

**Oracle® Communications  
MetaSolv Solution  
ASR 48**

Installation Guide

December 2013

Oracle Communications MetaSolv Solution ASR 48 Installation Guide.

Copyright © 2013, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

---

# Contents

---

<b>Preface .....</b>	<b>v</b>
Audience .....	v
MetaSolv Solution ASR Documentation Set .....	v
<b>1. Installing ASR 48 on MetaSolv Solution 6.2.x .....</b>	<b>1</b>
Pre-Installation Checklist .....	1
Installing ASR .....	1
Applying the Contents of the Stored Procedures and Prodfixsql Directories .....	3
Deploying ASR on the Application Server in a Single Server Environment .....	3
Undeploying the Existing ASR Application from the Application Server .....	4
Deploying ASR Application on the Application Server .....	4
Deploying ASR on the Application Server in a Clustered Environment .....	6
Undeploying the Existing ASR Application from the Application Server .....	7
Deploying ASR Application on the Application Server .....	7
Activating and Deactivating the ASR API .....	10

---

# Preface

---

This guide contains the procedures and information you need to install Access Service Request (ASR) 48 on MetaSolv Solution 6.2.x version.

For future service packs, refer to the respective ASR release notes document for the minimum required version of MetaSolv Solution. You should always install different ASR versions in sequence, starting with the earlier ASR version. For example, install or apply the service pack for ASR 45 before ASR 46, ASR 46 before ASR 47, ASR 47 before ASR 48, and so on.

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.

## Audience

This guide is for individuals responsible for installing or maintaining MetaSolv Solution and ensuring the software is operating as required. This guide assumes that you have a working knowledge of Oracle Database, Windows, and UNIX, if required.

## MetaSolv Solution ASR Documentation Set

In addition to this guide, Oracle has published the *MetaSolv Solution ASR Developer's Reference* to provide specific information about the ASR API. For information on installing the MetaSolv Solution core application, refer to the various documentation on the Oracle Technology Network:

<http://docs.oracle.com>

---

## Installing ASR 48 on MetaSolv Solution 6.2.x

---

This chapter explains how to install Access Service Request (ASR) 48 on MetaSolv Solution 6.2.x.

### Pre-Installation Checklist

Ensure the following:

- ◆ You have installed MetaSolv Solution 6.2.x.

For the specific MetaSolv Solution 6.2.x build numbers that support ASR 48, contact Oracle Global Customer Support.

- ◆ The following environmental variables are set:

```
PATH= BEA_Home/jdk_version/bin $PATH
BEA_HOME=/opt/m62Single/single/bea
JAVA_HOME=/opt/m62Single/single/bea/jdk_version
```

where:

*BEA\_Home* is the path for the directory where Oracle WebLogic Server 10.3.1 is installed.

### Installing ASR

To install ASR:

1. From *MSLV\_Home*, enter the following command:

```
java -jar Asr.releaseNo.buildNo_M62.jar
```

where:

*MSLV\_Home* is the directory in which the MetaSolv Solution software is installed.

*releaseNo* is the release version of ASR.

*buildNo* is the build number that contains the ASR installer.

For example:

```
java -jar Asr.R48_0_0.b32_M62.jar
```

The Select MetaSolv home directory window appears.

2. From the **Look In** list, click the down arrow and select a directory in which the installation program files can be stored and used during the installation process, and then click **Select**.

A directory named **asr48installer** is automatically created in the selected directory. Oracle recommends choosing your *MSLV\_Home* directory for this task. *MSLV\_Home* is the directory in which the MetaSolv Solution software is installed.

The installation program auto-launches the installation process by invoking **setup.sh** (UNIX/Linux) or **setup.cmd** (Windows) in the *MSLV\_Home/asr48installer* directory.

The welcome screen for the MetaSolv Solution ASR installation appears.

3. Click **Next**.

The Details window appears.

4. Enter the path and name of the MetaSolv Home directory, MetaSolv Domain directory, and MetaSolv Server directory or click **Open** to search for the directories.

5. Click **Next**.

The Install Type window appears.

6. Select any one of the following installation types:

- ◆ Install all ASR Files
- ◆ Install Only ASR EAR File

When prompted for the Install Type, if the environment is a clustered environment, you can choose an option to extract the **.EAR** file only. Use this option to extract the **.EAR** file on the administration server for deployment to separate managed servers. For a non-clustered environment, choose the option to install and deploy all files.

7. Click **Next**.

The Install Summary window appears.

8. Click **Finish**.

9. (Perform this step only if you are installing in a clustered environment).

- a. Locate the **loggingconfig\_ASR48.xml** file located in the *MSLV\_Home/managedserver/appserver/config* directory, where *managedserver* is the WebLogic managed server.
- b. Rename the file to **loggingconfig\_cluster-ASR48.xml**.

10. Restart the application server.

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



If there are multiple servers running in the domain, you must run the ASR installation for each server instance.



11. Continue with the procedures in [“Applying the Contents of the Stored Procedures and Prodfixsql Directories”](#).

## Applying the Contents of the Stored Procedures and Prodfixsql Directories

To apply the contents of the stored procedures and prodfixsql directories:

1. Run the **pfixSQL\_Master.sql** file located in the *MSLV\_Home/server/appserver/sql/ASR48/prodfixsql* directory that was created during the install to apply the contents of the ASR prodfixsql directory to the database.

where:

*MSLV\_Home* is the directory in which the MetaSolv Solution software is installed.

*server* is the name of the WebLogic server.

MetaSolv created the single **pfixSQL\_Master.sql** script to call all of the other SQL scripts delivered in the directory.

2. Run the **asr\_master.sql** file located in the *MSLV\_Home/server/appserver/sql/ASR48/procs* directory that was created during the installation to apply the contents of the ASR procs directory to the database.

This file creates or replaces a series of stored procedures used in Ordering and Billing Forum (OBF) validation. These validations are for the Access Services Ordering Guidelines (ASOG) 47 and ASOG 48 versions. MetaSolv Solution created the single **asr\_master.sql** script to call all of the other SQL scripts delivered in the directory.

3. Run **DBHealth** to recompile all invalid objects.

To run a higher ASR version on a computer that runs a lower version, you must apply the stored procedures and prodfixsql of the higher version.

For example, you may run ASR 48 on a computer where you installed an ASR 47 service pack and applied the associated stored procedures and prodfixsql. To run ASR 48 effectively, you must apply the stored procedures and prodfixsql for ASR 48 to override those you applied for the ASR 47 service pack.

## Deploying ASR on the Application Server in a Single Server Environment

Deploying ASR on the application server in a single server environment involves the following steps:

- ◆ Undeploying the Existing ASR Application from the Application Server
- ◆ Deploying ASR Application on the Application Server

## Undeploying the Existing ASR Application from the Application Server

To undeploy the existing ASR from the application server:

1. Start the WebLogic Server Administration Console using the following URL:  
`http://ServerName:Port/console`  
where:  
*ServerName* is the name of the administration server.  
*Port* is the administration server port number.  
For example:  
`http://wplsunsvxmlapi:7001/console`
2. Enter the administration server user name and password when prompted and press **Enter** to log on.
3. Under **Change Center**, click **Lock & Edit**.
4. Expand the **Domain Structure** tree and click **Deployments**.  
The Summary of Deployments window appears.
5. On the **Control** tab, select **ASR48**.
6. From the **Stop** list, select **Force Stop Now**.  
Ensure that the state of the ASR 48 application has changed from **Active** to **Prepared**.
7. Select **ASR48** and click **Delete**.  
The Delete Application Assistant window appears.
8. Click **Yes**.  
The ASR 48 application is undeployed.

## Deploying ASR Application on the Application Server

Before you deploy ASR, ensure that the following server is running:

- ◆ Administration server

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

For UNIX:

`domain_directory/startServerName.sh`

For Windows:

`domain_directory/startServerName.cmd`

where:

*domain\_directory* is the WebLogic server domain directory.

*ServerName* is the name of the administration server.

To deploy ASR on the application server:

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

`http://ServerName:Port/console`

where:

*ServerName* is the name of the administration server.

*Port* is the administration server port number.

For example:

`http://wplsunsvrxmlapi:7001/console`

2. Enter the administration server user name and password when prompted and press **Enter**.
3. Under **Change Center**, click **Lock & Edit**.
4. Expand the **Domain Structure** tree and click **Deployments**.

The Summary of Deployments window appears.

5. On the **Control** tab, select **Install**.

The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy ASR 48 (for example, **opt/metasolv/mslv01/appserver/deploy**), select **ASR48.ear**, and then click **Next**.

The Choose targeting style window appears.

7. Select **Install this deployment as an application** and click **Next**.
8. Under **Source accessibility**, select **I will make the deployment accessible from the following location**.
9. Click **Finish**.

10. Under **Change Center**, click **Activate Changes**.

11. Expand the **Domain Structure** tree and click **Deployments**.

The Summary of Deployments window appears.

12. Select **ASR48**.

13. From the **Start** list, select **Servicing all requests**.

The Start Application Assistant window appears.

14. Click **Yes**.

Ensure that the state of the ASR 48 application has changed from **Prepared** to **Active**.

15. If you receive the following error in the **appserver.mss.log** file during ASR deployment,

```
"log4j: ERROR Attempted to append to closed appender named
[XMLFileApp]"
```

Do the following:

- a. Open the **loggingconfig.xml** file located in the *MSLV\_Home/server/appserver/config* directory, where *server* is the name of the WebLogic server.
- b. Remove the following entries:

```
category name="cmm.ASR"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false"><level value ="error"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel" />
<appender-ref ref="XMLFileApp" />
</category>

<category name="ASR"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false">

<level value="error"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel" />
<appender-ref ref="XMLFileApp" />
</category>

<category name="cmm.ASR"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false">

<level value ="error"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel" />
<appender-ref ref="XMLFileApp" />
</category>
```

- c. Save and close the file.

## Deploying ASR on the Application Server in a Clustered Environment

If the administration server for the domain is on a machine where no managed server process is running, you can run the ASR installer and select the option to only extract the **.EAR** file.

The **.EAR** file must reside on the machine where the administration server is running in order to deploy to the managed servers in the domain.

Deploying ASR on the application server in a clustered server environment involves the following steps:

- ◆ Undeploying the Existing ASR Application from the Application Server
- ◆ Deploying ASR Application on the Application Server

## Undeploying the Existing ASR Application from the Application Server

To undeploy the existing ASR from the application server:

1. Start the WebLogic Server Administration Console using the following URL:  
`http://ServerName:Port/console`  
where:  
*ServerName* is the name of the administration server.  
*Port* is the administration server port number.  
For example:  
`http://wplsunsvrxmlapi:7001/console`
2. Enter the administration server user name and password when prompted and press **Enter**.
3. Under **Change Center**, click **Lock & Edit**.
4. Expand the **Domain Structure** tree and click **Deployments**.  
The Summary of Deployments window appears.
5. On the **Control** tab, select **cluster-ASR48**.
6. From the **Stop** list, select **Force Stop Now**.  
Ensure that the state of the ASR 48 application has changed from **Active** to **Prepared**.
7. Select **cluster-ASR48** and click **Delete**.  
The Delete Application Assistant window appears.
8. Click **Yes**.  
The ASR 48 application is undeployed.

## Deploying ASR Application on the Application Server

Before you deploy ASR, ensure that the following servers are running:

- ◆ Administration server

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

For UNIX:

*domain\_directory*/**startAdminServer.sh** (for non-XML deployment)

or

*domain\_directory*/**startAdminServer\_wli.sh** (for XML deployment)

For Windows:

*domain\_directory*/**startAdminServer.cmd** (for non-XML deployment)

or

*domain\_directory*/**startAdminServer\_wli.cmd** (for XML deployment)

◆ **Managed server or servers**

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

For UNIX:

*domain\_directory*/**startServerName.sh**

For Windows:

*domain\_directory*/**startServerName.cmd**

where:

*domain\_directory* is the WebLogic server domain directory.

*ServerName* is the name of the administration server.

To deploy ASR on the application server:

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

<http://ServerName:Port/console>

where:

*ServerName* is the name of the administration server.

*Port* is the administration server port number.

For example:

<http://wplsunsvxmlapi:7001/console>

2. Enter the administration server user name and password when prompted and press **Enter**.
3. Under **Change Center**, click **Lock & Edit**.
4. Expand the **Domain Structure** tree and click **Deployments**.

The Summary of Deployments window appears.

5. On the **Control** tab, select **Install**.

The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy ASR 48 (for example, **opt/metasolv/mslv01/appserver/deploy**), select **cluster-ASR48.ear**, and then click **Next**.

The Choose targeting style window appears.

7. Select **Install this deployment as an application** and click **Next**.

The Select deployment targets window appears.

8. Under **Clusters**, select **All servers in the cluster**.

9. Under **Source accessibility**, select **I will make the deployment accessible from the following location**.

10. Click **Finish**.

11. Under **Change Center**, click **Activate Changes**.

12. Expand the **Domain Structure** tree and click **Deployments**.

The Summary of Deployments window appears.

13. Select **cluster-ASR48**.

14. From the **Start** list, select **Servicing all requests**.

The Start Application Assistant window appears.

15. Click **Yes**.

Ensure that the state of the ASR 48 application has changed from **Prepared** to **Active**.

16. If you receive the following error in the **appserver.mss.log** file during ASR deployment,

```
"log4j: ERROR Attempted to append to closed appender named
[XMLFileApp]"
```

Do the following:

- a. Open the **loggingconfig.xml** file located in *MSLV\_Home/managedserver/appserver/config* directory, where *managedserver* is the WebLogic managed server.
- b. Remove the following entries:

```
category name="cmm.ASR"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false"><level value="error"

class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel"/>
<appender-ref ref="XMLFileApp"/>
</category>
```

```
<category name="ASR"
class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false">
<level value="error"
class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel"/>
<appender-ref ref="XMLFileApp"/>
</category>
<category name="cmm.ASR"
class="com.metasolv.common.framework.logging.api.log4jext.MSLVLogger"
additivity="false">
<level value ="error"
class="com.metasolv.common.framework.logging.api.log4jext.MSLVLevel"/>
<appender-ref ref="XMLFileApp"/>
</category>
```

- c. Save and close the file.

## Activating and Deactivating the ASR API

To activate the ASR API:

- ◆ Verify that the following entry exists in the **gateway.ini** file:

```
ASR48SERVER=MetaSolv.CORBA.WDIASR48.WDIRoot,MetaSolv.WDIASR48.WDIRootImpl
```

To deactivate the ASR API:

- ◆ Place a semi-colon in front of the entry in the **gateway.ini** file as follows:

```
;ASR48SERVER=MetaSolv.CORBA.WDIASR48.WDIRoot,MetaSolv.WDIASR48.WDIRootImpl
```



You can remove previous ASR##SERVER entries from the **gateway.ini** file to remove the functionality of those ASOG versions.