

Oracle® Auto Service Request
Qualified Engineered Systems Products
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Preface

This document describes the Engineered Systems products qualified for Oracle Auto Service Request (ASR).

For more information about the Oracle ASR service:

<http://oracle.com/asr>

For more information about the Oracle Engineered Systems:

<https://www.oracle.com/engineered-systems/>

Audience

This document is intended for users of Oracle ASR who need to evaluate their Engineered Systems products to be qualified as ASR Assets.

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 following documents in the Oracle Auto Service Request documentation set:

- *Oracle Auto Service Request Installation and Operations Guide*
- *Oracle Auto Service Request Exadata Quick Installation Guide*
- Oracle Auto Service Request Fault Coverage for Engineered Systems:

http://docs.oracle.com/cd/E37710_01/nav/faultcoverage.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.
<i>italic</i>	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.

Qualified Exadata Products

The Oracle Exadata Database Machine is qualified for Oracle Auto Service Request. The following Exadata products are qualified for ASR:

Table 1–1 Exadata Products Qualified for ASR

Oracle Product	Supports ILOM ASR SNMP	Supports ILOM ASR Client	Supports Solaris ASR Client
Exadata X7-8	SNMP V2c/V3	No	No
Exadata X7-2	SNMP V2c/V3	No	No
Exadata X6-8	SNMP V2c/V3	No	No
Exadata X6-2	SNMP V2c/V3	No	No
Exadata X5-8	SNMP V2c/V3	No	No
Exadata X5-2	SNMP V2c/V3	No	No
Exadata X4-8	SNMP V2c	No	No
Exadata X4-2	SNMP V2c	No	No
Exadata X3-8	SNMP V2c	No	No
Exadata X3-2	SNMP V2c	No	No
Exadata X2-8	SNMP V2c	No	No
Exadata X2-2	SNMP V2c	No	No

For more information about the Oracle Exadata Database Machine:

<http://www.oracle.com/us/products/database/exadata/overview/index.html>

1.1 Requirements

- ASR Manager 4.5 or later.
- Exadata software version 11.2.1.3.1 or higher.

Note: While Oracle ASR supports this version of the Exadata software, you must upgrade to Exadata software version 11.2.3.3.0 or higher to include support for InfiniBand switches.

- Integrated Lights Out Manager (ILOM) on Exadata servers

1.2 Fault Coverage

ASR uses the following telemetry sources to detect fault events on Oracle Exadata hardware:

- **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.
- **Data Center InfiniBand Switch management module:** Provides fault coverage for power, memory, storage, and battery. For details about the Data Center InfiniBand Switch, see:

<http://www.oracle.com/us/products/networking/infiniband/switch36/overview/>

For fault coverage details, see the respective *Exadata Database Server*, *Exadata Storage Server*, and *Exadata Disk Alerts* sections in the *ASR Fault Coverage for Engineered Systems* document:

http://docs.oracle.com/cd/E37710_01/doc.41/e55806/toc.htm

Qualified Exalogic Products

The Oracle Exalogic Elastic Cloud is qualified for Oracle Auto Service Request. The following Exalogic products are qualified for ASR:

- X2-2
- X3-2
- X4-2
- X5-2

For Oracle Exalogic Elastic Cloud, Oracle ASR supports InfiniBand switches for the following image releases:

- 2.0.6.0.1 and later for the X2-2 and X3-2
- 2.0.6.1.1 and later for the X4-2 and X5-2

Note: Most InfiniBand Switches will require an on-site visit by an Oracle field support engineer (FSE) to correct the entitlement serial number.

For more information about the Oracle Exalogic Elastic Cloud:

<http://www.oracle.com/us/products/middleware/exalogic/overview/index.html>

2.1 Requirements

Both of the following fault telemetry sources are required to enable Oracle ASR:

- Integrated ZFS network attached storage appliance
- Integrated Lights Out Manager (ILOM) on Exadata servers

2.2 Fault Coverage

ASR uses the following telemetry sources to detect fault events on Oracle Exalogic hardware:

- **Integrated Lights Out Manager (ILOM):** Provides fault information, power and environmental, and CPU and memory fault information from the service processor.
- **ZFS Appliance:** Provides fault events detected within the systems and disk arrays of the included Storage Appliance.

- **Data Center InfiniBand Switch management module:** Provides fault coverage for power, memory, storage, and battery. For details about the Data Center InfiniBand Switch, see:

<http://www.oracle.com/us/products/networking/infiniband/switch36/overview/>

For fault coverage details, see the respective *Exalogic* and *Exalogic Storage Appliance* sections in the *ASR Fault Coverage for Engineered Systems* document:

http://docs.oracle.com/cd/E37710_01/doc.41/e55811/toc.htm

Qualified Exalytic Products

The Oracle Exalytics In-Memory Machine is qualified for Oracle Auto Service Request (ASR). The following Oracle Exalytics products are qualified for ASR:

- X2-4
- X3-4
- X4-4

For more information about installing Oracle ASR, see *Chapter 8: Installing Oracle Auto Service Request (ASR) Software* in the *Oracle Exalytics In-Memory Machine Owner's Guide*.

3.1 Requirements

The following requirements must be met before installing Oracle ASR:

- The Oracle Exalytics X2-4 Base Image Patch (v 1.0.0.3.1) on Linux x86-64 (patch 14301728) is required. You can download this patch from My Oracle Support:

<https://support.oracle.com>

For instructions to install the patch, refer to *Installing the Oracle Exalytics Release 1 Patchset 1*:

http://docs.oracle.com/cd/E27027_01/bi.1/e24706/admin_patch.htm#CHDEGBIJ

- Recommended upgrade for the following Oracle Exalytics products:
 - **Oracle Exalytics Machine:** Oracle Exalytics Release 1 Patchset 3 (1.0.0.3).
 - **Oracle Exalytics - virtual Environment:** Oracle Exalytics Release 1 Patchset 3 (1.0.0.3.1).

3.2 Fault Coverage

ASR uses Integrated Lights Out Manager (ILOM) telemetry sources to detect fault events on the Sun Fire X4470 M2 server. ILOM provides fault information, power and environmental, and CPU and memory fault information from the service processor.

For fault coverage details, see the following documents:

- See the entry for the Sun Fire X4470 M2 in the *Oracle ASR Fault Coverage for Oracle Servers*:

http://docs.oracle.com/cd/E37710_01/doc.41/e37140/toc.htm

- See *Oracle ASR Fault Coverage for Oracle Database Appliance* fault coverage for a description of the applicable disk alerts. Exalytics In-Memory Machine X2-4 uses Disk Alerts 02001, 02002, and 02003 - only:

http://docs.oracle.com/cd/E37710_01/doc.41/e37192/toc.htm

Oracle Database Appliance

The Oracle Database Appliance (ODA) is qualified for Oracle Auto Service Request. The following ODA products are qualified for ASR:

- Oracle Database Appliance (Sun Fire X4370 M2)
- Oracle Database Appliance X3-2
- Oracle Database Appliance X3-2 (virtual environment) - requires minimum ODA Release 2.8
- Oracle Database Appliance X4-2
- Oracle Database Appliance X4-2 (virtual environment) - requires minimum ODA Release 2.8
- Oracle Database Appliance X5-2
- Oracle Database Appliance X5-2 (virtual environment) - requires minimum ODA Release 2.8

For more information about the Oracle Database Appliance:

<http://www.oracle.com/us/products/database/database-appliance/resources/index.html>

For information about configuring your Oracle Database Appliance to use Oracle Auto Service Request, refer to *ODA (Oracle Database Appliance): How To Configure ASR Post Deploy and ASR Troubleshooting* (Doc ID 1427924.1) in My Oracle Support:

<https://support.oracle.com>

4.1 Requirements

To enable Oracle ASR, verify that one of the following ODA software versions are present:

- **Recommended version:** the recommended release for most current support of ASR and other features is **ODA 12.1.2.0.0** or later.
- Minimal supported versions.

Even though Oracle ASR will work with these versions, you should use the latest release to gain maximum functionality and most recent bug fixes:

- ODA 2.8, the upgrade from ODA 2.1.0.3.0. This release includes improvements in the ASR configuration and test menu. ODA 2.8 also supports the virtual environment with ASR.
- ODA 2.1.0.3.0, the minimal supported version.

If you choose to use this version, then see the instructions in *ASR Standalone Manager - Manual Configuration for Oracle Database Appliance (ODA)* (Doc ID 1490606.1) to manually configure an external ASR Manager:

<https://support.oracle.com/epmos/faces/DocumentDisplay?id=1490606.1>

4.2 Fault Coverage

ASR uses ILOM telemetry sources to detect fault events on Oracle Database Appliance hardware. ILOM provides fault information, power and environmental, and CPU and memory fault information from the service processor.

For fault coverage details, see the *Oracle ASR Fault Coverage for Engineered Systems: Oracle Database Appliance (ODA)* document:

http://docs.oracle.com/cd/E37710_01/doc.41/e55818/toc.htm

Oracle Big Data Appliance

The Oracle Big Data Appliance (BDA) is qualified for ASR, including:

- X3-2
- X4-2
- X5-2

InfiniBand switches are not qualified for ASR in an Oracle BDA at this time.

For more information about the Oracle BDA product line, see:

<http://www.oracle.com/us/products/database/big-data-appliance/overview/index.html>

For ASR configuration instructions, refer to the "Setting Up Auto Service Request" chapter in the *Oracle Big Data Appliance Owner's Guide*:

<http://www.oracle.com/technetwork/server-storage/engineered-systems/bigdata-appliance/documentation/index.html>

5.1 Fault Coverage

ASR uses the following telemetry sources to detect fault events on Oracle Big Data Appliance hardware:

- **Integrated Lights Out Manager (ILOM):** Provides fault information, power and environmental, and CPU and memory fault information from the service processor.
- **Exadata-detected Events (DISKALRT):** Provides fault coverage for disks, flash, and PCI cards within Oracle Big Data Appliance.

Note: Fault Management Architecture (FMA) telemetry is not supported for the Oracle Big Data Appliance.

For fault coverage details, see the *Oracle Big Data Appliance (BDA)* section in the *ASR Fault Coverage for Engineered Systems* document:

http://docs.oracle.com/cd/E37710_01/doc.41/e37887/toc.htm

Oracle SuperCluster

The following Oracle SuperCluster products are qualified for ASR:

- T4-4
- T5-8
 - ILOM ASR Client is available with ILOM 3.2.5 or later.
 - ILOM ASR Client requires **ASR Manager 5.0.3** or later or direct connection to `transport.oracle.com`.
 - ILOM and Solaris ASR Clients are not supported on Ops Center or Enterprise Manager Cloud Control.
- M6-32
 - Telemetry Source on SERVICE PROCESSOR: ILOM
 - * Only ILOM 3.2.1.7h or later is supported
 - * Only Virtual Service Processor should be activated
 - Telemetry Source on HOST: Solaris 11; however, all events are sent through a proxy to ILOM. Only an ILOM connection is needed.
 - ASR Manager/Rules Bundle Version (Minimum Required Version): ASR 4.9
 - ILOM ASR Client is available with ILOM 3.2.5 or later.
 - ILOM ASR Client requires **ASR Manager 5.0.3** or later or direct connection to `transport.oracle.com`.
 - ILOM and Solaris ASR Clients are not supported on Ops Center or Enterprise Manager Cloud Control.

Oracle ASR supports the following switches:

- Network QDR InfiniBand Gateway Switch

Note: Most InfiniBand Switches will require an on-site visit by an Oracle field support engineer (FSE) to correct the entitlement serial number.

For more information about the Oracle SuperCluster, see:

<http://www.oracle.com/technetwork/server-storage/engineered-systems/supercluster-1965425.html>

Please refer to the *SPARC SuperCluster T4-4 Owner's Guide* for ASR installation instructions. The documentation for the SPARC SuperCluster T4-4 can be viewed through a browser by viewing the following directory on the SPARC T4-4 servers installed in the SPARC SuperCluster T4-4:

/opt/oracle/node/doc/E21659_01/index.html

6.1 Telemetry Sources

ASR uses the following telemetry sources to detect fault events on Oracle SuperCluster hardware:

- **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 SuperCluster.
- **ZFS Appliance:** Provides fault events detected within the systems and disk arrays of the included Storage Appliance.
- **Data Center InfiniBand Switch management module:** Provides fault coverage for power, memory, storage, and battery. For details about the Data Center InfiniBand Switch, see:

<http://www.oracle.com/us/products/networking/infiniband/switch36/overview/>

6.2 Fault Coverage

For fault coverage details, see the *Oracle ASR Fault Coverage for Engineered Systems: SuperCluster* document:

http://docs.oracle.com/cd/E37710_01/doc.41/e55817/toc.htm

Qualified Oracle Private Cloud Appliance (PCA)

The Oracle Private Cloud Appliance (PCA), formerly named Oracle Virtual Compute Appliance (OVCA), is qualified for Oracle Auto Service Request. The following Oracle PCA products are qualified for ASR:

- X3-2
- X4-2
- X5-2

InfiniBand switches are supported for all image releases.

For more information about Oracle PCA:

<https://www.oracle.com/servers/private-cloud-appliance>

See also: *How to install Auto Service Request (ASR) on Oracle Virtual Compute Appliance (VCA) Version 2.0.4 or Private Cloud Appliance (PCA) 2.0.5* (Doc ID 2032791.1):

<https://support.oracle.com/rs?type=doc&id=2032791.1>

7.1 Requirements

- ASR Manager 5.0 or later.
- Integrated Lights Out Manager (ILOM).

7.2 Fault Coverage

ASR uses the following telemetry sources to detect fault events on Oracle Private Cloud Appliance (PCA) hardware:

- **ZFS Appliance:** Provides fault events detected within the systems and disk arrays of the included Storage Appliance.
- **Integrated Lights Out Manager (ILOM):** Provides fault information, power and environmental, and CPU and memory fault information from the service processor.
- **Data Center InfiniBand Switch management module:** Provides fault coverage for power, memory, storage, and battery. For details about the Data Center InfiniBand Switch, see:

<http://www.oracle.com/us/products/networking/infiniband/switch36/overview/>

- **Oracle Switch ES1-24:** Provides fault coverage for power, fan, temperature, and file system. For details about the switch, see:

<http://www.oracle.com/us/products/networking/ethernet/switch-es1-24/overview/>

For fault coverage details, see *Oracle ASR Fault Coverage for Oracle Private Cloud Appliance (PCA)*:

http://docs.oracle.com/cd/E37710_01/doc.41/e57198/toc.htm

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