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How we simplified Web, Mobile and Cloud development for our developers? - the Oracle Story

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What Does Oracle Do?

- Hint
  - We are not just developing database

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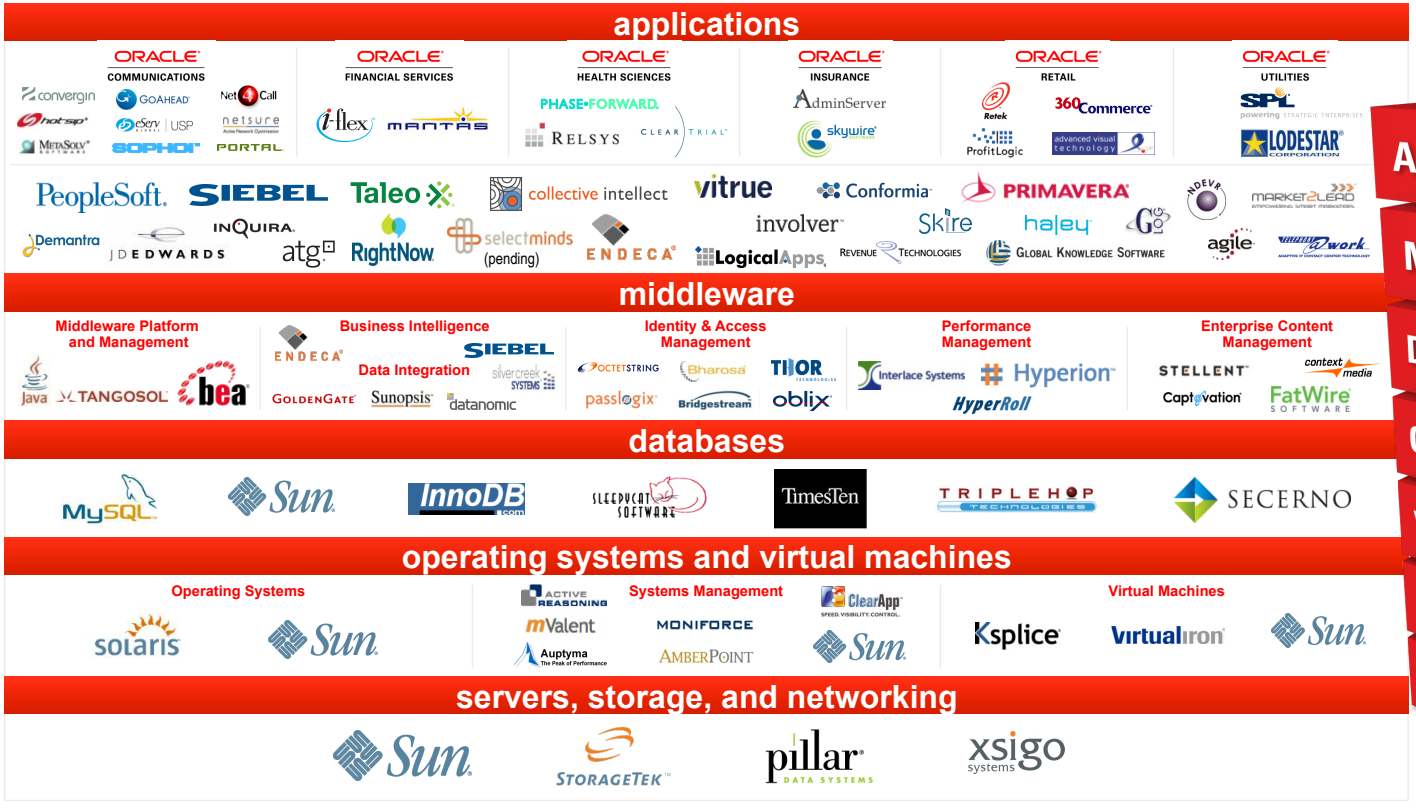
Oracle Acquisitions



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Oracle Fusion Applications

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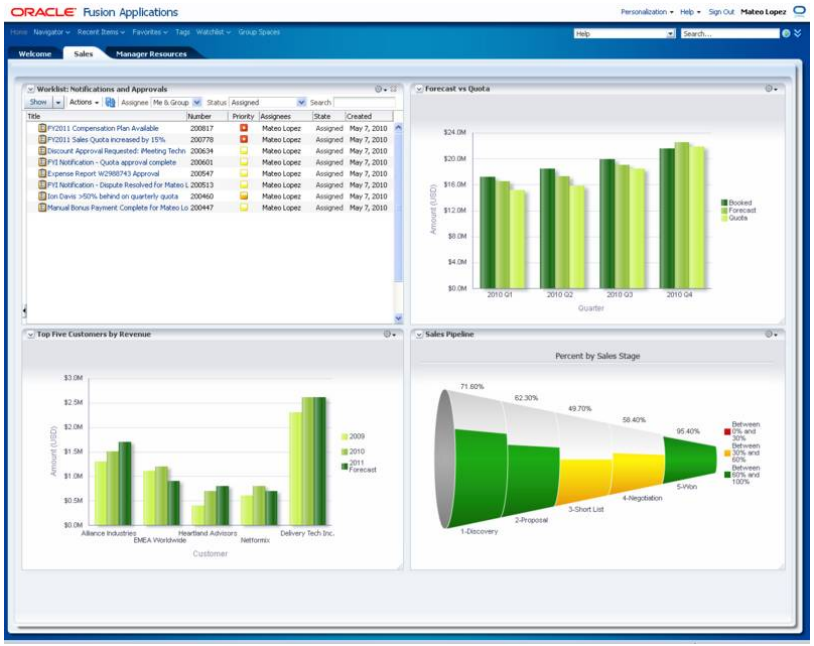
Oracle Fusion Applications



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What's the problem

- Technology
- Size
- Channels
- Personalization/Customization

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What We Needed In Our Applications

- Cutting edge user interface
- Multi-channel access (web, mobile, desktop)
- Agile application – processes and rules
- Customizable per user

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What We Needed From Our Architecture

- Future proofed
- Protection from technology shifts
- Support for new channels/devices
- Openness/Pluggability
- Simpler and faster development

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Knowledge Gap

- Developers background
  - Mostly 4GL background (Oracle Forms, PeopleTools, .Net)
- Technologies at the base of the application
  - Java EE
  - Ajax
  - SOA
  - Mobile
  - ….

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Oracle Application Development Framework

A Common Framework for the Platform

- Abstract & protect from low level technologies
- Increase productivity & ease-of-use
  - Visual and declarative development
  - Takes care of the “plumbing” code
  - Implements best practices
- Promote service oriented development
- Standards-based
- End-to-end coverage

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RIA Web User Interface

ADF Faces Components

- Component based UI construction
  - 150 components, built in Ajax/HTML5
- Protect from UI technology changes
  - Ajax? Flash? HTML 5? Touch?
- Increase Reusability
- Visual development
  - Layout editor, component palette, property inspector

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Database Interaction

ADF Business Components

- Extensive built-in functionality
  - Master/detail, Query, List of values, calculations, transactions…
- Declarative definition
  - Code by exception
- Reusable
  - Across applications, multiple UIs
- Service enabled
  - Wizard approach to SOA exposure

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Service Abstraction

ADF Model

- Abstract service's technical implementation
- Simplify UI creation
- Access multiple sources of data
  - Java, EJB, JPA, ADF Business Components
  - Web services, REST services
  - BAM, BPM Tasklist
  - More…

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Demo
Basic Oracle ADF Development Experience

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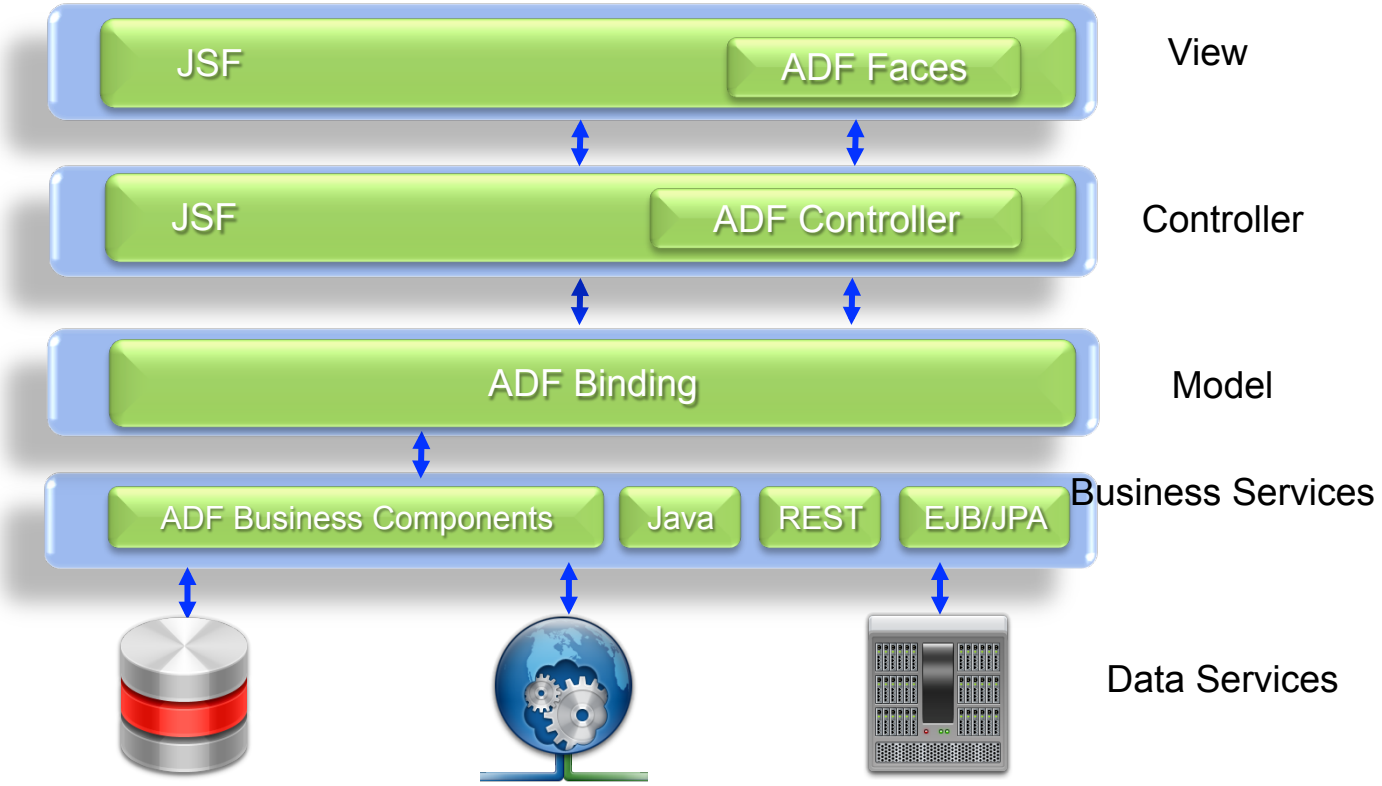
Oracle ADF Essentials



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Some Fusion Apps Statistics

- Model jars: 3,517
- Ui jars: 1,311
- Projects: 8,125
- Entities working against DB - > 18,500
- JSF pages ~ 10,000

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Size = Challenge

- How to break down work
  - Between teams
  - Between team members
- How to share artifacts
- How to not re-invent the wheel

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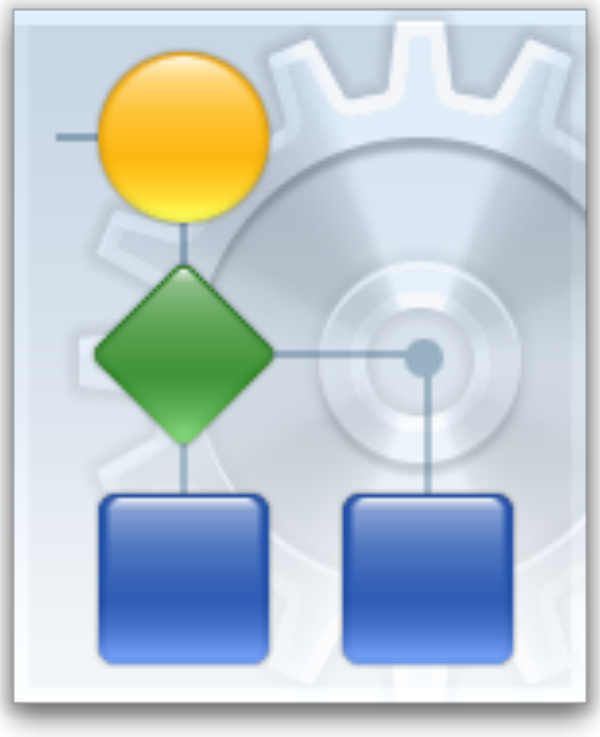
Functional Reusability

ADF Controller

- Create reusable functional flows
- Extend JSF functionality
- Model process for Web UI
  - Page and task flow
- Extended reusability
  - Use in other flows
  - Regions inside pages
  - Package for dynamic addition to pages



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Demo
Reusable Flows

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Multi-Channel Access

ADF Mobile, ADF Desktop Integration

- Web, Mobile, Desktop/MS Office
- Common development tool
- Common framework
- Common services
- Common security
- Common gesture and concepts

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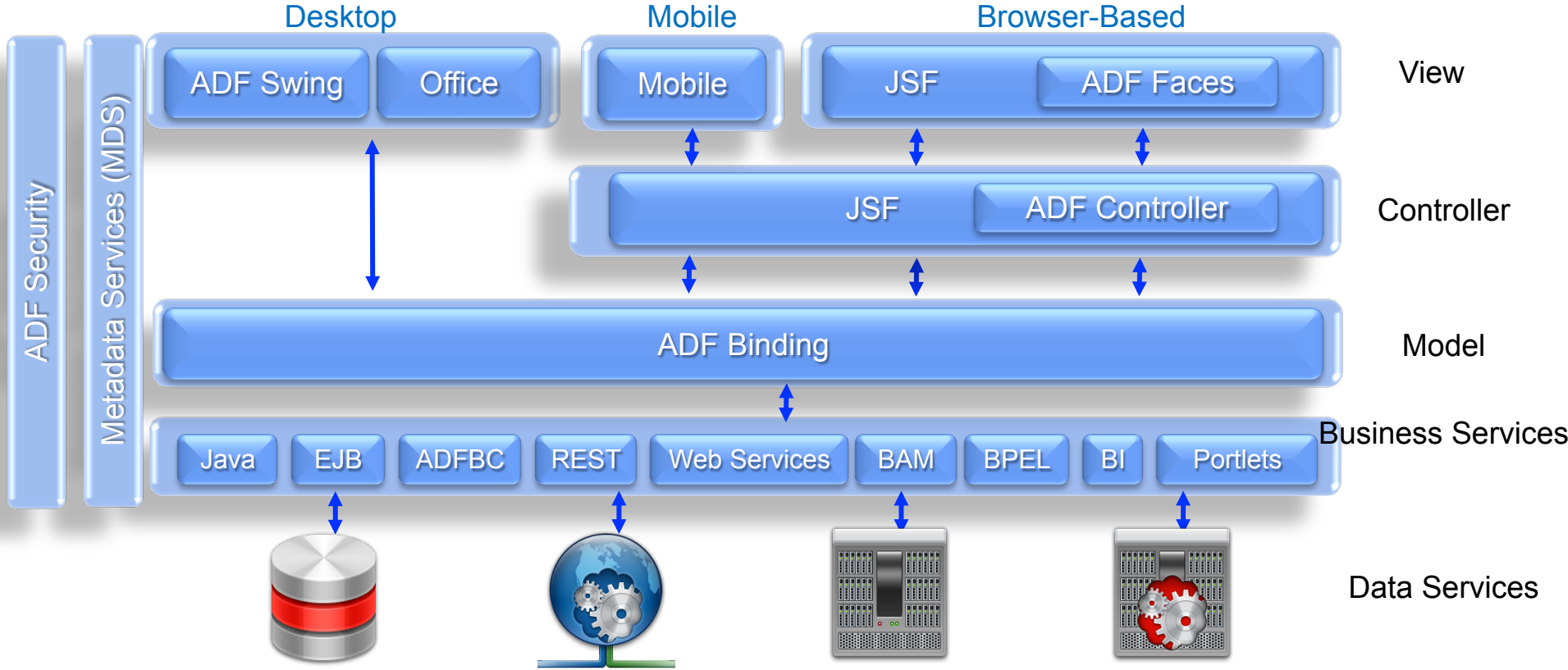
Oracle ADF Architecture



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Oracle ADF Mobile

Write Once, Deploy to Many

Oracle ADF Mobile

Java

HTML5

Built On Standards

Use Existing Skills Set

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Demo
Simplifying Mobile Development

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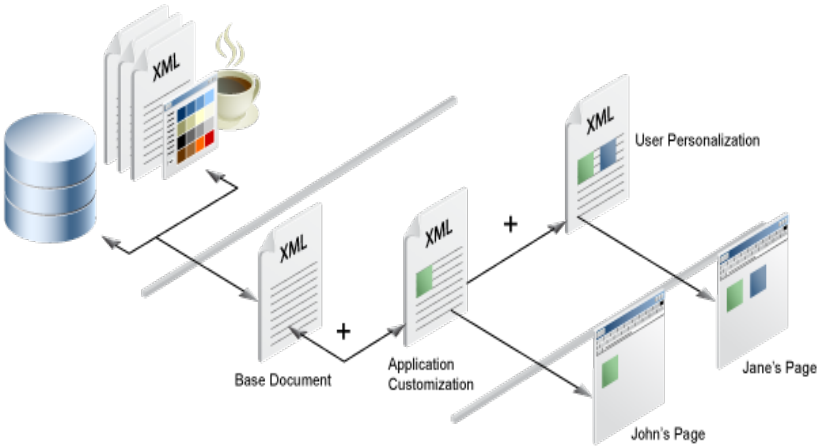
Customization and Personalization

Oracle MDS

- Persist users UI preferences
  - Screen layout, fields order, queries
- Customize application functionality
  - In every layer
  - Layered approach
  - No modification to base application
  - Upgrade safe customization



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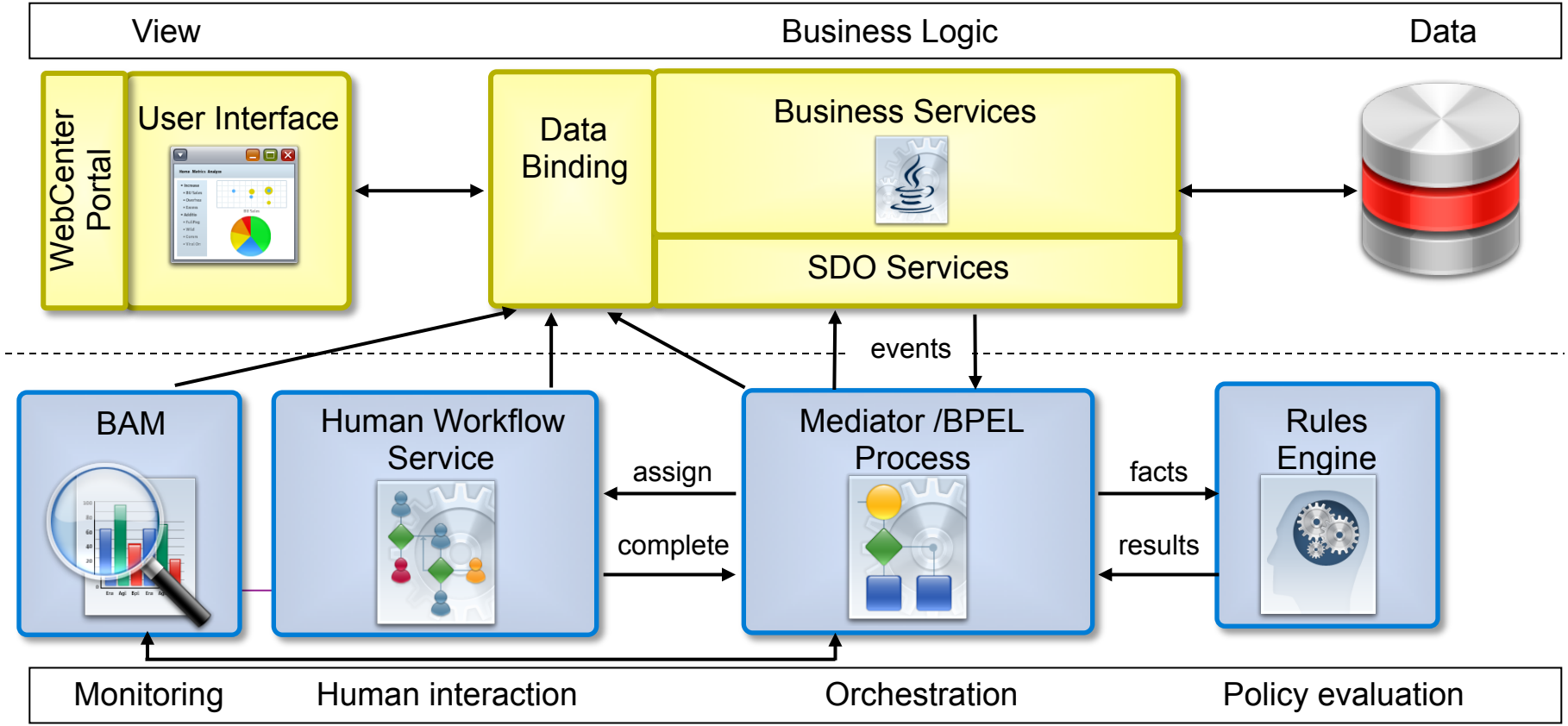
The Fusion Architecture



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Expending ADF with Fusion Middleware

- SOA Suite
  - Agile automatic and human processes definition and execution
- Oracle WebCenter Portal
  - Portal behaviors
  - Web 2.0 services
  - Content Integration
- Oracle Business Intelligence
  - Reporting and analysis + New data sources

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Demo
Oracle ADF + Oracle BPM Suite + Oracle WebCenter

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Other Lessons Learned

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Getting up To Speed

- Don’t skip training phase
- POC as a way to learn
- Be ready to throw away the POC
- Identify experts
  - They act as first point of contact for questios

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Lifecycle Management

- CI for build/deploy/test
- Needed for the SCRUM approach
- Not an after thought
- Needs its own team
- Not simple to setup full infrastructure
  - Think about (cloud) hosted option

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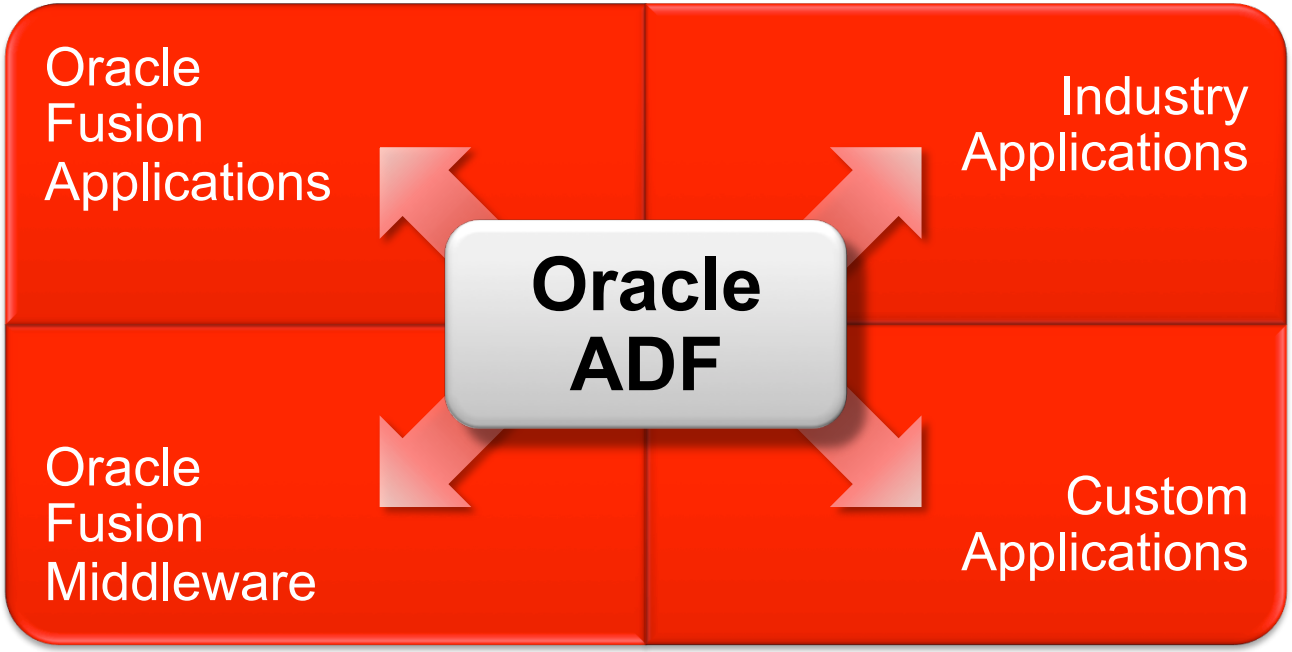
Oracle's Strategic Development Framework



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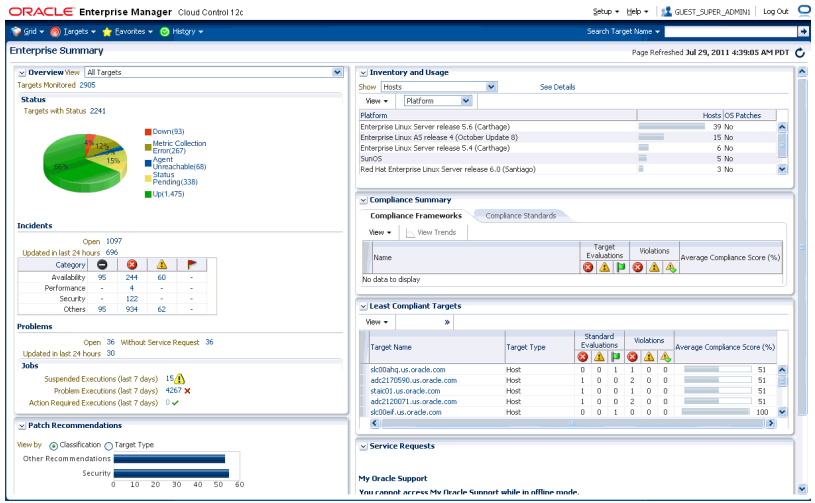
Other Oracle Products



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Even More Products

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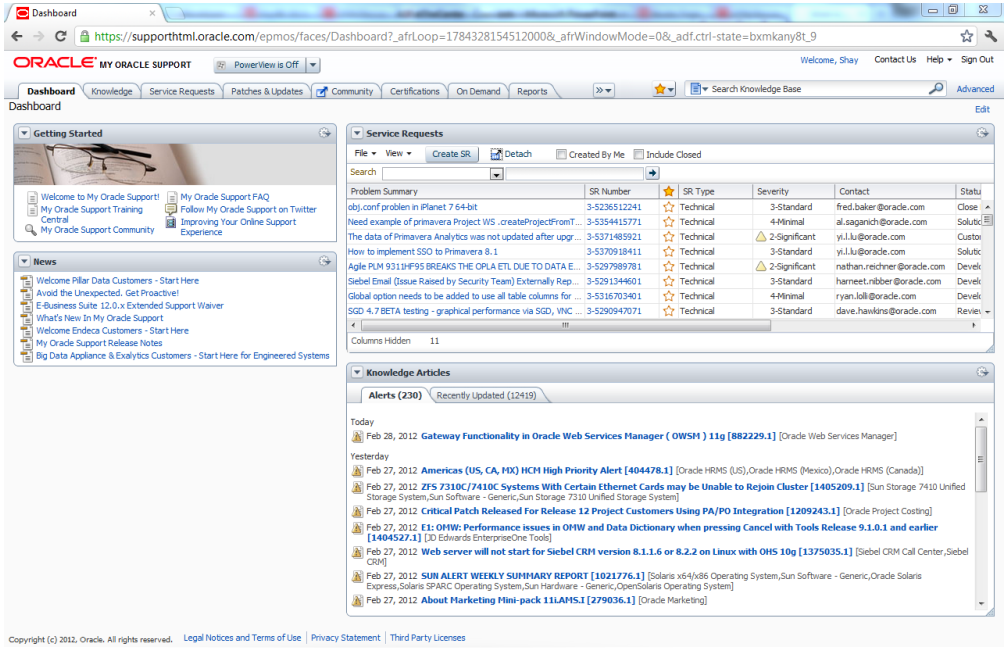
My Oracle Support



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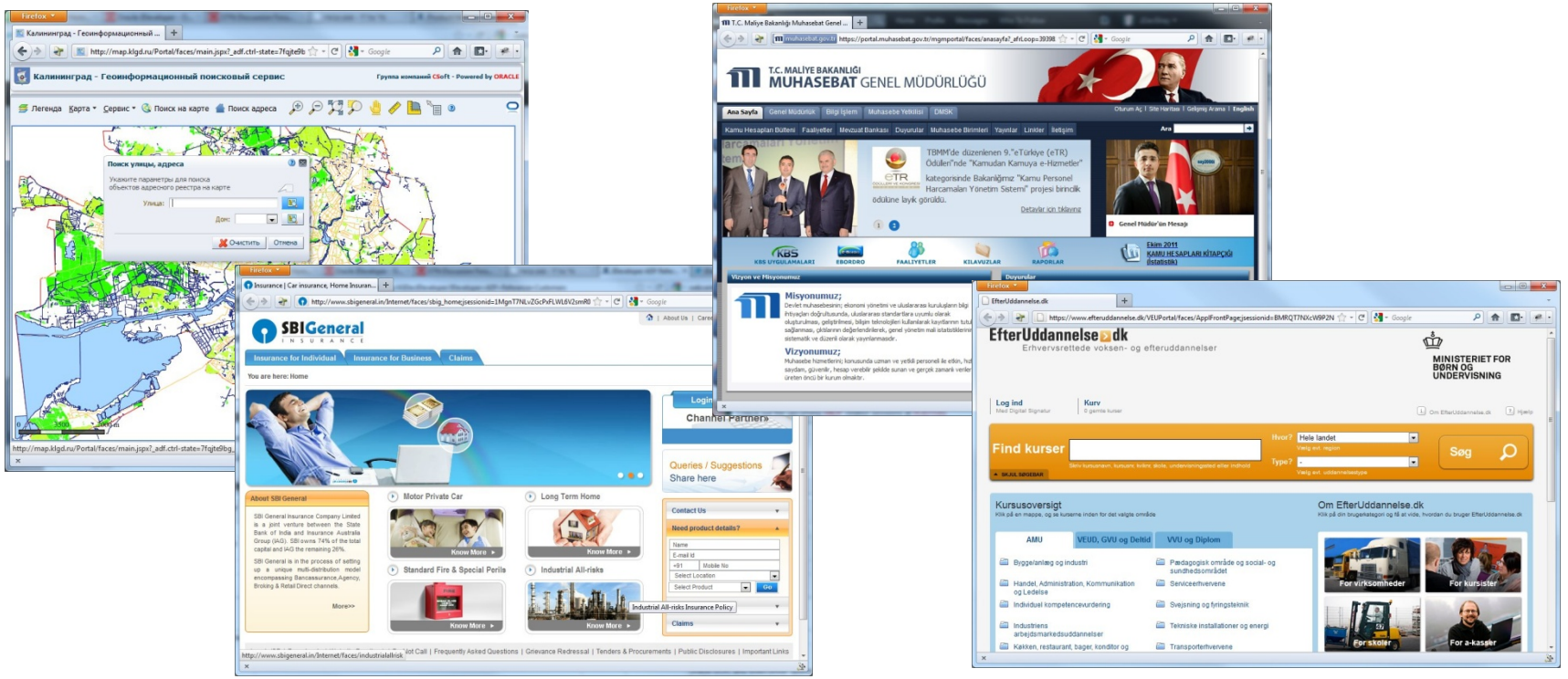
Customer’s Sites and Applications



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Summary

- Technology evolves
- Pick a solution that will protect you
- Don’t get carry away with the latest buzz
- Think of the bigger picture
- The Oracle solution is available for you to use too

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Q&A

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