

Oracle WebSeminar

'Business Process Management gebaseerd op de BPEL standaard'

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Agenda

- Introduction and SOA
- Service Orchestration
- BPEL
- Demonstration
- Other topics
 - Performance
 - Accessing existing systems
- JDeveloper BPEL plug-in 'sneak preview'

S.O.A. ?!?



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soa

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Acronym	Definition
SOA	Safe Operating Area
SOA	Sarbanes-Oxley Act
SOA	School of the Americas (Fort Benning, GA, USA)
SOA	Scottish Optoelectronics Association
SOA	Screams of Abel (band zine)
SOA	Secretary of Agriculture
SOA	Sega of America
SOA	Semiconductor Optical Amplifier
SOA	Separate Operating Agency
SOA	Service Order Activation
SOA	Service Order Administration
SOA	Service Oriented Application
SOA	Service-Oriented Architecture
SOA	Servicewide Office Automation
SOA	Sexually Oriented Advertising
SOA	Sexueel Overdraagbare Aandoening

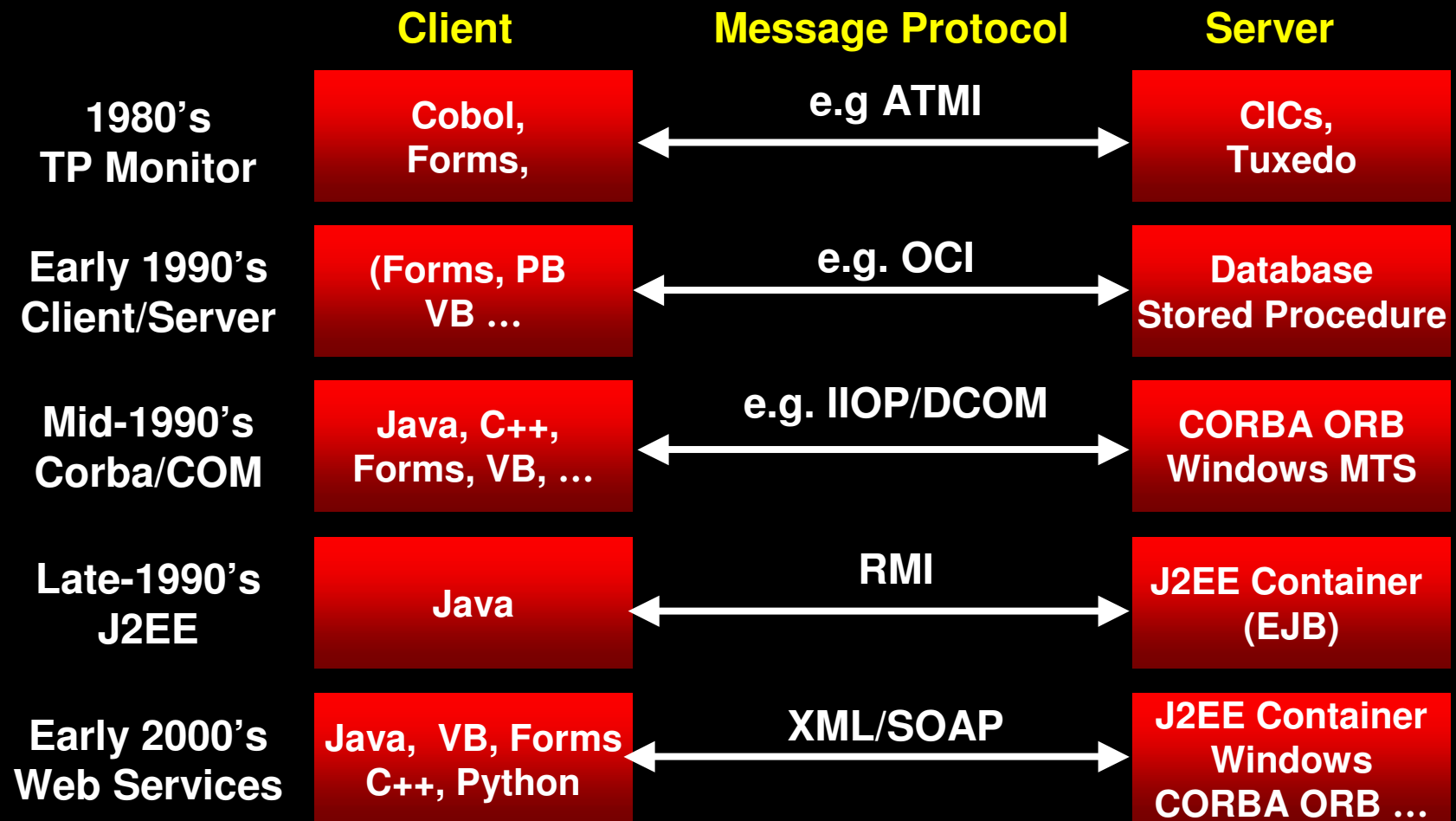


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Service Oriented Architecture

SOA is an architectural style
whose goal is to achieve
loose coupling among
interacting software agents

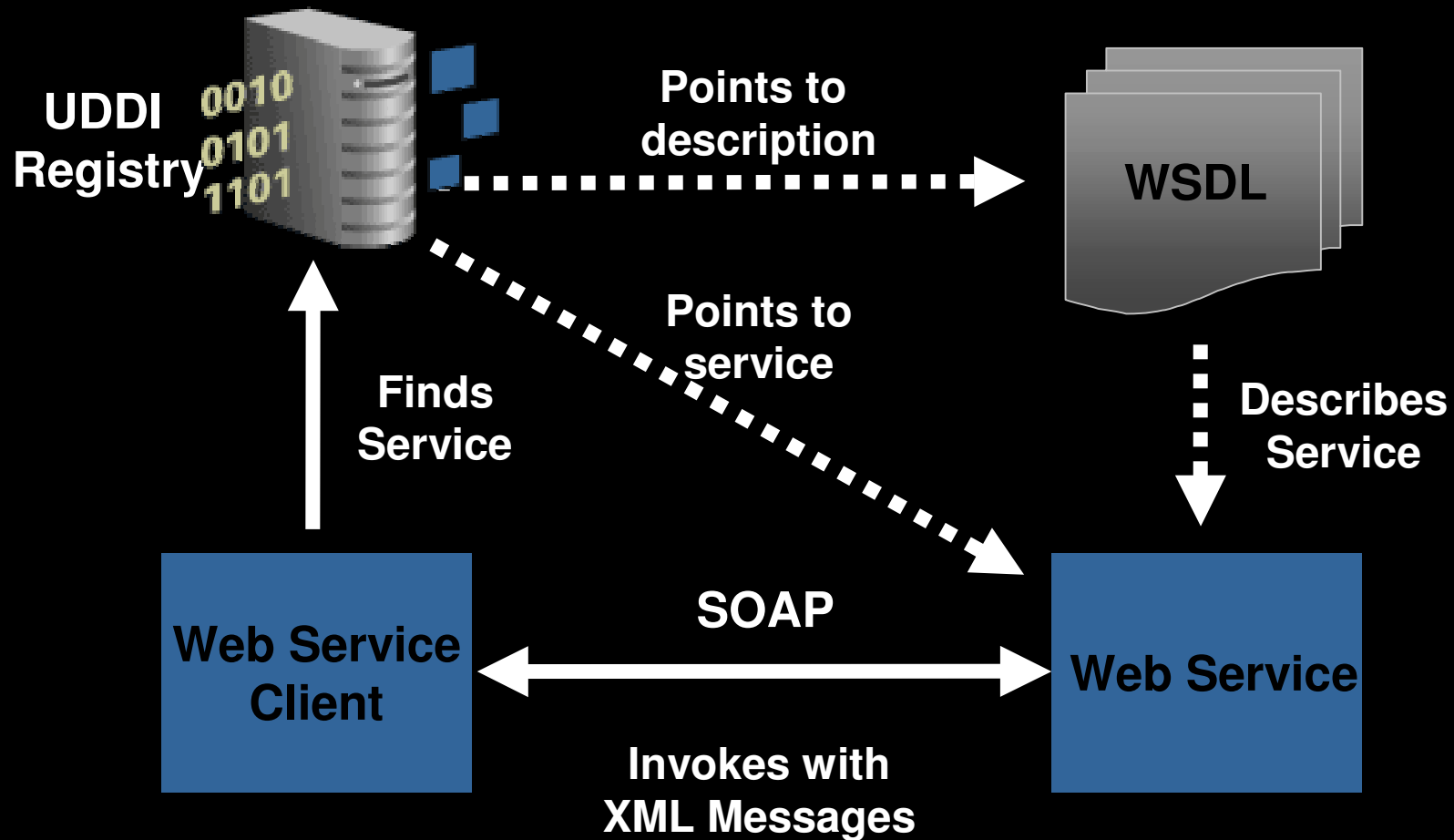
Historical implementations



A Service?

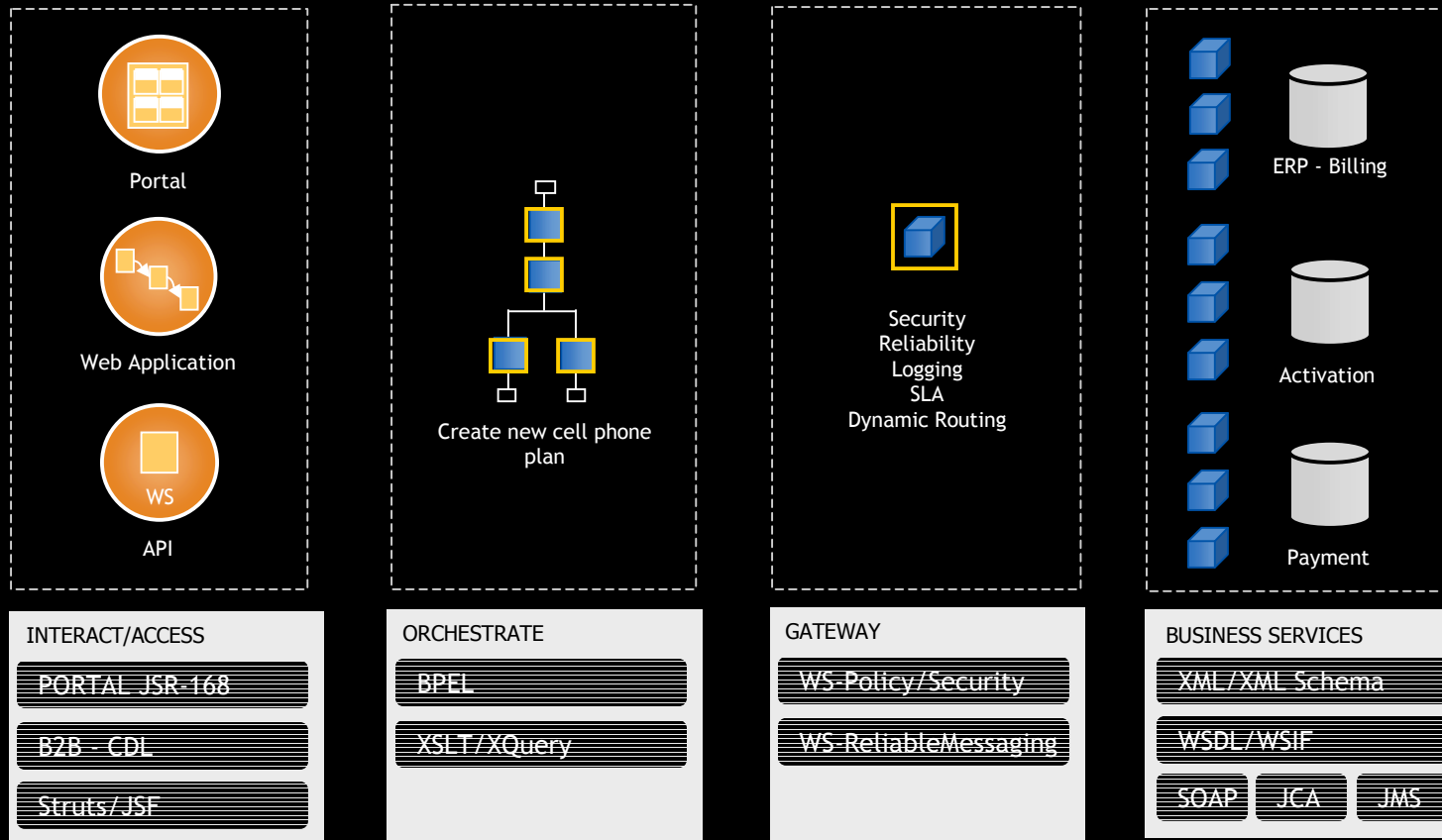
A unit of work done by a service provider to achieve desired end results for a service consumer

The Basics are ready ...

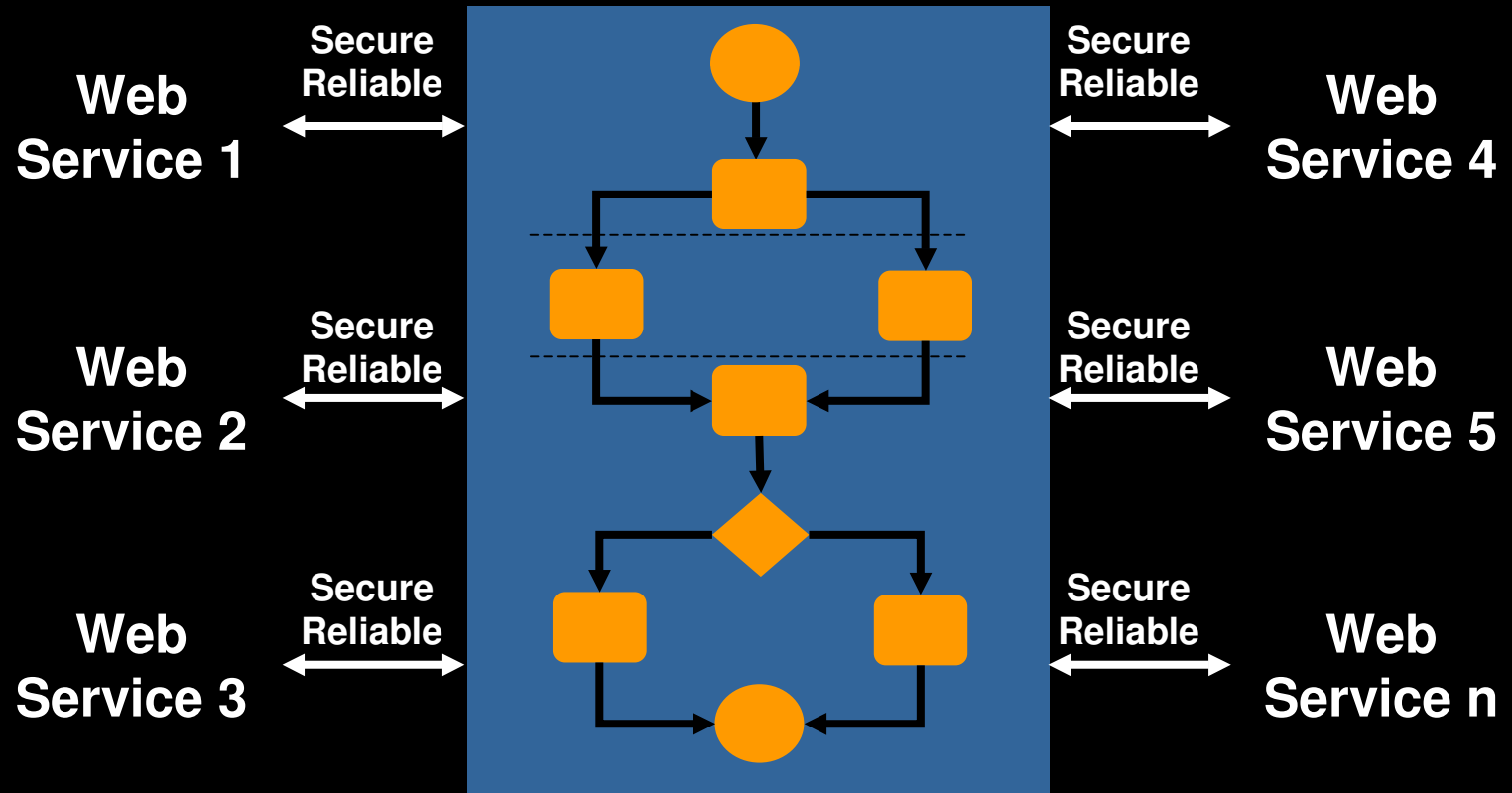


Components of SOA?

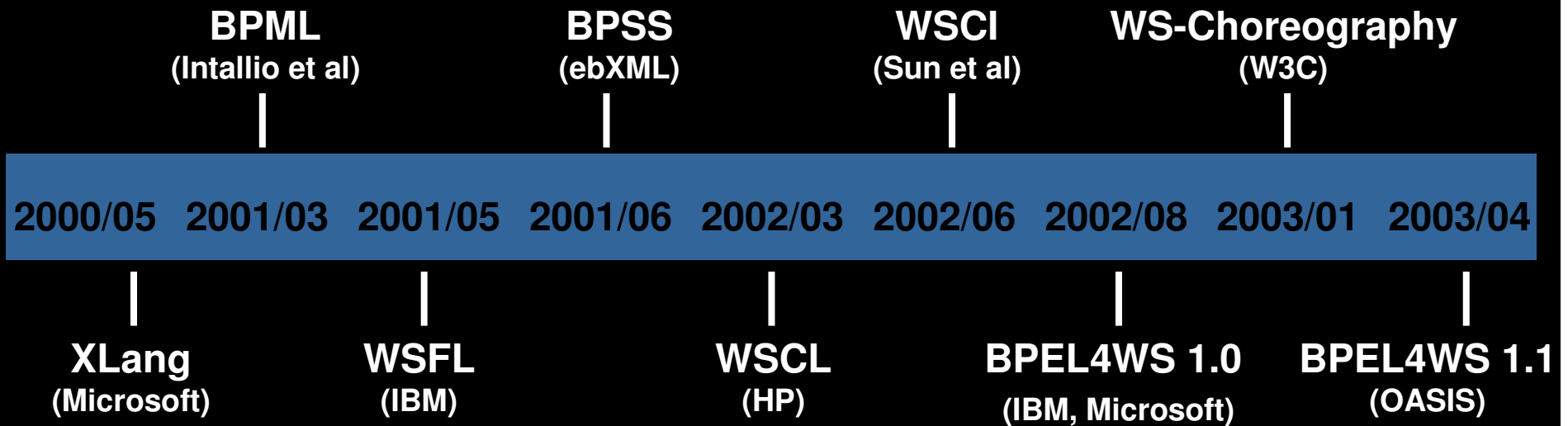
Reduce friction, enhance visibility, thrive on change



Web Services Meet Business Processes

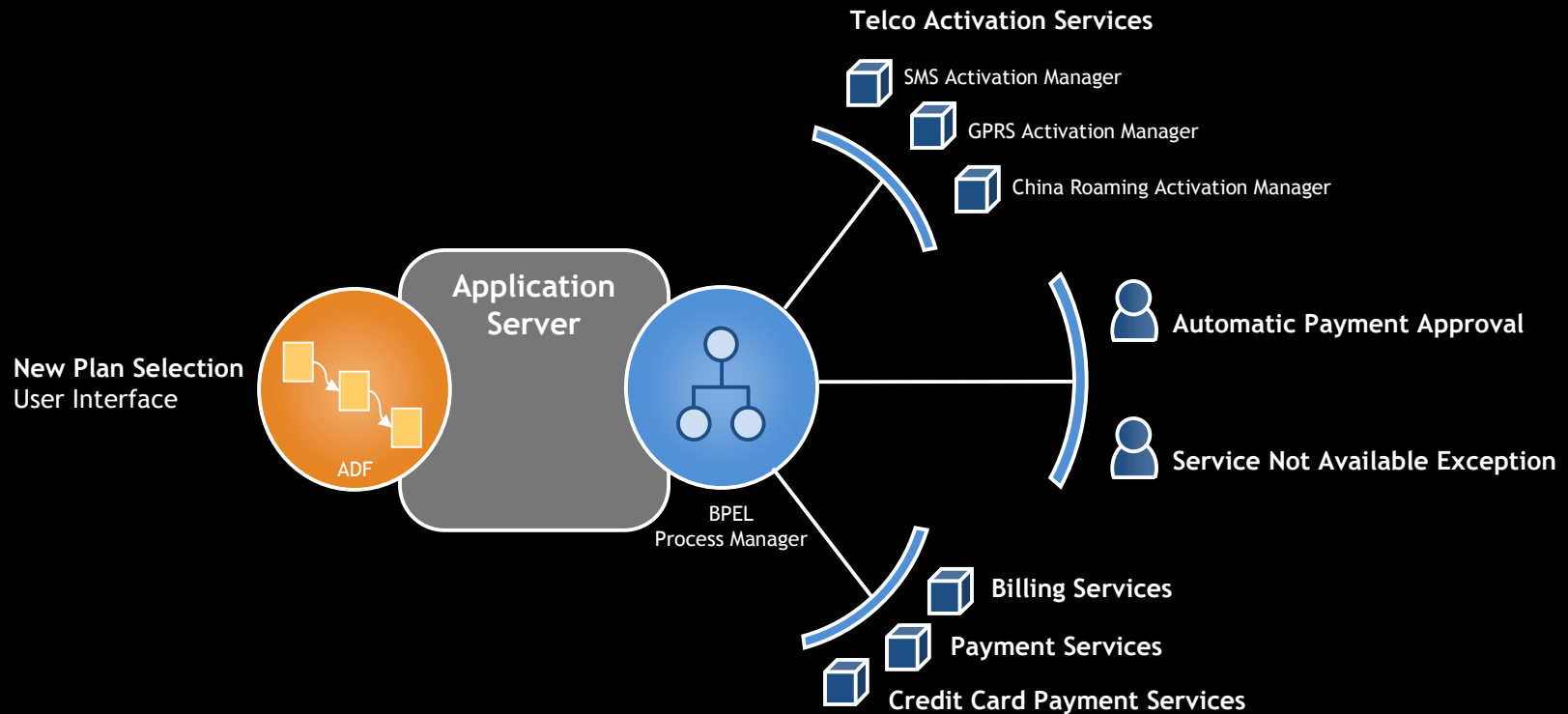


Recent History of Business Process Standards



Example: Cell Phone Activation

Application for the provisioning and activation of cell phone plans



More Examples...

Financial Services Trade Exception Management
Business Planning and Audit Execution
Order Processing

Healthcare Prescription Management

Telecom Cell Phone Activation
VoIP Provisioning
DSL Provisioning

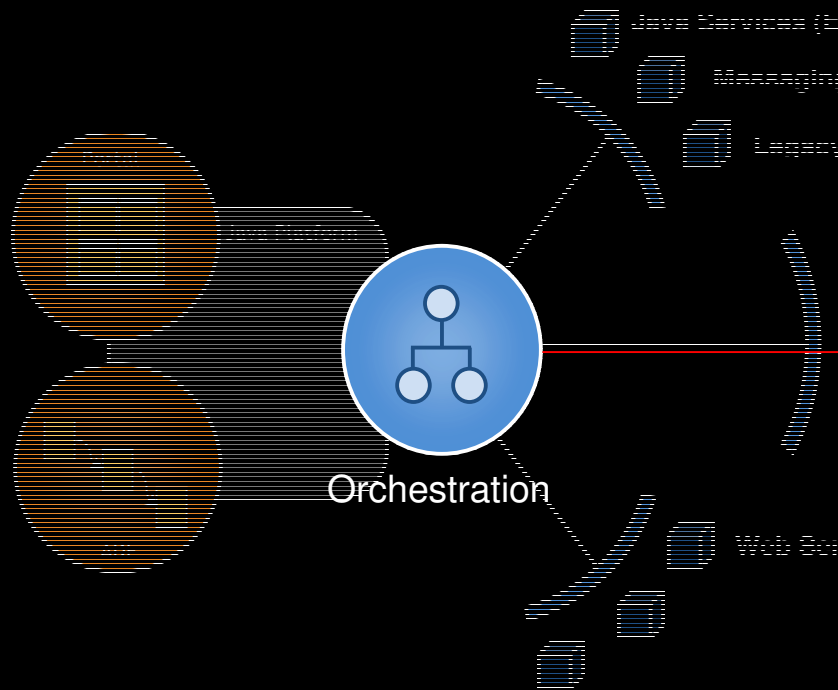
Automotive Loan Procurement, Contract Management

Government Medicare Eligibility Determination and Enrollment

Energy Schedule Exchange

Banking New Account Enrollment Process

A Consistent Set Of Requirements



Connectivity

Heterogenous Back Ends
Silos of API and mechanisms
Opaque/heterogeneous data definitions
Synchronizing multiple data stores

Orchestration

Asynchrony, Flow Coordination, Data Transformation, Compensation, Version Control, Auditing

Scalability

Unpredictable loads
Asymmetric performance capabilities

Management and Security

Access control, Encryption, Logging, Metering
Independent of the service

Interaction/Access

Catalog, Customization, Access

Introduction to BPEL

- Markup language for composing a set of discrete services into an end-to-end process flow
- 10+ years of research and development from Microsoft (XLANG) and IBM (WSFL, FDML)
- The best integration solution for XML and Web services but also Java, JCA and JMS.
- Rich support for async interactions, parallel processing and exception management.
- Leverages XML Schema, XSLT, XML Query, WS-Security, WS-Addressing and WSIF.
- Composability: A process flow is automatically a service.

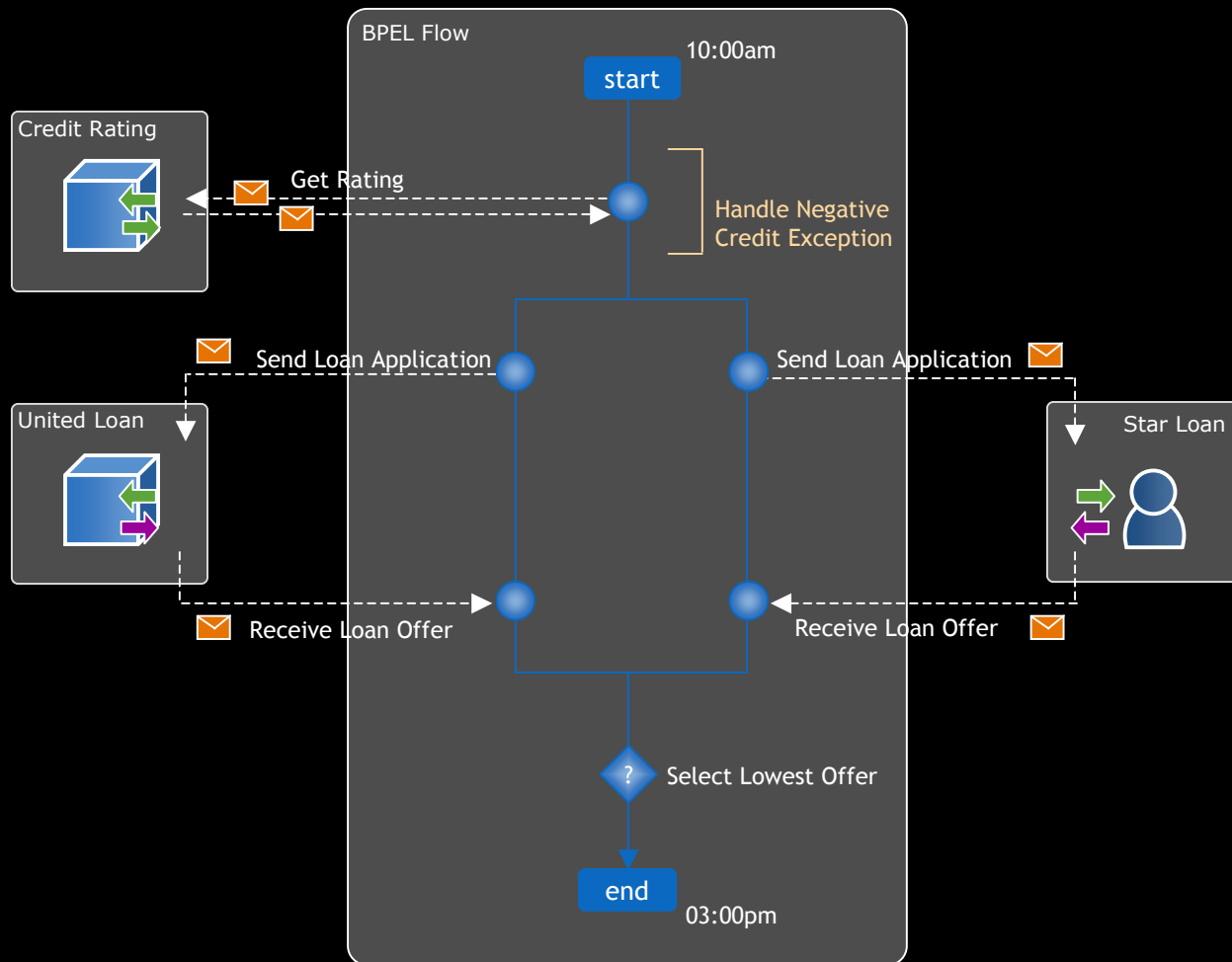
“ Gartner believes that BPEL will emerge as the leading industry standard for Web service orchestration and coordination of business processes.”

*- David Smith, Research Vice President
and fellow, Gartner*

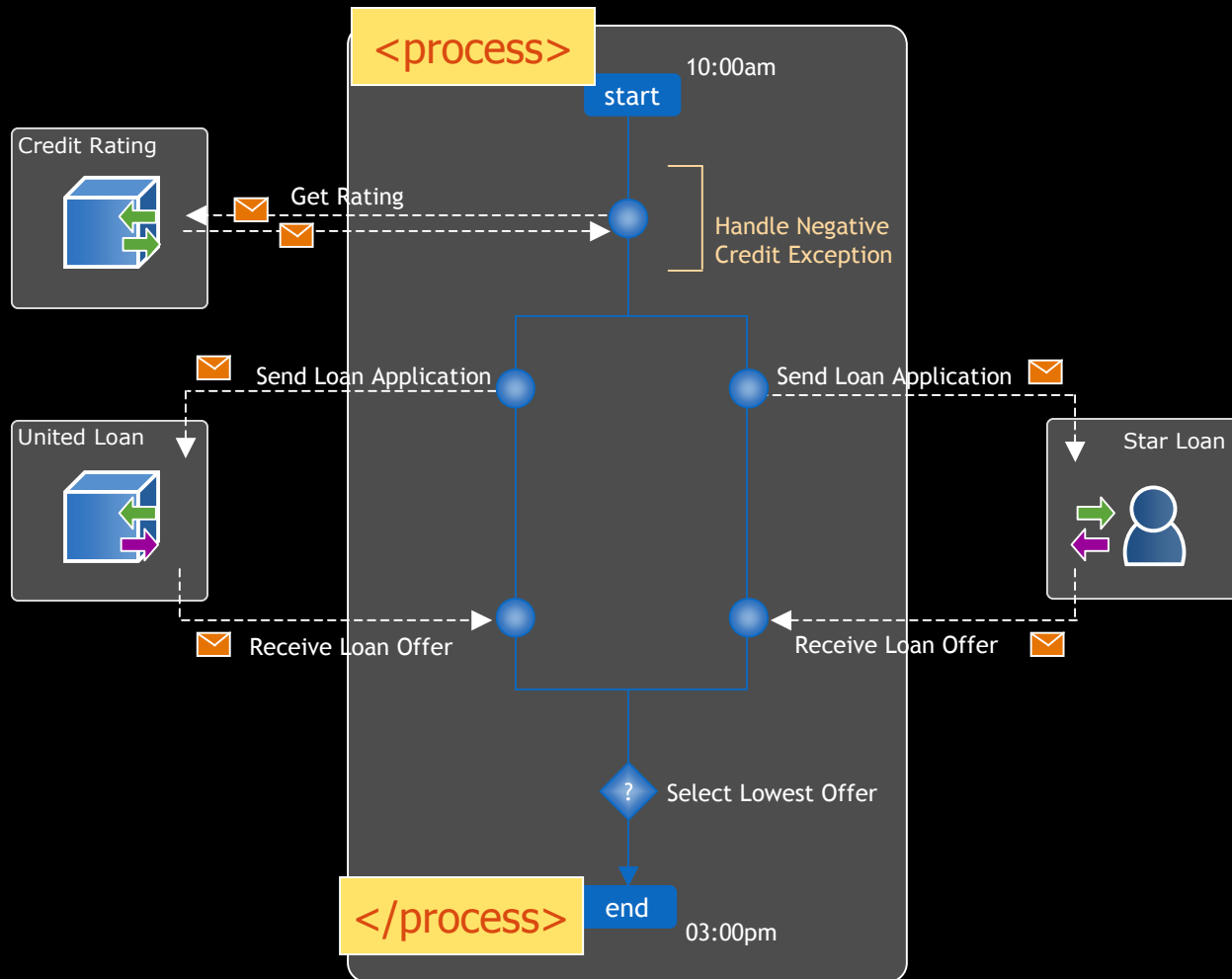
“ BPEL is the future of the integration space in my view...Why? Because the value is so much higher when you provide not only a way to integrate applications, but also a way to create services from them and put them into business processes ”

*- John Rymer, Vice President, Forrester
Research, Inc.*

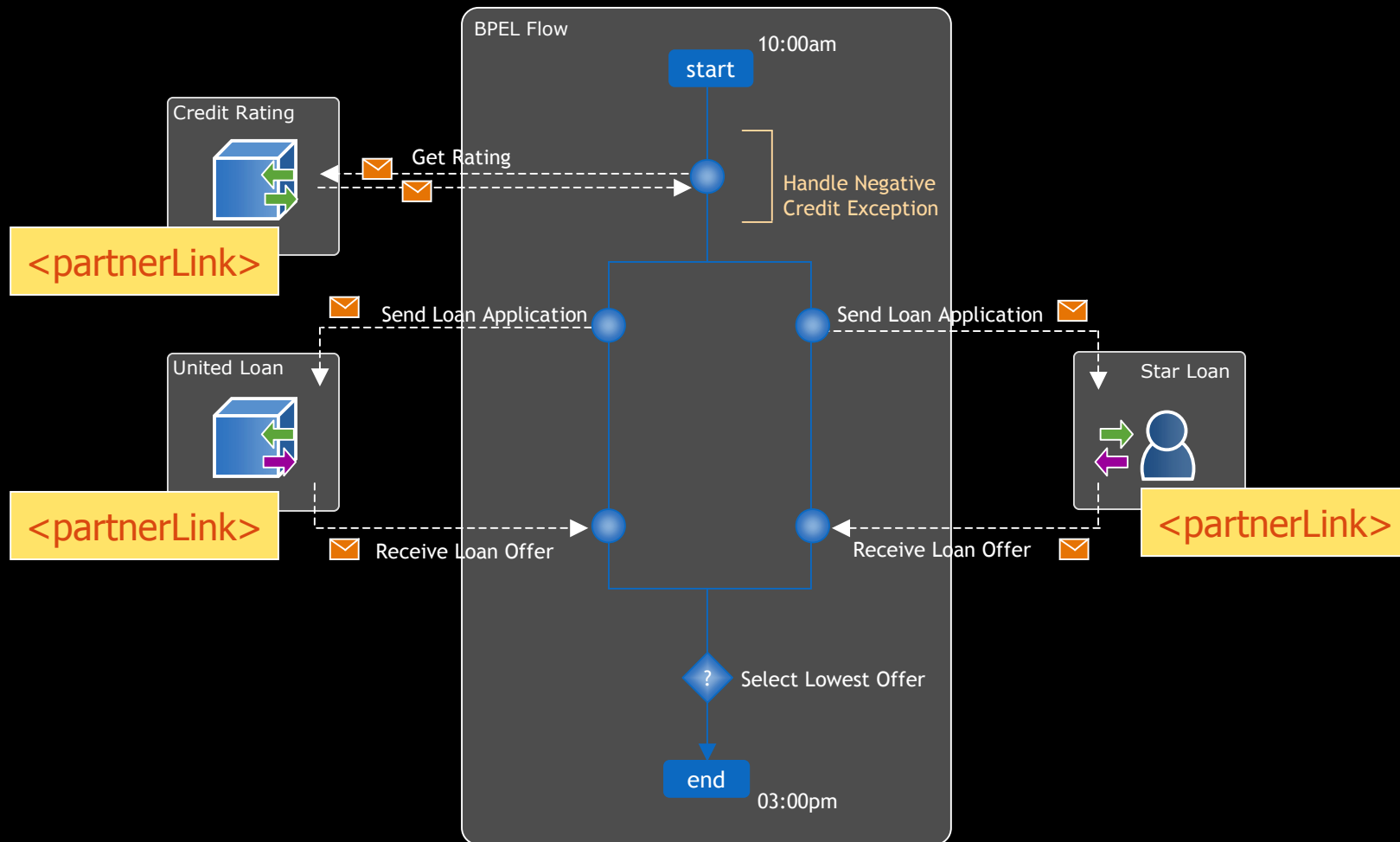
BPEL Concepts



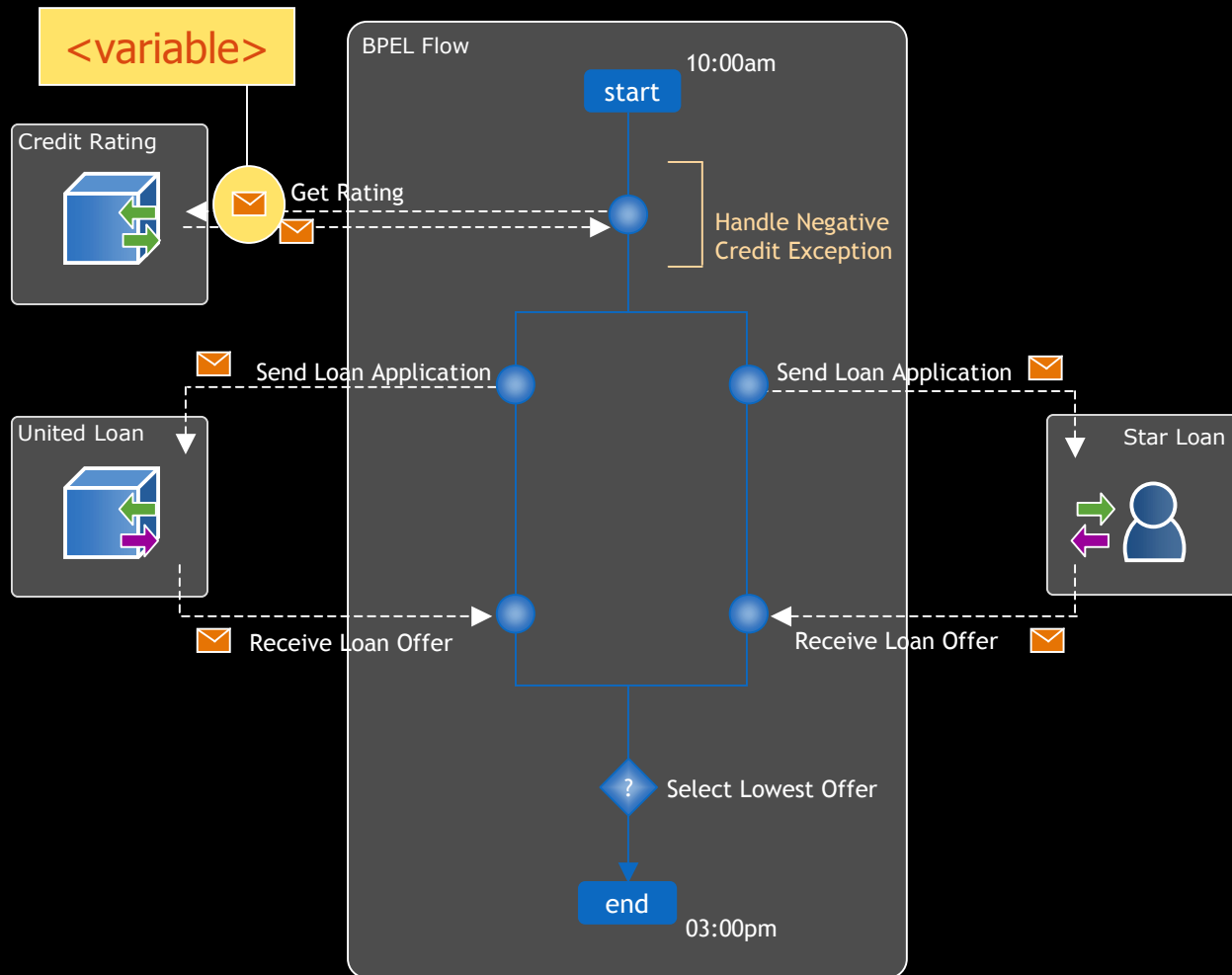
BPEL Concepts - Process



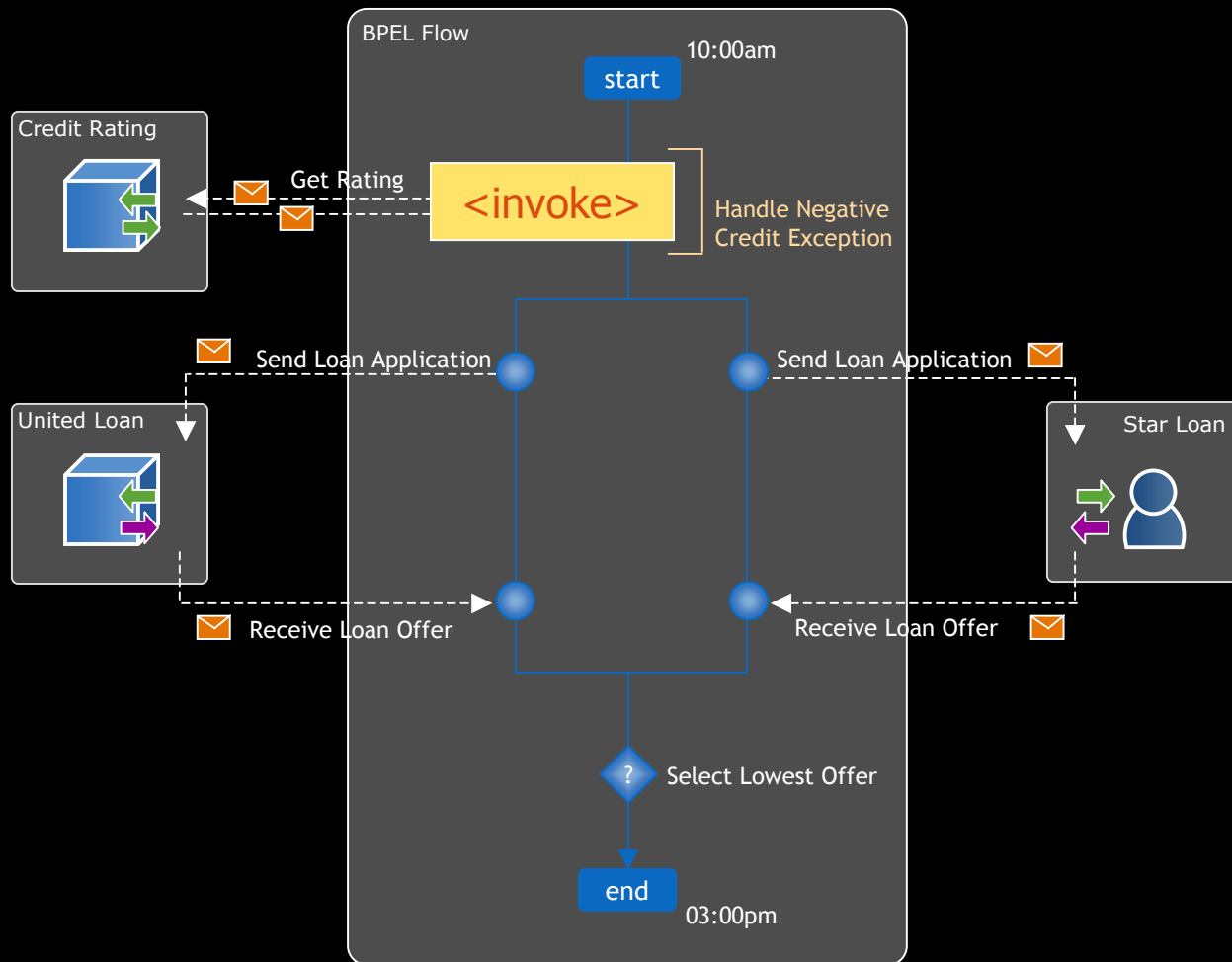
BPEL Concepts – Partner Link



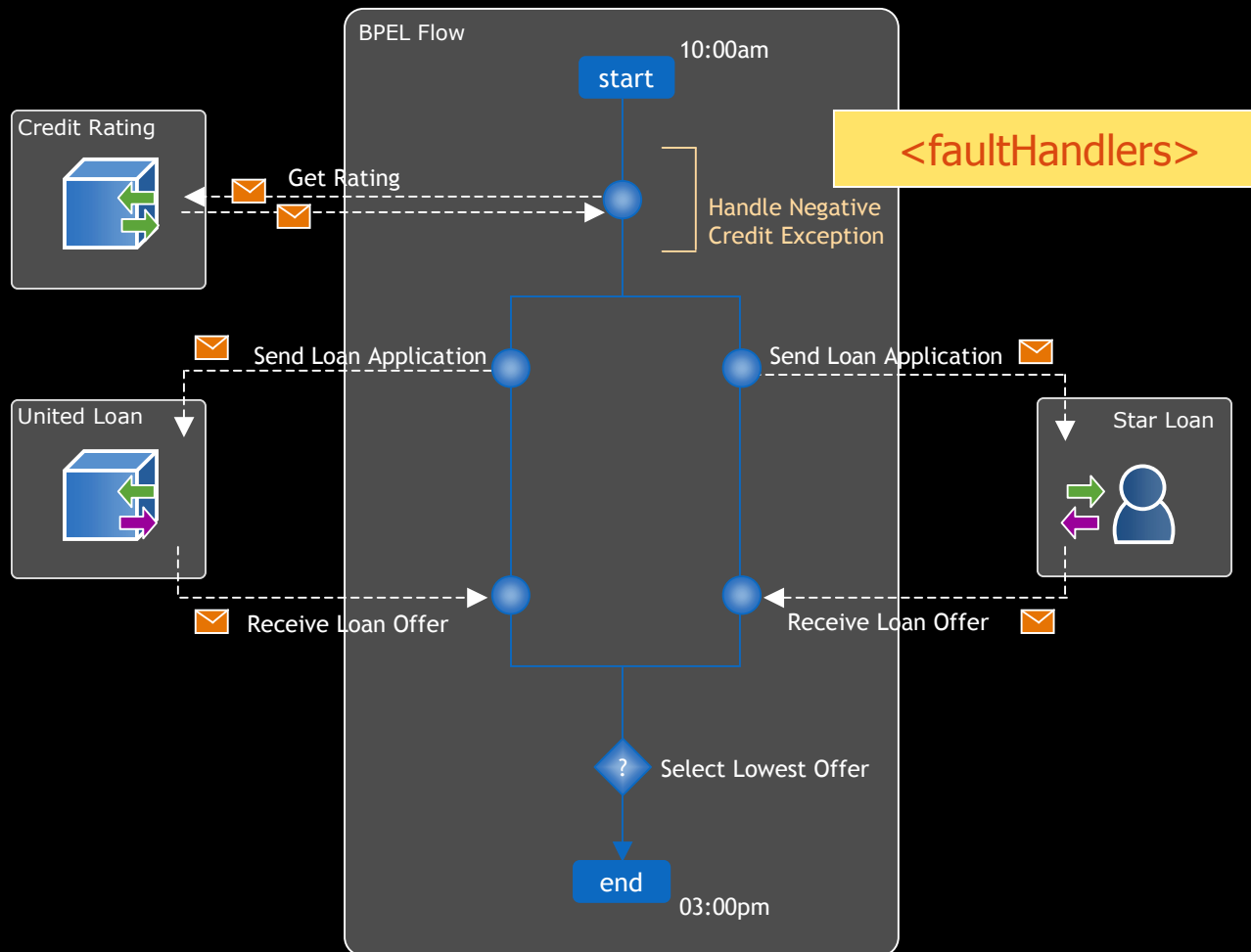
BPEL Concepts – Variables



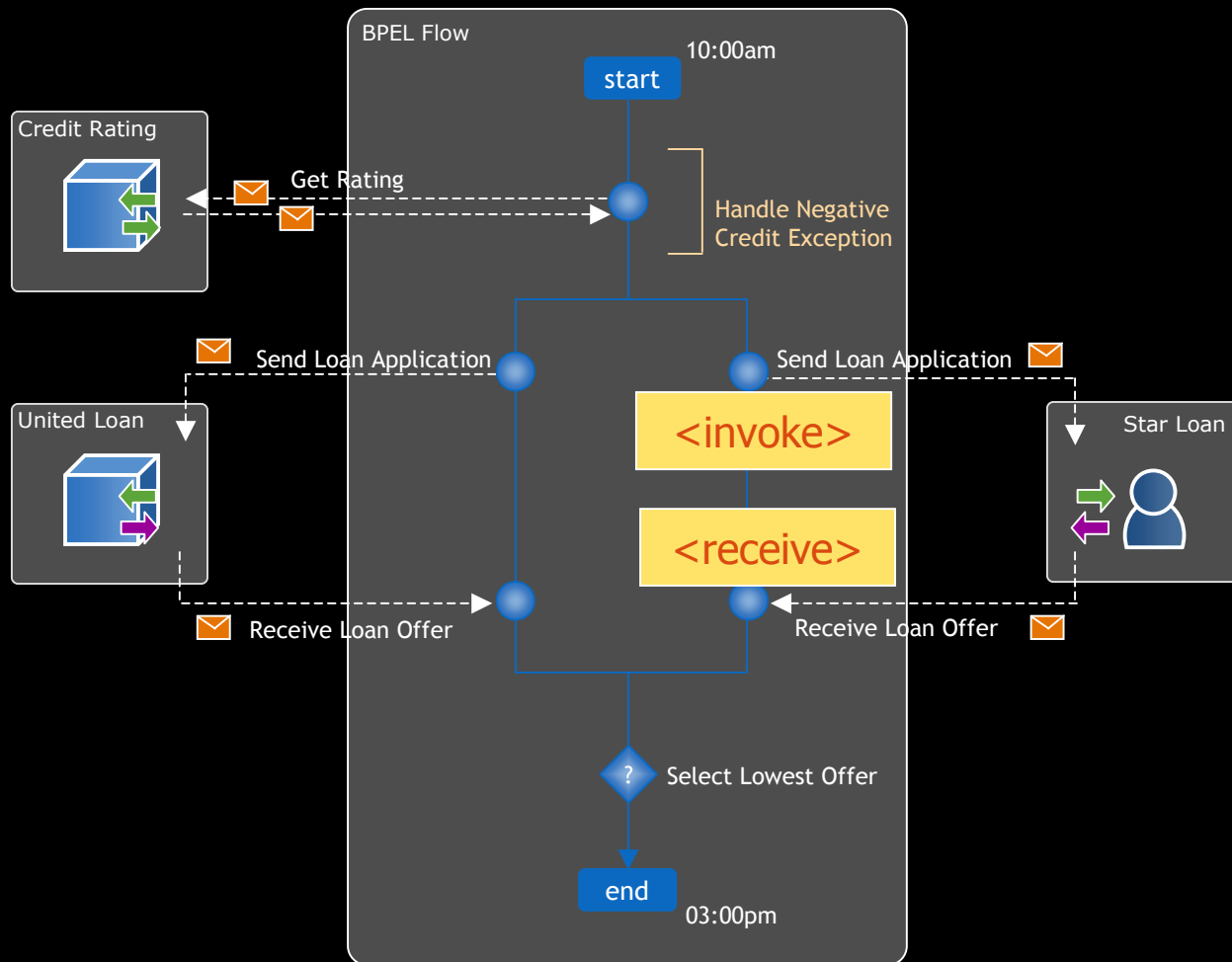
BPEL Concepts – Synchronous Invocation



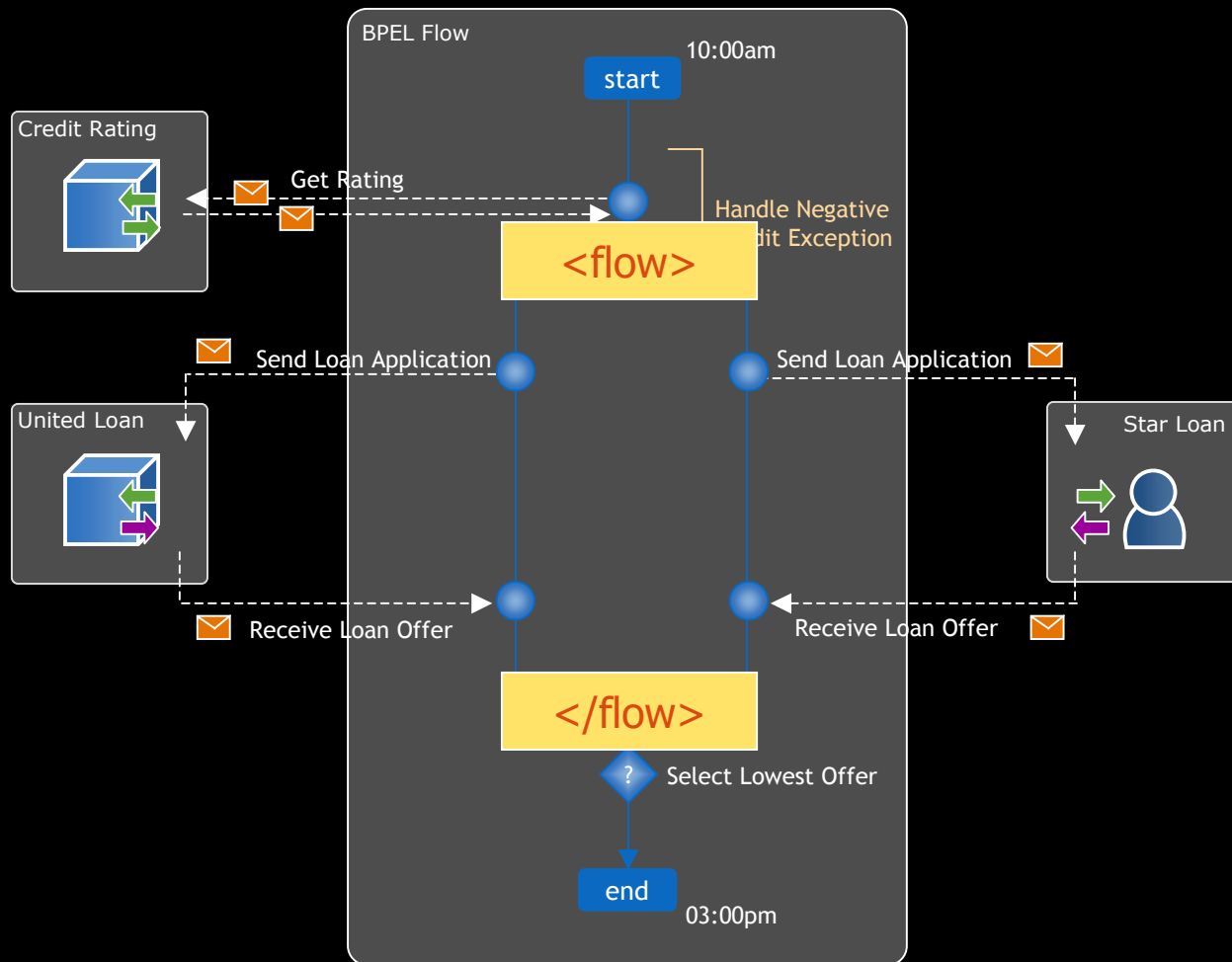
BPEL Concepts – Exception Handling



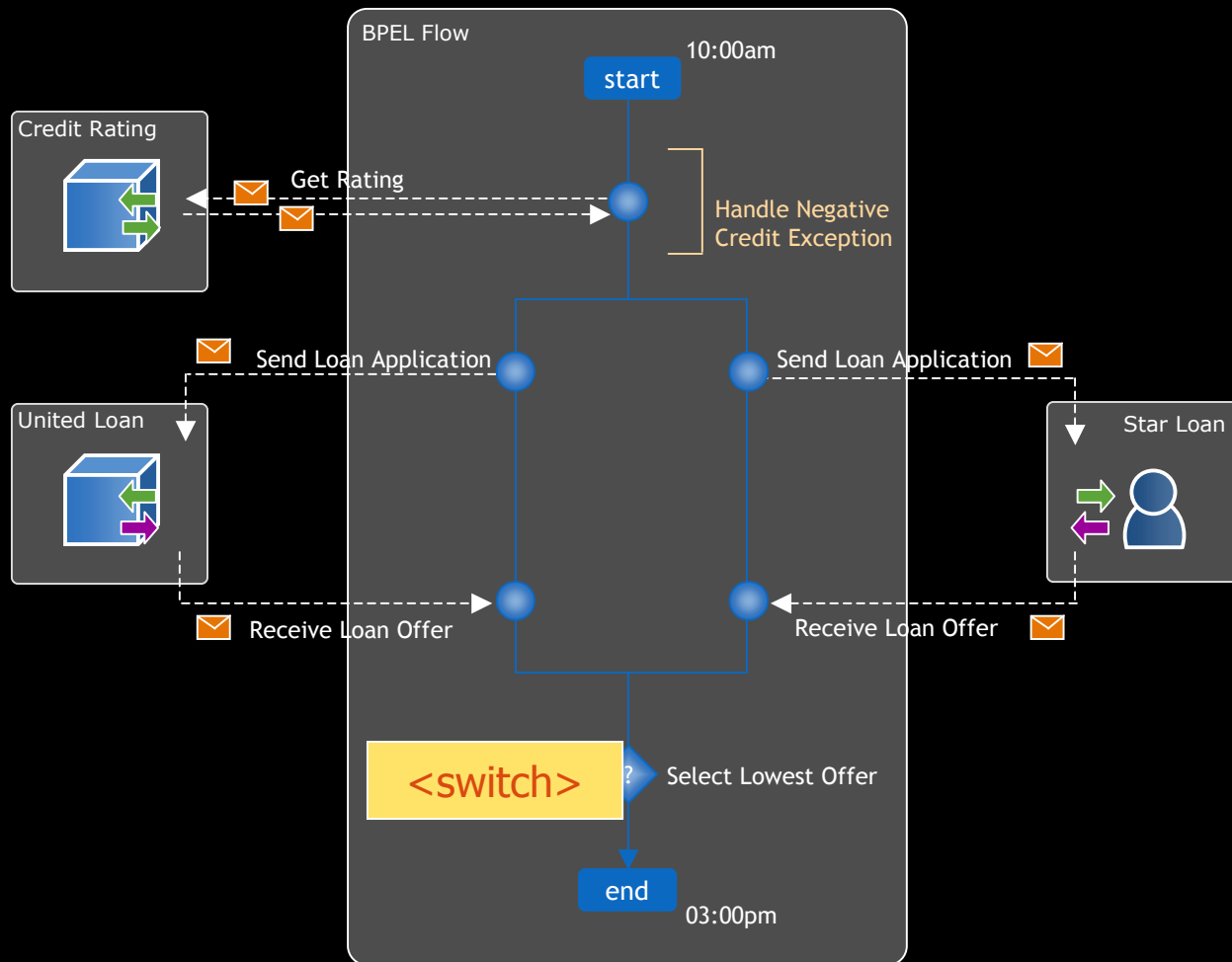
BPEL Concepts – Asynchronous Invocation



BPEL Concepts – Parallel Execution

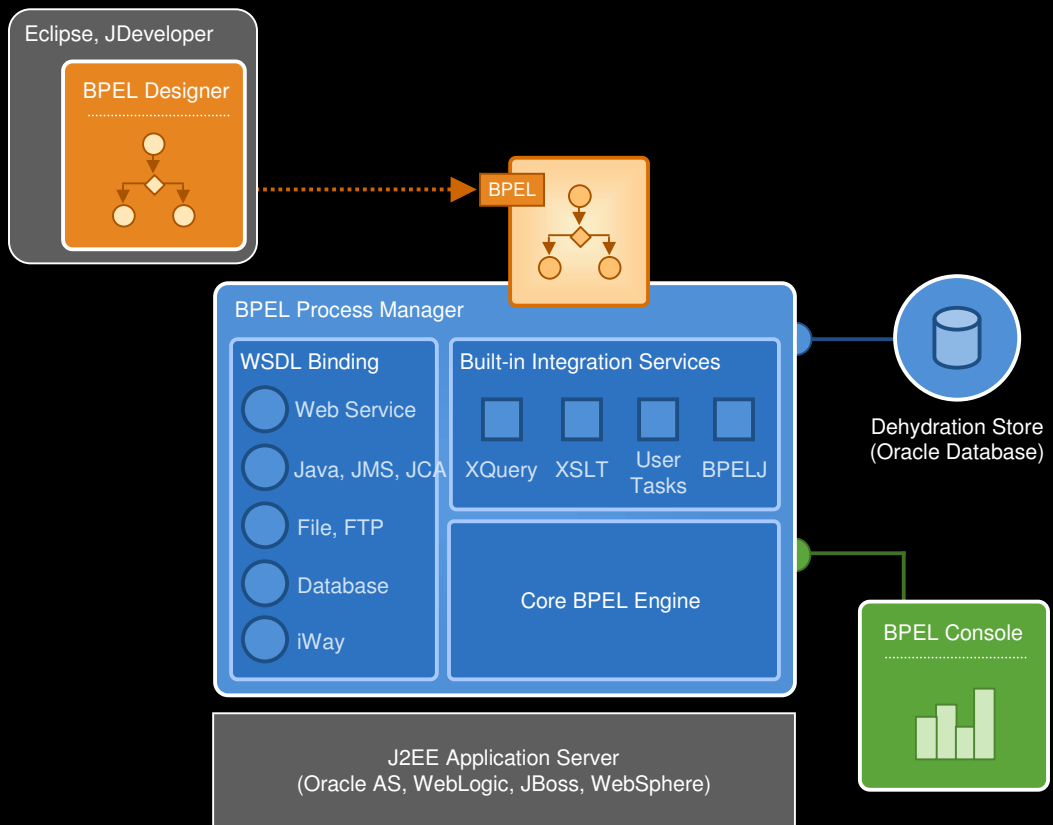


BPEL Concepts – Switch (conditional)



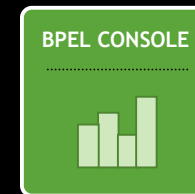
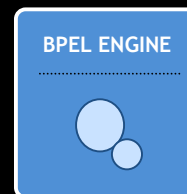
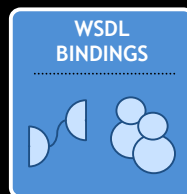
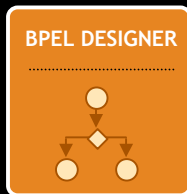
The Oracle BPEL Process Manager

Enterprise-strength infrastructure for designing, deploying and managing BPEL business processes.



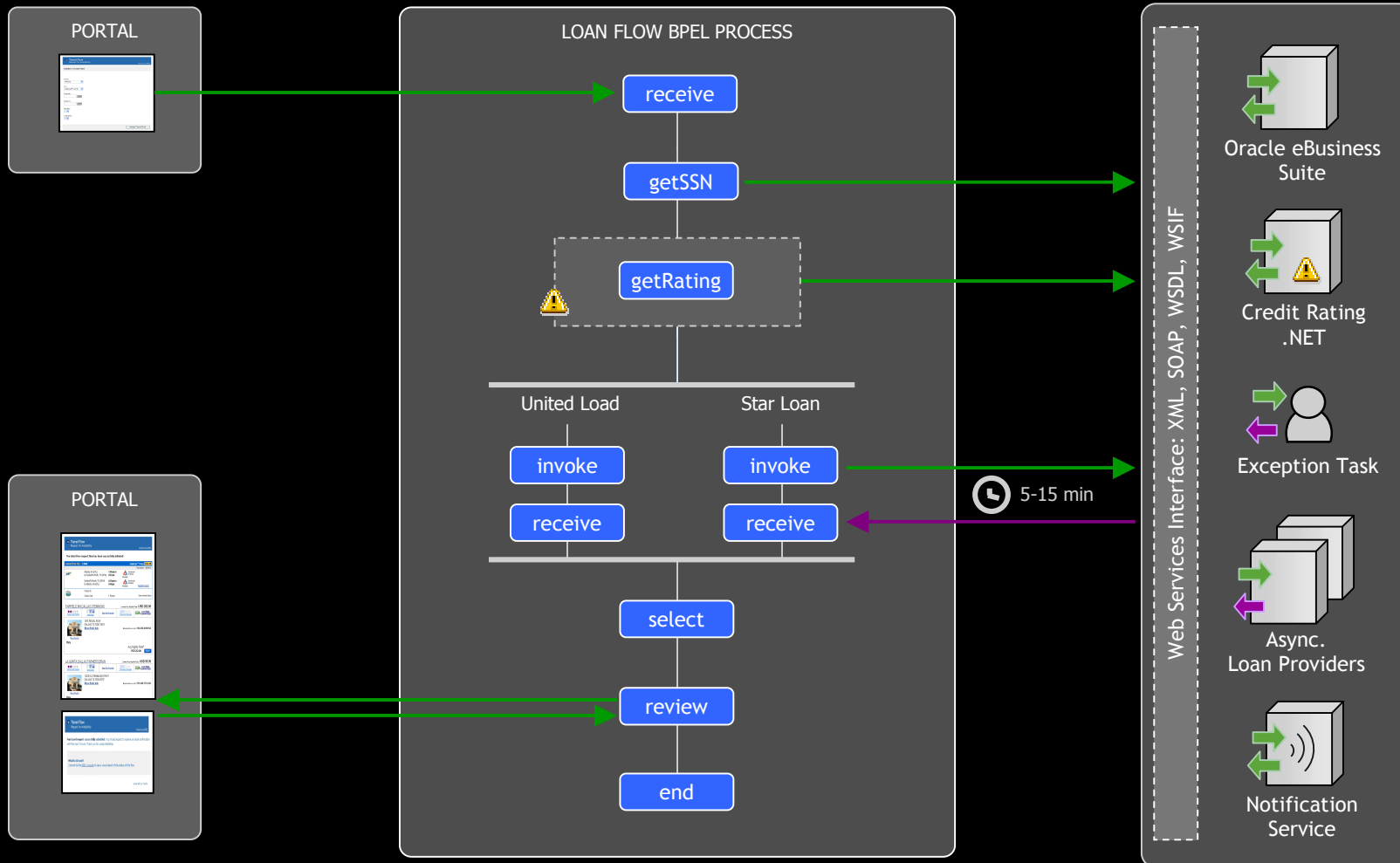
- Comprehensive and native BPEL implementation
- Easy-to-use modeling tool
- Scalable and reliable engine
- Flexible binding framework
- Rich management and monitoring
- Support for Oracle AS, WebLogic and WebSphere
- Get up and running in less than 15 minutes!

Key Features



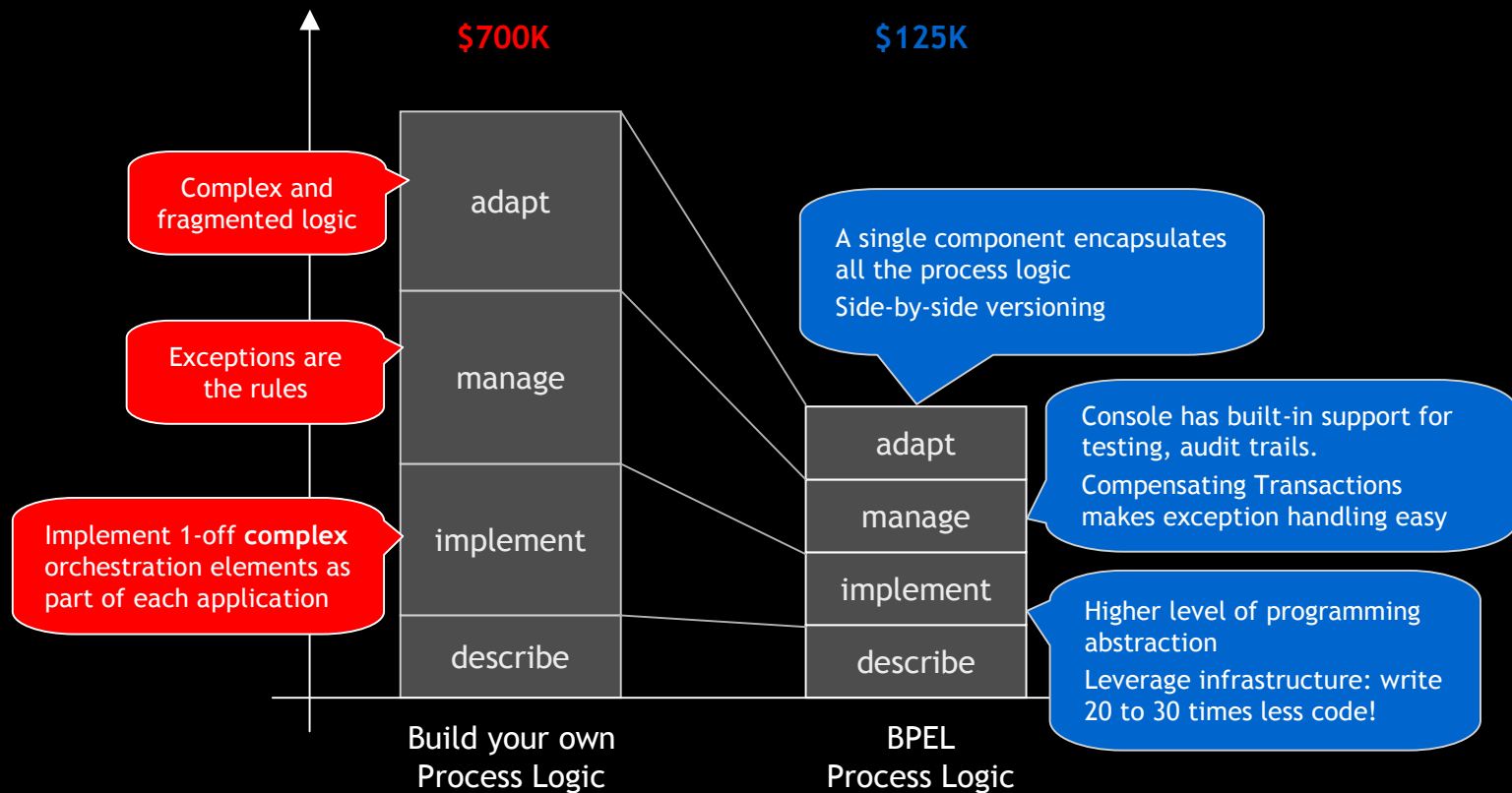
MODELING	CONNECTIVITY	EXECUTION RUN-TIME	MANAGEMENT
<ul style="list-style-type: none">• Comprehensive BPEL 1.1• Visual Modeling Tool• Native Java Embedding• XML Facade• XQuery Transformation• Detailed Error Reporting• Ant-based build and deployment framework• Versioning	<ul style="list-style-type: none">• Bindings to 100+ backend systems (JCA)• JMS Bridge• .NET, Axis, Workshop, Glue, Systinet, interop• User Tasks/Workflow• Email with Attachment	<ul style="list-style-type: none">• Comprehensive BPEL 1.1• Sync. Messaging• Async. Messaging• Context Dehydration• Reliability• Side-by-side versioning• Compensating Transactions• Clustering• Large XML documents	<ul style="list-style-type: none">• Visual Monitoring• Auditing• BPEL Debugging• In-flight Administration• Performance Tuning• Task Management• Partitioning/Domains
BPEL, XQuery, XSLT, WS-ADDRESSING			
Application Server (Oracle, WebLogic, WebSphere, JBoss)			

Loan Flow Demo



BPEL Value Proposition

Reduce the cost and complexity of process integration initiatives



AVAILABLE NOW

Application Server

- Oracle Application Server
- WebLogic Server
- WebSphere
- JBoss

Database

- Oracle Database
- SQL Server
- Oracle Lite

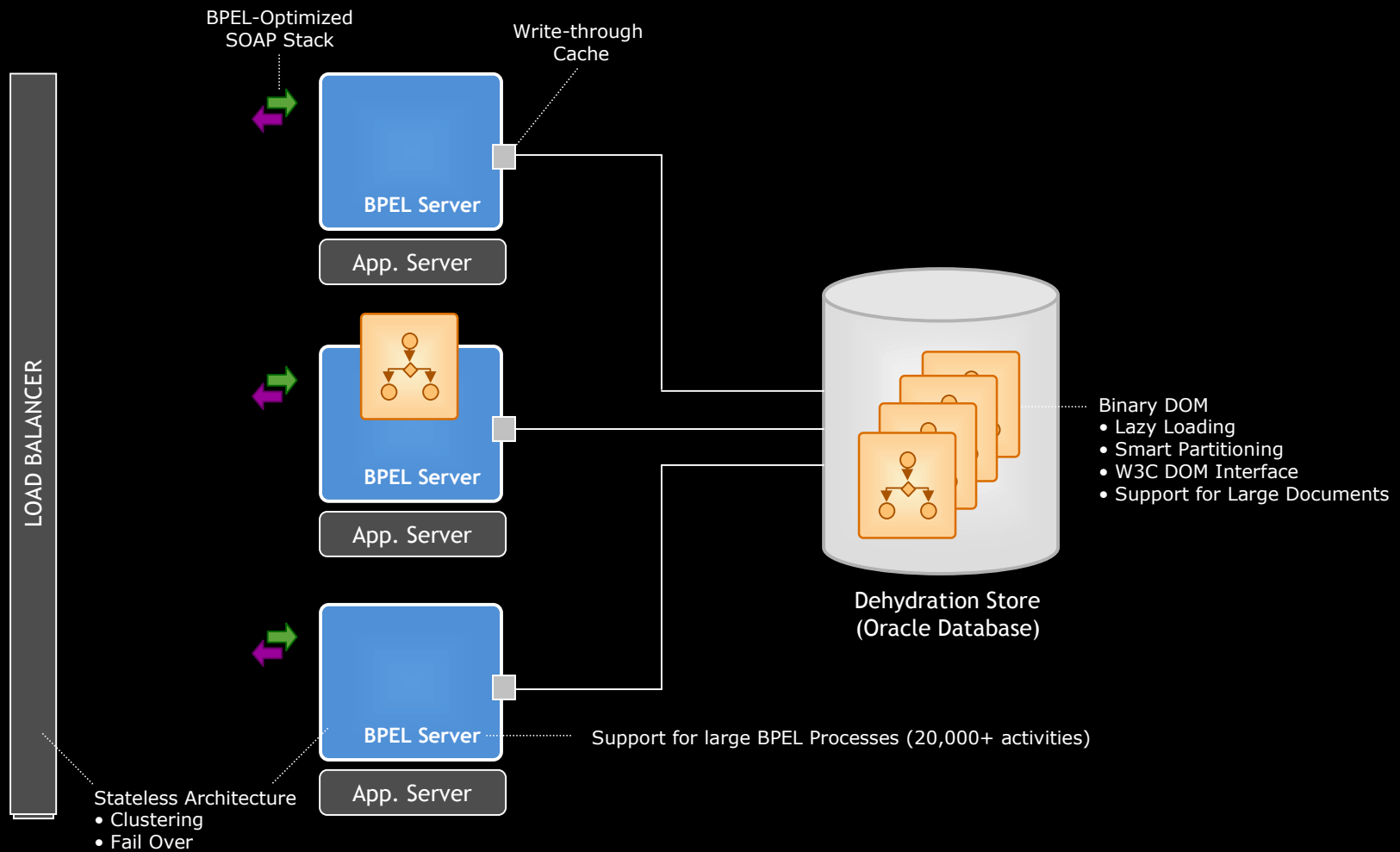
IDE

- JDeveloper
- Eclipse

Operating Systems

- Linux
- Window 2000/XP/2003
- Solaris
- HP UX
- zOS

Designed for Performance



WSIF Bindings

- For more info see: <http://ws.apache.org/wsif/>
- Out of the box support for:
 - Database
 - Files
 - Oracle AQ
 - Java, JCA, JMS
 - HTTP GET/POST
 - InterConnect
- Code examples available with samples in C:\orabpel\samples\tutorials\
- New bindings can be written as needed

Accessing Packaged Applications

- Support for iWay adapters
- Enables 100% standard BPEL processes to integrate with SAP, Peoplesoft, JD Edwards, Mainframe, etc etc.
- Code example integrating SAP BAPI into BPEL process is available
 - (BPEL process dynamically calling a BAPI can be built in 5 minutes during a live demo)

Getting Started

- Identify a process flow
- Determine the list of building blocks that need to be integrated into the process flow
(Web services, ERP/Mainframe, Java, User Task)
- Sketch the flow (Step 1, step2 , etc...)
- Identify exceptions and rules for handling them
- Sketch the user interface (How will this process be initiated?
How will users perform their tasks)
- Run performance tests
- Define dashboard reports

Demonstration

Oracle JDeveloper 10g

BPEL Plugin

SNEAK PREVIEW

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QUESTIONS
ANSWERS

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