



Using JBoss and Ingres

March 2009
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Overview

- **Introduction**
- **What is JBoss?**
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- **JDBC Troubleshooting**
- **A glance at the JBoss – Ingres Bundle**



Introduction

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Presenters

- **David Turner**
 - Technical Specialist



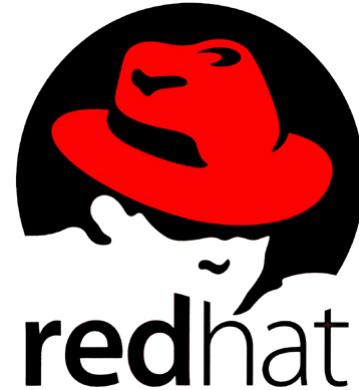
Overview of JBoss and Ingres

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About JBoss and Ingres

- **JBoss**
 - Division of Red Hat
 - Open Source Middleware Software
 - Enterprise-class
 - Professional open source model
- **Ingres**
 - Open Source RDBMS
 - Enterprise-class
 - Professional open source model
- **An enterprise-class open source technology stack**



Benefits of JBoss and Ingres

- **Lower total cost of ownership**
- **Reliable and safe technology**
- **Support, accountability and trust**
- **Backed by professional and expert support staff**
- **Large active community of developers**
- **Stable companies**



Configuring an Ingres JDBC resource in JBoss

Software Used in this Webinar

- **Java Standard Edition Development Kit “1.6.0_12”**
- **Ingres DBMS version 9.2**
 - Ingres JDBC Driver
 - Shipped with Ingres DBMS
 - Version 3.4 supports JDBC 3.0 API
 - Also available to download
 - http://community.ingres.com/wiki/Ingres_JDBC_Driver_Downloads
- **JBoss Application Server 5.0.0 GA**
 - <http://www.jboss.org/jbossas/downloads/>
- **Eclipse Ganymede JEE IDE version 3.4.1**

Steps Required to configure Ingres JDBC

- 1. Obtain the Ingres JDBC Driver**
- 2. Copy driver to JBoss AS**
- 3. Configure a JDBC datasource**
- 4. Test the Ingres JDBC resource**

Step 1: Obtain the Ingres JDBC Driver

- **Locate the Ingres JDBC Driver**
 - Typically located in %II_SYSTEM%\ingres\lib directory
 - The JDBC driver is a JAR file called ijdbc.jar
 - Latest driver class is com.ingres.jdbc.IngresDriver

Step 2: Copy driver to JBoss AS

- **Copy to <JBoss_Home>/common/lib directory**
 - Allows Application Server to use Ingres database
 - Parent folder to all server lib folders
 - If want to add jar for specific server profile then
 - <JBoss_Home>/server/<serverName>/lib
- **(optional) Copy to <JBoss_Home>/client**
 - If developing a Java program or applet
 - JBoss Runtime libraries available to Dynamic Web Project in Eclipse

Step 3: Configure a JDBC datasource

- **Create a datasource configuration deployment file**
 - Naming convention is *-ds.xml
 - Example, ingres-ds.xml
 - Located under server profile
 - Example, <JBoss_Home>/server/default/deploy
 - DTD file is available at:
 - docs/dtd/jbossds_1_5.dtd
- **JBoss AS connects to relational database via a datasource**

Step 4: Test the Ingres JDBC resource

- **Create a simple web application**
 - Obtain the named data source from the naming context
 - Example, “IngresDS” if global
 - Example, “java:IngresDS” if only accessible from within the JBoss server virtual machine



JDBC Troubleshooting

Setting up Ingres JDBC Driver for tracing

- **Ingres JDBC Driver looks for a configuration file at class load time**
 - Place ijdbc.properties file on CLASSPATH
 - Set ingres.jdbc.property_file system property
- **Be aware of the class loading model for JBoss**
 - If putting on classpath place in server class loader or higher
 - E.g common/lib or system class loaders

Properties of the configuration file

- **ingres.jdbc.trace.log=c:/tmp/iijdbc.log**
- **ingres.jdbc.trace.timestamp=true**
- **ingres.jdbc.trace.drv=5**
- **ingres.jdbc.trace.ds=3**
- **ingres.jdbc.trace.msg=3**

- **Refer to:**
 - http://community.ingres.com/wiki/Ingres_JDBC_Config.Utility_Documentation

Ensure JDBC driver compatibility

- **Find out which version of the JDBC Driver**
 - If logging enabled JDBC driver writes out JDBC driver version on class load
 - Otherwise, look at the IngresDriver class static initializer
- **If in doubt use the driver supplied with Ingres DBMS**



The Ingres-JBoss bundle

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The Ingres-JBoss bundle

- **Complete Enterprise Open Source Stack**
- **JBoss and Ingres fully integrated and configured**
- **Tooling**
 - JBoss Developer Studio
 - Ingres Data Tools Platform
- **Available to download shortly**