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Solving today's integration challenges with Oracle SOA Suite, and Oracle Coherence

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Agenda

- Industry Trends
- Oracle SOA Suite
- Oracle Coherence
- Oracle Service Bus and Coherence
- Oracle SOA Coherence Adapter
- Customer Stories
- Summary

Industry Trends

The letters 'SOA' are rendered in a large, white, sans-serif font, centered horizontally across the middle of the slide. The background behind the text is a grayscale illustration of a city skyline with various building silhouettes and window patterns. The text is semi-transparent, allowing the cityscape to be seen through it.

SOA

3 trends fueling the need for integration



26% Growth in Cloud Services and enablement spending, to hit **\$60B**



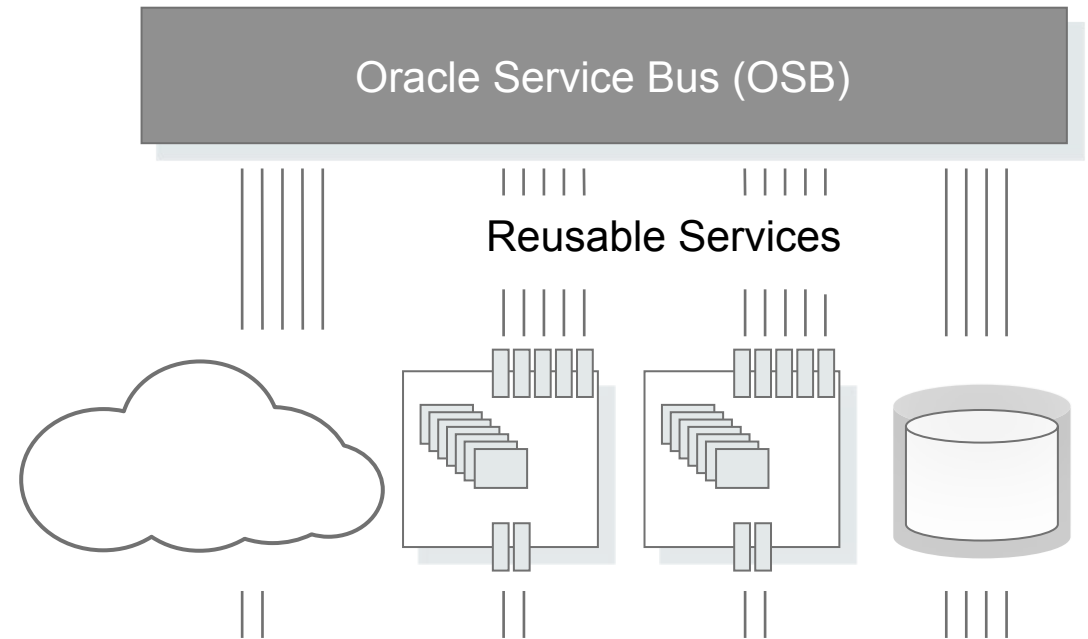
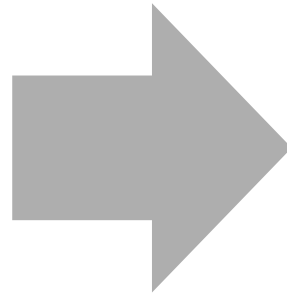
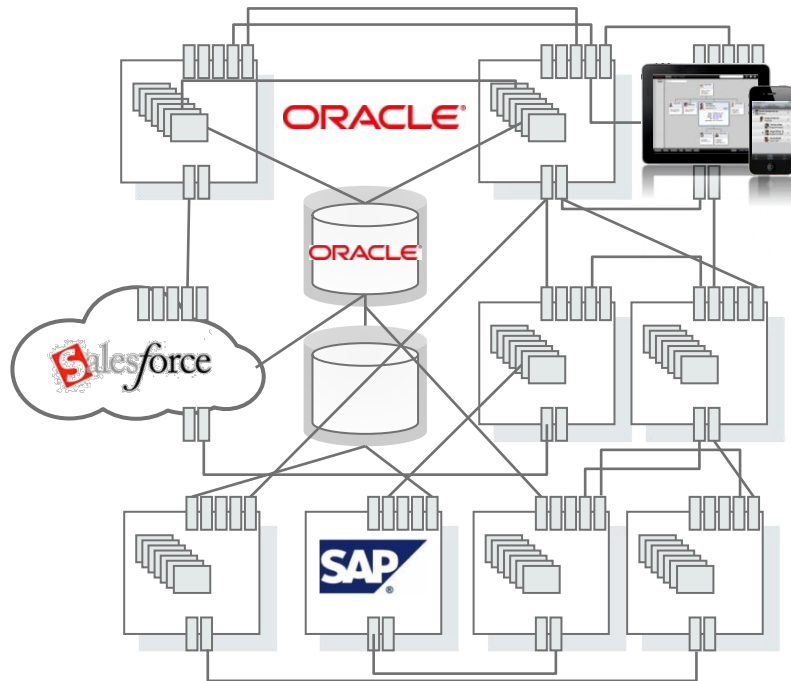
90% of all CIOs will be deploying Mobile Applications in 2014



22x increase in data from **things** over the next 5 years

Sources: Forbes Cloud Computing Software Marketing Estimates, Mobile Business Statistics, and Gartner 2012, and Cisco VNI Mobile, 2012

Complexity of IT landscapes inhibits change & innovation

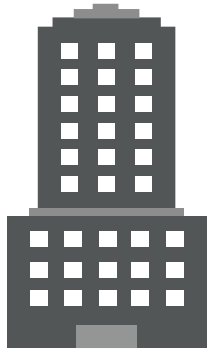


We need to simplify to regain agility

Oracle SOA Suite

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Oracle SOA Suite 12c



ON-PREMISE

On-Premise Application
Integration: Packaged,
Legacy, Data, Custom



CLOUD

SaaS-based Application
Integration with On-Premise
Applications



MOBILE

Access Integrated
Applications via Mobile
Devices



IoT

Integrate real-time events
from devices and things

Oracle SOA Suite 12c

Service Integration with Oracle SOA Suite 12c

Unified Integration Across Cloud, Mobile, and On-premise

Analytics

Business Activity Monitoring

Event Processing

Orchestration

BPEL Process Manager

Business Rules

Service Virtualization & Mediation

Service Bus

Connectivity

Cloud

Apps Services Platform

On-premises

Apps Mainframe DB

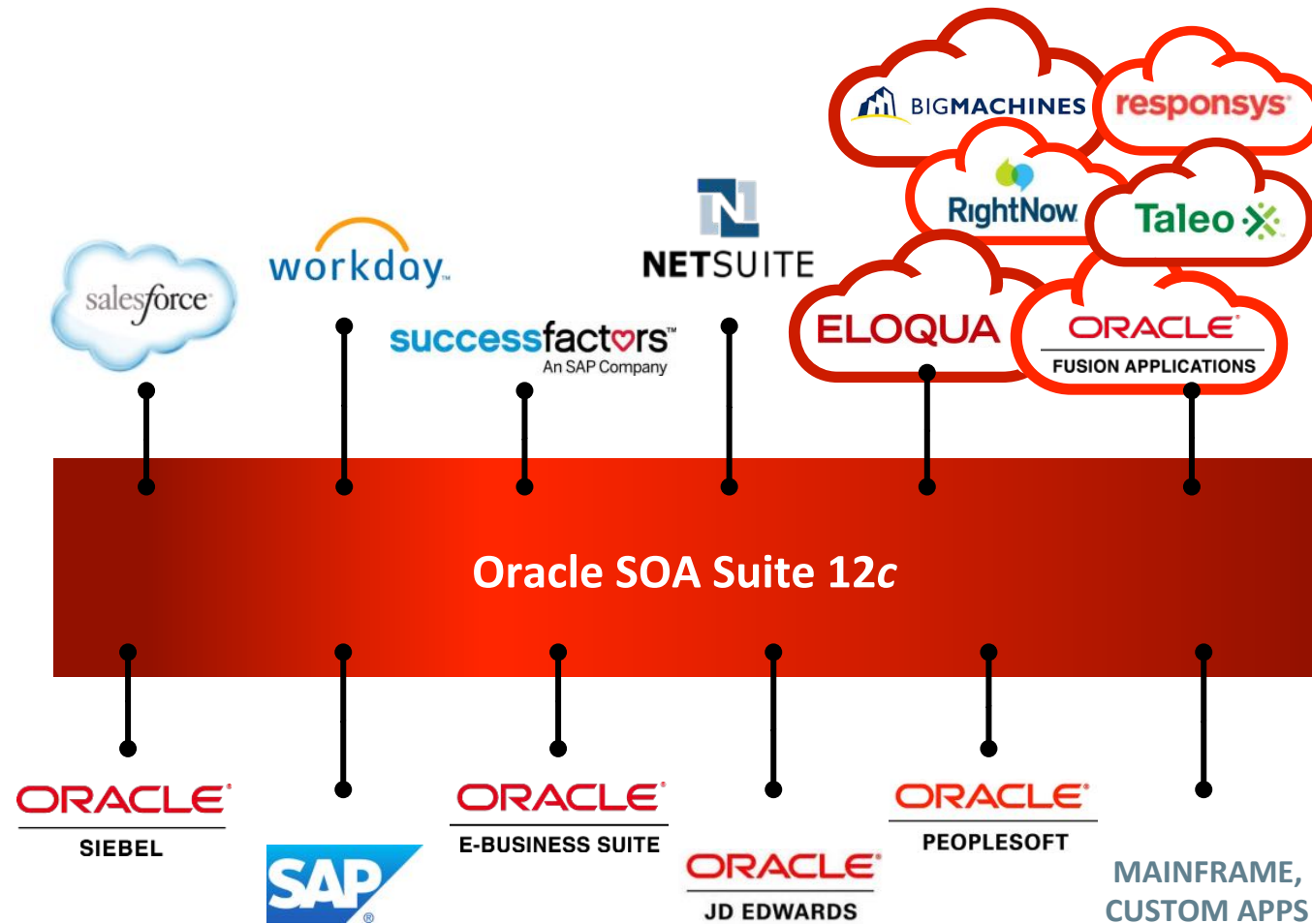
Business to Business

EDI XML MFT

- Simplifies development and management
- Standards-based, open infrastructure interoperates with your existing IT
- Consistent tooling - Single development, deployment and management platform

Cloud Integration

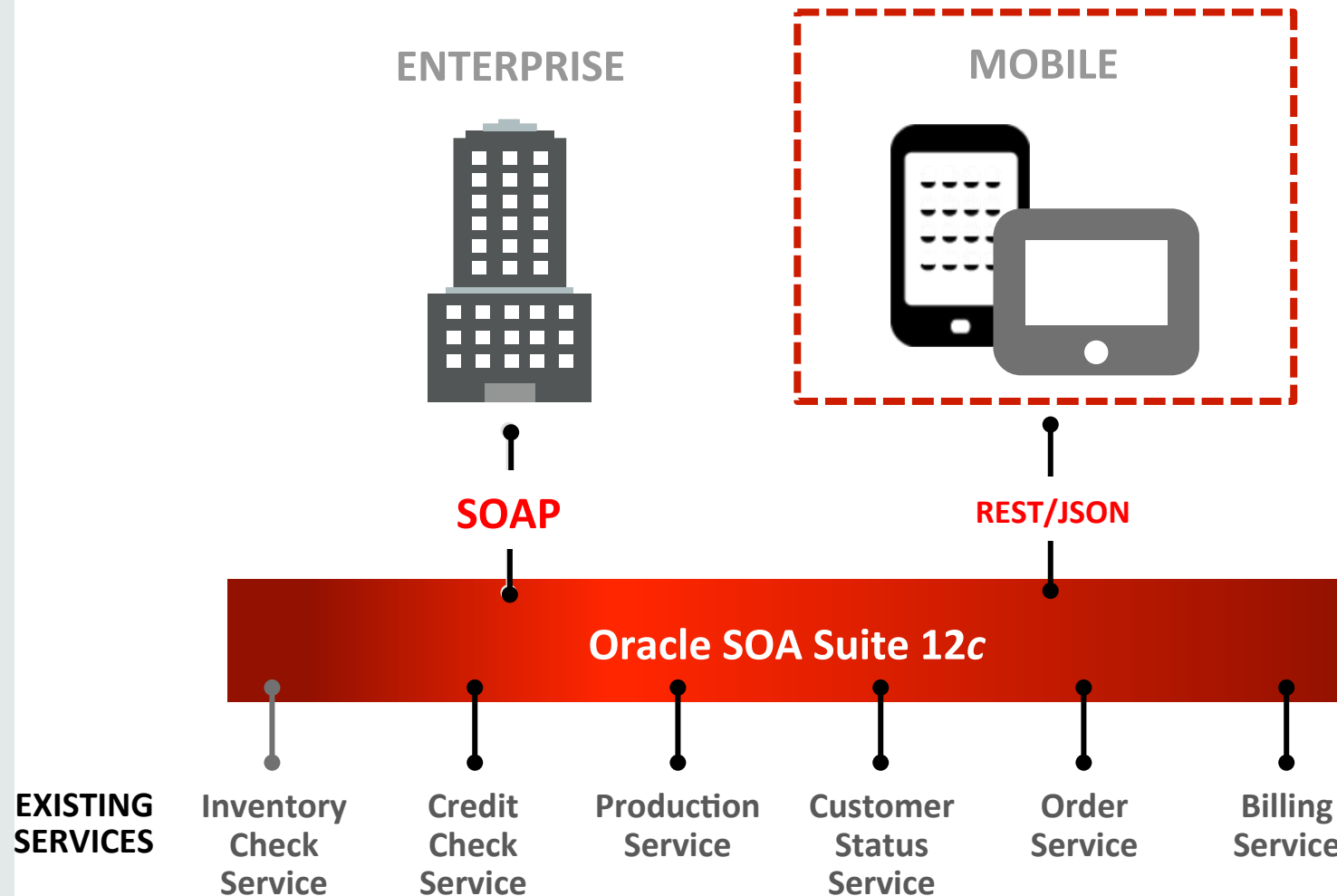
Bridging Cloud Applications with On-Premises



- Unified integration platform for both cloud and on-premise applications
- Point and click modeling for connectivity to cloud apps
- Secure connectivity & session management
- Cloud Adapter SDK

Mobile Integration

Simplifying Mobility for the Enterprise



- Reuse existing application services
- Rapid response to new business requests
- Fast access to data and services across the Enterprise and external sources
- Reliable and solid orchestration platform



Manage the ever-growing real time Event Driven Fast Data Challenges of your Business

The Internet of Things, Social media, Business applications

By 2020 50 Billion Devices

will Create an **Large Endless Amount of Data in Motion**

Devices are becoming more **connected** 

Devices are becoming more **intelligent**

Social Media can influence a global connected Society 

Business applications can now have **Event Awareness** 

Selected events need to be **integrated** with applications in near real time



The Right Data
at the Right Time

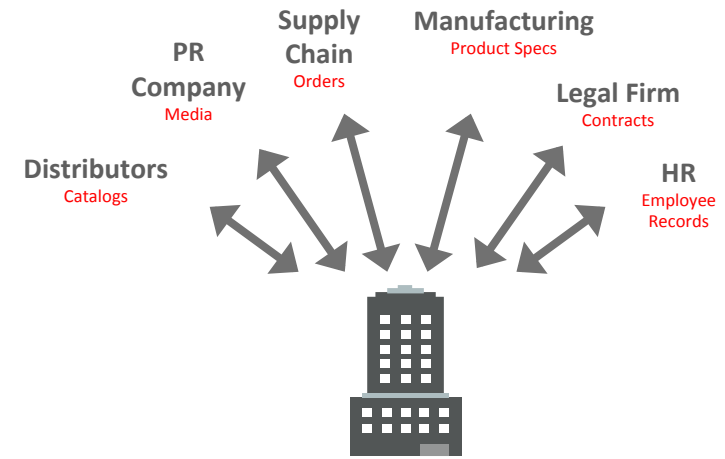
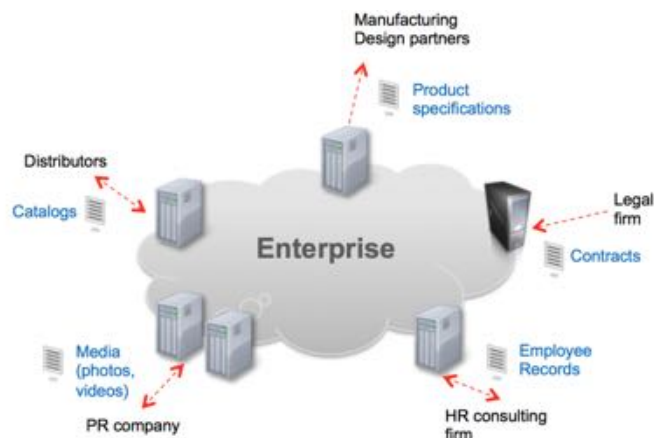


Managed File Transfer (MFT)

Regain control of your file exchanges with Oracle Managed File Transfer 12c

Problems with FTP today:

- proliferation of FTP servers
- No global visibility
- Not integrated with enterprise security standards, no encryption
- Single points of failure



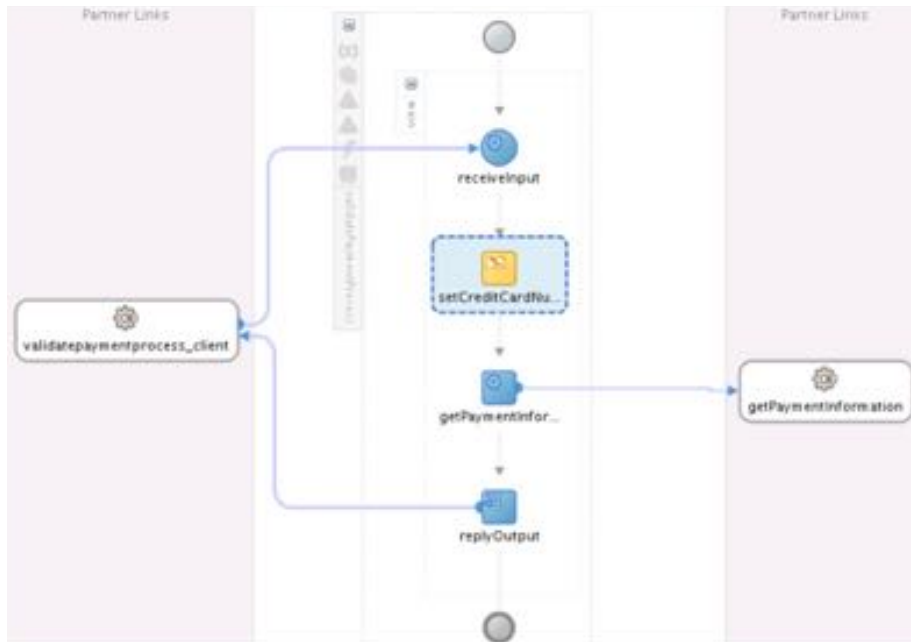
Introducing Oracle Managed File Transfer:

- Centralized file transfer infrastructure
- Global visibility into all files exchanges
- Integrated with enterprise security
- Highly-available/clusterable (WLS)
- Support for encryption on-the-fly
- Tight integration with SOA/BPM/B2B for advanced workflows & formats

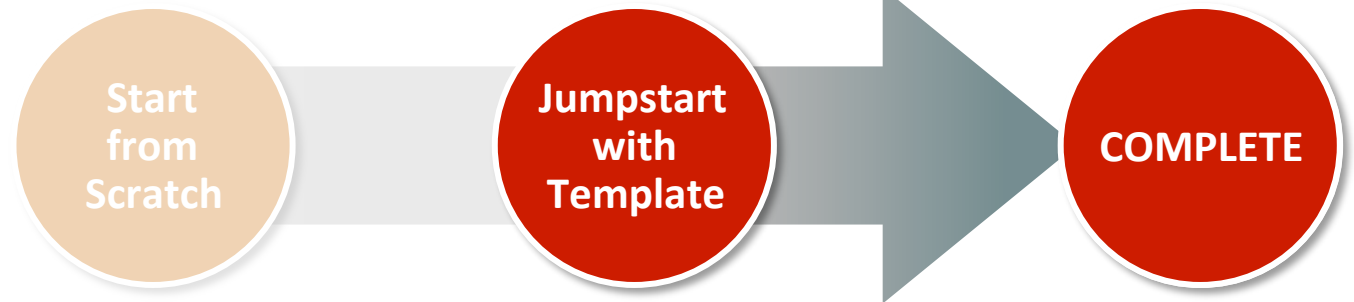
Productivity

Integrate Faster

REDUCE DEVELOPMENT TIME IN HALF



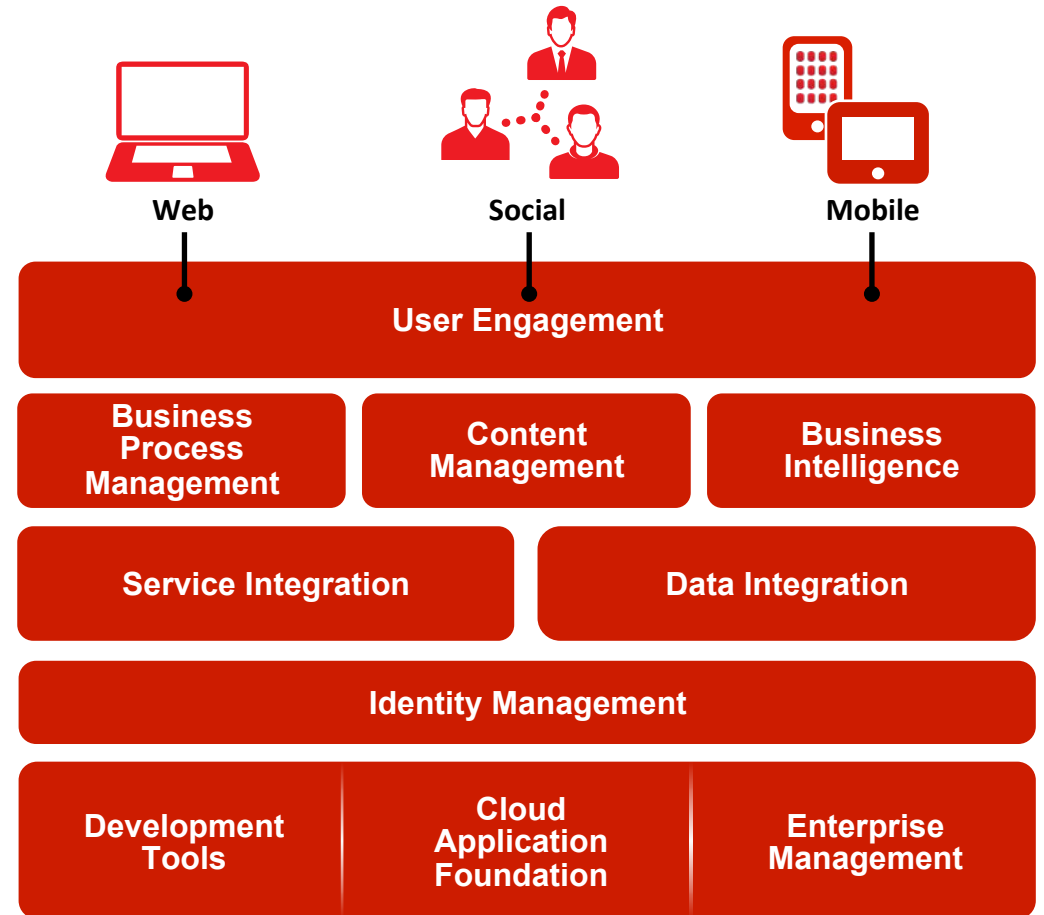
IMPROVE RUN-TIME EFFICIENCY



- Jumpstart SOA templates
- Single package installer
- Integrated debugging, testing
- Memory footprint reduction
- Startup acceleration
- Pre-tuned database profiles

Engineered to Integrate

- Optimizes hardware and software engineered to work together – Exalogic and Exadata
- Orchestrate end to end business processes with Oracle AppAdvantage best practices
- SOA 12c integration components incorporated into Oracle BPM 12c
- Provides real-time application responsiveness with Oracle WebLogic Server and **Coherence in-memory** computing



Oracle Coherence

The letters 'SOA' are rendered in a large, white, sans-serif font, centered horizontally. They are superimposed over a grayscale illustration of a city skyline with various building silhouettes and window patterns. The background is a light gray gradient.

SOA

Coherence In Memory Data Grid

Scaling, Performance and Reliability of Application Infrastructure



Scale, Increase Performance & Improve Reliability with Peer to Peer, High Availability In Memory Data Grid



- **Application Scalability**

- Reducing backend load with in memory caching – database, applications, mainframe

- **Application Performance**

- In memory data access – information close in memory, not in slow backend systems

- **Application Reliability**

- Reliable in memory data grid providing high-availability to applications

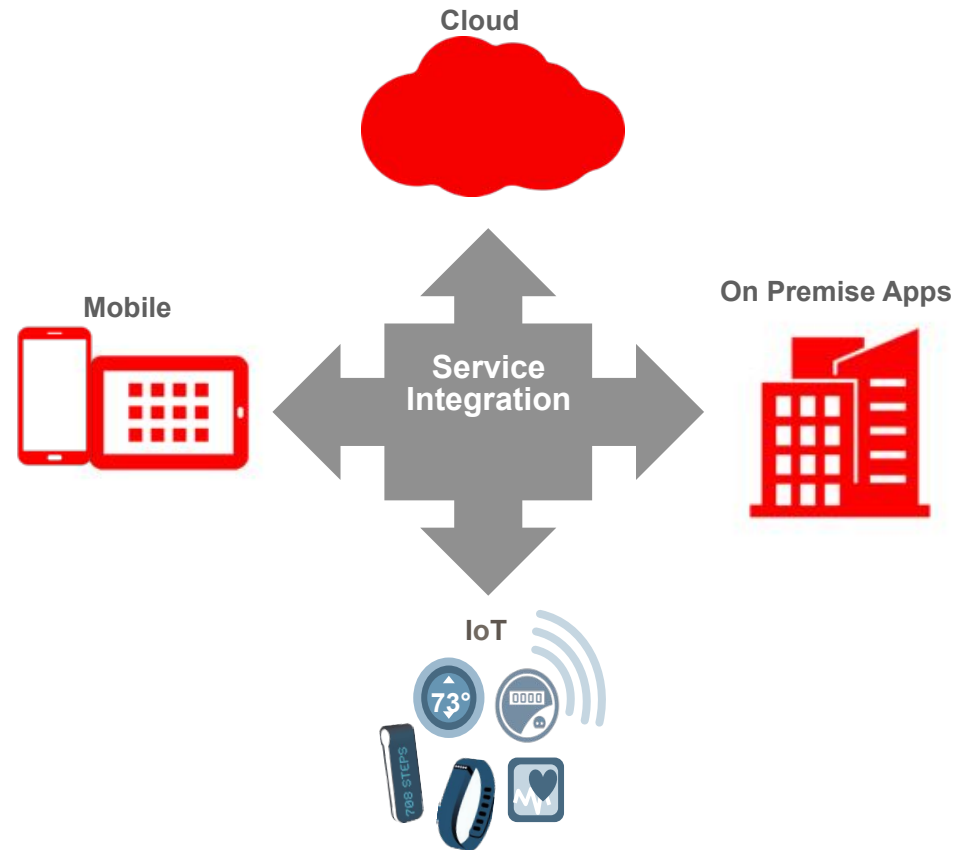
Oracle Service Bus and Coherence

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SOA

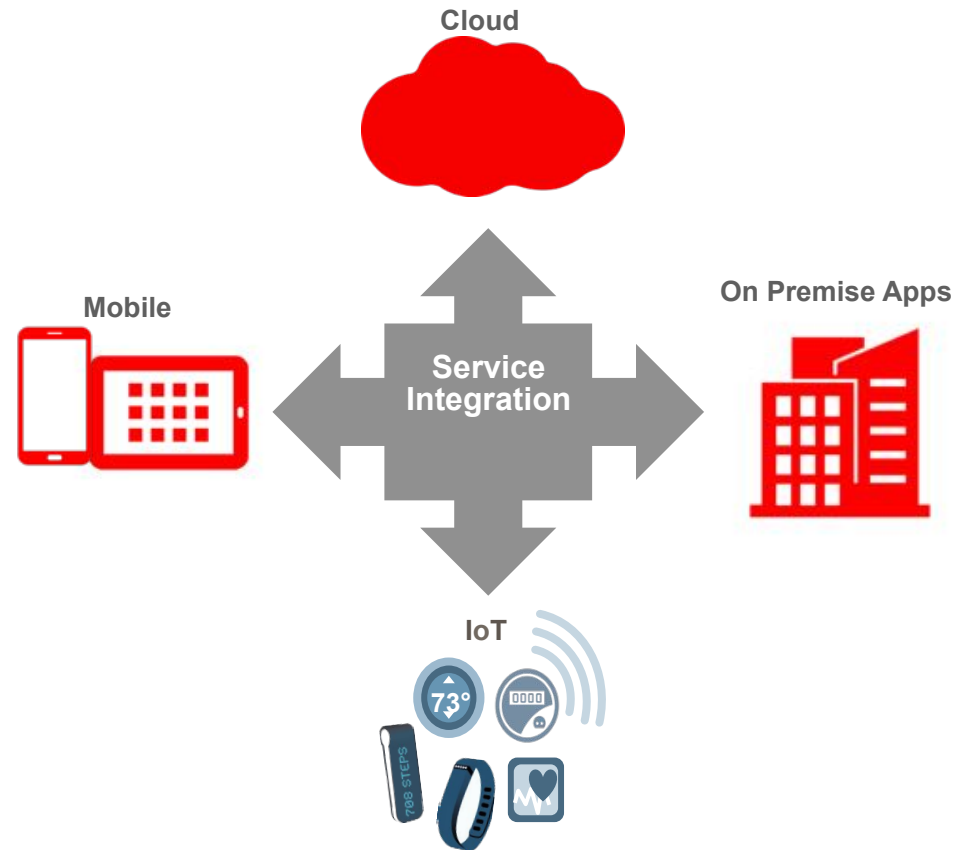
Evolving Demands on Current Investments

- Supporting Mobile, Cloud and IoT with “On Premise” systems
- Increasing load threatens existing systems
- Need to protect existing systems from channel peaks
- More channels now and into the future
- Need to bring new features to users and protect the lifeblood of the enterprise



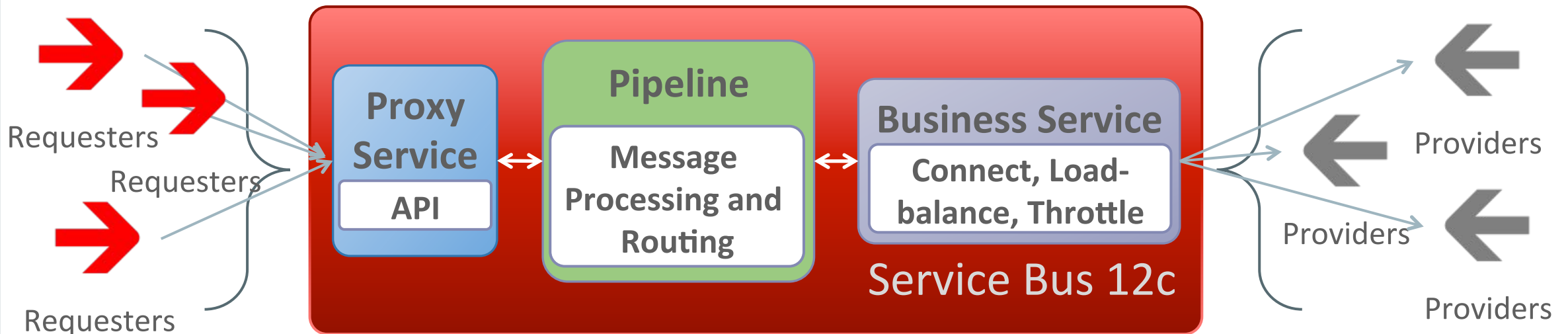
Evolving Demands on Cloud Investments

- Cloud applications are “across” the Internet
 - Higher Latency
- Whilst Cloud Applications have more Elasticity – it comes at a cost to the business
 - E.g. Per Transaction cost



How Oracle Service Bus can help Virtualize your APIs

- Requirement
 - De-couple back-end systems from front-end clients
 - Load-balance requests to back-end systems
- Solution
 - Use Service Bus to virtualize, manage and load-balance your integrations



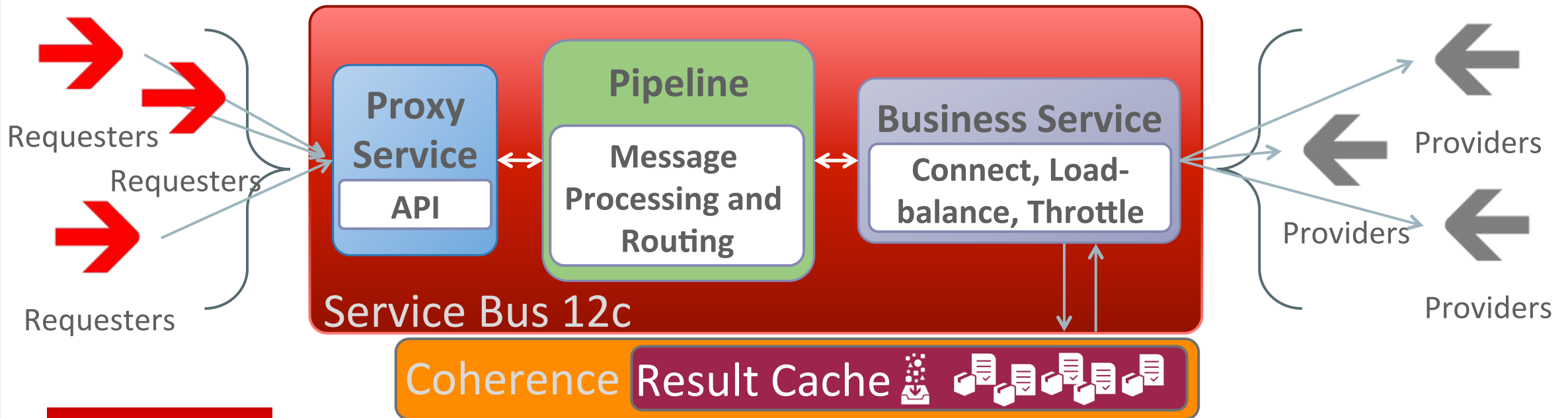
OSB - Scale your APIs

- Requirement

- Increase performance, reduce load on back-end systems, bring Cloud Data closer to the data centre

- Solution

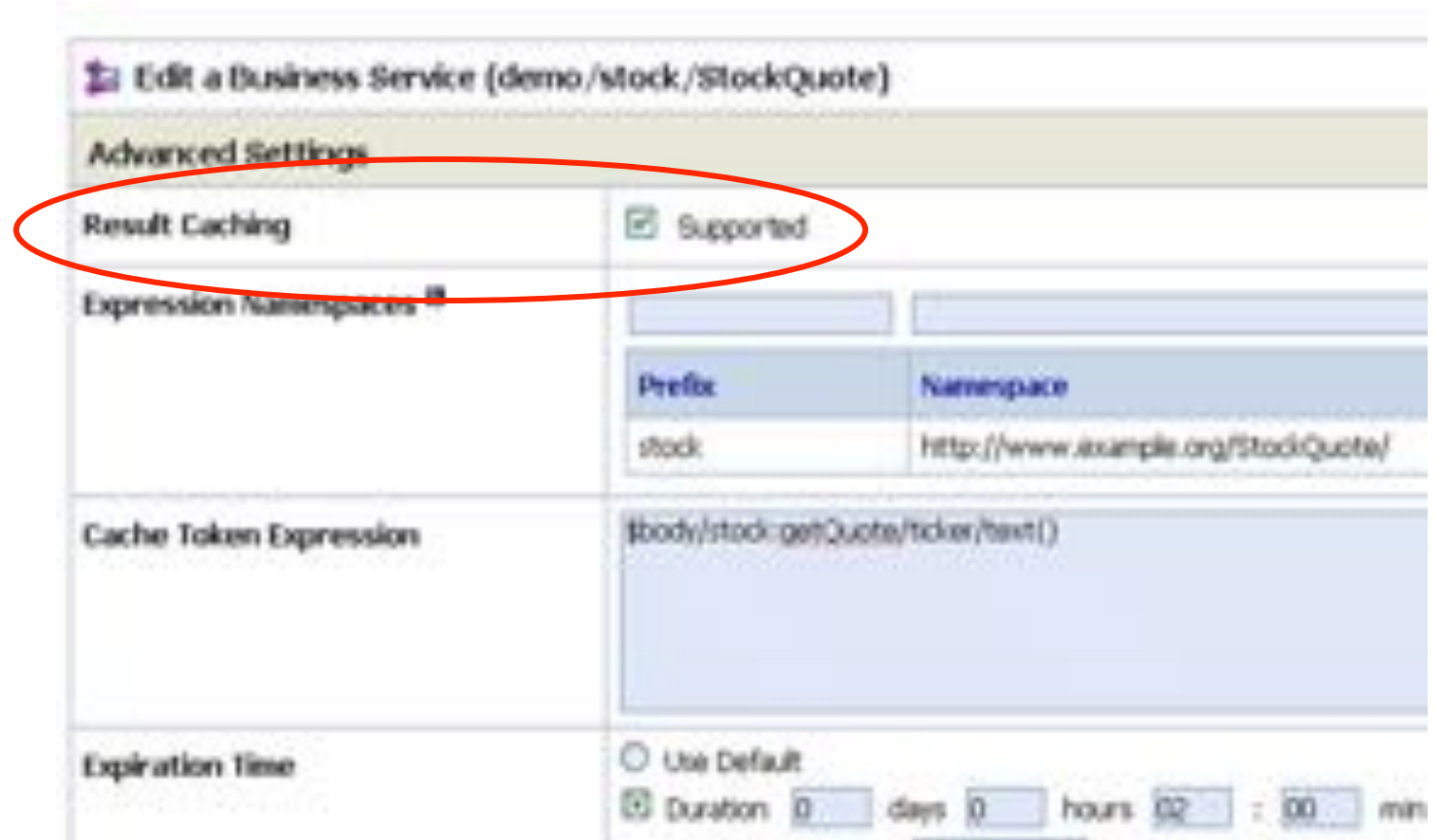
- Use result-caching and Coherence to cache results



Oracle Service Bus Checkbox Integration

Service Result Caching improves response time, offloads services

- Controlled at business services level
- Fine grained control for composite services
- Only cache subset of final result of composite service
- Requires no code change
- Service results cached using xquery applied to requests
- Supports expiration policies



The screenshot shows the 'Edit a Business Service (demo/stock/StockQuote)' configuration page. Under the 'Advanced Settings' section, the 'Result Caching' checkbox is checked and labeled 'Supported'. Below this, there are fields for 'Expression Namespaces', a table for 'Prefix' and 'Namespace', a 'Cache Token Expression' field, and an 'Expiration Time' section with radio buttons for 'Use Default' and 'Duration' (set to 0 days, 0 hours, 02 minutes, and 00 seconds).

Prefix	Namespace
stock	http://www.example.org/StockQuote/

Cache Token Expression: `{body}/stock:getQuote/ticker/text()`

Expiration Time: Use Default Duration: 0 days 0 hours 02 : 00 min

The OSB / Coherence Advantage



- **Unified Integration Platform**
 - Multiple channels are supported with same message logic
- **Protect back-end systems**
 - Throttling, and Caching to avoid overload. Protection from peaks
- **Scalability**
 - Caching improves performance and reduces load on back-end systems
 - WebLogic Clusters provide scalability and high-availability at the middle-tier

Oracle SOA Coherence Adapter

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SOA

Challenges – many “integrations” need to read/write data in existing systems

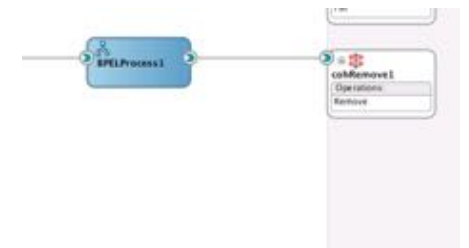
- Reduce application wait times
 - Meet SLAs
 - Improve customer satisfaction
- Provide consistent information
 - Provide consistent answers to customer queries across different channels
- Accessing existing applications
 - Fast access to existing application data
- Reduce system load
 - Off load processing from back end



The Coherence Adapter

Features

- Allows seamless integration with Local/Remote Coherence Cache
- Supports “Put”, “Get”, “Remove”, “Query” operations
- Cache Item – XML, POJO
- Coherence Query Filters



Oracle Adapter for Coherence

Cache Operations

- Operations
 - Put, Get, Remove, Query
- Object Types
 - XML Elements of Simple or Complex Types
 - Java Objects
- Key Management
 - Auto-Generate Key or Pass Key in Put Operation

The screenshot shows a configuration window titled "Coherence Adapter Configuration Wizard - Step 4 of 5" with the subtitle "Configure Put Operation". The window contains the following fields and controls:

- Cache Type:** A dropdown menu with "POJO" selected.
- Cache Name:** A text input field containing "POJO".
- Auto-generate key:** An unchecked checkbox.
- Key Type:** A dropdown menu with "string" selected.
- Key:** An empty text input field.
- Time To Live:** A dropdown menu with "Default" selected, followed by a text input field and a "milliseconds" label.

At the bottom of the window, there are buttons for "Help", "< Back", "Next >", "OK", and "Cancel".

The Coherence Adapter and Coherence Advantage



- **Native** Access to Coherence Data
- **Shared Data** Consistency between Composites/Pipelines – in memory
- **No Coding** – Point & Click
- **Fast** in memory access to reference data
- Coherence **write behind** to speed up database writes

Customer Stories

The letters 'SOA' are rendered in a large, bold, white sans-serif font. They are centered horizontally and partially overlap a background illustration of a city skyline. The city buildings are depicted in a stylized, flat-shaded manner using various shades of gray and black, with some windows visible. The overall composition is clean and modern.

Oracle SOA Customers

Select Customer List

Finance/ Banking



Public Sector



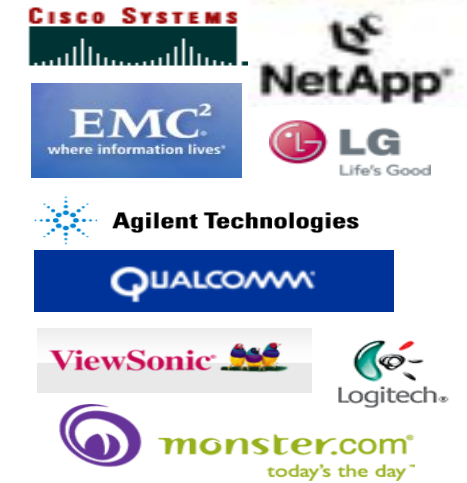
Manu. / Logistics



Telecom



High Tech



Healthcare



Retail/ CPG



Other



Unified Integration of Salesforce.com & E-Business Suite



Streamline Sales & Orders in the Cloud

Solution:

- Cloud Integration using **Oracle SOA** to connect Oracle E-Business Suite with Salesforce.com
- Oracle Coherence, Oracle WebLogic Oracle Identity Management

Result:

- 40% increase in support attach rate
- Time required to enter new order/quote information reduced by 75%
- Total elimination of all manual errors
- New 'Copy Quote' capability, a complete quote can take less than a minute—where it used to take sometimes up to 1 hour



eVigilo Alerting System

Emergency Mass Notification Solutions



Streamline alerts and integrate

Solution:

- Sensor and Geo Integration using **Oracle Service Bus** to connect sensors, databases and action services
- Oracle Coherence, Oracle Service Bus

Result:

- Time to market
- Time required to integrate with new alerting systems reduced by 75%
- Reliable messaging
- Total elimination of false alarms

How it works



Stryker South Pacific

Automates 85% of Bookings, Improves Customer Service

Streamlines Manual Ordering Process

- Stryker provides a wide array of innovative medical devices, including reconstructive, medical, surgical, and neurotechnological products
- Surgery kit bookings captured on laptop/mobile device, booking data automatically entered into JD Edwards via business services
- Implemented services layer with Oracle SOA Suite, Oracle WebLogic Server and Oracle Coherence
- Automated 85% bookings, gained real-time visibility, reduced number errors, accelerated time to market



Heinsohn Business Technology

Offers a Broad Portfolio of Services to Its Clients



SOA Suite, Coherence, IDM, OWSM

- Developed solution for the Single National Traffic Registry system (RUNT), consolidating transit data from 900 government agencies
- Supported 1,500 concurrent users and 50 million transactions per year
- Accelerated development timelines by 30% for RUNT project engineers

“Oracle’s technology and infrastructure software enable us to develop IT architectures that meet the highest levels of security, performance, and flexibility. They are effective solutions that meet the business needs of our clients throughout Latin America.”

Santiago Gil Bohórquez, Software Architect, Heinsohn Business Technology

Summary

The image features a stylized, grayscale cityscape background with various building silhouettes. Overlaid on this background is the text 'SOA' in large, white, bold, sans-serif capital letters. The 'S' and 'O' are rounded, while the 'A' is a simple, blocky font. The text is centered horizontally and occupies the middle portion of the slide.

SOA

Summary

- 1. Simplification of your Integration landscape is key to enable new initiatives: Mobile, Cloud, Internet-of-Things*
- 2. Oracle SOA Suite has enabled 1,000's of customers to focus on innovation*
- 3. Only Oracle provides an integration stack that allows seamless transition from on premise to the cloud*
- 4. Coherence helps protect existing systems, reduces transaction costs to Cloud Applications, and provides in memory access to data*

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