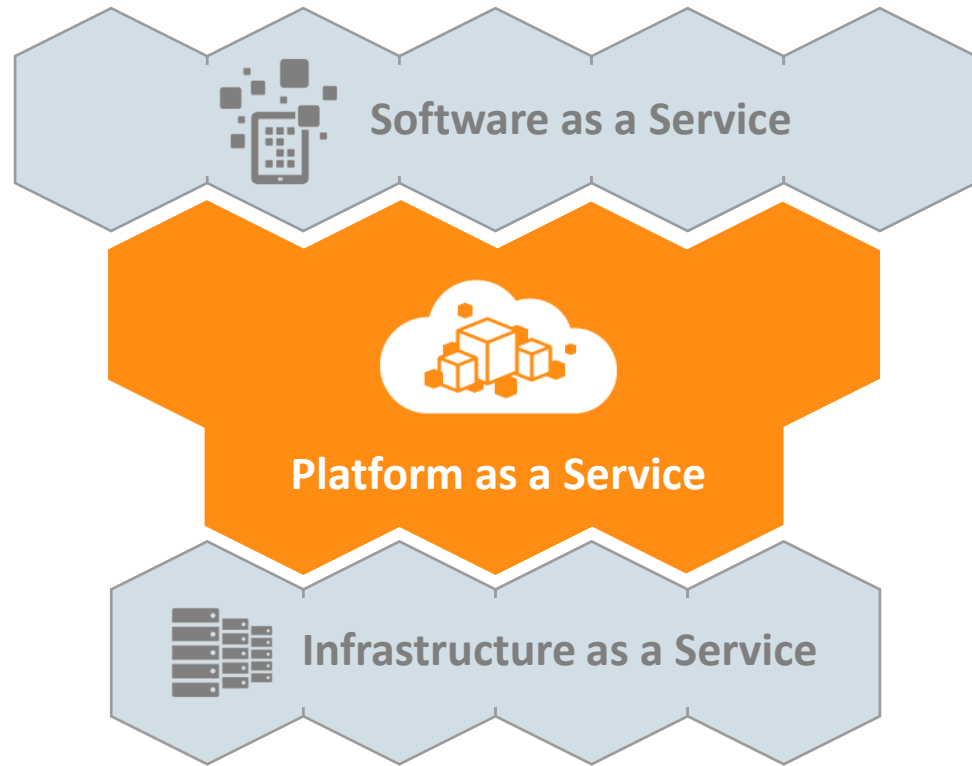
Safe Harbor Statement

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Program Agenda

- 1 Oracle Stream Analytics joins the Oracle Cloud Family
- 2 Real Time Streaming Analytics Business Values
- 3 New innovation to drive next generation Business Solutions
- 4 Oracle Stream Analytics for Airports
- 5 Mercadona – Leading Stream Analytics in Retail

Oracle Stream Analytics joins the Industry's Most Comprehensive Cloud Platform Strategy



Bring Oracle's leading database and middleware technology software to customers and partners anywhere in the world through the cloud.



Global Business demands are **CHANGING**

Streaming Analytics is reshaping Enterprises providing Instant Insight



All Data is Born FAST

All data originates in a flash, whether it is from *Social Media*, Internet-of-Things (IoT) devices, web clicks, transactions, or mobile app usage. But traditional analytics is done much, much later.

Why wait?

Forrester WAVE™: Big Data Streaming Analytics, Q1 2016

Global Business demands are **CHANGING**

Streaming Analytics is reshaping Enterprises providing Instant Insight

Opportunities, Threats happen FAST, so take Advantage of Data in-Motion

Demand deeper real time insights

Platform enabling, aggregation, correlation of streams

Identify interesting, mission critical events with

Streaming Prediction

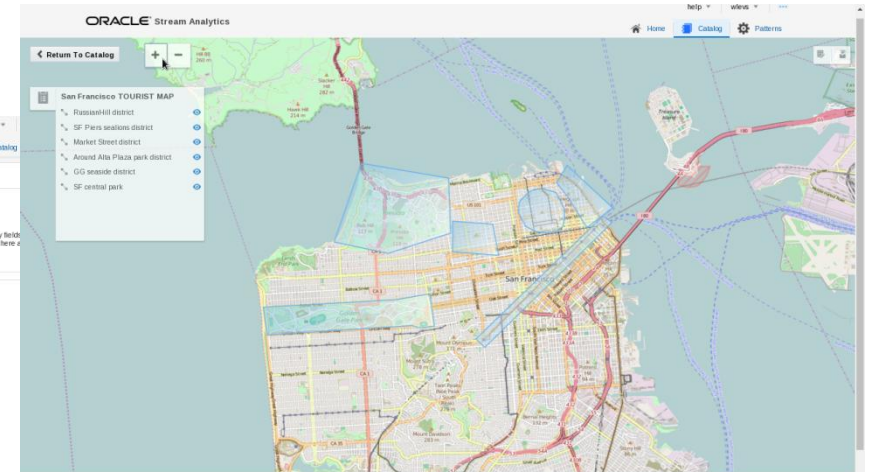
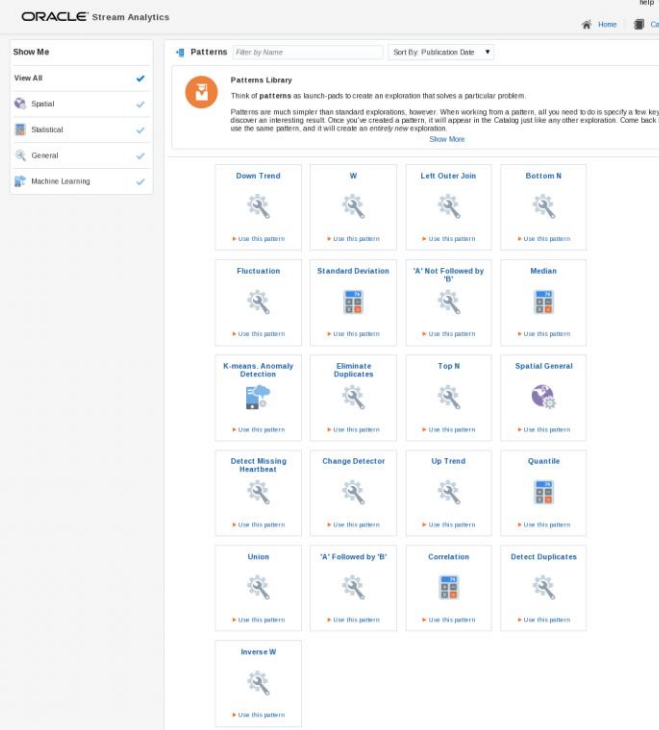
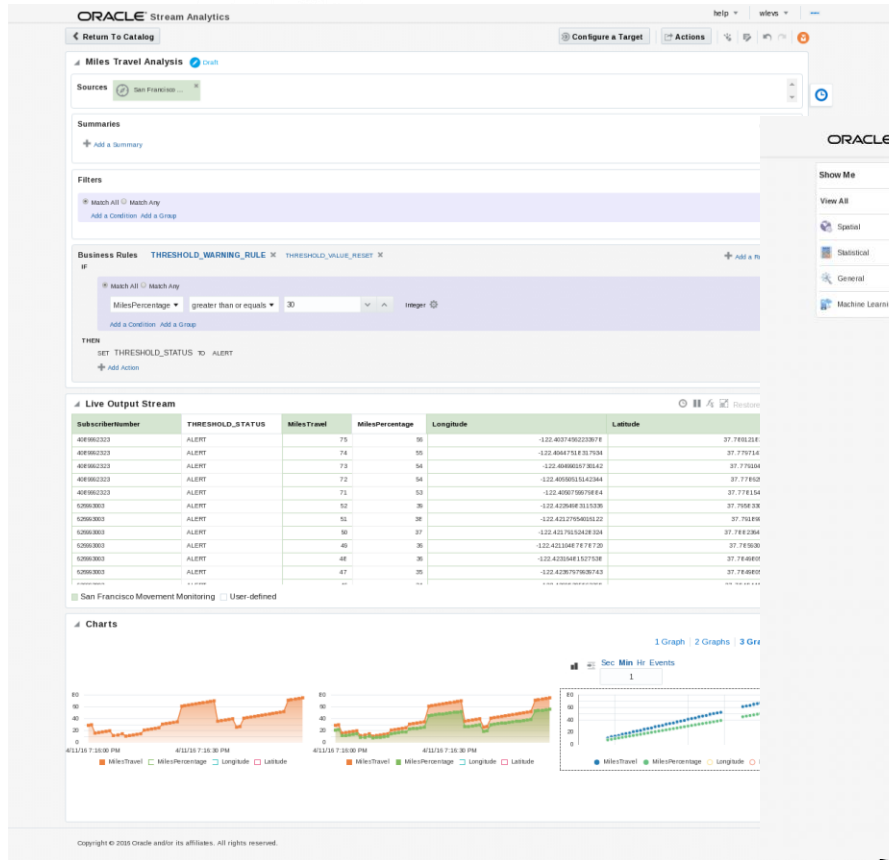
All information optionally stored, visualized

*Real-time streaming dashboards, immediately trigger
alerts and workflows.*



Capture your New Streaming Business Intelligence with our Business Friendly UI Experience

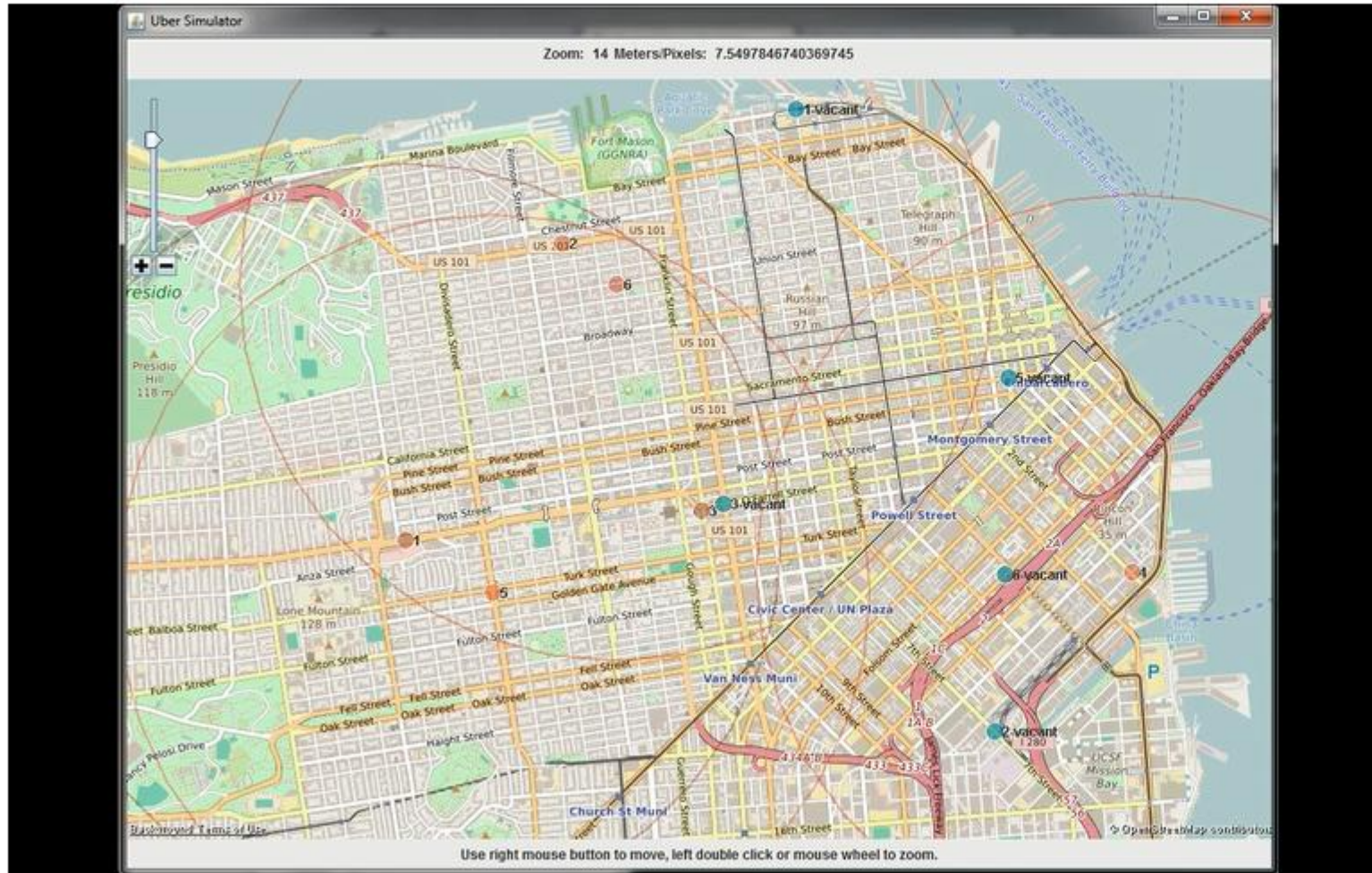
Compelling, Simple and Visually Stunning Real Time Streaming Web Interface



Create and Implement In **MINUTES**

Delivering unbeatable scalability for World shattering Solutions

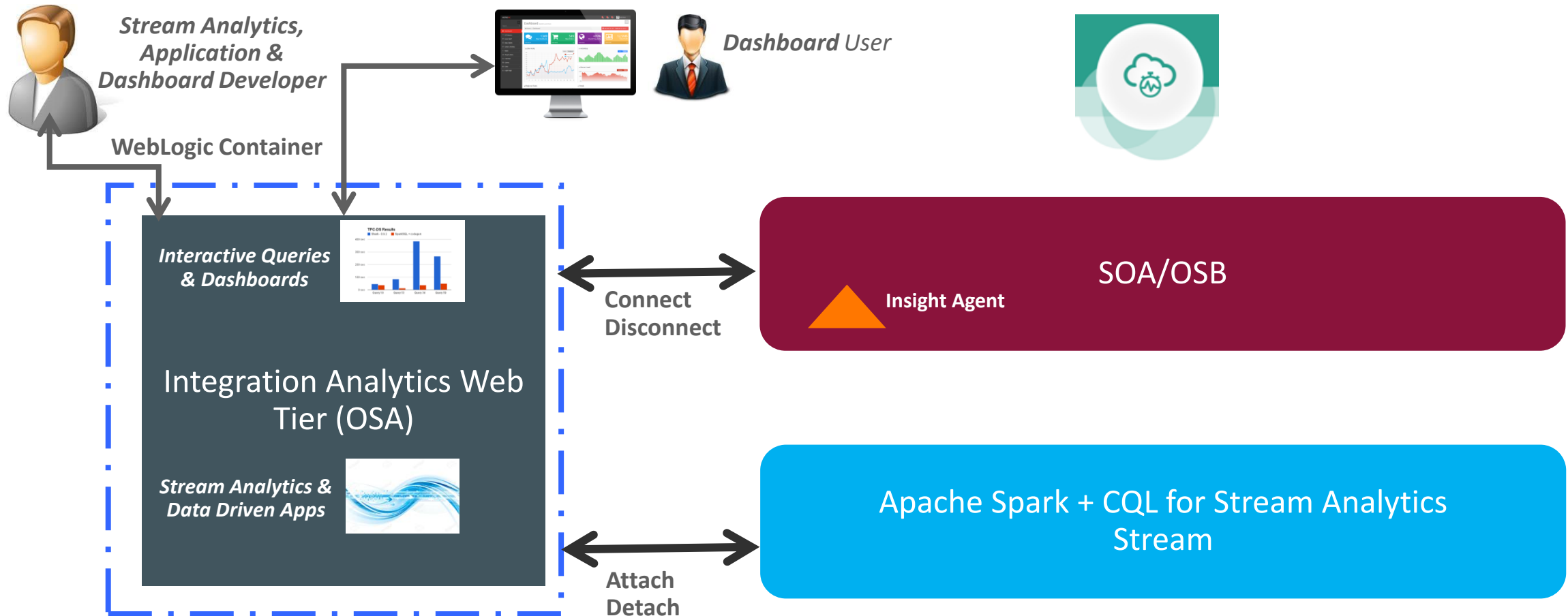
Be Creative with an Oracle LyftMeUber Taxi Service



- Driver Status
- Find Drivers
- Get Profiles
- Match Scoring
- Best Driver
- Driver Selection**
- Target

Extend Cloud Platform Fast Data Infrastructure with **Distributed Spark Streaming**

Scaling out, applying Visual temporal analytics over Petabytes of streaming data



Oracle Stream Analytics – Driving New Innovation

Oracle GoldenGate for Big Data 12c

Streams transactional data into big data systems in real time, without impacting the performance of source systems

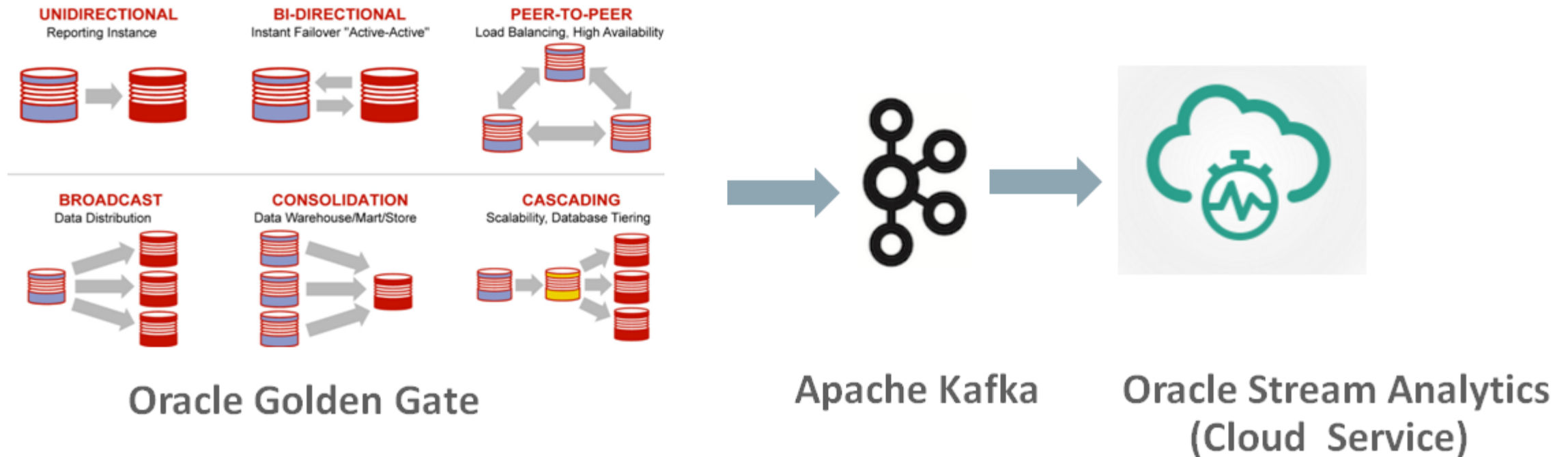
Streamlines real-time data delivery into big data solutions; Including Apache Hadoop, Apache HBase, Apache Hive, Apache Flume and Apache Kafka

Facilitating improved insight and timely action, Streaming now directly to Oracle Stream Analytics

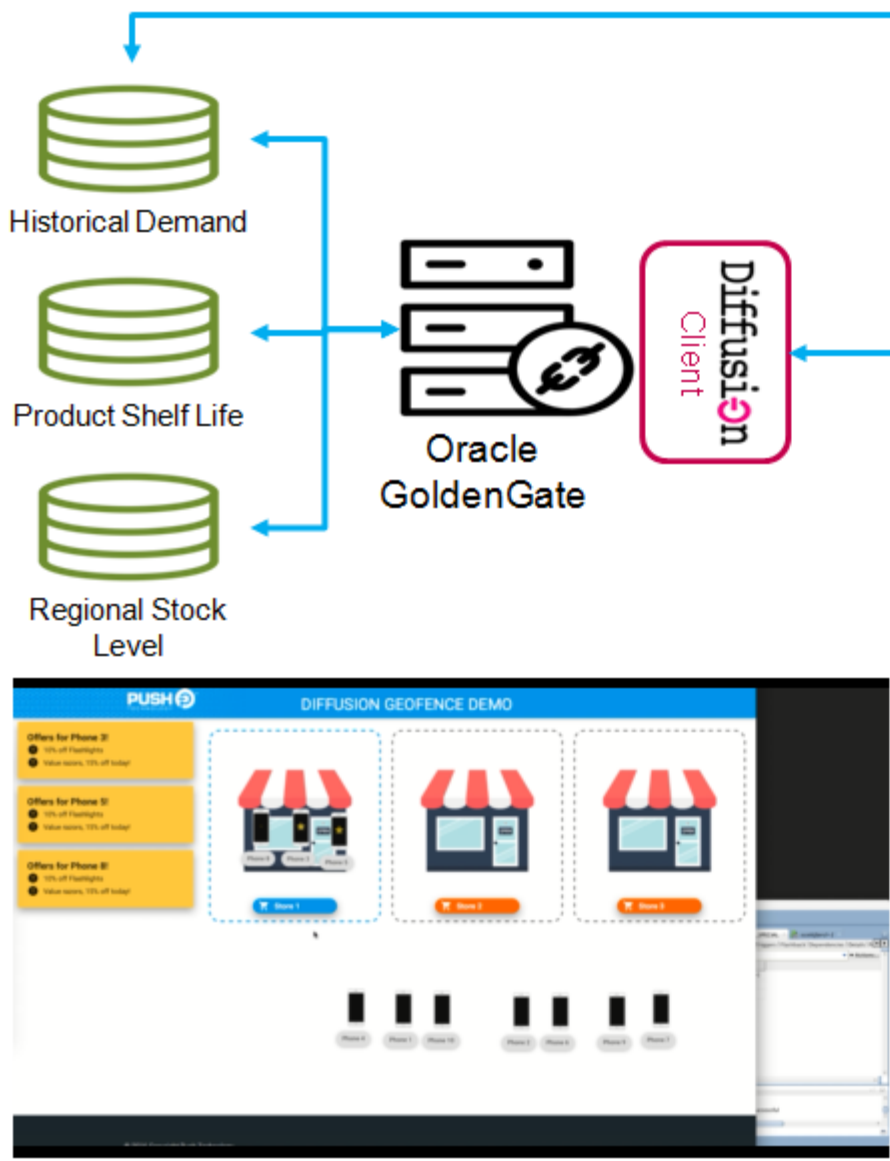
Oracle Stream Analytics – Driving New Innovation

Intuitive integration with Data Integration (DI)

New offering that enables OSA integration from GoldenGate (using Kafka)



Oracle / Diffusion Fast Data Architecture



Retail Scenario

- Retailers are struggling to effectively manage stock levels, and effectively interpret consumer demand
 - Some items stay on shelves too long, and need to be sold
 - Some items are in high demand, and can't be restocked fast enough
 - Customer incentives often can't respond to realtime stock inventory

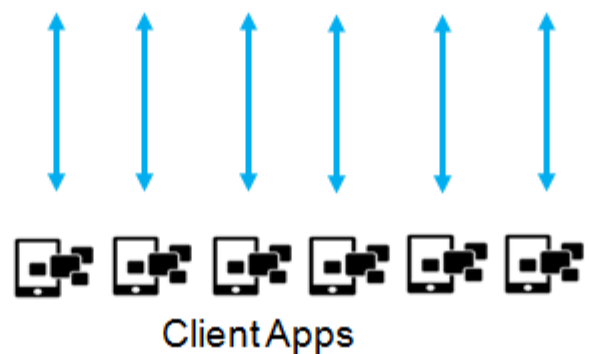
"The idea of a single, centralized, real-time platform for all customer engagement points is a key tenet of unified commerce. Unified commerce goes beyond omni-channel, putting the customer experience first, breaking down the walls between internal channel silos and leveraging a single commerce platform."
Ken Morris, principal, Boston Retail Partners



A single connection to Oracle Stream Analytics



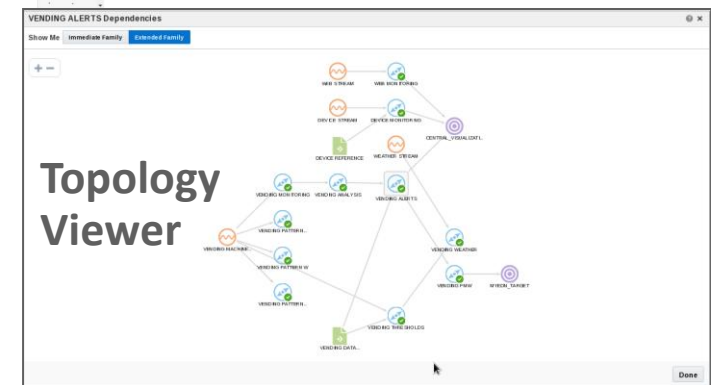
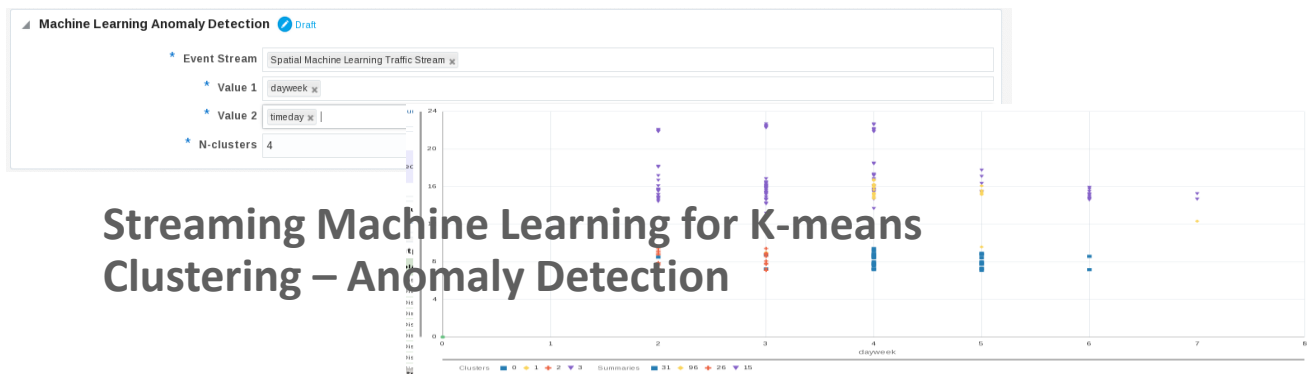
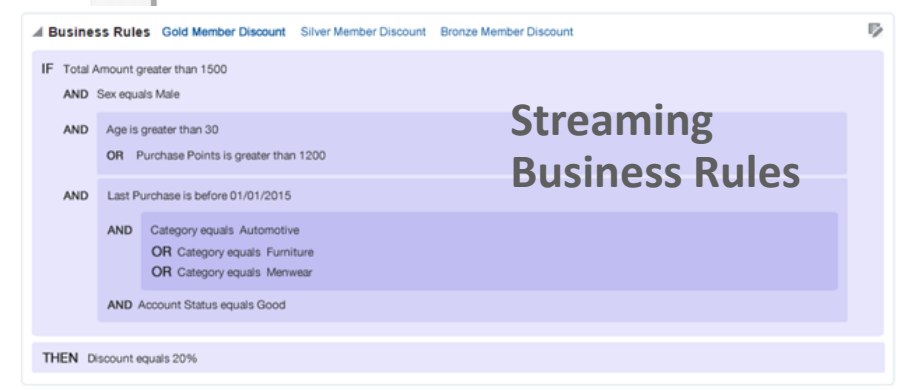
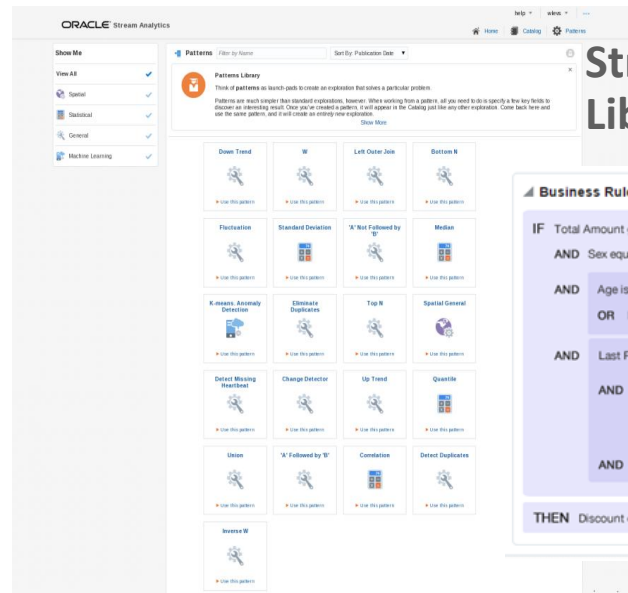
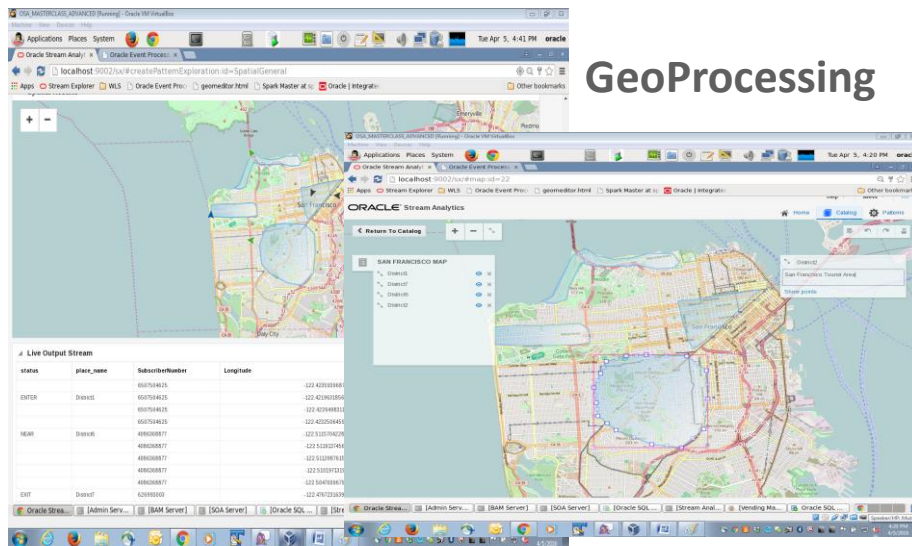
- Up to 80% Reduction in Data Costs
- Reliable Reconnection
- Reactive Data Model



x Number of persistent connections with Diffusion

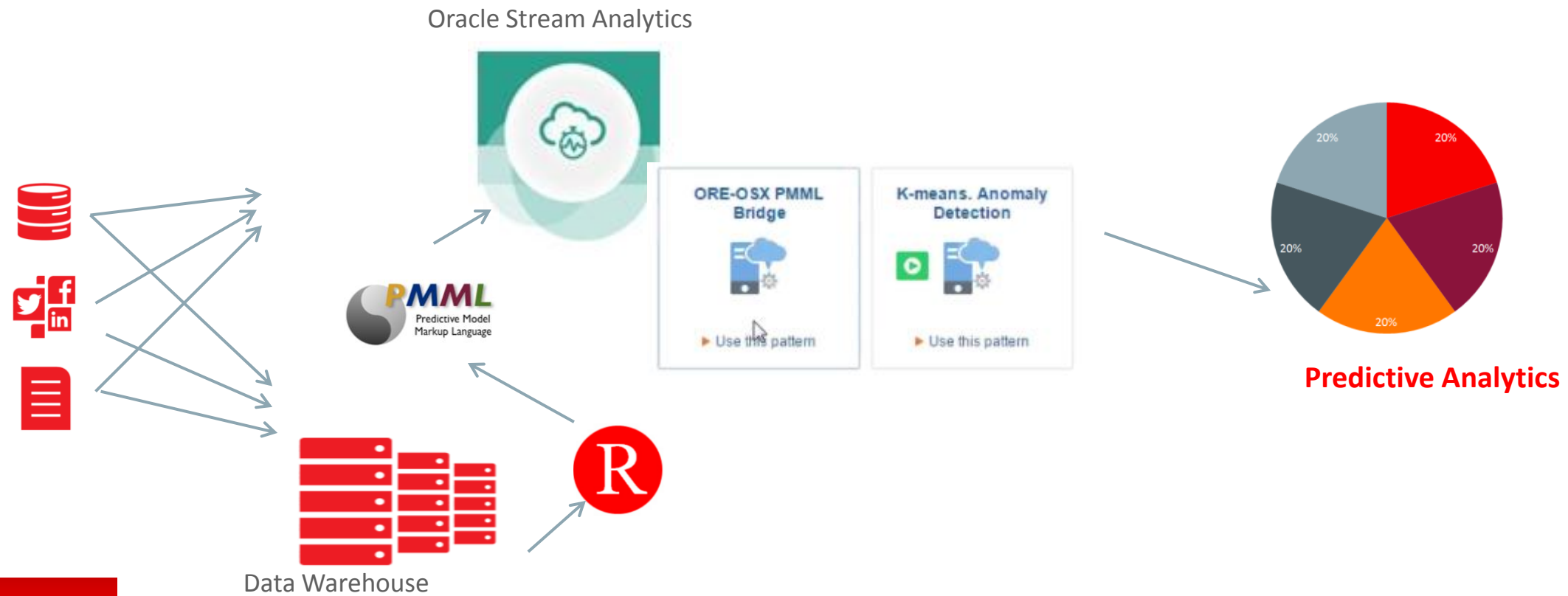
x Number of Clients publishing realtime location and subscribed to realtime offers

Rich with Streaming Analytical intelligence features Be Creative Building Solutions in Minutes



Oracle Stream Analytics – Driving New Innovation

Streaming predictive probability scoring – “I don’t know what I don’t know”
New PMML Pattern offering that enables OSA integration with ORE (and SparkML)



What's Possible with Oracle Stream Analytics?

Manchester Airport Group (MAG)



Home > About Us

About Us

| | |
|------------------------------|---|
| Manchester Airport & MAG | ▼ |
| Development | ▼ |
| Business | ▼ |
| Cargo | ▼ |
| RFFS Training Department | |
| Parking Contacts & Permits | |
| Legal Notices | |
| Publications | ▼ |
| Media Centre | ▼ |
| Sustainable Development Plan | |
| Community and Environment | |

Manchester Airport is the global gateway to the North of England. Every year we handle around 19 million passengers, using over 60 airlines flying direct to around 200 destinations. With around 19,000 people employed directly on-site, our growth is shared by our city and the whole region.

The cargo operation at Manchester has been growing from a relatively small base throughout our history, and has shown significant growth in recent years.

Search



Four Airports. One Group.

The Manchester Airports Group Plc (M.A.G) is the country's largest UK-owned airport operator. Our four airports - Stansted, Bournemouth, East Midlands and Manchester - serve around 42 million passengers every year.

About Manchester Airport

Manchester Airport Logo



What's Possible with Oracle Stream Analytics?

Manchester Airport Group (MAG)



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About Manchester Airport

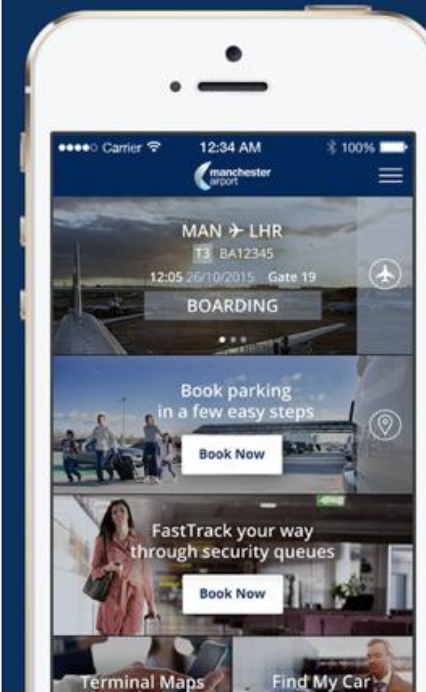
Manchester Airport Logo



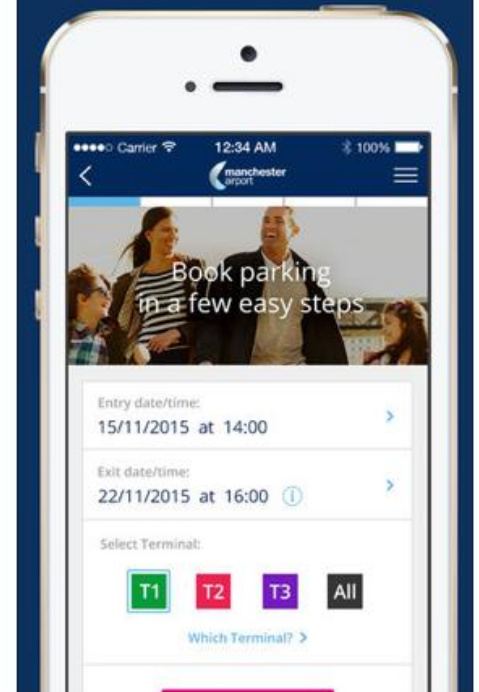
Manchester Airport
Manchester Airports Gr...

GET

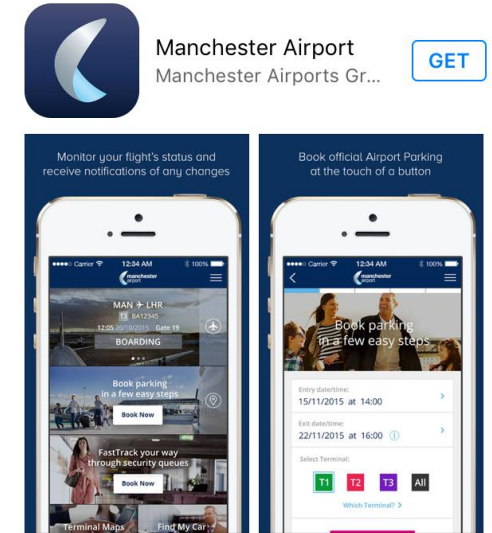
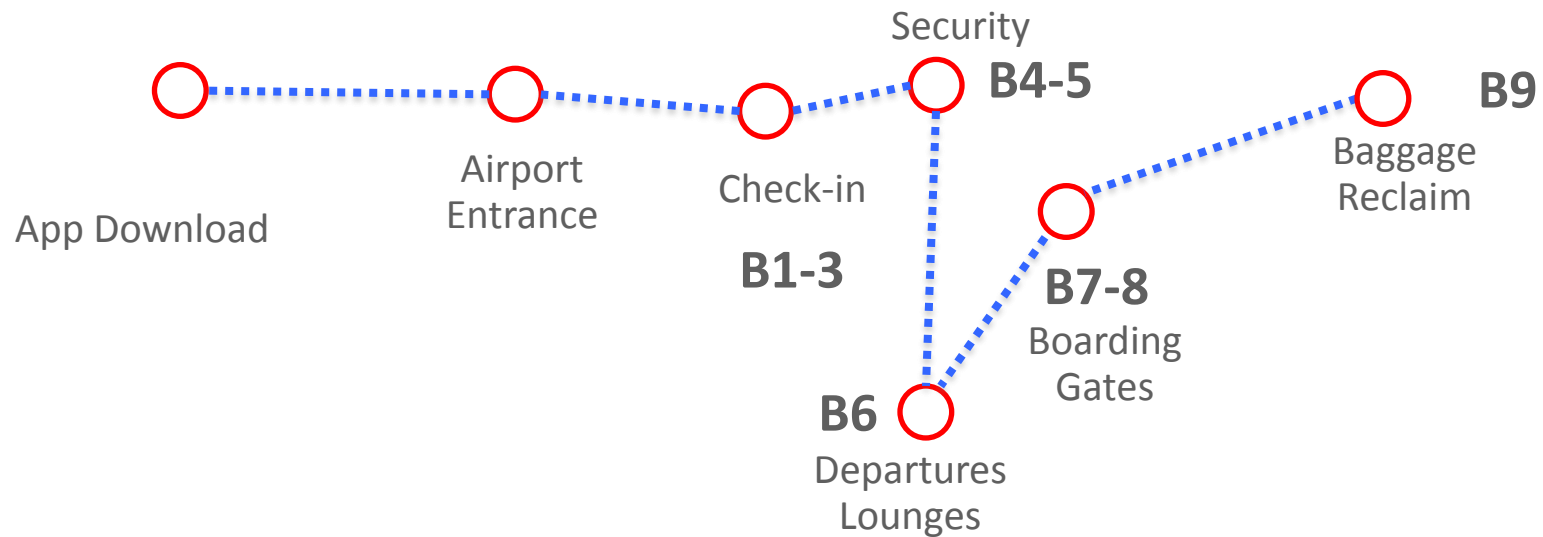
Monitor your flight's status and receive notifications of any changes



Book official Airport Parking at the touch of a button

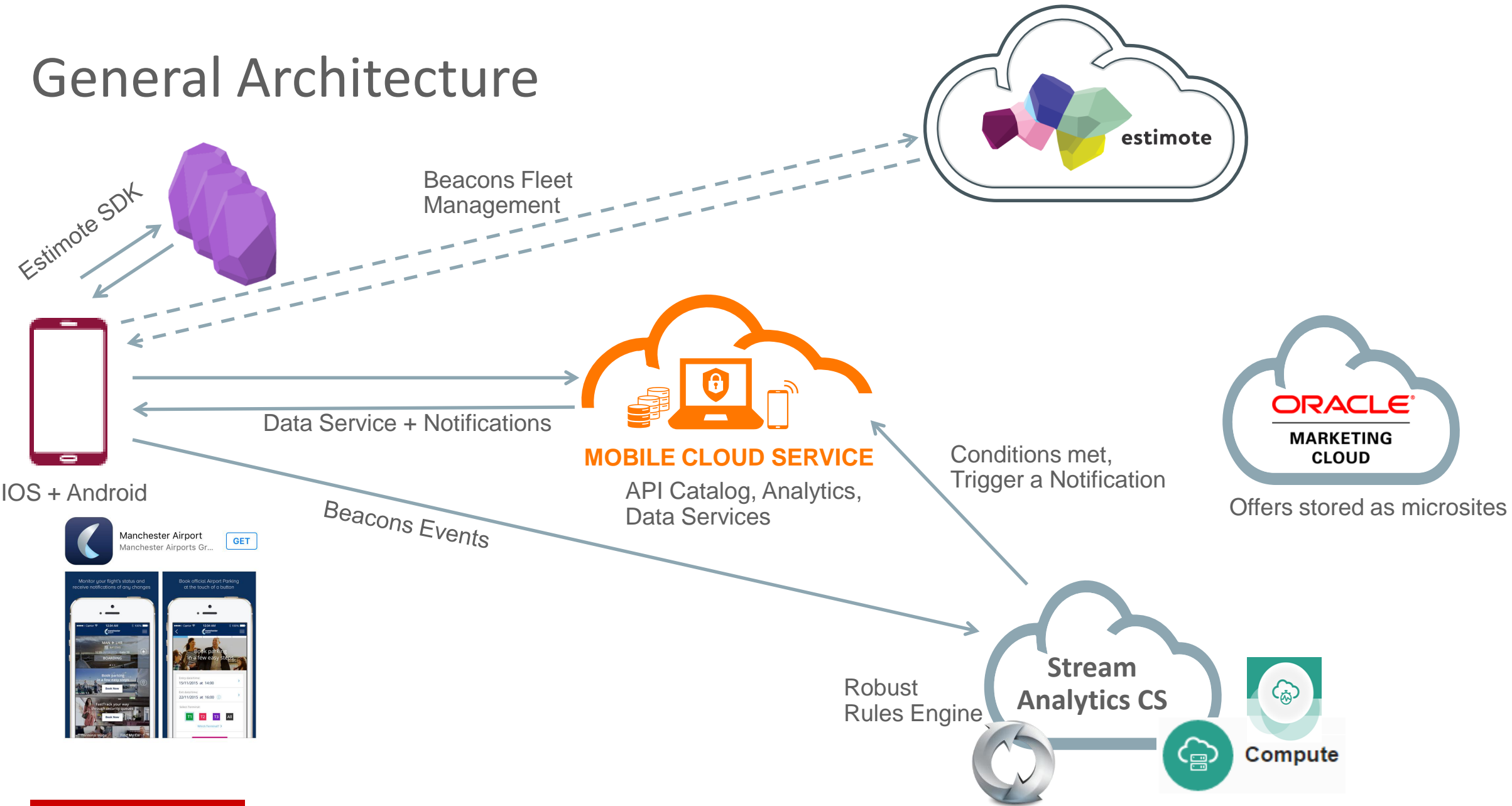


Map of the MAG Passenger Journey Path



Optimizing the Customer Experience on day of travel

General Architecture



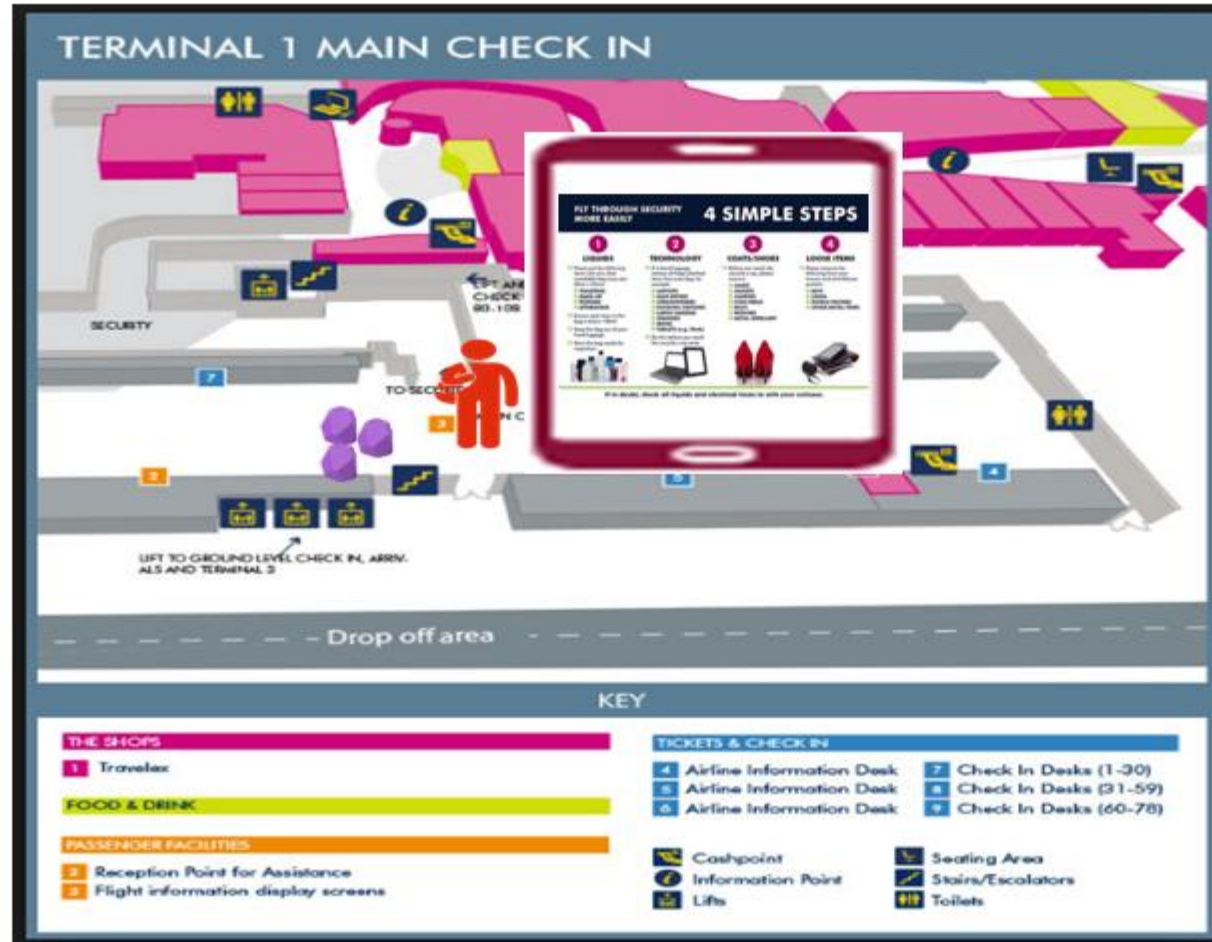
Use Cases

- Use Case 1 – Check-In – Liquids, Gels, Electrical Guidance

1) LIQUIDS, GELS & ELECTRICALS GUIDANCE
- Advice to Customers at check-in on latest Guidance
- Triggered immediately on entry

2) FASTTRACK CROSS-SELL
- Target High Dwell time therefore High Stress levels Plus Peak Hours in Security
- Five minutes post LAGS message (45m in Production) (Provisional depending on development required)
- Four Locations 20m Range incl Ground Level Check-In

STRATEGIC GOAL
- Data Capture
- Improved Customer Service
- Commercial Income
- Operational Efficiency



Beacons detect Passenger entering Check-In Area

Use Cases

- Use Case 2 – Check-In – FastTrack Cross-Sell

1) LIQUIDS, GELS & ELECTRICALS GUIDANCE

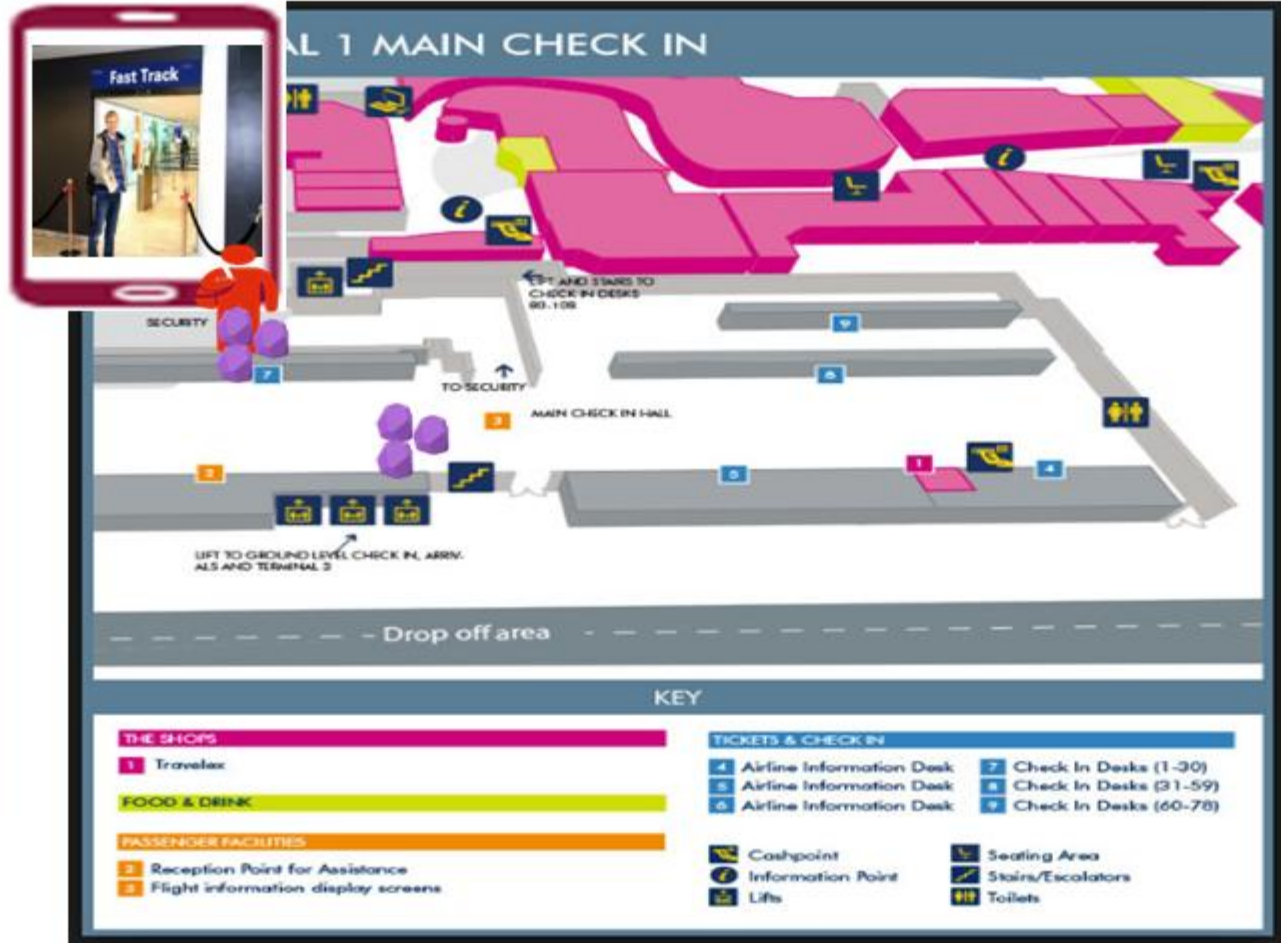
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STRATEGIC GOAL

- Data Capture
- Improved Customer Service
- Commercial Income
- Operational Efficiency



Beacons detect
Passenger Transit is slow



Use Cases

- Use Case 3 – Security - Pre and Post Security

PRE AND POST SECURITY

- No Customer Communications
- Measurement of customer transition time and throughput
- Three Locations 5m Range - Two Entrances and one Exit

RETAIL OFFER OF THE DAY (POST SECURITY)

- World Duty Free - Spend £75 and Claim £5 Off

STRATEGIC GOAL

- Real Time Customer Experience Measurement
- Improved Customer Service



Passenger leaves Security Area and gets World Duty Free offer

Use Cases

- Use Case 4 – Departure Lounge – Retail Offer of the Day

F&B OFFER OF THE DAY (POST BIZA)

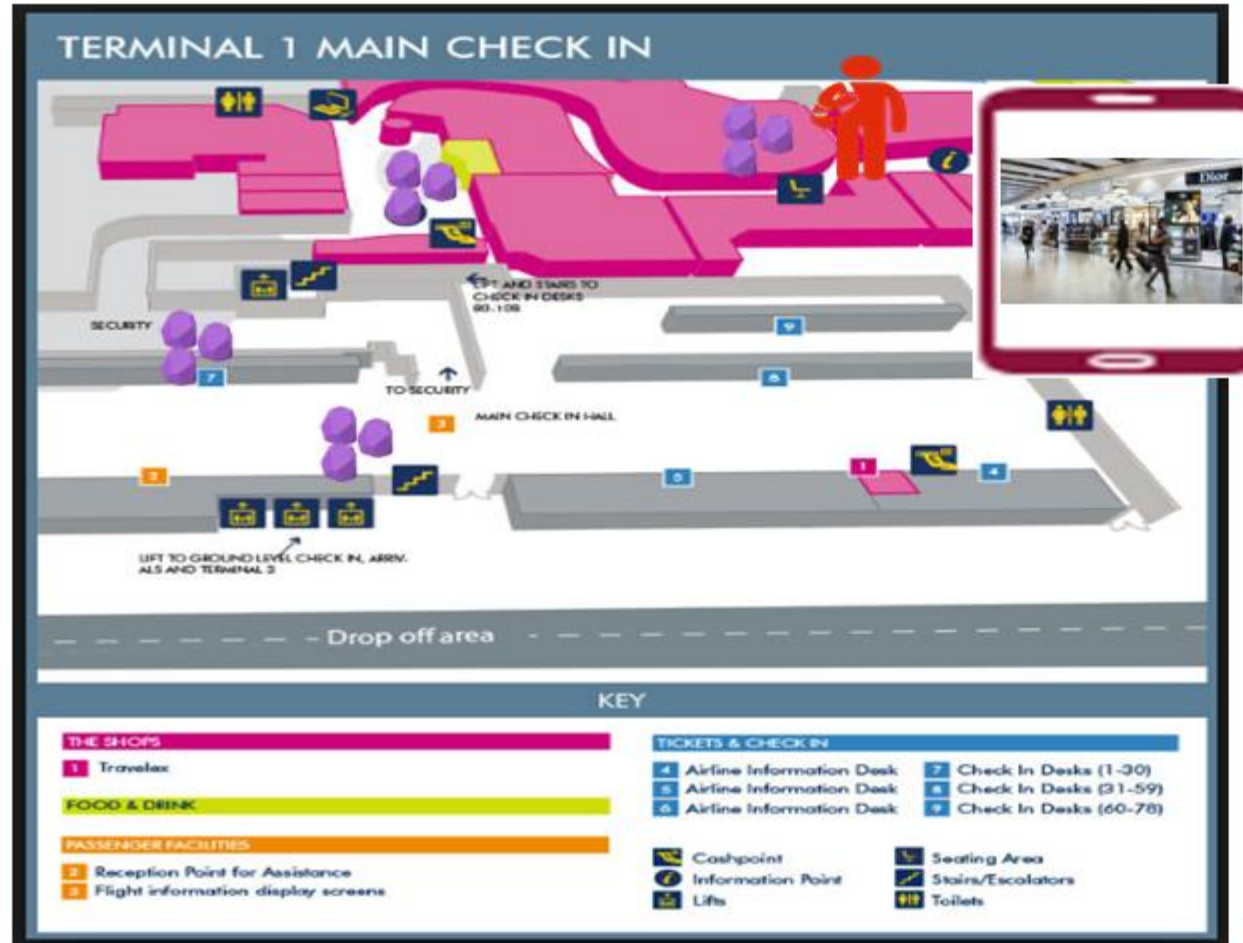
- Giraffe / Grain Loft - Pre 11am and Post 4pm

ESCAPE LOUNGE PLUS SECONDARY GIRAFFE

- 11am to 4pm Escape Lounge Time Bound Offer
- One Location 5m Range

STRATEGIC GOAL

- Commercial Income
- MAG Partner Support



Passenger enters Departure Lounge

Use Cases

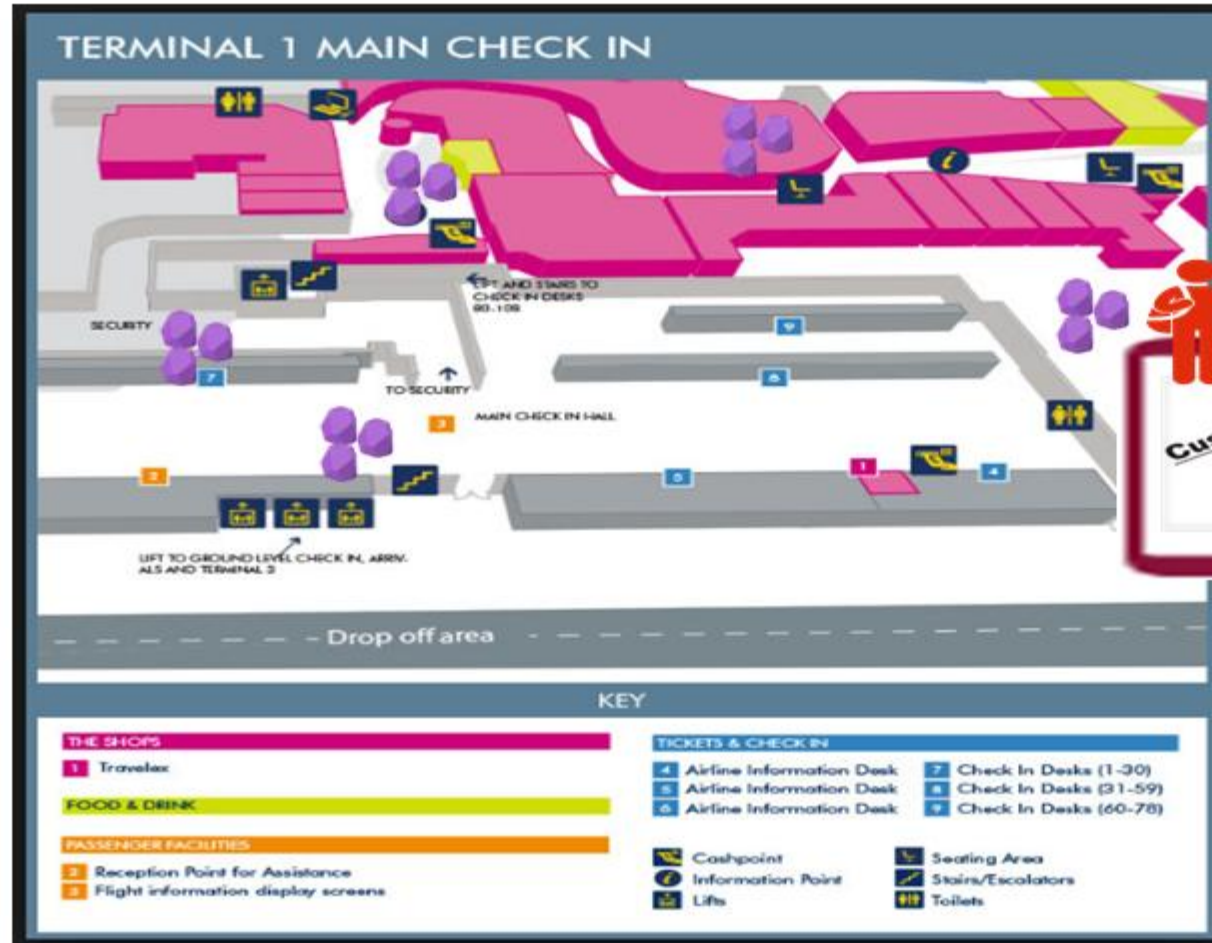
- Use Case 5 – Boarding Gate – Customer Satisfaction Tracker

CUSTOMER SATISFACTION TRACKER

- Incentivised Customer Satisfaction Poll
- Two Locations at T1 Piers 5m Range

STRATEGIC GOAL

- Real Time Customer Experience Measurement



Passenger Arrives at Boarding Gate



Use Cases

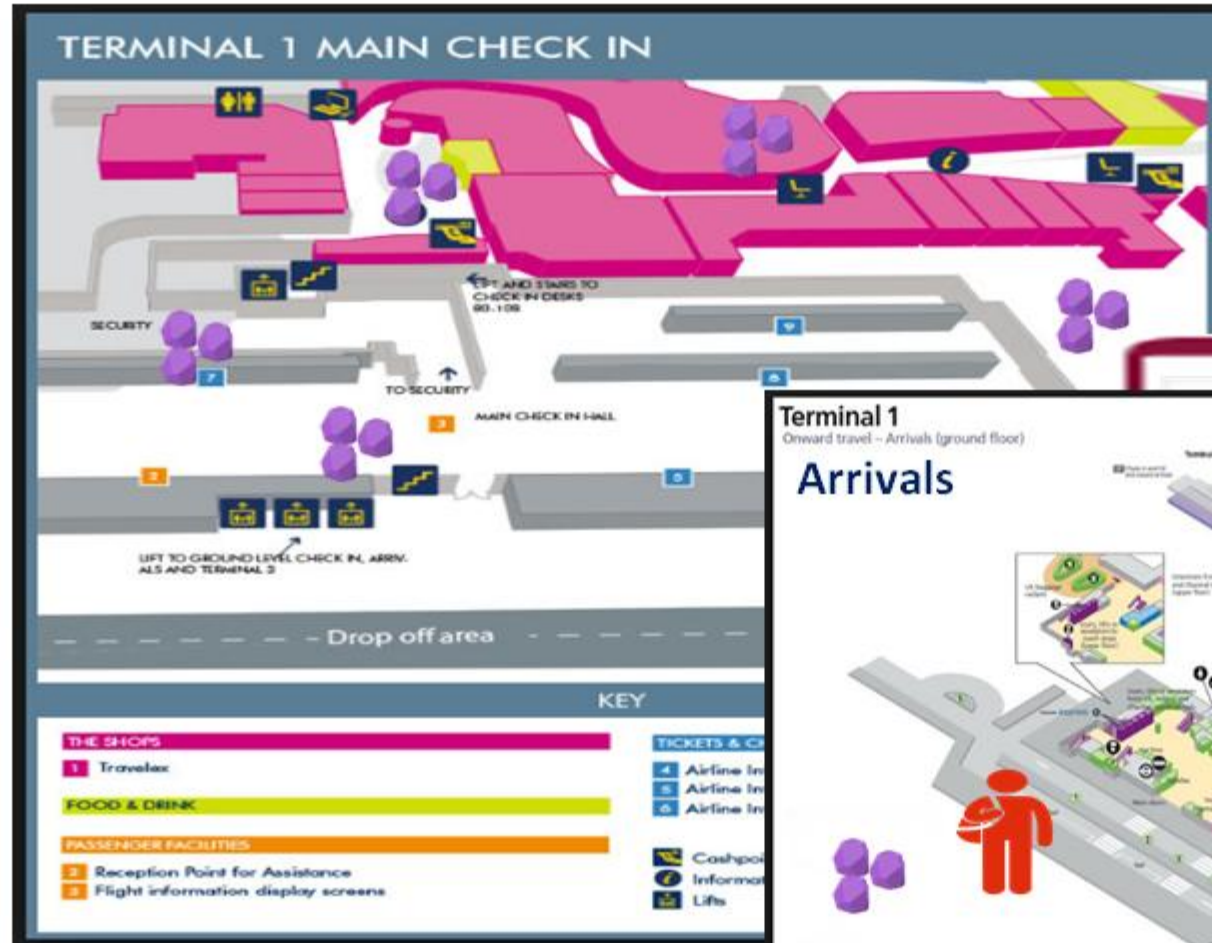
- Use Case 6 – Baggage Reclaim – Car Park Next Trip Offer of the Day

CAR PARK NEXT TRIP OFFER OF THE DAY

- Targetting customer's next trip through MAN
- Segmented communication
- 1) POC Anonymous therefore 'Pinned' Customers - Retention Offer
- 2) Non 'Pinned' Customers - Activation Offer
- One Location 20m Range

STRATEGIC GOAL

- Commercial Income
- Data Capture



Passenger Arrives at Baggage Claim after Flight





“Knowing what’s going on in real time through our entire supply chain provides us with an extreme competitive advantage. This innovation will allow us to take decisions before the cash count, in fact we will be able to change business in seconds and adjust to the real needs of our customers”

- **FRANCISCO GARCIA CORTES**
- IT Governance & Procurement Director, **MERCADONA**



How Mercadona is becoming a Real Time Retailer

- Francisco García, Mercadona
- Juan Luis Buenosvinos, Oracle Consulting

September 21, 2016



- Who is Mercadona?
- Project Objectives
- IT architecture journey
- Technical Solution Overview
- Conclusions

1. Who is Mercadona



A family-owned retail company

Founded in 1981

Largest supermarket chain in Spain

With presence all over Spain

Mission: “Total prescribers of the solutions required to enable ‘The Boss’ to put together their Total Shopping (Fresh and Dry products) within a Sustainable Agri-Food Chain”.

1. Who is Mercadona



1,600

Supermarkets

76,000

Employees

2,000

Suppliers

€21B

Revenue FY15
+3%

€611M

Net Profit FY15
+12%

1



Highest quality at the
Lowest price

2



Effective product range
"The value of simplicity"

3



Increasing market share in Fresh
Products

2. Project Objectives



Real Time >



Agility to respond to business needs.

1



Ability to manage **Fresh products** efficiently.

2



Sales and Stock in real time across all locations.

3



Perform analytics to create a better shopping experience.

Our IT was not ready to meet those goals.

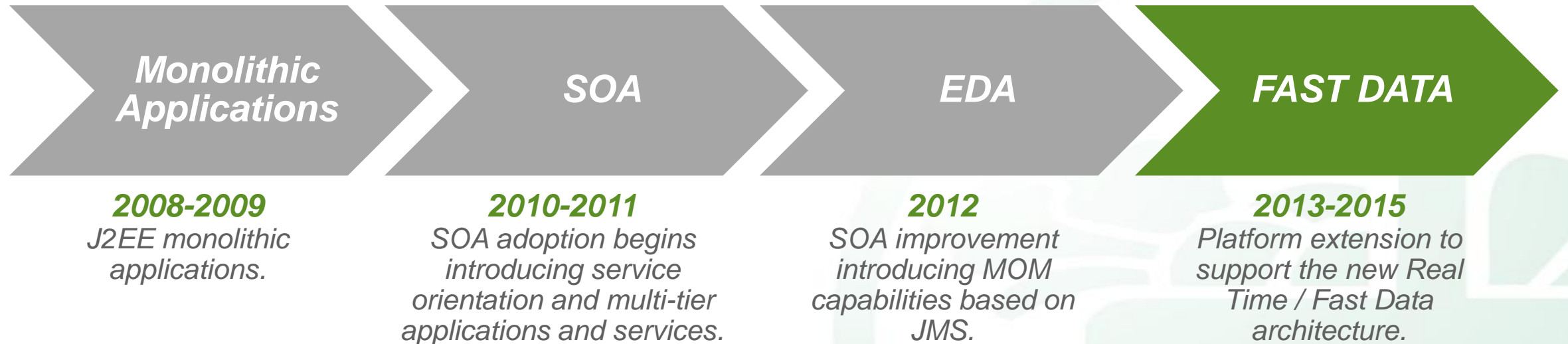
From Batch Mode ("days")



To Real Time Mode ("seconds")

3. IT Architecture Journey

- Mercadona has been evolving its IT architecture to meet business needs.



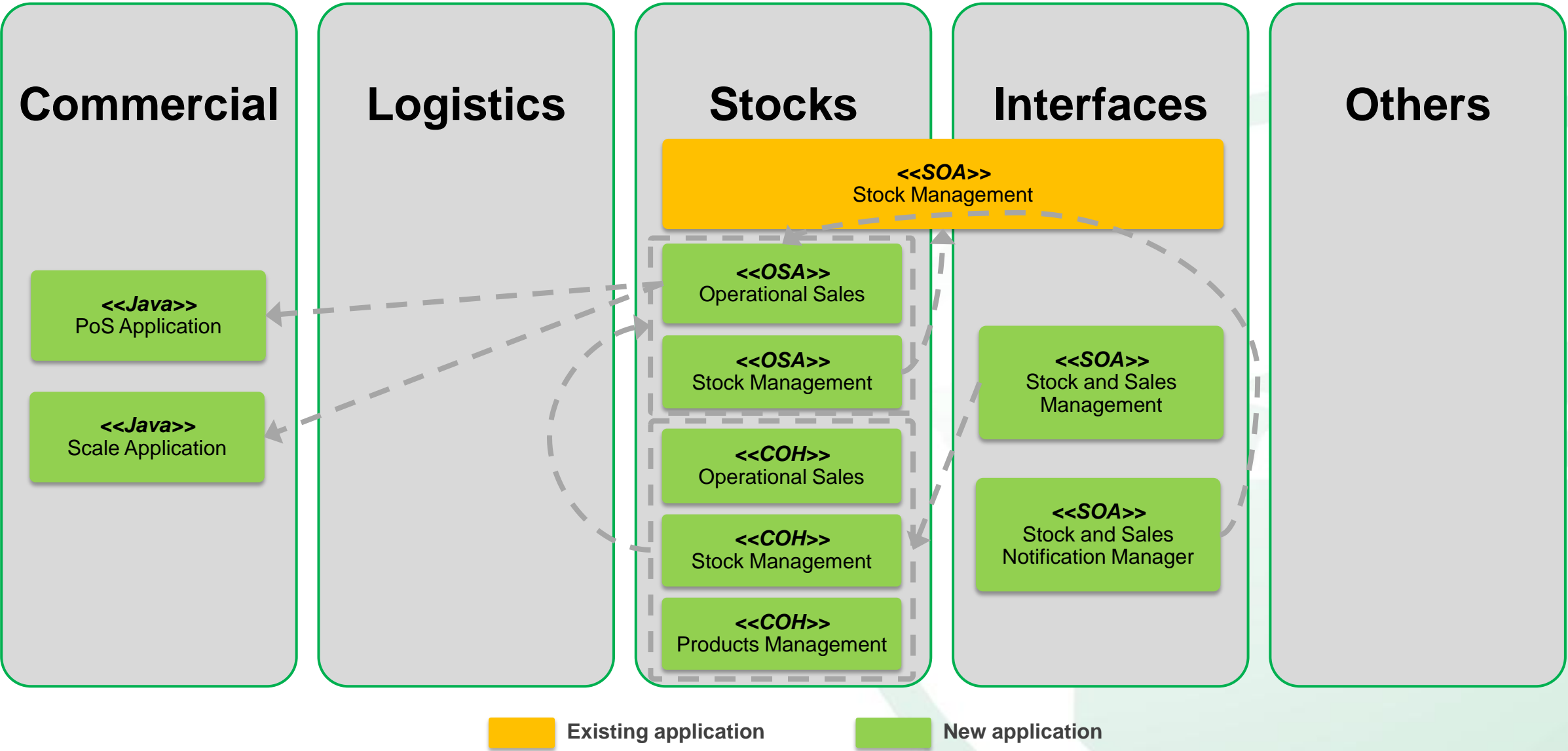
- New approach in terms of Fast Data architecture based on Complex Event Processing and In Memory Data Grid Processing paradigms.

- The Stream Data / Fast Data architecture is based on Complex Event Processing and In Memory Data Grid Processing paradigms.

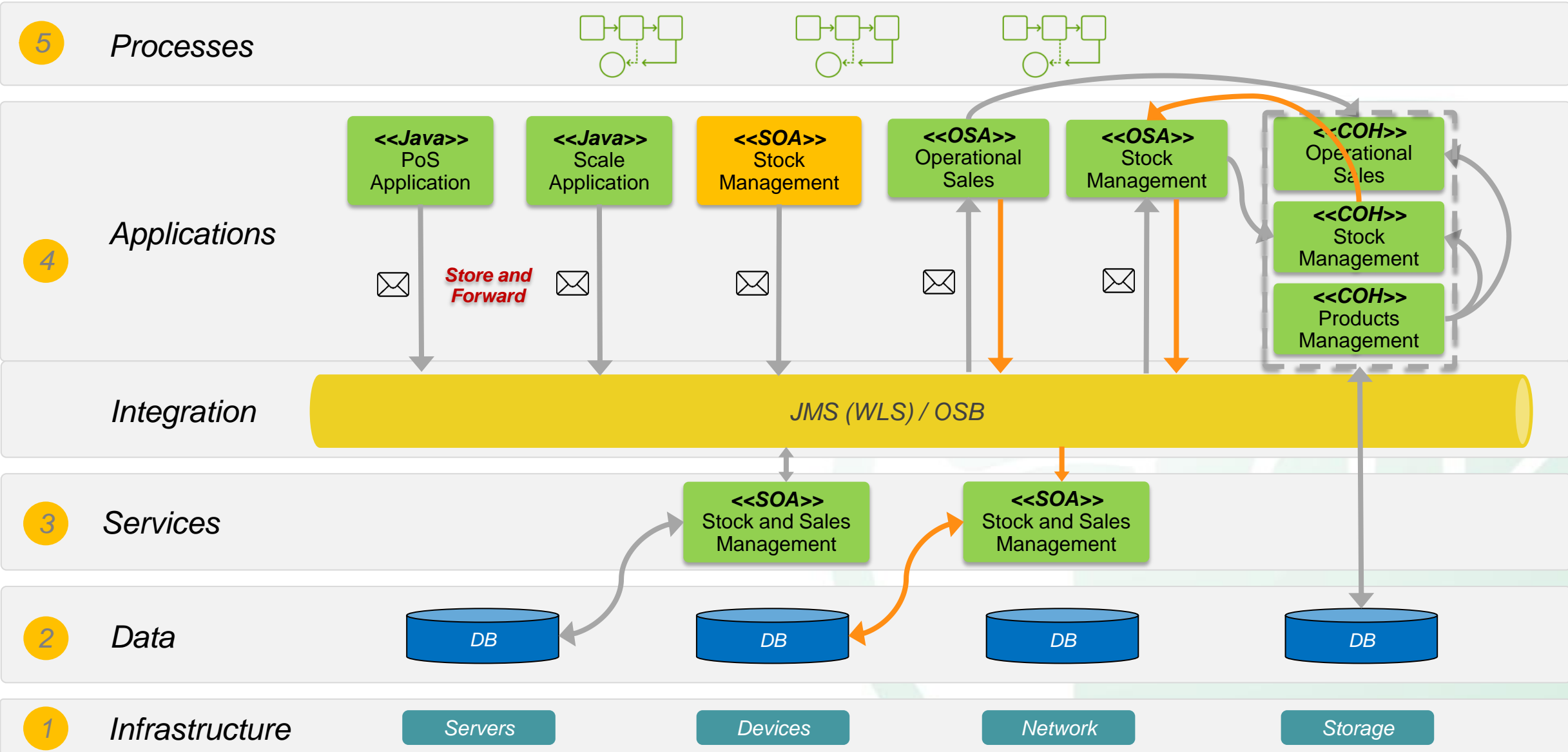


- It has implemented on **Oracle Stream Analytics 12c** and **Oracle Coherence 12c**. It also uses the current EDA architecture based on **Oracle WebLogic Server 12c** and **Oracle Service Bus 11g / 12c**.

4. Technical Solution Overview



4. Technical Solution Overview





Real Time



Agility to respond to business needs.



Allow Mercadona to create new services based on “Real Time” data such as sending prescription actions to add value and to improve customer shopping experience. Understanding of the customer and ecosystem will increase conversion rates, up-sell and cross-sell.



Improve customer omni-channel experience by accessing data in real time like: Customer profile, purchase history, current shop stock.



Improve operational efficiency: reducing logistics cost by a more efficient shop provisioning, adopting new technologies for stock control, reducing Stock Breaks, improving the end to end supply chain management, fraud detection.



Accelerate Your
Digital Transformation
in the Cloud

Integrated Cloud

Applications & Platform Services

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