

JBoss ESB 4.6

SOA Software Integration

JBESB-GS-7/17/09



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Software Version

JBoss ESB 4.6

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Configuration

In order to communicate with the SOA Software registry, you will have to configure JBoss ESB to communicate with the SOA Software registry. In order to do this, the first thing you need to do is to point the JBoss ESB towards the SOA Software registry.

This text assumes you have a running JBoss Application/ESB Server, version 4.6.GA.

jbossesb-properties.xml

Edit `server/<profile>/deploy/jbossesb.sar/jbossesb-properties.xml` and change the following lines – if you are deploying to JBoss AS 5.1.0 or higher, this file is located in `server/<profile>/deployers/esb.deployer/jbossesb-properties.xml` :

```
<property name="org.jboss.soa.esb.registry.queryManagerURI" value="org.apache.juddi.registry.local.InquiryService#inquire"/>
<property name="org.jboss.soa.esb.registry.lifeCycleManagerURI" value="org.apache.juddi.registry.local.PublishService#publish"/>
```

To the following (and make sure to edit the `queryManagerURI` and the `lifeCycleManagerURI` to match the URLs from your installation of SOA Workbench) :

```
<property name="org.jboss.soa.esb.registry.uddi.maxRows" value="100"/>
<property name="org.jboss.soa.esb.registry.queryManagerURI" value="http://stacks2:9901/uddi/inquiry_v2"/>
<property name="org.jboss.soa.esb.registry.lifeCycleManagerURI" value="http://stacks2:9901/uddi/publish_v2"/>
```

Change `jbossesb-properties.xml`:

```
<property name="org.jboss.soa.esb.scout.proxy.transportClass" value="org.apache.ws.scout.transport.LocalTransport"/>
```

To

```
<property name="org.jboss.soa.esb.scout.proxy.transportClass" value="org.apache.ws.scout.transport.AxisTransport"/>
```

Also, within `jbossesb-properties.xml`, change :

```
<property name="org.jboss.soa.esb.registry.user" value="administrator"/>
<property name="org.jboss.soa.esb.registry.password" value="password"/>
```

to match the SOA Workbench user and password you'll be using.

Add Axis and commons-discovery JARs

Copy a recent version of Apache Axis and Apache Commons Discovery into `server/<profile>/lib`. The integration was tested using `axis-1.4.jar` and `commons-discovery-0.2.jar`. Download `axis-bin-1_4.tar.gz` from the Apache Axis site (<http://ws.apache.org/axis/>) to find these JARs.

SOA Workbench Configurations

Configure the guest user in Workbench to the guest role. Click on the top level registry node in Workbench (in the Organization Tree) and click on the second-level “Security” tab (within the Workbench hierarchy). Click “Manage Role” for “Guest” under “Role Memberships”:

The screenshot shows the SOA Software Service Manager interface in Mozilla Firefox. The browser address bar shows the URL `http://stacks2.lab.bos.redhat.com:9900/pm/index.do?redirectpage=up`. The user is logged in as `Local Domain/administrator`. The interface includes a navigation menu with tabs: DASHBOARD, WORKBENCH, POLICIES, ALERTS, SECURITY, MONITORING, and CONFIGURE. The Organization Tree on the left shows the Registry node selected. The main content area displays the Registry details, including a list of roles and a Role Memberships table.

Name	Description	Action
System Administrator	Reserved role responsible for configuring all aspects of Service Manager, it can act on behalf of any other role	View
System Agent	Reserved role for policy enforcement, usually assigned to the container identities.	View
System User	Reserved role for read-only access to Service Manager configuration.	View

Name	Description	Action
Developer	Responsible for registering and building web services.	Manage Role
Guest	Responsible for allowing runtime anonymous access.	Manage Role
Infrastructure Manager	Responsible for installing Management Points, virtualizing services, and deploying services to Management Points.	Manage Role
Operation Manager	Responsible for developing security and monitoring policies and assigning them to services and organizations.	Manage Role
Organization Administrator	Responsible for adding, modifying and deleting organizations, managing services, policies, and Management Points within an organization.	Manage Role
Policy Administrator	Responsible for adding, modifying and deleting policies within an organization. This role applies at the root organization only.	Manage Role
Provision Manager	Responsible for approving contracts.	Manage Role
Security Administrator	Responsible for granting Users and User Groups access to Workbench within an organization.	Manage Role
System Administrator	Reserved role responsible for configuring all aspects of Service Manager, it can act on behalf of any other role	Manage Role
System Agent	Reserved role for policy enforcement, usually assigned to the container identities.	Manage Role
System User	Reserved role for read-only access to Service Manager configuration.	Manage Role

At the bottom of the page, there is a JavaScript console entry: `javascript:manageUserWithRolesPrivileges('Guest')`

Search for the user “guest”, and add them to the Guest Role by selecting the checkbox next to “guest” clicking “Apply” :

The screenshot shows a web browser window displaying the SOA Software Service Manager interface. The main content area is titled "Object Based Security Role - Manage Users, User Groups and Domains". It shows the details for a role named "Guest".

Object Based Security Role Details
Name: Guest

Users Options
Choose an option for adding users to this Object Based Security Role.
1) Add all users from domain: Local Domain [Add]
2) Search for Users/User Groups

Name: guest within Local Domain Match type: Exact [Search]

Include: Users User Groups

Results

Name
<input checked="" type="checkbox"/> guest

Users, User Groups and Domains Assigned

Name	Domain
None Assigned.	

Navigation buttons: Done, Cancel, Apply

The interface also includes a left sidebar with an "Organization Tree" showing a hierarchy of services and domains, and a right sidebar with navigation links like "Details", "Security", and "View". The browser's address bar shows the URL: http://stacks2.lab.bos.redhat.com:9900/pm/securityObjectSearch.do.

Workflow Configurations

Change the Workflow so that ESB services are published upon creation. Click on the “Configure” tab and then select “Workflow”. View the Workflow Definition, save it to your local disk, and then change the function type line under @create to `<function type="publish" />` and the step attribute to “100”. After saving, Update the Workflow to the local copy you have saved.

Before:

```
<action id="1" name="@create">
  <results>
    <unconditional-result old-status="Created" status="Draft" step="100" owner="{caller}"/>
  </results>
  <post-functions>
    <function type="setLifecycleStage">
      <arg name="stage">Design</arg>
    </function>
  </post-functions>
</action>
```

After:

```
<action id="1" name="@create">
  <results>
    <unconditional-result old-status="Created" status="Draft" step="100" owner="{caller}"/>
  </results>
  <post-functions>
    <function type="publish" />
  </post-functions>
</action>
```

Running

Start JBossESB :

```
cd bin
run.bat (if on Windows) or run.sh (on Unix)
```

Read product/docs/GettingStarted.pdf and follow the directions for running the Helloworld QS.

Managing Your Services

You can manage your services through Workbench – as you notice in the left frame of the screenshot below, services register with the SOA Software Workbench.

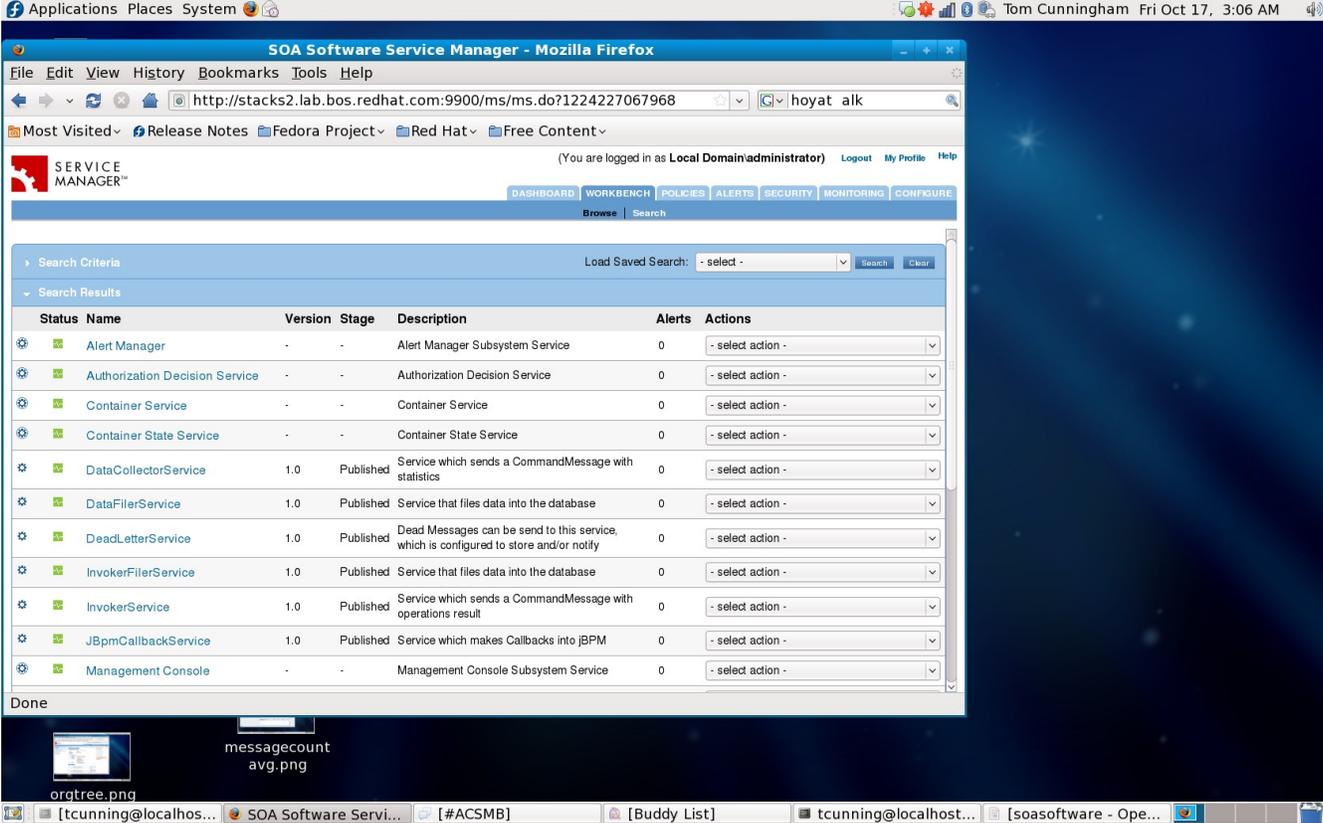
The screenshot displays the SOA Software Service Manager interface in Mozilla Firefox. The browser address bar shows the URL `http://stacks2.lab.bos.redhat.com:9900/ms/ms.do?1224227067968`. The user is logged in as `Local Domain administrator`. The interface is divided into several sections:

- Organization Tree (Left):** A tree view showing the service registry structure, including `Registry`, `Discovered Services Business Entity`, `Red Hat/JBossESB`, `Services`, `Contracts`, and `Containers`.
- Service Overview (Main):** Details for the `DataCollectorService`.
 - Information | Modify:** Type: Physical Service; Name: DataCollectorService; Description: Service which sends a CommandMessage with statistics; Organization: Red Hat/JBossESB; Status: Normal; Lifecycle Stage: Published; Version: 1.0; Alerts: 0; User Name: YIEyyUAYJcBoelwzq#sK0A==.
 - Advanced Properties | Modify:** (Empty)
 - Binding Identifiers | Add:** (Empty)
 - Identity Profiles | Assign:** (Empty)
 - Interfaces and Bindings | Manage:** (Empty)
 - Consumers:** A table with columns `Consumer Organization`, `Contract`, and `Version Approval Status`. It shows "No consumers found."
 - Metadata:** (Empty)
- Actions (Right):** A list of actions including `Add to Dashboard`, `Version Service`, `View All Versions`, `Manage PKI Keys`, `Delete Service`, `Change Organization`, `Request Contract`, `Offer Contract`, `Manage Service Level Policy Assignments`, `Export Service`, and `Add WSDL`.
- Service Workflow (Right):** Information section showing `State: Published` and `Owner: Local Domain administrator`. A `Workflow Actions` section with a `Comments:` field is also visible.

The taskbar at the bottom shows the system tray with the time `3:06 AM` and several open applications, including `messagecount`, `avg.png`, `orgtree.png`, and the SOA Software Service Manager.

Search:

The “Search” option within Workbench allows the user to manage their services and shows the state, version, description, and number of alerts produced from those services.



The screenshot shows a web browser window titled "SOA Software Service Manager - Mozilla Firefox". The address bar shows the URL "http://stacks2.lab.bos.redhat.com:9900/ms/ms.do?1224227067968". The user is logged in as "Local Domain/administrator". The page displays a search results table with the following data:

Status	Name	Version	Stage	Description	Alerts	Actions
✔	Alert Manager	-	-	Alert Manager Subsystem Service	0	- select action -
✔	Authorization Decision Service	-	-	Authorization Decision Service	0	- select action -
✔	Container Service	-	-	Container Service	0	- select action -
✔	Container State Service	-	-	Container State Service	0	- select action -
✔	DataCollectorService	1.0	Published	Service which sends a CommandMessage with statistics	0	- select action -
✔	DataFileService	1.0	Published	Service that files data into the database	0	- select action -
✔	DeadLetterService	1.0	Published	Dead Messages can be send to this service, which is configured to store and/or notify	0	- select action -
✔	InvokerFileService	1.0	Published	Service that files data into the database	0	- select action -
✔	InvokerService	1.0	Published	Service which sends a CommandMessage with operations result	0	- select action -
✔	JBpmCallbackService	1.0	Published	Service which makes Callbacks into jBPM	0	- select action -
✔	Management Console	-	-	Management Console Subsystem Service	0	- select action -

The browser's taskbar at the bottom shows several open windows: "[tcunning@localhos...", "SOA Software Servi...", "[#AC SMB]", "[Buddy List]", "tcunning@localhost...", and "soasoftware - Ope...".