



IBM Software Group

IBM® WebSphere® Application Server V6.1 Feature Pack for Web Services

WS-Atomic transactions



@business on demand.

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This presentation will explain the new policy sets feature for WS-Atomic Transactions or WS-AT in the Feature Pack for Web Services.

Agenda

- WS-Atomic transaction (WS-AT)
- Problem determination



This presentation will explain the policy set support for WS-Atomic Transactions or WS-AT in the Feature Pack for Web Services. This support is specific to the JAX-WS programming model, and as will be explained later is different than the support for WS-Transactions in WebSphere Application Server V6.1 for JAX-RPC.

Section

WS-Atomic transaction

The next section discusses the support for WS-Atomic Transactions in the Feature Pack for Web Services.

WS-transaction support

- Only WS-Atomic transactions (WS-AT) is currently supported in the Feature Pack for Web Services
- WS-BusinessActivity (WS-BA) is not supported because WebSphere Application Server business activity implementation is heavily EJB-based
 - ▶ No support in the Feature Pack for Web Services for exposing an EJB as a JAX-WS Web Service
- It is possible to use the JAX-RPC based WS-BA support on a “feature pack-augmented” server
 - ▶ Using non JAX-WS services of course



Currently only Web Services Atomic Transactions are supported in the Feature Pack for Web Services. The WS-Business Activity specification is heavily based on Enterprise Java Beans, and since there is no support in the Feature Pack for exposing EJBs as Web Services, this is not available. WS-Business Activity can still be used with JAX-RPC based Web Services.

WS-Transactions policy type

The screenshot shows the 'Application Policy Sets' configuration page for 'Transactions'. The page is titled 'Application Policy Sets > Transactions' and includes instructions: 'Use this page to configure a policy set.' The configuration is divided into 'General Properties' and 'Additional Properties'.

General Properties:

- Name: Transactions
- Description: This is an example enabling WS-Atomic Transactions as a Policy Set

Additional Properties:

- Attached applications

Buttons: Apply, Reset

Policy types:

Buttons: Add, Delete, Enable, Disable

Select	Name	State	Description
<input type="checkbox"/>	WS-Transaction	Enabled	

Total 1

5

WS-Atomic transaction © 2007 IBM Corporation

This screen shows the default Policy Set for WS-Atomic Transactions, this can be attached to an application to enable WS-Atomic Transactions.

WS-Transaction problem determination

- Common mistakes:
 - ▶ Clients must use request-response semantics
 - WS-AT will not work with one-way requests
 - An attempt to make a one-way request that includes transaction context will fail with an AxisFault
- Must gathers:
 - ▶ No change from previous releases
 - ▶ Refer to must-gather documentation on WebSphere Application Server customer support Web site
 - <http://www-306.ibm.com/software/webservers/appserv/was/support/>
 - Trace settings
 - Log files to collect
 - FFDCs

One thing to consider is that WS-Atomic transactions only work with two-way requests, it will not work with one-way requests, this will result in an AxisFault. If problems are encountered specific to WS-Atomic transactions, the information to gather can be found at the link above, and is the same information that should be gathered for the WS-AT support in WebSphere Application Server V6.1.

Section

Summary

The next section provides a summary of this presentation.

Summary

- The Feature Pack for Web Services provides policy sets for WS-Atomic transaction
 - ▶ Specific to JAX-WS

This presentation explained the policy set support for WS-Atomic transaction in the Feature Pack for Web Services. This support discussed here is specific to the JAX-WS programming model.

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