

# Auto Service Request (ASR) Oracle Exadata Quick-Installation Guide

For ASR version 3.1 and later

## About ASR

Auto Service Request (ASR) is a secure, scalable, customer-installable software feature of warranty and Oracle Support Services that provides auto-case generation when specific hardware faults occur. ASR is designed to enable faster problem resolution by eliminating the need to initiate contact with Oracle Support Services for hardware failures, reducing both the number of phone calls needed and overall phone time required.

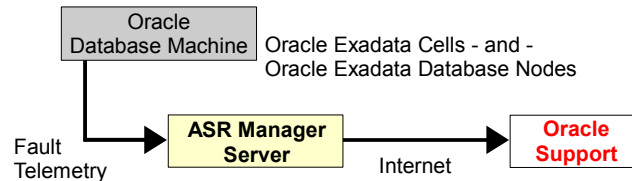
ASR also simplifies support operations by utilizing electronic diagnostic data. Easily installed and deployed, ASR is completely controlled by you, the customer, to ensure security.

## Resources

- Oracle Exadata Storage Server Software User's Guide
- [Oracle ASR Product Page](#)
- [My Oracle Support](#)
- [Sun Products Qualified for ASR](#)
- [Oracle ASR Documentation](#)

## Recommended Configuration

The recommended configuration is to install the ASR Manager, which receives fault telemetry information from the servers in the Oracle Database Machine, on a standalone server. This server must run Solaris or Oracle Enterprise Linux (OEL) as the operating system.



- See **page 2** for information on installing the ASR Manager on a Solaris server.
- See **page 3** for information on installing the ASR Manager on a OEL server.
- Follow the instructions on **page 4** to configure the fault telemetry destinations on the Exadata storage servers and on the database servers.

**Note:** While not recommended, you may install the ASR Manager on one of the database servers in the Database Machine.



**Need help?** If you need assistance installing or configuring ASR, then click the “Contact Us” link on [My Oracle Support](#) to open a Service Request.

## Before You Start



Before installing ASR, please ensure the following conditions are met:

- Make sure you have access to [My Oracle Support](#) and that your contact information is correct and current.
- Create a Sun Online Account (SOA) at <http://reg.sun.com>.
- All of your assets **must** have a Contact assigned. Make sure the contact is correct and current.
- Identify and designate a system to serve as ASR Manager.
- Identify and verify ASR assets.
- Connection to the Internet via HTTPS.



You will need root access to install the software to set up the ASR Manager.

## Software Requirements

- **OEL OS Version:** Oracle Enterprise Linux (OEL) 5.3 and later
- **Solaris OS Version:** Solaris 10, Update 6 (10u6)
- **Java Version:** at least JRE/JDK 1.6.0\_04
- **Database Server:** Exadata Software 11.2.1.3.1 and higher
- **Exadata Storage Server:** Exadata Storage Server Software 11.2.1.3.1 and higher

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## Install ASR Manager on an Off-Rack Solaris Server


Select a Solaris server to house the ASR Manager.

### Part 1 – Install ASR Components on a Server Running Solaris

#### Install Service Tools Bundle (STB)

-  If your system is using only a service processor-based telemetry source (ILOM, or XSCF on M-Series), then STB does not need to be installed. If this is your configuration, then you can skip the STB installation.

1. Download STB (see Document **1185493.1** in [My Oracle Support](#)).
2. Untar the STB bundle and run the installation script (install\_stb.sh). As part of the installation, be sure to select:
  - Enter **I** for “install”
  - Enter **Y** to replace existing SNEEP packages
  - Enter **Y** to replace existing Service Tags packages
3. Confirm that SNEEP is installed correctly. Run “**sneep -a**” from a terminal window.
4. Verify that Service Tags is reporting your system attributes correctly. Run “**stclient -E**” from a terminal window.
  - If **stclient -E** does not show the serial number, then run “**sneep -s SERIAL-NUMBER**” to register the serial number.

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#### Install SASM Package

1. Verify you have version 1.2.1 or later.
  - As root, run “**pkginfo -I SUNWsasm**” (this will tell you if you already have the SASM package installed).
  - If needed, download SASM 1.2.1 (see Document **1185493.1** in [My Oracle Support](#)).
2. Install the SASM package. Run **pkgadd -d SUNWsasm.version\_num.pkg** as root.

#### Install ASR Package

1. Download and unzip the ASR package (see Document **1185493.1** in [My Oracle Support](#)).
2. As root, install the ASR package:
  - Run “**pkgadd -d SUNWswasr.version\_num.pkg**”
3. Add the **asr** command to the PATH (update to the root's .profile, .cshrc, .kshrc, or .bashrc as needed):  

```
PATH=$PATH:/opt/SUNWswasr/bin/asr
export PATH
```



**Note:** An ASR Manager can be activated as an ASR Asset, if it is qualified for ASR and entitled to service. In this case, you must select your ASR Manager from the [list of qualified hardware](#).

### Part 2 – Register ASR Manager

1. As root on the ASR Manager system, run “**asr register**”.
2. Enter “1” or “2” depending on your geographic location:
  - 1) transport.sun.com (Americas or Asia Pacific regions)
  - 2) transport.sun.co.uk (Europe, Middle East, or Africa regions)
3. If you are using a proxy server to access the internet, then enter the proxy server information. If you are not using a proxy server, then enter a hyphen ( - ).
4. When prompted, enter your Sun Online Account (SOA) username and password. ASR will validate the login. Once validated, the registration is complete. Note: **Passwords are not stored**. Your SOA e-mail address receives output from ASR reports, notification of ASR problems, and Service Request (SR) generation.
5. Check the registration status. Run “**asr show\_reg\_status**”.
6. Test the connection to ensure that ASR can send information to the transport server. Run “**asr test\_connection**”.

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**Configure Trap  
Destinations**

# Auto Service Request (ASR) Oracle Exadata Quick-Installation Guide

For ASR version 3.1 and later

## Install ASR Manager on an Off-Rack OEL Server

Select an OEL server to house the ASR Manager.

### Part 1 – Install ASR Components on a Server Running Oracle Enterprise Linux (OEL)

#### Install Service Tags for OEL

- ❗ Service Tags only need to be installed on the ASR Manager.
- 1. Visit the [Sun Service Tag 1.1.5](#) page on the Download Center. Select “Oracle Enterprise Linux” from the drop-down menu and click **Continue**.
- 2. Download and unzip the latest `svctag.i386.linux.zip` file.
- 3. Run the following commands to install the service tags:  

```
rpm -i sun-servicetag-1.1.5-1.i386.rpm
rpm -i sun-hardware-reg-1.0.0-1.i386.rpm
```

#### Install SASM Package

- ❗ SASM only needs to be installed on the ASR Manager.
- 1. Verify you have version 1.2.1 or later.
  - As root, run “`rpm -q SUNWsasm`” (this will tell you if you already have the SASM package installed).
  - If needed, download SASM 1.2.1 (see Document [1185493.1](#) in [My Oracle Support](#)).
- 2. Install the SASM package:  

```
rpm -i SUNWsasm.version_num.rpm
```

#### Install ASR Package

- ❗ ASR Package only needs to be installed on the ASR Manager.
- 1. First, download and unzip the ASR package (see Document [1185493.1](#) in [My Oracle Support](#)).
- 2. As root, install the ASR package:  

```
rpm -i SUNWswasr.version_num.rpm
```
- 3. Add the `asr` command to the PATH (update to the root's `.profile`, `.cshrc`, `.kshrc`, or `.bashrc` as needed):  

```
PATH=$PATH:/opt/SUNWswasr/bin
export PATH
```



**Note:** For ASR installation on Exadata, only Service Tags and SASM need to be installed along with the ASR package.



**Note:** An ASR Manager can be activated as an ASR Asset, if it is qualified for ASR and entitled to service. In this case, you must select your ASR Manager from the [list of qualified hardware](#).

### Part 2 – Register ASR Manager

1. As root on the ASR Manager system, run “`asr register`”.
2. Enter “1” or “2” depending on your geographic location:
  - 1) `transport.sun.com` (Americas or Asia Pacific regions)
  - 2) `transport.sun.co.uk` (Europe, Middle East, or Africa regions)
3. If you are using a proxy server to access the internet, then enter the proxy server information. If you are not using a proxy server, then enter a hyphen ( - ).
4. When prompted, enter your Sun Online Account (SOA) username and password. ASR will validate the login. Once validated, the registration is complete. Note: **Passwords are not stored**. Your SOA e-mail address receives output from ASR reports, notification of ASR problems, and Service Request (SR) generation.
5. Check the registration status. Run “`asr show_reg_status`”.
6. Test the connection to ensure that ASR can send information to the transport server. Run “`asr test_connection`”.

**GO TO PAGE 4**

**Configure Trap  
Destinations**

Be sure to reference the “Configuring Auto Service Request” in the *Oracle Exadata Database Machine Owner's Guide* for additional information.

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For ASR version 3.1 and later

## Configure and Activate Fault Telemetry Destinations – Oracle Exadata Storage Server and Database Server

**Minimum Oracle Exadata Storage Software Version:** Oracle Exadata Storage Software 11.2.1.3.1

### Part 3 – Upgrade Database Servers (If Needed)

1. On the database servers, check for the existence of:  
`/opt/oracle.cellos/common/exadata_mon_hw_asr.pl`  
If the script is there, then proceed to Part 4.
2. If the script is missing, refer to MOS note 888828.1 for instructions on downloading the current patch.
3. Copy the `db_11.2.n.n.n_patch.zip` file to the database servers.

4. Shut down the Oracle stack including the grid infrastructure, Oracle ASM, and Oracle Database.
5. Log in as the **root** user on each database server.
6. Unzip the `db_11.2.n.n.n_patch.zip` file to the `db_patch_11.2.n.n.n` directory.
7. Change to the `db_patch_11.2.n.n.n` directory.
8. Run the `install.sh` script.

### Part 4 – Configure Trap Destinations (Repeat for each Exadata machine being monitored)

#### Element Definitions:

- **host=[hostname]** is the ASR Manager IP or hostname
- **type=ASR** represents the ASR Manager being a special type of SNMP subscriber
- **dbs\_group** is the list of database nodes such as `dm01db01`, `dm01db02`
- **port=162** is the SNMP port
- **community=public** is the required value of the community string
- **cell\_group** is the list of Exadata Cells such as `dm01cel01`, `dm01cel02`

#### Login to the First DB Node As:

**Root** for the Database Server

**celladmin** for the Exadata Storage Server

#### To Add Trap Destinations:

##### For the Database Server

```
/opt/oracle.cellos/commpmon/exadata_mon_hw_asr.pl -set_snmp_subscribers "(type=asr,host=hostname,port=162,community=public,)"
```

**Note:** This command will also configure the ASR Manager for the respective ILOM on all database nodes. The `dbs_group` is a file that contains a list of all the db nodes.

##### For the Exadata Storage Server

```
cellcli -e alter cell snmpsubscriber=(host=hostname,port=162, community=public, type=ASR)
```

#### To Verify SNMP ASR Subscribers: (Note: Please verify that the ASR `snmpsubscriber` setting is correct.)

##### For the Database Server

```
/opt/oracle.cellos/commpmon/exadata_mon_hw_asr.pl -get_snmp_subscribers -type asr
```

##### For the Exadata Storage Server

```
cellcli -e list cell attributes snmpsubscriber
```

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## Configure and Activate Fault Telemetry Destinations – Oracle Exadata Storage Server and Database Server

**Minimum Oracle Exadata Storage Software Version:** Oracle Exadata Storage Software 11.2.1.3.1

### Part 5 – Activate ASR Assets (Run from the ASR Manager)

1. Activate the ASR Manager host:

```
· asr activate_asset -i host IP address
```

2. Activate Exadata Cell and database node ILOM:

```
· asr activate_asset -i ILOM IP address
```

3. Activate each Exadata Cell and each database node host:

```
· asr activate_exadata -i server IP address -h server hostname -n ILOM hostname for server  
(where server is an Exadata Cell or database node)
```

4. Login to **My Oracle Support** to complete the activation process.

- See "Pending ASR Activations" and "Assets" via "Settings".
- Only a Customer User Administrator (CUA) for the asset's CSI can approve an ASR activation.
- If an asset cannot be activated because of a missing Primary Contact, then please submit a Service Request in My Oracle Support or contact Oracle Support Services.
- You can view the status of your ASR Assets in My Oracle Support.
- An asset **must** be in an "Active" ASR state in My Oracle Support in order for auto-SR creation to work.

5. Once the asset is in an "Active" ASR state in My Oracle Support, to test and validate the end-to-end ASR flow, from one database node, run:

• To test and validate the database group:

```
dcli -g dbs_group -l root -n "/opt/oracle.cellos/compmon/exadata_mon_hw_asr.pl -validate_snmp_subscriber -type asr"
```

• To test and validate the cell group:

```
dcli -g cell_group -l celladmin -n "cellcli -e alter cell validate snmp type=ASR"
```

An e-mail will be sent to the SOA e-mail account to notify that the backend received this test message. No Service Request would be opened.

### *Learn More About ASR*

Visit the [Oracle ASR Product Page](#) for additional information about Oracle Auto Service Request.



**Need help?** If you need assistance installing or configuring ASR, then click the "Contact Us" link on [My Oracle Support](#) to open a Service Request.

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*Be sure to reference the "Configuring Auto Service Request" in the **Oracle Exadata Database Machine Owner's Guide** for additional information.*

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