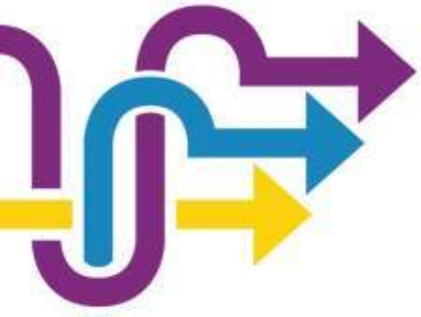

Providing agility and service visibility to your ESB

using WebSphere ESB Registry Edition

Jack Carnes

Executive IT Specialist

WW Connectivity Technical Sales Support

Business Agility

Objectives

- Why a registry and ESB are essential components in any SOA
- WebSphere ESB Registry Edition
- Explain integration scenarios between the ESB and Registry in WebSphere ESB Registry Edition

Agenda

- Why are service registries an important component in your SOA?
- What does the service registry do?
- Introduction to WebSphere ESB Registry Edition
- Integration between the ESB and Registry in WebSphere ESB Registry Edition

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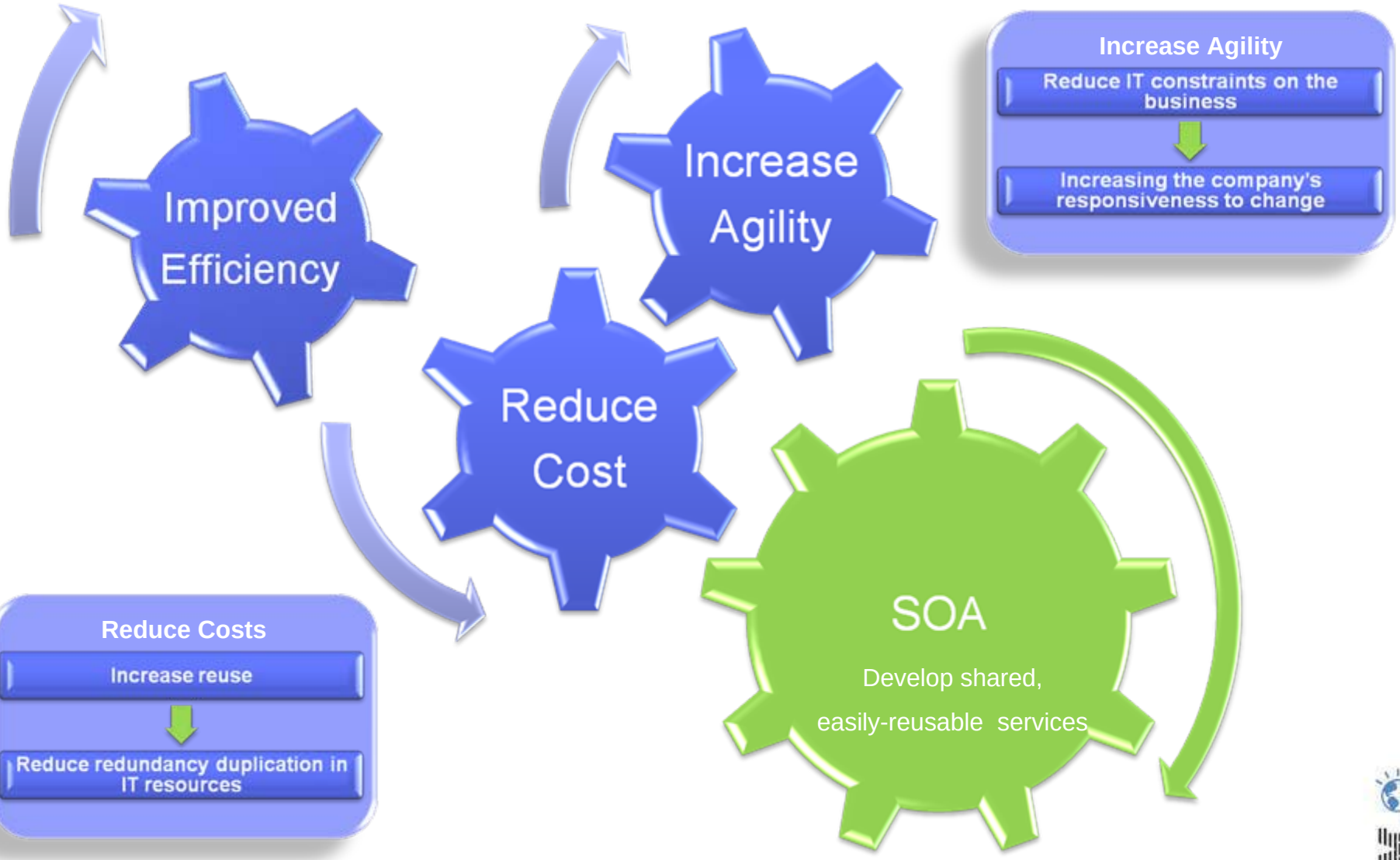
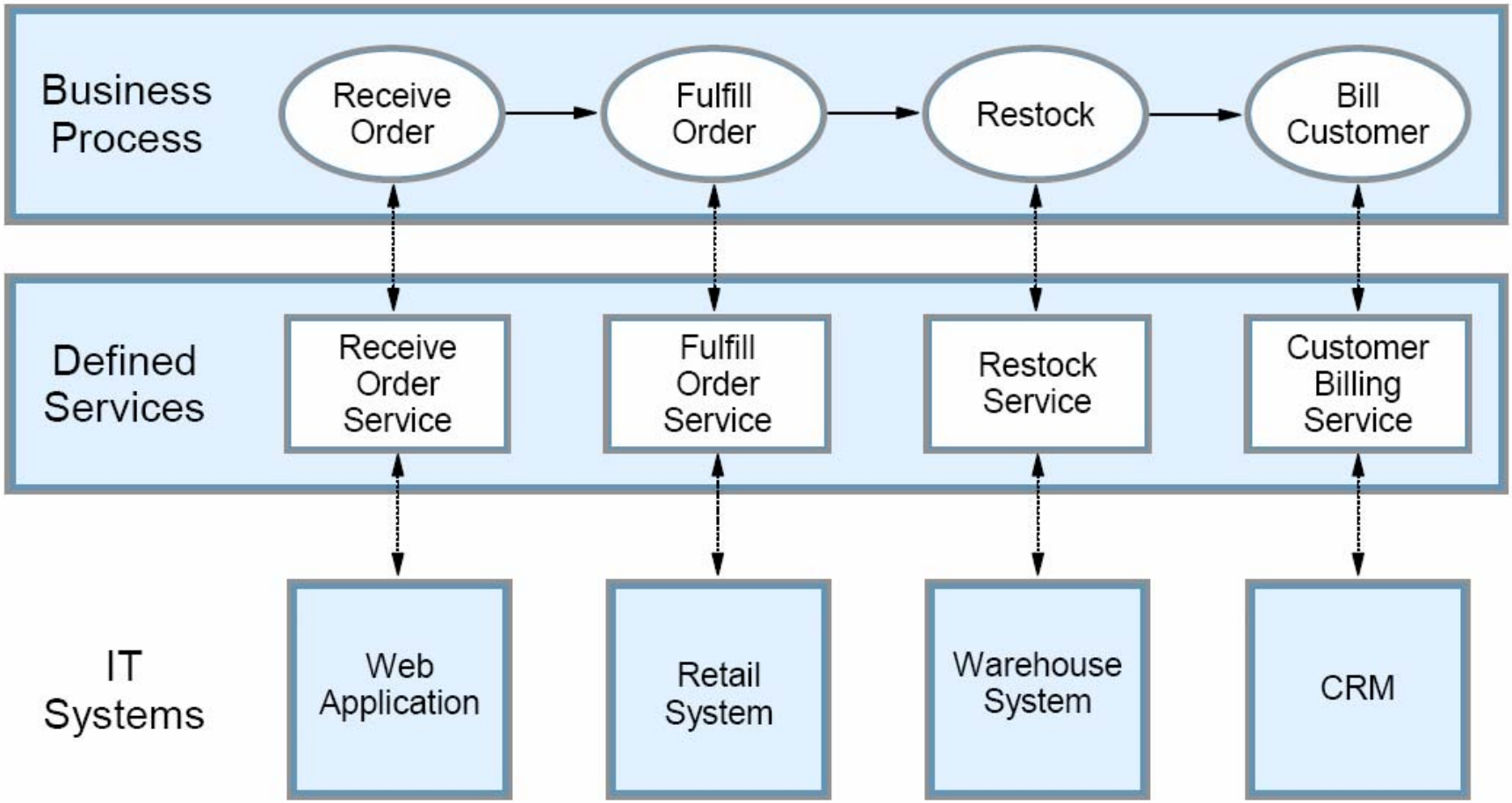
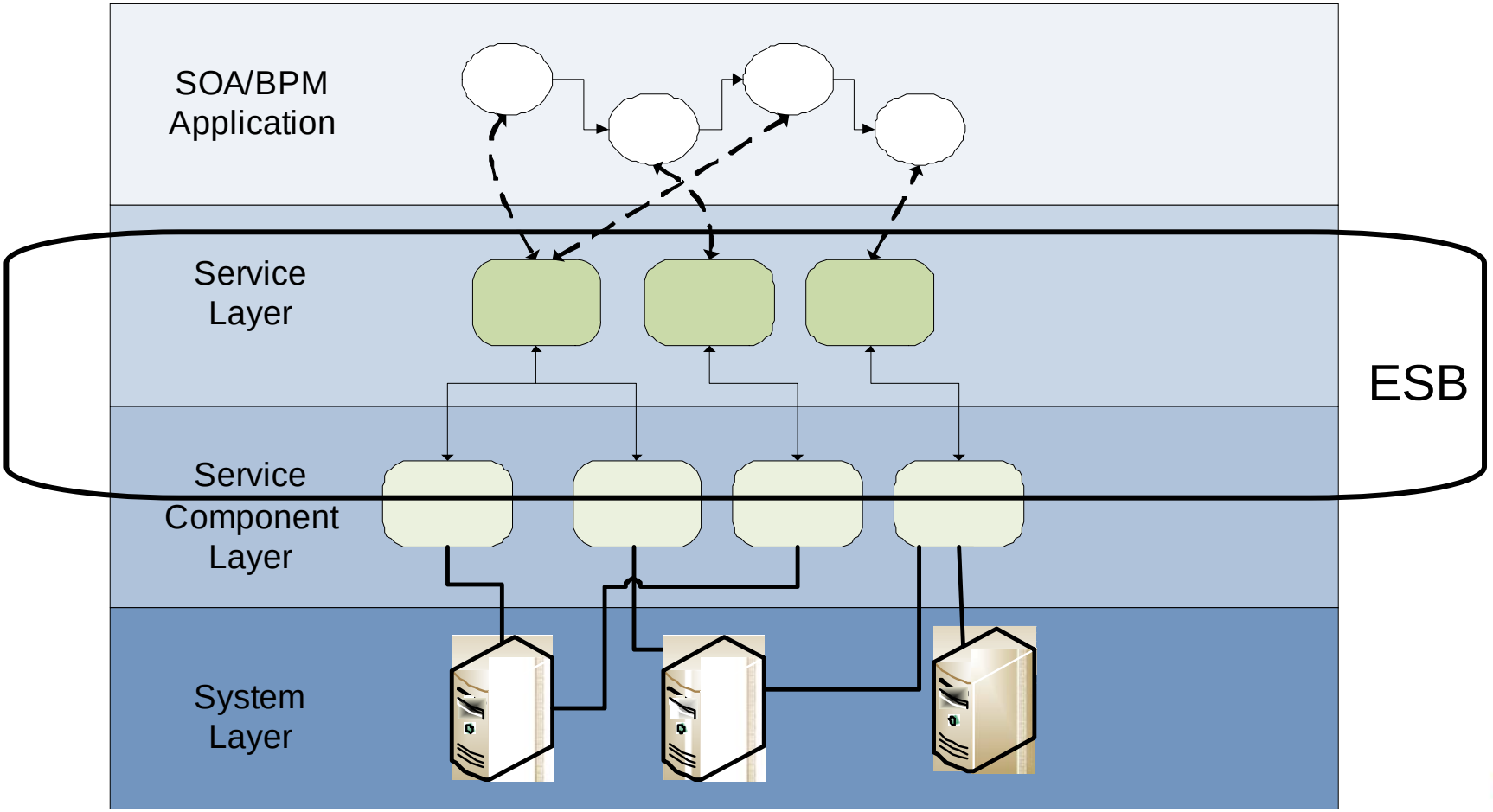
The Promise of SOA, Reduce Costs and Increase Agility



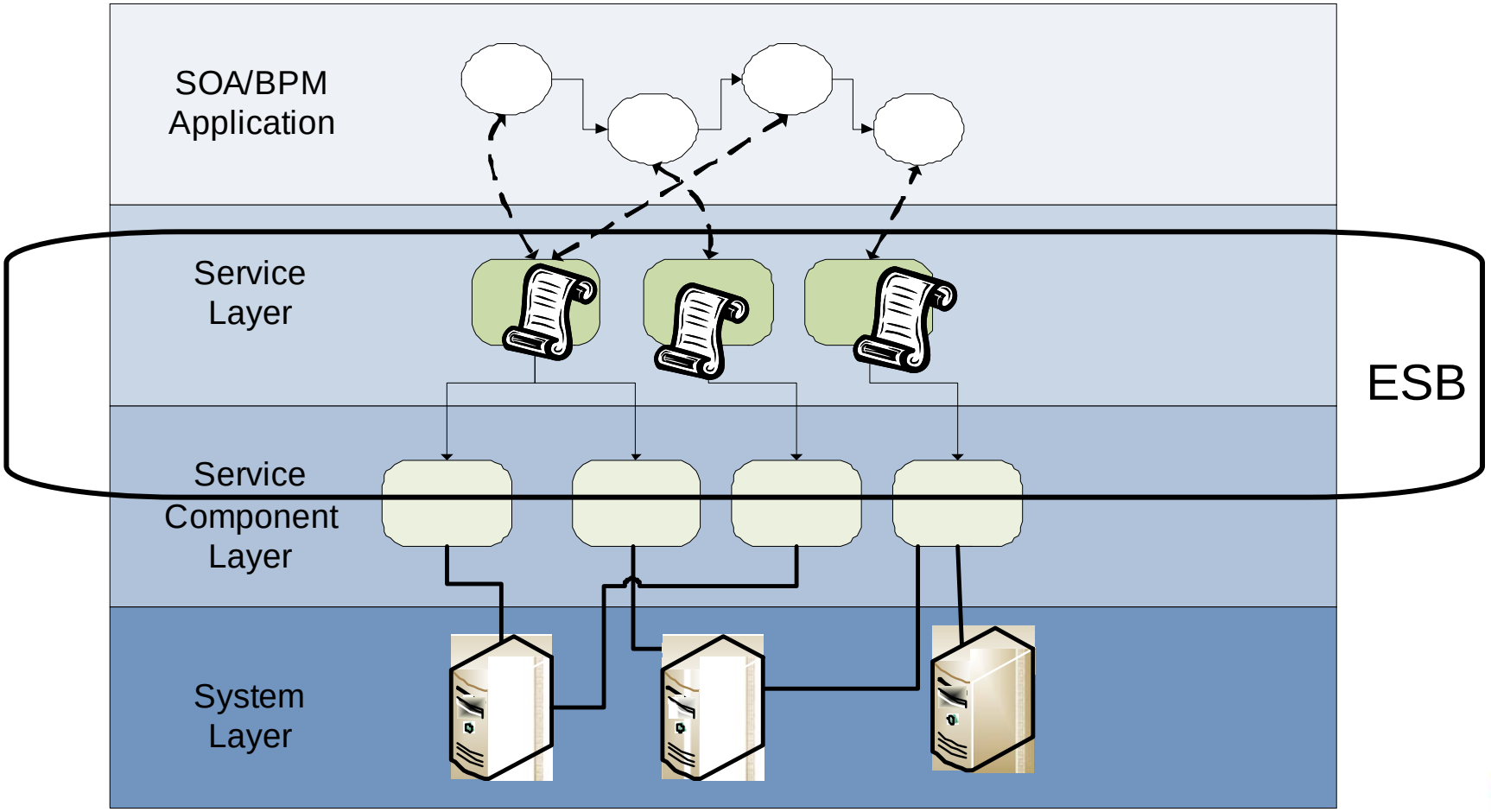
SOA Basics



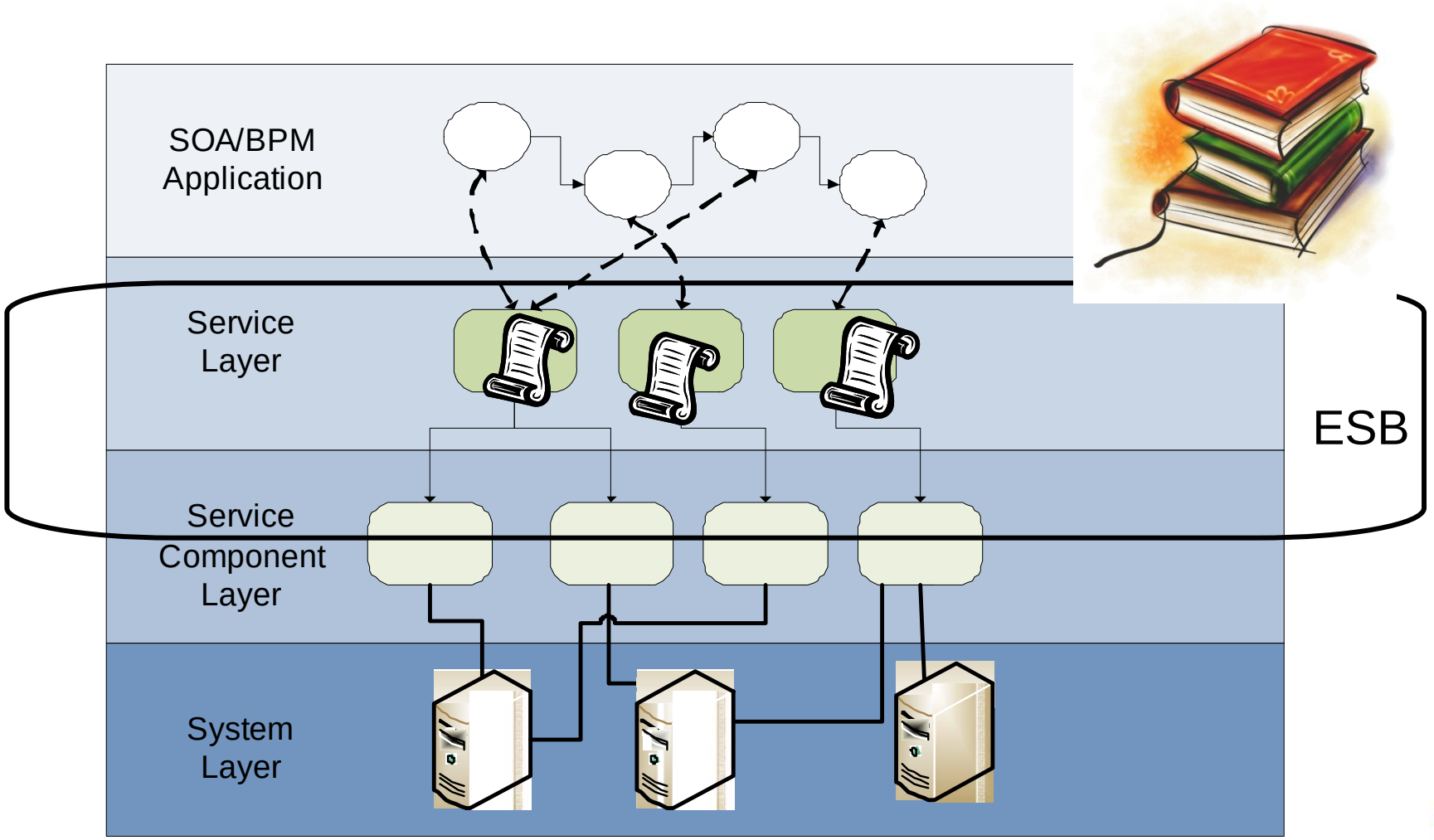
SOA Basics



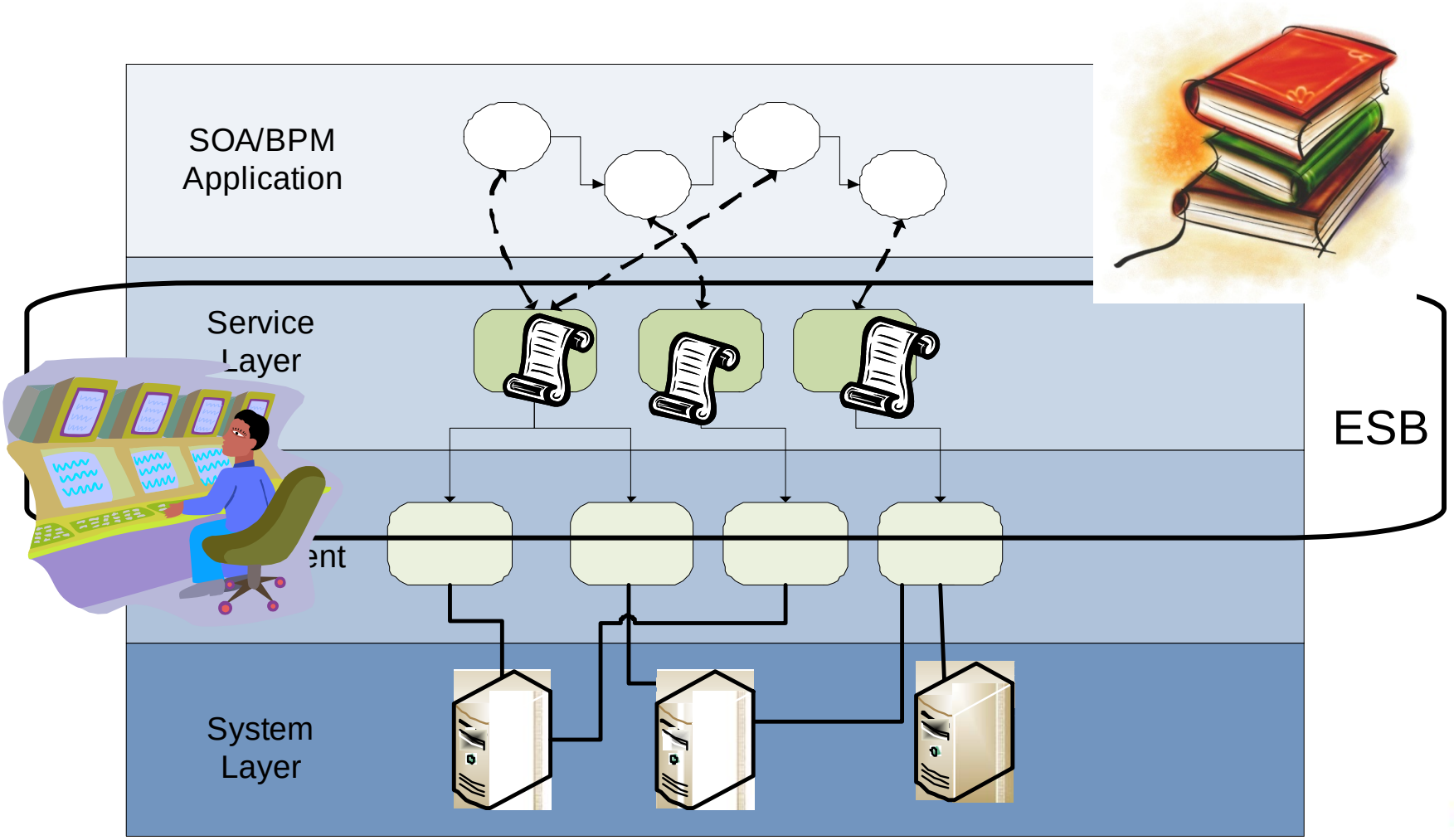
SOA Basics



SOA Basics



SOA Basics



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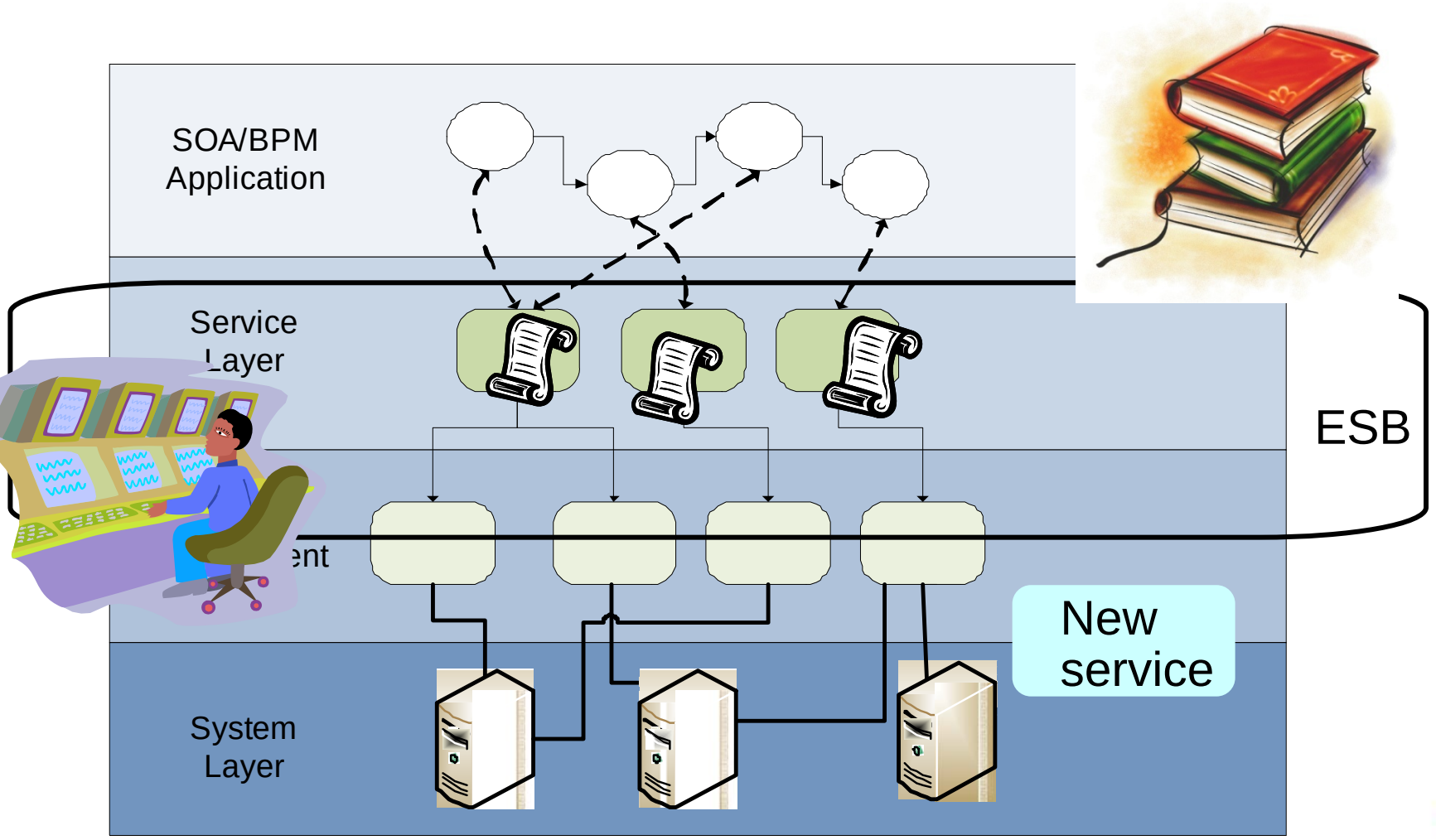
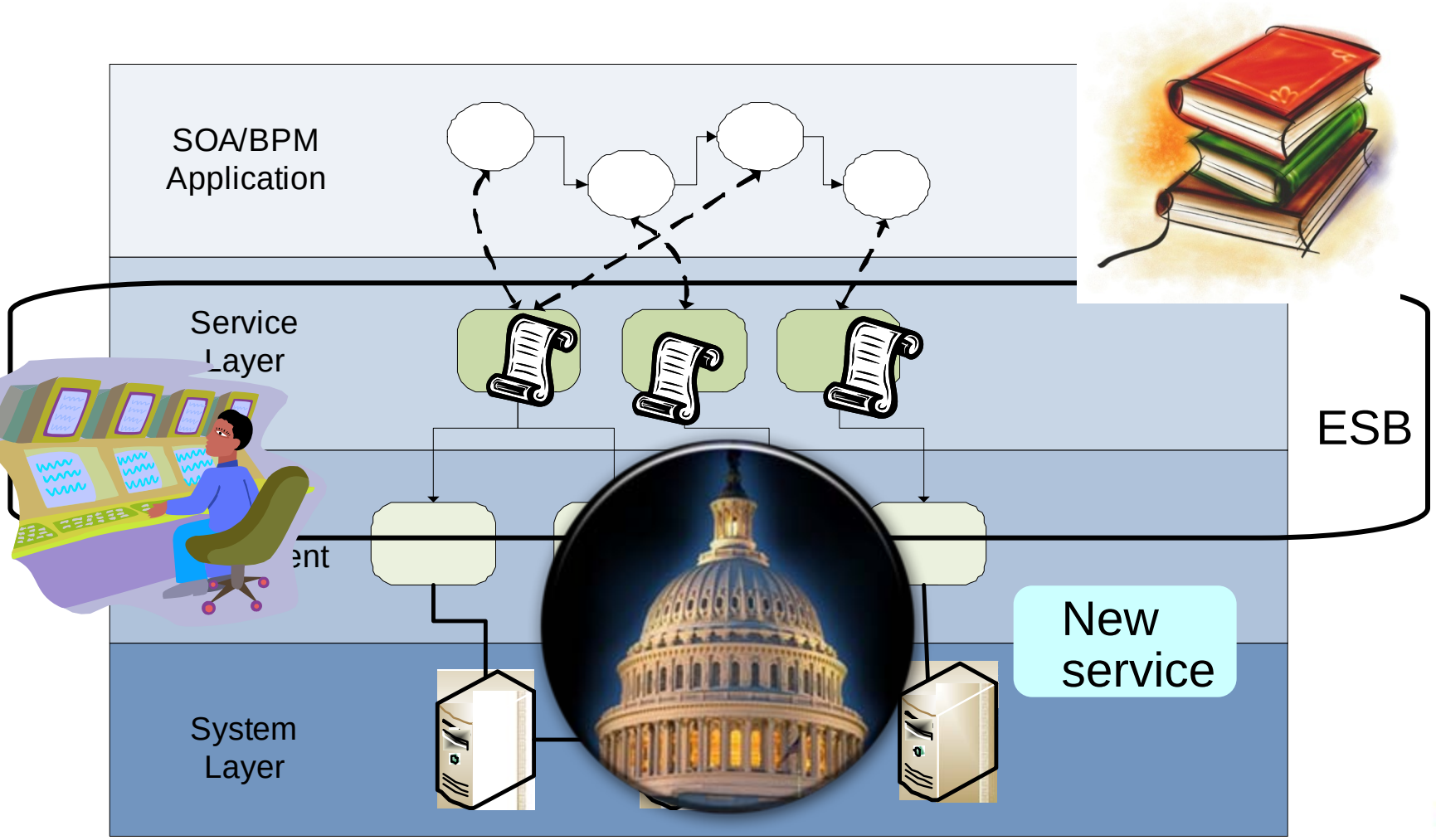


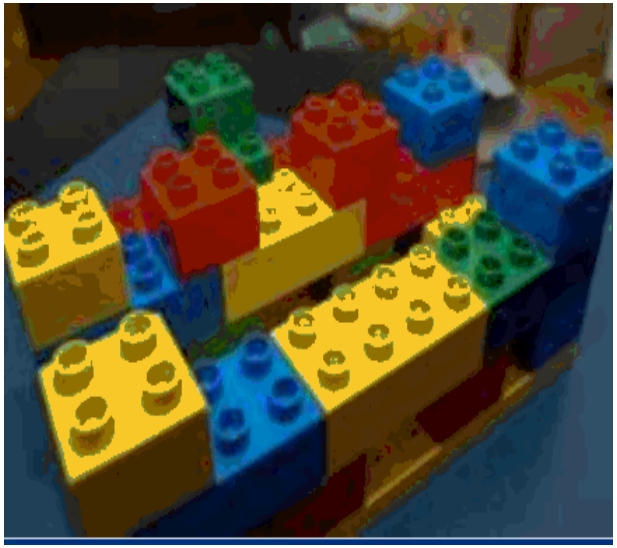
SOA Basics



Initially, organizations view governance as having only long-term benefit

SOA without structure and control

This could become…



The promise of SOA

…like this

A pile of services

- No understanding of dependencies
- No meaningful groupings
- No visibility or reuse

Through 2010, the lack of working SOA governance arrangements will be the most common reason for SOA failures.
Key Issues in SOA Governance, 2008. Gartner

3 paths to introduce structure and control

1. Take control of your services
2. Provide greater flexibility to your ESB
3. Deliver the services your business needs

Take control of your services

- Increase visibility
- Track service use
- Build service catalogue
- Analyse impact of change

Provide greater flexibility to your ESB

- Enable dynamic and efficient access to services, policies and metadata
- Dynamically choose service providers and end points
- Store and define some application and translation logic outside of the ESB
- Enforce policies that are stored and manage policies outside of the ESB

Deliver the services your business needs

- Deliver new/updated services quickly
- Create open, standardized services
- Increase productivity by increasing reuse
- Store, catalog, and organize services
- Define how to engage business and build services from the top-down

Agenda

- Why are service registries an important component in your ESB?
- What does the service registry do?
- Introduction to WebSphere ESB Registry Edition
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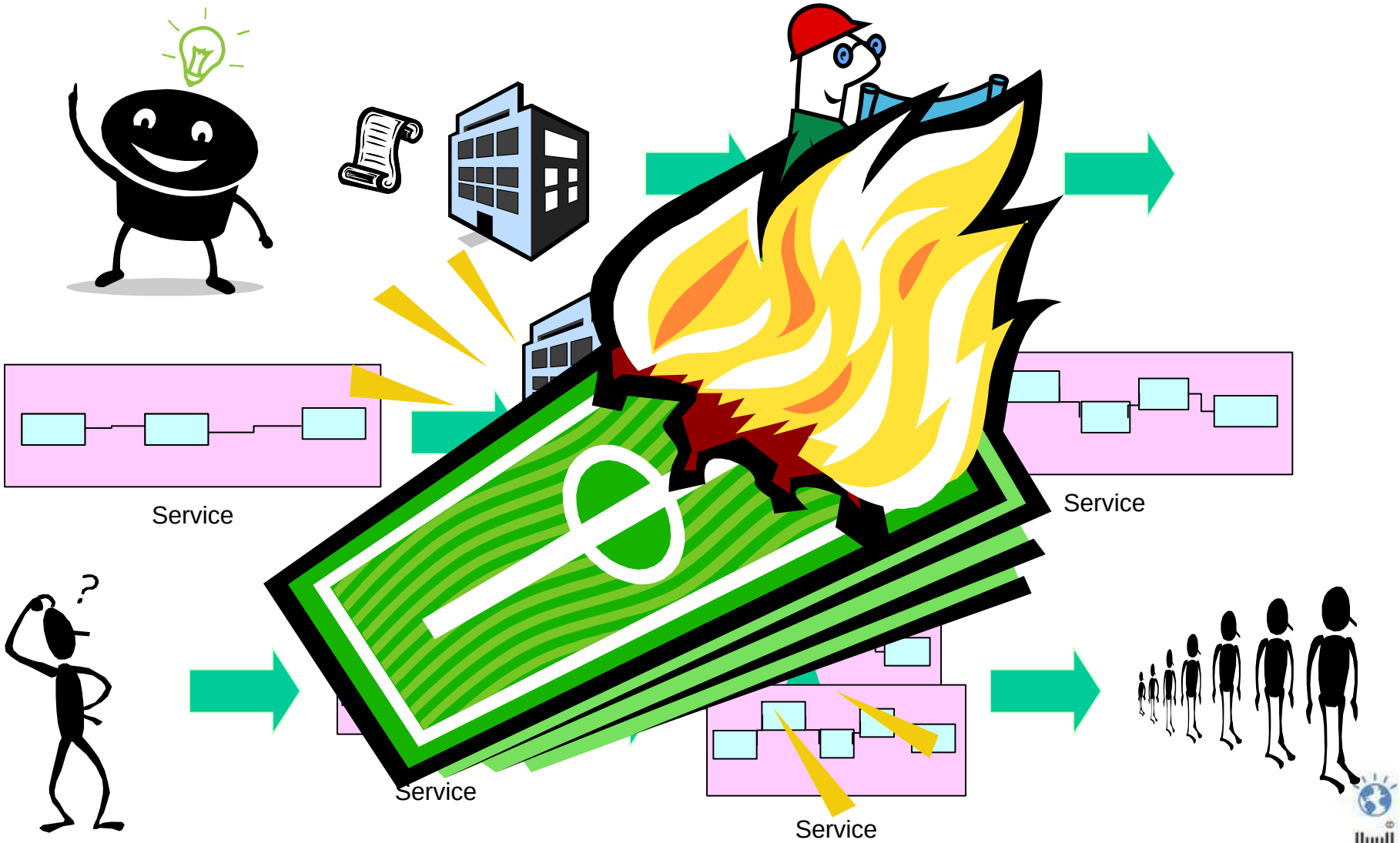
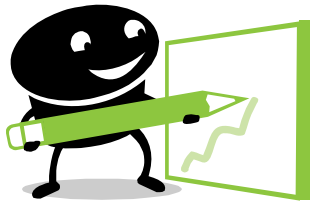
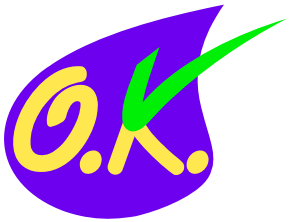
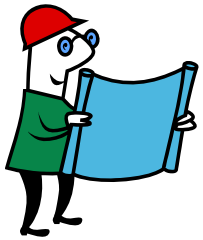
Story of a service without a registry

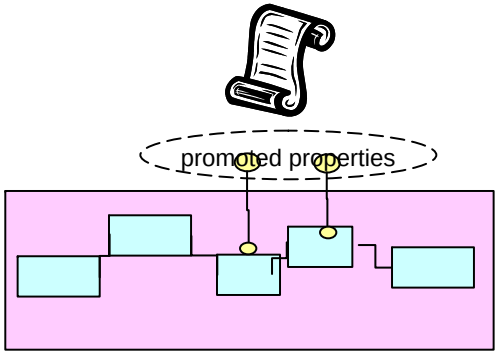


Story of a service with a registry

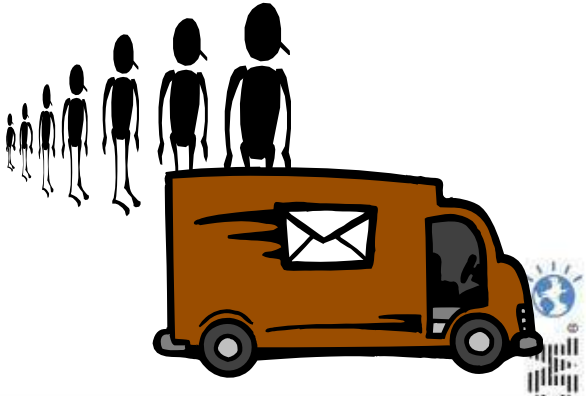








service



What does a registry do?

- Catalogue services

What does a registry do?

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- Promote reuse

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- Govern service lifecycle

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- Control service development

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- Control service development
- Manage change

What does a registry do?

- Catalogue services
- Promote reuse
- Govern service lifecycle
- Control service development
- Manage change
- Increase ESB agility

Agenda

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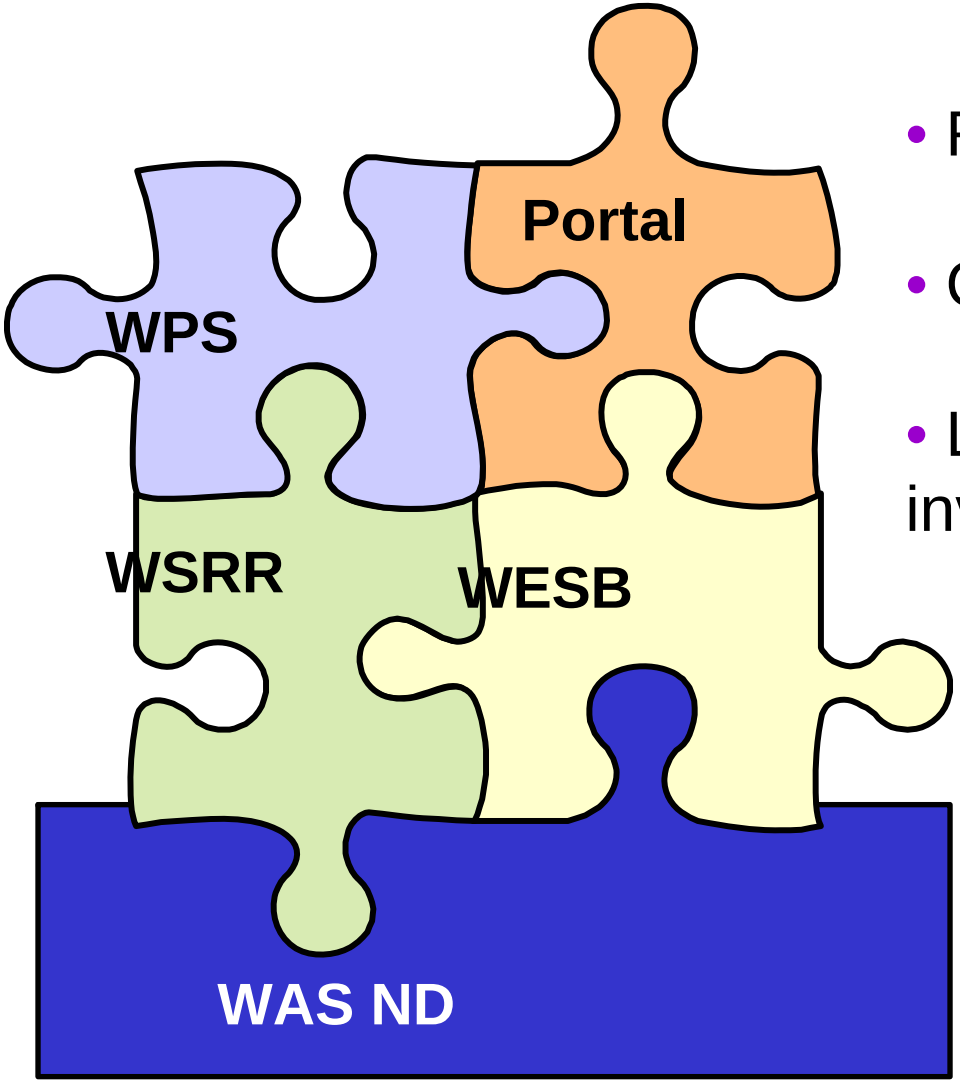
WebSphere ESB Registry Edition

- WebSphere ESB
  - provides smart connectivity
- WebSphere Service Registry and Repository
  - controls dynamicity and reuse

WebSphere ESB Registry Edition – Key use case
Dynamic service connectivity for business transformation and growth

- Mature SOA adoption
  - Enable a set of key scenarios for controlled service reuse with a flexible and dynamic ESB
    - Dynamic end point selection
    - Mediation policies, configured by a web-based widget, can be enforced
    - New services can be published for lookup and reuse by more consumers
    - Changes to services can be governed

WebSphere – Single platform for integration, applications, and processes



- Run on common infrastructure
- Common cell administration
- Leverage and reuse investment in java skills

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Mediations Primitives that work with Registry

Primitive	Description
	Check whether the consumer of this target service has an SLA defined in WSRR.
	Routes service requests in a proxy gateway or web service gateway mediation flow by looking up the endpoint in a repository
	Dynamically configures a mediation flow by using mediation policies retrieved from WSRR
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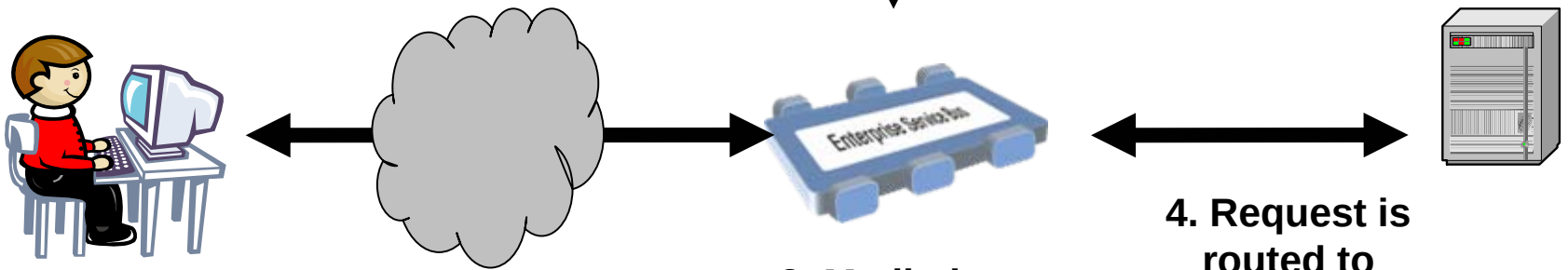
Dynamically choosing service providers and end points

- Registry stores and manages service provider metadata
- Registry queried at runtime to determine service endpoint
- Avoids hard coded endpoints in ESB
- Allows selection between multiple service providers

Registry

3. Mediation queries registry to retrieve service provider



1. Client invokes a service on the ESB

2. Mediation determines "best fit" provider

4. Request is routed to provider

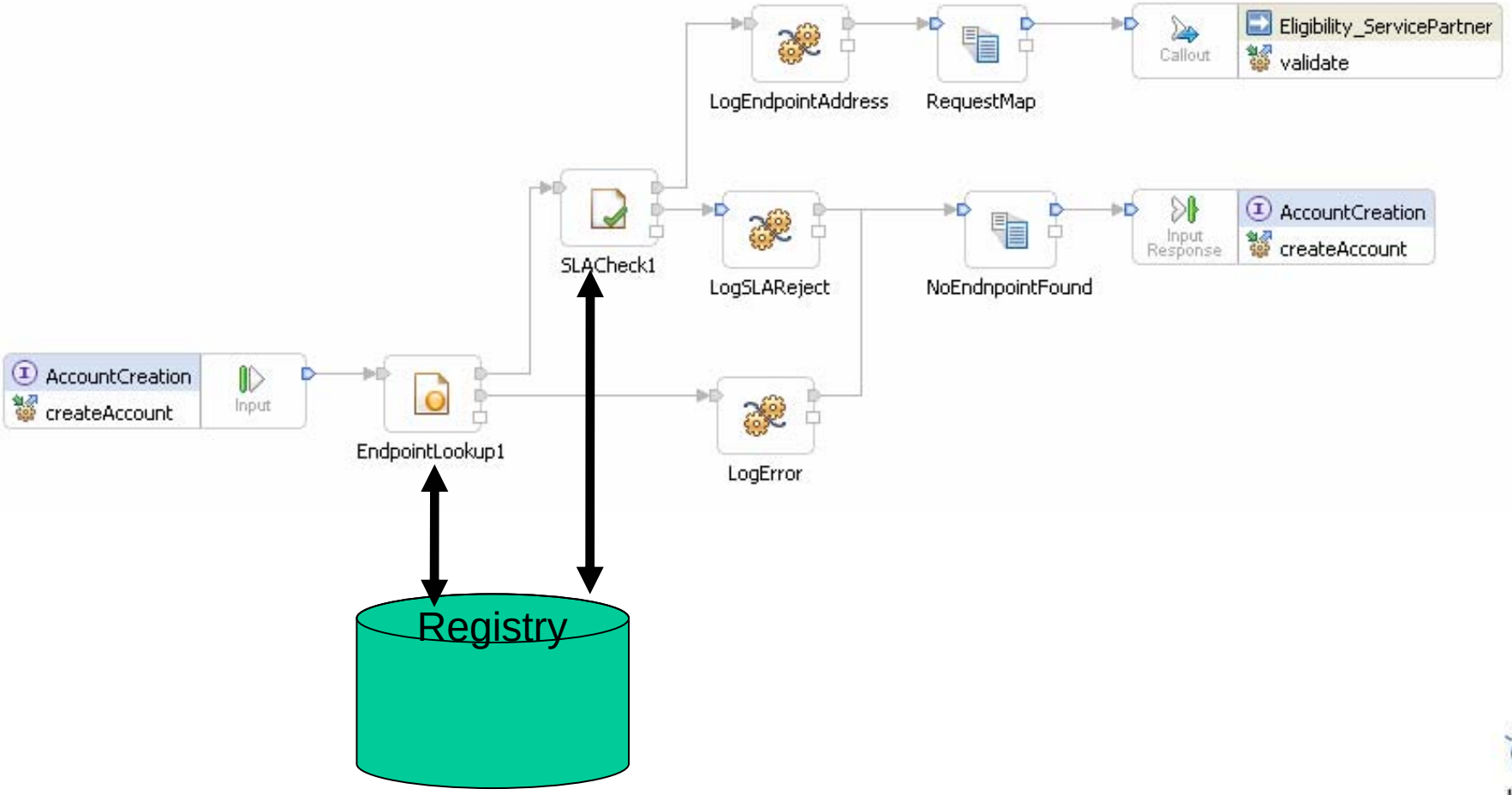
Why use Endpoint Lookups?

- Select the appropriate service based on input data
- Simplify code promotion between environments
- Simplify moving endpoints.
- Update endpoints due to service availability.

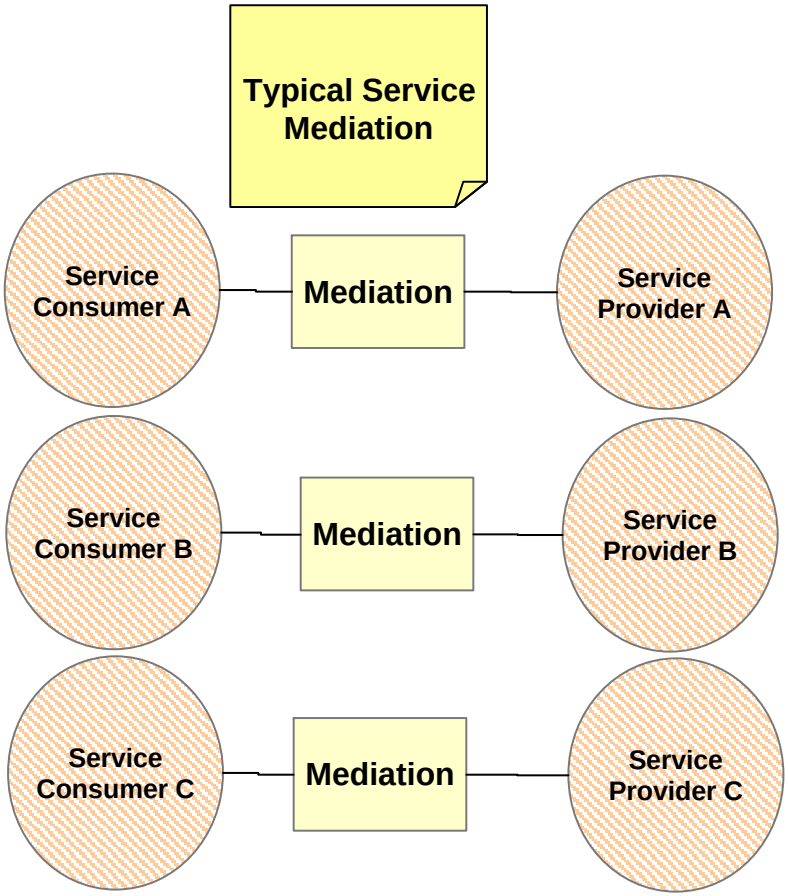
Check for an SLA

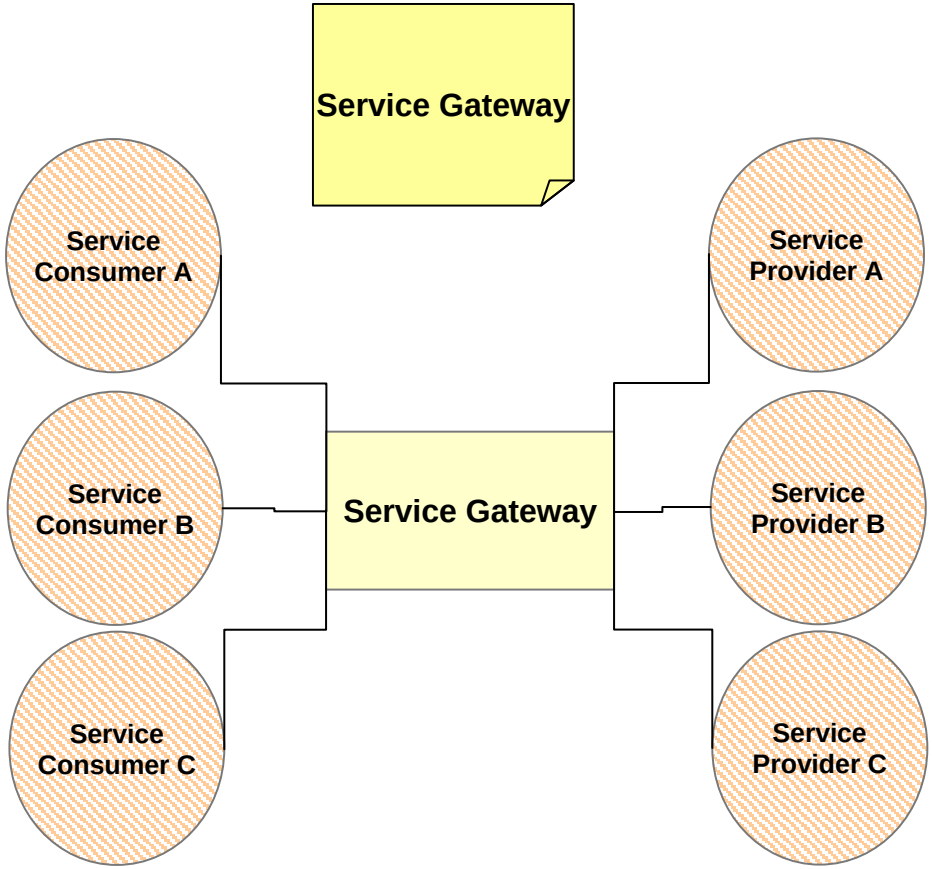
- Validate service level agreements are in place

EndpointLookup and SLACheck Mediation



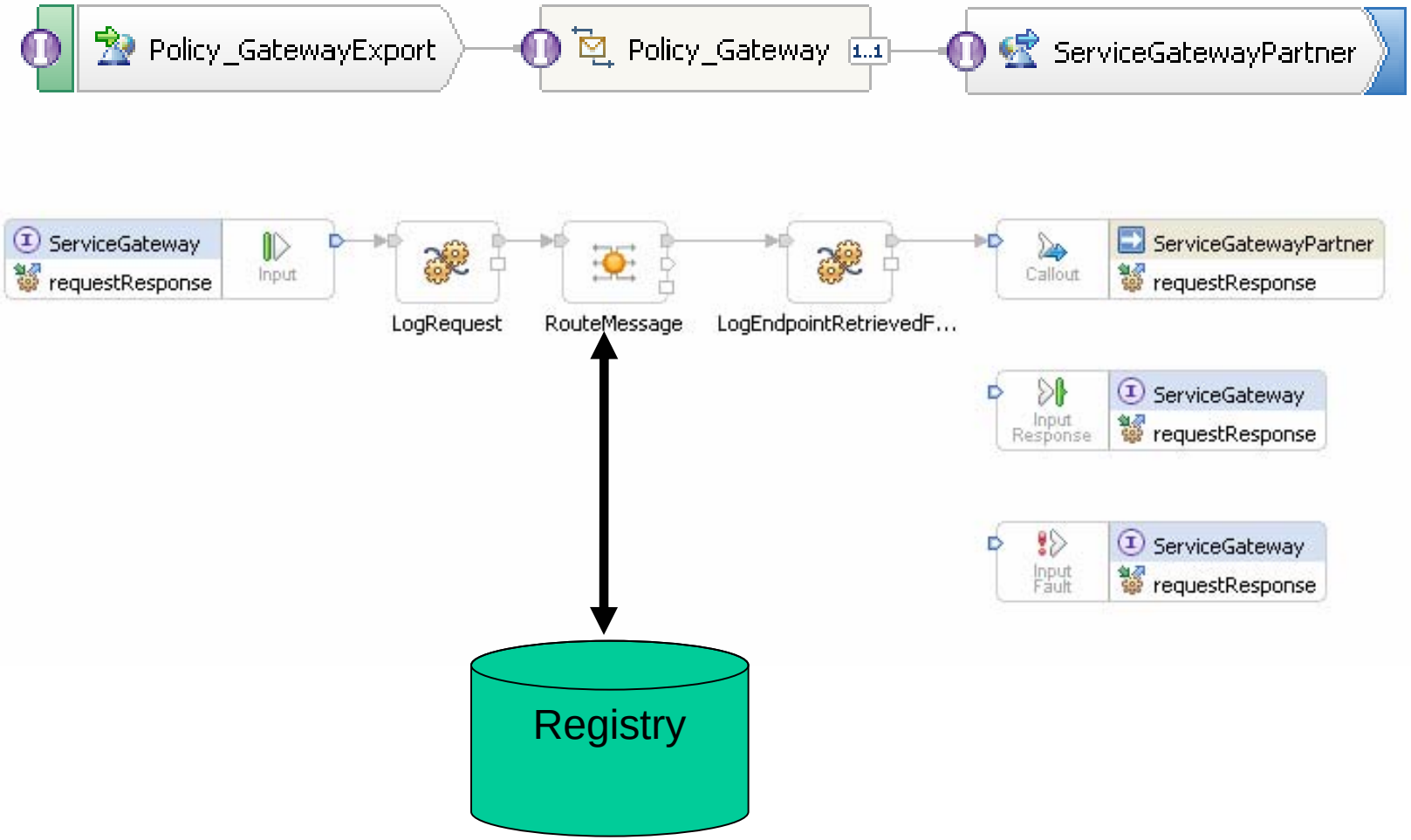
Service Gateway Overview



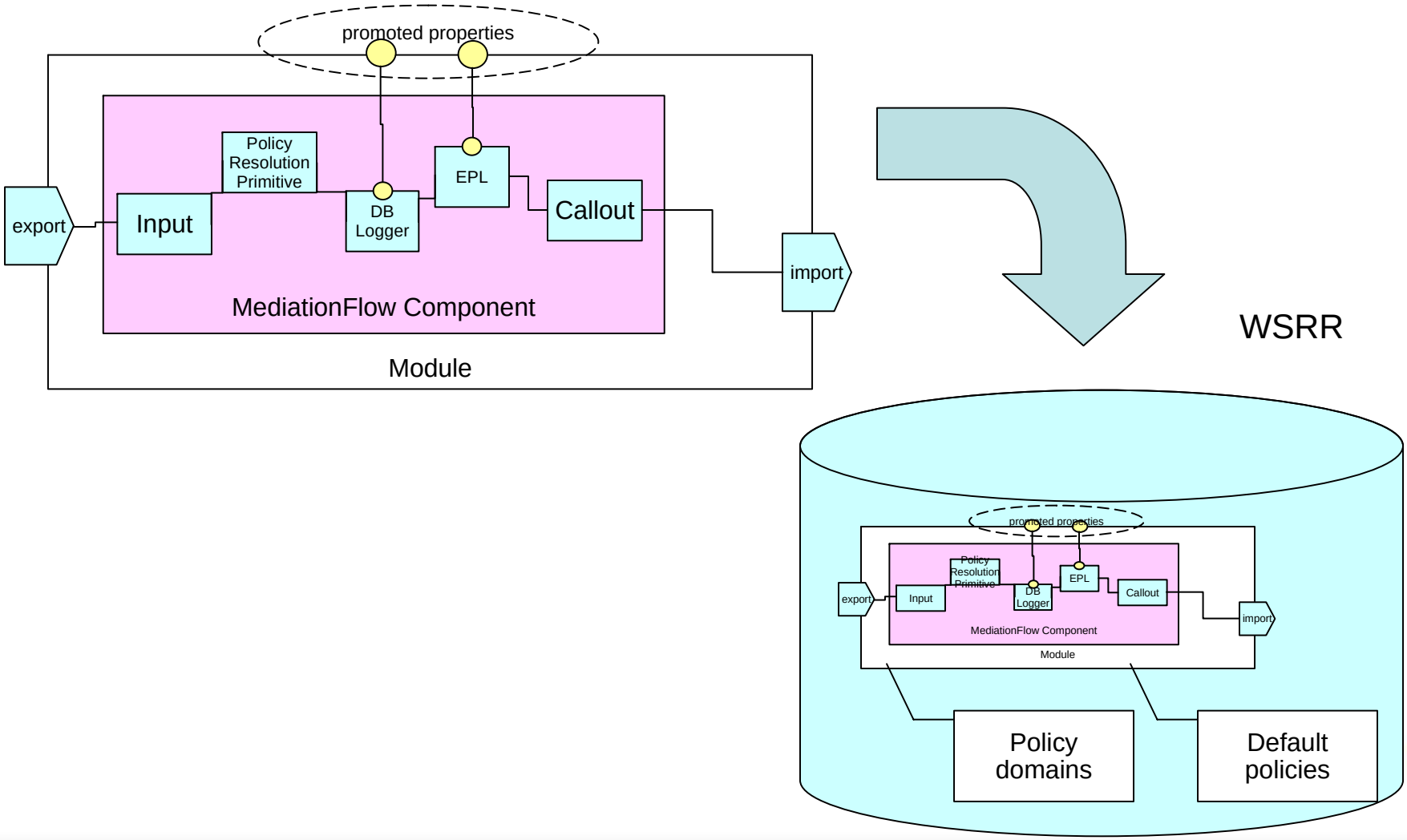


Service Gateway Pattern

WID generates gateway mediation



Mediation Policy



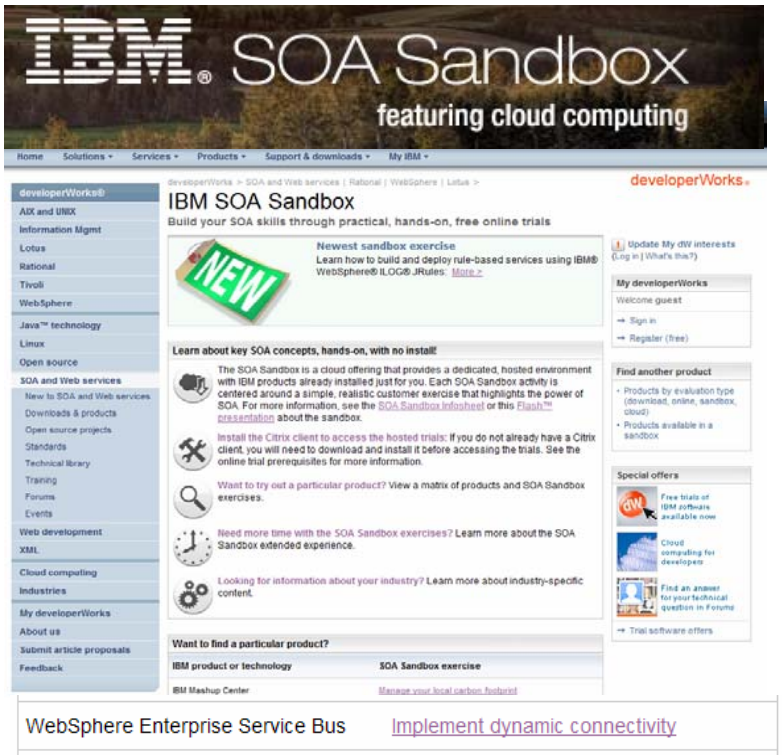
Summary

- Why a registry and ESB are essential components in an SOA
- Introduced WebSphere ESB Registry Edition
- Explained Integration between WebSphere ESB and WebSphere Services Registry and Repository

WebSphere ESB Registry Edition – Dynamic Service Connectivity

Trial and Tutorial: Preinstalled integrated environment in the cloud available via a browser

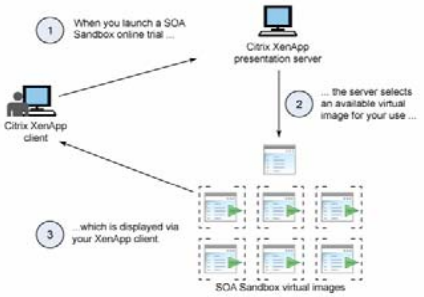
The SOA Sandbox combines software trials and tutorials with best practices, architectural, and implementation guidance for a risk-free start to your SOA & BPM journey.



The SOA Sandbox allows you to. . .

1. Learn about SOA & BPM via hands-on experience and best practice education materials at no cost available 24x7
2. Have a way to try out new offerings and features without disturbing your existing environment
3. Learn about SOA & BPM based on tangible knowledge and experiences

CITRIX vmware



Sandbox users are allotted a seat from a pool of available virtual images.

- Four (4) hours at a time.
- Users can come in as many times as they like.

Now available on IBM developerWorks

http://www.ibm.com/soasandbox

or Simply Google: SOA Sandbox

→ **Dynamic Connectivity** here

Other sources of Information

- Redpaper: **Strengthening Your ESB with WebSphere Service Registry and Repository**

- http://www.redbooks.ibm.com/Redbooks.nsf/RedpieceAbstracts/redp4686.html?Open

Questions