

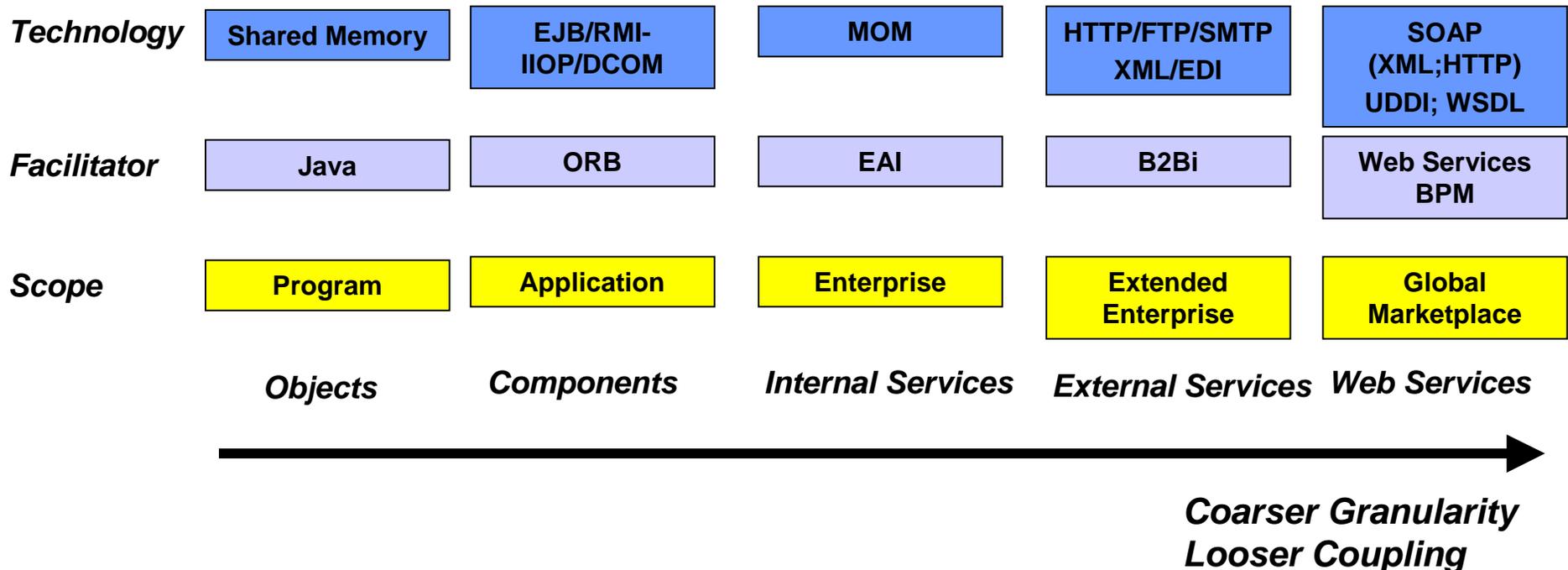
AserA

eBusiness Operating System



# Web Services Are Evolutionary, NOT Revolutionary ...

## *Business Integration Evolution*



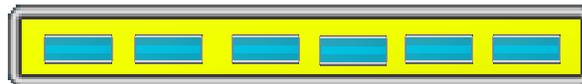
# Web Services: Application Logic Accessible Using Internet Protocols And A New Set Of Evolving Standards

*What are the key standards?*

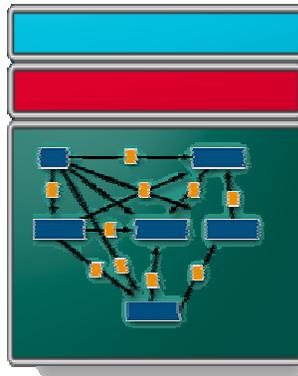
SOAP: set of rules for how to represent data in XML

WSDL: Describes a web services

UDDI: Directory of web services where web services providers to "advertise" their services and users discover web services



UDDI – How to find it



WSDL – How to describe it

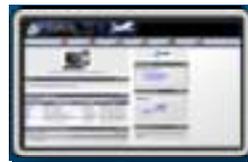
SOAP – How to talk to it

Web Service – application logic

# How Does It Work?



*Bob needs to buy replacement bearings for machining equipment*

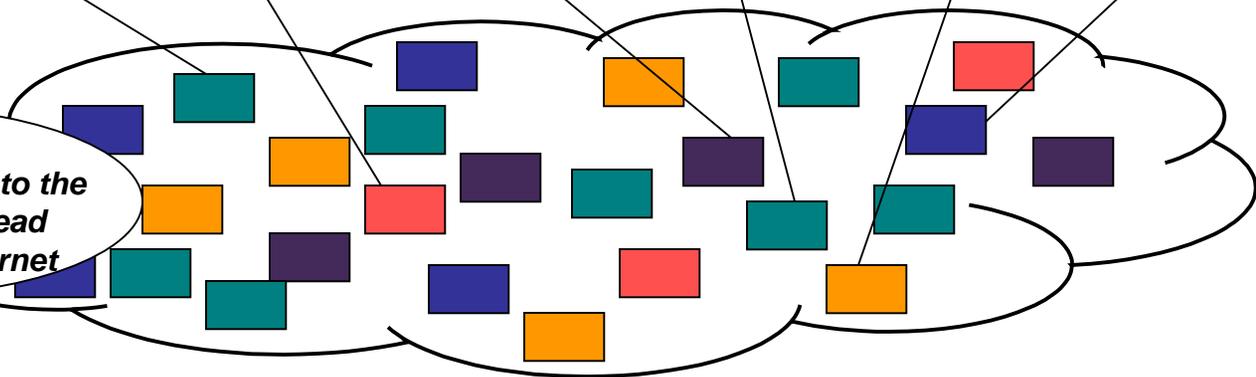


*#3  
Web services are generated through the browser; Bob completes the transaction*

*#2  
Web services needed for the transaction are discovered and assembled*



*#1  
Web services related to the transaction are spread throughout the Internet*



# Is The Web Services Model Technically Feasible?

## Yes!

However, There Are Significant Practical Limitations And Issues  
... Especially In The Enterprise Environment

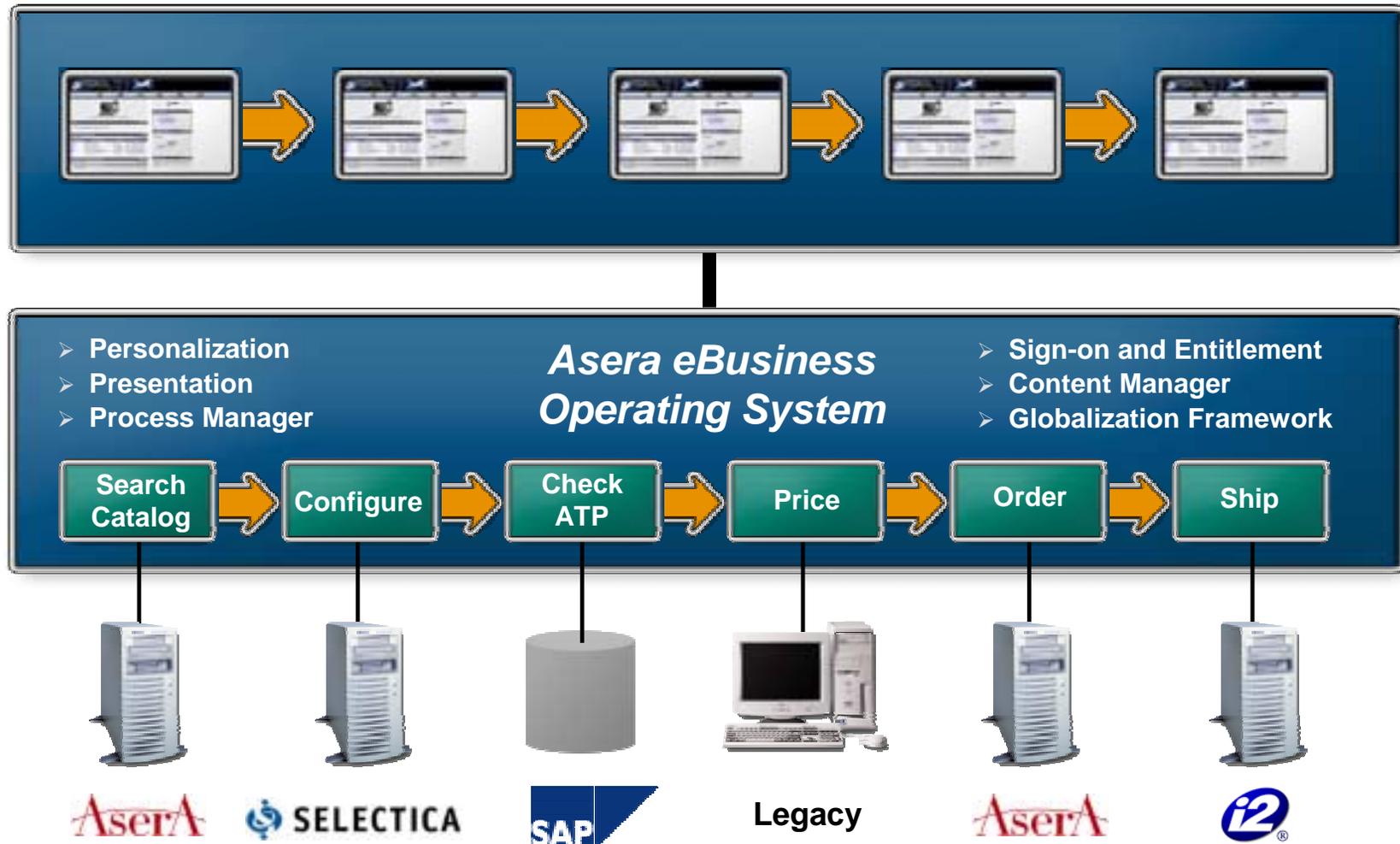
- How does the world of commerce at large move to a loosely coupled web services model?
  - Expose and register web services
  - Integrate web services
- How do enterprises leverage mainframe/legacy systems?
- How do you manage globalization, personalization, and security/entitlement issues?
- How does this relate to existing trading relationship – which drive the majority of enterprise commerce?

**Be Careful Not To Confuse A Set Of Standards With A New Architectural, Operations And Management Environment**

## Asera's Philosophy and Approach to Web Services

- Web Services are a component within the broader theme of *composite applications*, which are user-centric business processes that are built from fusing business processes from a wide range of business applications and data sources
- Web Services implementations are largely reliant on the ability to *efficiently* and *intelligently* wrap business logic from internal/custom applications and back-end application systems
- The Web Services usage model should include support for complex roles and entitlements with capabilities for customization and personalization to each user depending on specific roles and corporate policies

# The Composite Application Model Is Redefining Applications Deployment



## Packaged Enterprise Applications Fall Short Of Today's eBusiness Demands

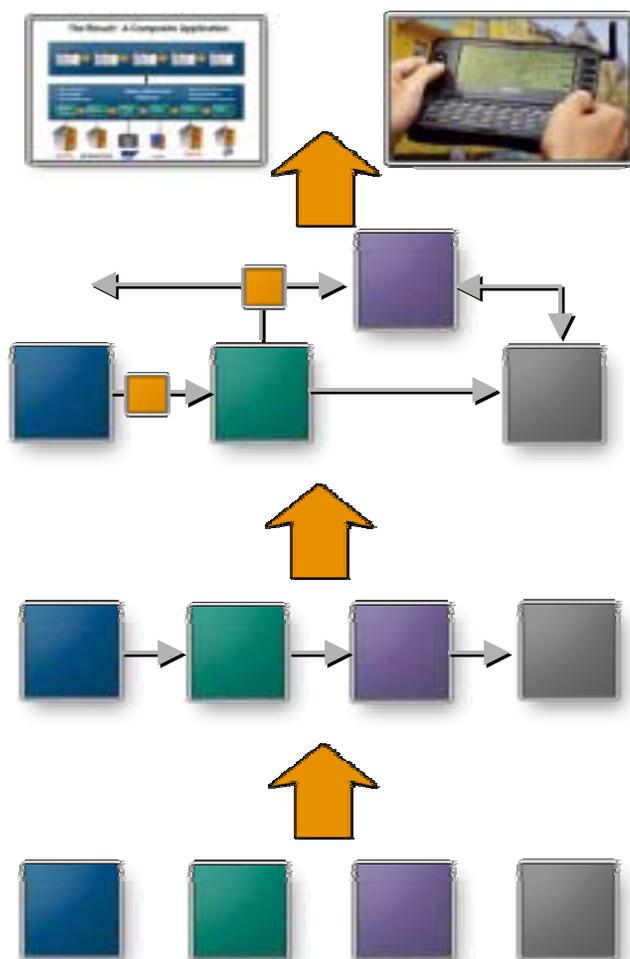
### Traditional/Packaged Apps

- Pre-defined business processes
- Designed for a single enterprise
- Enterprise-centric
- Self-contained
- Intra-application workflow
- Web-enabled
- Data-base driven
- Customized by developers modifying code
- Rigid
- Heavyweight

### Composite Applications

- Configurable business processes
- Designed for collaboration
- User-centric
- Open, interoperable
- Inter-application workflow
- Web-centric
- Information-based (i-base)
- Configured by business analyst changing business processes
- Flexible, adaptable
- Lightweight

# Asera eBusiness Platform Approach



**Portal, Filters, Personalization, Presentation**  
 Final presentation is filtered according to personalization rules, language and device

**Rules / Entitlement**  
 Flow is tailored through entitlement and business rules  
 Security and entitlement run across business process

**Workflow**  
 Business objects deployed via workflow - creates the "composite process"  
 Propagate state in multi-application process

**XML Business Objects**  
 Business objects represent automation of process tasks  
 Powered by Asera, legacy or packaged application logic

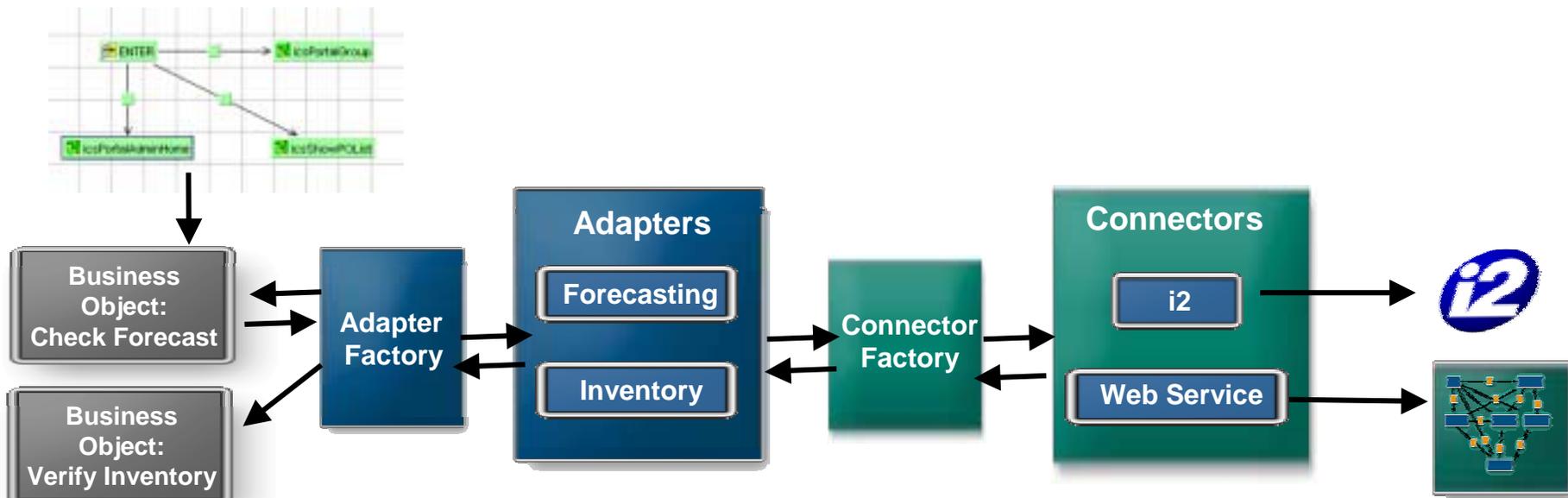
# Adapters & Connectors Allow Composite Applications To Leverage Many Sources

## Adapters

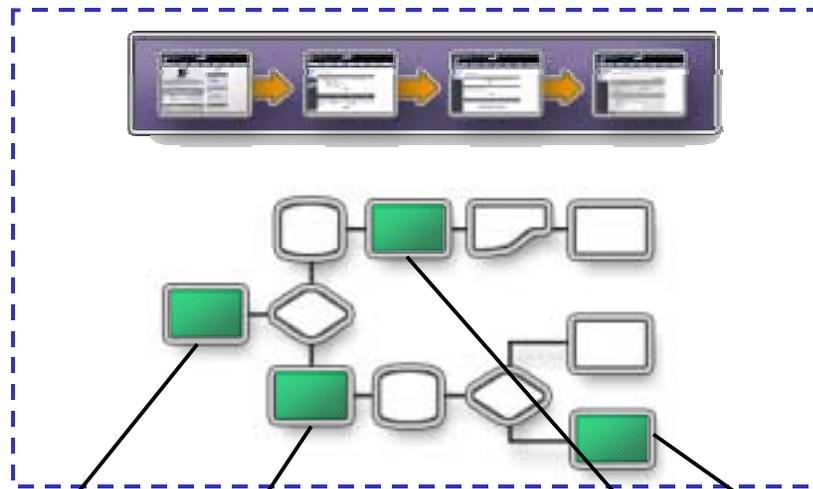
- Provides abstraction between composite application and data source
- "Talks" to different connectors (or multiple connectors)
- Operates synchronous, real-time
- Supports caching and data entitlementment

## Connector

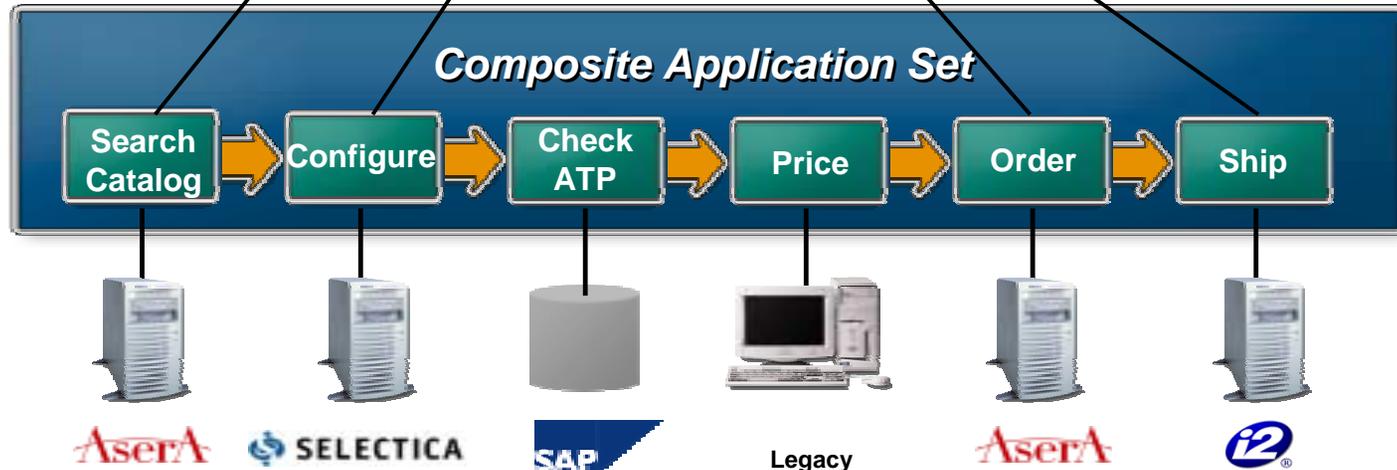
- "Responds" to adapters with information or processing logic
- Facilitates the "swap" of applications to power a given process (e.g, link i2 or Manu for a planning process)
- e.g. enCommerce connector, Moai connector, Manugistics connector



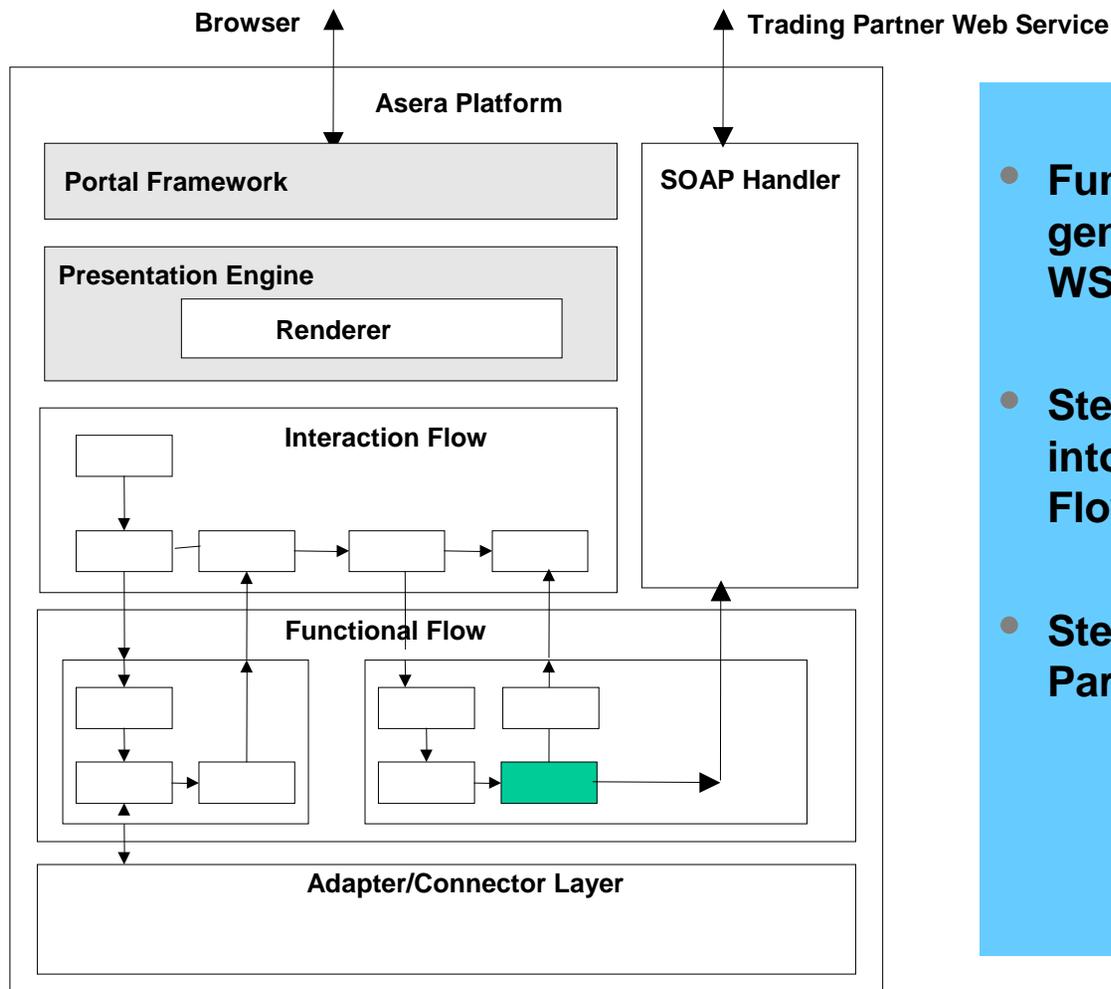
# AserA Provides The Architecture Framework To Build And Expose Web Services



- Key, high-value processes must be exposed as web services to be deeply embedded in partner processes
- AserA platform deeply leverages XML and supports SOAP standards
- Enables enterprises to leverage existing technologies / processes and transforms to web service

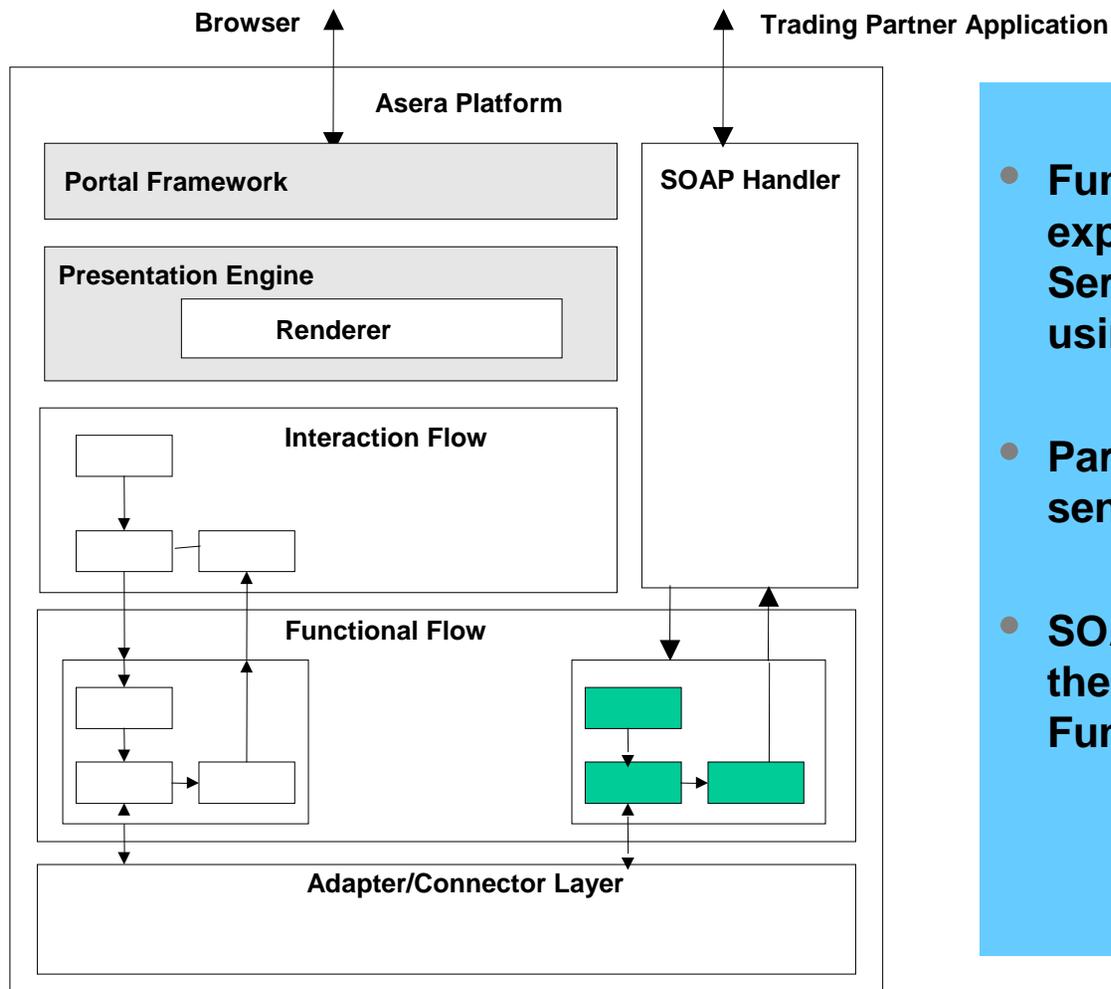


# Invoking Trading Partner Web Service



- **Functional Step is generated from Partner WSDL**
- **Step can be stitched into a local Functional Flow**
- **Step invokes the Partner Web Service**

# Exposing Web Service to Trading Partner



- **Functional Flow can be exposed as a Web Service to Partner using WSDL**
- **Partner Application sends SOAP request**
- **SOAP Handler binds the SOAP request to Functional Flow**

## **Asera Provides A Robust Platform for Web Services**

- **A development environment to *create* Web Services**
  - Tool support to generate WSDL from Asera workflow
  - Tool support to distribute WSDL to partners (private Web services)
  - Tool support to publish Web Service to UDDI repository (future)
- **A run-time environment to *deploy* Web Services**
  - SOAP handler to bind incoming SOAP requests to Asera business processes
  - Web Service mapping to transform incoming XML formats to Asera BO format
  - Security mechanisms for authenticating incoming requests
    - Login Web Service
    - UID/password as special header elements
    - Digital Signatures

## Asera Also Provides A Consumer Platform for Web Services

- A consumer environment to *invoke* Web services
  - Tool support to generate client-side Java stub from WSDL
  - APIs to add security to outgoing SOAP messages
  - SOAP handler to invoke external Web Services
  - Discovery of Web Services through a UDDI registry (Future)
- A consumer environment to *assemble and present* Web services
  - Business Process and Integration frameworks to bind to both internal and external Web services and fuse them intelligently
  - Robust presentation and application delivery frameworks to deliver user experiences

AserA

eBusiness Operating System

