

Build Real-Time Analytical Solutions Using Oracle BAM

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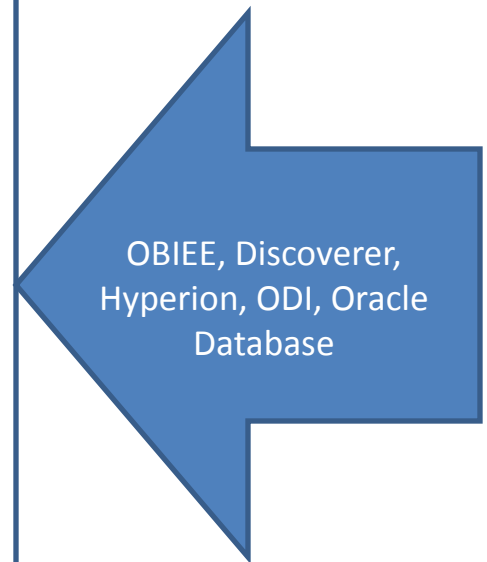
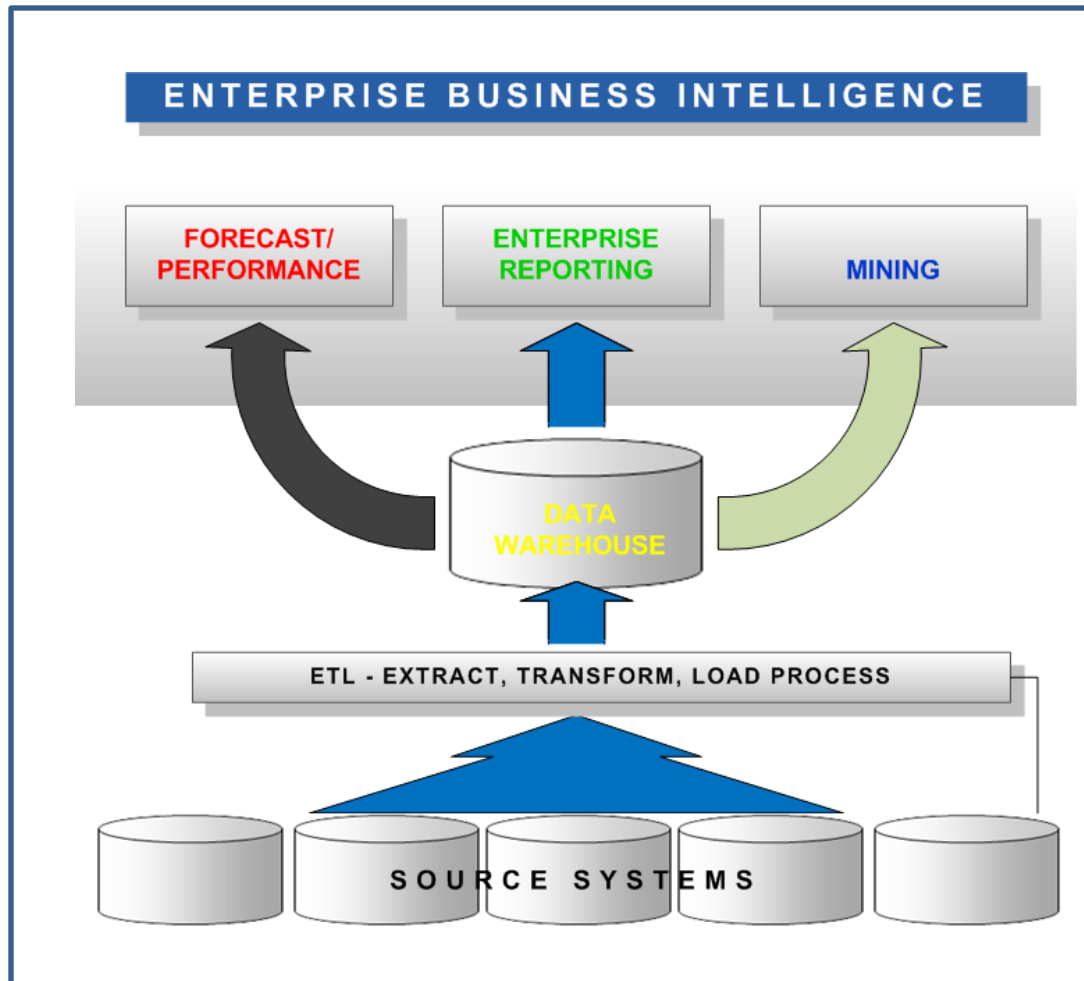
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Agenda

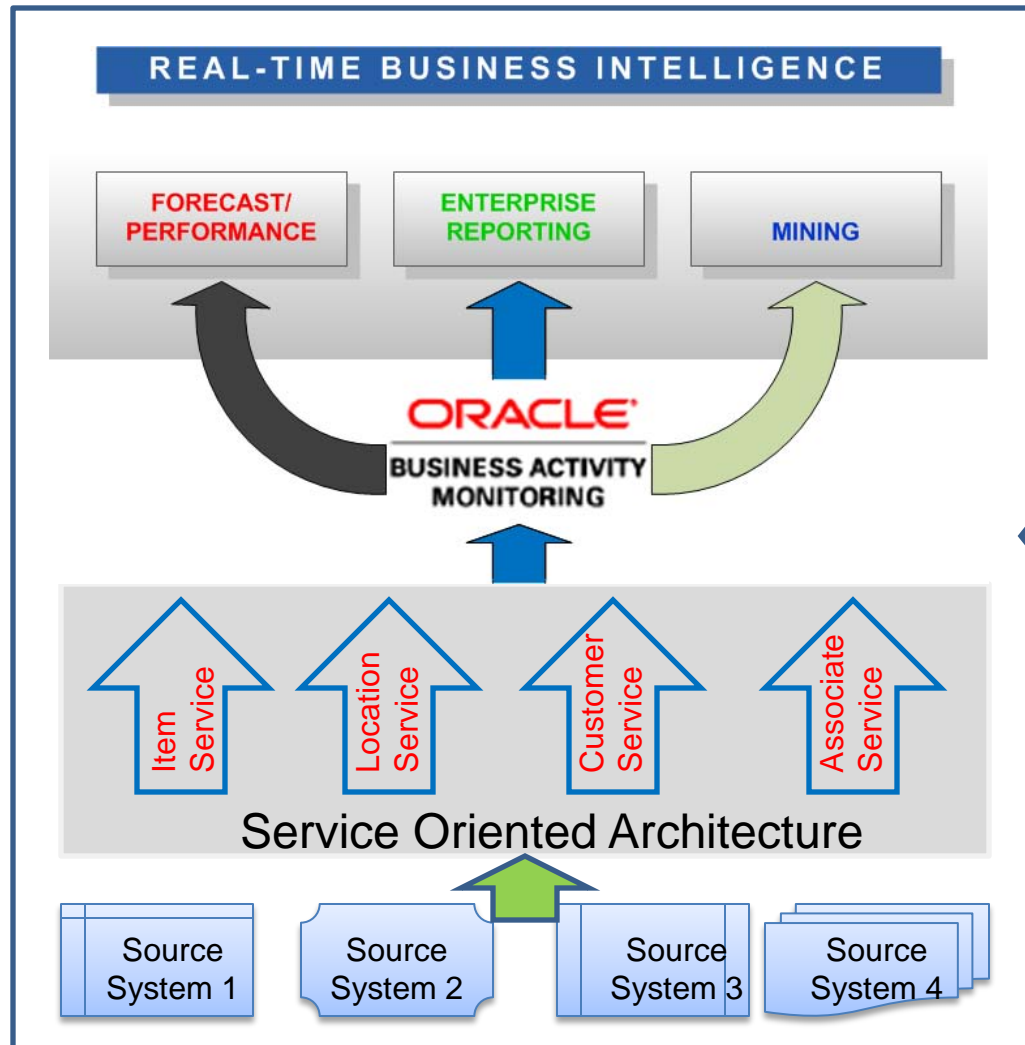
- Real-Time Business Intelligence Fundamentals
- Oracle SOA Suite and BAM
- Oracle BAM Architecture & Integration
- BAM Features and Capabilities
- Steps to build BAM dashboard
- BAM Implementation Case Study
- Summary
- Q & A

Business Intelligence Architecture



Non-Transactional & No Real-Time

Real-Time Business Intelligence



BAM – Business Activity Monitoring
SOA – Service Oriented Architecture

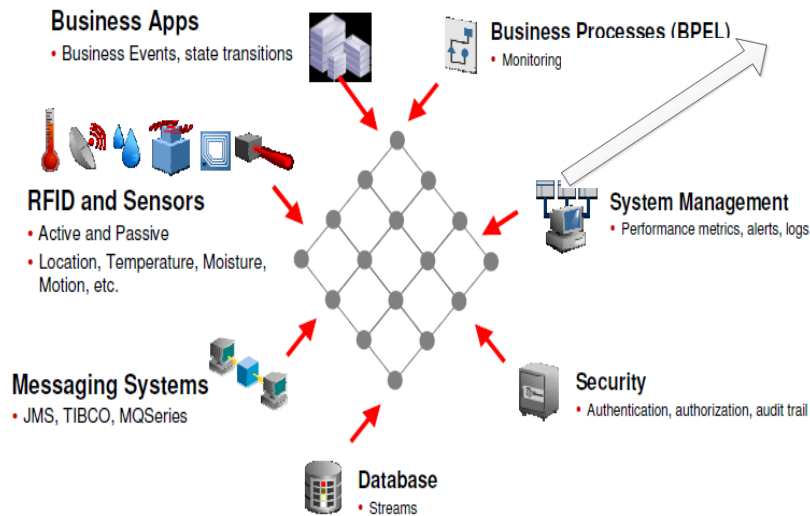
Transactional & Real-Time

Oracle Business Activity Monitoring (BAM)

- BAM – Business Activity Monitoring is a tool for Business Analysis & Monitoring
- It provides ability to monitor the **business services & processes** in the enterprise, to correlate KPIs down to the actual business process
- BAM (11g) is a JAVA component deployed on Weblogic Server
- Oracle BAM is a component of Oracle SOA Suite & Oracle BPM Suite – No Seperate BAM Installation required

BAM Conceptual Architecture

Capture Real-Time Data



Analyze Processes

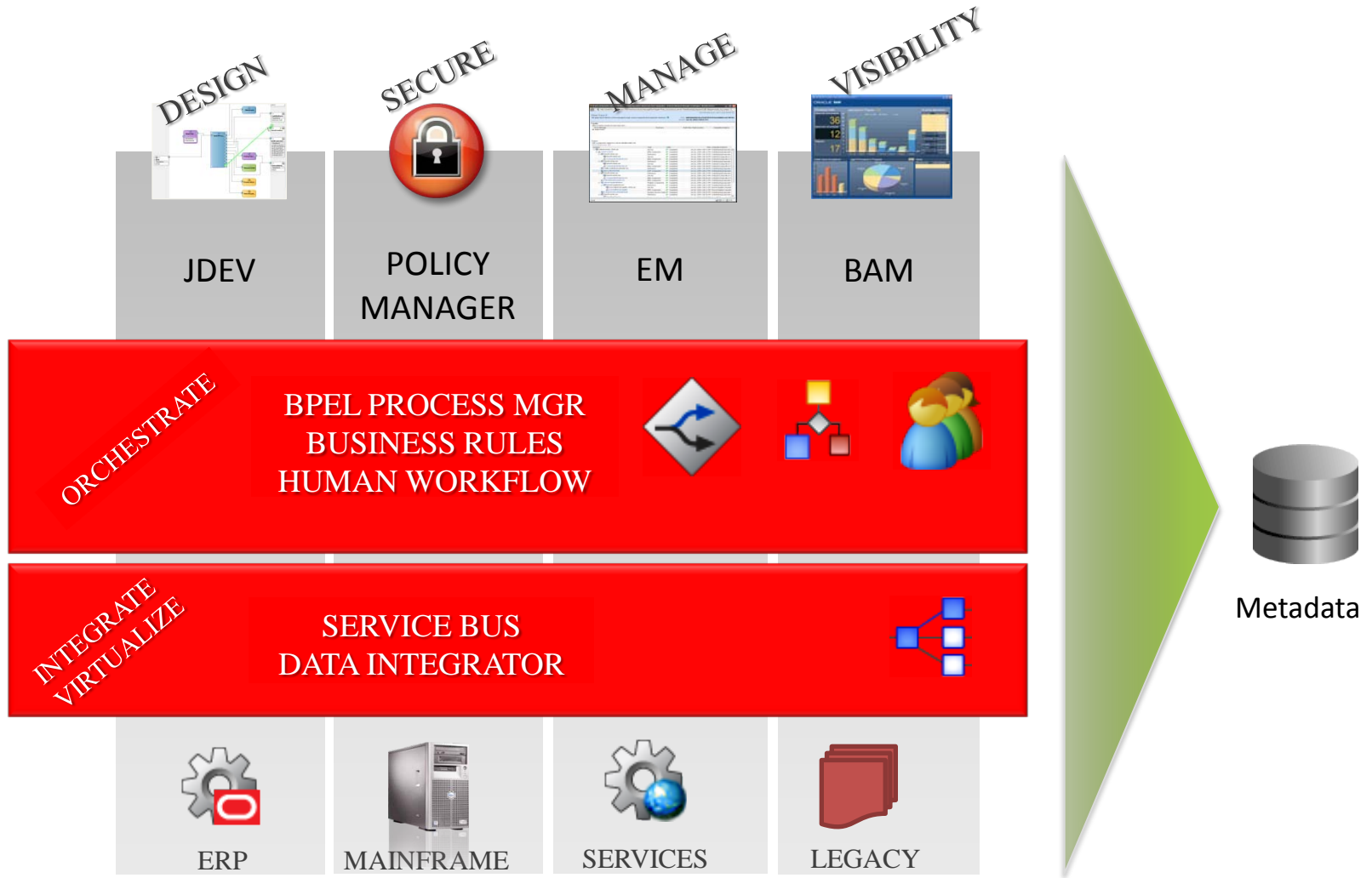


Deliver Information




Figure 3 Oracle BAM dashboard supporting financial services scenario

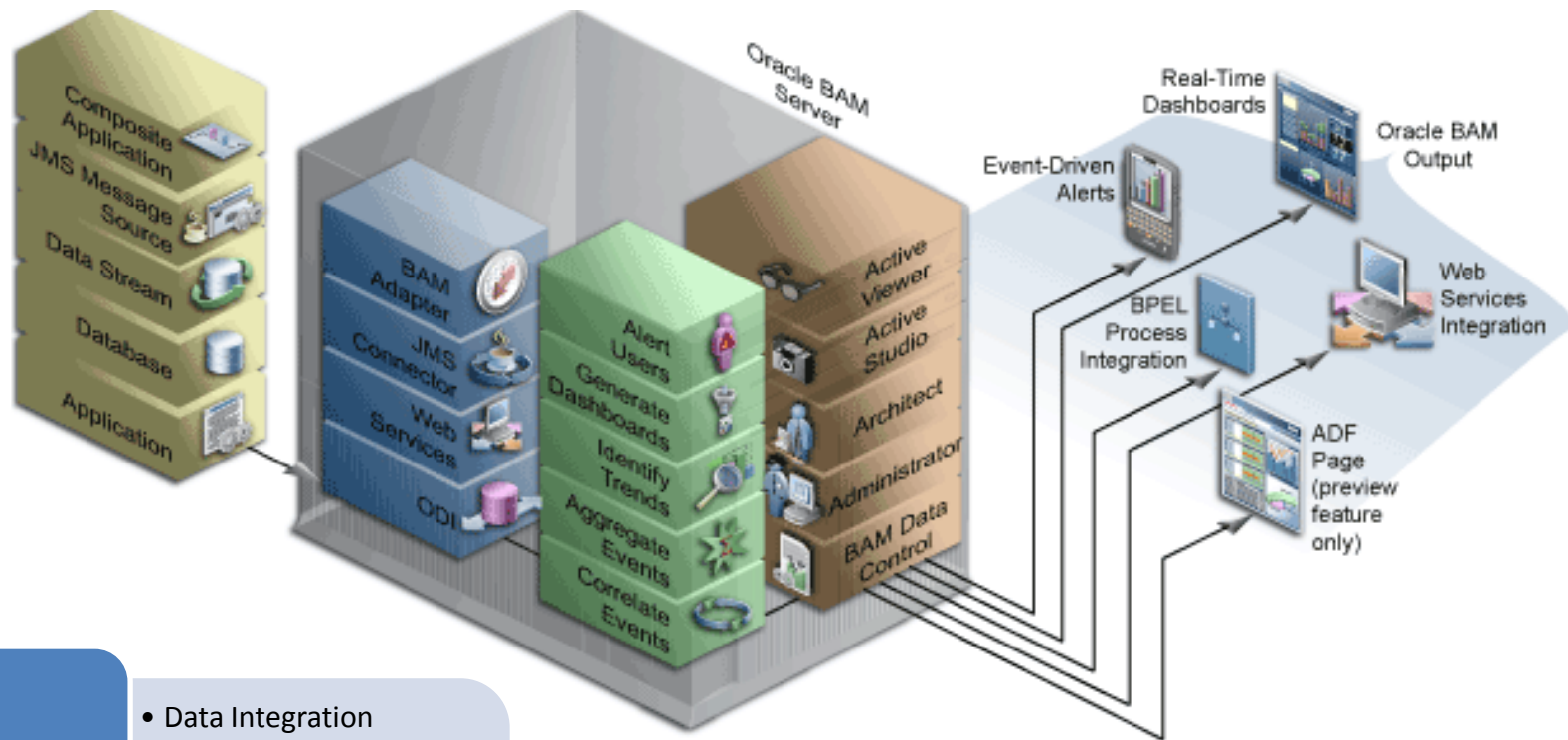
Oracle SOA Suite & BAM



BAM Software Requirement

- Oracle SOA/BPM/EDA Suite
- Application Server – Weblogic 11g
- Database – Oracle 10/11g
- Operating System – Linux, Unix and Windows
- Internet Browser – IE 7.0/8.0 

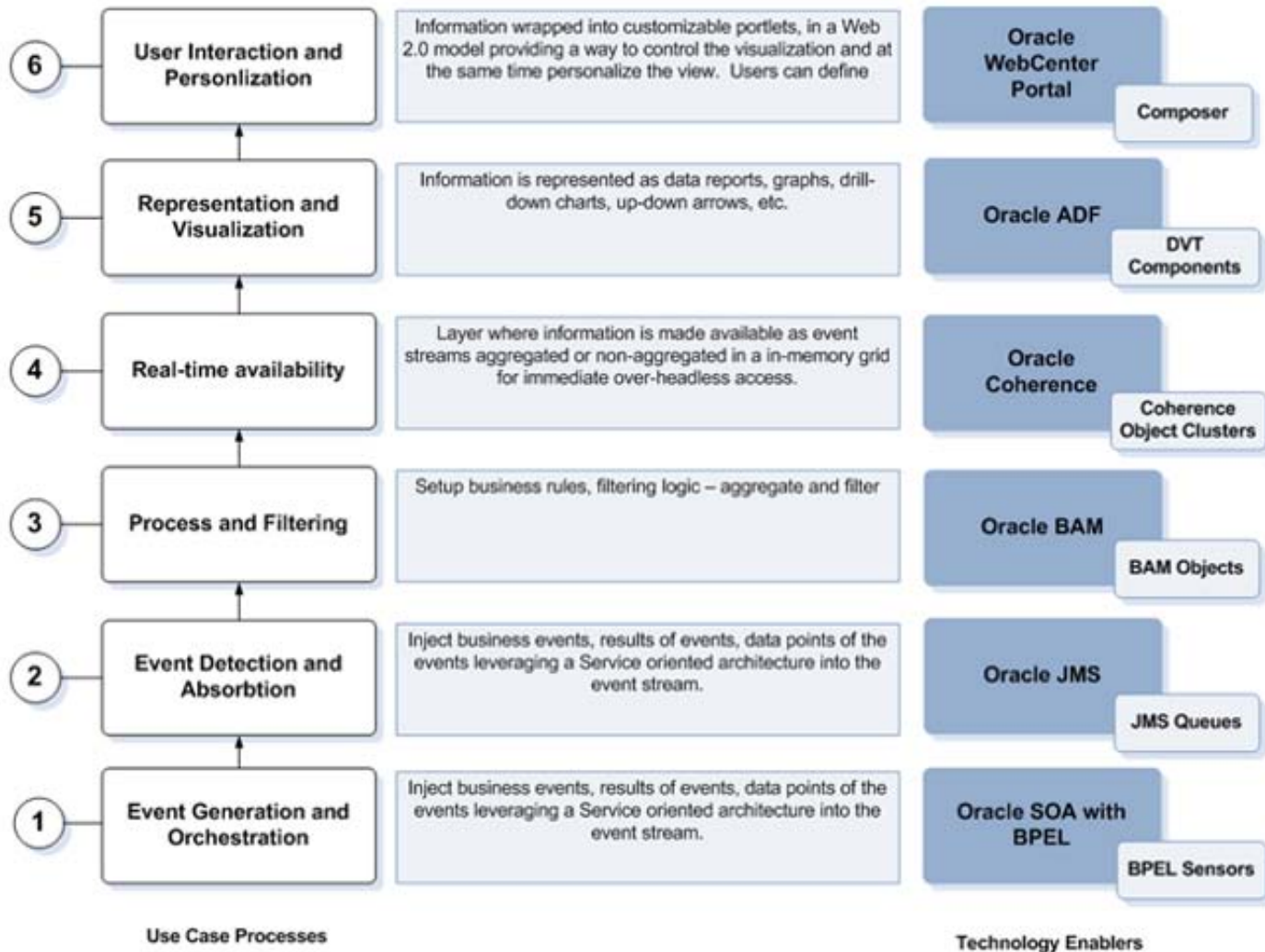
BAM Technical Architecture



BAM Components

- Data Integration
- Data Caching
- Analytics
- Monitoring
- Reporting
- Alerting

BAM Integration



BAM Features & Capabilities

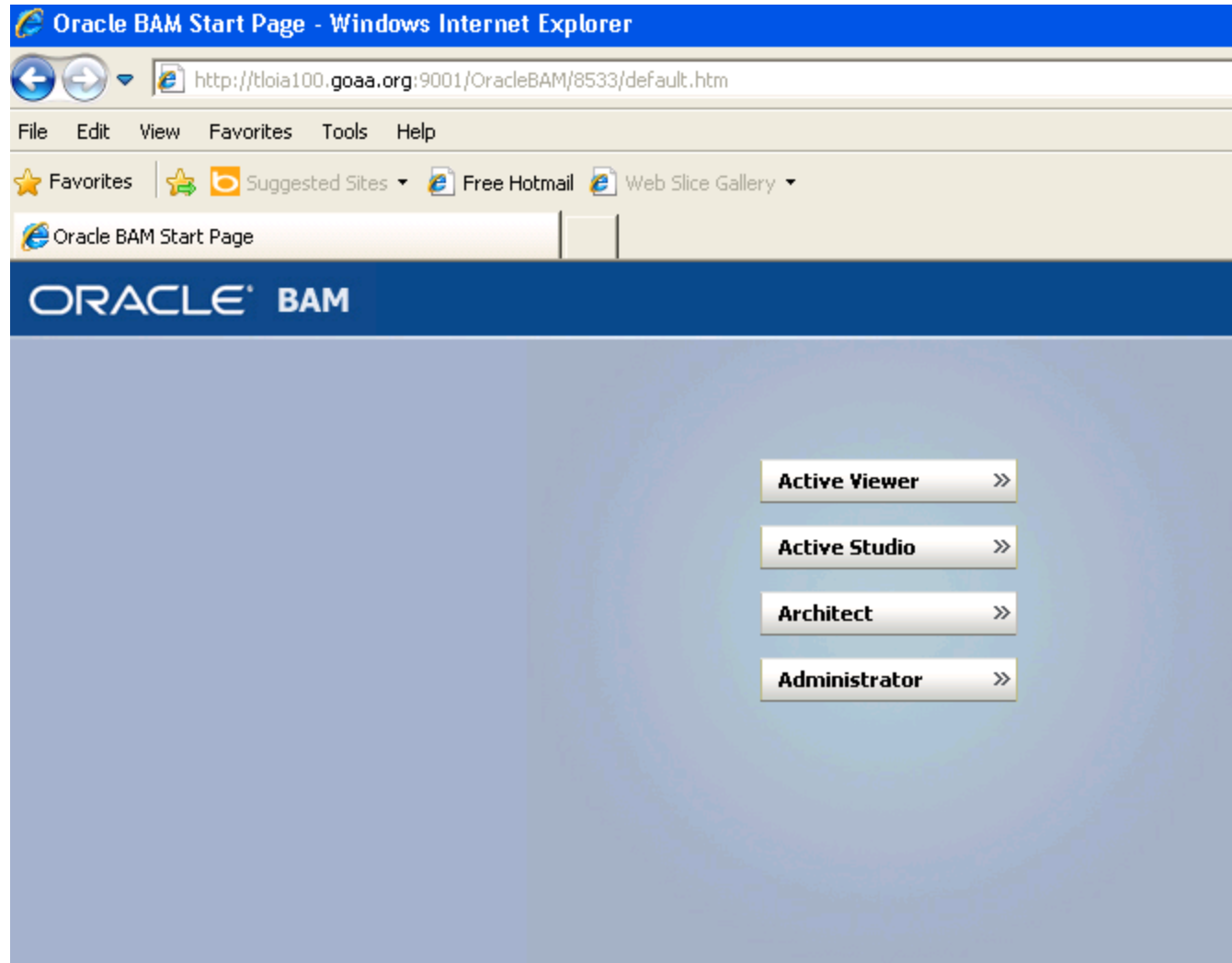
Features

- **More than 40 different view types** : BAM supports viewing reports on a large number of graphic patterns. Most common being the charts, real time lists and KPIs.
- **Actionable alerts** : BAM allows alerts to be delivered on a variety of devices. These alerts are fully actionable to take appropriate actions based on the business information delivered in the alert.
- **Integration with other products** : BAM is capable of seamless integration with several other products including BPEL, OSB, ODI and ADF.

Capabilities

- **Data and event collection infrastructure** : BAM can collect data using a variety of different mechanisms including databases, messaging systems such as JMS, AQ, MQ and packaged applications.
- **Real time visibility** : BAM has an event driven message based architecture which uses the ADC (Active Data Cache Technology) patented by Oracle.
- **Performance and scalability** : Support for thousands of events per second and streaming of data to the browser in real time.

BAM Applications



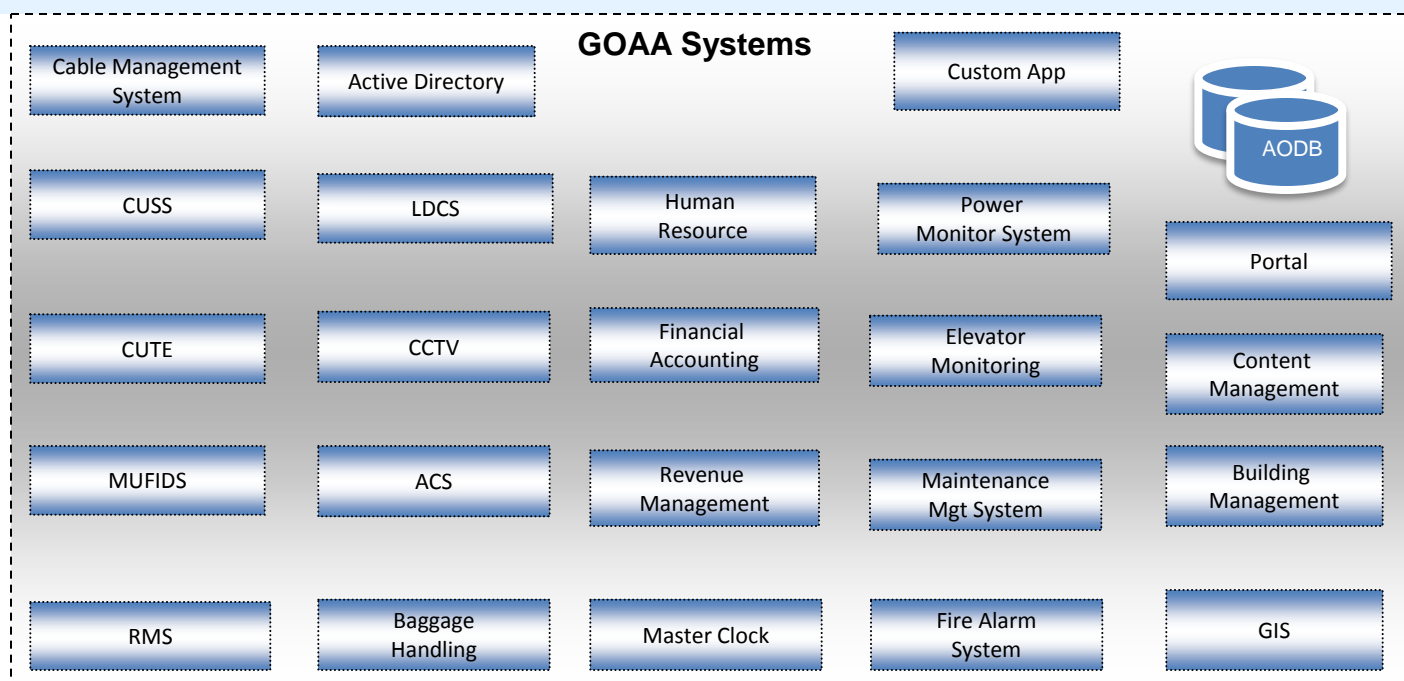
BAM Development – 5 Easy Steps

1. Configure external data sources
2. Define data objects
3. Select dashboard layouts and report layouts
4. Configure data and view properties
5. Secure reports

Oracle BAM Implementation Case-Study @ Greater Orlando Aviation Authority, FL



GOAA System Landscape



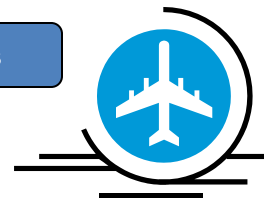
Operations



FAA

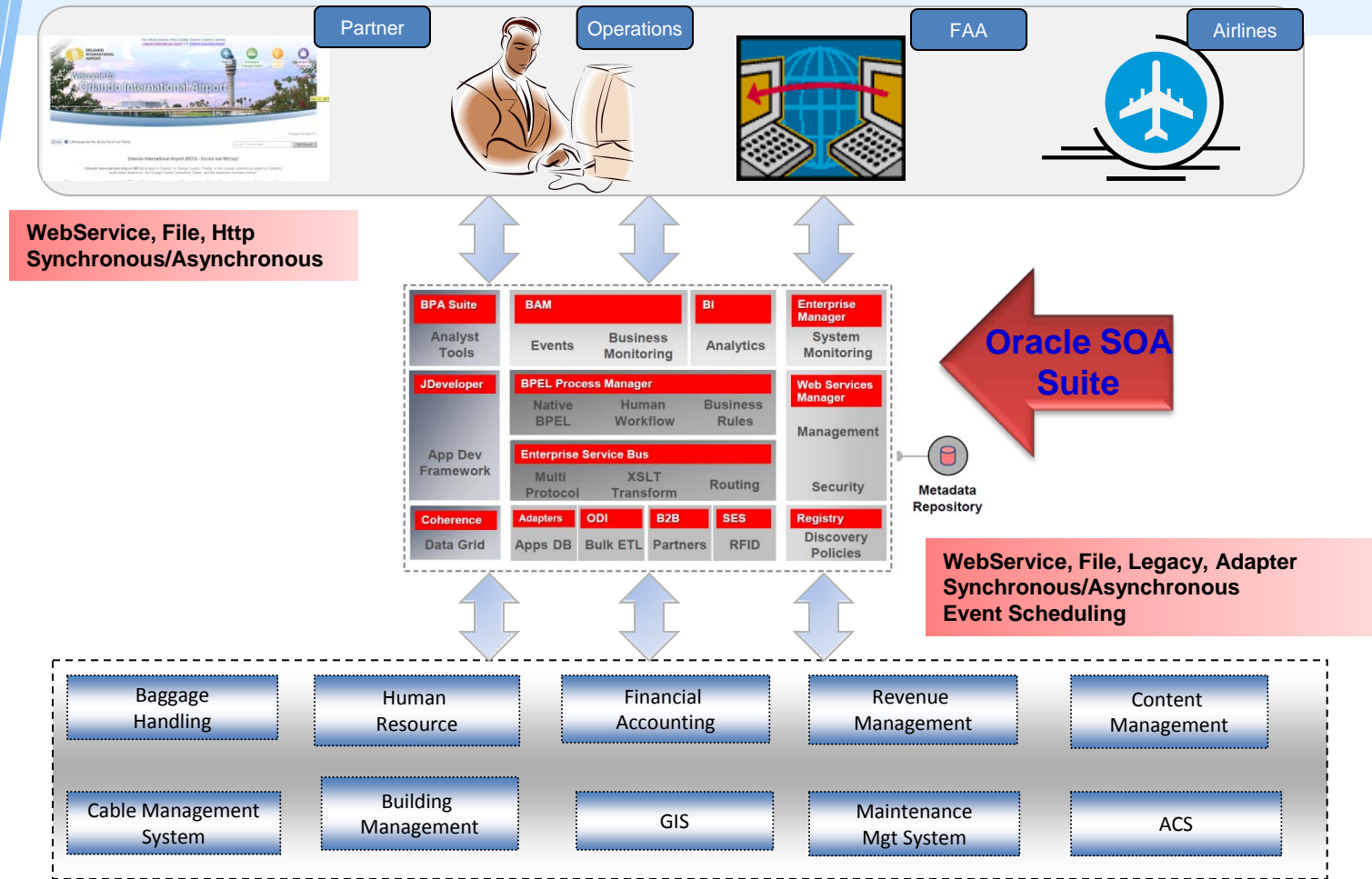


Airlines



- Complex Architecture - mostly point-to-point integration
- Manual Integration Processes - Inefficient & expensive
- Time-to-Deployment – challenges in implementing new integration
- **Governance** , Measurement & optimization the key challenge for management

SOA & BAM Implementation at GOAA



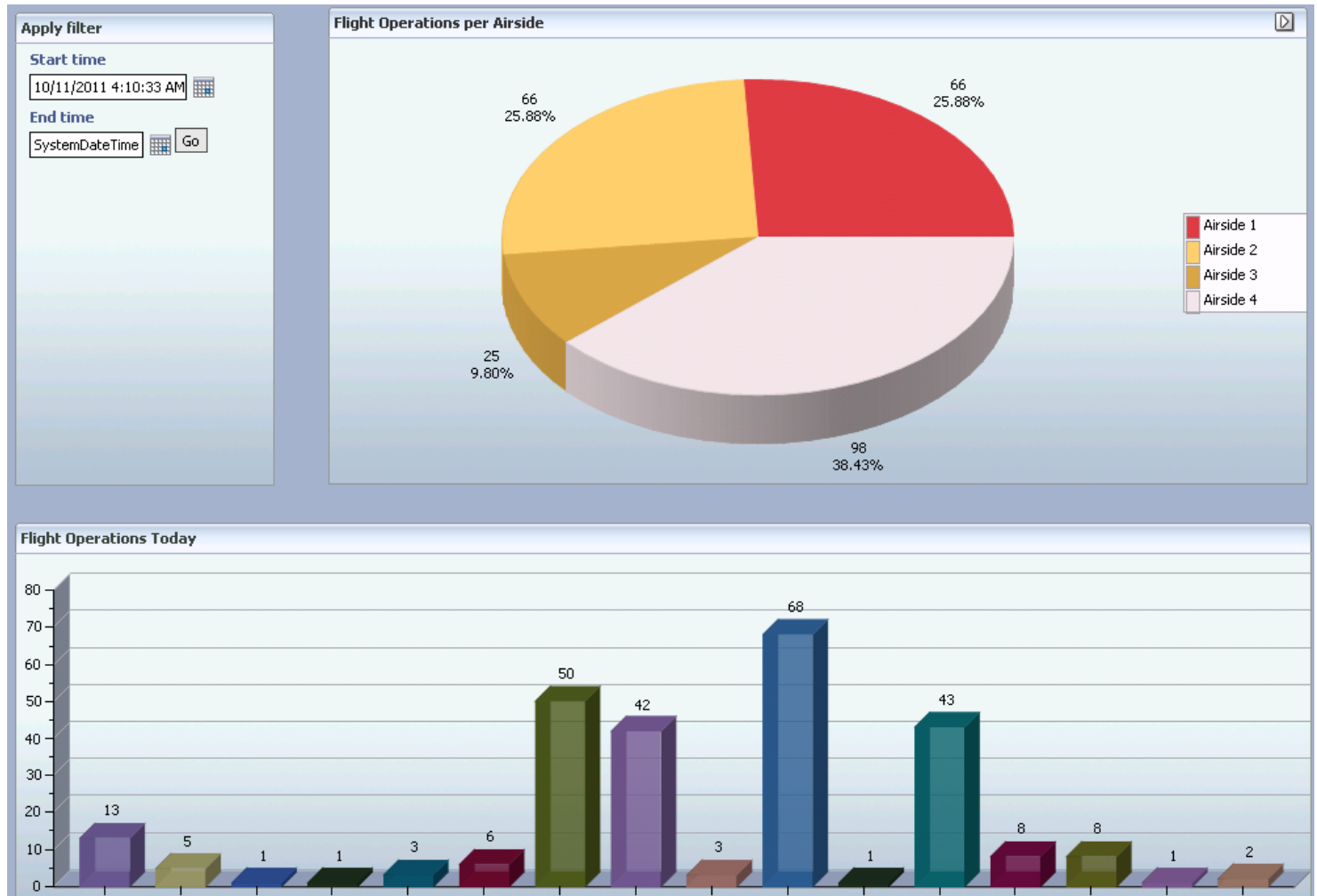
Service Oriented Integration helps in reducing the integration “clutter” across the airport systems

Current Implementation Highlights

- BAM Dashboard for the real-time monitoring of FlightData Integration
- Reports with drill-down for Flight-Data integrations
- Capture 10,000 alerts for 800 flight operations
- SOA/BAM Version – 11.1.1.4
- Deployed as single domain in the SOA cluster
- Total effort (Inception to Deployment) – 150 hrs

Case Study : Sample Report

Drill-down sample report



BAM Summary

- BAM should be considered for Transactional & Real-Time Reporting & Analysis
- BAM is NOT an alternative to OBIEE
- Part of SOA/BPM Suite - no additional software/hardware required - BAM adapters are available
- Easy Installation and Configuration
- Would require 2-3 weeks of learning for a SOA developer to work on BAM

BAM Resource

- <http://www.oracle.com/technetwork/middleware/bam/overview/index.html>
- BAM User Guide - <http://download.oracle.com/docs/cd/E1457101/integration.1111/e10230/toc.htm>

Questions

