



IBM SOA Technology Summit

IBM WebSphere Service Registry and Repository

Overview Briefing

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SOA on your terms and our expertise



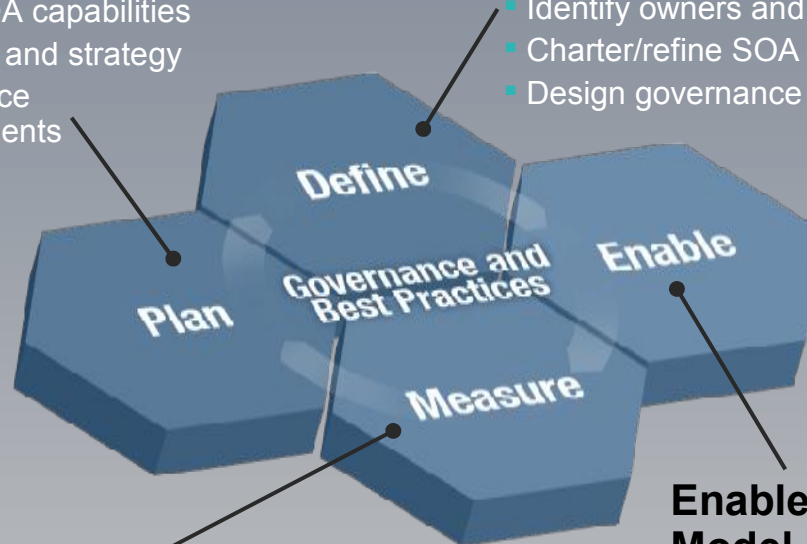
SOA Governance Lifecycle

Plan the Governance Need

- Document and validate business strategy for SOA and IT
- Assess current IT and SOA capabilities
- Define/Refine SOA vision and strategy
- Review current Governance capabilities and arrangements
- Layout governance plan

Define the Governance Approach

- Define/modify governance processes
- Design policies and enforcement mechanisms
- Identify success factors, metrics
- Identify owners and funding model
- Charter/refine SOA Center of Excellence
- Design governance IT infrastructure



Monitor and Manage the Governance Processes

- Monitor compliance with policies
- Monitor compliance with governance arrangements
- Monitor IT effectiveness metrics

Enable the Governance Model Incrementally

- Deploy governance mechanisms
- Deploy governance IT infrastructure
- Educate and deploy on expected behaviors and practices
- Deploy policies

WebSphere Service Registry and Repository Statement of Direction

IBM currently intends to make available in the second half of 2006 a WebSphere service registry and repository capability that will allow customers, to securely register business services for finding, publishing and notifying changes to SOA infrastructure components such as Enterprise Service Bus and process servers. Customers will also be able to house the metadata about business services in managing the lifecycle of a service in SOA.

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.

- IBM requests that the customer gives no feedback or input on the WebSphere Service Registry and Repository that is (or that the customer consider may be deemed) confidential to the customer or to any other entity.
- IBM and its affiliated companies shall be free without liability or obligation to use any feedback or input supplied to IBM on the WebSphere Service Registry and Repository in the development, production, marketing and use of any product or service.

IBM WebSphere Service Registry & Repository Capabilities

WebSphere Service Registry and Repository Capabilities



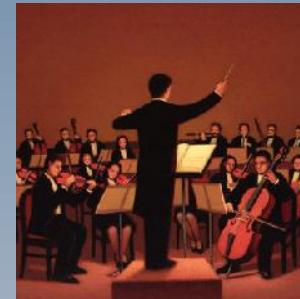
Publish



Find



Agility



Manage



Govern

Answers... What?... Where?... Why?... How?... of services in your SOA

WSRR – Development Support: Publish and Find



Publish

Describe
Populate
Configure
Classify
Organize



Find

Discover
Search
Retrieve

- Publish and find services
- Publish and find services capabilities
- Publish and find service lifecycle stage
- Publish and find service interactions
- Publish and find service dependencies and redundancies

Scenario 1: Service definition, selection, reuse

Service selection at development time for reuse

If the service exists...

The service owners will be contacted to **reuse** the service

The service owner assesses the impact of approving the request of reuse by the requestor

Approval for service reuse triggers a **"Notification"** which will update Service Registry/Repository and notifies

If the service exists but requires modification...

If service owner agrees to alter the service, the information in the Service Registry/Repository is used for **"impact analysis"** to the community

If the service provider does not agree to alter the service, it may trigger a **"custody transfer"** to a new owner to support and maintain.

Provisioning a new **"version"** of the service to be **published** in the registry and the community **notified**

If the service does not exist...

a new service request is created and goes through the service governance process

A service entry in the Service Registry/Repository is updated to reflect an **"Approved"** and **"in-progress"** service.

The community will be made aware that work is underway for the new service, as to eliminate redundant service development.

Business Needs Request passes the quality gate, the Service Registry/Repository is queried to determine if the service is already available

WSRR – Enable Runtime Support

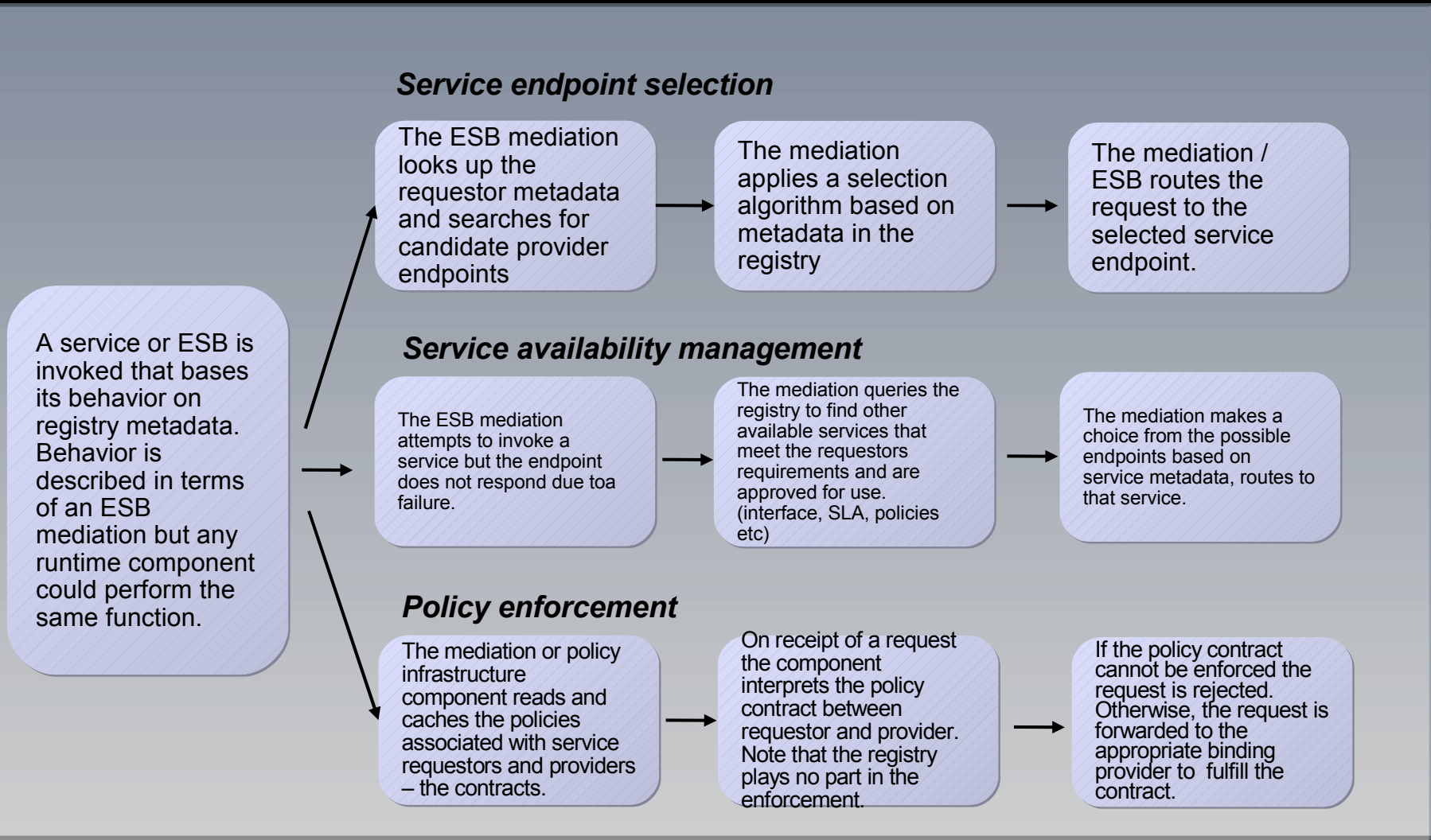


Agility

Identify
Notify
Secure
Access
Runtime

- Manage dynamic and efficient access to services information by runtimes
- Identify users of metadata
- Notify users of changes
- Manage end user access to the repository based on roles
- Securely transmit service information

Scenario 2: Runtime Usage of WSRR



WSRR – Management Support – Manage & Monitor



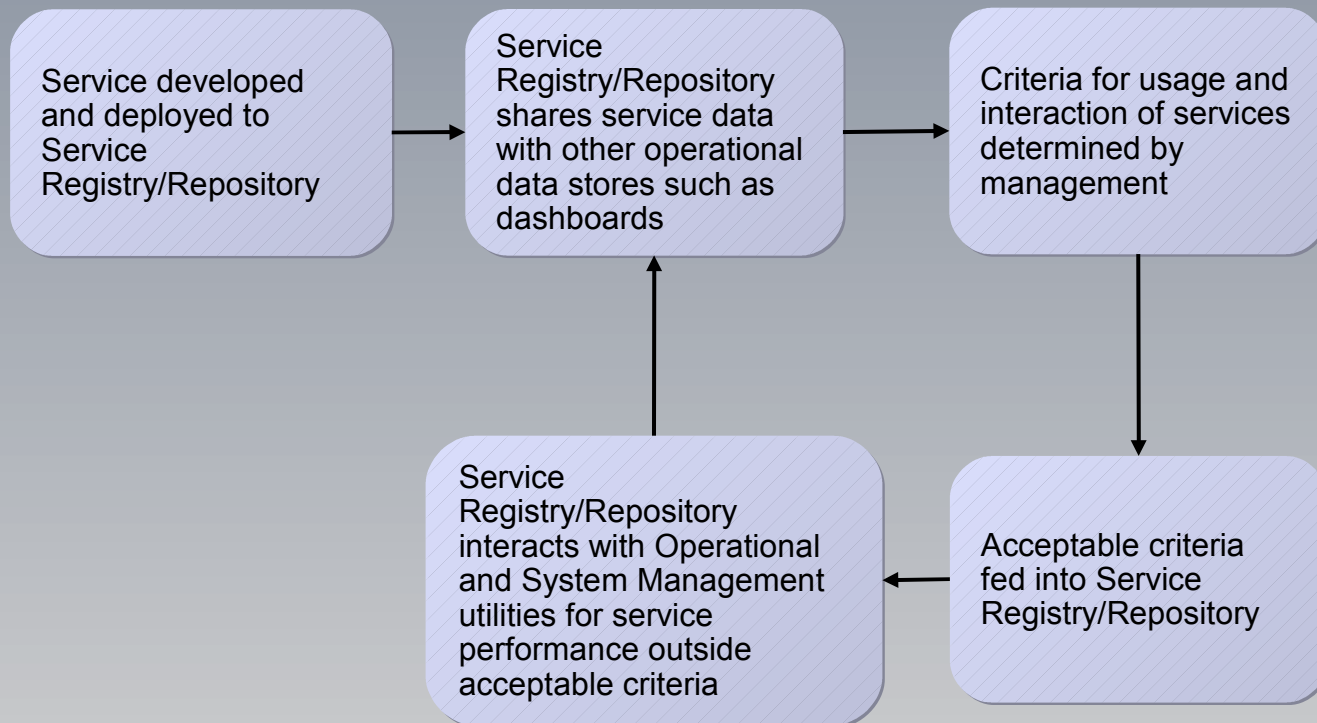
Manage

Policies
Change
Version
Classify
Analyze
Promote

- Classify services into meaningful groupings based on business objectives
- Manage service interactions, dependencies, relationships and redundancies
- Manage policies for service usage and governance
- Manage additional service metadata information
 - Business metrics collected
 - Summarized associated business metrics
- Analyze services usage, history and business impact
- Promote and encourage optimal services usage

Scenario 3: Service operational efficiency and resilience

Service metadata management: monitoring and management of service QoS objectives and usage



WSRR – Governance Support – Change Management



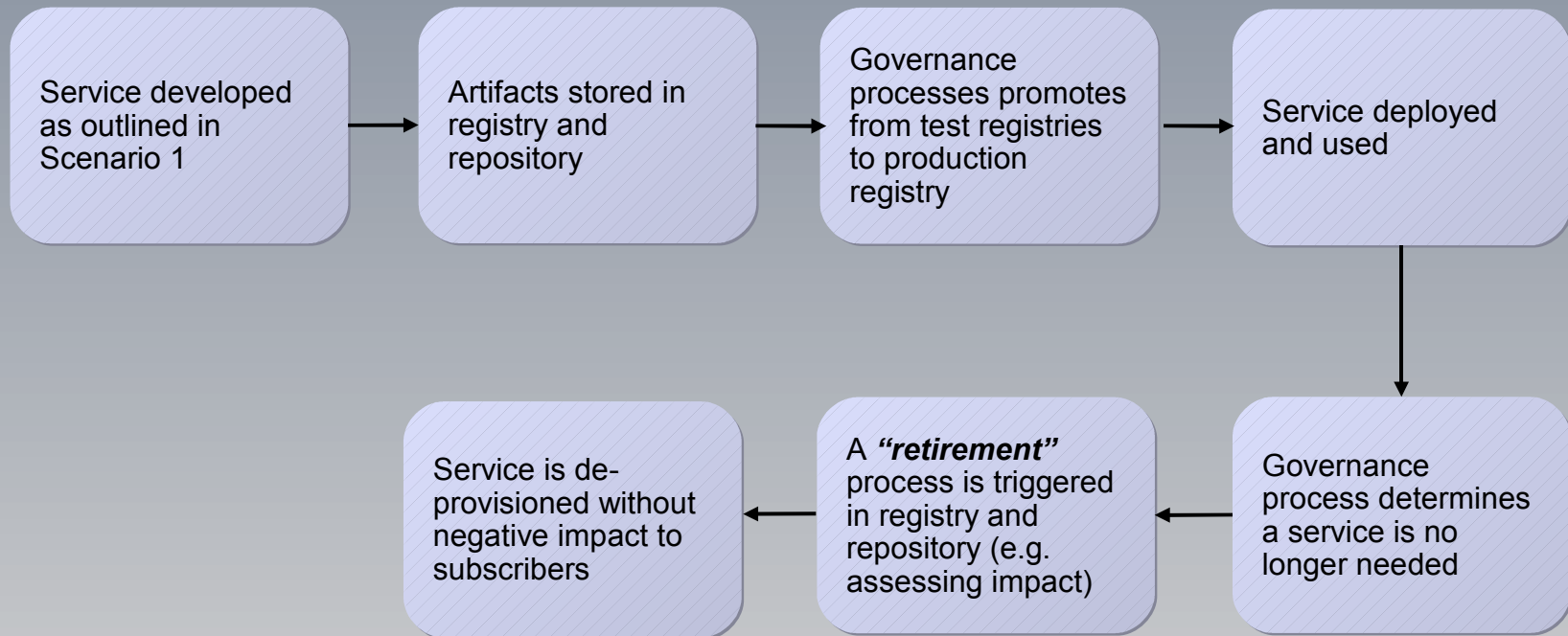
Govern

Approve
Retire
Validate
Conform

- Infrastructure to help organize and discover services assets, govern access and monitor service vitality
- Policies for publishing, using and retiring services
- Change management
- Manage change and versioning of services

Scenario 4: Service governance, deployment, change and release management, versioning

Service metadata management: Lifecycle management process for service artifacts and relationships



Problems addressed by Service Registry and Repository

Business and IT Need	Value of WebSphere Service Registry and Repository
How do I eliminate “rogue services” and ensure architectural control of my SOA?	Reduces Time to Market <ul style="list-style-type: none"> – Rapid assembly and/or re-configuration of coarse grained services
How do I increase service reuse across IT and business domains?	Reduces Costs <ul style="list-style-type: none"> – Promotes reuse, prevents reinvention, improves productivity
How do I provision, personalize, and govern services as part of my SOA?	Reduces Risk <ul style="list-style-type: none"> – Understand and manage relationships between business services
How do I ensure simplified and consistent policies across all internal and external services?	Improves consistent policy adoption <ul style="list-style-type: none"> – Apply consistent security policies, enables security governance
I want to socialize common services across the Enterprise SOA needs	Improves Visibility <ul style="list-style-type: none"> – Security, process, semantic, location, and governance constraints
I need a standard Framework to find and subscribe to services with relevant information that can be consistently adopted across SOA projects and enable governance	Improves Reliability <ul style="list-style-type: none"> – Improved service dependency visibility and management

WebSphere Service Registry & Repository Content Model

Service Description Entities

Physical Documents

- WSDL
- XSD
- WS-Policy
- XML - *User-defined Documents*
-

Logical derivations

- Interface
- Operation
- Message
- Type
- Service
- Binding
- Endpoint
-

Concepts

- *User-defined by classification*
- Business Application
- Business Process
- Governed Collection
- External reference
-

Service Description Metadata

Properties

- name
- namespace
- version
- description
- modifiedDate

- name
- namespace
- *User-defined*
- *metrics*

- *User-defined*
- owner
- *externalURL*

Relationships

- imports
- includes
- predecessor
- *User-defined*

- derivedFrom
- operations
- messages
- *User-defined*

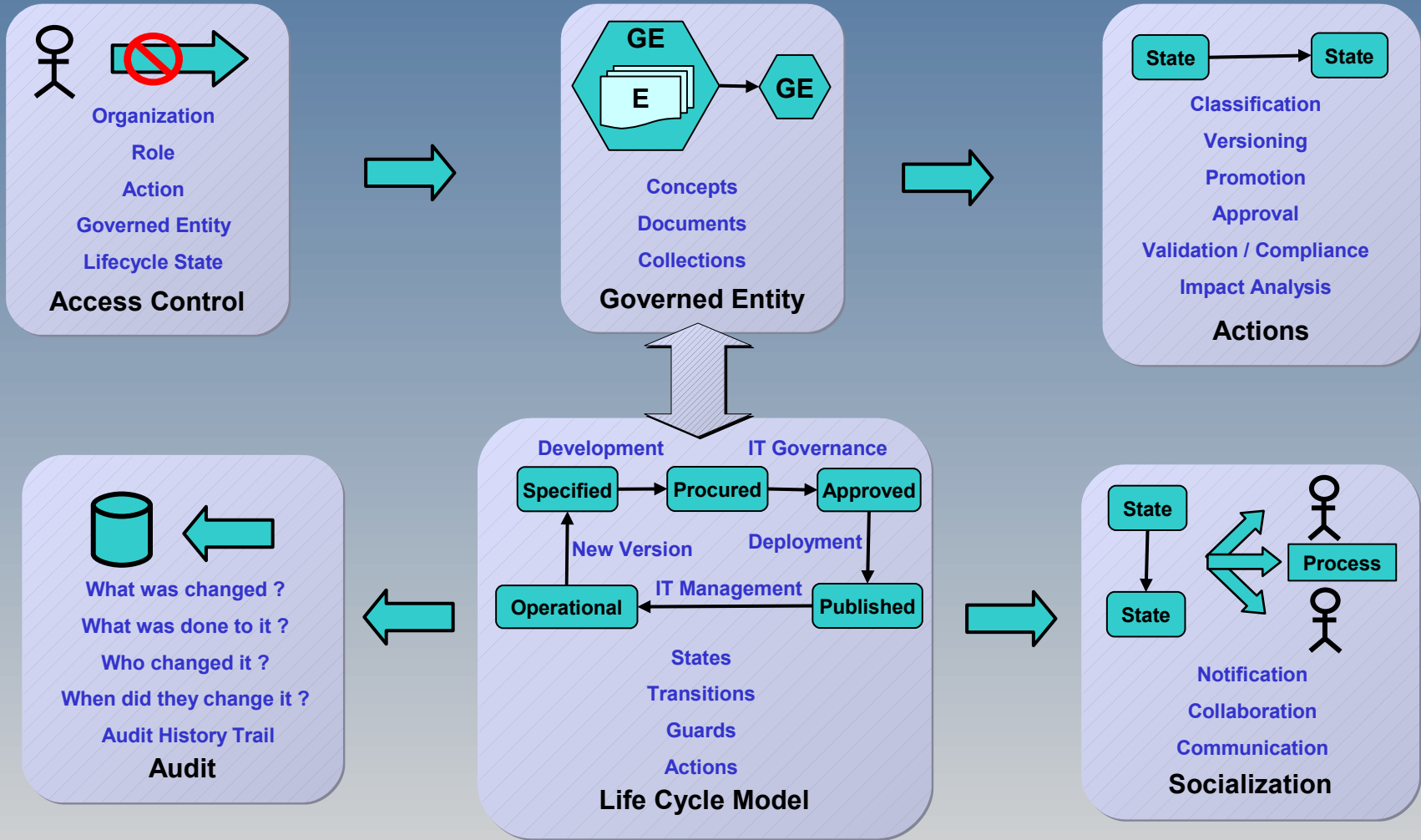
- *User-defined*
- *dependantServices*
- *serviceInterface*
- *governedEntities*
- *policies*
-

Classifications

- *User-defined States*
 - *Created*
 - *Approved*
 - *Published*
 - *Operational*
- *User-defined Environments*
 - *Development*
 - *Test*
 - *Approval*
 - *Production*
- *User-defined Concepts*
 - *Application*
 - *Process*
 - *Capability*
- *Standard Ontologies*
 - NAICS
 - UNSPSC
 - ISO3166

All plans and proposed features subject to change

WebSphere Service Registry & Repository Governance



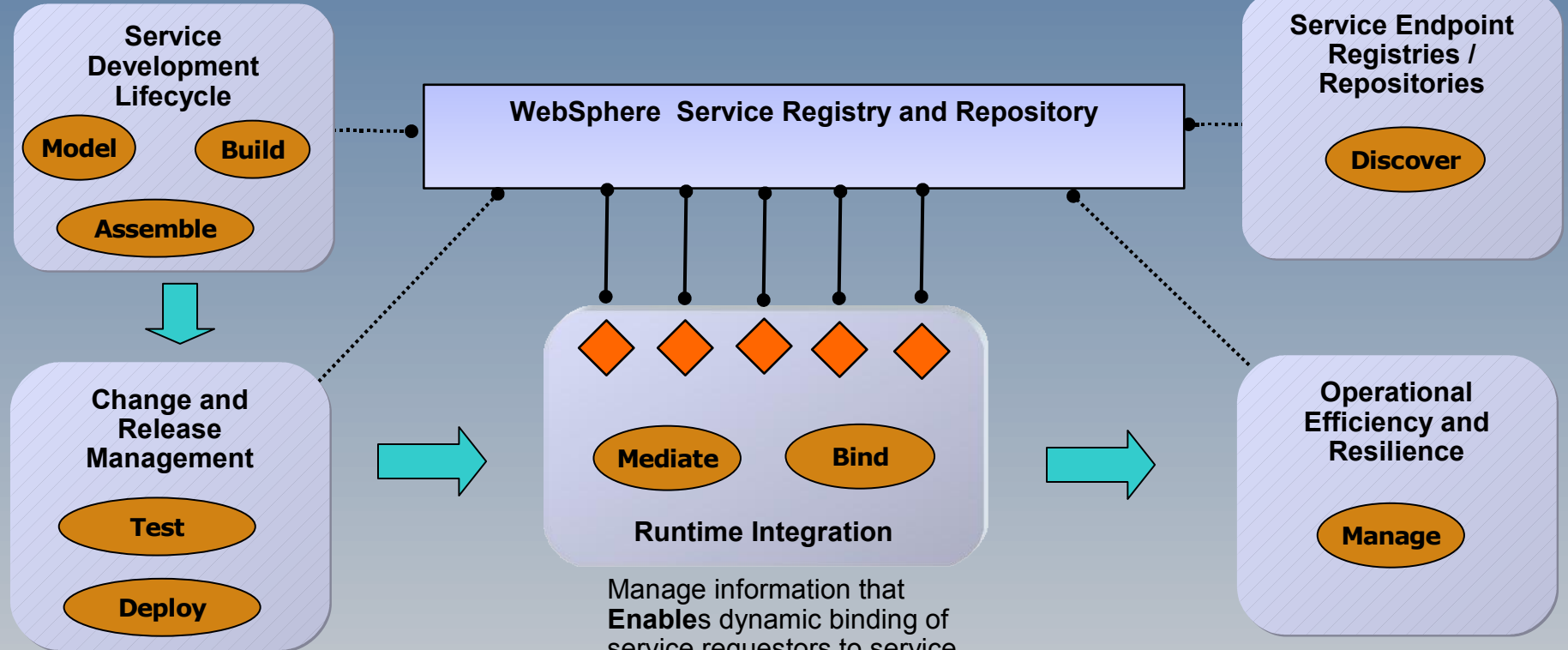
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WebSphere Service Registry & Repository Solution View

Discover and reuse services that could serve as building blocks for new composite applications.

Publish newly developed services.

Discover services from other registries or deployed environments ready for harvesting into the SOA lifecycle.



Govern deployed services to ensure changes are authorized and service integrity is maintained. **Notify** clients of changes.

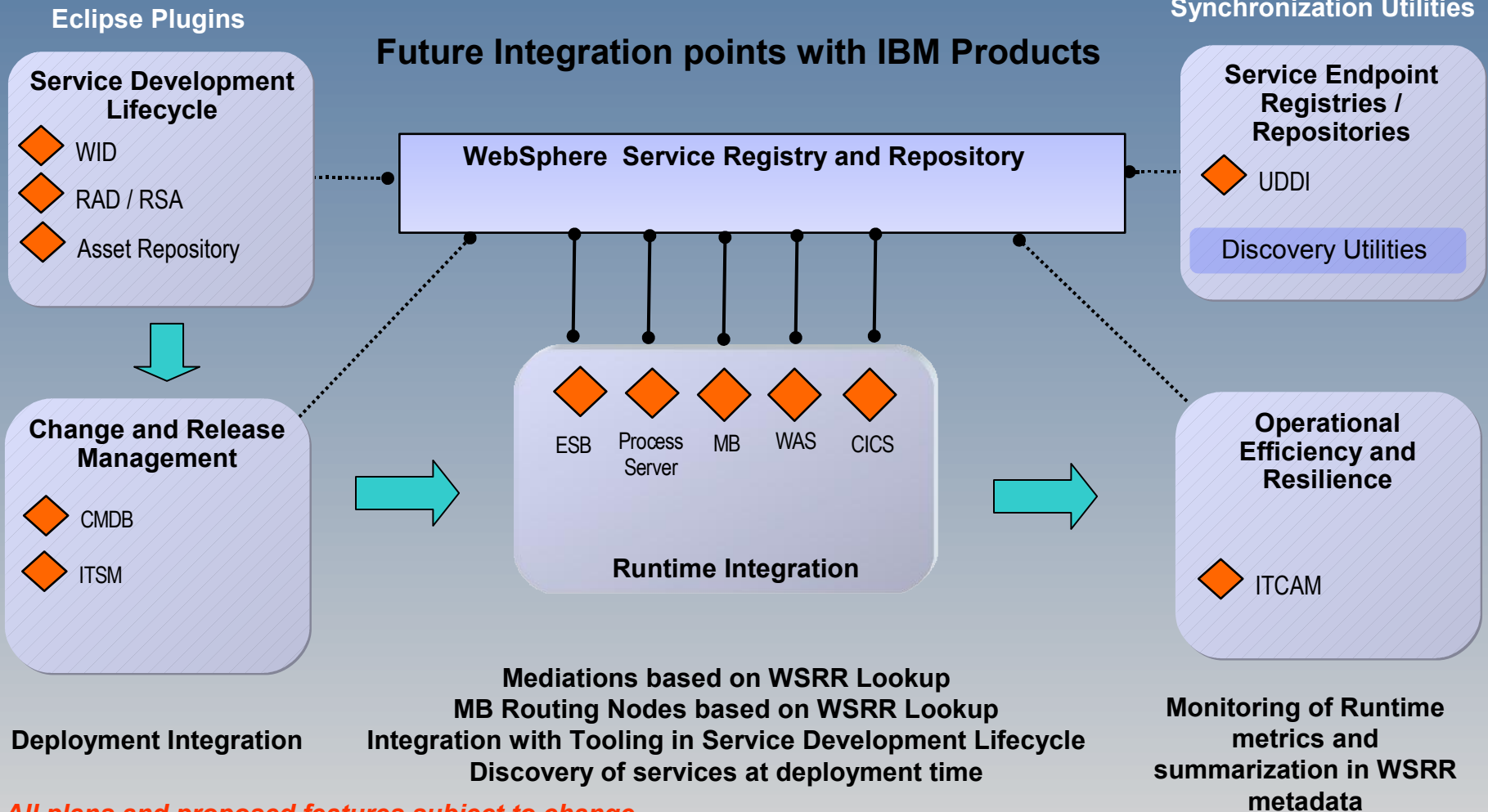
Manage information that **Enables** dynamic binding of service requestors to service providers and allows the infrastructure to enforce registered policies.

Manage efficiency by providing detailed information about service interaction endpoints being monitored.

All plans and proposed features subject to change

WebSphere Service Registry & Repository Integration

Future Integration points with IBM Products



All plans and proposed features subject to change

Getting Involved – Early Access Program

- **Iterative Development Approach**
 - Focus product features on common customer requirements
- **Early Access Program now available**
 - Customer involvement during release development
 - Apply through WebSphere Early Access Program.
 - Confidentiality agreement as part of signup.
 - On approval key gives access to :
- **Monthly iteration releases:**
 - IBM Hosted Web Application – shared with other customers
 - Iteration Install images for download
- **Participation in IBM hosted newsgroup for**
 - Feedback on requirements
 - Suitability of iteration features
 - Experiences, issues etc with the iteration prior to GA.
 - Thought leadership on Service Registry & Repository usage in SOA