Legal Notices

The information contained in this documentation is subject to change without notice.

JBoss Inc. makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. JBoss Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Java™ and J2EE is a U.S. trademark of Sun Microsystems, Inc. Microsoft® and Windows NT® are registered trademarks of Microsoft Corporation. Oracle® is a registered U.S. trademark and Oracle9™, Oracle9 Server™ Oracle9 Enterprise Edition™ are trademarks of Oracle Corporation. Unix is used here as a generic term covering all versions of the UNIX® operating system. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

Copyright

JBoss, Home of Professional Open Source Copyright 2006, JBoss Inc., and individual contributors as indicated by the @authors tag. All rights reserved.

See the copyright.txt in the distribution for a full listing of individual contributors. This copyrighted material is made available to anyone wishing to use, modify, copy, or redistribute it subject to the terms and conditions of the GNU General Public License, v. 2.0. This program is distributed in the hope that it will be useful, but WITHOUT A WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

See the GNU General Public License for more details. You should have received a copy of the GNU General Public License, v. 2.0 along with this distribution; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

Software Version

JBossESB 4.3 GA

Restricted Rights Legend

Use, duplication, or disclosure is subject to restrictions as set forth in contract subdivision (c)(1)(ii) of the Rights in Technical Data and Computer Software clause 52.227-FAR14.

© Copyright 2008 JBoss Inc.
Table of Contents

Contents..............................................................................iv

About This Guide..........................................................5

What This Guide Contains.................................5
Audience.................................................................5

Prerequisites..............................................................5
Organization............................................................5
Documentation Conventions..........................5
Additional Documentation.............................6
Contacting Us.........................................................7

Orchestrating Web Services.................................9

Introduction.............................................................9
About This Guide

What This Guide Contains

The WS-BPEL Guide document contains descriptions on the principles behind Service Oriented Architecture and Enterprise Service Bus, as well as how they relate to JBossESB.

Audience

This guide is most relevant to engineers who are responsible for using JBossESB 4.3 GA installations and want to know how it relates to SOA and ESB principles.

Prerequisites

None.

Organization

This guide contains the following chapters:

- Chapter 1, Orchestration: A discussion of how jBPM and WS-BPEL can be used to orchestrate services within JBossESB.

Documentation Conventions

The following conventions are used in this guide:
### Formatting Conventions

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Italic</em></td>
<td>In paragraph text, italic identifies the titles of documents that are being referenced. When used in conjunction with the Code text described below, italics identify a variable that should be replaced by the user with an actual value.</td>
</tr>
<tr>
<td><strong>Bold</strong></td>
<td>Emphasizes items of particular importance.</td>
</tr>
<tr>
<td><em>Code</em></td>
<td>Text that represents programming code.</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>A path to a function or dialog box within an interface. For example, “Select File</td>
</tr>
<tr>
<td>( ) and</td>
<td>Parentheses enclose optional items in command syntax. The vertical bar separates syntax items in a list of choices. For example, any of the following three items can be entered in this syntax:</td>
</tr>
<tr>
<td></td>
<td>`persistPolicy (Never</td>
</tr>
</tbody>
</table>

**Note:** A note highlights important supplemental information.

**Caution:** A caution highlights procedures or information that is necessary to avoid damage to equipment, damage to software, loss of data, or

| Table 1 | Formatting Conventions |

### Additional Documentation

In addition to this guide, the following guides are available in the JBossESB 4.3 GA documentation set:

1. **JBossESB 4.3 GA Trailblazer Guide**: Provides guidance for using the trailblazer example.

2. **JBossESB 4.3 GA Programmer's Guide**: Provides guidance for developing applications using JBossESB.

3. **JBossESB 4.3 GA Getting Started Guide**: Provides a quick start reference to configuring and using the ESB.

4. **JBossESB 4.3 GA Administration Guide**: How to manage JBossESB.

5. **JBossESB 4.3 GA Release Notes**: Information on the differences between this release and previous releases.

6. **JBossESB 4.3 GA Services Guides**: Various documents related to the services available with the ESB.
Contacting Us

Questions or comments about JBossESB 4.3 GA should be directed to our support team.
Chapter 1

Orchestrating Web Services

Introduction

JBossESB provides WS-BPEL support via its Web Service components. For details on these components and how to configure and use them, see the Message Action Guide.

JBoss and JBossESB also have a special support agreement with ActiveEndpoints for their award winning ActiveBPEL WS-BPEL Engine. In support of this, JBossESB ships with a Quickstart dedicated to demonstrating how JBossESB and ActiveBPEL can collaborate effectively to provide a WS-BPEL based orchestration layer on top of a set of Services that don't expose Webservice Interfaces (the “webservice_bpel” Quickstart). JBossESB provides the Webservice Integration and ActiveBPEL provides the Process Orchestration. A number of flash based walk-thrus of this Quickstart are also available online.

Note: ActiveEndpoints WS-BPEL engine does not run on versions of JBossAS since 4.0.5. However, it can be deployed and run successfully on Tomcat as our examples illustrate.