Oracle® Communications MetaSolv Solution ASR

Installation Guide

Release 58.0

F12847-01

January 2019

ORACLE®

Oracle Communications MetaSolv Solution ASR Installation Guide, Release 58.0

F12847-01

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Preface

This guide contains the procedures and information you need to install Access Service Request (ASR) 58 on MetaSolv Solution 6.3.0.

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 56 before ASR 57, ASR 57 before ASR 58, 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.

Related Documents

For more information, see the following documents in the Oracle Communications MetaSolv Solution ASR documentation set:

- *CORBA API Developer's Reference:* Describes how ASR CORBA APIs work, provides high-level information about each API, and instructions for using the APIs to perform specific tasks. This guide is intended for CORBA developers who are developing applications that use the ASR CORBA APIs, which assist you in submitting ASRs to a service provider for starting or changing access services.
- *Web Services Developer's Guide*: Describes the Oracle Communications MetaSolv Solution ASR Web Services. The guide includes information about the various web services that are available and how to integrate ASR with other Oracle products or with external applications using web services.
- *Release Notes:* Provides information about supported software, new enhancements, and fixed issues.

For step-by-step instructions for tasks you perform in ASR, open the ASR module from within the MetaSolv Solution application to see the ASR online Help.

For information on the MetaSolv Solution application, see the Oracle Communications MetaSolv Solution documentation set on the Oracle Help Center:

http://docs.oracle.com

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Installing ASR 58 on MetaSolv Solution 6.3.0

This chapter explains how to install Access Service Request (ASR) 58 on MetaSolv Solution 6.3.0.

Pre-Installation Checklist

Ensure the following:

- You have installed MetaSolv Solution 6.3.0.

  For the specific MetaSolv Solution 6.3.0 build numbers that support ASR 58, see *MetaSolv Solution 6.3 What's New* on Oracle Help Center:

  https://docs.oracle.com/communications/E69835_01/index.htm

- The following environmental variables are set:

  ```
  PATH={jdk1.8}/bin:$PATH
  JAVA_HOME={jdk1.8}
  ```

  where *{jdk1.8}* is the location where you installed JDK 1.8.

Installing ASR

To install ASR:

1. From *MSLV_Home*, enter the following command:

   ```
   java -jar Asr.R58_0_0.buildNo_M63.jar
   ```

   where:

   - *MSLV_Home* is the directory in which the MetaSolv Solution software is installed.
   - *buildNo* is the build number that contains the ASR installer.

   For example:

   ```
   java -jar Asr.R58_0_0.b32_M63.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 **asr58installer** 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*/**asr58installer** 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_ASR58.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-ASR58.xml** and place it in every managed server's config directory at *MSLV_Home**mslv01***appserver\config** directory, where *mslv01* is the name of the directory where the managed server is installed.

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.

    Note: 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/ASR58/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.

   The **pfixSQL_Master.sql** script calls 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/ASR58/procs** directory that was created during the installation to apply the contents of the ASR procs directory to the database.

   The **asr_master.sql** 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) 57 and ASOG 58 versions. MetaSolv Solution created the single **asr_master.sql** script to call all of the other SQL scripts delivered in the directory.

3. Run the **asr_audit_master.sql** file located in the *MSLV_Home*/*server*/**appserver/sql/ASR58/procs** directory that was created during the installation to apply the contents of the ASR procs directory to the database.

   The **asr_audit_master.sql** file creates or replaces a series of stored procedures and triggers used in capturing the audit and supplement history for ASR orders.

4. 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 58 on a computer where you installed an ASR 57 service pack and applied the associated stored procedures and prodfixsql. To run ASR 58 effectively, you must apply the stored procedures and prodfixsql for ASR 58 to override those that you applied for the ASR 57 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://wplsunsrvxmlapi: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 **ASR58**.
6. From the **Stop** list, select **Force Stop Now**.

   Ensure that the state of the ASR 58 application has changed from **Active** to **Prepared**.
7. On the **Configuration** tab, select **ASR58** and click **Delete**.

   The Delete Application Assistant window appears.
8. Click **Yes**.

   The ASR 58 application is undeployed along with the ASR 58 Web Services.
9. Under **Change Center**, click **Activate Changes**.

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/**start***ServerName***.sh**

  For Windows:

  domain_directory/**start***ServerName***.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://wplsunsrvxmlapi: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 **Configuration** tab, select **Install**.

   The Install Application Assistant window appears.
6. Under **Current Location**, navigate to the directory from which you want to deploy ASR 58 (for example, **opt/metasolv/mslv01/appserver/deploy**), select **ASR58.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. On the **Control** tab, select **ASR58**.
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 58 application has changed from **Prepared** to **Active**, which indicates that the ASR 58 application has been deployed along with the ASR 58 Web Services.
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"additi
    vity="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.

d. Restart the server.

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://wplsunsrvxmlapi: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-ASR58**.
6. From the **Stop** list, select **Force Stop Now**.

   Ensure that the state of the ASR 58 application has changed from **Active** to **Prepared**.
7. On the **Configuration** tab, select **cluster-ASR58** and click **Delete**.

   The Delete Application Assistant window appears.

8. Click **Yes**.

   The ASR 58 application is undeployed along with the ASR 58 Web Services.

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

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 Windows:

  domain_directory/**startAdminServer.cmd**

  where:

  – *domain_directory* is the WebLogic server domain directory.

- Managed server or servers

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

  For UNIX:

  domain_directory/**start***ServerName***.sh**

  For Windows:

  domain_directory/**start***ServerName***.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://wplsunsrvxmlapi: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 **Configuration** tab, select **Install**.

   The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy ASR 58 (for example, **opt/metasolv/mslv01/appserver/deplo**y), select **cluster-ASR58.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. On the **Control** tab, select **cluster-ASR58**.

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 58 application has changed from **Prepared** to **Active**, which indicates that the ASR 58 application has been deployed along with the ASR 58 Web Services.

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"additi
    vity="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.

d. Restart the server.

Activating and Deactivating the ASR API

To activate the ASR API:

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

```
ASR58SERVER=MetaSolv.CORBA.WDIASR58.WDIRoot,MetaSolv.WDIASR58.WDIRootImpl
```

To deactivate the ASR API:

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

```
;ASR58SERVER=MetaSolv.CORBA.WDIASR58.WDIRoot,MetaSolv.WDIASR58.WDIRootImpl
```

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