

Oracle® Communications MetaSolv Solution LSR

Installation Guide

Release 10.2

E76094-02

February 2017

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Preface

This guide provides instructions for installing Local Service Request (LSR) 10.2 and deploying it on the application server.

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.

Audience

This guide is for individuals who install and configure Local Service Request.

Related Documents

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

- *LSR Developer's Reference*: Provides information about the Local Service Request API, which is designed to assist you in exchanging local service requests and related documents with trading partners.
- *LSR Release Notes*: Provides information about supported software, new enhancements, and fixed issues.

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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Installation and Deployment

This chapter explains how to install LSR 10.2 on Oracle WebLogic Server for all platforms.

Pre-Installation Checklist

Ensure the following:

- You have installed Oracle Communications MetaSolv Solution 6.3 or later.
- The following environment variables are set:

```
PATH=jdkVersion/bin:$PATH
MW_HOME=/oracle/middleware/oracle_home
JAVA_HOME=jdkVersion
```

where:

- *MW_Home* is the directory in which Oracle WebLogic Server is installed.
- *jdkVersion* is the directory location where you installed the JDK.

Note: LSR 10.2 is supported only on MSS 6.3 and later.

See *MSS Installation Guide* for information on software versions and requirements.

Installing LSR 10.2

To install LSR 10.2:

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

```
java -jar Lsr.R10_2_0.buildNo_M63.jar
```

where:

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

For example:

```
java -jar Lsr.R10_2_0.b47_M63.jar
```

The Select MetaSolv home directory window appears.

2. From the **Look In** list, 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 **lsr10.2installer** is automatically created in the selected directory. Oracle recommends choosing your *MSLV_Home* directory for this task.

The installation program launches the installation process by running **setup.sh** (UNIX/Linux) or **setup.cmd** (Windows) in the *MSLV_Home/lsr10.2installer* directory.

The welcome screen for the MetaSolv Solution LSR 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 one of the following installation types:

- Install all LSR Files
- Install Only LSR 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 Admin 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**.

Note: If you are installing LSR in a clustered environment, and if you select admin server as the MetaSolv server, then you must copy the **loggingconfig_LSR10.xml** file to the *MSLV_Home\m63domain\servers\mslvadmin\appserver\config* directory.

where:

- *MSLV_Home* is the directory on the clustered server where MSS is installed; for example, */opt/m63Cluster/cluster*.
- *m63domain* is the domain home directory.
- *mslvadmin* is directory where the administration server is installed.

Rename this file to **loggingconfig_cluster-LSR10.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.

Applying 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 *MSLV_Home/server/appserver/sql/LSR10/prodfixsql* directory, where *server* is the name of the WebLogic server.
2. Run **DBHealth**, which recompiles all invalid objects.

Deploying LSR 10.2 on the Application Server in a Single Server Environment

Deploying LSR 10.2 on the application server in a single-server environment involves the following:

- Undeploying the existing LSR 10.2 application from the application server
- Deploying LSR 10.2 on the application server

To undeploy LSR 10.2 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://myserver:7001/console`

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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 **LSR10**.
6. From the **Stop** list, select **Force Stop Now**.
Ensure that the state of the LSR 10.2 application has changed from **Active** to **Prepared**.
7. Select **LSR10** from the **Configuration** tab and click **Delete**.
The Delete Application Assistant window appears.
8. Click **Yes**.
9. Under the **Change Center**, click **Activate Changes**.
The LSR 10.2 application is undeployed.

Before you deploy LSR 10.2, ensure the following servers are 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 LSR 10.2 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://myserver:7001/console`

2. Enter the administration user name and password when prompted and press **Enter**.

3. Under the **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, click **Install**.

The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy LSR 10.2 (for example, **opt/metasolv/mslv01/appserver/deploy**), select **LSR10.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 the **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 **LSR10**.

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

The Start Application Assistant window appears.

14. Click **Yes**.

Ensure that the state of the LSR 10.2 application has changed from **Prepared** to **Active**.

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

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

do the following:

- a. Open the **loggingconfig_LSR10.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.LSR"
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="LSR"
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.LSR"
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 LSR 10.2 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 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 to deploy to the managed servers in the domain.

Deploying LSR 10.2 on the application server in a clustered-server environment involves the following:

- Undeploying the existing LSR 10.2 application from the application server
- Deploying LSR 10.2 on the application server

To undeploy LSR 10.2 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://myserver:7001/console`

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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-LSR10**.
6. From the **Stop** list, select **Force Stop Now**.
Ensure that the state of the LSR 10.2 application has changed from **Active** to **Prepared**.
7. On the **Configuration** tab, select **cluster-LSR10** and click **Delete**.
The Delete Application Assistant window appears.
8. Click **Yes**.
9. Under the **Change Center**, click **Activate Changes**.

The LSR 10.2 application is undeployed.

Before you deploy LSR 10.2 deployment, ensure 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/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 LSR 10.2 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://myserver:7001/console
```

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the 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, click **Install**.
The Install Application Assistant window appears.
6. Under **Current Location**, navigate to the directory from which you want to deploy LSR 10.2 (for example, **opt/metasolv/mslv01/appserver/deploy**).
7. Select **cluster-LSR10.ear**, and click **Next**.
The Choose targeting style window appears.
8. Select **Install this deployment as an application** and click **Next**.
The Select deployment targets window appears.
9. Under **Clusters**, select **All servers in the cluster**.
10. Under **Source accessibility**, select **I will make the deployment accessible from the following location**.
11. Click **Finish**.
12. Under the Change Center area, click **Activate Changes**.
13. Expand the **Domain Structure** tree and click **Deployments**.
The Summary of Deployments window appears.
14. On the **Control** tab, select **cluster-LSR10**.
15. From the **Start** list, select **Servicing all requests**.
The Start Application Assistant window appears.
16. Click **Yes**.
Ensure that the state of the LSR 10.2 application has changed from **Prepared to Active**.
17. If you receive the following error in the **appserver.mss.log** file during LSR deployment,

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

 do the following:
 - a. Open the **loggingconfig_LSR10.xml** file located in the **MSLV_Home/managedserver/appserver/config** directory, where *managedserver* is the WebLogic managed server.
 - b. Remove the following entries:

```
category name="cmm.LSR"
```

```
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="LSR"  
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.LSR"  
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.

Using LSR with Web Services

The process for using LSR with Web services involves the following steps:

- [Deploying LSR Web Service on the Application Server in a Single Server Environment](#)
- [Deploying LSR Web Service on the Application Server in a Clustered Environment](#)

Deploying LSR Web Service on the Application Server in a Single Server Environment

Deploying LSR Web service on the application server in a single-server environment involves the following:

- Undeploying the existing LSR Web service 10.2 application from the application server
- Deploying LSR Web service 10.2 on the application server

To undeploy LSR Web service 10.2 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://myserver:7001/console`

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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 **LSR_WebService**.
6. From the **Stop** list, select **Force Stop Now**.
Ensure that the state of the LSR Web service 10.2 application has changed from **Active** to **Prepared**.
7. On the **Configuration** tab, select **LSR_WebService** and click **Delete**.
The Delete Application Assistant window appears.
8. Click **Yes**.
9. Under the **Change Center**, click **Activate Changes**.
The LSR Web service 10.2 application is undeployed.

Before you deploy LSR Web service 10.2, ensure the following servers are 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 LSR Web service 10.2 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://myserver:7001/console
```

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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, click **Install**.
The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy LSR Web service 10.2 (for example, `opt/metasolv/mslv01/appserver/deploy`), select **LSR_WebService.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 the **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 **LSR_WebService.ear**.
13. From the **Start** list, select **Servicing all requests**.
The Start Application Assistant window appears.
14. Click **Yes**.
Ensure that the state of the LSR Web service 10.2 application has changed from **Prepared** to **Active**.

Deploying LSR Web Service on the Application Server in a Clustered Environment

Deploying LSR Web service on the application server in a clustered-server environment involves the following:

- Undeploying the existing LSR Web service 10.2 application from the application server
- Deploying LSR Web service 10.2 on the application server

To undeploy LSR Web service 10.2 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://myserver:7001/console`
2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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 **LSR_WebService**.
6. From the **Stop** list, select **Force Stop Now**.

Ensure that the state of the LSR Web service 10.2 application has changed from **Active** to **Prepared**.

7. On the **Configuration** tab, select **LSR_WebService** and click **Delete**.

The Delete Application Assistant window appears.

8. Click **Yes**.

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

The LSR Web service 10.2 application is undeployed.

Before you deploy LSR Web service 10.2, ensure 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/**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 LSR Web service 10.2 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://myserver:7001/console`

2. Enter the administration user name and password when prompted and press **Enter**.
3. Under the **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, click **Install**.

The Install Application Assistant window appears.

6. Under **Current Location**, navigate to the directory from which you want to deploy LSR Web service 10.2 (for example, **opt/metasolv/mslv01/appserver/deploy**), select **LSR_WebService.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 the **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 **LSR_WebService.ear**.

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

The Start Application Assistant window appears.

14. Click **Yes**.

Ensure that the state of the LSR Web service 10.2 application has changed from **Prepared** to **Active**.