

Oracle® Enterprise Manager

Monitoring an Oracle Private Cloud Appliance

13.2 PG

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Preface

This guide describes how to manage an Oracle Private Cloud Appliance (PCA) using Oracle Enterprise Manager Cloud Control 13c. This document provides detailed steps required to install and configure an Enterprise Manager agent and its related artifacts to manage and monitor an Oracle PCA.

Audience

This document is intended for Oracle Private Cloud Appliance customers, system administrators and data center administrators who are interested in managing their PCA using Oracle Enterprise Manager Cloud Control 13c.

Documentation Accessibility

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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.

What's Changed

This table provides a brief overview of the document changes for the latest publication of the *Oracle® Enterprise Manager Cloud Control Monitoring an Oracle Private Cloud Appliance*:

Part Number	Change Summary
E73613-01	Initial release in support of Enterprise Manager Cloud Control 13c Release 13.2.0.1.0.

Introduction to the Oracle PCA Plug-in

This chapter provides a general overview of the Oracle Private Cloud Appliance (PCA) plug-in, including supported hardware and software.

The following topics are discussed:

- [About the Oracle Private Cloud Appliance](#)
- [About the Oracle Virtualization Plug-in](#)
- [Oracle Private Cloud Appliance Features](#)
- [Supported Hardware](#)
- [Supported Software](#)

1.1 About the Oracle Private Cloud Appliance

About PCA

Oracle Private Cloud Appliance (PCA) is an integrated, "wire once," software-defined converged infrastructure system designed for rapid deployment of private cloud at industry-leading price point.

The Oracle PCA supports a large range of mixed workloads hosted in a converged server, network, and storage environment to enable general purpose, business-, and mission-critical application deployments in medium-to-large data centers.

With Oracle Enterprise Manager 13c, the Private Cloud Appliance is transformed into a powerful Cloud Services delivery platform and provides a simple path from on-premise to Oracle Cloud.

1.2 About the Oracle Virtualization Plug-in

The Enterprise Manager for Oracle Virtualization (VT) plug-in has been extended to support monitoring and management of the Oracle PCA Racks by Enterprise Manager. Through Enterprise Manager Cloud Control, you can monitor the various hardware components of the Oracle PCA rack (such as compute nodes, InfiniBand switches, and so forth).

1.3 Oracle Private Cloud Appliance Features

Oracle PCA Features

"Turnkey" converged infrastructure solution automates hardware and software deployment with Oracle Private Cloud Appliance controller software.

Easy private cloud deployment ranging from IaaS to DBaaS by adding Oracle Enterprise Manager 13c.

Support for Oracle VM Templates enables deployment of ready-to-run VMs containing applications in minutes or hours, not days.

Oracle SDN software reduces operational complexity by enabling software-defined infrastructure in a "wire-once" system.

Saving hundreds of hours of installation and configuration time.

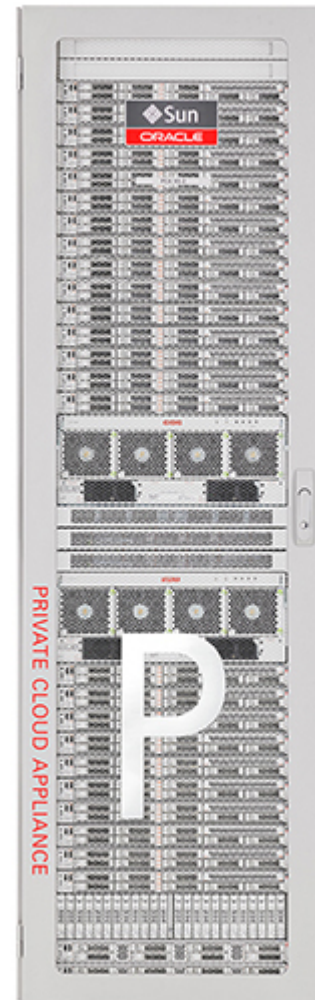
Faster Time-to-Market at industry-leading price point.

Reduced risks by running Microsoft Windows, Linux and Oracle Solaris workloads on one system.

Efficient Oracle software licensing based on what you use, not on the system's total capacity.

Lowered acquisition, deployment and operational costs.

Innovative converged infrastructure solution from a single vendor allows for superior ease-of-purchase, product integration, simplified management and single point of contact for support.



1.4 Supported Hardware

You can use the Oracle VT plug-in to monitor the performance of a wide variety of Oracle PCA targets, including:

- **Base rack.** The Oracle PCA is composed of the following components:
 - 2 to 25 compute nodes.
 - 2 management nodes.
 - 2 NM2-36 Sun InfiniBand Switches.
 - 2 ES1-24 Ethernet switches.

Note: These switches are part of the Opus Switches family. The factory ILOM version is not supported by the system infrastructure plug-in. Until it is updated to the most recent version, the PCA Plug-in supports only Up/Down status monitoring.

- 2 Fabric Interconnect switches.

Note: These are Xsigo Switches and support for complete monitoring and configuration is not yet supported by the System Infrastructure Plug-in. The PCA Plug-in supports only Up/Down status monitoring.

- 1 Oracle ZFS Storage Appliance ZS3-ES.
- **Compute nodes.** The base rack can support a maximum of 25 compute nodes. The base rack supports mixing of compute nodes from the following Oracle Servers:
 - X6-2
 - X5-2.
 - X4-2.
 - X3-2.
- **Virtual networking.** Each Private Cloud Appliance hardware configuration contains the following multiple redundant components that serve as gateways to the data center's Ethernet network:
 - QDR InfiniBand switches.
 - Oracle Fabric Interconnect systems.
- **Integrated storage.** Oracle Private Cloud Appliance features a fully integrated, enterprise-grade Oracle ZFS Storage ZS3-ES for centrally storing the management environment as well as providing data storage for VMs.

The storage capacity of Private Cloud Appliance can be expanded beyond the internal, included storage, to external data center racks containing Oracle ZFS Storage Appliance or supported storage available from other storage vendors.

1.5 Supported Software

The following software, included with the Private Cloud Appliance, enable scalability, software-defined virtual networking, and GUI-based management:

- **Oracle VM.** Oracle VM application-driven server virtualization is designed to be highly scalable and built to enable rapid application deployment. Oracle VM supports up to 128 vCPUs and a variety of guest OSES such as Linux, Oracle Solaris, and Microsoft Windows. Oracle VM is also optimized to accelerate applications deployments.
- **Oracle SDN software:** Oracle SDN dynamically connects servers to networks and storage. It eliminates the physical storage and networking cards found in every server and replaces them with virtual network interface cards (vNICs) and virtual host bus adapters (vHBAs) that can be deployed on the fly. Applications and operating systems see these virtual resources exactly as they would see their

physical counterparts. Oracle Virtual Networking simplifies complex data center deployments with a wire-once solution and simple software-defined network configurations.

- **Oracle Private Cloud Appliance controller software:** The controller software allows users to manage and monitor the systems hardware, perform software upgrades, create and manage virtual resources (virtual servers, virtual networks, and storage), and monitor utilization of all system resources in real-time. The controller software runs on two dedicated management nodes that are configured for high availability with automatic failover in the event of a failure. It is accessible via a GUI dashboard

1.6 Prerequisites

Ensure that the following prerequisites have been met before continuing:

- The Oracle Private Cloud Appliance (PCA) controller software should be version 2.1.1 or later.
- The ILOM version of the management nodes, compute nodes, InfiniBand switches and Oracle ZFS Storage Appliance should be version 3.1 or later.
- The agent needs to be installed on the management node on shared storage according to instructions, so that failover capability can be utilized. See [Installing the Management Agent on Oracle PCA](#) for details.

Discovering the Oracle Private Cloud Appliance

This chapter provides instructions for discovery of the Oracle Private Cloud Appliance (PCA) through Enterprise Manager Cloud Control 13c.

The following topics are provided:

- [Installing the Management Agent on Oracle PCA](#)
- [Discovering the Oracle PCA in Enterprise Manager](#)
- [Registering Oracle VM Manager](#)
- [Removing the Oracle PCA Target from Enterprise Manager](#)

2.1 Installing the Management Agent on Oracle PCA

Before discovering the Oracle PCA in Enterprise Manager, you must first prepare the PCA and install a Management Agent. Follow the steps below to properly configure your Oracle PCA:

1. Change the `oracle` user password to a known password on both management nodes of the PCA Rack:

```
# passwd oracle
```

2. Verify the VIP and public Enterprise Manager IP are in the `/etc/hosts` file on both management nodes and on the Enterprise Manager Host:

```
YOUR.VIP vip-host1.example.com vcal-vip-vip  
YOUR.EMIP em-host1.example.com em01
```

3. On an the active management node, create an agent directory on the shared NFS directory:

```
# mkdir /nfs/shared_storage/oemagent  
# chown oracle !$  
# chgrp dba !$
```

4. Open an Enterprise Manager agent port in the firewall by running the following command. Make sure you choose the same port while pushing the agent in step 5:

```
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport <agent_port> -j  
ACCEPT  
# service iptables save  
# service iptables restart
```

Note:

- By default, the Enterprise Manager agent port **3872** is pre-populated by PCA software. If you use this default Enterprise Manager agent port 3872 for pushing the agent, then this step is not needed.
- However, if the non-default port is used for Enterprise Manager agent, the steps do need to be executed on passive management node.
- If the agent port is different to the default port (3872), you must configure the firewall for that particular port, as **3872** is set by default in the PCA management node setup.

5. Push the Management Agent from the OMS. From Enterprise Manager Cloud Control:
 - a. From the **Setup** menu, select **Add Target**, then select **Add Targets Manually**.
 - b. In the Add Host Targets area of the Add Targets Manually page, click **Install Agent on Host**. The Add Host wizard will begin.
 - c. Add a Host and Platform. On this page, click **Add** and select **Manually**. Enter a host name (fully qualified) in the Host field. This name should be the fully qualified virtual IP host name of the PCA rack for deploying the agent. Select **Linux x86-64** from the Platform drop-down menu. [Figure 2-1](#) shows an example:

Figure 2-1 Add Host Target: Host and Platform

Add Target

Host and Platform Installation Details Review

Add Host Targets: Host and Platform Back Step 1 of 3 Next Cancel

This wizard enables you to install Management Agents on unmanaged hosts, thereby converting them to managed hosts. Enter a session name, and validate (or add) the hosts and their platforms on which you want to install the Management Agent.

* Session Name

▶ Agent Software Options

+ Add - Remove Platform Same for All Hosts

Host	Platform
host1.example.com	Linux x86-64

TIP The target host's platform is defaulted based on a combination of factors, including hints received from automated discovery and the platform of the OMS host. The default is a suggestion, however, we recommend you to check the platform details before processing to the next step.

TIP If the platform name is appended with "Agent Software Unavailable", then download the software for that platform using Self Update

Note:

The target host's platform is defaulted based on a combination of factors, including hints received from automated discovery and the platform of the OMS host. The default is a suggestion; however, you should check the platform details before processing to the next step.

If the platform name is appended with "Agent Software Unavailable," then download the software for that platform using Enterprise Manager's Self Update feature.

Click **Next**.

- d. On the Installation Details page ([Figure 2-2](#)), enter the following information:
- **Installation Base Directory:** `/nfs/shared_storage/oemagent`
 - **Instance Directory:** `/nfs/shared_storage/oemagent/agent_inst`
(This value is automatically completed based on the Installation Base Directory input.)
 - **Named Credential:** `<agent_username>`
-

Note:

If this is the first time you are adding a credential, an add icon (+) appears. Click this icon for a dialogue box that prompts for the credentials of the agent user (`oracle/password` for example).

Create a Named Credential for the `oracle` user with the password you set in step 1 above.

Once created, that credential and any other credentials that have already been added to Enterprise Manager will be available for selection. For an existing installation of an Enterprise Manager, a user may already have the necessary credentials available for selection for Oracle PCA discovery.

- **Privileged Delegation Setting:** Leave the default. By default, this field is populated with `/usr/bin/sudo -u %RUNAS% %COMMAND%`
- **Port:** By default, this field is populated with `3872`
- **Preinstallation Script:** Leave this field blank.
- **Postinstallation Script:** Leave this field blank.
- **Additional Parameters:** Leave this field blank.

Figure 2-2 Add Host Targets: Installation Details

Add Target

Host and Platform Installation Details Review

Add Host Targets: Installation Details Back Step 2 of 3 Next Cancel

On this screen, select each row from the following table and provide the installation details in the Installation Details section.

► **Deployment Type: Fresh Agent Install**

Platform	Agent Software Version	Hosts	Mandatory Inputs
Linux x86-64	13.1.0.0.0	host1.example.com	

Linux x86-64: Agent Installation Details

* Installation Base Directory /nfs/shared_storage/oemagent

* Instance Directory /nfs/shared_storage/oemagent/agent_inst

* Named Credential <agent_username> +

Privileged Delegation Setting /usr/local/bin/sudo -u %RUNAS% %COMMAND%

Port 3872

► Optional Details

Once the fields are complete, click **Next**.

- e. On the Review page, review the details of the host information. Click **Deploy Agent**.
6. Run the privileged agent scripts on the active node:

```
# cd /u01/oemagent -or- cd /nfs/shared_storage/oemagent
# ./agent_13.2.0.0.0/root.sh
# /u01/app/oraInventory/orainstRoot.sh
```

Note: If the EM agent has not been configured with sudo permissions then you must run this script.

7. On the active management node, set the emd property `AgentListenOnAllNICs` to **false** by running following command with the agent user (i.e., oracle):

```
<Agent_BASE_DIR>/agent_inst/bin/emctl setproperty agent -name
"AgentListenOnAllNICs" -value "false"
```

8. Copy the following agent installation files to the passive management node (ovcamn06r1 is passive in this example):

```
# scp /etc/init.d/gcstartup root@ovcamn06r1:/etc/init.d/
# rsync -og /etc/oragchomelist root@ovcamn06r1:/etc/oragchomelist
# rsync -rog /u01/app/oraInventory/ oracle@ovcamn06r1:/u01/app/oraInventory/
```

9. On the active management node, remove all `gc rc.d` links (no startup of agent on startup):

```
# for x in `find /etc/rc.*/*rc* | grep gcstart`; do rm $x; done
```

10. Restart the Enterprise Manager agent on the active management node as root from the startup script or as oracle from the agent's emctl command:

```
# /etc/init.d/gcstartup stop
# /etc/init.d/gcstartup start
```

or

```
% /nfs/shared_storage/oemagent/agent_inst/bin/emctl stop agent
% /nfs/shared_storage/oemagent/agent_inst/bin/emctl start agent
```

2.2 Discovering the Oracle PCA in Enterprise Manager

The steps below provide the prerequisites and instructions to discover an Oracle Private Cloud Appliance (PCA) target in Enterprise Manager Cloud Control:

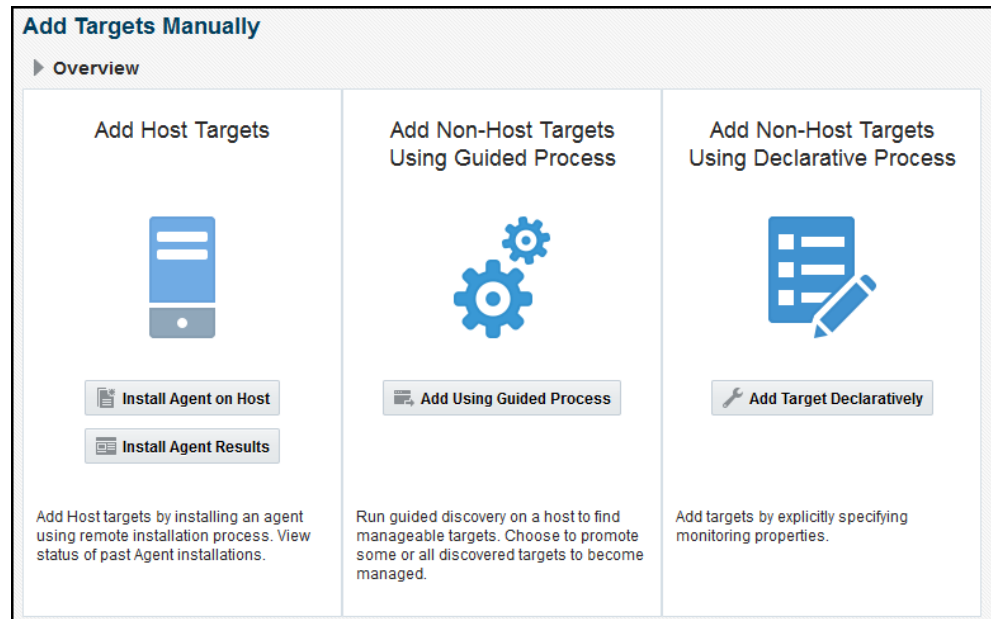
1. From the **Setup** menu, select **Add Targets**, and then select **Add Targets Manually** (Figure 2-3):

Figure 2-3 Add Targets Manually Menu

	Initial Setup Console
Configure Auto Discovery	Add Target ▶
Auto Discovery Results	Extensibility ▶
Add Targets Manually	Proxy Settings ▶
Group	Security ▶
Dynamic Group	Incidents ▶
Administration Groups	Notifications ▶
Generic System	Cloud ▶
Redundancy System	Provisioning and Patching ▶
Generic Service	My Oracle Support ▶
	Middleware Management ▶
	Manage Cloud Control ▶
	Command Line Interface
	Management Packs ▶

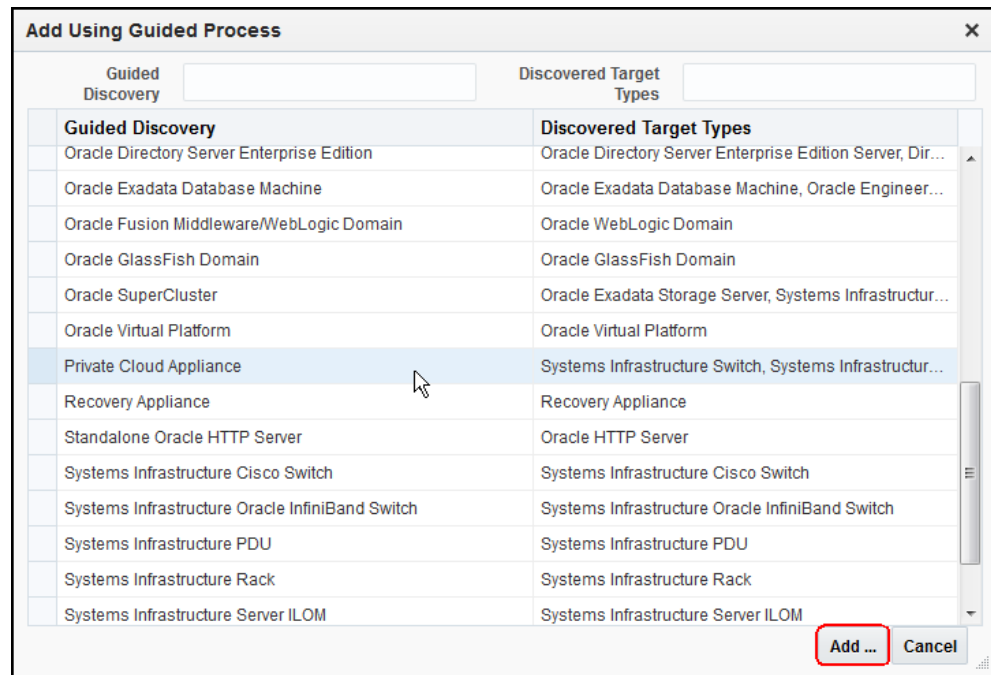
2. On the Add Targets Manually page (Figure 2-4), click **Add Targets Using Guided Process**.

Figure 2-4 Add Targets Manually



3. On the Add Using Guided Process window, select **Private Cloud Appliance**. Click **Add** (Figure 2-5) to begin the discovery wizard.

Figure 2-5 Select Private Cloud Appliance



4. On the Discovery Inputs page (Figure 2-6), you will need to enter the Monitoring Agent host location.

Figure 2-6 PCA Discovery Wizard: Discovery Input

Click the **Search** icon to display the Select Discovery Agent pop-up window:

Figure 2-7 Select Discovery Agent

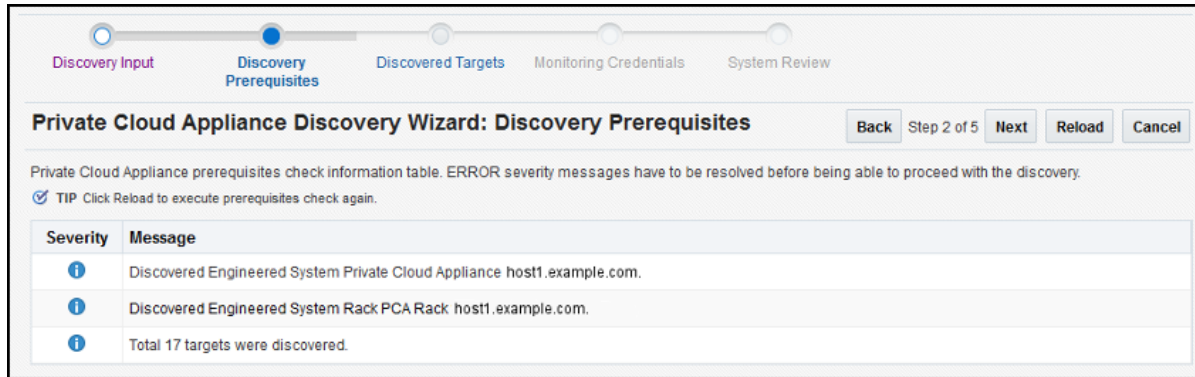
Target Name	Status
pca1.example.com:3378	↑
pca2.example.com:1728	⚙️

Select the URL from the available list. Once you select the URL, the Management Agent field on the Discovery Input page should auto-populate with the required information.

Click **Next**.

5. On the Discovery Prerequisites page ([Figure 2-8](#)), a series of checks are conducted automatically. Any errors returned must be resolved before continuing.

Figure 2-8 PCA Discovery Wizard: Discovery Prerequisites



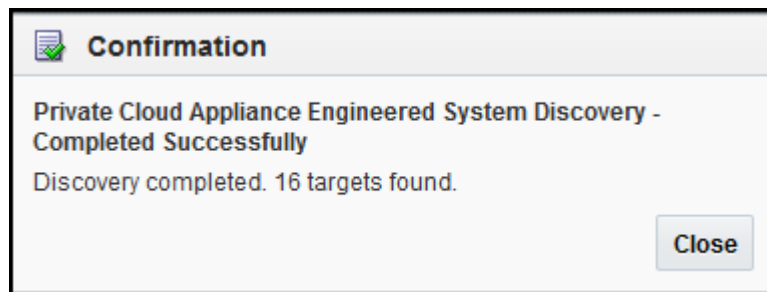
Note:

If you get error severity messages, you must resolve the errors then click **Reload** to run the prerequisites check again.

Click **Next**.

A confirmation pop-up window (Figure 2-9) will appear to show how many targets to be discovered:

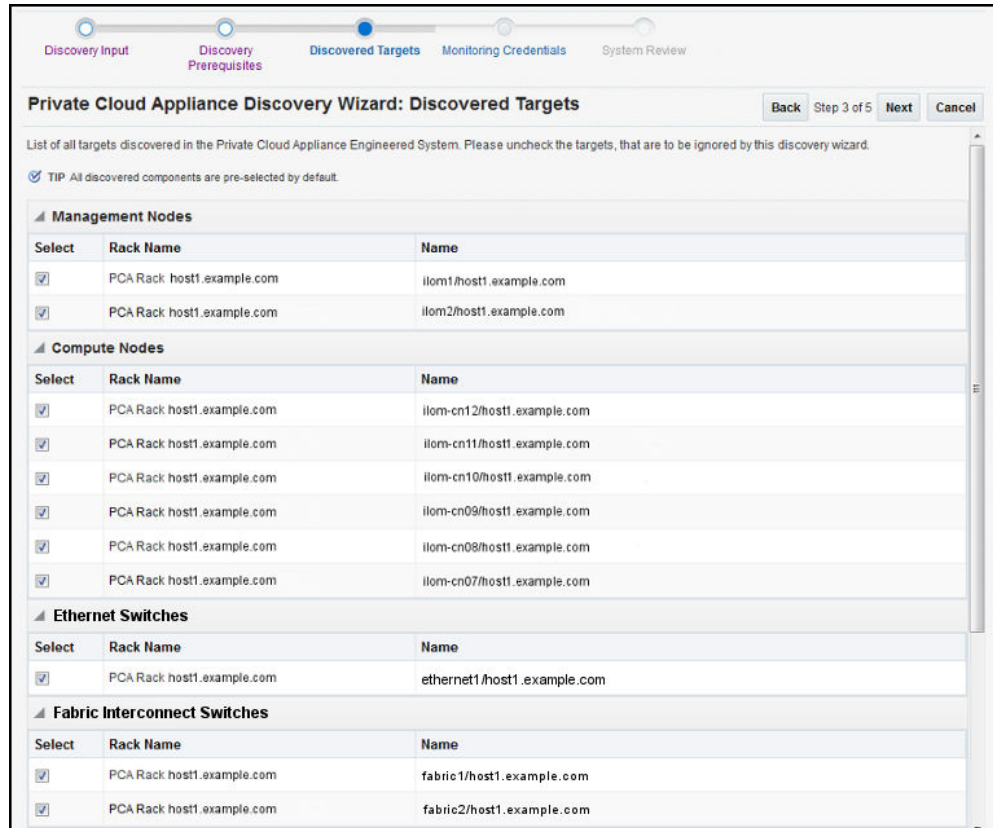
Figure 2-9 Confirmation Window



Click **Close** to continue.

6. On the Discovered Targets page (Figure 2-10), select the targets you want included in the discovered PCA rack. By default, all available targets are pre-selected.

Figure 2-10 PCA Discovery Wizard: Discovered Targets

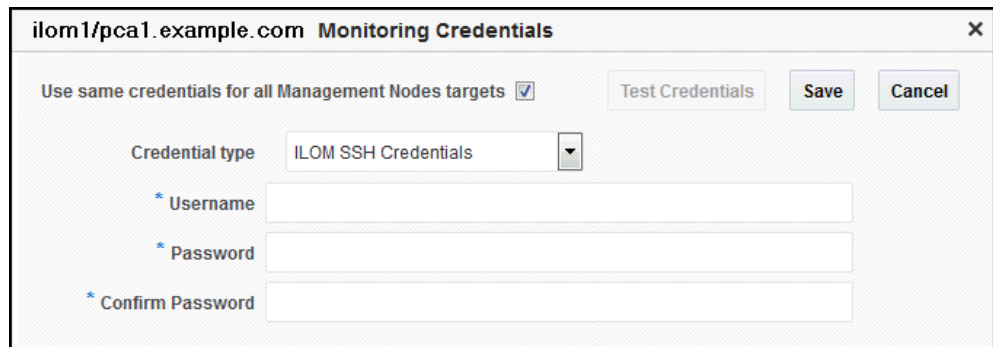


Click Next.

7. On the Monitoring Credentials page, the credentials must be set for each component in the Oracle PCA rack. A red status flag is shown for all components where the credentials are not set.

For each component type, click the **Edit** icon. In the Monitoring Credentials pop-up (Figure 2-11), enter the user name and password for each component in the Oracle PCA rack:

Figure 2-11 Component Monitoring Credentials

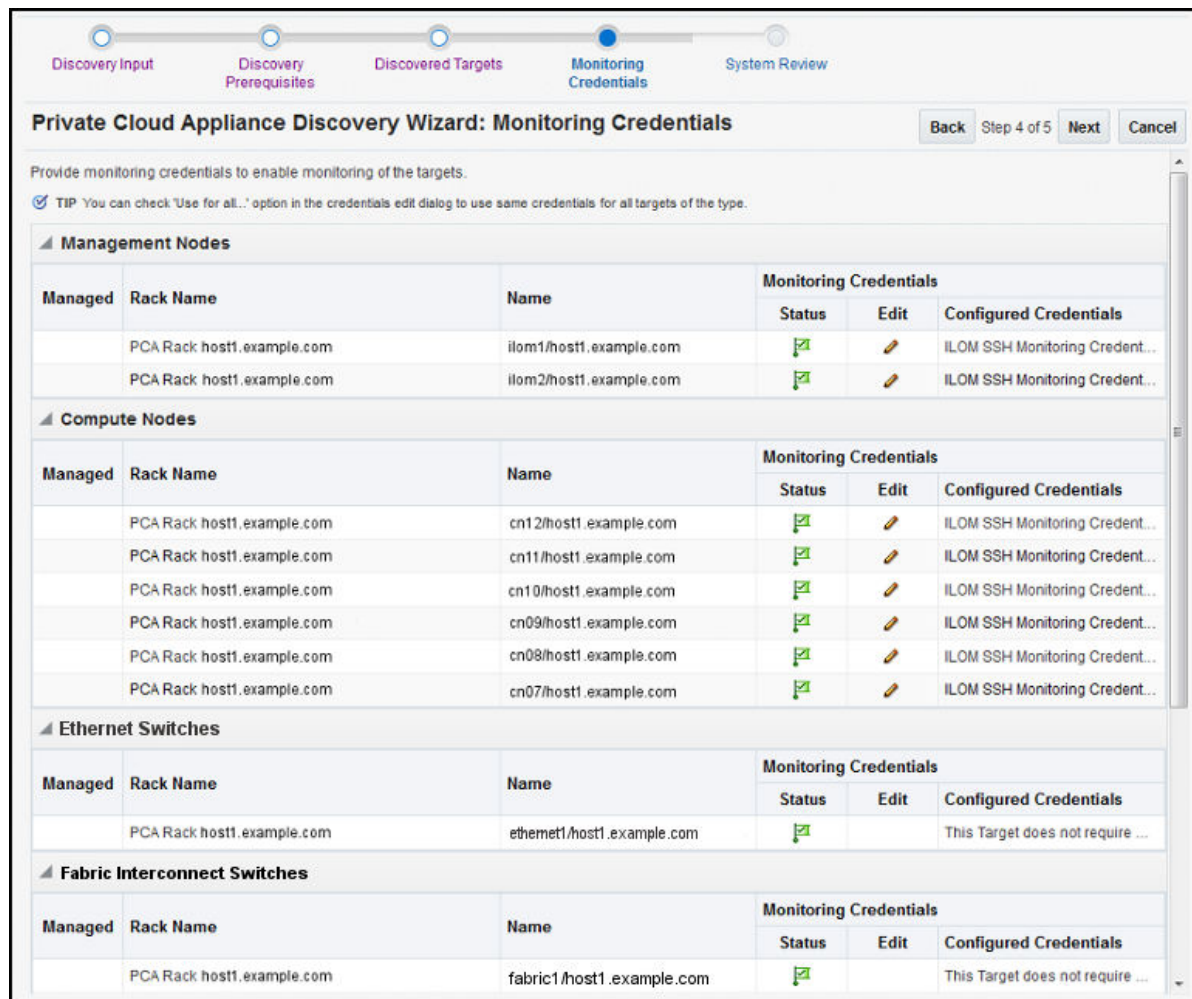


Note:

For the InfiniBand Switch, enter **public** in the Community String mandatory field input.

You can select **Use same credentials for all** in the credential's edit dialog to use the same credentials for all targets of the type. [Figure 2-12](#) shows an example of the Monitoring Credentials page with all credentials set:

Figure 2-12 PCA Discovery Wizard: Monitoring Credentials



Click **Next**.

- On the System Review page, click **Promote Targets** to promote all components of the Oracle PCA rack. If any component fails the promotion process, click **Back** to update the inputs for that component. A pop-up window will appear to show the progress. Once complete ([Figure 2-13](#)), click **Close**.

Figure 2-13 Target Promotion Confirmation

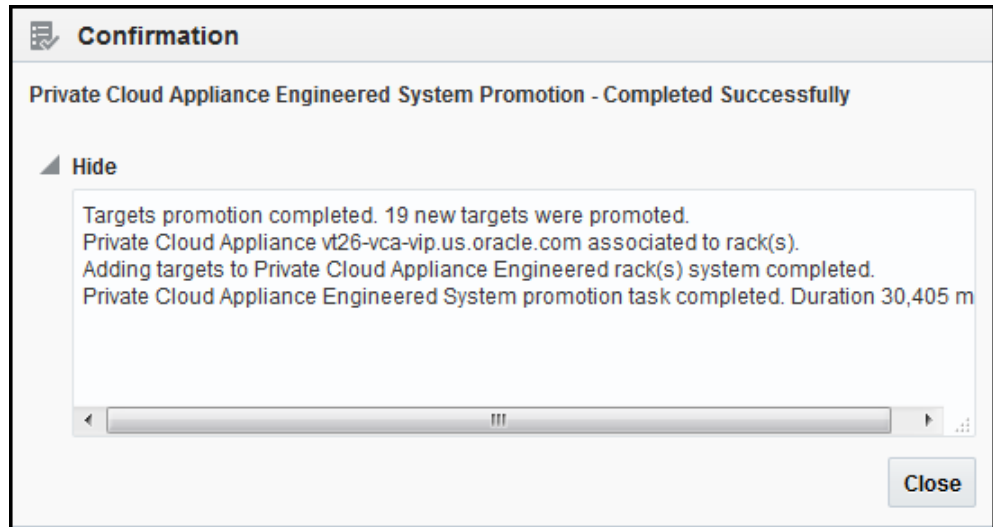
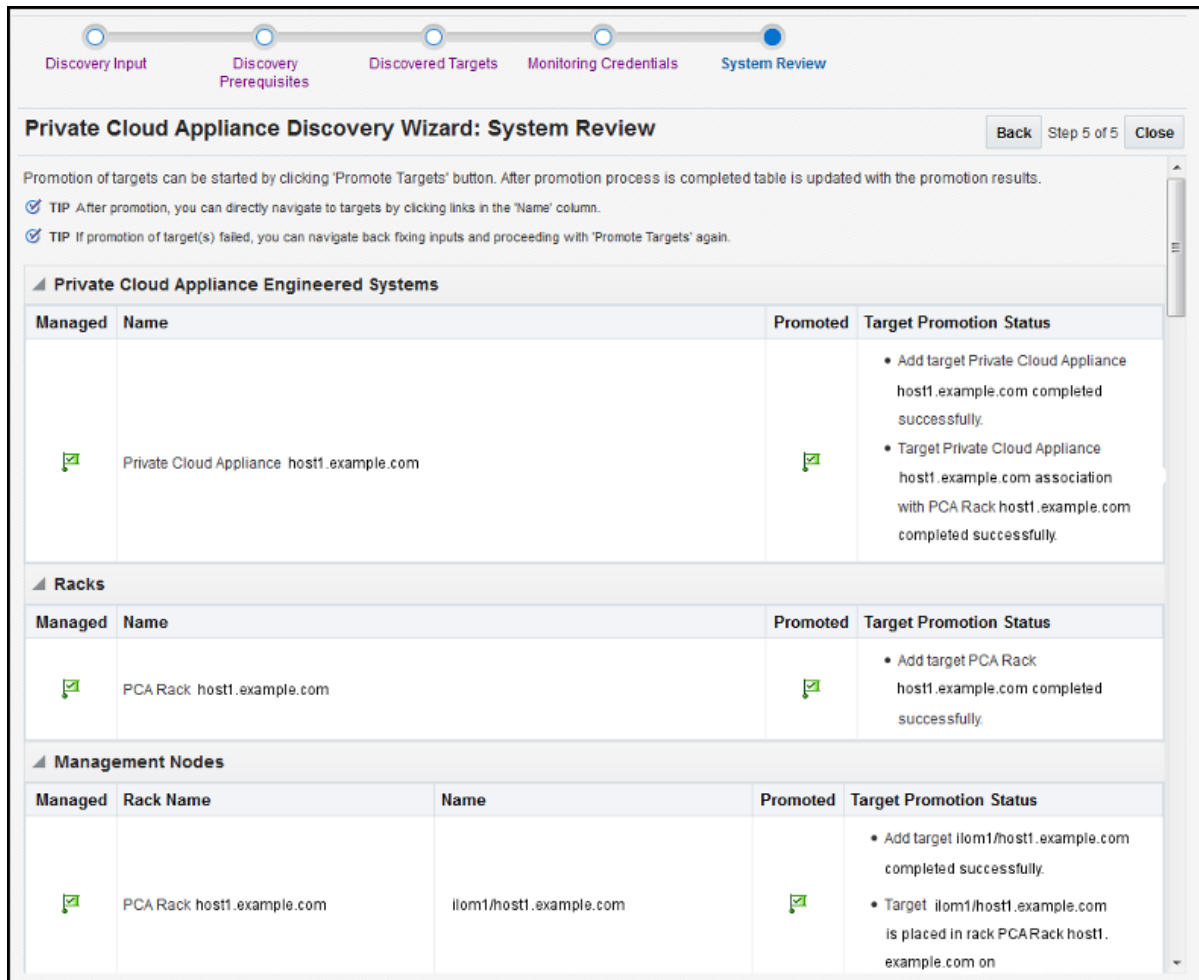


Figure 2-14 shows an example of completed promotion of all components:

Figure 2-14 PCA Discovery Wizard: System Review



Click **Close**.

2.3 Registering Oracle VM Manager

The Oracle VM Manager provides the user interface that allows you to create guest virtual machines. Before you use the Oracle VM Manager to manage virtualization targets in Enterprise Manager, you must register an existing installation of the Oracle VM Manager.

If you have not already done so, register the Oracle VM Manager by completing the steps described in the EM Cloud Administration Guide, section: "Registering the Oracle VM Manager."

2.4 Enterprise Manager Agent Recovery After Oracle PCA Upgrade

To recover an Enterprise Manager agent after the Oracle PCA is upgraded:

1. Backup the oraInventory agent to the NFS-shared location:

```
# cd /u01/app
# tar -cvf EMagent_oraInventory.tar oraInventory
# cp EMagent_oraInventory.tar /nfs/shared_storage
```

2. Create the full blackout on Oracle PCA rack.

3. Update the Oracle PCA rack.

4. After you have updated the Oracle PCA Rack, copy the oraInventory agent from the NFS-shared location and untar it to the previous oraInventory location:

```
# cp /nfs/shared_storage/EMagent_oraInventory.tar /u01/app
# tar -xvf EMagent_oraInventory.tar
```

5. Keep the same password you created in [Installing the Management Agent on Oracle PCA](#) for the oracle user on both management nodes:

```
# passwd oracle
```

6. Run the privileged agent scripts on the active management node:

```
# cd /u01/oemagent

or

# cd /nfs/shared_storage/oemagent

# ./agent_13.2.0.0.0/root.sh
# /u01/app/oraInventory/orainstRoot.sh
```

7. On the active management node, remove all gc rc .d links (that is, no startup of agent on startup):

```
# for x in `find /etc/rc.*/*rc* | grep gcstart`; do rm $x; done
```

8. Copy the following agent installation files to the passive management node (ovcamn06r1 is passive in this example):

```
# scp /etc/init.d/gcstartup root@ovcamn06r1:/etc/init.d/
# rsync -og /etc/oragchomelist root@ovcamn06r1:/etc/oragchomelist
# rsync -rog /u01/app/oraInventory/ oracle@ovcamn06r1:/u01/app/oraInventory
```

9. Add the Enterprise Manager agent port to the number chosen during agent push (see [Installing the Management Agent on Oracle PCA](#)) (default 3872) to the firewall settings on both management nodes (active and passive):

```
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport <agent_port> -j
ACCEPT
# service iptables save
# service iptables start
```

Note:

- By default, the Enterprise Manager agent port 3872 is pre-populated by PCA software. If you used this default Enterprise Manager agent port 3872 for pushing the agent, then this step is not needed.
-
-

10. Restart the Enterprise Manager agent on the active management node as `root` from the startup script or as `oracle` from the agent's `emctl` command:

```
# /etc/init.d/gcstartup stop
# /etc/init.d/gcstartup start
```

or

```
% /nfs/shared_storage/oemagent/agent_inst/bin/emctl stop agent
% /nfs/shared_storage/oemagent/agent_inst/bin/emctl start agent
```

11. Remove the blackout on Oracle PCA rack.

Note:

You must follow all the above steps while upgrading to Oracle PCA 2.3.1 for Enterprise Manager Agent Recovery. Oracle PCA 2.3.1 ships with OVM 3.4.2. You must upgrade the Virtualization Plug-in of the Oracle PCA Management agent to Enterprise Manager for Virtualization v13.2.3.0.0. This results in a smooth upgrade and leverages new features implemented for OVM 3.4.2. The upgrade can be done using the Self Update feature in Enterprise Manager.

2.5 Removing the Oracle PCA Target from Enterprise Manager

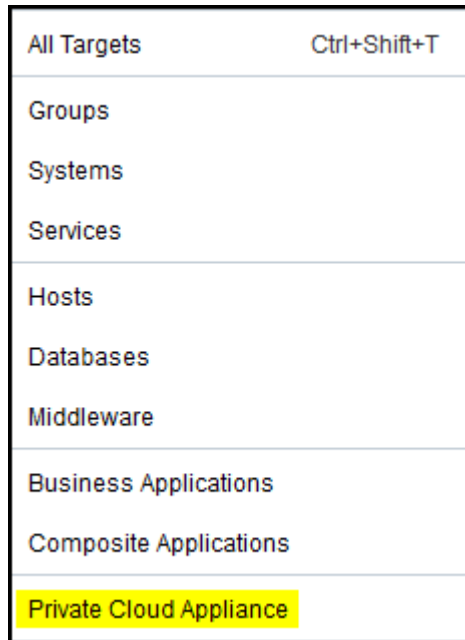
To remove the Oracle Private Cloud Appliance (PCA) target from Enterprise Manager monitoring:

Note:

Removing the Oracle PCA target from Enterprise Manager monitoring will also remove all PCA components from monitoring as well (for example, the Compute and Management Nodes, InfiniBand switches, Ethernet and Fabric Interconnect switches, Storage Servers, and so forth).

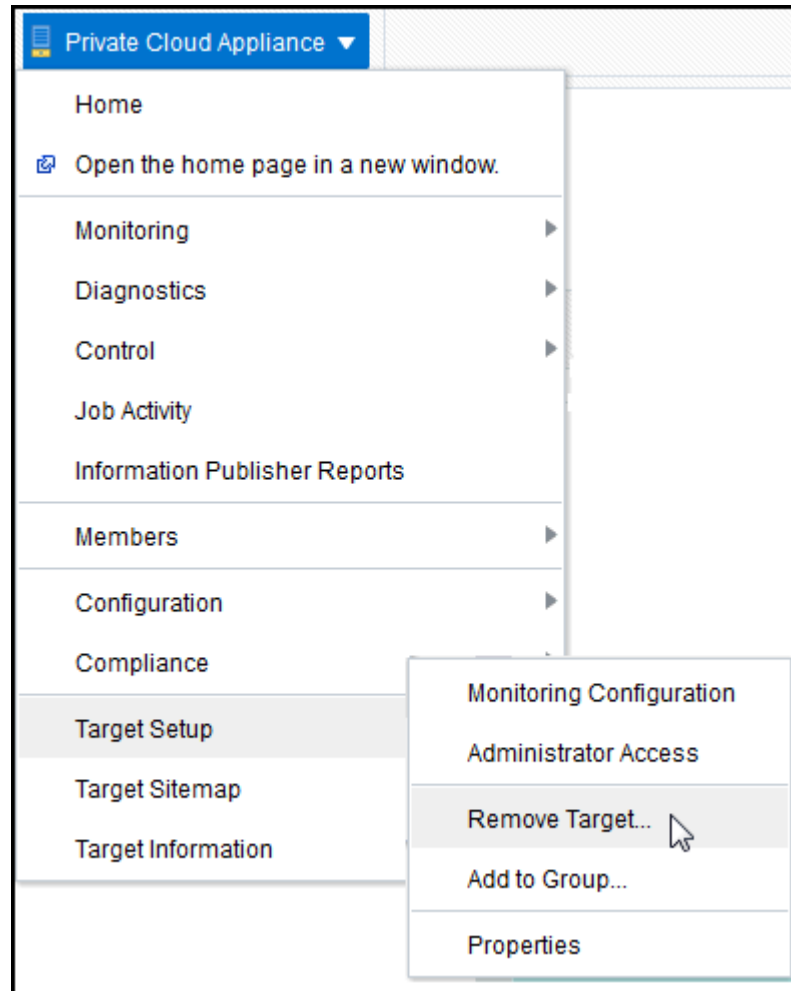
1. From the **Targets** menu, select the Private Cloud Appliance item ([Figure 2-15](#)):

Figure 2-15 Targets Menu

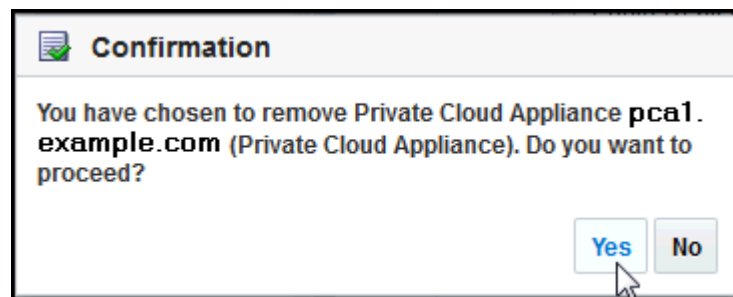


Then, on the Targets page, select the Private Cloud Appliance item and click **Remove**.

2. Alternatively, you can remove the target from the PCA target home page. Click the **Private Cloud Appliance** menu, then select **Target Setup**, then select **Remove Target** ([Figure 2-16](#)):

Figure 2-16 Remove Target

3. A confirmation pop-up window appears ([Figure 2-17](#)):

Figure 2-17 PCA Target Removal Confirmation

Click **Yes** to continue.

4. After the PCA target is removed, the All Targets page will reload. A confirmation message will show that the PCA target and all of its components have been removed ([Figure 2-18](#)):

Figure 2-18 Oracle PCA Target Removed - All Targets Page

The screenshot shows the Oracle Enterprise Manager interface. At the top, a green confirmation banner reads: "Confirmation The specified Private Cloud Appliance and all its targets were removed." Below this, the "All Targets" page is displayed. It includes a search bar, a "Refine Search" sidebar, and a table of targets.

Target Name	Target Type	Target Status
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN	Oracle WebLogic Domain	N/A
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/emgc	Domain Application Deployment	N/A
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_ADMINSERVER	Oracle WebLogic Server	🔧
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_ADMINSERVER/ims-ow...	Metadata Repository	N/A
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_ADMINSERVER/ims-sys...	Metadata Repository	N/A
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_OMS1	Oracle WebLogic Server	🔧
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_OMS1/emgc	Application Deployment	🔧
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_OMS1/empbs	Application Deployment	🔧
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/EMGC_OMS1/jvmdengine(13.1.1...	Application Deployment	🔧
/EMGC_EMGC_DOMAIN/EMGC_DOMAIN/empbs	Domain Application Deployment	N/A

Monitoring the Oracle Private Cloud Appliance

This chapter provides instructions for monitoring the Oracle Private Cloud Appliance (PCA) through Enterprise Manager Cloud Control 13c.

The following topics are provided:

- [About the Private Cloud Appliance Homepage](#)
- [Using the Incident Manager](#)
- To monitor and administer an IaaS Cloud, see *Administering and Monitoring and IaaS Cloud* in *Oracle Enterprise Manager Cloud Administration Guide*.

3.1 About the Private Cloud Appliance Homepage

The Private Cloud Appliance homepage lets you keep track of all your Private Cloud Appliance components.

From the Private Cloud Appliance homepage you can view and search for the following:

- Name
- Type
- Members within the Private Cloud Appliance
- Member Status Summary

From the Member Status Summary you can drill down to:

- Down Alerts
- Up Alerts
- Maintenance Alerts
- Time-out Alerts
- N/A Alerts
- Metric availability error Alerts
- Critical Error Alerts
- Incidents

From the Incidents section you can drill down to:

- Fatal errors

- Critical errors
- Warnings
- Flagged incidents

From the Private Cloud Appliance Rack Schematic page, selecting a target with a red ring and clicking on the target's address will take you to the target's summary page. From the target's summary page, the menu on the right side of the screen will let you see the target's:

- Photorealistic or table view.
- Resource utilization graphs.
- Temperature and Fan speed graphs.
- Interface graphs.
- Firmware and configuration summary.

3.2 Using the Incident Manager

The incident summary page is a tool to check the incident status of your selected system.

From the Private Cloud Appliance homepage, click on a system to view the Private Cloud Appliance Rack Schematic page. From this page, you can:

- See the Overview summary for this system.
- View the Private Cloud Appliance Rack Schematic.

From the Rack Schematic you can:

- See the rack in Schematic, Photo-Realistic, or Table views.
- Click on a component to check the current status
- Targets with a red box around it have critical errors and require your attention.

Incident Overview Page

From the Incident Overview page, clicking on an incident will take you to the Incident Manager page of the selected incident in which you will see:

- The Incident Details section will give you more information such as incident ID, incident creation date, reported state of the target, and event type.
- The Tracking section will show who was assigned this incident, the incident's priority, the incident's status, and last comment.
- The Guided Resolution section will offer more insight with recommended links to visit in order to proceed with a corrective action.

Troubleshooting the Oracle Private Cloud Appliance

This chapter describes some common problems you may encounter with your Oracle Private Cloud Appliance (PCA).

The following troubleshooting topics are covered:

- [Oracle ZFS Storage Appliance Error Message](#)
- [Targets Still Appear as Pending](#)

4.1 Oracle ZFS Storage Appliance Error Message

Problem: You may encounter a warning message in the agent log file about the Oracle ZFS Storage Appliance.

Resolution: This is a known issue. The warning message can be ignored. Typically, the message will look like this:

```
2015-05-15 13:06:04,896 [87:75FBA055] WARN - Can not evaluate push properties for
target
oracle_si_zfssa_diskshelf_server_akcli.zfsl.example.com/akcli/1/diskshelf/
chassis-001_akcli
for metric ComponentFaults - skipping this metric
oracle.sysman.emSDK.agent.fetchlet.exception.FetchletException:
Can't resolve a non-optional query descriptor property [MatchAgentAddr]
(StorageServerIpAddress) at
oracle.sysman.gcagent.metadata.impl.PropertiesEvaluatorImpl
$QueryPropsComputer.compute(PropertiesEvaluatorImpl.java:1013) at
oracle.sysman.gcagent.metadata.impl.PropertiesEvaluatorImpl
$QueryPropsComputer.<init>(PropertiesEvaluatorImpl.java:859) at
oracle.sysman.gcagent.metadata.impl.PropertiesEvaluatorImpl.init(PropertiesEvaluatorI
mpl.java:346) at
oracle.sysman.gcagent.metadata.impl.PropertiesEvaluatorImpl.<init>(PropertiesEvaluato
rImpl.java:210) at
oracle.sysman.gcagent.metadata.impl.TargetInstanceImpl.getPropertiesEvaluator(TargetI
nstanceImpl.java:1255) at
oracle.sysman.gcagent.target.interaction.execution.ReceiveletManager.addMetric(Receiv
eletManager.java:344) at
oracle.sysman.gcagent.target.interaction.execution.ReceiveletInteractionMgr.addMetri
c(ReceiveletInteractionMgr.java:1446)
```

4.2 Targets Still Appear as Pending

Problem: After discovering the PCA Rack, you may still see all SI targets are in *Pending* state.

Resolution: You must kill the stuck availability job in the OMS:

```
$ sqlplus sysman/sysman
SQL> SELECT job_subname, elapsed_time, cpu_used FROM dba_scheduler_running_jobs
WHERE job_name = 'EM_REPOS_SEV_EVAL';
SQL> BEGIN dbms_scheduler.stop_job('EM_REPOS_SEV_EVAL'); COMMIT; END;
```

Problem: Import Component step failed for new VM request.

Resolution: In the OMS setup, determine the upload port, and update `/etc/tinyproxy/tinyproxy.conf` file on both management nodes.

1. Get the "HTTPS Upload Port" for the OMS
 - On OMS host, login using the OMS install user. Example: oracle
 - ```
$ emctl status oms -details -sysman_pwd <Sysman Password>
| grep "HTTPS Upload Port"
```
2. Below the existing block of `ConnectPort` lines, add the following line by replacing the `<yyyy>` with actual "HTTPS Upload Port" to `/etc/tinyproxy/tinyproxy.conf` file.

```
===
ConnectPort <yyyy>
===
```
3. Restart tinyproxy (service tinyproxy restarts).
4. If you have a firewall enabled, add this port to the list of ports enabled using iptables and restart iptables service.

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