# Web Services - Conceptualisation to Design

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Principal Consultant

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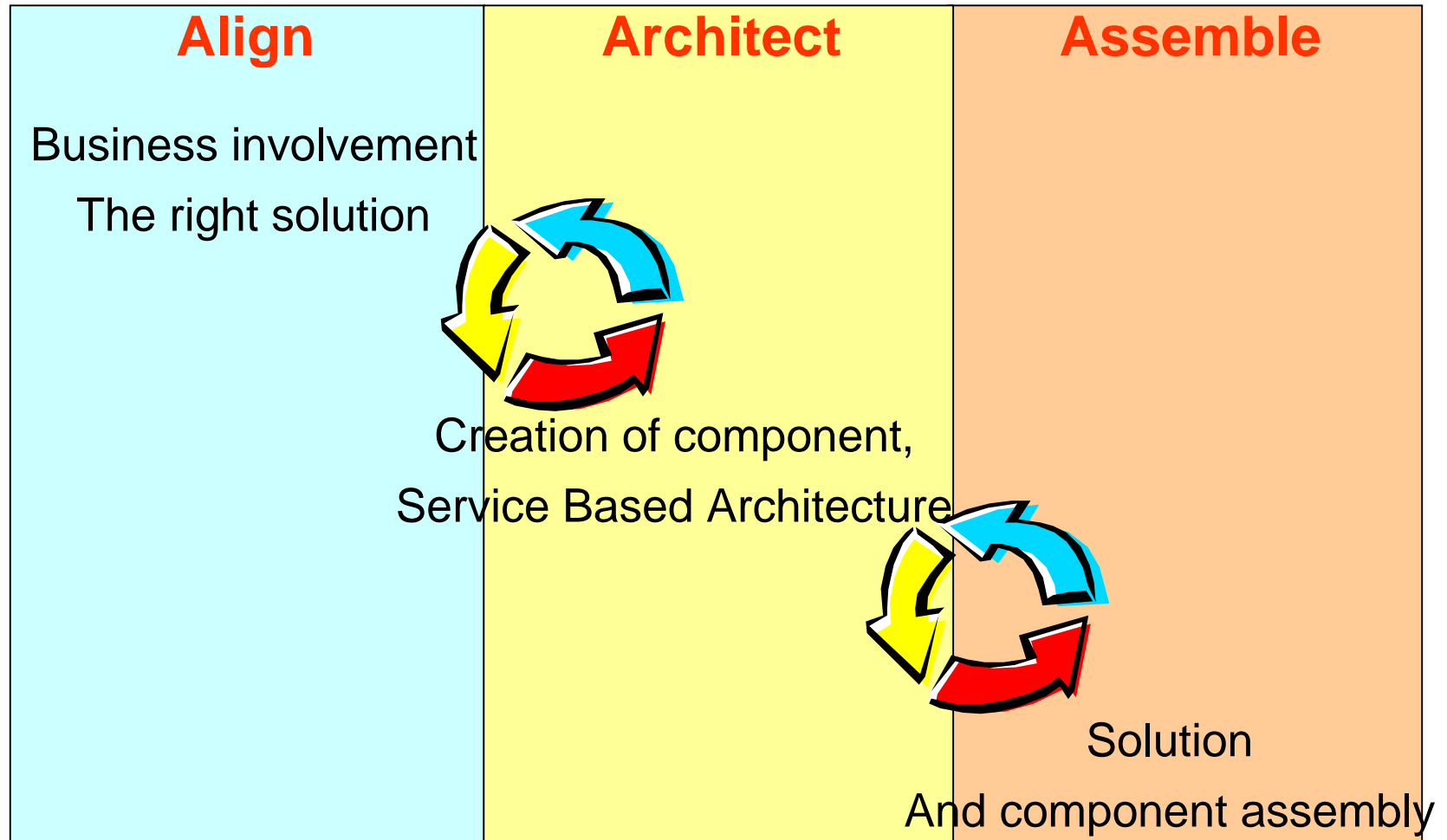BUSINESS SOLUTIONS

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# Agenda

- Process – Select Perspective
- Supply-Manage-Consume
- Understanding the Business
- Understanding the Requirements
- Identifying Business Services
- Identifying Web Services
- The Provisioning Architecture
- Web Services Provisioning
- Wrapping Web Services

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# Select Perspective

| Align | Architect | Assemble |
|---|---|---|
| Business involvement | | |
| The right solution | | |
| | Creation of component, | |
| | Service Based Architecture | |
| | | Solution |
| | | And component assembly |

# Supply-Manage-Consume

**SELECT**
PERSPECTIVE

**Business Needs** →

**SUPPLIERS**

**CONSUMERS**

Service Requests

**Business Alignment**

**Business Architecture**

**MANAGE**

**Data Architecture**

**Increment Planning**

**Technical Architecture**

**Component Management**

**Solution Delivery**

**Component Delivery**

**Solution Rollout**

Components

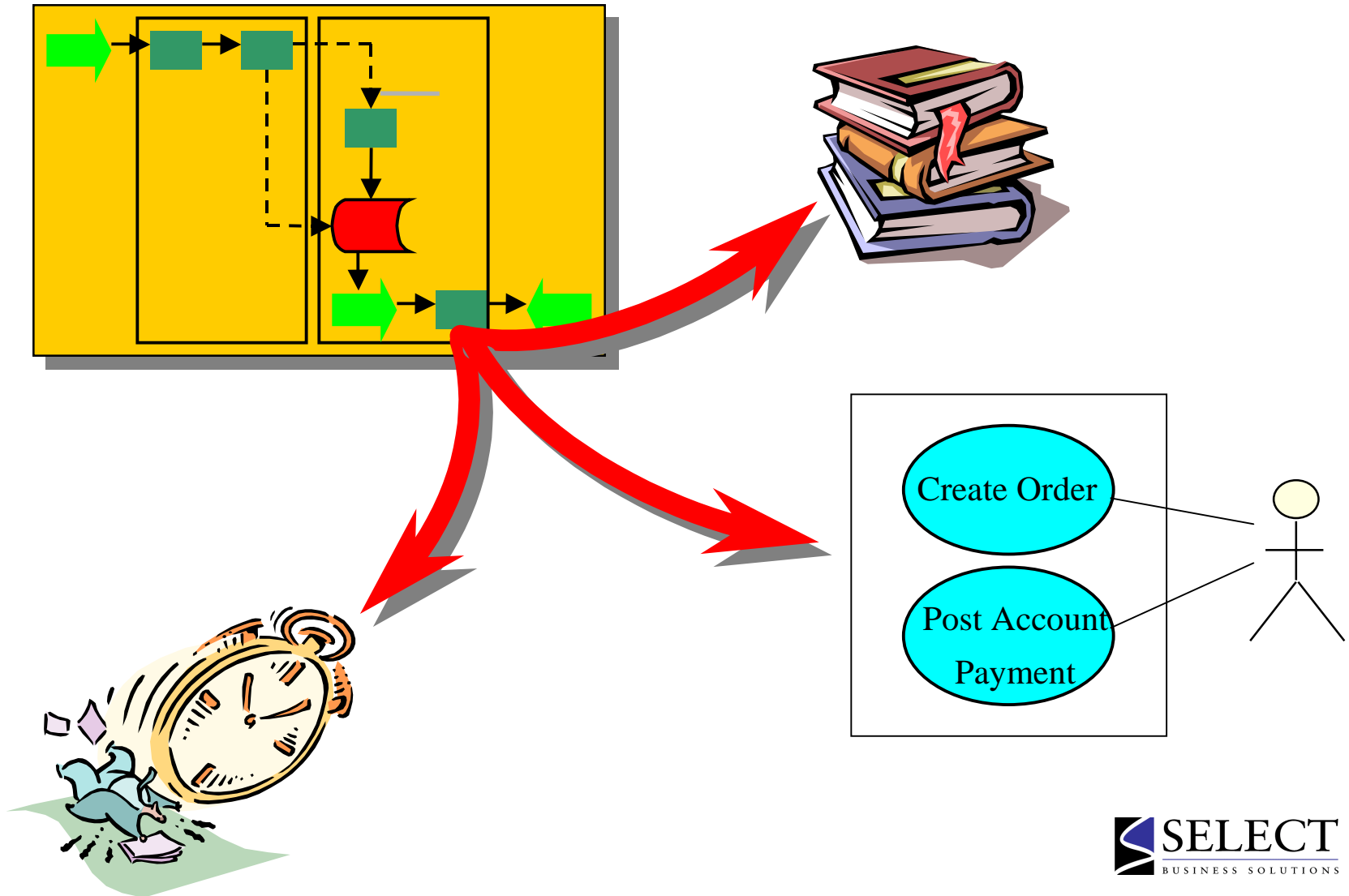**Business Solutions** →

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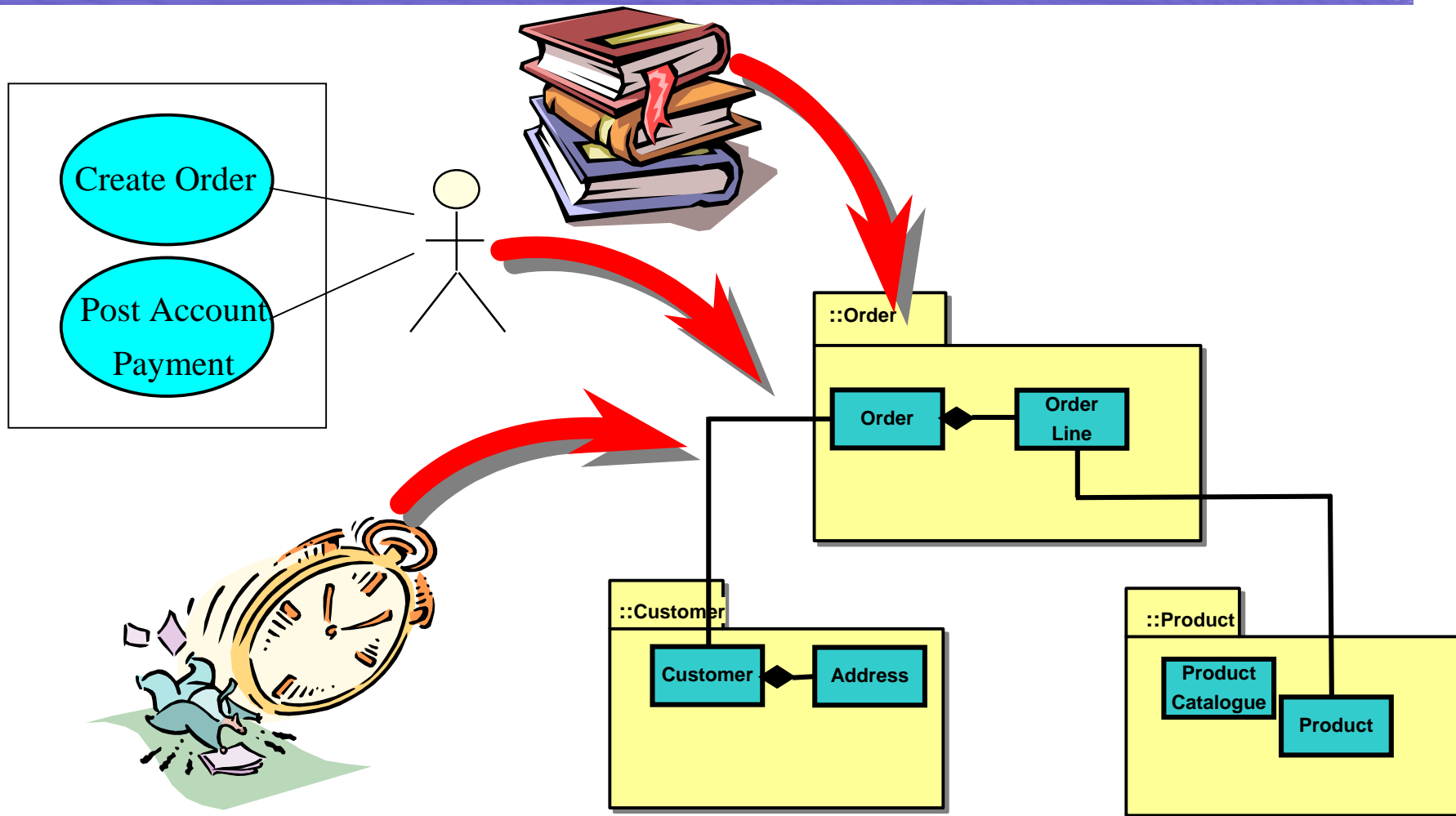BUSINESS SOLUTIONS
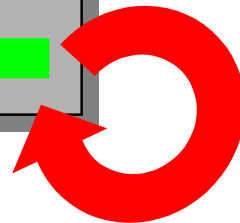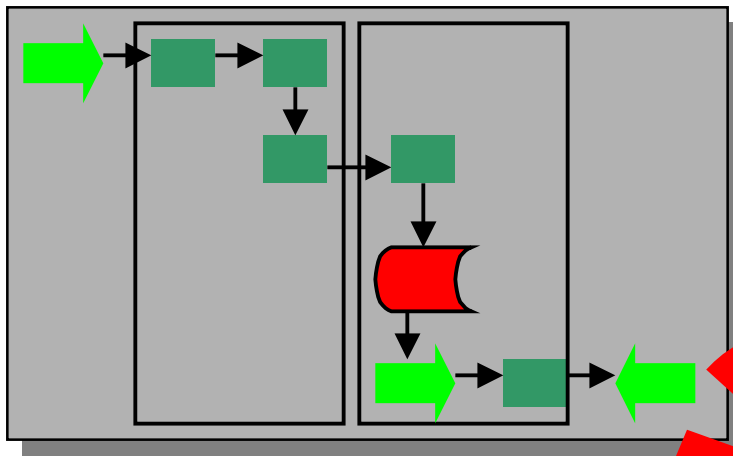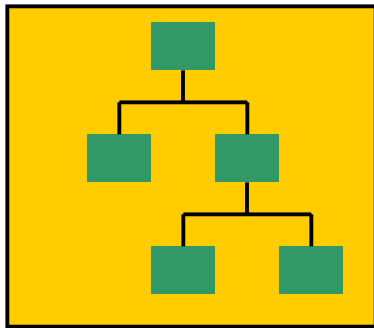
# Understanding the Business - BPM



- Common language for understanding the business domain
- Support for business change
- Identification of solution requirements
- Trace through to IT solutions
- Scope the boundary of IT solutions
- Prioritise solution requirements
- Expression of abstract service needs e.g. BPML or Biztalk

Business Change

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# Understanding Requirements – Use Cases and...

Create Order

Post Account Payment

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# Business Architecture

Create Order

Post Account Payment

::Order

Order

Order Line

::Customer

Customer

Address

::Product

Product Catalogue

Product

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# Identifying Business Services - Interactions
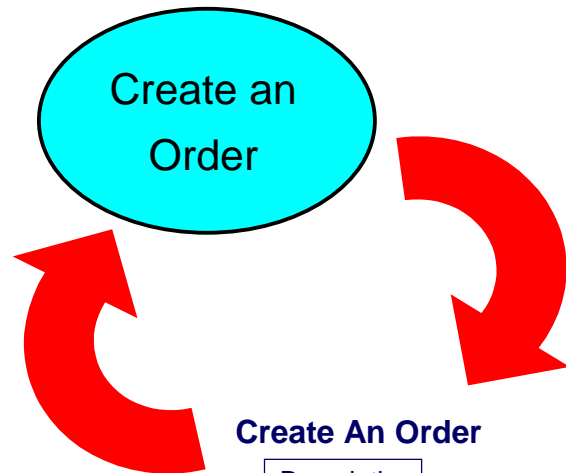
Create an Order

Provisioning

**Create An Order**

Description

For Each Line in the Order
  Retrieve Product Information
  Confirm Availability
  If Product Available
    Add to Order
  End If
End For
Confirm the Order
Debit Customer's Account

| «interface» :IProduct | «interface» :IStock | «interface» :IOrder | «interface» :ICustomer |
|---|---|---|---|

GetProductDetails

IsAvailable

AddProduct

ConfirmOrder

DebitAccount

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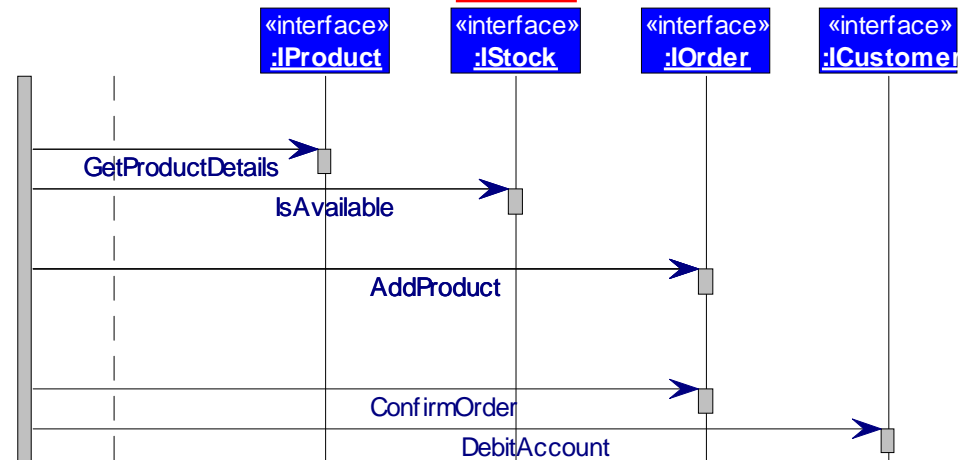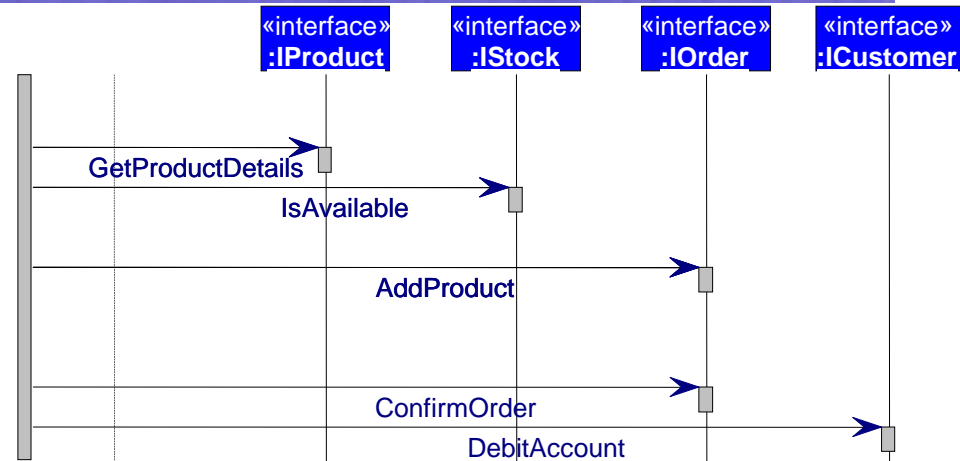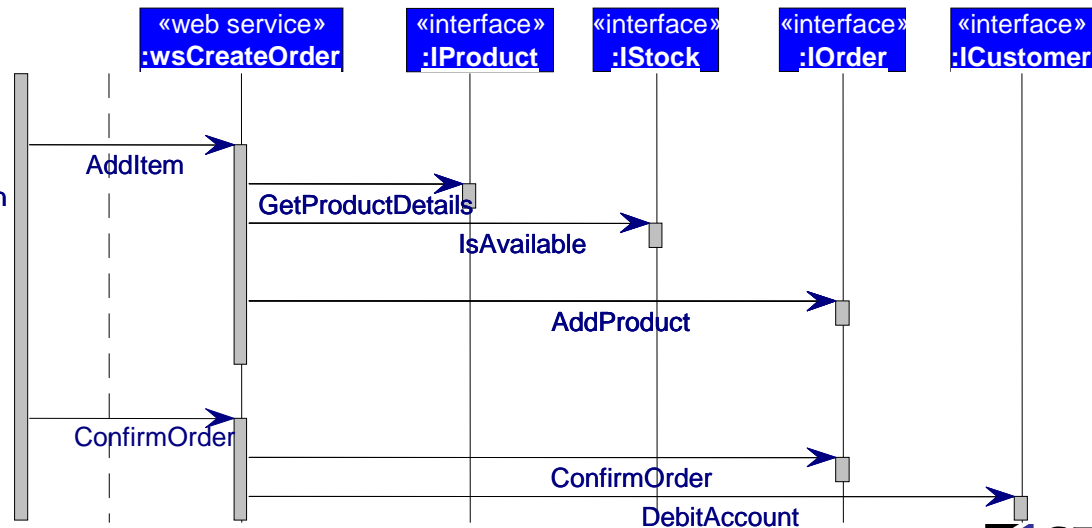
# Identifying Web Services

## Create An Order

Description

For Each Line in the Order
- Retrieve Product Information
- Confirm Availability
  - If Product Available
    - Add to Order
  - End If
- End For
- Confirm the Order
- Debit Customer's Account

«interface» **:IProduct**    «interface» **:IStock**    «interface» **:IOrder**    «interface» **:ICustomer**

GetProductDetails

IsAvailable

AddProduct

ConfirmOrder

DebitAccount

## Create An Order

Description

For Each Line in the Order
- Customer adds item to Order
  - Retrieve Product Information
  - Confirm Availability
    - If Product Available
      - Add to Order
    - End If
- End For
- Customer Confirms Order
  - Confirm the Order
  - Debit Customer's Account

«web service» **:wsCreateOrder**    «interface» **:IProduct**    «interface» **:IStock**    «interface» **:IOrder**    «interface» **:ICustomer**

AddItem

GetProductDetails

IsAvailable

AddProduct

ConfirmOrder

ConfirmOrder

DebitAccount

# Further Provisioning


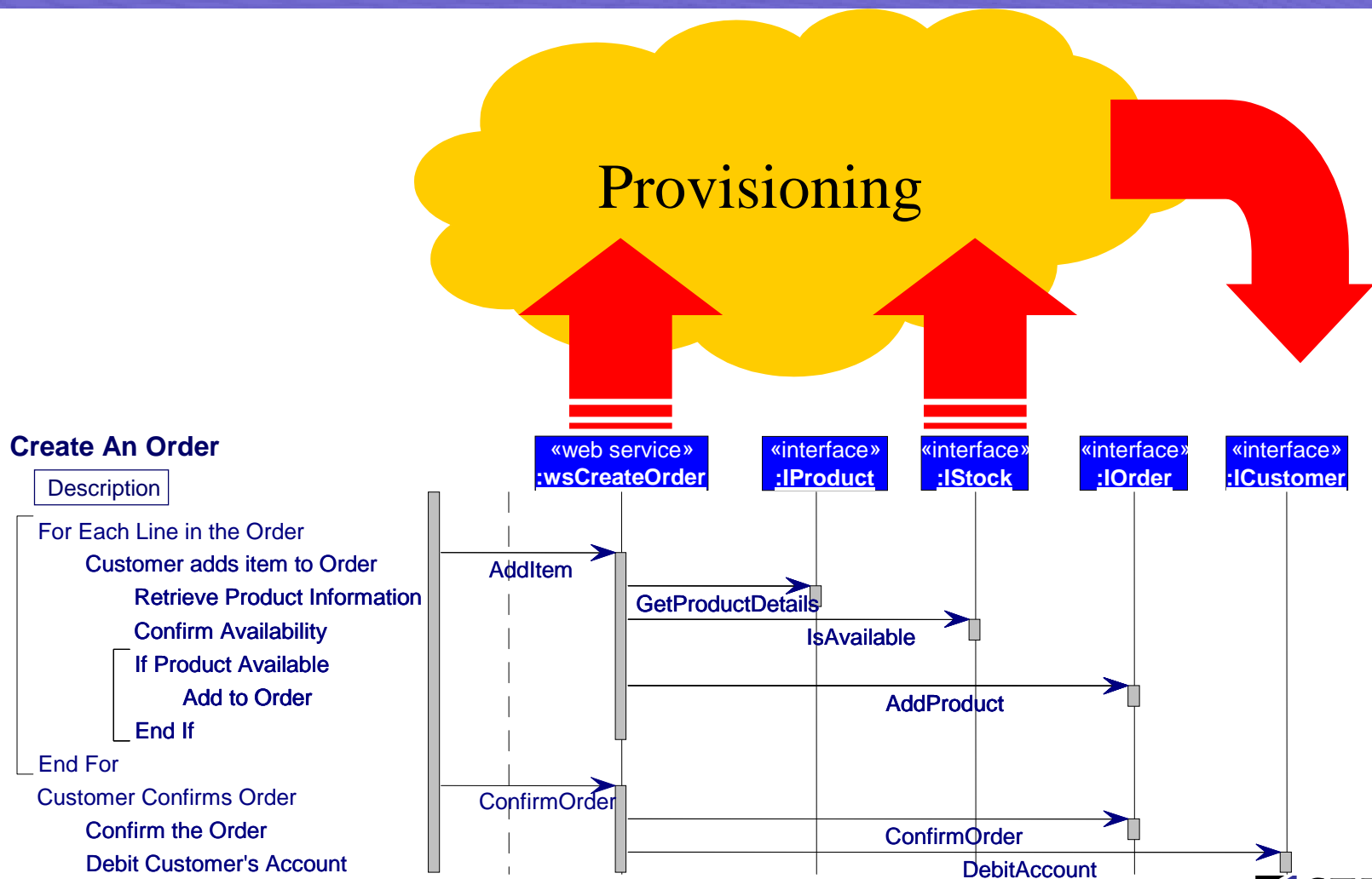
**Create An Order**

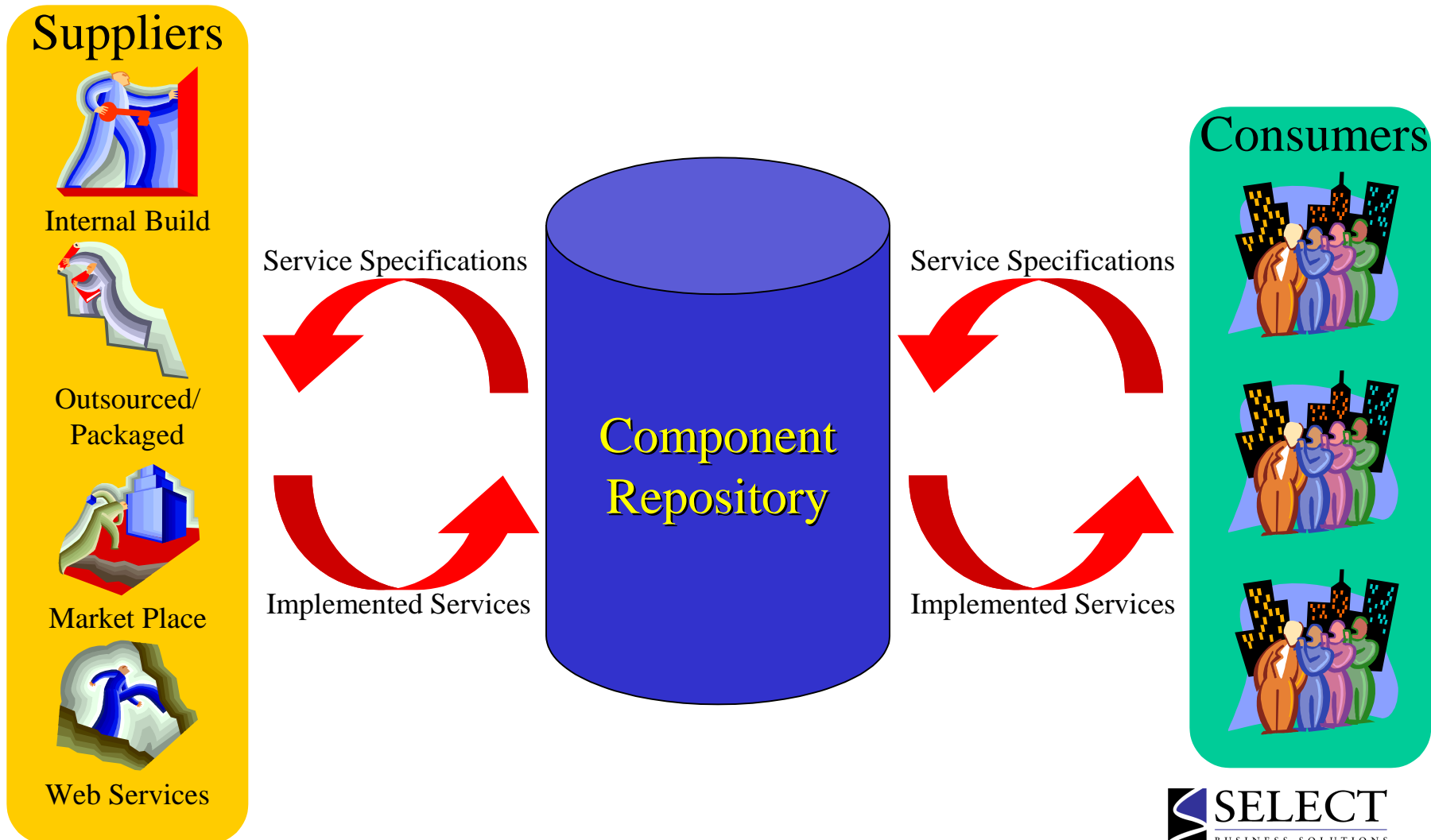Description

For Each Line in the Order
    Customer adds item to Order
        Retrieve Product Information
        Confirm Availability
        If Product Available
            Add to Order
        End If
End For
Customer Confirms Order
    Confirm the Order
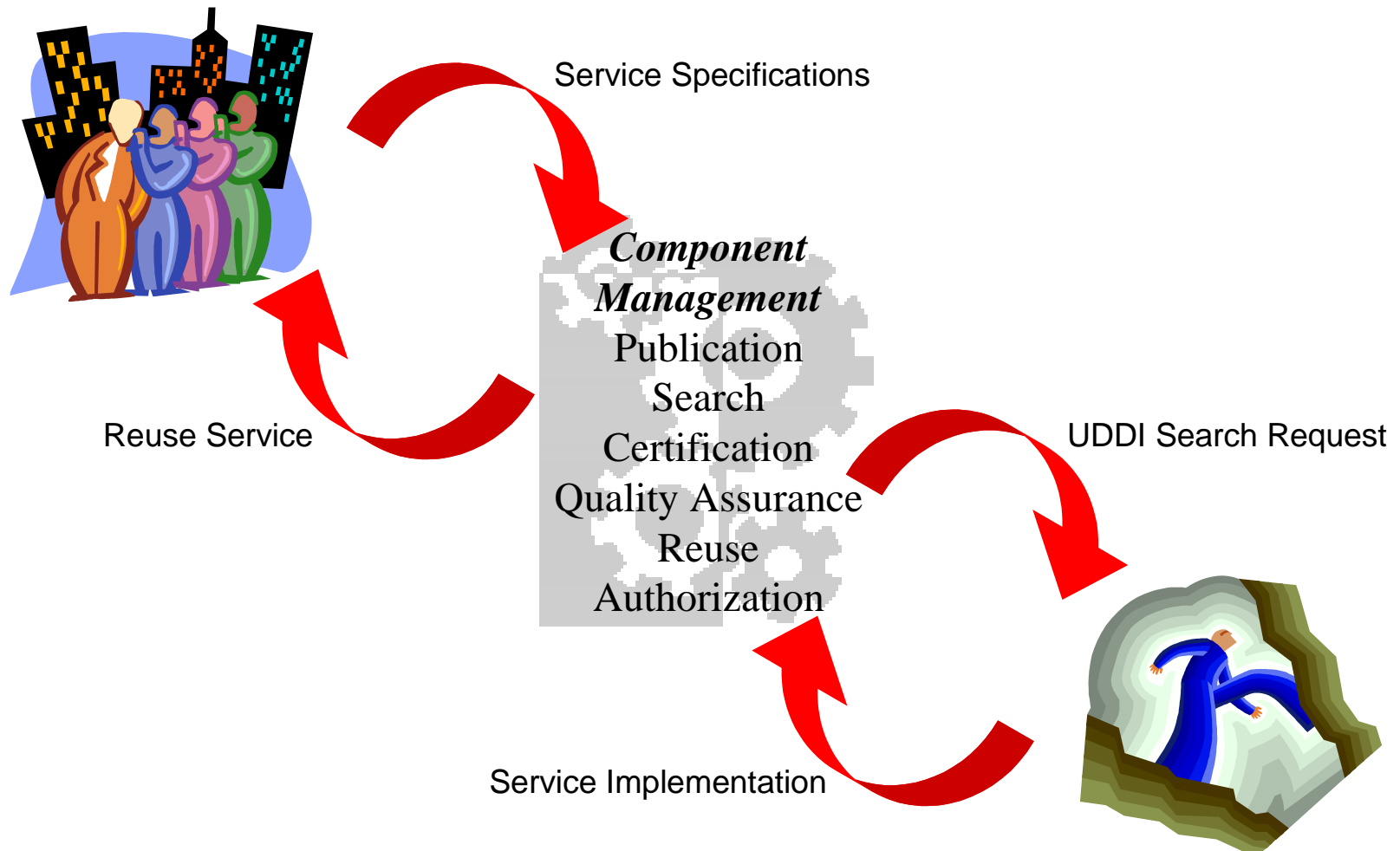    Debit Customer's Account

Provisioning

«web service»
:wsCreateOrder

«interface»
:IProduct

«interface»
:IStock

«interface»
:IOrder

«interface»
:ICustomer

AddItem

GetProductDetails

IsAvailable

AddProduct

ConfirmOrder

ConfirmOrder

DebitAccount

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# Provisioning Architecture

# Web Services Provisioning

Service Specifications

***Component Management***
Publication
Search
Certification
Quality Assurance
Reuse
Authorization

Reuse Service

UDDI Search Request

Service Implementation

# Wrapping Integrates Web Services

GetCustomerHistory

Customer

Production Database

Legacy

Package

**Web Services**

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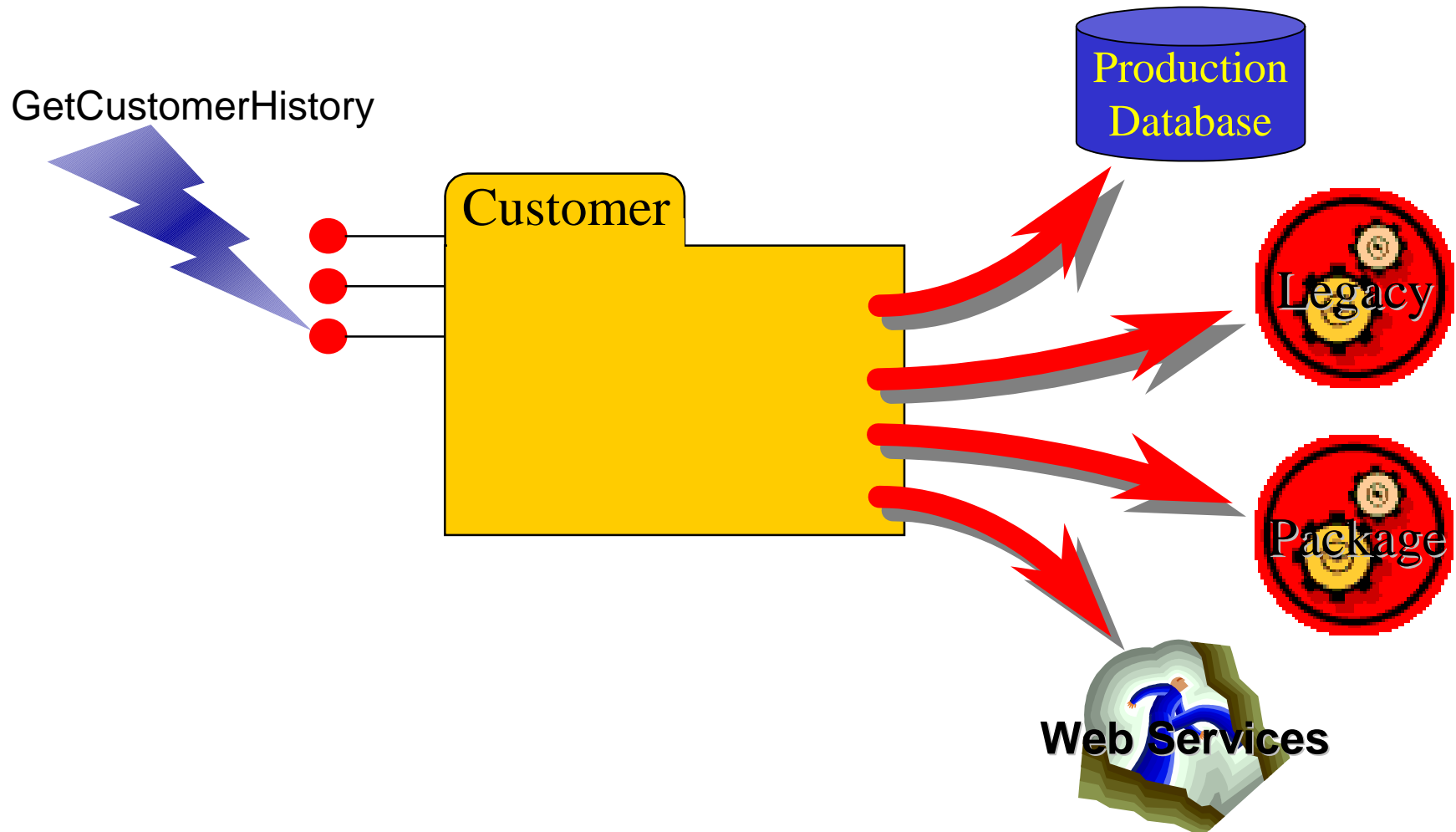
# Summary

- **Web Services** – a new channel for delivering an already familiar Service-based Architecture.

- **Novel technology** – but management challenges are already known and understood:
  *Supply-Manage-Consume* (SMaC).

- **CBD processes, techniques and models** naturally fit the *Wonderful World of Web Services*.

- **SMaC Paradigm** provides complete alignment with the economics and management needs of Web Service Consumers.