



IBM Software Group

WebSphere Business Service Fabric

New in Business Space version 6.2



@business on demand.

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This education module covers the new features in WebSphere® Business Services Fabric version 6.2 Business Space templates.

Agenda

- Introduction to business user tools
- Fabric authoring space
- Business process agility space
- Fabric security in business space
- Summary



This is the agenda for this education module. First the presentation will cover the need for business user tools. You will then be given an introduction to the new business templates added in version 6.2 of WebSphere Business Services Fabric inside of Business Space. Next you are given an extensive look into each of the new business space templates that is Fabric Authoring and Business Process Agility Space. The last topic covered is setting up security to gain access to these templates and associated widgets.

Business user tools: The need

- Need to bring the capabilities and concepts of WebSphere Business Services Fabric closer to the business user
 - ▶ The ability for empower the business user
- Requested from the field

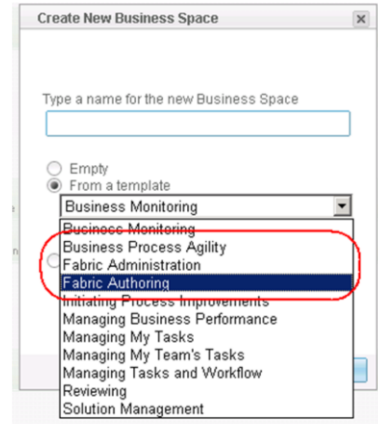


There has been feedback from the field that there is a big need to bring the capabilities and concepts of WebSphere Business Services Fabric closer to the business user. This helps better align IT initiatives with business needs. The new features in version 6.2 aim to help satisfy this need by providing the ability for business user to create, view, and define composite business applications, business services, and business policies. To accomplish these tasks user friendly tools that requires limited IT skills have been provided in business space through business templates, pages, and widgets.

Fabric business space templates

Three business space templates come with the fabric and are configured with all the widgets you need

- Fabric Administration – administrative management of Applications, Business Services, Vocabulary, and change sets
- Fabric Authoring – creation of Applications, Business Services, Vocabularies, and Business Service policies
- Business Process Agility – designed to support changes to policies and business variables that require no IT intervention



In version 6.2 three business space templates in Business Space are provided with WebSphere Business Services Fabric. These business space templates are Fabric Administration, Fabric Authoring, and Business Process Agility. The Fabric Administration business space provides business users administrative capabilities to manage applications, business services, vocabulary, and change sets. This replaces the change management user interface in the Fabric Administration Web console in version 6.1.2. The Fabric Authoring business space provides creation of applications, business services, vocabularies, and business service policies. The Business Process Agility business space provides designed to support changes to policies and business variables that require no IT intervention.

Section

Fabric authoring space



This section covers fabric authoring business space.

Getting started with fabric authoring

Getting Started with WebSphere Business Services Fabric Authoring

You can create and update artifacts used by WebSphere Business Services Fabric to control the performance of your applications through defined policies. There are three main types of artifacts through which you can work with policies:

- Business applications
- Business services
- Vocabularies

How do I create and update business applications?

3

A business application describes the flow of business services to provide a business solution. Creating and updating an application consists of graphically assembling the business services into a flow and defining policies to dynamically control the behavior of the business services when they run within the business application.

 [Start working with applications](#)

How do I create and update business services?

2

A business service is a representation of a business function. Creating and updating a business service consists of defining its inputs and outputs, its variations, and the policies that determine which variation to use according to the inputs, the outputs, and other context data.

 [Start working with business services](#)

How do I create a vocabulary?

1

A vocabulary defines the terms used by business services and policies. Creating and updating a vocabulary consists of identifying the channels, roles, and generic business concepts that form the definition of all business applications, business services, and policies.

 [Start working with vocabularies](#)



When you create a new business space based on the Fabric Authoring business template, you are given a getting started screen. You should follow the steps from bottom to top. That is, your first step is to create a business vocabulary and then define a business service. Once the business vocabulary and business service are defined, you can then proceed to define the business application. The business vocabulary is defined in the vocabulary details page. The business service can be defined in the business service details page and finally the business application can be defined using the application details page.

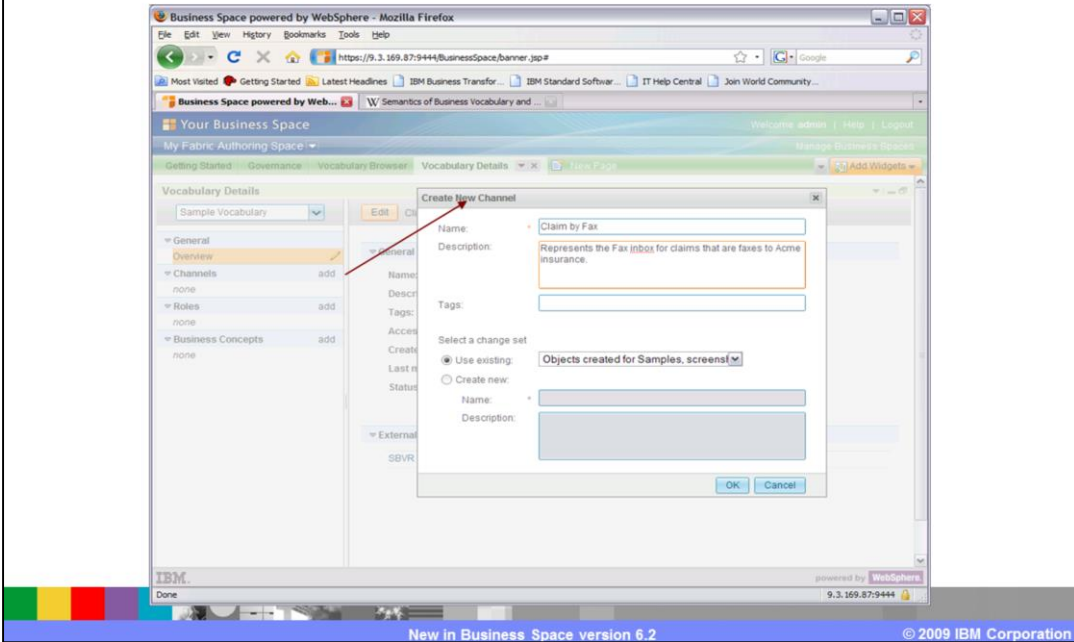
Business vocabularies

- A Business Vocabulary is a description of a business domain composed of concepts and relationships. Vocabularies can be re-used and extended. A business application can rely on concepts drawn from several different vocabularies
- Used to capture Business Domain knowledge for human consumption
 - ▶ Concepts, definitions, relationship types
 - ▶ Helps Business-IT alignment
- Used to model roles and channels
 - ▶ Roles and channels can span business services
 - ▶ No hierarchical semantics for roles and channels
- Used to extend the “language” of business context and policies. Essentially replaces the need to model content-based assertions
- Used to model inputs and outputs of business services. Essentially, high-level business object modeling which involves using “object” concepts and the “has” relationship

A Business Vocabulary is a description of a business domain composed of concepts and relationships. Vocabularies can be re-used and extended. A business application or service might rely on concepts, roles, and channels drawn from several different vocabularies. These business vocabularies are used to capture business domain knowledge for human consumption. This includes roles, channels, business concepts, definitions, relationship types, and terminologies. This is aimed to help improve business-IT alignment by providing legible terms that are used and understood by both IT and business. It is important to note that there is currently no hierarchical semantics for roles and channels. This means that currently it is not possible to define for example a role hierarchy relationship like a organization lead and sub leads under this lead.

Further business vocabularies are used in defining business context and policies. If you are building applications in version 6.2 you do not need to use to content-based assertions or make extensions using the Fabric Modeling Tool to help adapt the base business model to your business domain. Business vocabularies now provide the right tools to achieve this in a simple easy manner. Business vocabularies are also used to model inputs and outputs of business service in the high level business object modeling which involves using object concepts and the has relationship.

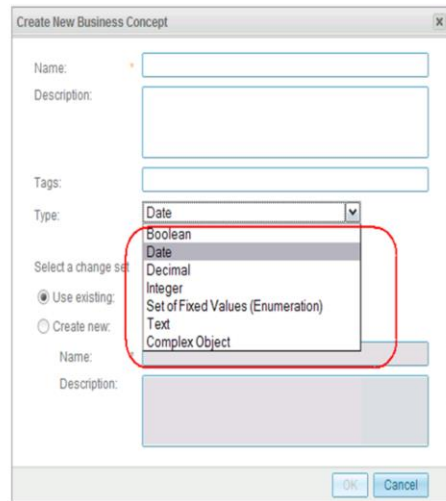
Vocabulary: Roles and channels



This is the interface of the business vocabulary detail page in business space. The drop down on the left allows you to select different available vocabularies. Underneath that is displayed the roles, channels, and business concepts stored in that particular vocabulary. A user with the right privileges can be then create, view, edit, and update these items as needed. In this image a new channel is being created by clicking add next to the Channels label.

Vocabulary: Simple concepts

- There are six types of concepts that can represent a data value
- The different types determine the control, value range constraints and comparators available when authoring policies
- Be sure to edit and fill in additional detail after creating new concepts



The screenshot shows a dialog box titled "Create New Business Concept". It contains several input fields: "Name", "Description", and "Tags". The "Type" dropdown menu is open, displaying a list of options: Boolean, Date, Decimal, Integer, Set of Fixed Values (Enumeration), Text, and Complex Object. The "Date" option is currently selected and highlighted. Below the dropdown, there are two radio buttons: "Use existing" (which is selected) and "Create new". At the bottom of the dialog, there are "OK" and "Cancel" buttons.



When creating a business vocabulary term there are six types of values namely Boolean, date, decimal, integer, enumerated, text, and complex object. Date is a new type that has been introduced in this release. You can then add constrains depending upon the type of value selected. For example for integers you add a minimum or maximum value or for enumeration you can add the set of fixed values. It is recommended to define these constrains after creating these objects based on your business needs as the default values that come with the product might not best suit your business environment. Next you will cover enumerations.

Defining an enumeration

- Value represents a code value which is likely to appear in a business message while
- Display label is meant to eliminate confusion for human readers
- Always specify both columns
- If there is no discernible code system, just make value = display label

Save Cancel Active change set: Objects created for Samples, screenshots

Name: Line of Business

Description: Line of Business Codes sourced from ACORD.

Tags: ACORD

Created: Jan 25, 2009 8:56:44 PM by admin

Last modified: no modifications made

Status: Changes pending (change set: Objects created for Samples, screenshots)

Acronym: LOB

Synonyms: None selected, click to select

Related concepts: None selected, click to select

Type: Set of Fixed Values (Enumeration)

Values:

| Value | Display Label |
|----------------------------------------|---------------------------------------|
| AUTOP | Personal Automotive |
| AUTOC | Commercial Automotive |
| HOME | Home Owners |
| UMBR | Umbrella |
| FLOOD | Flood Coverage |
| Click to set new value | Click to set new name |



When defining an enumeration, you should click edit to add, remove, or update items in the enumeration. Each item is a name value pair where the name or display label provides a human readable value and the value can be a code value. Display label can be in different languages. It is a good practice to specify both columns. Also if the distinction does not need to be made between the display label and value then you should let them be the same while entering the item. Once the vocabulary is defined, you next create business services.

Business services

Business Service Inputs and Outputs

VerifyClaimRequest
VerifyClaimResponse

Click to set a name for this input or output

Insurance Claim
Claim Status

Click to choose a business concept

Vocabularies Used

Sample Vocabulary

- A business service represents a specific business function.
 - ▶ For example: performing a credit check or notifying a customer
 - ▶ Building block of Composite Business Applications
- Business Services can be reused in several applications.
- Business Service policies can be used by business users to control behavior across applications.
- Inputs and Outputs are defined from the business vocabulary
 - ▶ Best Practice : Use complex objects to the represent basic structure of input and outputs. Preferably use a single input/output object

A business service represents a specific business function like credit check or verifying a claim. Business services can be thought of as steps in a business process that represent a cohesive way of accomplishing a business need. These can also be viewed as reusable building blocks for creating composite business applications. Business service can have business policies associated with them that control the behavior of the business service across the applications that use them. Business users can also define policies at application levels.

Next, the business user will need to define inputs and outputs for the business service. The input and output can be defined from the business vocabulary. These vocabularies are then listed under the vocabularies used in the business service overview. Use complex objects to the represent basic structure of input and outputs. Preferably use a single input/output object if possible.

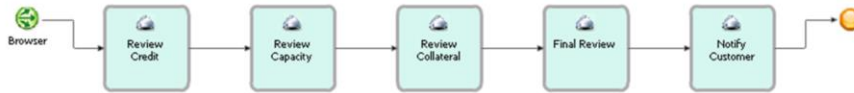
Process variations

- A process variation is a named implementation of a business service
 - ▶ For example: an automated fast-track approval, or a manual approval method for a loan application
 - ▶ A variation can involve a human-centric process, a fully-automated process, or even a call-out to an outsourced service
- Each business service task in an application flow represents a business decision point that can use policies to determine which variation to use
- A business service must have at least one process variation
- New variations can be rolled out without modifying or re-deploying the existing application



A process variation is a named implementation of a business service; for example, an automated fast-track approval, or a manual approval method for a loan application business service. A variation can involve a human-centric process, a fully-automated process, or even a call-out to an outsourced service. Each business service task in an application flow that represents a business decision point that can use policies to determine which variation to use. A business service must have at least one process variation. New variations can be rolled out without modifying or re-deploying the existing application. When the business model is imported into WebSphere Business Modeler then a project is created for each business service with a skeleton process flow for each variation. Next you will cover business application.

Business applications

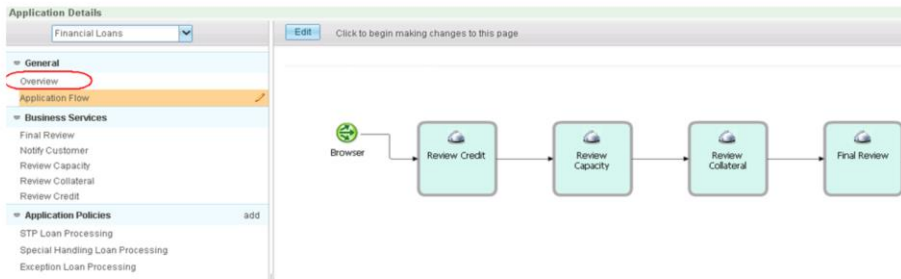


- A Composite Business Application represents the flow of a process from one business service to another.
- Allows a business user to quickly visualize the role of a business service in given business process.
- Application level policies can be defined



Composite Business Applications are combinations of business services that provide content from multiple sources orchestrated together to satisfy a business need. You can create as many such applications pages as you want to provide multiple views of your business. In addition to viewing content, you can also create composite business applications that act on your business by, for example, assigning people to various tasks or adjusting business rules for different outcomes. Composite business applications enable a business user to quickly visualize the role of a business service in given business process. Business users can further define application policies for the business application. Note the scope of these policies is limited to the application where as you saw earlier the business service polices are scoped across applications.

Application details



- Provides details about with the business application
- Provides user interactive visual model tool to design hi level overview of the business applications including its business services, roles and channels

The business application details page helps business users define the business process flow including the business services, channels, and roles. These details can be seen in the overview screen of the business application. Further, a business user can use a visual modeling tool to model the business application. This process flow will then be imported into the modeler to provide implement finer details of the model. The visual tool gives business users the ability to define the channels accessing the process, the process flow of the business services and the roles that have access to each service. A business user can also define application policies, the effective dates for the policies, and the priority level on the policy.

Business policies: A for-when-then clause

- Policy model simplified to a for-when-then syntax
- The For clause defines the policy target
- The When clause used to express conditions that must be true for a policy to apply
- The Then clause used to define the result of the policy

Policy Details

Effective Date:

Expiration Date:

Priority:

For

Verify Claim

When

(No conditions, click to add)

Then

(No results, click to add)

The policies have been simplified to a basic 'for-when-then' syntax. An effective date range and priority can be optionally defined for each policy. The priority is used to disambiguate policies that have the same natural order. Higher numbers mean higher priority. The For clause is used to specify the target or scope of the policy. The When clause is used to express conditions that must be true for a policy to apply. The Then clause is used to define the result of the policy. That is, the Then clause defines what happens if the For and When conditions hold true. An example of a policy is that for business service final review when loan value is greater than two hundred and fifty thousand and less than three million, then select a final review by senior underwriter.

The 'for' clause

- The 'For' clause is a generalization of the notion of a policy target.
- Defined when creating a policy, not editable thereafter.
- Three forms are provided:
 - ▶ For {Business Service}
 - A policy that might apply for a business service across applications. Added to same namespace as the business service
 - ▶ For {Application}
 - A policy that might apply for the whole application across all of its business services
 - ▶ For {Business Service} in {Application}
 - Applies to exactly usages of a business service within an application



The For clause is a generalization of the notion of a policy target. Defined when creating a policy, it is not editable thereafter. You cannot re-scope the policy once it is defined.

Three forms are provided to define the specific scope of the policy:

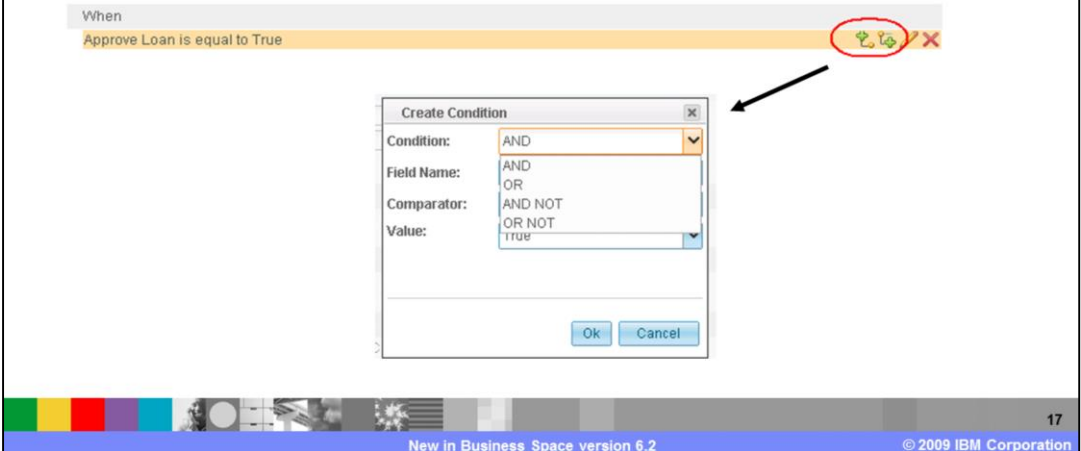
The first is for a Business Service. Here a policy might apply for a business service across applications. It is added to the same namespace as business service definition.

The second is for an Application. Here a policy might apply for the whole application across all of its business services.

The last form is for a Business Service in an Application. Here a policy applies to the exact usages of a business service within an application.

The 'when' clause

- Used to express conditions that must be true for a policy to apply.
- Supports complex expressions



The When clause used to express conditions that must be true for a policy to apply. The condition drop down helps to build a complex When condition using **and**, **or**, **and not**, and **or not** operators. A new expression can be added before or after an existing expression. From the previous example a When condition can be when loan value is greater than two hundred and fifty thousand and less than three million.

The 'then' clause

- The Then clause used to define the result of the policy.
 - ▶ Select a variation
 - ▶ Establish business context by assigning a value to a concept.

Edit Result

Assign a value to a concept
(Select a concept to the right)

Select a process variation

Business Service: Final Review

Service Variation: Final Review Senior Underwriter

Concept Search

Type to filter

- Approve Loan
- City
- claim value
- Concept
- Country
- Customer Name
- Customer Type
- Down Payment
- Enumerated
- Loan Processing
- Loan Status
- Loan Type

Select Concept

Ok Cancel

The Then clause is used to define the result of the policy. If the For and When conditions are satisfied then a business policy will either select a variation or establish business context by assigning a value to a concept.

Section

Business process agility space



This section covers the business process agility space.

Business process agility space

- Fabric widgets designed for management of business variables and business service policies
 - ▶ Enables a Business Leader view and change policies that control the behavior of an application
 - ▶ Changes can be performed in production with no IT involvement
 - ▶ Some changes require going back to the authoring environment



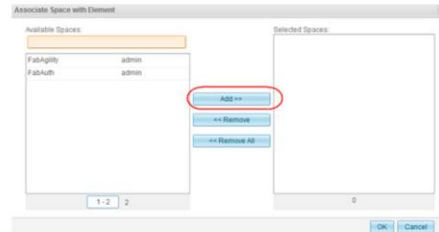
The business process agility template is designed to allow the business user to adapt to the changing business environment and needs, and make dynamic changes to business objects - including business variables and business policies. The business user can (for example) change an aspect of a policy without having to involve the IT administrator. This capability provides the business user with the flexibility to adapt business processes to changing business requirements with minimum overhead. Some changes require going back to the authoring environment.

Bringing applications into the space

| Name | Type | Created By | Tags | Last Modified |
|--------------------------|------------------|-------------|--------------------------------------------------------|----------------------------------|
| AP_PersonalLoan | Application | admin | none | no modifications made |
| AP_Shipping | Application | admin | shipping | no modifications made |
| AP_wfc-5614 | Application | admin | none | no modifications made |
| BPM Vocabulary | Vocabulary | system_user | none | no modifications made |
| Dunn Productions LTD | Vocabulary | admin | PurchaseOrder processing, warehouse, billing, shipping | no modifications made |
| Fontain Loans Dunn Here | Vocabulary | admin | none | no modifications made |
| Vocab_wfc-5614 | Vocabulary | admin | none | no modifications made |
| BSic_BackgroundCheck | Business Service | admin | none | Feb 19, 2009 8:24:10 PM by admin |
| BSic_CollateralAppraisal | Business Service | admin | none | Feb 19, 2009 8:26:53 PM by admin |



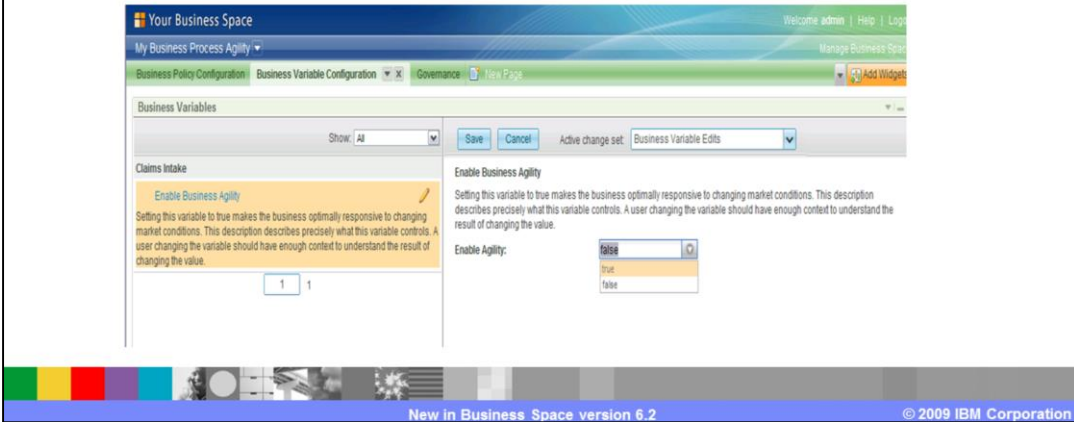
- Requires administrator to add the application to an existing space
- This allows users of the added space to edit and submit changes



In order to manage a business application in the business process agility space it must first be added to the space through the business process life cycle management page under Fabric Administration page. This can be achieved by clicking add space as shown and then adding all the applications in the interactive page presented. Once an application is added to the business space the business user can then manage the business policies and variables here.

Business variables

- A business variable is an established business parameter. Changes to a business variable have well-understood effects on the behavior of a business process
- A single business variable can be used in multiple policies.
- Changes now go through governance like everything else



A business variable is an established business parameter. These variables allow for business users to change business policies with minimum impact on business process. Further, these changes to a business variable have well-understood effects on the behavior of a business process. A single business variable can be used in multiple policies. In version 6.2 all changes to the business variable will have to go through governance to get published.

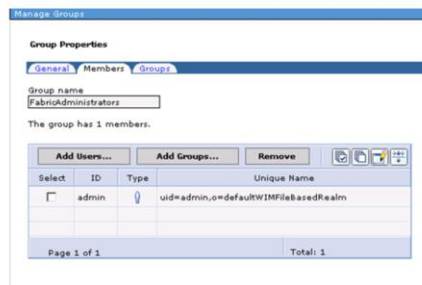
Section

Fabric security in business space



This section covers using fabric security to define user access for a business space.

Administrators : Access control and visibility



- Add administrators to the “Fabric Administrators” group in the WebSphere Process Server administrative console.
- Only Administrators can use a Fabric Administration Space.
- Administrators can do anything

In order to give administrators access the business spaces and widgets the administrator needs to be added to the Fabric Administrators group in the WebSphere Process Server administrative console. Fabric Administration Space can only be accessed by members of the Fabric Administrators group. Administrators have complete access and visibility to all spaces and widgets.

Objects: Access control and visibility

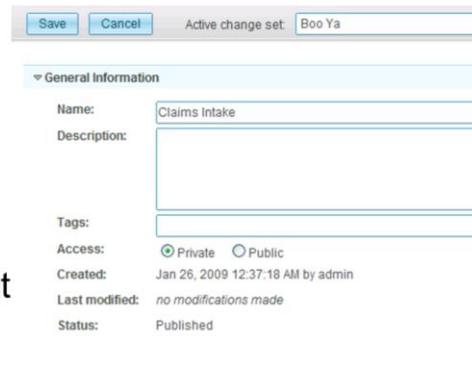
- When applications, business services and vocabularies are created, the creator is assigned as the Owner and the object is added to that space
- An object can be edited by:
 - ▶ An administrator
 - ▶ Anyone who has access to any of the spaces the object is associated with



When applications, business services, and vocabularies are created, the creator is assigned as the Owner and the object is added to that space. An object can be edited by an administrator or anyone who has access to any of the spaces the object is associated with such as an owner, a direct user or a member of a group.

Public versus private

- Newly created objects are private.
- Private objects can only be seen or referenced from within spaces they are associated with.
- Public objects are read only, but can be referenced by other objects.
- Private to Public cannot be reverted



The screenshot shows a web-based interface for managing objects. At the top, there are 'Save' and 'Cancel' buttons, and a label 'Active change set: Boo Ya'. Below this is a section titled 'General Information' with a dropdown arrow. The form contains the following fields:

- Name: Claims Intake
- Description: (empty text area)
- Tags: (empty text area)
- Access: Private Public
- Created: Jan 26, 2009 12:37:18 AM by admin
- Last modified: no modifications made
- Status: Published



When you create objects, you can assign them as either public or private. By default all newly created objects are private. Private objects can only be seen or referenced from within spaces they are associated with. Public objects are read only, but can be referenced by other spaces and objects. Once a private object is made public it can not be made private again.

Change set access control

- Governance tab in Fabric Administration space shows all change sets in the system and allows administrators to manage the review states
- Within the authoring or agility space, the space **owner** is allowed administrative powers over change sets in that space
- Only the creator of a change set, the space owner, or an administrator can submit draft changes
- Anyone who can edit a business artifact can create a change set
- An object can only have changes in one business space at a time

When any change is made, it will be associated with a changes set. These change sets are then submitted to governance for approval and publishing. The governance tab in Fabric Administration space shows all change sets in the system and allows administrators to manage the review states. Within the authoring or agility space, the space owner is allowed administrative powers over change sets in that space. Only the creator of a change set, the space owner, or an administrator can submit draft changes. Anyone who can edit a business artifact can create a change set. An object can only have changes in one business space at a time. If there is a pending change for an object it is locked in other associated spaces.

Summary

- Introduction to business user tools
- Fabric authoring space
- Business process agility space
- Fabric security in business space



In summary, this presentation covered an introduction of the business user tools, and talked about the business need for this functionality and the new tools available with the Fabric. You then got a look into fabric authoring space and business process agility space. In the end, you were given an insight into fabric security in business space.

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