

IBM SOA\*  
Summit



TA42 - SOA:

# How to extend the usage of your ERPs



**Marc RODIER**

**Executive I/T Architect**

**Technical Expert Council Member**

**IBM France & North West Africa**

**ebusiness Solutions Technical Sales Support**

# SOAs and ERPS

- **SOA and Applications Integration**
- **SOA and SAP Integration**
- **SOA and Oracle Integration**

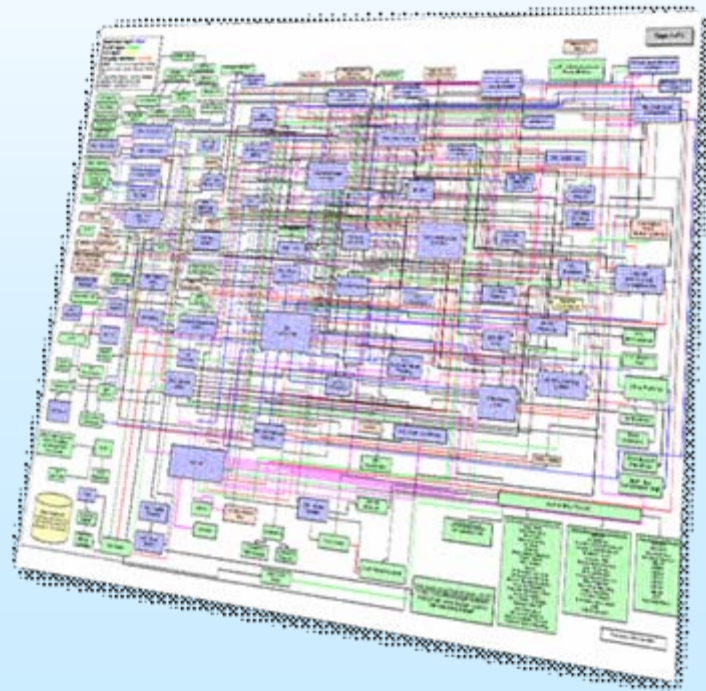


➤ **The cost and complexity of building and maintaining application interfaces is inhibiting business agility and effectiveness**

- Clients need to integrate applications and systems to improve processes and increase business flexibility

**More than 70% of IT budgets are currently devoted to the maintenance and operations of existing applications and systems.**

*The Yankee Group, 3/05*



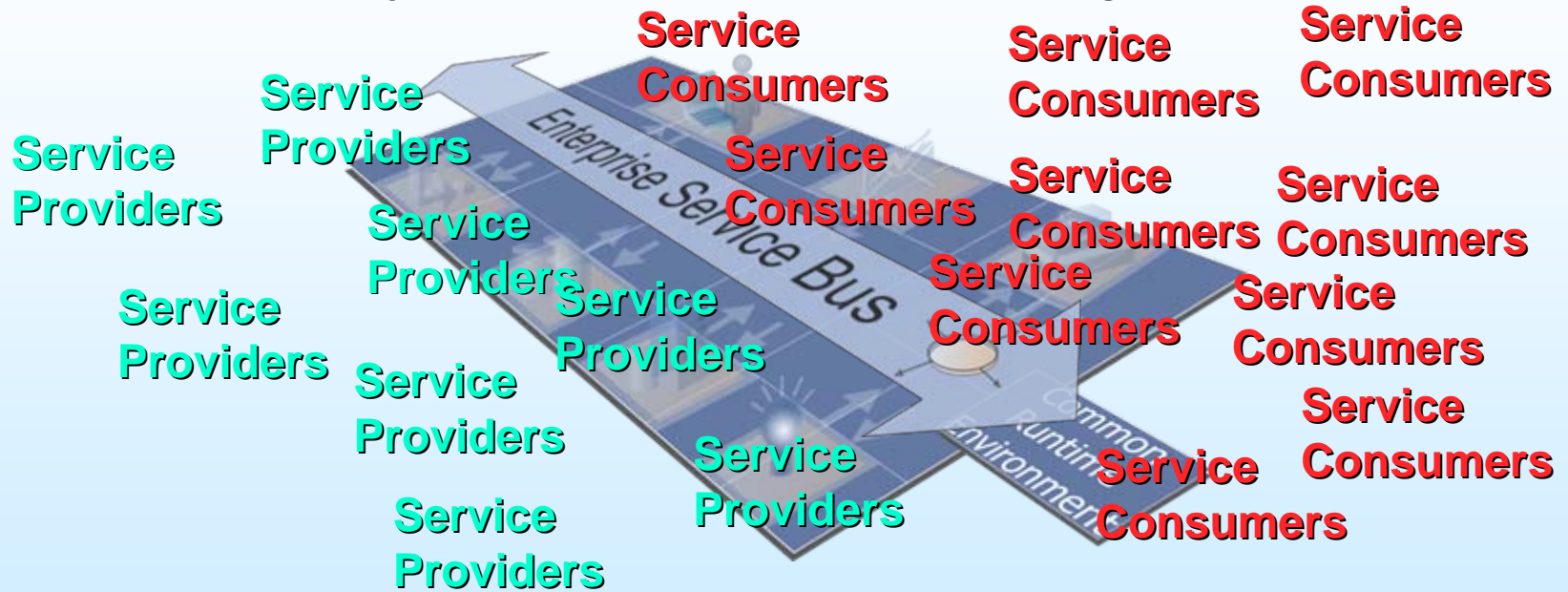


# Move to Service-Oriented Architecture



System components which utilize or "call out" other services: **Service Consumers**

**Service Providers** - system components completing a requested function



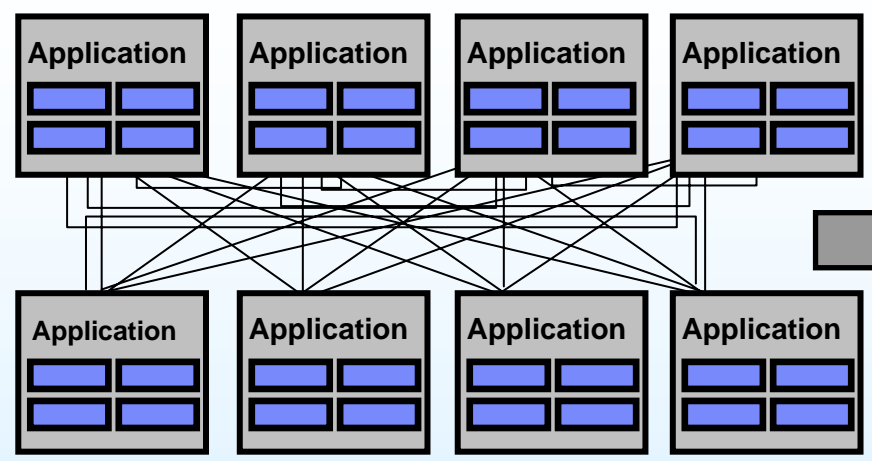
Isolation of function throughout the enterprise system such that each function may be dynamically accessed at runtime and may be included in composite flows of function representing business processes



# Flexibility and easier interconnection of different applications leading to SOA

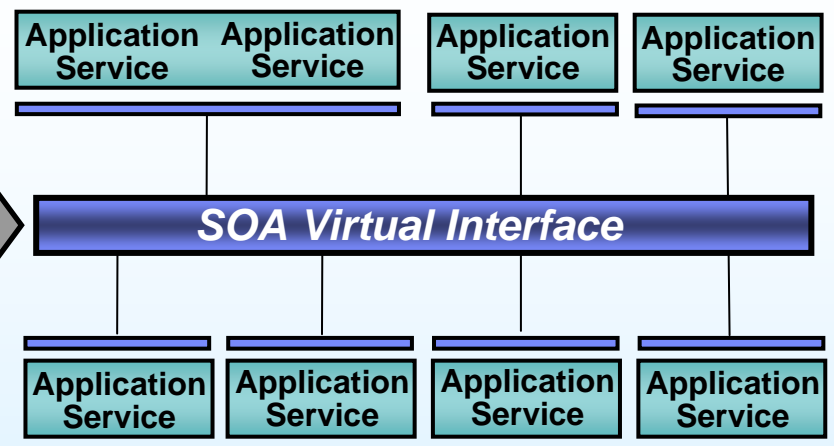


Turn this.....



= interface

...into this (SOA)



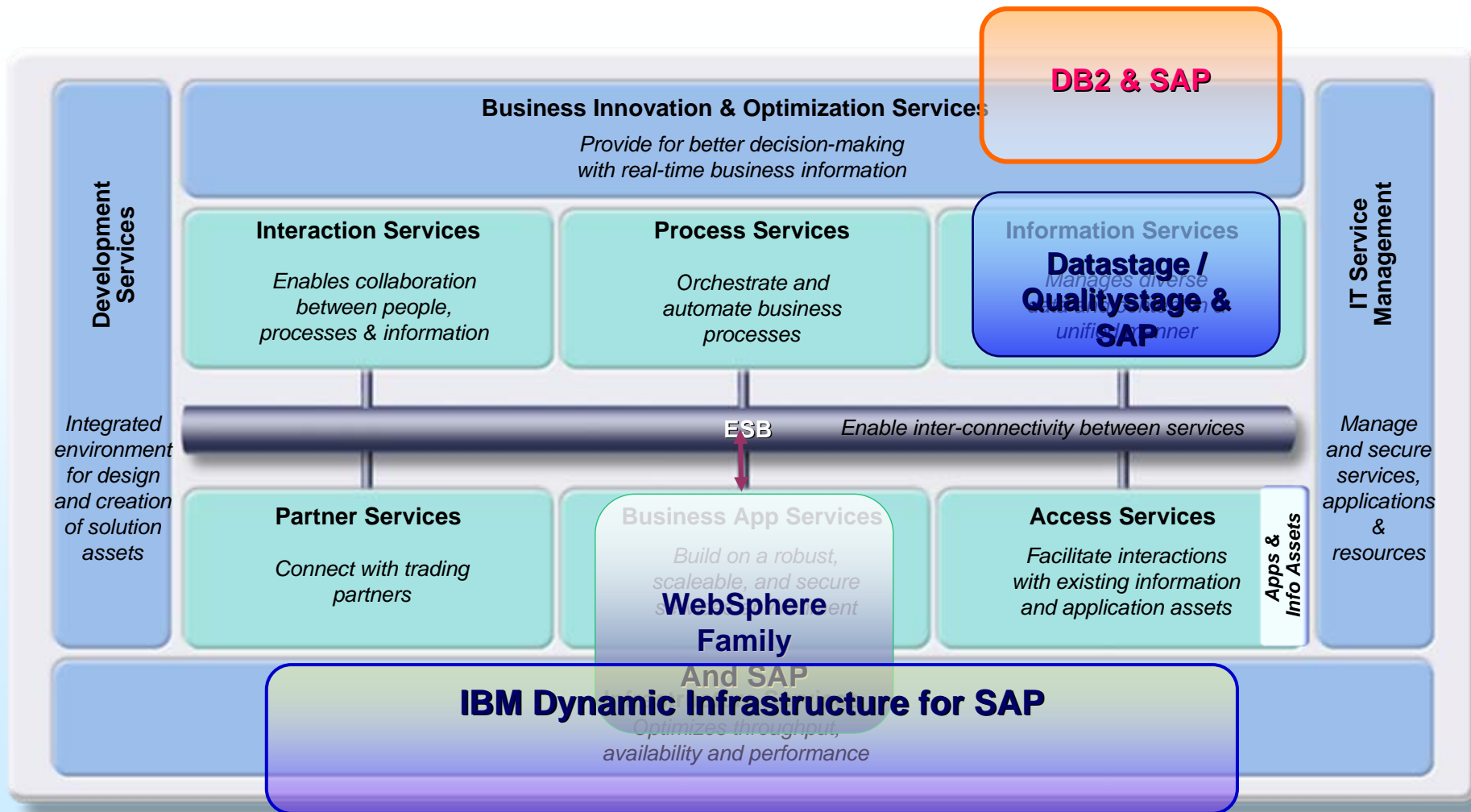
- ✓ Decouples the point-to-point connections from the interfaces
- ✓ Allows for dynamic selection, substitution, and matching
- ✓ Enables more flexible coupling and decoupling of the applications
- ✓ Enables you to find both the applications and the interfaces for re-use

**Result → Greater Business Flexibility**



# The IBM SOA Reference Architecture

## Model of the Logical Architecture



# Resources expressed as Services: The next level of virtualization

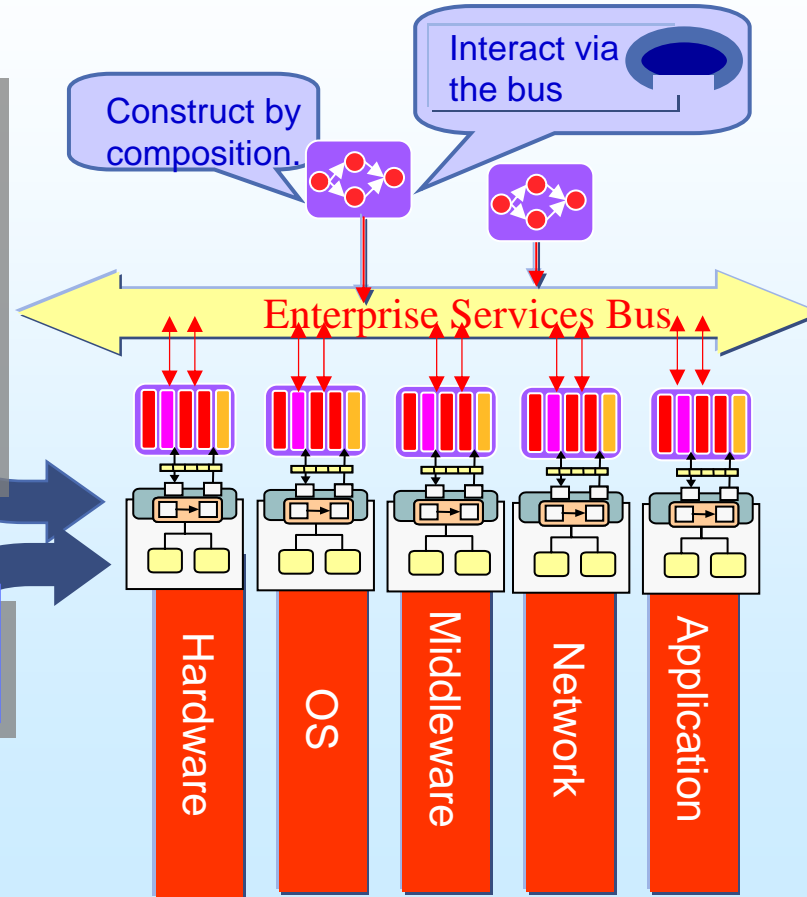


## Service interface separate from access and implementation

### Common Management Model Architecture

Abstract representation of “logical” IT resource (node, process, disk, file system, IP address, XML database, Security service, Commerce Server) described as a web services interface (WSDL)

Adapter/Connector can push down onto multiple underlying resource instrumentations



# SOAs and ERPS

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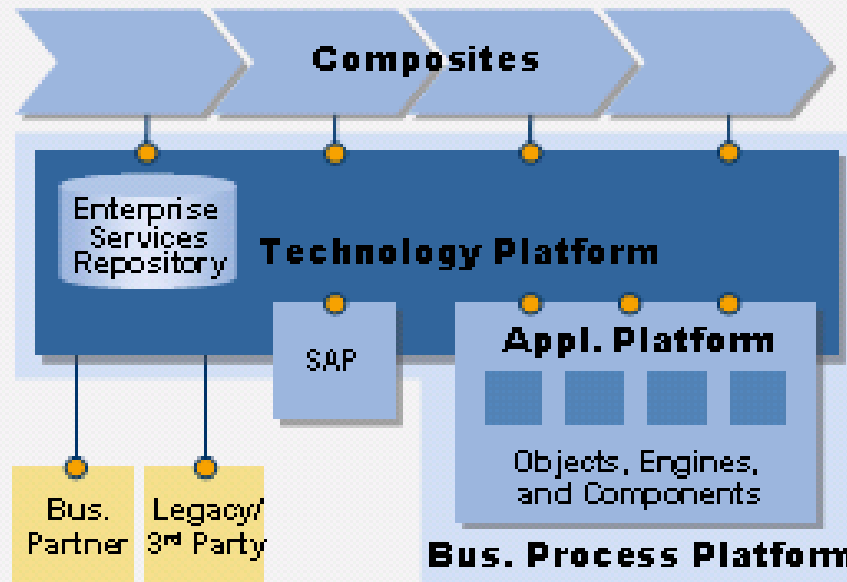
# ESA Architecture (Enterprise SOA) : SAP's Version of SOA



## ▪ Openness

- Open Web services standards
- Open integration platform
- Interoperability

## ENTERPRISE SERVICES ARCHITECTURE



## ▪ Adaptability

- Model-driven
- Configurable
- Extensible
- Services composition
- Process innovation

## ▪ Productivity

- People productivity
- Embedded analytics
- Process efficiency
- Process flexibility

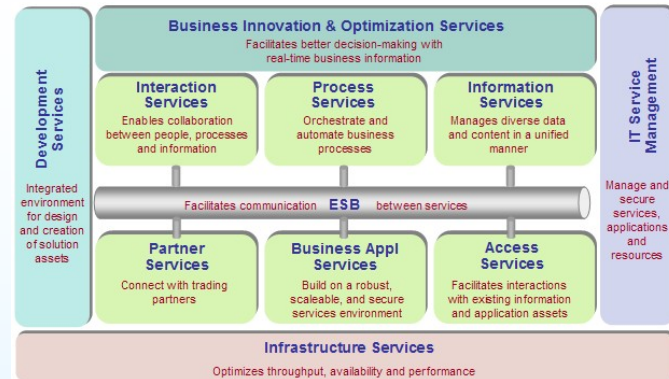
## ▪ Lower TCO

- Deployment options through configuration
- Common operational services
- "Always On" platform



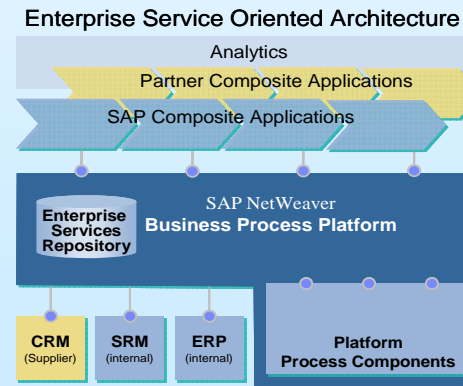
## ➤ Common Vision

- Services based
- Delivering „on Demand“
- Adaptive to changing business requirements
- Business Process oriented



## ➤ Common Technologies

- J2EE (*not .Net*)
- Web Services
- Open Standards
- SOAP, UDDI, XML
- Eclipse



# ...but with different.... implementation strategies and offerings

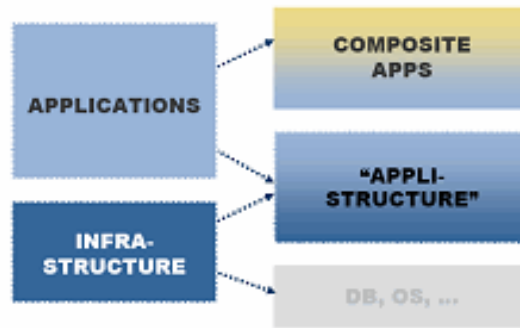


## ➤ IBM SOA

### ■ Clear separation of applications and infrastructure

- open composite applications
- loose coupling
- Web Services and much more
- application neutral
- vendor neutral
- efficient and proven

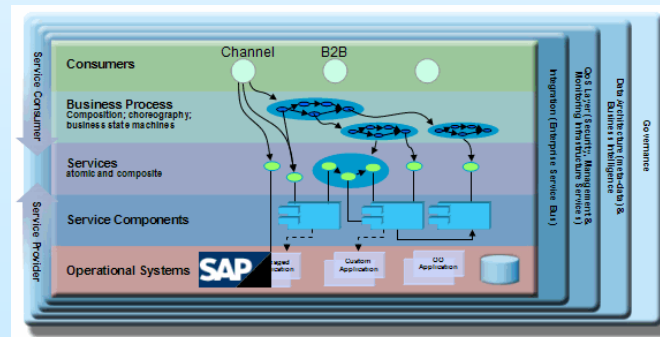
## ➤ Exercise freedom of choice



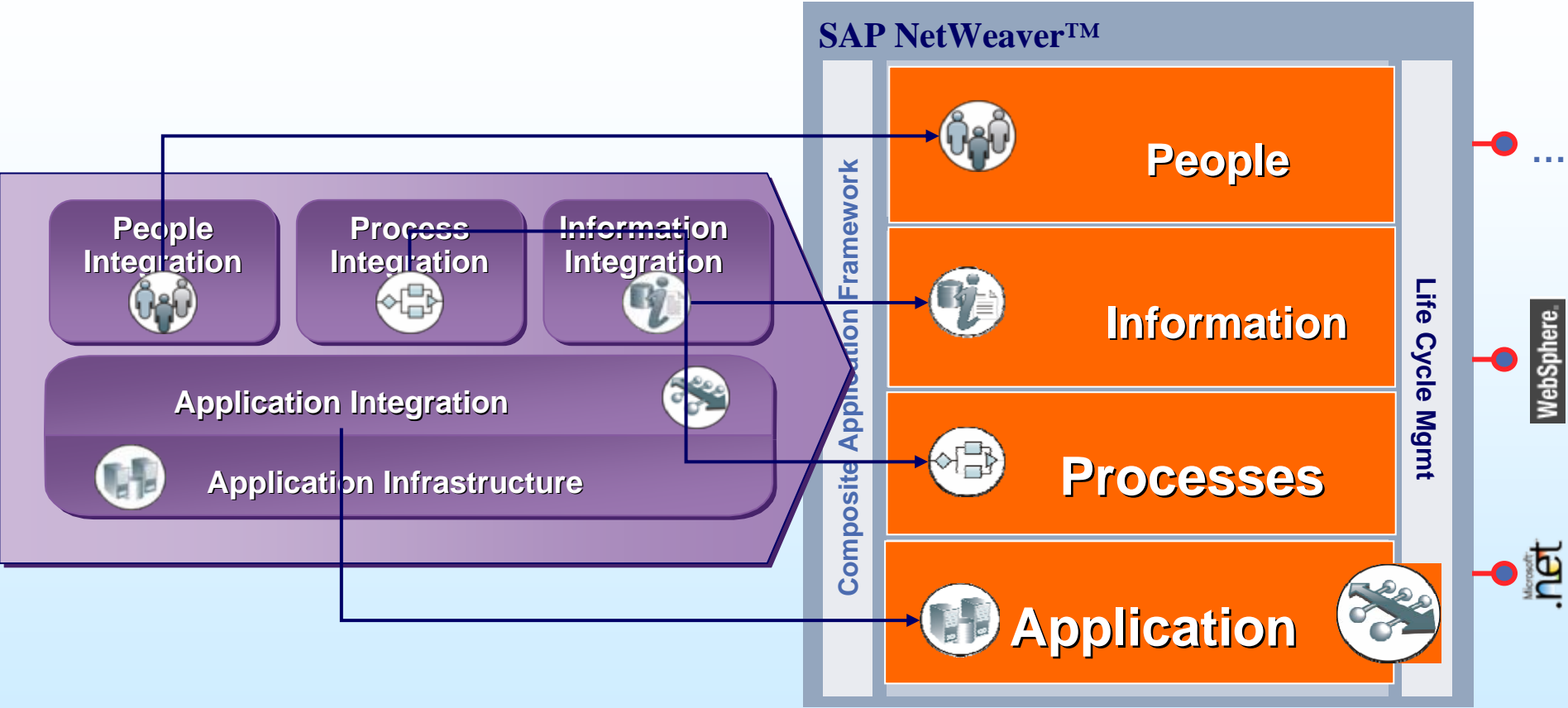
## ➤ SAP ESA (eSOA)

### ■ “Applistructure”: blurring applications and infrastructure:

- SAP composite applications (xApps)
- tighter coupling
- Web Services centered (e.g. for non-SAP)
- mainly SAP
- still to be proven



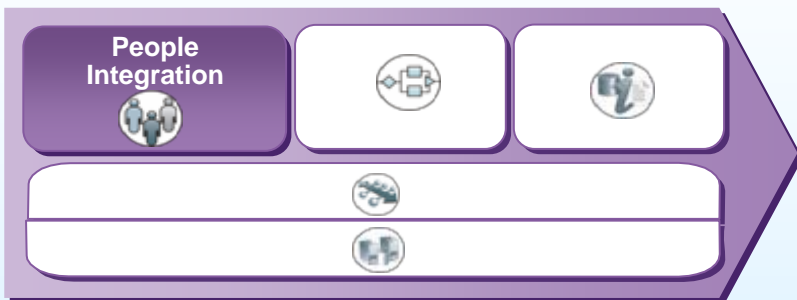
## ➤ SAP lock-in







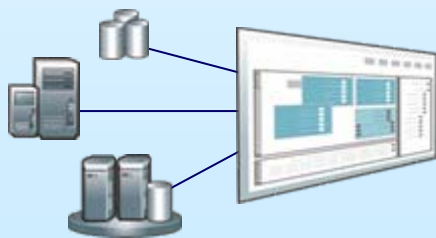
**Lotus.**



## Customer Benefits from WebSphere Portal Integration with SAP

- Market leading Portal technology
- Access to SAP and Non-SAP systems
- Excellent SAP Integration, out of the box
- Special purpose 5 minutes definition to access SAP
- Interoperability with SAP Enterprise Portal

### Portal



**WebSphere Portal**

### Mobile Access



**WebSphere Everyplace Offerings**

### Conversational Access



**WebSphere Voice Offerings**

# Groupware Services (Lotus Harmony project)



## Room Calendar

Welcome Roland Wilfer

Collaboration | Search

Welcome | Content Administration | System Administration | User Administration | Collaboration Administration | Collaboration | Home | Content Management

Room Directory | My Tasks | Room Creation

Detailed Navigation

- Overview
- Calendar
- Documents and Links
- Discussions

Related Links

- Room Member List

Welcome To Room: RoomTest

Room Calendar

Appointments | Availability | My Appointments

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Create Appointment

8/15/2003 Refresh

## Send e-mail

Refresh

Collaboration

Name Telephone E-Mail Address

- Huber, Anja 47460 anja.huber@sap.com
- Portal\_User 32223 portaluser@mycompany.com
- Wilfer, Roland 62755 roland.wilfer@sap.com

E-Mail senden

Users

Add

Create Appointment

Show Availability

Neuen Room anlegen

New Task

Send Instant Message

Share Application

Start WebEx Session

To: Wilfer, Roland

From: Wilfer, Roland

Subject: Short Test

This is a short test of how to send an email

Priority: Normal

Save a copy of the e-mail in the sent messages folder

Add Attachments

Send E-Mail

## Create Appointment

Refresh

Collaboration

Name Telephone E-Mail Address

- Huber, Anja 47460 anja.huber@sap.com
- Portal\_User 32223 portaluser@mycompany.com
- Wilfer, Roland 62755 roland.wilfer@sap.com

E-Mail senden

Users

Add

Create Appointment

Show Availability

Neuen Room anlegen

New Task

Send Instant Message

Share Application

Start WebEx Session

To: Wilfer, Roland

Subject: A short appointment

Location: At your desk

Start: 8/15/2003 9:00 AM All Day Event

End: 8/15/2003 10:00 AM

Online: Select Start Online Meeting

Via needs: WebEx Meeting Center Application Sharing

Add Attachments

Send Save Cancel

## Show Availability

Refresh

Collaboration

Name Telephone E-Mail Address

- Huber, Anja 47460 anja.huber@sap.com
- Portal\_User 32223 portaluser@mycompany.com
- Wilfer, Roland 62755 roland.wilfer@sap.com

E-Mail senden

Users

Add

Show Availability

Neuen Room anlegen

New Task

Send Instant Message

Share Application

Start WebEx Session

Friday, August 15, 2003

8:00 am 9:00 am 10:00 am 11:00 am 12:00 pm 1:00 pm 2:00 pm 3:00 pm 4:00 pm 5:00 pm 6:00 pm

Free Tentative Busy Out of Office Information Not Available

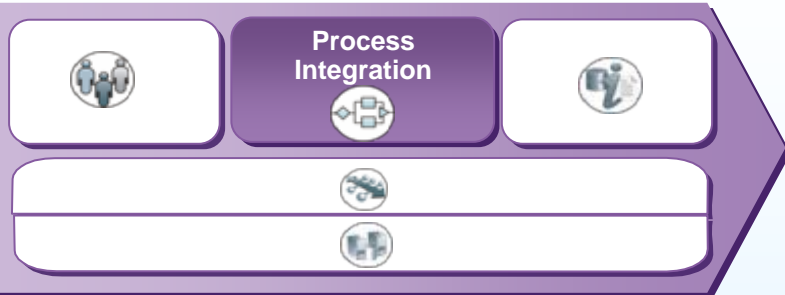
Start: 8/15/2003 9:00 AM Refresh

End: 8/15/2003 10:00 AM

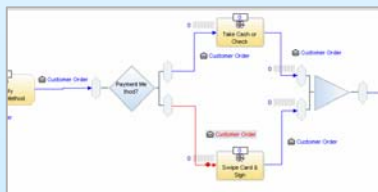
Create Appointment

## Customer Benefits from WebSphere with SAP

- Excellent tooling
- Excellent Integration of SAP
- Integration of virtually any system and technology
- Non-functional requirements
  - Scalability
  - Reliability
  - Performance

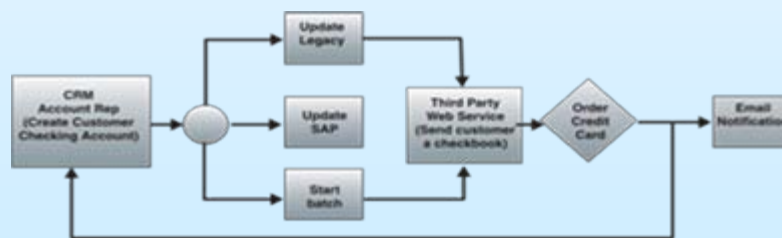


### Process Modeling and Simulation



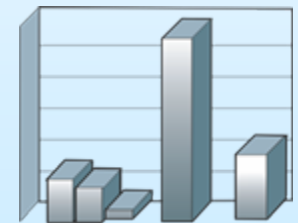
WebSphere Business Integration Modeler

### Process Automation



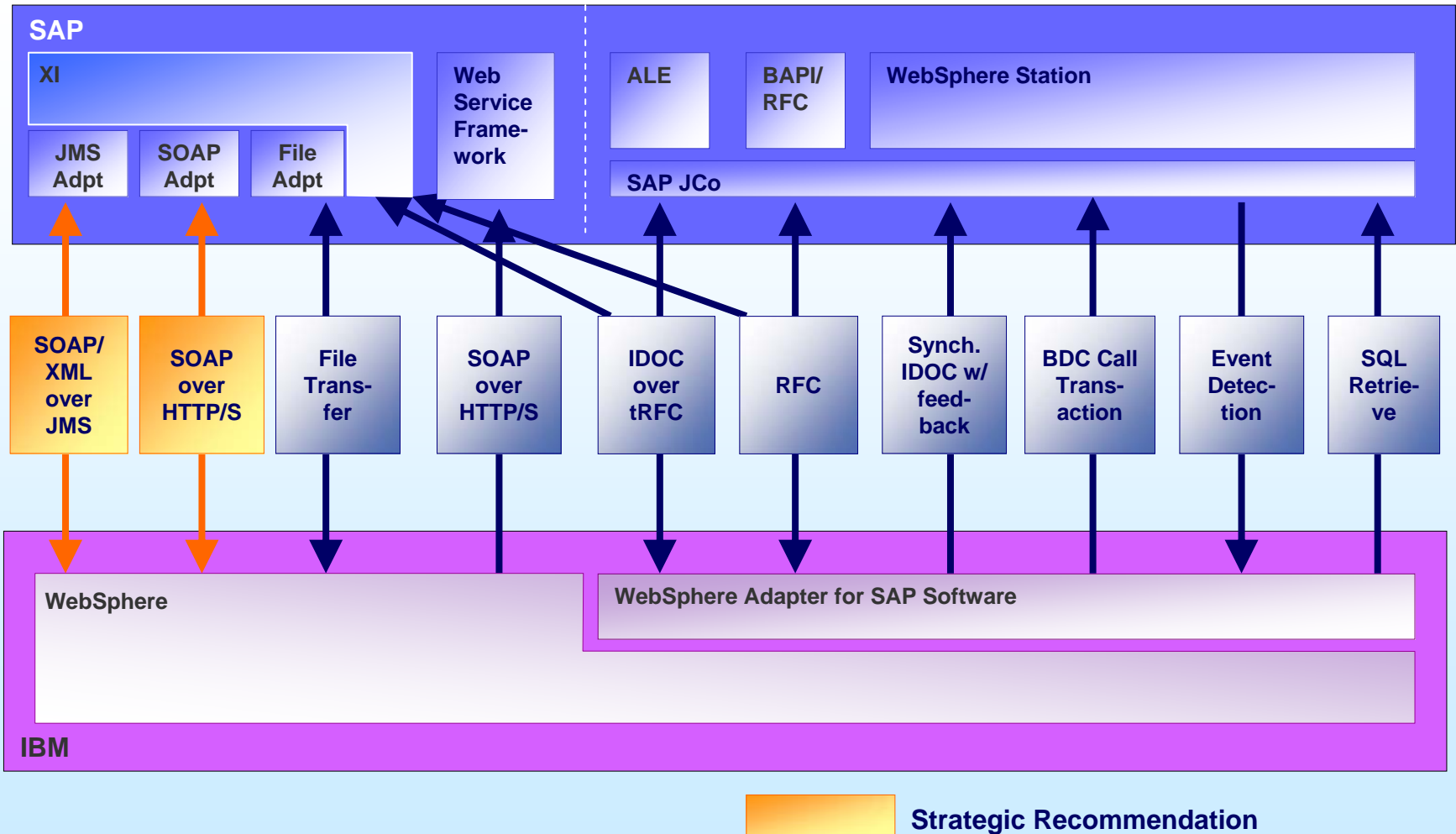
WebSphere Business Process Server  
WebSphere Business Integration Server

### Process Management



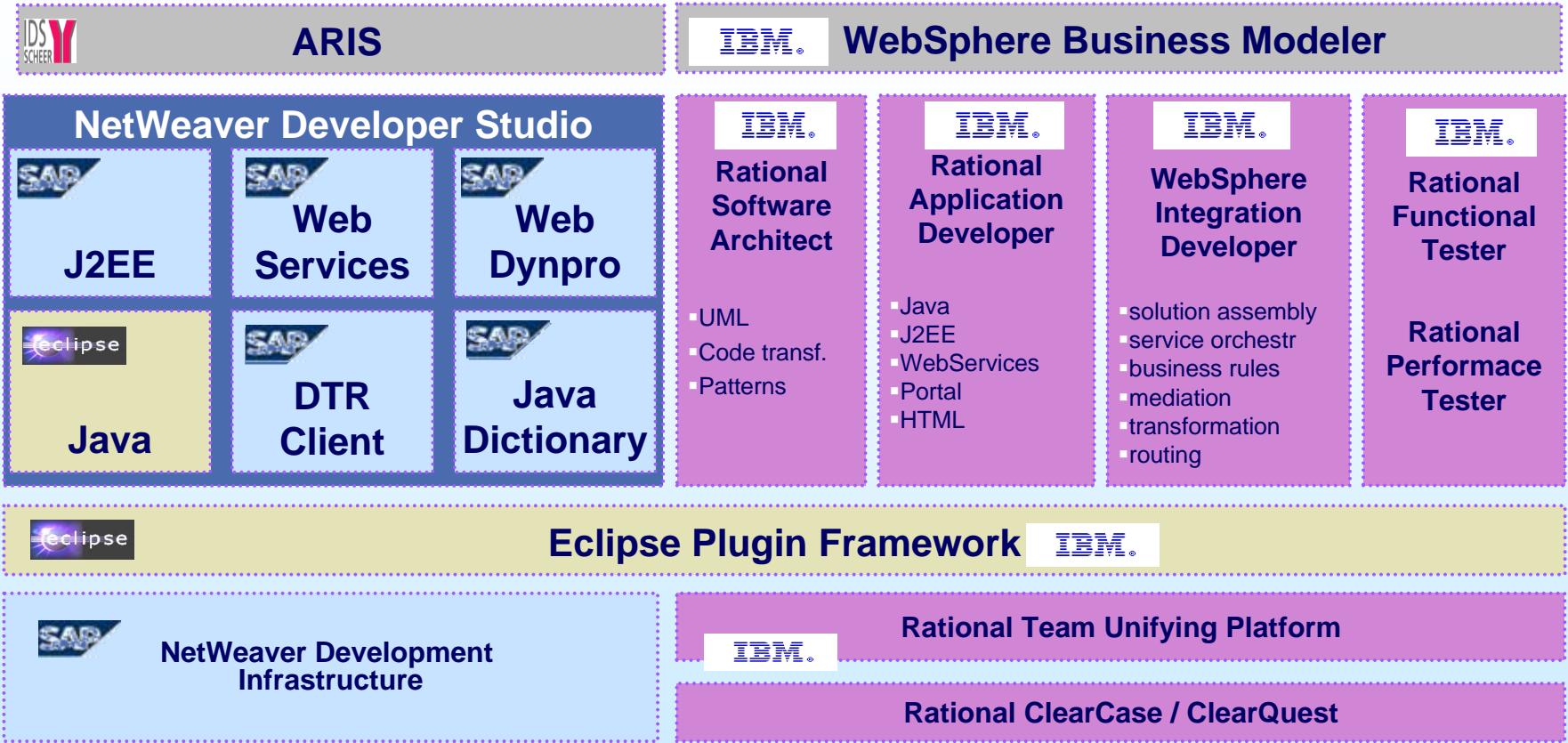
WebSphere Business Integration Monitor

# Overview of SAP ⇔ IBM Integration Options





# Development Environment – Overview



➔ Possible synergy effects due to common skills based on the same open standards (Eclipse, Java, J2EE, WebServices) and common development environment Eclipse (look&feel, development paradigms)

# DB2 9 Optimized for SAP Solutions

## – The Building Blocks

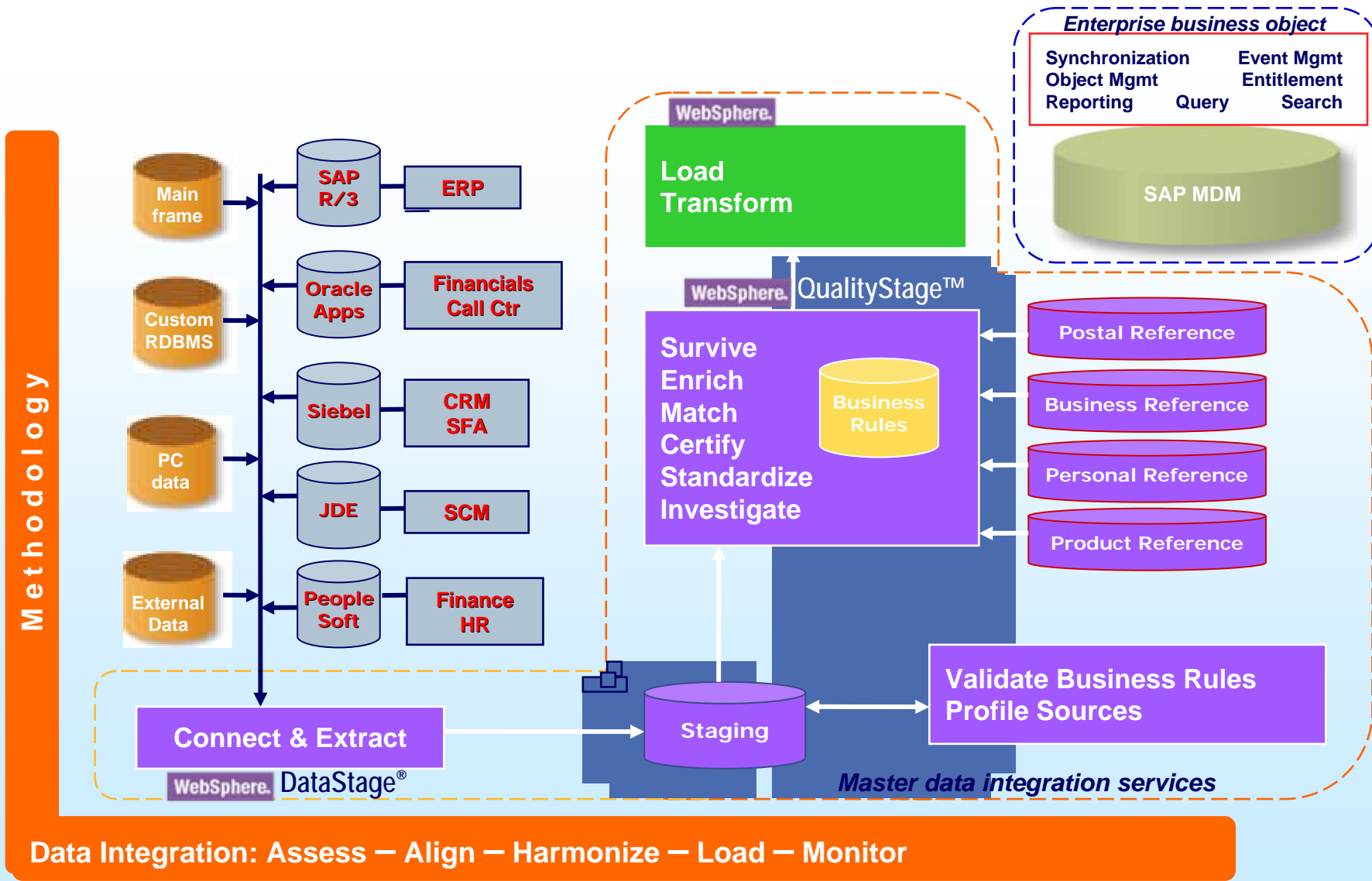


- **Partnership: Joint development and QA**
  - All teams working on DB2 for SAP solutions are joint teams (IBM & SAP)
  - Joint work in development, QA, testing and service
- **Integration: One product, one service, one maintenance strategy**
  - DB2 for SAP solution comes as one integrated product
  - From integrated install over one-stop service to a synchronized maintenance schedule
- **Product innovation: The DB2 for SAP Solutions Roadmap**
  - The DB2 for SAP solutions roadmap covers today 4 releases
  - Provides extraordinary innovation and value to our joint customers

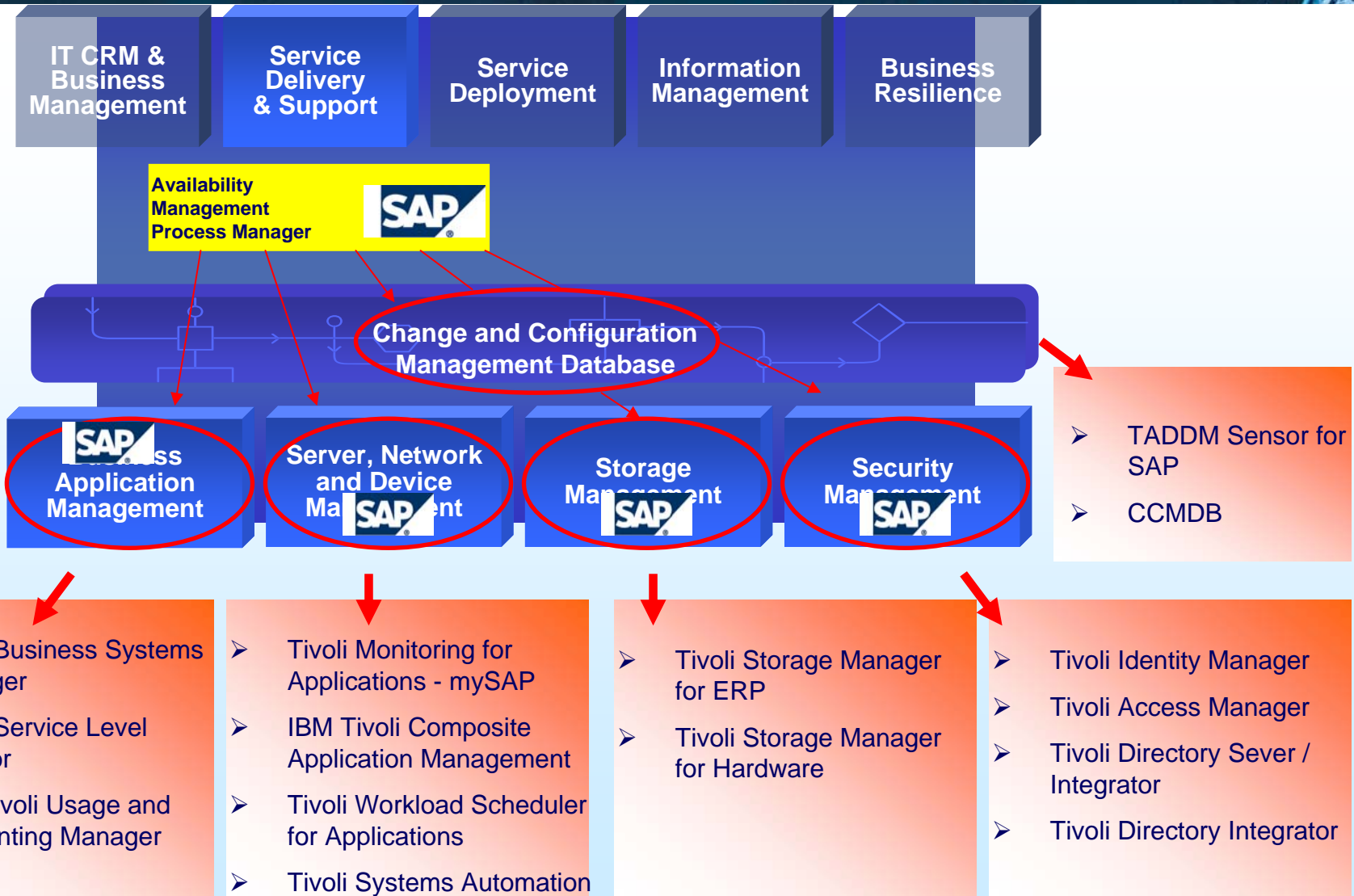
**This partnership is unique between IBM and SAP**



# Complementary Master Data Integration Services ( W II ) in a Heterogeneous Environment with SAP MDM



# Availability Process Manager integrates SAP environments





# SOAs and ERPS

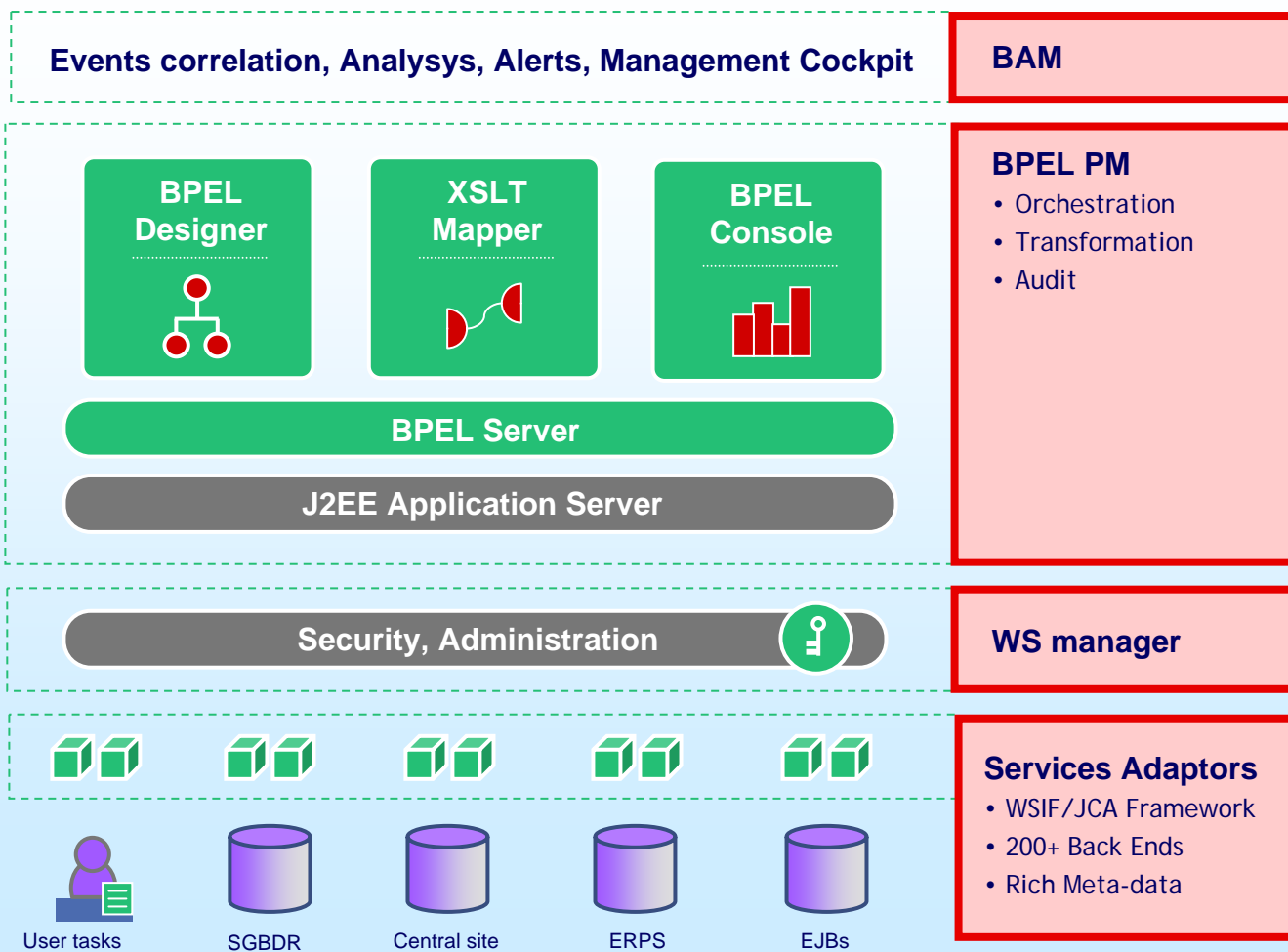
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- SOA and SAP Integration
- **SOA and Oracle Integration**



## Simplified SOA – Complete Lifecycle



# SOA by Oracle: Full integrated suite



## SOLUTIONS

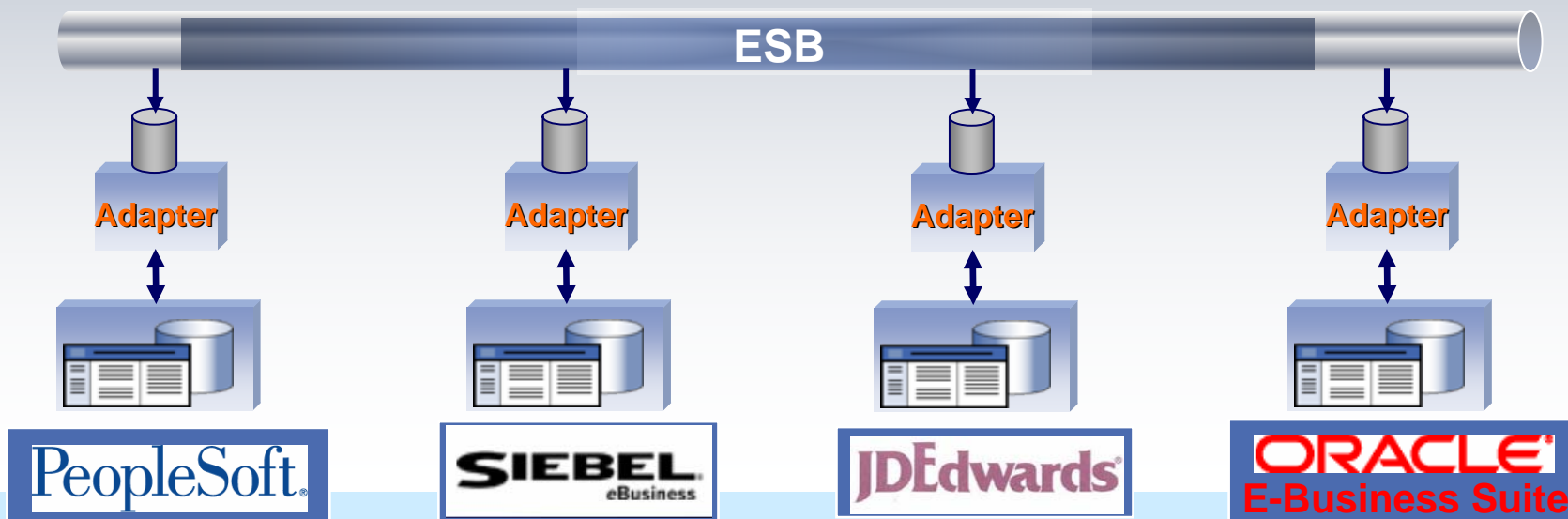
- **Integrate Your Processes** —Automate and monitor your multi-step processes across applications, people and services.
- **Integrate Your Applications** —Connect your applications, including Oracle E-Business Suite, JD Edwards, and PeopleSoft, with over 250 adapters to existing systems.
- **Integrate Your Information**—See a consistent, accurate, real-time view of your data—even when it resides across many separate systems.
- **Integrate with Your Business partners**—Extend your processes and applications to partners using industry standard protocols.





## WebSphere adapters:

- A consistent framework for access to back-end systems and technologies
- Mission-critical quality of service
- A portfolio of pre-built Oracle application adapters as well as a toolkit to generate your own





# Oracle Applications Connectivity End Points

	Adapters	Messaging	Webservices	Other APIs
<b>Siebel CRM</b>	<b>WebSphere Adapter</b>	<b>WMQ</b>	<b>Yes</b>	<b>Siebel Java Data Bean Web UI DDK</b>
<b>PeopleSoft Enterprise</b>				<b>Component Interface App Classes</b>
<b>JDE EnterpriseOne</b>				<b>Z-tables, IBM Flat File Adapter</b>
<b>E-Business Suite</b>			<b>only</b>	<b>Java Service Interfaces, XML Gateway, Interface Tables &amp; Concurrent Programs, PL/SQL, EDI <b>*Only in R12</b></b>



# An Enterprise Service Bus connects application services



*The ESB reduces the complexity of interfaces and makes applications available to processes*

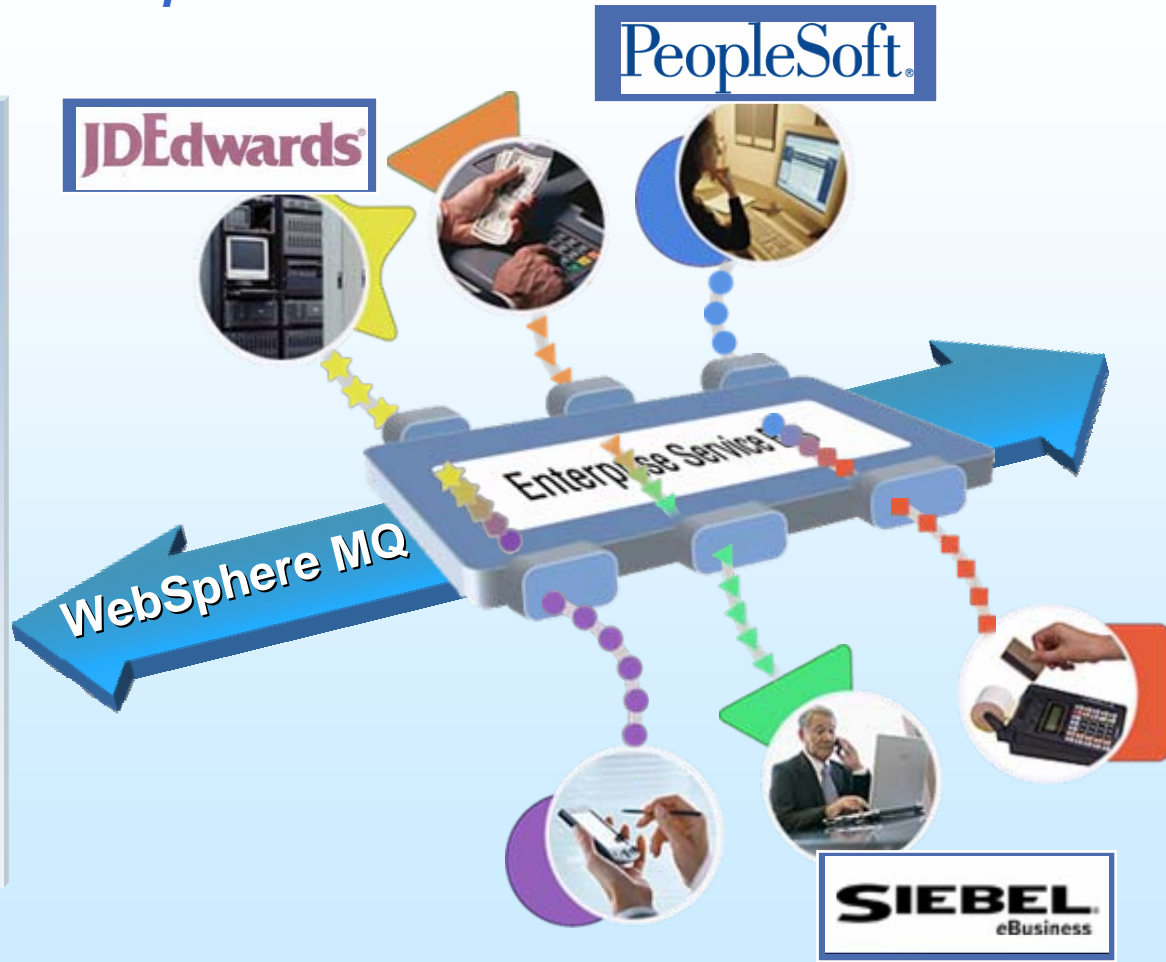
*Performing the following between requestor and service:*

**ROUTING** messages between services

**CONVERTING** transport protocols between requestor and service

**TRANSFORMING** message formats between requestor and service

**HANDLING** business events from disparate sources



# A Portal interface provides user access



## User Perspective

Personalization

Customization

Navigation

Single Sign On

People Awareness

Language Translation



## IT Perspective

Integration at the glass

Secure Access

Rapid, Role-based  
Deployment  
Scalability and  
Reliability

Siebel CRM

JD Edwards SCM

Content Management

Collaboration

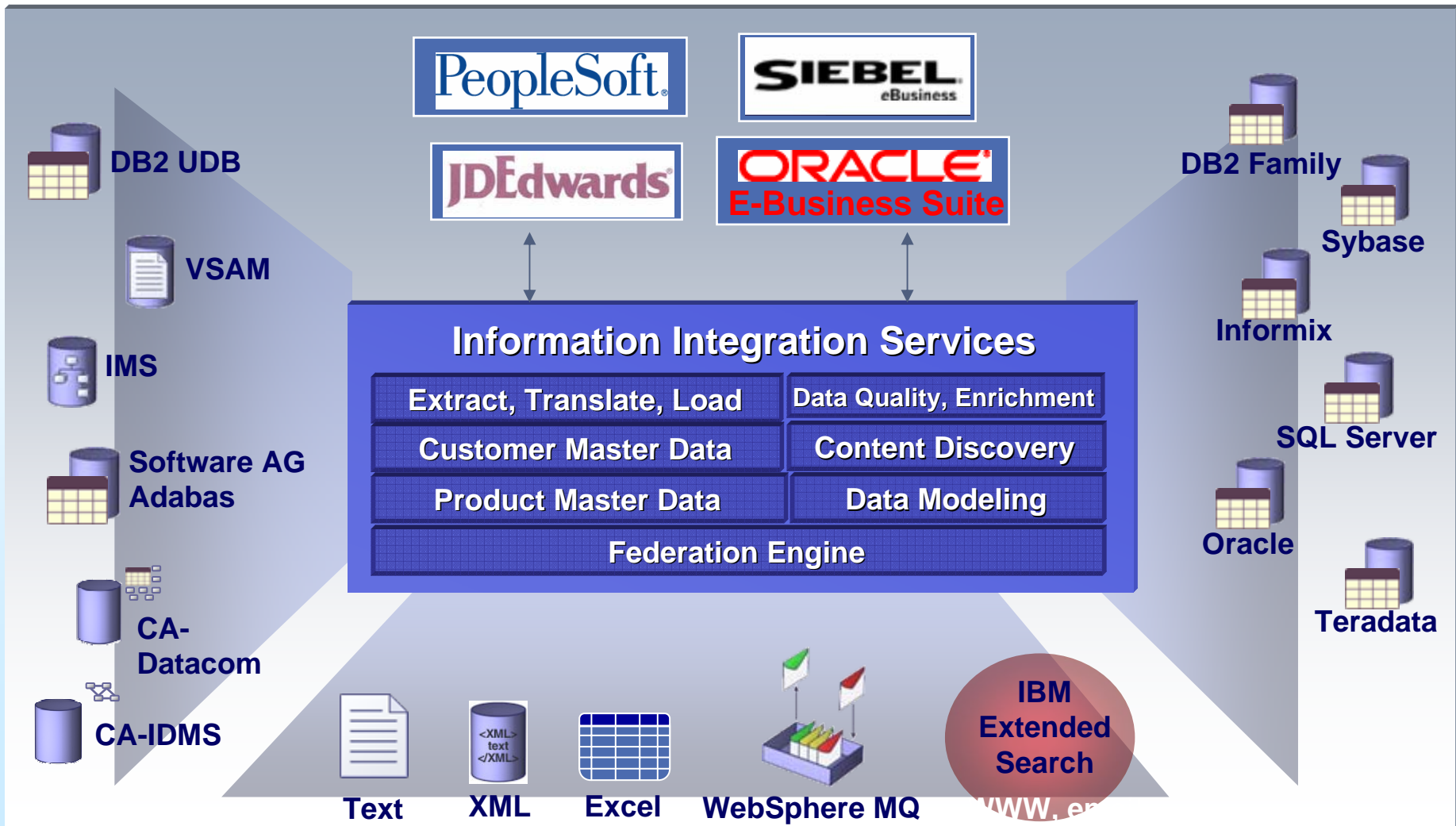
PeopleSoft HR

Syndicated Content

Web Services



# Information Services manage data access

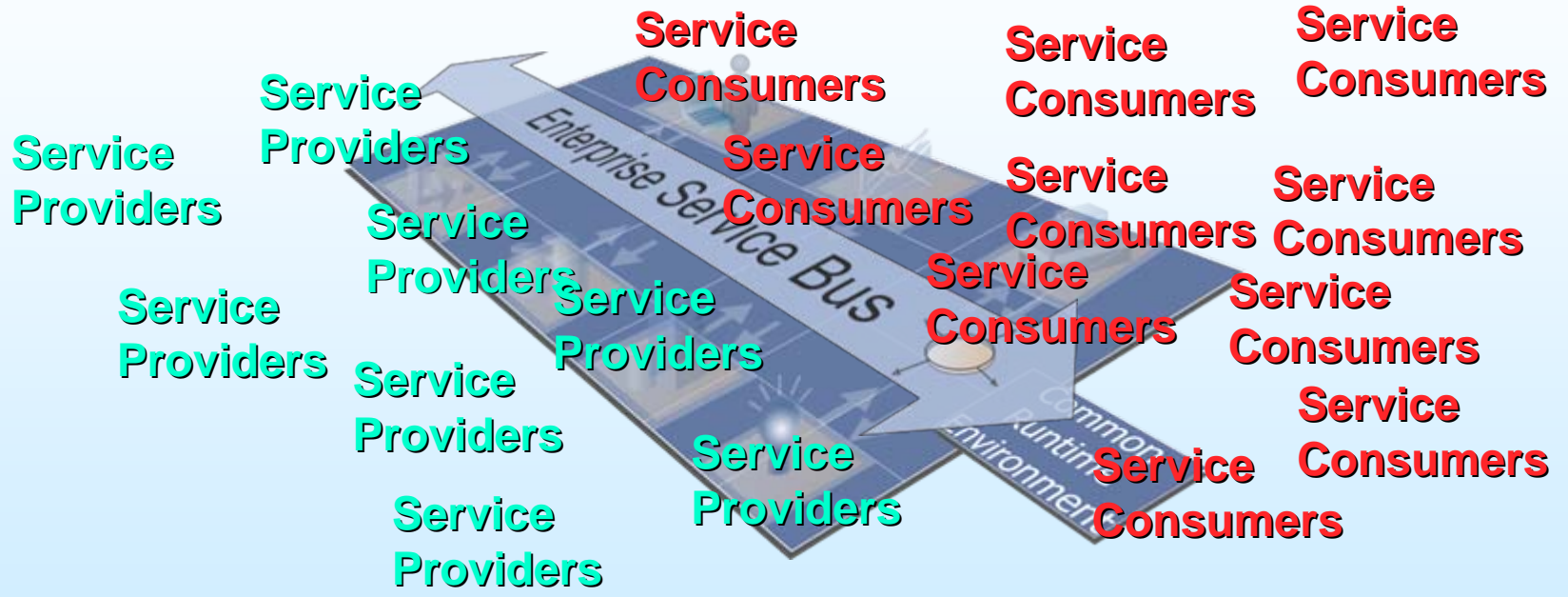


# Move ALL your ERPs to a true independent Service-Oriented Architecture



System components which utilize or "call out" other services: **Service Consumers**

**Service Providers** - system components completing a requested function



Isolation of function throughout the enterprise system such that each function may be dynamically accessed at runtime and may be included in composite flows of function representing business processes





# Questions ?!?

