Oracle® Enterprise Manager

Managing and Monitoring Oracle Auto Service Request (ASR) Assets User's Guide

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Oracle Enterprise Manager Managing and Monitoring Oracle Auto Service Request (ASR) Assets User's Guide, 13c Release 2

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Preface

This document describes how to use Oracle Auto Service Request (ASR) to manage and monitor assets within Oracle Enterprise Manager Cloud Control.

Audience

This document is intended for system administrators who want to manage and monitor ASR assets with Enterprise Manager.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information, see the Oracle Auto Service Request (ASR) documentation library:

http://docs.oracle.com/cd/E37710_01/index.htm

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's Changed

This table provides a brief overview of the document changes for the latest publication of the *Oracle Enterprise Manager Managing and Monitoring Oracle ASR Assets User's Guide*:

Part Number	Change Summary
E62985-01	Initial release in support of Oracle Enterprise Manager Cloud Control 13*c*.

1

Introduction and Prerequisites for Oracle ASR

This chapter describes the Oracle ASR service and provides the prerequisites you will need to use it with Oracle Enterprise Manager.

The following sections are described:

- Introduction to Oracle Auto Service Request (ASR)
- Prerequisites for Using Oracle ASR in Enterprise Manager
- ASR Asset Life Cycle in Enterprise Manager
- Known Issues

1.1 Introduction to Oracle Auto Service Request (ASR)

Oracle Auto Service Request (ASR) is a feature of Oracle Premier Support for Systems and Oracle/Sun Limited Warranty support that provides auto-case generation when specific hardware faults occur. The ASR Manager software and system, which is an implementation of ASR for Oracle, accepts fault telemetry data sent from one or more assets.

1.2 Prerequisites for Using Oracle ASR in Enterprise Manager

Review the list of prerequisites below and verify your ASR assets and Enterprise Manager environments:

- Enterprise Manager Cloud Control 13*c* (13.1.0.1.0) or later is installed.
- My Oracle Support (MOS) details:
  - Provide contact information for your assets.
  - Enable ASR assets and associate them with a valid Customer Service Identifier (CSI) with rights over the asset.
  - Provide valid MOS credentials.
  - The provided MOS user must have administrator or asset administrator privileges.
- Hardware requirements:
  - Since ASR is included as part of Enterprise Manager Cloud Control 13*c*, any ASR hardware requirements are part of the Enterprise Manager requirements. See the *Preinstallation Requirements for Enterprise Manager Cloud Control* section of the *Enterprise Manager Cloud Control Basic Installation Guide*:

http://docs.oracle.com/cd/E24628_01/install.121/e22624/part_preinstall_reqs.htm#sthref50

  - The hardware targets (Exadata and Solaris host) must be discovered by Enterprise Manager.
  - Root privilege is required in order to configure FMA on Solaris to send traps to the Enterprise Manager agent.

    This must be done by the administrator as part of agent deployment as a one time configuration step.
  - Verify that the asset is qualified for ASR, which are configured to report its hardware telemetry to an ASR Manager. For a complete list of hardware qualified for ASR, see:

    http://docs.oracle.com/cd/E37710_01/nav/products.htm
  - For ASR activation to complete, the asset has to be **Inactive** or not monitored by ASR or any other client. For example, if the ASR Manager or another instance of Enterprise Manager is monitoring the asset, then this instance of Enterprise Manager will not be able to activate it.

- Software requirements:
  - Since ASR is included as part of Enterprise Manager Cloud Control 13*c*, any ASR software requirements are part of the Enterprise Manager requirements. See the *Preinstallation Requirements for Enterprise Manager Cloud Control* section of the *Enterprise Manager Cloud Control Basic Installation Guide*:

    http://docs.oracle.com/cd/E24628_01/install.121/e22624/part_preinstall_reqs.htm#sthref50
  - Oracle Java 8 (1.8.0_25) or later.
  - Exadata Storage Server software Release 12.1.2 or higher.
- Telemetry requirements:
  - Enable Solaris FMA.

1.3 ASR Asset Life Cycle in Enterprise Manager

Table 1-1 shows the typical life cycle for ASR and describes the different phases:

Table 1-1 ASR Asset Life Cycle

ASR Action	What It Means...
Activation	Ensures that: • The ASR asset is under a service contract. • The ASR asset is qualified. • The user is authorized to run ASR.
Heartbeat	Checks connectivity daily to the ASR client and/or asset still in place. A warning e-mail is sent to you if the heartbeat is not received.

Table 1-1 (Cont.) ASR Asset Life Cycle

ASR Action	What It Means...
Auto Create Service Requests (SRs)	Creates SRs automatically for hardware faults known to require Oracle Service action.
Include/Exclude	Enables you to refine which assets are auto creating SRs.
Deactivation	Removes ASR status and disables ASR heartbeat monitoring.

1.4 Known Issues

Serial Information From a Solaris Host

Problem: If the Enterprise Manager monitoring agent user does not have the required privileges to get the serial number information from a Solaris host, then ASR is not able to get it from the Enterprise Manager repository.

As a result, Oracle ASR will not be supported for that host.

Resolution: In Enterprise Manager Cloud Control 13*c*, if you encounter this error, then add the required privilege on the Solaris host to the agent user.

2

Configuring Enterprise Manager and ASR Targets

This chapter describes how to configure Oracle Enterprise Manager Cloud Control to enable Oracle Auto Service Request (ASR) functionality. For qualified hardware targets monitored by Enterprise Manager, ASR will automatically file a service request, as needed.

The following topics are provided:

- Configure Fault Telemetry for Qualified Hardware Targets
- Configure SNMP Subscriber for HALRT
- Customize Target Activation in ASR

2.1 Configure Fault Telemetry for Qualified Hardware Targets

Note:

All hardware should already be discovered by Oracle Enterprise Manager Cloud Control. For details about adding hardware, see the *Oracle® Enterprise Manager Cloud Control Administrator's Guide*:

`http://docs.oracle.com/cd/E24628_01/doc.121/e24473/toc.htm`

When a fault occurs on a qualified hardware target, the target has the ability to collect fault information and send it based on the fault telemetry available. For ASR, Enterprise Manager recognizes the following three fault telemetry types:

- **Fault Management Architecture (FMA):** Provides CPU and memory fault information from the host.
- **Integrated Lights Out Manager (ILOM):** Provides fault information, power and environmental, and CPU and memory fault information from the service processor.
- **Exadata-detected Events (HALRT):** Provides fault coverage for disks, flash, and PCI cards within Oracle Exadata Database Machine.

Table 2-1 shows the target types for Oracle ASR and their corresponding fault telemetry:

Table 2-1 Oracle ASR Target Types and Fault Telemetry

Table 2-1 (Cont.) Oracle ASR Target Types and Fault Telemetry

Target Type	Fault Telemetry
Exadata Cell Node	ILOM HALRT
Exadata Compute Node	ILOM HALRT
Exadata InfiniBand Switch	ILOM
Standalone Solaris host	FMA

Follow the steps below to register and activate ASR for all your qualified hardware targets monitored by Enterprise Manager:

1. Register with Oracle ASR. From the EMCLI console, enter the following command:

   ```
   $OMS_ROOT/bin/emcli em_asr_register –mosid=<MOS_USER_ID>
   ```

   Note:

   The activation request is sent automatically for all available targets.

2. Activate the asset. From the EMCLI console, enter the following commands:

   - Add Global Activation credential:

     ```
     $OMS_ROOT/bin/emcli em_asr_asset_actcred -mosid="<MOS_USER_ID>"
     ```

   - Add Target Activation credential:

     ```
     $OMS_ROOT/bin/emcli em_asr_asset_actcred -targetName="<ILOM_TARGET_NAME>" -
     targetType="<TARGET_TYPE>" -mosid="<MOS_USER_ID>"
     ```

2.1.1 Manually Register and Activate ASR Assets

If necessary, you can manually schedule a time for the registration and activation jobs to run in Enterprise Manager. From the EMCLI console, run the following commands:

1. Run the activation job:

   ```
   $OMS_ROOT/bin/emcli em_asr_asset_activation_job –rescheduleNow
   ```

2. Check the activation job status:

   ```
   $OMS_ROOT/bin/emcli em_asr_asset_activation_job
   ```

3. Check activation status details for targets:

   ```
   $OMS_ROOT/bin/emcli em_asr_asset_activation_details
   ```

2.1.2 Unregister ASR

If you need to disable and unregister ASR, run the following command from the EMCLI console:

```
$OMS_ROOT/bin/emcli em_asr_deregister
```

2.2 Configure SNMP Subscriber for HALRT

Complete the following steps to configure SNMP subscriber for HALRT faults in Enterprise Manager:

Note:

These steps are only required for the DB node that is part of Exadata Database Machine.

1.
2.
3.
4.
5.

2.3 Customize Target Activation in ASR

By default, all qualified targets associated with the My Oracle Support (MOS) user name are activated for Oracle ASR. You can customize the list of monitored targets:

- Add all targets to the include list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_include_list –add -all
  ```

- Remove all targets from the include list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_include_list –remove -all
  ```

- Add a single target to the include list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_include_list –add  -targetName="<TARGET_NAME>" -
  targetType=“<TARGET_TYPE>"
  ```

- Remove a single target from the include list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_include_list –remove  -
  targetName="<TARGET_NAME>" -targetType="<TARGET_TYPE>"
  ```

- Add all targets to the exclude list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_exclude_list –add -all
  ```

- Remove all targets from the exclude list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_exclude_list –remove -all
  ```

- Add a single target to the exclude list:

  ```
  $OMS_ROOT/bin/emcli em_asr_asset_exclude_list –add -targetName="<TARGET_NAME>" -
  targetType ="<TARGET_TYPE>"
  ```

- Remove a single target from the exclude list:

```
$OMS_ROOT/bin/emcli em_asr_asset_exclude_list –remove -targetName="<TARGET_NAME>"
-targetType ="<TARGET_TYPE>"
```

3

Managing Oracle ASR with EMCLI Commands

This chapter describes how to manage Oracle Auto Service Request (ASR) using the EMCLI commands.

From the EMCLI console, the following Oracle ASR commands are available:

```
em_asr_asset_actcred
em_asr_asset_activation_details
em_asr_asset_activation_job
em_asr_asset_exclude_list
em_asr_asset_include_list
em_asr_deregister
em_asr_register
```

With these commands, you can perform the following tasks:

- Enable Oracle ASR for Enterprise Manager
- Update Activation Credentials
- Manage the ASR Activation Job
- Disable Oracle ASR for Enterprise Manager
- Manage ASR Assets

3.1 Enable Oracle ASR for Enterprise Manager

This command enables ASR Manager functionality in Enterprise Manager. My Oracle Support (MOS) credentials are used to activate any new asset discovered for ASR.

Only the Enterprise Manager super user can do this operation.

```
emcli em_asr_register -mosid="My Oracle Support (MOS) user name" [-passwd="MOS user password"] [-dontStartJob]
```

Where:

`-mosid` - Identifies the MOS user name.

`-passwd` - Identifies the MOS user password. If the password is not provided, then you will be prompted for it at the command line.

`-dontStartJob` - Sets a flag so that the ASR activation job is not started as part of registration. If this parameter is not used, then the activation job will start automatically for all eligible targets in the include list.

3.2 Update Activation Credentials

This command adds or removes the ASR asset activation credential.

```
emcli em_asr_asset_actcred [-add] [-remove] [-targetName="target name"] [-
targetType="target type"] [-mosid="My Oracle Support (MOS) user name"] [-passwd="MOS
user password"]
```

Where:

`-add` - Adds an ASR asset activation credential.

`-remove` - Removes an ASR asset activation credential.

`-targetName` - Identifies the target name.

`-targetType` - Identifies the target type.

`-mosid` - Identifies the My Oracle Support (MOS) user name.

`-passwd` - Identifies the MOS user password.

Note:

You may be prompted to enter your MOS user password.

3.3 Manage the ASR Activation Job

This command manages the ASR asset activation job and shows the job status. Use this command to start or reschedule the job:

```
emcli em_asr_asset_activation_job [-start] [-rescheduleNow]
```

Where:

`-start` - Starts the ASR asset activation job to run daily (including today) at the current time, if it is not already started.

`-rescheduleNow` - Reschedules the ASR asset activation job to run daily (including today) at the current time, if it is already scheduled.

```
em_asr_asset_activation_details
```

3.4 Disable Oracle ASR for Enterprise Manager

This command disables ASR Manager functionality from Enterprise Manager by removing the ASR registration.

```
emcli em_asr_deregister [-all] [-default]
```

Only the Enterprise Manager super user can do this operation.

Where:

`-all` - Removes the user ASR registration and all incident rules associated to ASR.

`-default` - Removes the user ASR registration. Does not remove the incident rules associated to ASR.

3.5 Manage ASR Assets

This command adds or removes target(s) to the **ASR exclude list**:

```
emcli em_asr_asset_exclude_list [-add] [-remove] [-all] [-targetName="target name"]
[-targetType="target type"]
```

Where:

`-add` - Adds a target(s) to the ASR exclude list.

`-remove` - Removes a target(s) from the ASR exclude list.

`-all` - Sets a flag to select all eligible targets.

`-targetName` - Identifies the target name.

`-targetType` - Identifies the target type.

This command adds or removes a target(s) to the **ASR include list**.

```
emcli em_asr_asset_include_list [-add] [-remove] [-all] [-targetName="target name"]
[-targetType="target type"]
```

Where:

`-add` - Add a target(s) to the ASR include list.

`-remove` - Removes target(s) from the ASR include list.

`-all` - Sets a flag to select all eligible targets.

`-targetName` - Identifies the target name.

`-targetType` - Identifies the target type.

4

Oracle ASR Reports and Incidents in Enterprise Manager

This chapter describes how to access the Oracle ASR report and any associated incidents in Enterprise Manager.

The following topics are provided:

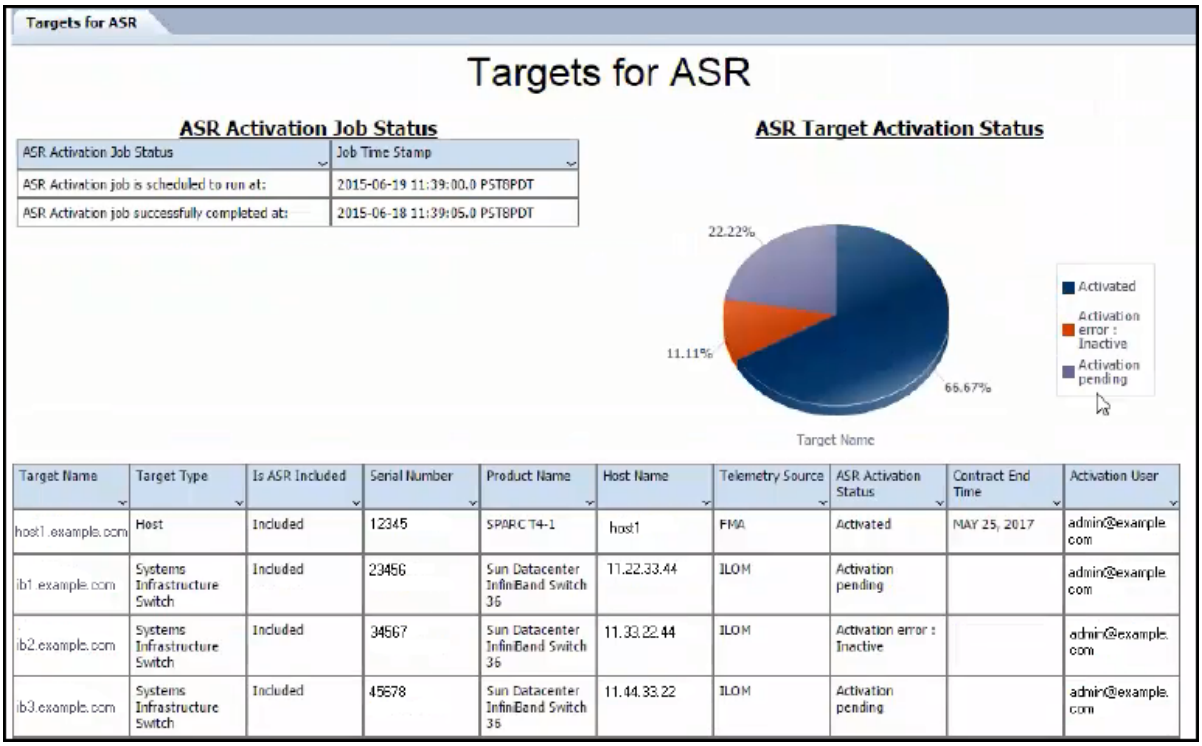
- Oracle ASR Reports
- Viewing ASR Incidents in Enterprise Manager
- Viewing Service Requests in My Oracle Support

4.1 Oracle ASR Reports

To access the Oracle ASR report:

1. From the Enterprise menu, select **Reports**, then select **BI Publisher Enterprise Reports**.
2. On the BI Publisher Enterprise Reports page, search for ASR. The ASR reports page should display as shown in Figure 4-1:

Figure 4-1 ASR Reports



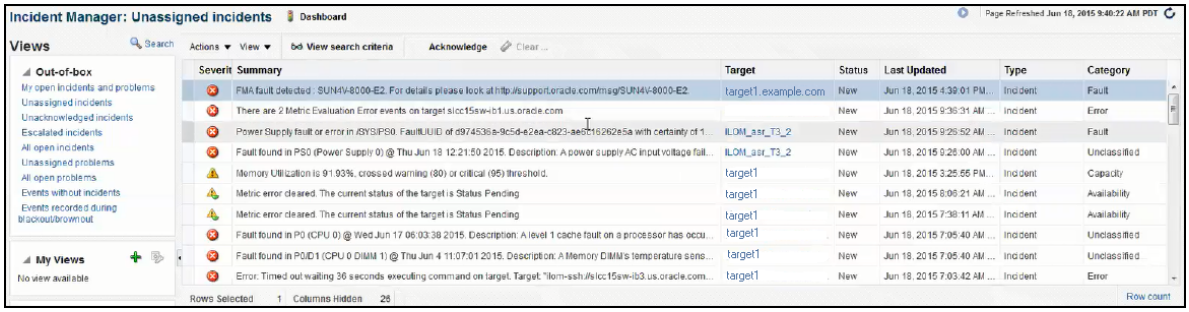
From this report, information about each asset registered with ASR is displayed, including the target's activation status.

4.2 Viewing ASR Incidents in Enterprise Manager

If a fault occurs, an incident is entered in Enterprise Manager. To view the incident:

1. From the Enterprise menu, select **Monitoring**, then select **Incident Manager**.
2. The Incident Manager displays, which shows all unassigned incidents (Figure 4-2):

Figure 4-2 Unassigned Incidents



3. Select the ASR incident from the list to view details about the incident. You can also view the Service Request (SR) number column. If not already displayed, then select **View**, then select **Columns**, and finally select **Service Request #**.

4.3 Viewing Service Requests in My Oracle Support

If a Service Request (SR) is created by Oracle ASR as a result of a fault, you can access the SR from the incident in Enterprise Manager. You can also access the SR directly from My Oracle Support (MOS).

Once you access the SR in MOS, you can add additional information (such as secondary contact information), or you can close the SR.

5

Troubleshooting Oracle ASR

This chapter describes some common troubleshooting tasks for diagnosing problems with Oracle Auto Service Request in Enterprise Manager.

This chapter covers the following topics:

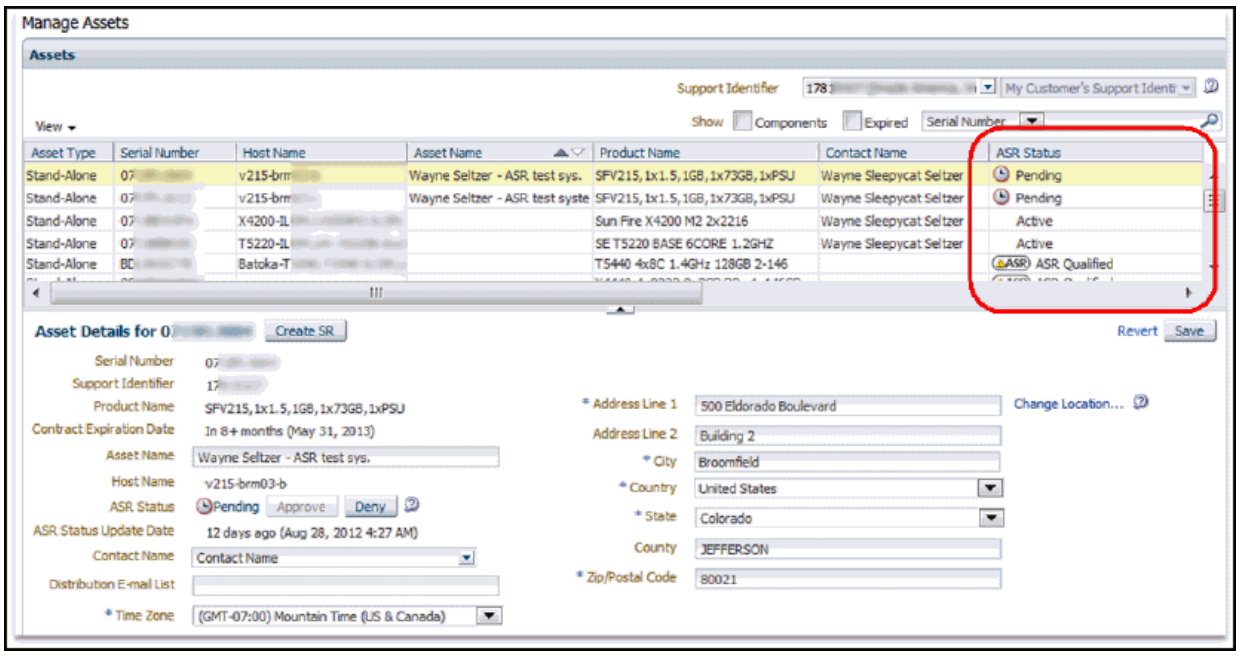
- View Status from My Oracle Support

5.1 View Status from My Oracle Support

To view the status of all ASR Assets, log in to My Oracle Support (`https://support.oracle.com`). In the My Oracle Support Dashboard, click the "Systems..." tab.

In the Settings pane on the left of the window, select **Assets** (located under the Administrative submenu). A complete list of all ASR Assets is displayed. See the ASR Status column for the status of all ASR assets. Select an asset to view details about the asset, as shown in Figure 5-1:

Figure 5-1 Manage Assets in My Oracle Support (MOS)



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