MetaSolv Solution ™ LSR 9

Setup Guide

Third Edition
February 2007

Copyright and Trademark Information

© 2007 MetaSolv Software, Inc. All rights reserved. MetaSolv is a trademark registered in the United States of America by MetaSolv Software, Inc. All other trademarks contained herein are property of their respective owners. Any rights not expressly granted herein are reserved. Information contained herein is subject to change without notice.

Disclaimer

All references to future incorporation of new or enhanced product functionality, or to future release dates, are estimates only, and MetaSolv may change them at any time, without notice. Information in this document is subject to change without notice and does not represent a commitment on the part of MetaSolv Software, Inc. All references to new or enhanced product functionality, or to future release dates, are estimates only, and MetaSolv may change them at any time, without notice.

The software and/or databases described in this document are furnished under a written license agreement or nondisclosure agreement. No part of this document, the software and/or databases may be used, reproduced or transmitted in any form or by any means, electronic or mechanical, including copying, photocopying, recording, or information storage or retrieval systems, for any purpose without the written permission of MetaSolv Software, Inc., except as specifically allowed in the written license or nondisclosure agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or nondisclosure agreement. MetaSolv Software, Inc. assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

Use of any of this Software's functionality in a manner inconsistent with your license grant, whether or not protected by the Product ID, is a breach of the license agreement between your company and MetaSolv. A listing of the software options for which you possess a license may be viewed by navigating to Software Options. This Software contains sample network system templates ("Templates"). MetaSolv does not provide, and is not obligated to provide, Standard Maintenance and Support for the Templates or any modifications made thereto. The Templates are delivered as is and without warranty of any kind.

Printed in U.S.A.
MetaSolv Software, Inc.
5556 Tennyson Parkway
Plano, TX 75024 U.S.A

Document History

Edition	Date	Reason
First	November 2005	LSR 9 General Availability
Second	December 2005	LSR 9.1 updates
Third	February 2007	LSR 9.3 updates

Contents

About this guide v
Audience v
Additional information and help vi
Global Customer Care vi
MetaSolv Solution documentation set vii
1. Installation and deployment on BEA 8.1 1
Pre-installation checklist 1
Installation Steps 2
Running the install script 2
Apply LSR database changes 10
Deploy LSR on the application server 10
If you are using LSR with XML APIs 11
Creating additional queues 11
About the LSR 9 samples file 14
Reset the Reload parameter 15
Restart the application server 15

About this guide

This guide contains the procedures and information you need to install LSR 9 and future service packs and EFixes of the LSR 9 release stream. It provides instructions for installing on Novell's exteNd Application Server 5. and WebLogic BEA 8.1. Follow the instructions for the application server that you use.

For future service packs, refer to the respective LSR release notes document for the minimum required version of MetaSolv Solution. You should always install different LSR versions in sequence, starting with the earlier LSR version.

This guide includes some information on third-party software products used by MetaSolv Solution. However, this is limited to information needed to install and perform initial configuration tasks. If you need additional information on a third-party software application, consult the documentation provided by the product's manufacturer.

This guide contains the procedures and information you need to install and initially configure MetaSolv Solution and its utility programs.

This guide includes some information on third-party software products used by MetaSolv Solution. However, this information is limited to information needed to install and perform initial configuration tasks. If you need additional information on a third-party software application, consult the documentation provided by the product's manufacturer.

Audience

This guide is for individuals responsible for installing or maintaining MetaSolv Solution and ensuring the software is operating as required. This guide assumes the installer has an Oracle DBA and BEA administrator background, with a working knowledge of Windows 2000 and Java J2EE.

Additional information and help

To get additional information or help for MetaSolv Solution, see the MetaSolv Web site at *http://metasolv.com*. From the home page of the Web site, log on to the customer portal page using your customer ID and password. On the customer portal page, the following links provide access to additional documents and Global Customer Care (GCC):

- Product Downloads and Documentation

  Click this link to view and download documentation for MetaSolv products that you have purchased. Links located on the Product Downloads and Documentation page let you see documentation for all releases of the product and frequently asked questions.

- Customer Support

  Click this link to view the Global Customer Care page. This page contains links to support information for individual MetaSolv products and GCC information on available services.

Global Customer Care

MetaSolv Global Customer Care helps report, track, and resolve issues relating to the MetaSolv product line.

E-mail address:	techsupp@metasolv.com
Telephone (U.S. and Canada):	888-884-7686
Telephone (International):	972-403-8400
FTP site:	ftp.metasolv.com
Internet access:	www.metasolv.com

The preferred method of reporting issues is through the customer portal of the MetaSolv Web site. To log on to the portal, you will be prompted for a user ID and password. Issues submitted through the portal are entered directly into MetaSolv's problem management system. When you submit an issue, you receive an e-mail message that acknowledges the issue and contains the assigned ticket number. If you do not receive an e-mail confirmation within 15 minutes, contact Global Customer Care by phone to ensure that your issue was successfully logged.

For Severity 1 Emergency issues that affect production, call Global Customer Care immediately upon submitting an issue through the customer portal. This step helps avoid delays that can arise with the electronic transmission of an issue.

After normal business hours, call only if after-hours support is covered by the terms of your Support Contract.

MetaSolv Solution documentation set

This guide is one book in a set of documents that helps you understand and use MetaSolv Solution. Figure 1 shows the complete documentation set.

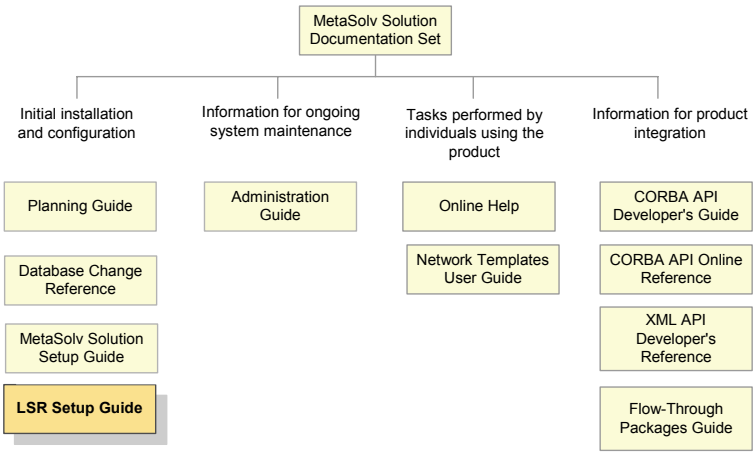


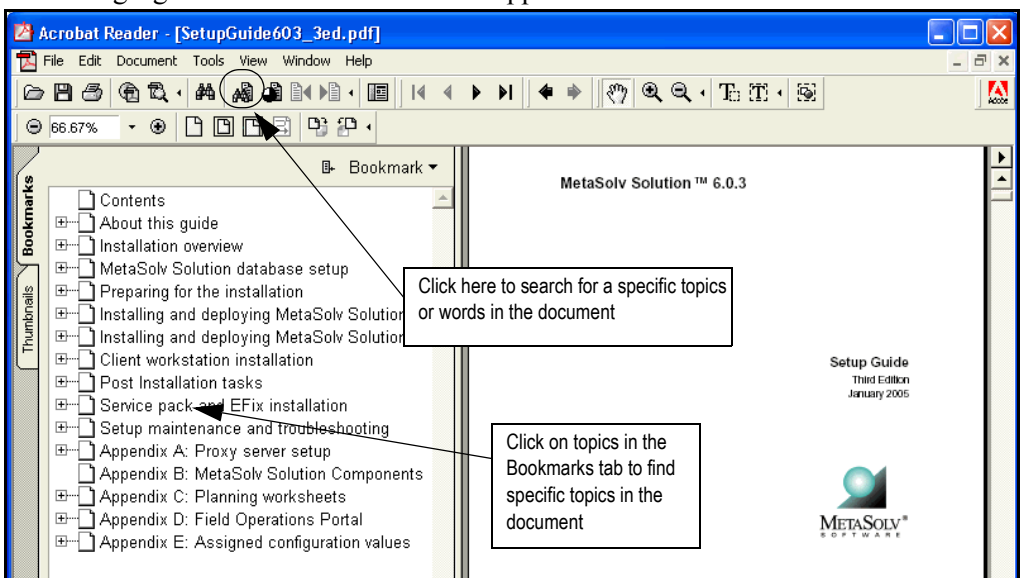
Figure 1: MetaSolv Solution documentation set

MetaSolv Solution books are delivered in Portable Document Format (PDF). You can view a book online using Adobe Acrobat Reader.

To view a document

- Locate the document on the customer portal and click one of the view links next to the document name.

  This action starts Acrobat Reader and opens the PDF document you indicated. The following figure shows how a document appears in Acrobat Reader.



Installation and deployment on BEA 8.1

This chapter explains how to install LSR 9 and higher service packs and EFixes on BEA WebLogic Server 8.1 for all platforms.

Pre-installation checklist

Whether you are performing a first-time installation or upgrading a previous version of the LSR software, you should follow the instructions and recommendations presented in this pre-installation checklist. Completing this checklist helps ensure the installation flow is not disrupted.

- You must be at MetaSolv Solution 6.0.11 or higher for this upgrade. If you plan to use LSR 9 with MetaSolv Solution's XML API option, you must be at MetaSolv Solution 6.0.11.
- Verify the host name and port number where the MetaSolv Solution application server is running.
- Obtain the administrator user ID and password for the WebLogic administration console.
- If you are on an HP platform, before you unjar the help index jar files, go to the download site for SDK (includes JDK for jar commands) at http://www.hp.com/products1/unix/java/java2/sdkrte14/downloads/index.html. Download the SDK.depot file and follow their instructions to install the jar command on HP-UX. The installation script uses this command to unjar the files during installation.
- Delete any previously installed vpd.properties files. The vpd.properties file is stored in the main directory for the operating system on the end user's machine.
- Download the appropriate LSR product from the customer download site.
- If you are running on a UNIX environment, type the following command: **DISPLAY=mymachinename:0.0;export DISPLAY** and press **Enter** to set the DISPLAY environment variable to send the graphical display to your workstation.

Installation Steps

The basic steps for installing LSR include:

1. Copying the files to the machine on which LSR is to be installed. This is done by running the install script.

   Note: If there are multiple servers running in the domain, you must run the LSR install script for each server instance.

2. Applying the database changes by running the .sql files included in the LSR files.
3. Deploying LSR to the managed server or servers.

Running the install script

1. Navigate to the folder where you downloaded the LSR product and untar the installation files.
2. From the folder where you untarred the LSR files, start the installation program by doing one of the following:
   - For Windows, type the following command and press ENTER:

     > deploywin.exe

     Note: If you get a JVM initialization failure error, type the following command instead:

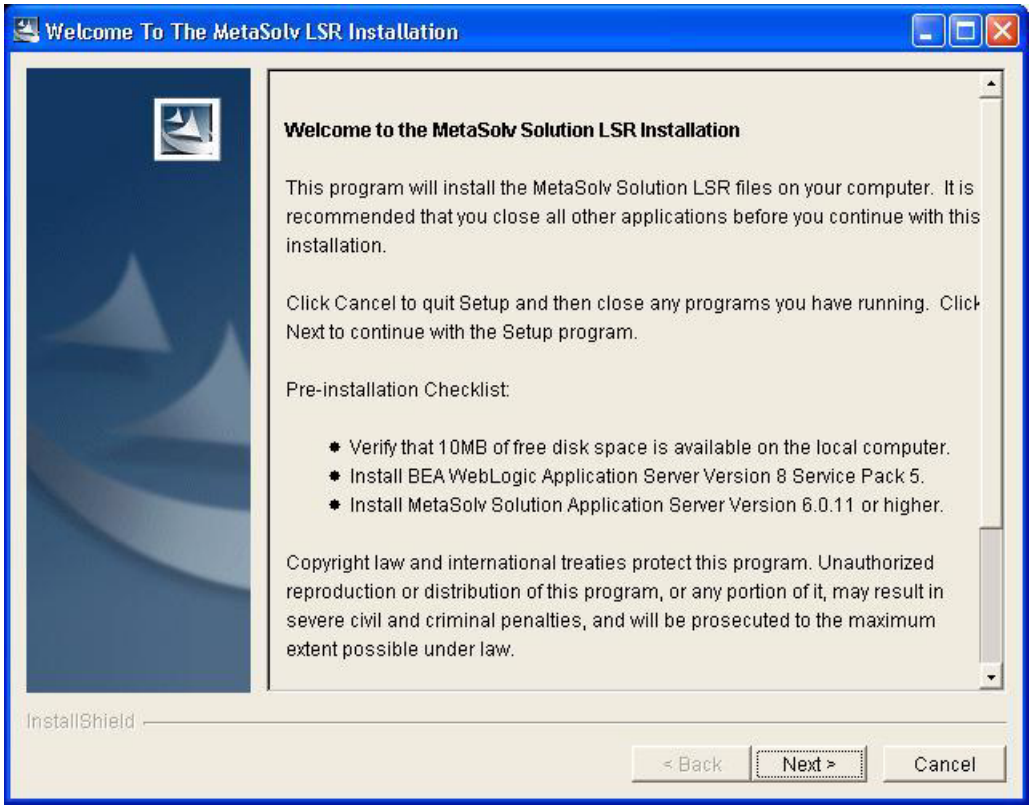
     > **deploywin.exe -is:javahome c:\bea\jdk142_04**

   - For UNIX, type the one of the following commands and press ENTER:
     - Solaris: **$ ./deploysol.bin**
     - HP: **$ ./deployhp.bin**

     This command runs the graphical user interface for the installer. On UNIX, this command requires that you have Exceed or other X-windows emulation software.

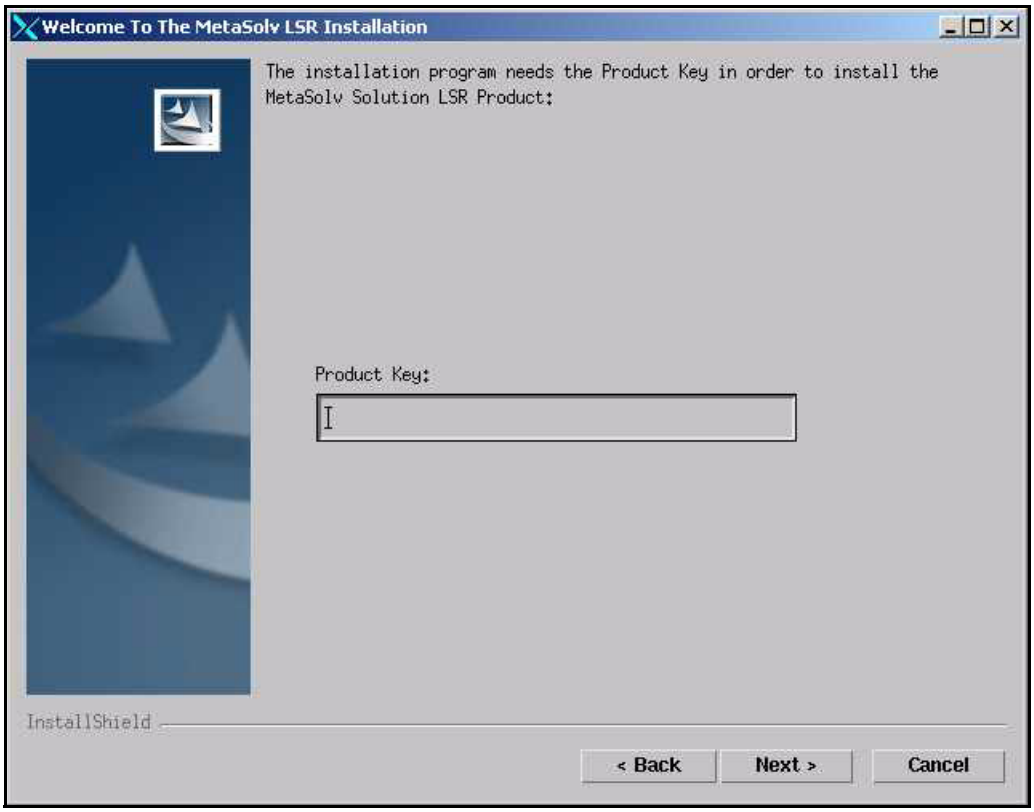
   - To run the installer in text mode only on a UNIX environment, type the following command:
     - Solaris: **$ ./deploysol.bin -console**
     - HP: **$ ./deployhp.bin -console**

The welcome screen for the MetaSolv Solution installation appears.



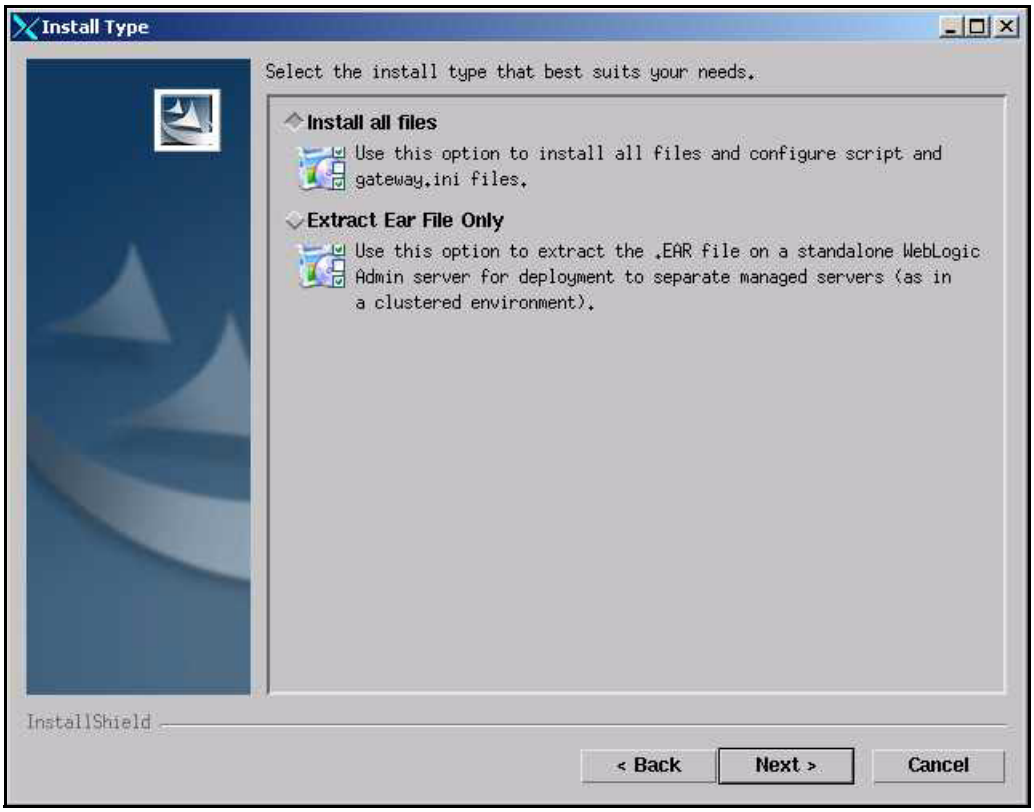
3. Read the Pre-installation Checklist and make sure the items listed have been completed, then click **Next**.

The following window appears.



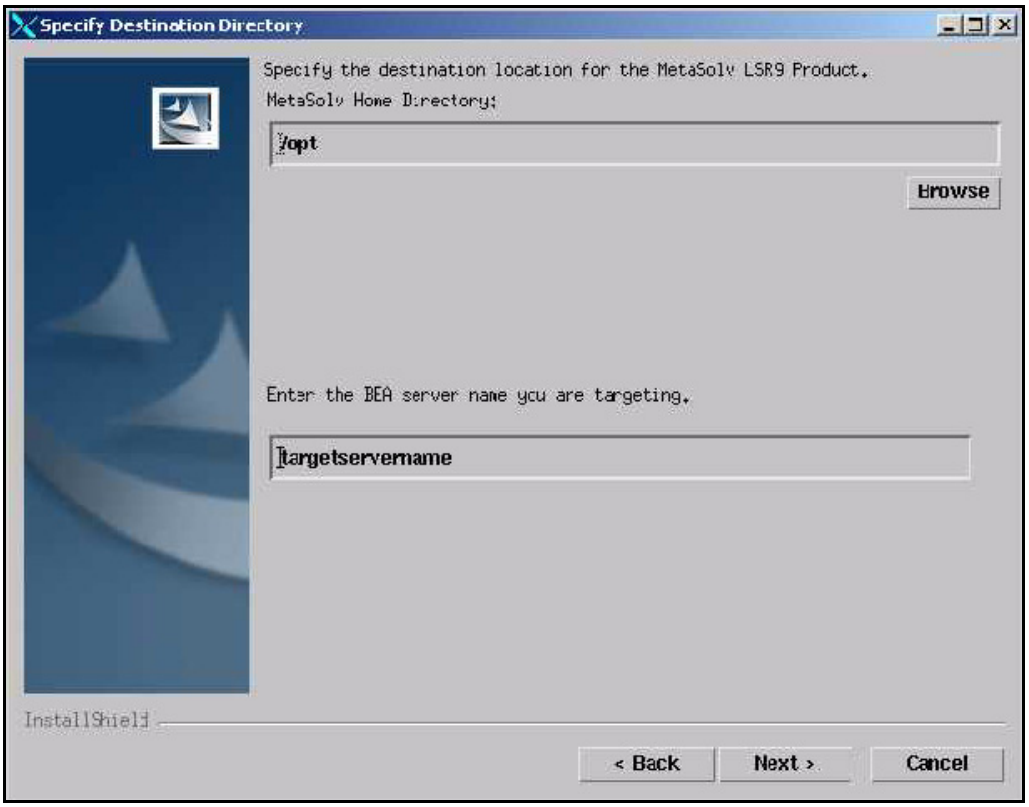
4. Type your product key and click **Next**.

The Install Type window appears.



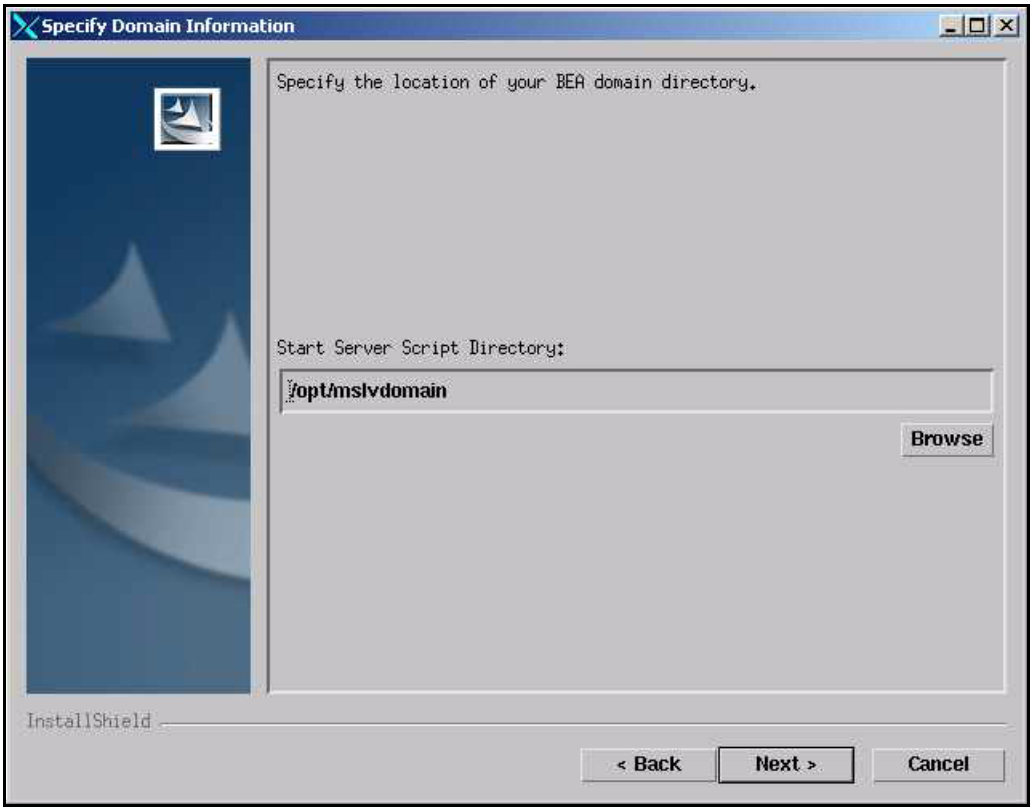
5. Select the appropriate installation type and click **Next**.

   The following window appears.



6. On this window, enter the following information and click **Next**:
   - Directory where MetaSolv Solution is installed. For example, */opt/metasolv.*
   - Target server name. For example, *mslv01*.

The following window appears.



7. Type the full path for the folder where the server start up script is located, or click **Browse** to search for the directory, then click **Next**.

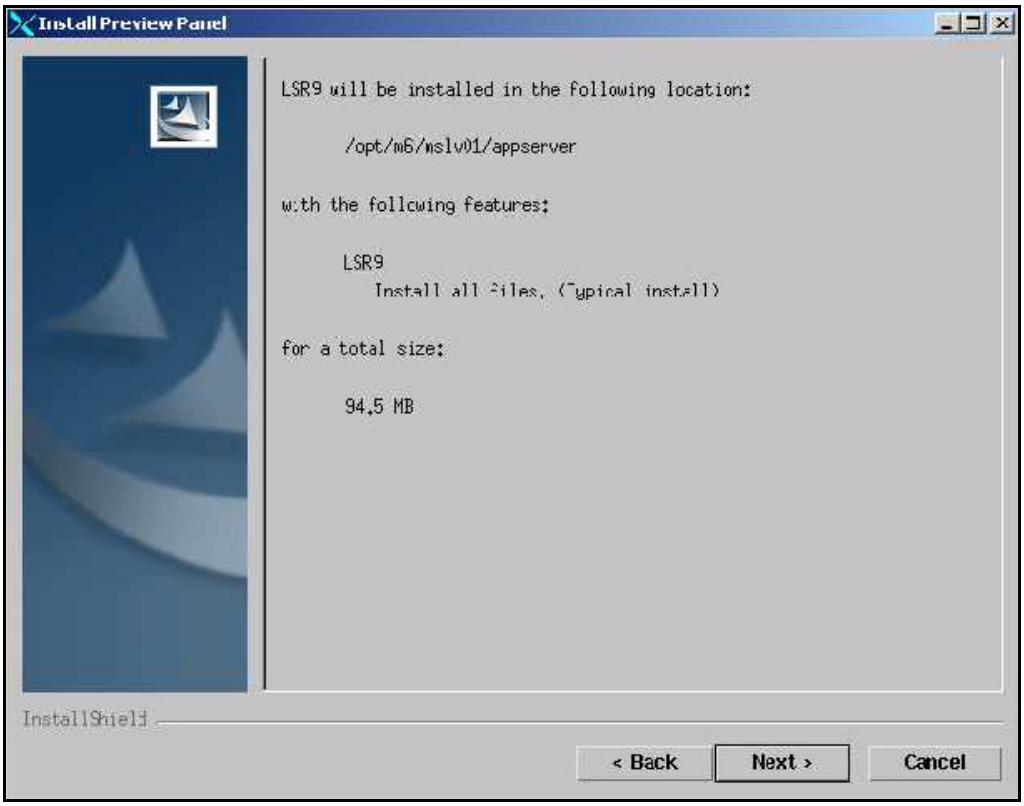
   This file is typically found in the domain directory. For example:

   - /opt/mslvdomain

     or

   - c:\mslvdomain

The following window appears.



8. Check the Install Preview Panel to make sure the installation is setup correctly and click **Next**.
9. Follow the remaining on-screen prompts to complete the installation process.
10. Check the *deploy* folder in the MetaSolv home directory to ensure the LSR .ear files were installed.
11. Verify that the start script has been modified to include the new -Dhelp entry.
12. Compare your backup gateway.ini file with the new gateway.ini file that was created during the upgrade process under your MetaSolv gateway directory structure. Make appropriate changes to the new file depending on your site installation.

    Note: After installation of LSR 9.3, open the Gateway.ini file on the application server (located in METASOLV_HOME/<*server*>/appserver/gateway/gateway.ini) and insert the following entry, if not already existing:

    LSR9SERVER=MetaSolv.CORBA.WDILSR9.WDIRoot,Metasolv.WDILSR9.WDIRootImpl

13. Shut down the application server.

If there are multiple servers running in the domain, all servers should be shut down before deploying the application from the Management Console.

Apply LSR database changes

You must apply the contents of the prodfixsql directory.

To apply LSR database changes

1. Run the lsr_master.sql file located in the /METASOLV_HOME/<*server*>/appserver/sql/LSR9/prodfixsql directory.
2. Run DBHealth to recompile all invalid objects.

Deploy LSR on the application server

If the administration server for the domain is on a machine where no managed server process is running, you can run the LSR installer and select the option to only extract the .ear file. The .ear file must reside on the machine where the admin server is running in order to deploy to the managed servers in the domain.

Before you start the deployment, make sure the following servers are running:

- Administration server

  If it is not running, start it using the following startup script:

  <domain directory>/startMSLVadmin.sh

- Managed server or servers

  Start any managed servers that are not running using the following startup script:

  <domain directory>/start<servername>.sh

To deploy from the WebLogic administration console

1. Start the WebLogic Server Administration Console using the following URL:

   <http://<administration server host name:listening port number>/console>

   For example: http://wplsunsrvxmlapi:7001/console
2. Enter the administration user name and password when prompted and press ENTER to log on.
3. In the left pane of the administration console, expand the domain name and select **Deployments > Applications**. Then in the right pane, click **Configure a New Application**.

   If LSR9 is already defined, delete the application by clicking the trash can icon. Click **Continue** to confirm the delete process.
4. Navigate to the *Deploy* directory (for example, opt/metasolv/mslv01/appserver/deploy) in the right pane and select **LSR9.ear**, or **LSR9-cluster.ear** (for clustered servers).
5. Under Available Servers, select the managed server(s) you installed and move it to the Target Servers list.

For clustered servers, select the cluster and move it to the Target Servers list.

6. Click **Configure and Deploy**.

   The deployment process can take a few minutes to run. A circular arrow icon rotates to indicate the deployment is in progress. As the deployment runs, the status for each object in the Deployed column changes to True. When the deployment is finished, the status under Deployment Activity changes to Completed.

7. Repeat steps 4-6 for the **lsr9-integration.ear** file.

To deploy from the command line to a single or manager server

1. Run BeaDeployer.sh, located in the appserver/bin directory.
2. Answer the prompts that appear.
3. Verify the deployment from the administration console by selecting **Deployments > Applications >LSRxx**.

If you are using LSR with XML APIs

Creating additional queues

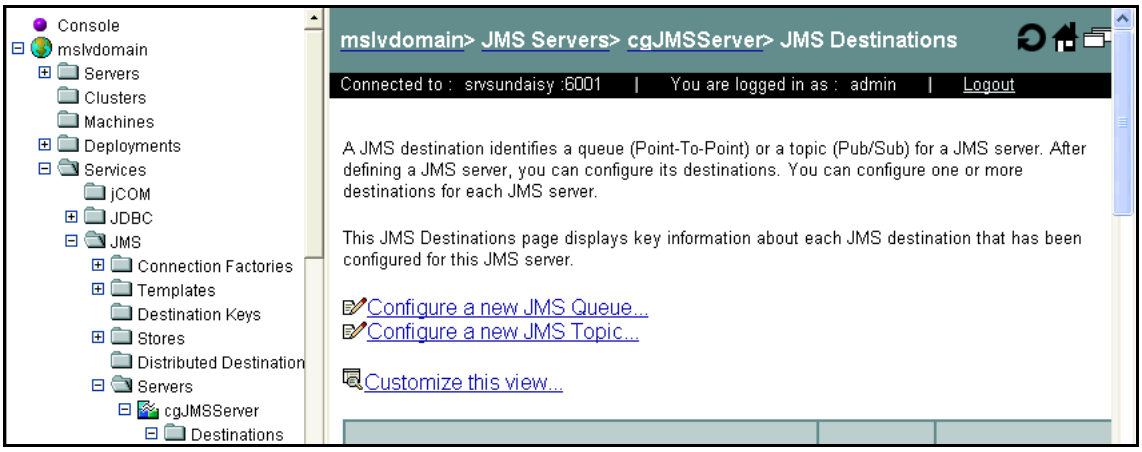
If you are using LSR and MetaSolv Solution with the XML API option, you must create the following additional queues in BEA Weblogic:

- LSR9_API.queue.AsyncDispatcher
- LSR9_API.queue.AsyncDispatcher_error

To add additional queues

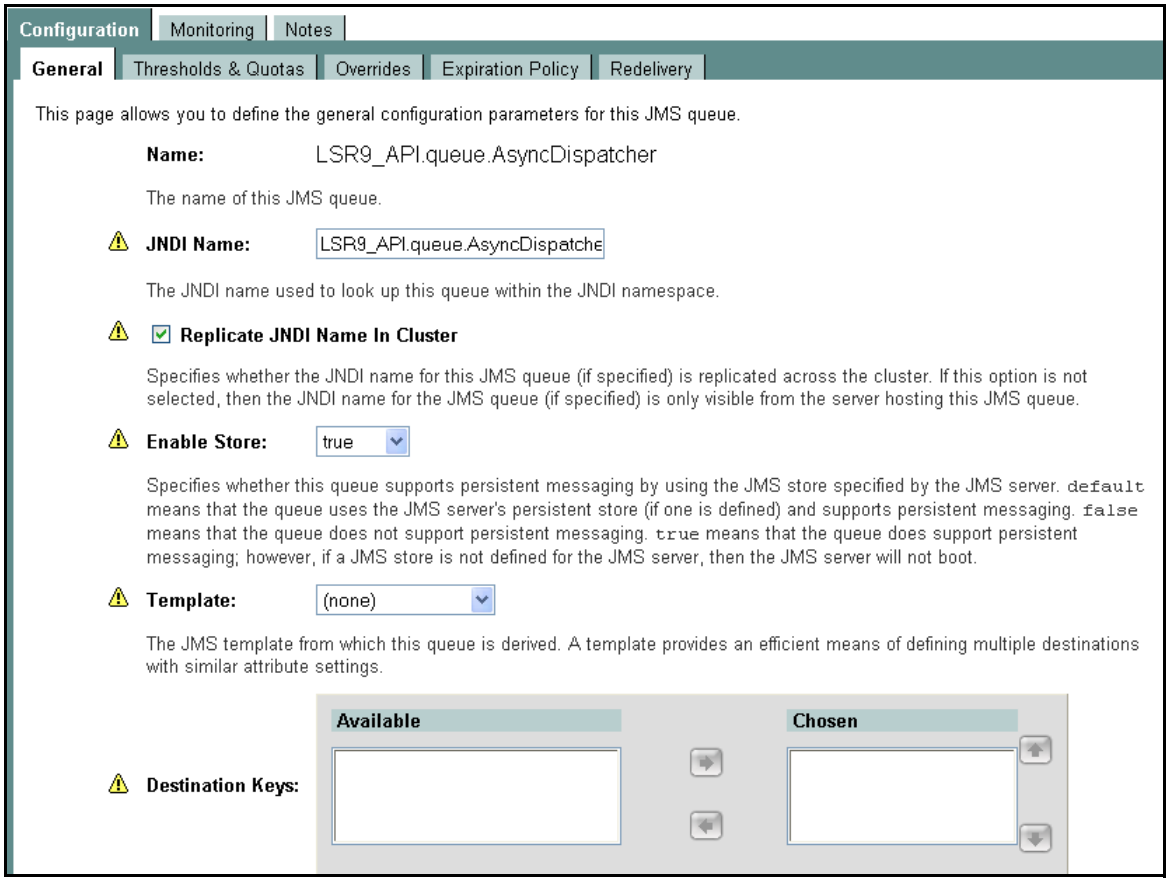
1. Log on to the WebLogic Server Administration Console.
2. In the left pane, select **Services>JMS>Servers>cgJMSServer>Destinations**.

   The following pane appears on the right.



3. In the right pane, select **Configure a New JMS Queue**.

   The following right pane appears. The values in the figure below are not the default values that appear when the pane displays. The figure shows the actual values you are to enter.



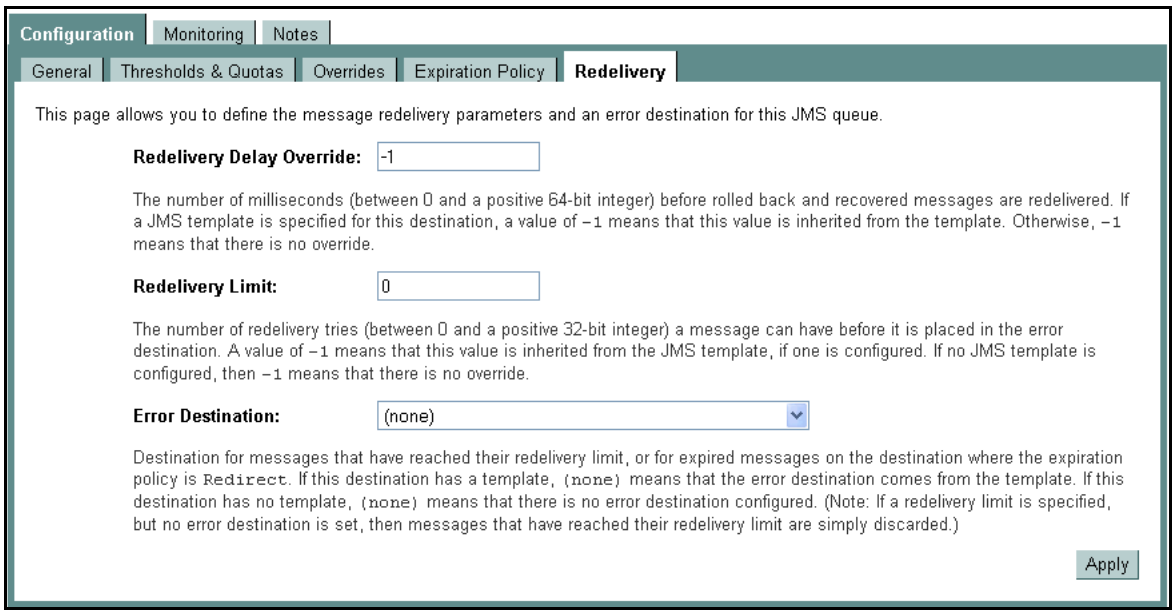
4. Enter the following values and click **Apply**:

   Name: LSR9_API.queue.AsyncDispatcher_error

   JNDI name: LSR9_API.queue.AsyncDispatcher_error

5. Select the Redelivery tab.

The following figure shows the Redelivery tab.



6. Enter the following values, and click **Apply**.

   Redelivery Delay Override: 1

   Redelivery Limit: 0

   Error Destination: (none)

7. Repeat steps 2-6 to create the queue LSR9_API.queue.AsyncDispatcher.

   General tab:

   Name: LSR9_API.queue.AsyncDispatcher

   JNDI name: LSR9_API.queue.AsyncDispatcher

   Redelivery tab:

   Redelivery Delay Override: -1

   Redelivery Limit: 1

   Error Destination: LSR9_API.queue.AsyncDispatcher_error

About the LSR 9 samples file

MetaSolv provides a sample application, lsr9_samples, as a reference and guideline for developing Workshop applications to interface with the LSR XML API. If you are a developer, the sample application is designed to help you understand and work with the XML APIs.

Where to find the sample file

During the installation, the lsr9_samples.jar file is stored on the application server in the following location:

METASOLV_HOME/SERVER_NAME/appserver/samples

lsr9_samples.jar—This file contains the code, libraries, and other files required for BEA 8.1 SP3 Workshop-based development for the lsr9_samples application.

lsr9_samples.ear—This is the representation of an ear file that results from a successful build of the application. This file is contained in the lsr9_samples.jar.

ReleaseNotes.doc—This file contains any release specific notes, including enhancements and fixes.

You can extract the contents of the jar file and place it in any location. For more information on setting up a samples file see the *XML API Developer's Reference.*

How you can use the files

You can use the sample files in two ways:

- You can extract the files in the lsr9_samples.jar file, place them in a directory, and access them from WebLogic Workshop.
- You can deploy the lsr9_samples.ear file to observe an application. If you choose to deploy the application, you must create queues for the application just as you created them for LSR for use with the XML API option. The procedure for creating the queues is described in "Creating additional queues" on page 11.

  The queues must have the following names to work with the application in the lsr9_samples.ear file:

  - TestWorkFlowsLSR9.queue.AsyncDispatcher
  - TestWorkFlowsLSR9.queue.AsyncDispatcher_error

Reset the Reload parameter

You must reset the reload period to -1 for each object under Web Applications in the left pane of the WebLogic administration server. When the archive file is redeployed, this setting is reset to the default value of 1, which causes WebLogic to continually check to see whether a servlet has been modified. A setting of -1 indicates to WebLogic to never reload. Running the application server with the reload period set to a value other than -1 can have a detrimental effect on performance.

Reset the reload parameter using one of the following methods:

- WebLogic administration console

  For each object listed under **Web Applications > Configuration > Files** in the left pane of the console, type -1 in the Reload field and click **Apply**.

- Shell script

  Run *BeaReloadParm.sh* located in the appserver/bin directory and answer any prompts that appear.

Restart the application server

Restart the managed server process(es) for the deployment and settings to take effect.