



**WebSphere** software

## Implementing composite business services within the SOA life cycle using WebSphere Business Services Fabric

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## Agenda

- Business Services, Composite Business Services
- WebSphere Business Services Fabric
  - Motivations
  - Product Architecture
  - Dynamic assembly of business processes
- Questions

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## Concepts – CBS / Business Services

### Composite Business Services (CBS)



#### **Composite Business Services definition:**

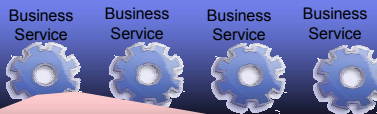
Composite business services are **collections of business services** that work together, along with a client's existing applications, to **provide a specific business solution**.

#### **Business Services definition:**

A Business Service is a **discrete business function** whose execution can be **adapted** at runtime based on **business policy and user context**.

## Concepts – CBS / Business Services

### Composite Business Services (CBS)



User Context



#### **Business Services**

- One or more services
- Business policies or metadata
- Reference business models
- Execution can be adapted at runtime

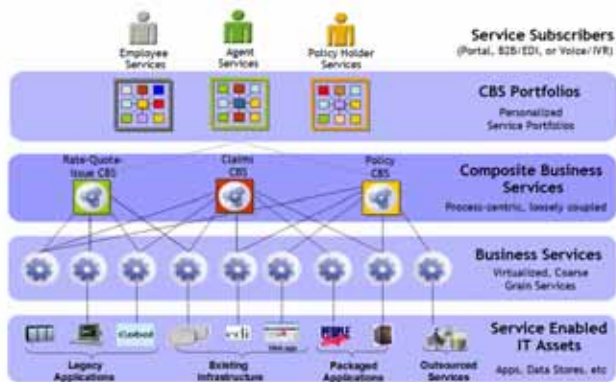
## What are Composite Business Services?

### **Composite Business Services definition:**

Composite business services are collections of business services that work together, along with a client's existing applications, to provide a specific business solution.

### **Why CBS?**

- More flexible, composite solutions at lower cost and effort
- Greater reuse of IT assets
- Faster solution time-to-market
- Incremental solution approach that lowers risk



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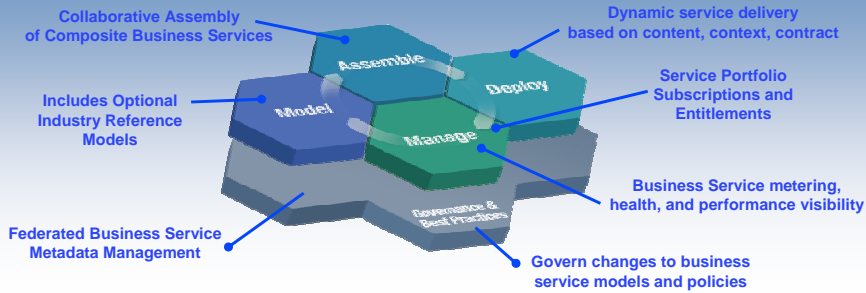
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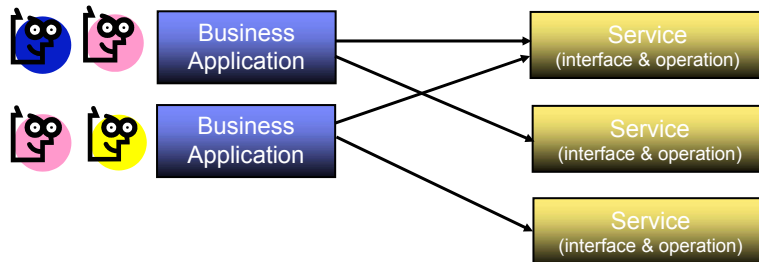
## WebSphere Business Services Fabric - What is it?

- End-to-end SOA platform for composite business services
- Provides modeling, assembly, deployment, management, and governance of business services
- Includes optional Industry Content Packs with industry reference models and pre-built SOA assets
- Includes WebSphere Process Server and WebSphere Integration Developer

*Fabric provides an end-to-end platform for composite business services:*



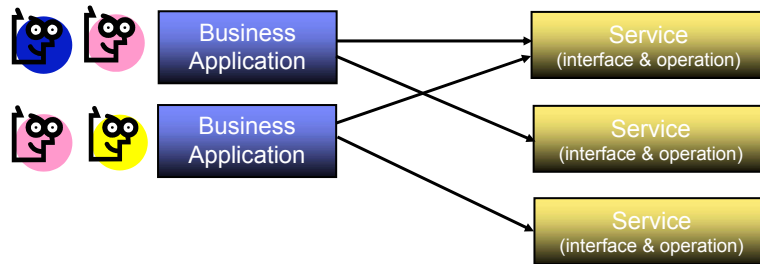
## Challenges



### Goals:

- Business Flexibility and Agility
- Business and IT Alignment
- Business Innovation

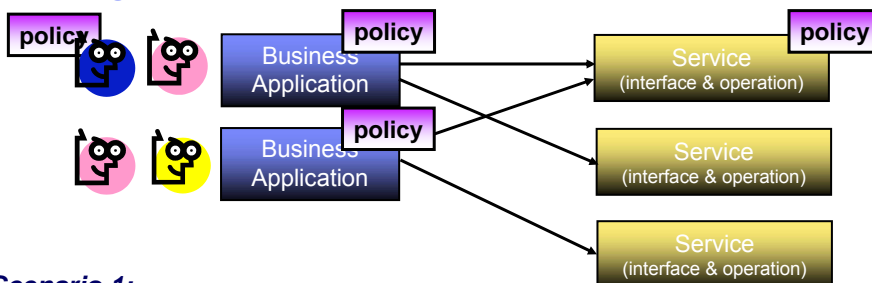
## Challenges



### Typical Scenario:

- Various business applications built leveraging services.
- Appears to allow re-use and flexible
- Each application supports varying user communities

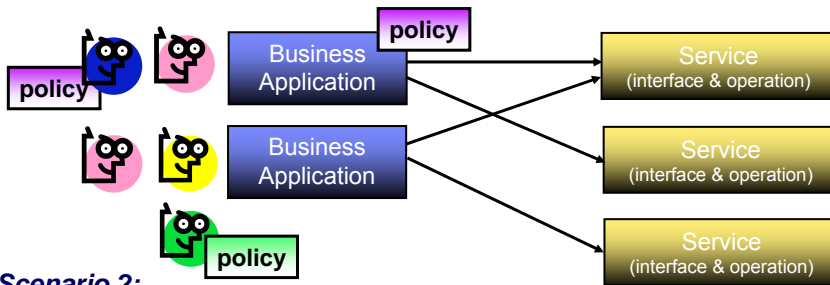
## Challenges



### Scenario 1:

- How can we support business directives, i.e. policies? E.g. Use service 1 when customer is blue. Use service 2 when customer is yellow.
- Should we put the policies in the business applications or in the services?
- How can we associate these policies with the users or with the services or the business applications?

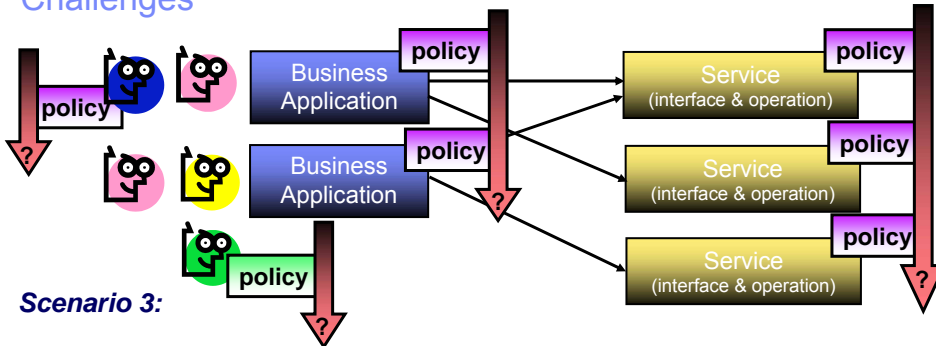
## Challenges



### Scenario 2:

- How agile is this model? I.e. Can we specify a policy that give blue users priority over yellow users?
- What if I want to change a policy, do I have to redeploy the business application?
- What if I want to add a new policy for green users? How fast and easy can that be added?

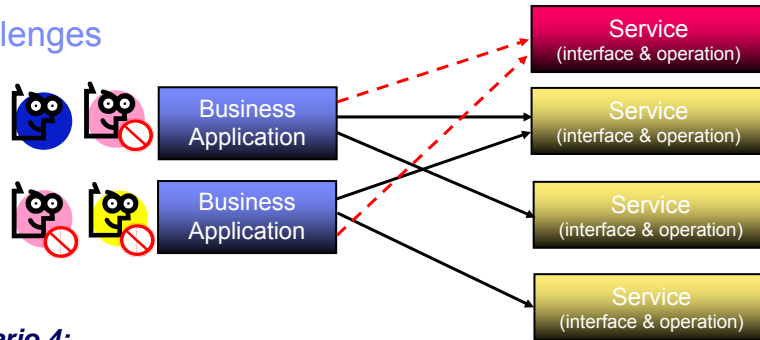
## Challenges



### Scenario 3:

- What if the business wants to change all the policies in the organization?
- How can business directive be constructed to match business requirements that can be applied and managed across the users, applications and services?
- Perhaps this is not as flexible as we thought.

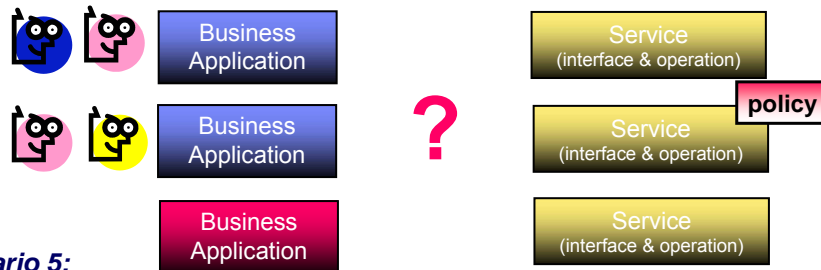
## Challenges



### Scenario 4:

- A new service is available, how can we incorporate it into the business application?
- Do I have to modify each business application?
- What if only blue users can access the service for now and the red and yellow users will have access later? How do we manage that, do I have to change the applications later when we want to grant them access?

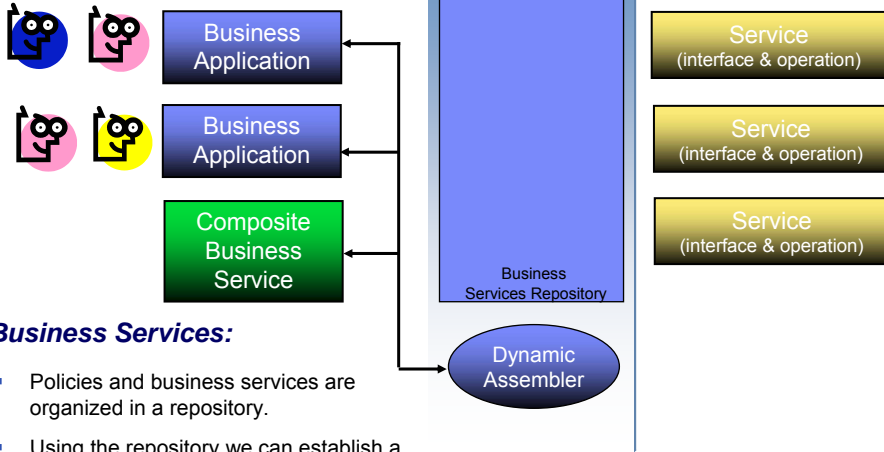
## Challenges



### Scenario 5:

- We want to build a new application. Before we build this we need to understand the current load on all the services. What application use them? Who use them? Will we overload one of the services?
- We will also need to change some existing policies to take the new application into consideration. What policies are in effect? What happen if we change/add a policy?

# Business Services

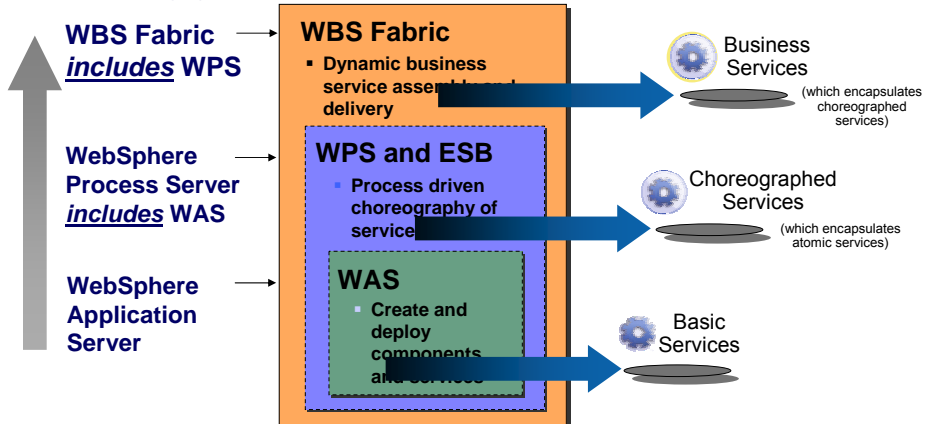


### Business Services:

- Policies and business services are organized in a repository.
- Using the repository we can establish a run time and design time architecture that meets the Business and IT Challenges.

# WBS Fabric support these needs with a cumulative product packaging approach

### Product Packaging:





## WebSphere Business Services Fabric Product Packaging

*Integrated product offering incorporating SOA Foundation products*

### Business Services

#### Industry Content Packs

- Industry Specific business models and common services
  - IBM Healthcare Payer Pack
  - IBM Insurance P&C Pack (Includes IAA Reference Models)
  - Other Industry Packs

#### Business Services Tools Pack

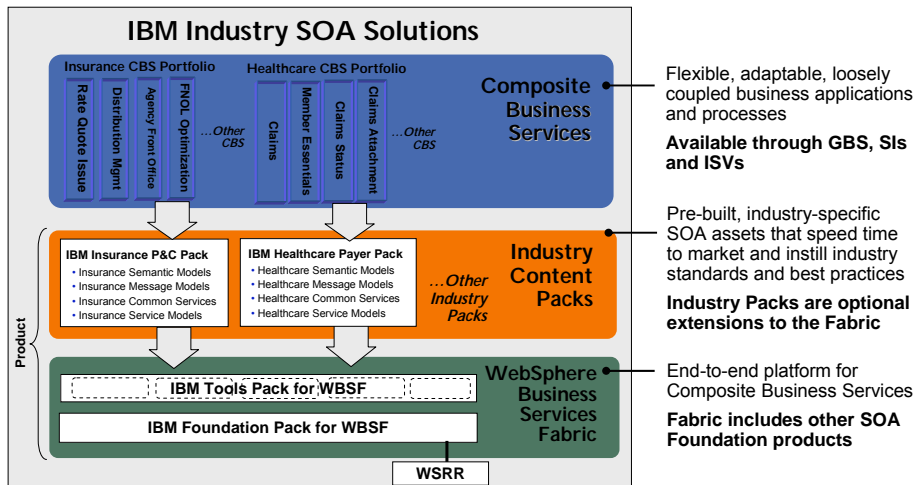
- **WebSphere Integration Developer** - orchestrate processes and construct mediations
- **Composition Studio** - Visual modeling and management of business services metadata models and policies

#### Business Services Foundation Pack

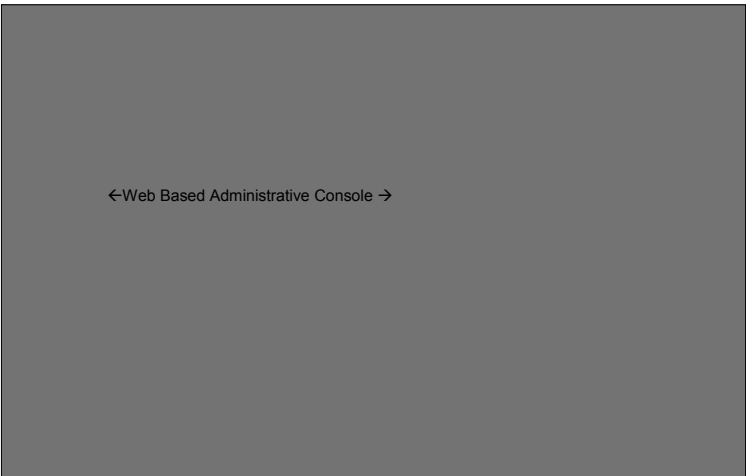
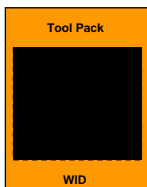
- **WebSphere Process Server** – Integration and automation of enterprise business processes
- **Dynamic Assembler** - Highly scalable, service personalization and semantic services engine
- **Business Services Repository** - Maintains business service metadata leveraging WebSphere Services Registry and Repository
- **Subscriber Manager** - Controls and automates entitlements
- **Performance Manager** - Provides visibility and monitoring
- **Governance Manager** - Govern the changes of meta-data in the Business Services Repository

## Fabric Solution Architecture and Product Packaging

*A Closer Look at the Components in an Industry SOA Solution*

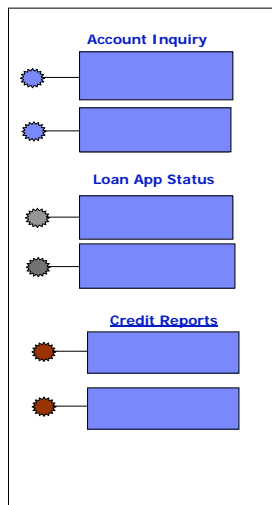


## Anatomy of a Fabric Instance



## Dynamic Assembly of Business Services

### Service Endpoints




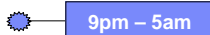
# Dynamic Assembly of Business Services

### Consumers



-   
Branch
-   
CSR
-   
Customer
-   
Branch
-   
Branch

### Service Endpoints



**Account Inquiry**

-  5am – 9pm
-  9pm – 5am

**Loan App Status**

-  Type = Auto
-  Type = Home

**Credit Reports**






-  < 30 Seconds  
< \$5.00
-  < 90 Seconds  
< \$1.00

# Dynamic Assembly of Business Services

### Consumers



-   
Branch
-   
CSR
-   
Customer
-   
Branch
-   
Branch

### Channels



- 
- 
- 
- 
- 

### Service Endpoints



**Account Inquiry**

-  5am – 9pm
-  9pm – 5am

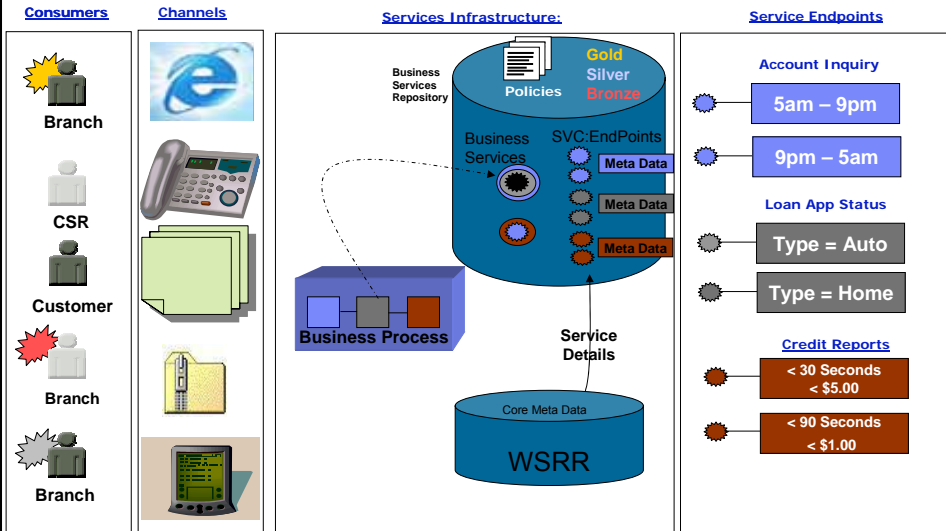
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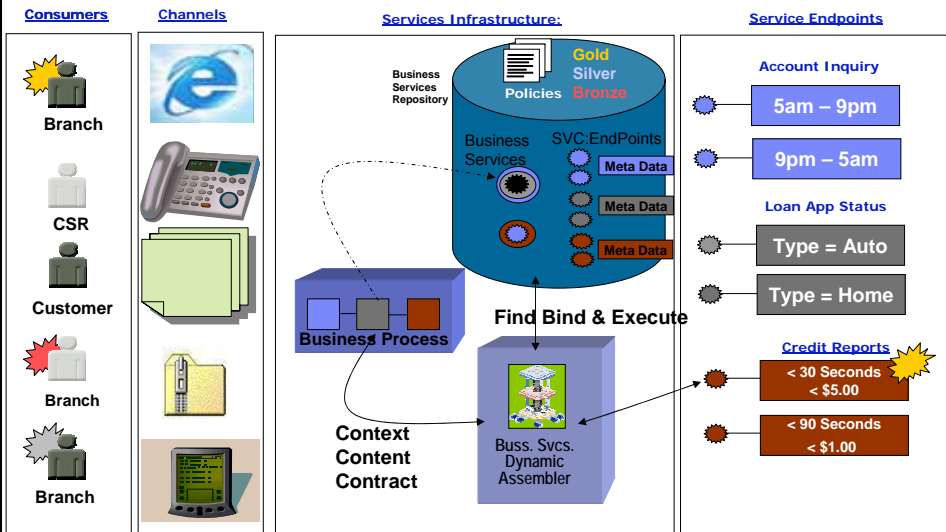
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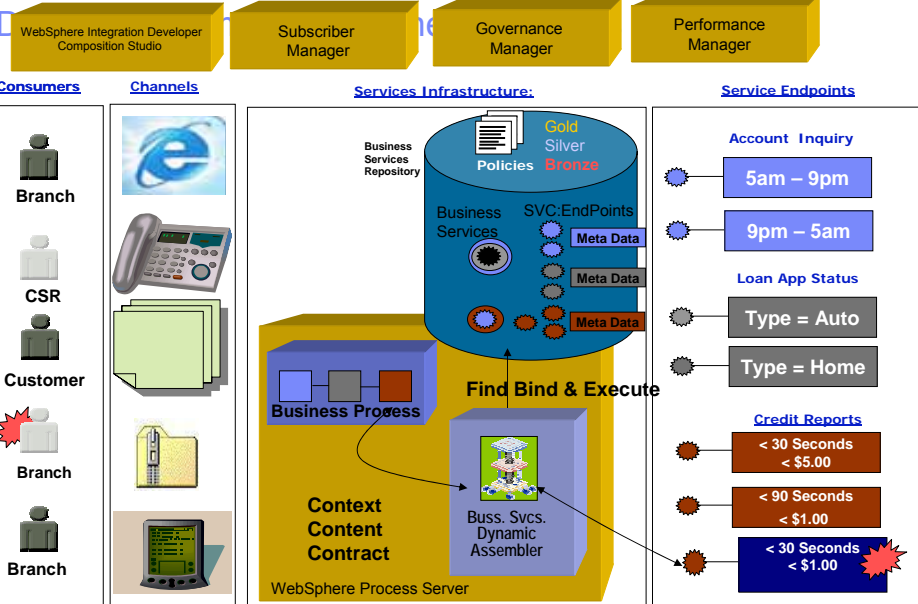
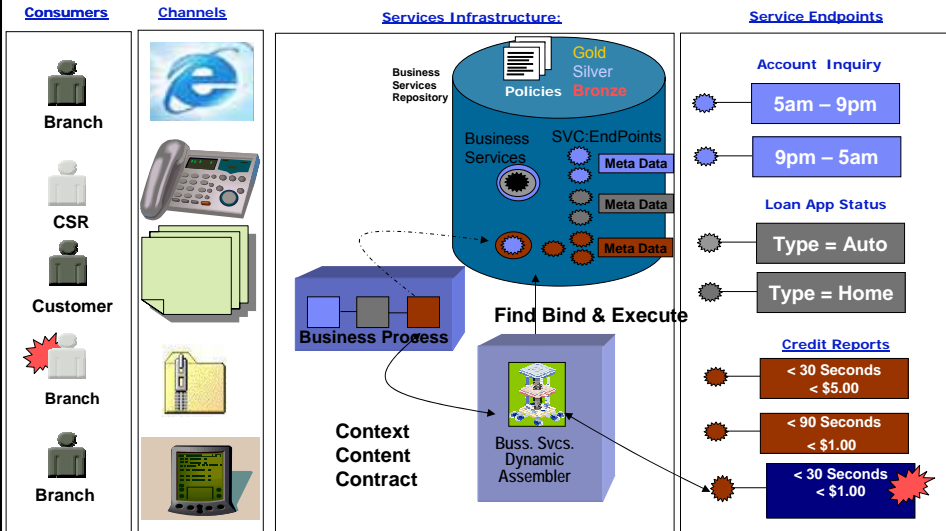
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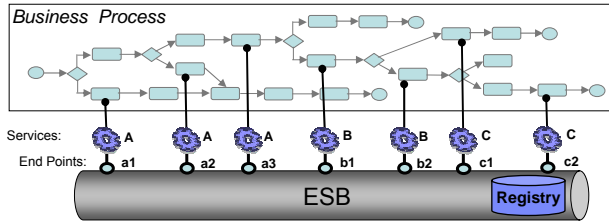
# Dynamic Assembly of Business Services



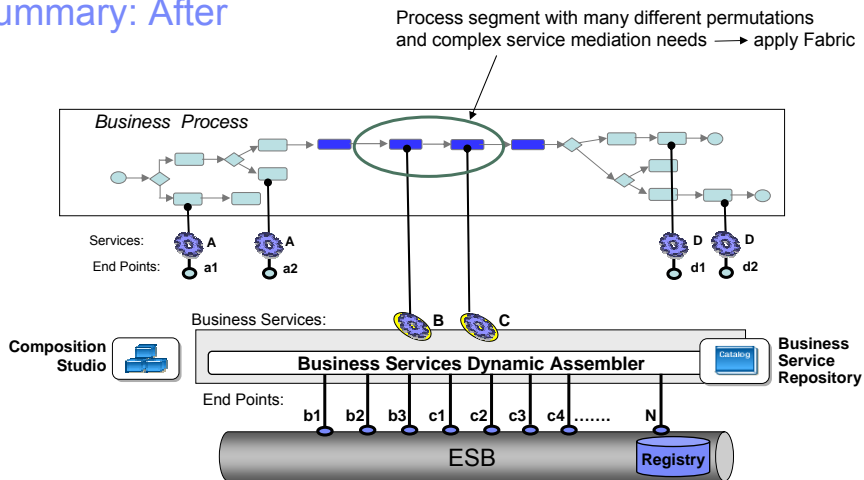
# Dynamic Assembly of Business Services



# Summary: Before



# Summary: After

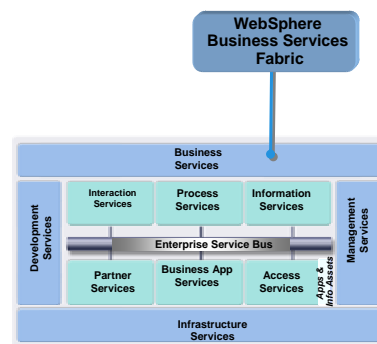


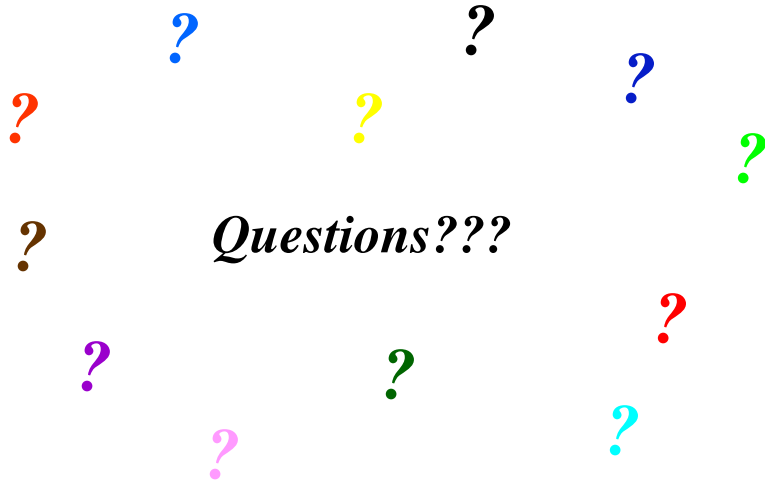
## Summary: WebSphere Business Services Fabric

- Builds on IBM's SOA Foundation technologies including WebSphere Process Server, WebSphere Integration Developer, and WebSphere Service Registry and Repository to provide an end-to-end SOA platform to build Composite Business Services
- Enables you to add business context to services and service compositions, converting them into business services
- Enables you to assemble related business services into Composite Business Services and control their behavior at runtime with policies (dynamic assembly)
- Enables you to manage and provision portfolios of Composite Business Services to multiple channels and roles
- Includes industry content packs with pre-built SOA assets to accelerate delivery of SOA solutions

## Summary: WebSphere Business Services Fabric... *End-to-End Platform for Industry SOA Solutions*

- End-to-end SOA platform for composite business services
- Provides modeling, assembly, deployment, management, and governance of business services
- Includes optional Industry content packs with industry reference models and pre-built SOA assets
- Includes WebSphere Process Server and WebSphere Integration Developer





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