

# Oracle® Enterprise Manager

System Monitoring Plug-in for Oracle Enterprise Manager Ops Center Guide

12c Release 5 (12.1.0.5.0)

E38529-08

April 2016

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This document describes how to use the Infrastructure Stack plug-in to connect the monitoring capabilities of Oracle Enterprise Manager Cloud Control and Oracle Enterprise Manager Ops Center.

The following topics are discussed in this document:

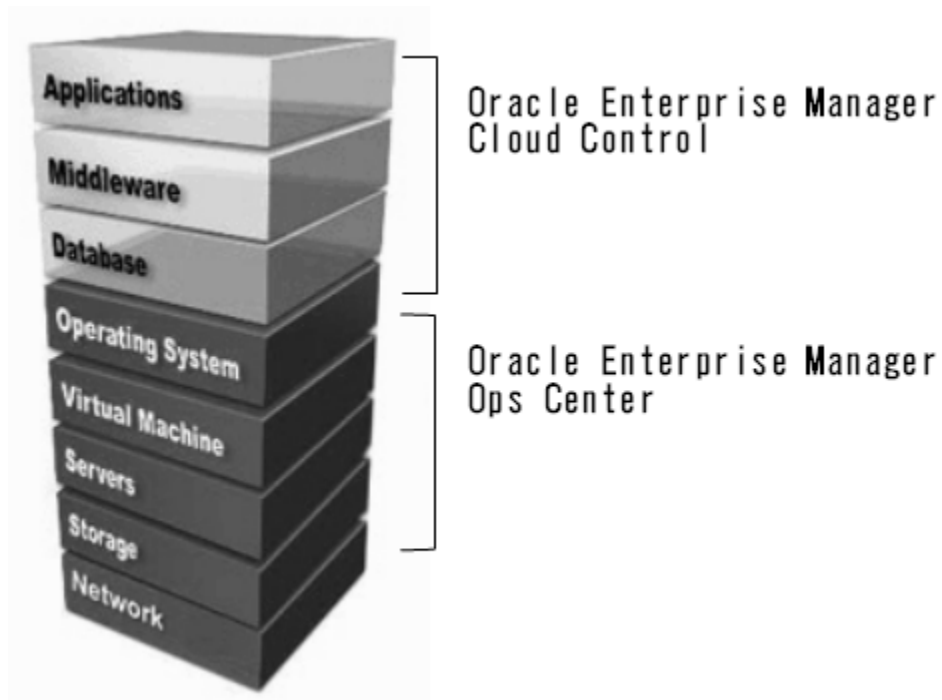
- [Introduction](#)
- [Requirements](#)
- [Get and Deploy the Plug-in](#)
- [Configure the Connection](#)
- [Enable Monitoring](#)
- [Verify and Validate the Plug-in](#)
- [About Events, Alerts, Problems, and Incidents](#)
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## Introduction

Oracle Enterprise Manager Cloud Control and Oracle Enterprise Manager Ops Center are complementary technologies that are designed to provide an enterprise-level data center management solution for all levels, from applications to storage disks.

As shown in [Figure 1-1](#), Oracle Enterprise Manager Cloud Control software enables businesses to improve application, middleware, database, and operating system performance. Oracle Enterprise Manager Ops Center software enables businesses to manage the operating systems, virtual machines, servers, and storage devices.

## Oracle Enterprise Manager



The plug-in module extends the Oracle Enterprise Manager Cloud Control monitoring features to include hardware-based events from Oracle Enterprise Manager Ops Center, including:

- Topology view of assets. All Metrics shows the various layers of the topology, including zones and logical domains, as shown in [Figure 1-2](#). For example, if you have an agent on a zone within a logical domain, the topology details all of the components.
- Service processors.
- Server containers (chassis).
- Oracle SPARC Enterprise M-series server domains.

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**Note:**

This plug-in only passes hardware-based events from Enterprise Manager Ops Center to Enterprise Manager Cloud Control. The EM host agent is responsible for gathering OS level data.

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The plug-in module extends the Oracle Enterprise Manager Cloud Control monitoring features to include the additional infrastructure layers below the operating system that are provided by Oracle Enterprise Manager Ops Center, including:

- Virtual assets, including Oracle Solaris Zones and Oracle Solaris VM Server for SPARC domains and guests

- Service processors
- Server containers (chassis)
- Oracle SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Server domains

## Topology View of Assets

### Topology

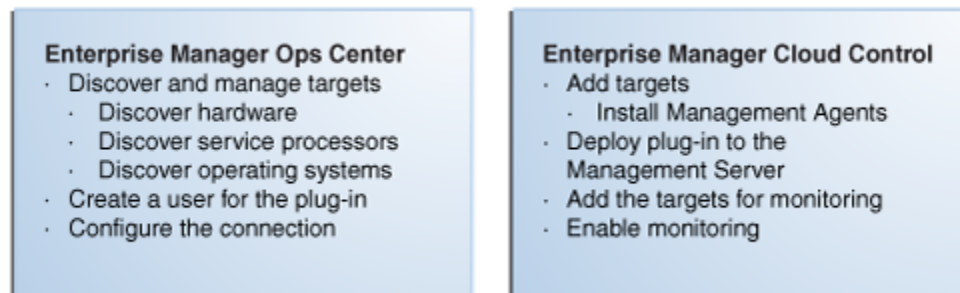
Collection Schedule Every 24 Hours [Modify](#)  
 Upload Interval Every Collection  
 Last Upload Nov 13, 2014 1:20:07 PM PST

ObjectName	Details	Gear	Name	ObjectType	Status
com.sun.hss.doma...	10.123.45.60	1	dcsw-152	Server	OK
com.sun.hss.domain:	Oracle VM Server for	2	dcsw-79-152	Oracle VM Server for	OK
com.sun.hss.doma...	LDom Control Dom...	3	dcsw-79-152	Solaris Global Zone	OK

Data shown in above table is collected in real time.

To enable data to flow between the two applications, you must configure each application separately, then complete the connection.

## Overview of Tasks to Deploy and Configure the Plug-in



When you configure Oracle Enterprise Manager Ops Center and Oracle Enterprise Manager Cloud Control applications to work together, the monitoring information is shared between both applications. Each user interface includes information about resources that the other application manages. Because each application provides operating system monitoring, operating system information is not shared between the applications.

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### Note:

To collect metric information, you must discover and manage the hardware and operating system in Enterprise Manager Ops Center. You can manage the operating system with or without an Ops Center agent.

When you do not manage the operating system, the infrastructure stack is not fully defined. The infrastructure stack is created, but the software does not collect metrics.

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## Requirements

This section describes what is needed to enable monitoring of the infrastructure stack:

- [Supported Versions](#)
- [Prerequisites](#)
- [User Requirements](#)

### Supported Versions

The supported version of the plug-in is determined by the Oracle Enterprise Manager Cloud Control version. Beginning with Cloud Control 12c Release 1 (12.1.0.1.0), the Ops Center Infrastructure Stack 12c plug-in is available in the Oracle Enterprise Manager Store.

Each row in [Table 1-1](#) is a supported combination of Oracle Enterprise Manager Cloud Control and Ops Center software and the required infrastructure plug-in.

**Table 1-1 Supported Infrastructure Plug-in**

Supported Infrastructure Plug-in		
Oracle Enterprise Manager Cloud Control	Oracle Enterprise Manager Ops Center	Infrastructure Plug-in
Cloud Control 12c (12.1.0.4 and 12.1.0.5)	Ops Center 12c Release 2 and Release 3	The latest Ops Center infrastructure stack 12c plug-in from the Oracle Enterprise Manager Store.
Cloud Control 12c (12.1.0.3)	Ops Center 12c Release 1 (12.1.0.0.0 - 12.1.4.0.0)	The latest Ops Center infrastructure stack 12c plug-in from the Oracle Enterprise Manager Store.
Cloud Control 12c (12.1.0.2)	Ops Center 12c Release 1 (12.1.0.0.0 - 12.1.3.0.0)	The latest Ops Center infrastructure stack 12c plug-in from the Oracle Enterprise Manager Store.
Cloud Control 12c (12.1.0.1)	Ops Center 11g Release 1 (all update releases)	The latest Ops Center infrastructure stack 12c plug-in from the Oracle Enterprise Manager Store.
Grid Control 11g Release 1 (11.1.0.1.0)	Ops Center 12c Release 1	ocas_plugin-2.x.jar
Grid Control 11g Release 1 (11.1.0.1.0)	Ops Center 11g Release 1	ocas_plugin-2.x.jar
Grid Control 10g Release 2 (10.2.0.5.0)	Ops Center 11g Release 1	ocas_plugin-2.x.jar

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**Note:**

Releases earlier than Oracle Enterprise Manager Ops Center 11g Release 1, Update 3 (11.1.3.0.0) cannot display repository data from the Oracle Enterprise Manager 12c database.

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To connect Oracle Enterprise Manager Grid Control 10g Release 2 (10.2.0.5.0) with Ops Center 2.5, you must use the connector instead of the plug-in.

**Prerequisites**

Perform the following tasks before deploying the plug-in:

- Install and configure Oracle Enterprise Manager Cloud Control Server.  
Deploy Oracle Enterprise Manager Cloud Control Agents on the systems to be monitored. The plug-in uses the Java version that is bundled with the Oracle Management Agent.
  - Install and configure Oracle Enterprise Manager Ops Center Enterprise Controller and Proxy Controller.
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**Note:**

Do not install Oracle Enterprise Manager Cloud Control and Oracle Enterprise Manager Ops Center on the same system due to resource constraints.

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- Discover and manage the hardware and operating systems in Oracle Enterprise Manager Ops Center to deploy the Oracle Enterprise Manager Ops Center agents on the systems to be monitored.

If you use a WS-MAN/JMX HTTP proxy, you can use an existing HTTP proxy that the Oracle Management Agent uses, or you can configure a new proxy to access the Oracle Enterprise Manager Ops Center Enterprise Controller.

Additional sub-requirements for proper operation of the plug-in are met if the Enterprise Manager Cloud Control and Ops Center software are installed as documented.

**User Requirements**

The SYSMAN user is required to deploy the plug-in and view the asset information collected by the Oracle Enterprise Manager Ops Center software in the Oracle Enterprise Manager Cloud Control console.

A new user in Oracle Enterprise Manager Ops Center is required for Oracle Enterprise Manager Cloud Control integration. This user does not require any roles or permissions.

**Get and Deploy the Plug-in**

Complete the following tasks to obtain and deploy the plug-in:

1. [Download the Plug-in From the Enterprise Manager Store](#)

## 2. [Deploy the Plug-in to the Management Server](#)

### 3. [Add Targets for Monitoring](#)

The Oracle Enterprise Manager Store is an external site that contains functional updates, including the latest version of the management plug-in files. Enterprise Manager Cloud Control checks the site periodically to provide you with the latest version. You can download the plug-in from the Oracle Enterprise Manager Store to the Software Library (the local store).

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**Note:**

Enterprise Manager must have Internet access to download the plug-in from the Oracle Enterprise Manager Store.

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### Things to Know

The following are things you should know before you deploy the plug-in:

- You can import multiple versions of the same plug-in. However, you can only deploy one version on the Oracle Management Service (OMS) at any given time.
- The Management Agent can have the same or earlier version of the plug-in that is deployed on the OMS host.
- The Management Agent cannot have a later version than the version that is on the OMS host.
- The Management Repository SYSMAN user password is required to complete the deployment process.

### Download the Plug-in From the Enterprise Manager Store

This procedure assumes that you are connected to the Internet and describes how to download the plug-in immediately. Alternatively, you can choose to schedule the download to occur at a specified time.

1. From the **Setup** menu, click **Extensibility**, then click **Self Update** to get the list of updates.
2. Click **Plug-in** from the list.
3. Select **Ops Center Infrastructure Stack** from the list, then click **Download**.
4. Select **Immediately**, then click **Select** to start downloading the update.

When the download is complete, plug-in deployment page appears.

### Deploy the Plug-in to the Management Server

The Management Repository SYSMAN user password is required to complete the deployment process.

1. On the **Plug-in Deployment** page, select the **Ops Center Infrastructure Stack plug-in**.

If you are not on the Plug-in Deployment page, expand the **Setup** menu and click **Extensibility**, then click **Plug-ins**.

2. Click **Deploy On**, then click **Management Servers**.
3. Complete the required details on the Deploy Plug-in dialog box.

In the Version of Plug-in to Deploy section, select the Plug-in version from the Plug-in drop-down. The Target Type information appears in the table. Enter the Repository SYSMAN password, then click **Continue**.

4. Complete the steps in the Deploy Plug-in dialog box.
5. Click **Deploy** to deploy the selected plug-in on all Enterprise Manager Servers.

### **Add Targets for Monitoring**

You must associate the Infrastructure Stack plug-in to existing Oracle Enterprise Manager Cloud Control Agents to enable cross-software monitoring.

1. Log in to Oracle Enterprise Manager Cloud Control as SYSMAN.
2. From the **Setup** menu, click **Add Target**, then click **Add Targets Manually**.
3. Select **Add Targets Declaratively by Specifying Target Monitoring Properties**, then select the **Infrastructure Stack** target type, browse and select a Monitoring Agent, then click **Add Manually**.
4. Complete the following information:
  - a. **Target Name:** The unique target name that appears in the Oracle Enterprise Manager Cloud Control UI.
  - b. **Ops Center Enterprise Controller Host Name:** The host name for the Oracle Enterprise Manager Ops Center Enterprise Controller. The host name must be resolvable by, and reachable from, the host where the Enterprise Manager Cloud Control Agent is running.
  - c. **Ops Center Enterprise Controller User Name:** The user log in name for the Oracle Enterprise Manager Ops Center Enterprise Controller.
  - d. **Ops Center Enterprise Controller Password:** The corresponding password for the Oracle Enterprise Manager Ops Center user.
  - e. Optionally, add the WS-MAN/JMX proxy host name and port.

### **Add Infrastructure Stack to New Targets**

## Add: Infrastructure Stack

Add a target to be monitored by Enterprise Manager by specifying target monitoring properties.

### Target

\* Target Name

Target Type Infrastructure Stack

Agent https://isr10021

### Ops Center Monitoring Credentials

Credential type OCCreds

\* Ops Center Username

\* Ops Center Password

\* Confirm Ops Center Password

### Properties

\* Ops Center Enterprise Controller host name

WS-MAN/JMX http proxy host name( optional )

WS-MAN/JMX http proxy port( optional )

5. Click OK to add the new target.

## Configure the Connection

After the plug-in is deployed and configured in Enterprise Manager Cloud Control, you must configure the Enterprise Controller to communicate with the Enterprise Manager Cloud Control repository. The connection enables target information from Enterprise Manager Cloud Control to appear in the Enterprise Manager Ops Center user interface.

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### Note:

Ensure that you enter the correct Enterprise Manager Cloud Control server name, port, and database details. The database must be the database that is connected to the specified Enterprise Manager Cloud Control console.

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1. Launch the Oracle Enterprise Manager Ops Center software and log in as an Administrative user.
2. Expand the **Administration** section in the Navigation pane, then click **Cloud Control**.



3. Click **Configure/Connect** in the Actions pane.
4. Enter the server name and port number for the Oracle Enterprise Manager Cloud Control console. The default port is 7799.
5. Enter the Oracle Enterprise Manager Cloud Control database host name, port number, SID (Oracle System ID), SYSMAN user name and password for the Enterprise Manager Cloud Control instance. The default port is 1521.
6. Click **Finish**.

## Enable Monitoring

In Enterprise Manager Cloud Control, monitoring is disabled by default. You must enable monitoring for each target.

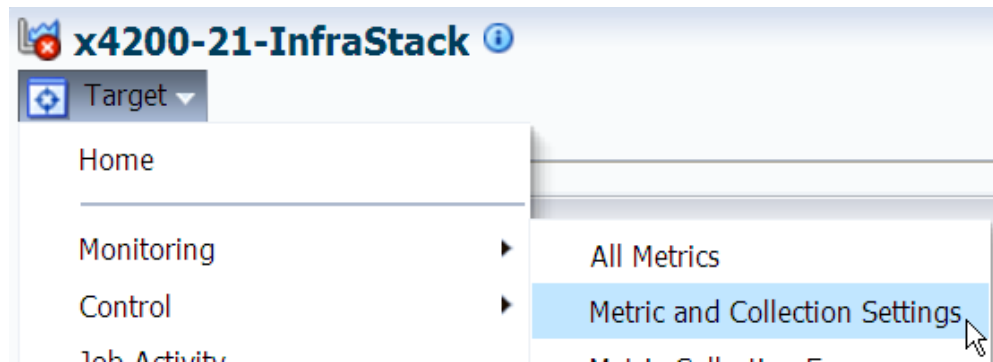
1. Click **Targets**, then **All Targets**. Find your target by entering the target name, or by sorting the Target Type column in the table and scrolling to Infrastructure Stack. Click the target name to display the target page.

## Sort by Target Type

Target Name	Target Type
Infrastructure Stack for x4140-3	Infrastructure Stack
x4200-21-InfraStack	Infrastructure Stack

2. Expand the Target menu in the upper left corner, select **Monitoring**, then select **Metric and Collection Settings**.

## Metric and Collection Settings



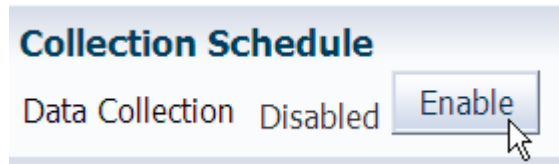
3. The Metric and Collection Settings table has a column titled Collection Schedule. Click the link titled **Disabled** for the Infrastructure Stack Alarms to enable the metrics collector.

## Collection Schedule

Metric	Comparison Operator	Warning Threshold	Critical Threshold	Corrective Actions	Collection Schedule
▼ x4200-21-InfraStack					
▼ Infrastructure Stack Alarms					<a href="#">Disabled</a>

4. Click **Enable** to begin collecting Infrastructure Stack alarms, then click **Continue**. Click **OK** to save the setting. Click **OK** to close the confirmation.

### Enable the Collection Schedule



When enabled, data collection occurs every five (5) minutes.

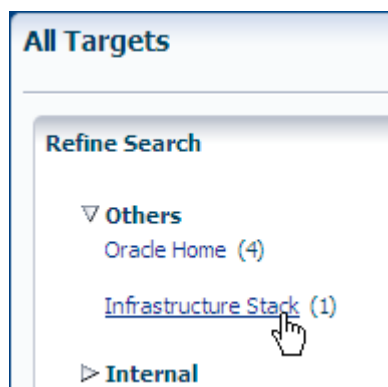
### Verify and Validate the Plug-in

In Oracle Enterprise Manager Cloud Control, you can launch the Oracle Enterprise Manager Ops Center home page from the Infrastructure Stack target home page. If correctly configured, the page appears for the operating system that is associated with the target.

After waiting a few minutes for the plug-in to start collecting data, use the following steps to verify and validate that Enterprise Manager is properly monitoring the plug-in target:

1. Click **Targets**, then click **All Targets**. Scroll down to **Others**, then click **Infrastructure Stack**.

### All Targets Menu



The All Targets page appears and shows all available targets that are aware of the infrastructure stack and the target status.

### All Targets Page for the Selected Target Type

Target Name	Target Type	Target Status	Pending Active
x4200-21-InfraStack	Infrastructure Stack		

2. Verify that you can see reports by clicking **Reports**, then **Information Publisher Reports** in the **Enterprise** menu. See [Create Reports](#) for more information.
3. Verify that you can see configuration data by clicking **Configuration** and then **Last Collected** in the **Target** menu. If configuration data does not immediately appear, click **Refresh** in the Latest Configuration page.

## About Events, Alerts, Problems, and Incidents

Basic information gathered by both applications is accessible from both user consoles. For more detailed information, go to the software console that gathered the information.

### What is an Event or Alert?

An event, or alert, is a discrete occurrence detected by Enterprise Manager related to one or more managed entities at a particular point in time which may indicate normal or problematic behavior. Examples of events include: database target going down, performance threshold violation, change in application configuration files, successful completion of job execution, or job failure. An alarm can have one or more alerts. The alert determines the alarm severity.

Enterprise Manager 11g generated alerts for exception conditions (metric alerts). Beginning with Enterprise Manager 12c Release 1, metric alerts are a type of event, one of many different event types. The revised event model significantly raises the number of conditions in an IT infrastructure for which Enterprise Manager can detect and raise events.

### Where to View Alarms?

An alarm can have one or more alerts. Only the latest open Enterprise Manager Ops Center alert appears in Enterprise Manager Cloud Control. The Ops Center Root Cause ID is the identifier for the latest alert. If another alert appears, the previous alert and associated ID are no longer visible in the UI.

To view the alarm metrics from Enterprise Manager Ops Center for a system, select the system, then go to the All Metrics page. The alarm metrics appear in the Infrastructure Stack Alarms page, as shown in [Figure 1-11](#).

## Infrastructure Stack Alarms

Infrastructure Stack ▾

x4200-21-InfraStack > LATEST > All Metrics

**All Metrics**

Search

View ▾

**Infrastructure Stack Alarms**

Collection Schedule Every 5 Minutes [Modify](#)

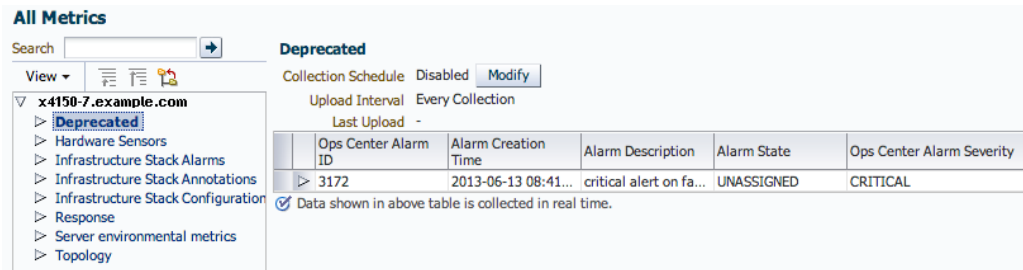
Upload Interval Every Collection

Last Upload Jun 19, 2013 7:21:36 AM MDT

Ops Center Root Cause Alert ID	Ops Center Alarm ID	Alarm Creation Time	Alarm Description	Alarm State	Ops Center Alarm Severity
3322	3172	2013-06-13 08:41:...	critical alert on fa...	UNASSIGNED	CRITICAL

Alarm metrics from Enterprise Manager Ops Center 12c Release 1 Update 3 and earlier appear in the Deprecated page under All Metrics, as shown in [Figure 1-12](#).

### Alarms in Deprecated Section of All Metrics



See [Related Resources](#) for links to the Oracle Enterprise Manager Ops Center documentation to learn more about Enterprise Manager Ops Center alarms, states, and severity levels.

### What is an Incident or Problem?

An incident is an event or a set of closely correlated events that requires immediate action to resolve. A problem is defined as a less critical set of events. When an alarm reaches a Critical or Warning severity, the software generates an incident. The incident is based on the *current* severity level, not the highest severity level.

In Oracle Enterprise Manager Ops Center 12c, events are associated with Informational, Warning, or Critical incidents. A critical incident in Oracle Enterprise Manager Ops Center equals an incident in Oracle Enterprise Manager Cloud Control. Earlier versions of Oracle Enterprise Manager Ops Center use the term problem instead of incident.

[Table 1-2](#) shows the relationship of the terms between the applications and releases.

**Table 1-2 Incident Terminology**

Incident Terminology		
Oracle Enterprise Manager Cloud Control 12c	Oracle Enterprise Manager Ops Center 12c	Oracle Enterprise Manager Ops Control 11g Update 3
Incident	Critical Incident	Critical Problem
Problem	Warning Incident	Warning Problem
Problem	Informational Incident	Informational Problem

From the Oracle Enterprise Manager Ops Center user interface, you can launch the Oracle Enterprise Manager Cloud Control console while viewing a specific asset that is being monitored by both applications. You can also launch the console from the Administration section in the Oracle Enterprise Manager Ops Center user interface.

### What are Annotations?

Annotations are comments, suggestions, or automated operations with associated scripts that you can use to document an incident in Ops Center. Annotations might include the Oracle Auto Service Request (ASR) number.

Instead of manually filing a service request, you can configure Enterprise Manager Ops Center to automatically create service requests for known issues. When ASR is enabled in Enterprise Manager Ops Center, the software automatically generates service requests based on critical incidents. Contact information for the ASR is taken either from Enterprise Manager Ops Center or from the Customer Service Identifier (CSI) associated with the asset. Annotations are added to the incident to indicate the status of the ASR creation. Once created, ASRs are identical to other service requests.

## View Incidents, Problems and Annotations

In Oracle Enterprise Manager Cloud Control, use the Incident Manager Console to view, manage, diagnose and resolve incidents.

In Oracle Enterprise Manager Ops Center, use the Message Center to view and add annotations and to view, manage, diagnose and resolve incidents.

Only Critical incidents or problems from Oracle Enterprise Manager Ops Center appear in the Oracle Enterprise Manager Cloud Control console. Warning incidents from Oracle Enterprise Manager Ops Center do not appear as an incident.

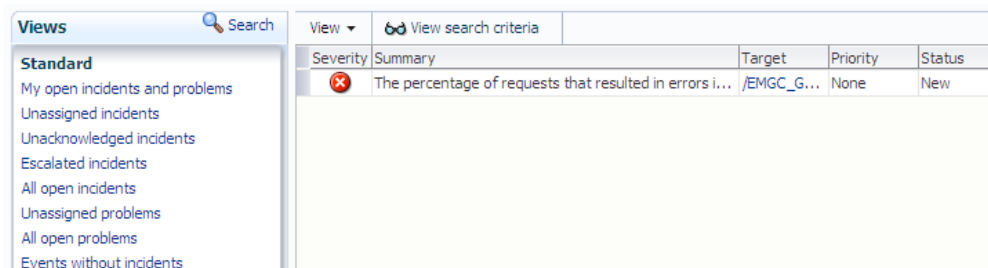
In Oracle Enterprise Manager Cloud Control, you can create a custom set of Incident Rules that defines which Incident Rule levels display in the metric alerts.

## View Open Problems and Incidents in Oracle Enterprise Manager Cloud Control

1. From the **Enterprise** menu, click **Monitoring**, then click **Incident Manager**.

The Incident Manager page appears.

### Incident Manager



The screenshot shows the Incident Manager interface. On the left, there is a 'Views' sidebar with options like 'Standard', 'My open incidents and problems', 'Unassigned incidents', 'Unacknowledged incidents', 'Escalated incidents', 'All open incidents', 'Unassigned problems', 'All open problems', and 'Events without incidents'. The main area displays a table of incidents. The first row is selected, showing a red 'x' icon in the Severity column. The table has columns for Severity, Summary, Target, Priority, and Status.

Severity	Summary	Target	Priority	Status
⊗	The percentage of requests that resulted in errors i...	/EMGC_G...	None	New

2. Click a row to display tabs that contain General information, Events, My Oracle Support Knowledge, Updates, and Related Events and Incidents. General information includes Incident Details, Tracking, Metric Data, and Guided Resolution.
3. Click the link in the Target cell to display more details, including utilization graphs, details on incidents, and job activity. At the bottom of the page, in the Related Links section, is a link to launch the Oracle Enterprise Manager Ops Center console.

## View Annotations in Oracle Enterprise Manager Cloud Control

When you add an annotation to an Incident in Ops Center, the software automatically updates the annotation details in the Cloud Control user interface. For a given system,

go to **All Metrics**, then select **Infrastructure Stack Annotations**, as shown in [Figure 1-14](#).

1. From the **Enterprise** menu, click **Targets**, then **All Targets**. Find your target by entering the target name, or by sorting the Target Type column in the table and scrolling to Infrastructure Stack. Click the target name to display the target page.
2. Expand the Target menu in the upper left corner, select **Monitoring**, then select **All Metrics**.
3. Click **Infrastructure Stack Annotations** to view asset-specific annotations.

### Infrastructure Stack Annotations on the All Metrics Menu

The screenshot shows the 'All Metrics' page for target 'x4150-7.example.com'. The left sidebar lists various metric categories, with 'Infrastructure Stack Annotations' selected. The main content area displays 'Infrastructure Stack Annotations' with a 'Collection Schedule' of 'Disabled' and a 'Modify' button. Below this, there are settings for 'Upload Interval' (Every Collection) and 'Last Upload' (-). A table shows one annotation with the following details:

Ops Center Annotation ID	Annotation Last Update Time	Annotation Synopsis
3173	2013-06-13 08:41:20 GMT	Raised CRITICAL alert on

A note below the table states: 'Data shown in above table is collected in real time.'

The following Infrastructure Stack annotation details are available: Ops Center Annotation identifier (ID), timestamp for the Annotation Last Update Time, Annotation Synopsis with the Automated Service Request (ASR) number, when available, the Ops Center Alarm identifier (ID), and the Ops Center Root Cause Alarm ID. [Figure 1-15](#) is an example of how the Ops Center Annotation ID, Annotation timestamp, and Annotation Synopsis appear on the page. The Annotation ID is a unique key for the metric. When a service request is generated, the details appear in the Annotation Synopsis, as seen in the last line in [Figure 1-15](#).

### Infrastructure Stack Annotations

## InfraStack Annotations

Collection Schedule Disabled [Modify](#)  
Upload Interval Every Collection  
Last Upload -

	Ops Center Annotation ID	Annotation Last Update Time	Annotation Synopsis
▷	29364	Fri May 17 20:01:...	Cleared WARNING alert on t4-1-asr Control
▷	29361	Fri May 17 19:59:...	Raised WARNING alert on t4-1-asr Control I
▷	29352	Thu May 16 22:49:...	Raised WARNING alert on t4-1-asr TotalFre
▷	29366	Sat May 18 00:06:...	Raised CRITICAL alert on t4-1-asr System:R
▷	29359	Fri May 17 18:00:...	Raised INFO alert on t4-1-asr System:MB,MI
▷	29358	Fri May 17 17:56:...	Cleared CRITICAL alert on t4-1-asr System:
▷	29357	Fri May 17 17:53:...	There was no user configured who has SR c
▷	29356	Fri May 17 17:53:...	Raised CRITICAL alert on t4-1-asr System:R
▷	29354	Thu May 16 22:49:...	Raised WARNING alert on t4-1-asr PVTotalF
▷	29370	Sat May 18 00:37:...	SR 3-7079884321 was generated (125252):!

See the Oracle Enterprise Manager Ops Center documentation for more information about annotations.

## Launch a Console Window

An asset, or target, that is being monitored by both applications has information from both software applications. You can launch the console for one software application from the other software console.

- [Launch the Enterprise Manager Cloud Control Console From an Asset in Enterprise Manager Ops Center](#)
- [Launch the Enterprise Manager Ops Center Console From Enterprise Manager Cloud Control](#)
- [Launch the Oracle Enterprise Manager Cloud Control Console From Oracle Enterprise Manager Ops Center](#)

## Launch the Enterprise Manager Ops Center Console From Enterprise Manager Cloud Control

While in Oracle Enterprise Manager Ops Center, you can view more details about the information gathered with Oracle Enterprise Manager Cloud Control by clicking the asset to launch the monitored target page in Oracle Enterprise Manager Cloud Control.

Perform the following steps to launch the Oracle Enterprise Manager Ops Center console from Oracle Enterprise Manager Cloud Control:

1. Log in to Oracle Enterprise Manager Cloud Control as SYSMAN, then navigate to the target's home page.
2. Click **Launch Ops Center console** in the Related Links section at the bottom of the page.

## Launch the Enterprise Manager Cloud Control Console From an Asset in Enterprise Manager Ops Center

Perform the following steps to launch the Oracle Enterprise Manager Cloud Control console from Oracle Enterprise Manager Ops Center:

1. Log in to Enterprise Manager Ops Center.
2. Click **Assets** in the Navigation pane, expand and click an operating system that has the Oracle Enterprise Manager Cloud Control Agent installed.

The Dashboard page appears.

3. Click the **Targets** Tab to view Cloud Control target information, including status alerts, and availability.

## Launch the Oracle Enterprise Manager Cloud Control Console From Oracle Enterprise Manager Ops Center

To launch the Oracle Enterprise Manager Cloud Control console outside the context of a specific monitored asset, use the link in the Administration section of Oracle Enterprise Manager Ops Center. This method is useful to confirm configuration and connectivity.

Perform the following steps to launch the console from Oracle Enterprise Manager Ops Center Administration:

1. Log into Oracle Enterprise Manager Ops Center.
2. Click **Administration** in the Navigation pane.
3. Click **Cloud Control Console** in the Action pane.

## Create and View Enterprise Manager Ops Center Reports

With the Infrastructure Stack plug-in, the following Oracle Enterprise Manager Ops Center reports are available in the Oracle Enterprise Manager Cloud Control Information Publisher reports:

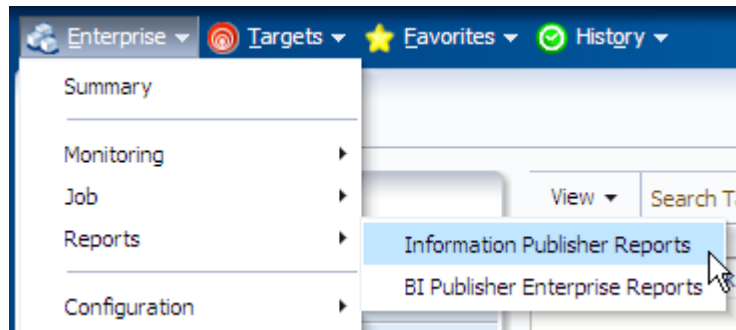
- Topology report: Provides stack layers report
- Configuration report: Provides basic configuration of each layer within the stack
- Hardware sensors report: Provides hardware sensors details based on the service processor, including current value and status, and thresholds

### Create Reports

1. From the **Enterprise** menu, click **Reports**, then click **Information Publisher Reports**.

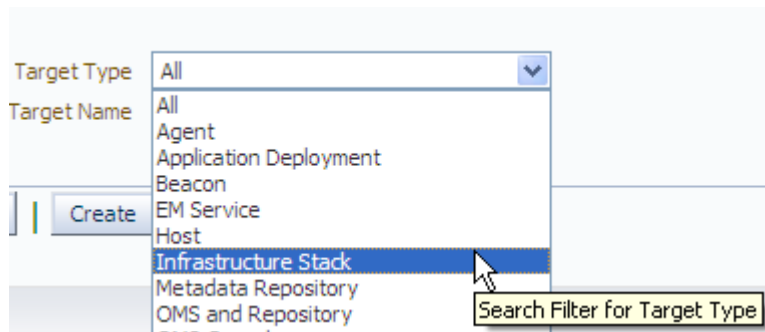
### Information Publisher Reports





2. Select **Infrastructure Stack** from the Target Type menu, then click **Go**.

### Infrastructure Stack Target Type



3. To run a report, click the report name, such as Infrastructure Stack Topology.

### Ops Center Reports

<input type="radio"/>	▼ Ops Center reports	
<input type="radio"/>	▼ Configuration	
<input checked="" type="radio"/>	Infrastructure Stack Topology	Displays the containment chain of the infrastructure stack
<input type="radio"/>	Infrastructure Stack configuration	Configuration details of infrastructure stack layers
<input type="radio"/>	▼ Monitoring	
<input type="radio"/>	Hardware Sensors	Displays hardware sensors samples and thresholds
<input type="button" value="Delete"/> <input type="button" value="Create Like"/> <input type="button" value="Edit"/> <input type="button" value="Create"/>		

4. Specify the target for the report in the Search and Select: Targets page.

### Search and Select: Targets

Search and Select: Targets Cancel Select

Search

Target Type: All ▼

Target Name:

On Host:

Go

---

Select	Name ▲	Type	Host	Status
<input type="radio"/>	NewStack	Infrastructure Stack	Myhost_1.example.com	↑

Cancel Select

- On the Specify Target for Report page, click **Continue** to display the report. [Figure 1-20](#) is an example of an Infrastructure Stack Topology report.

### Infrastructure Stack Topology Report

**Information Publisher Reports**


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**Infrastructure Stack Topology**

Infrastructure Stack NewStack

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**Containment chain of infrastructure stack**

Layer ▼	Asset Type	Asset Name	Details	Status	
2	Operating System	x4200-21.example.com	192.0.2.1	↑	
1	Server	x4200-21-sp.example.com	192.0.2.1	↑	

To save the data in a comma separated value (CSV) format, click the icon next to the table. To print the report, click **Printable Page** and use your browser print function.

### Create a Customized Report

- To define report parameters to create a customized report, scroll down to **Ops Center reports**. Select a report, such as Infrastructure Stack Topology, then click **Create**.

### Customized Report

<input type="radio"/>	▼ Ops Center reports	
<input type="radio"/>	▼ Configuration	
<input checked="" type="radio"/>	Infrastructure Stack Topology	Displays the containment chain of the infrastructure stack
<input type="radio"/>	Infrastructure Stack configuration	Configuration details of infrastructure stack layers
<input type="radio"/>	▼ Monitoring	
<input type="radio"/>	Hardware Sensors	Displays hardware sensors samples and thresholds

2. Define the report parameters in the Create Report Definition page, then click **OK**.

### Create Report Definition Page

\* Title

Category

Subcategory

**Targets**

Either the report viewer can select a target, or your report definition can specify the target. An element-sp

A target will be selected by the report viewer when viewing the report

Target Type    
Limits the report viewer's choice of targets

Use the specified target

Target    
Leave blank if this report has no report-wide target

**Privileges**

The report can be run using the target privileges of either the report viewer or the report owner (SYSMAN), following option is checked.

Run report using target privileges of the report owner (SYSMAN)  
Not valid when "A target will be selected by the report viewer when viewing the report" is selected

**Time Period**

This report has a time period

Time Period

3. The report appears in the Reports table.

### Ops Center Reports Table With the New Report

▽ Ops Center reports	
▽ Agent	
<a href="#">Ops Center Topology Report</a>	Ops Center Infrastructure Stack Topology
▽ Configuration	
<a href="#">Infrastructure Stack Topology</a>	Displays the containment chain of the infrastructure stack
<a href="#">Infrastructure Stack configuration</a>	Configuration details of infrastructure stack layers
▽ Monitoring	
<a href="#">Hardware Sensors</a>	Displays hardware sensors samples and thresholds

## Upgrade the Plug-in

New versions of the Infrastructure Stack plug-in might be released independent of the Oracle Enterprise Manager releases. You can go to the Oracle Enterprise Manager Store to download the latest version of the Infrastructure Stack plug-in. .

Available updates are visible on the Plug-ins page. You can download them from the Enterprise Manager Store or import them using the `emcli` command.

### Things to Know About Upgrading

The following are some things to know about upgrading a plug-in:

- You do not need to remove the existing version of a plug-in from the Oracle Management Service (OMS) or Management Agents before upgrading to the latest version.
- Upgrading a plug-in to a new version does not remove the content of the older plug-in.
- You can import multiple versions of the same plug-in. However, you can only deploy one version on the OMS at any given time.
- A Management Agent cannot have a later version of the plug-in than the OMS.
- You cannot downgrade to an earlier version.

### Upgrade the Plug-in

Perform the following steps to upgrade the plug-in:

1. Log into Enterprise Manager Cloud Control as a Super Administrator (SYSMAN).
2. Download the plug-in from the Enterprise Manager Store.
3. Deploy the plug-in to the OMS.

You can only deploy one version on the Manager Servers at any given time. The plug-in is automatically updated on the Management Agent.

### Undeploy the Plug-in

Follow instructions provided within the *Oracle Enterprise Manager Cloud Control Administrator's Guide* to remove, or un-deploy, a plug-in. At a high level, the Oracle Enterprise Manager Cloud Control administrator must do the following:

- Ensure that all Infrastructure Stack instances being monitored are removed from the agent monitoring configuration
- Un-deploy the Plug-in from all agents
- Remove the Plug-in

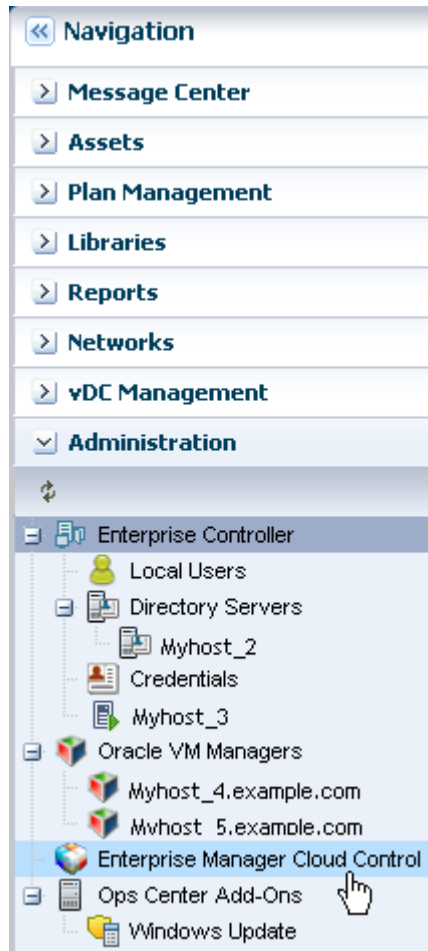
Removing a plug-in removes all of its metadata from the Management Repository.

1. From the Setup menu, click **Extensibility**, then click **Plug-ins**.
2. Select the row for the plug-in you want to remove to in the table.
3. Click **Undeploy From**, then click either **Management Servers** or **Management Agent**. You can then select the OMS or Management Agent you want to remove the plug-in from.
4. Confirm the plug-in removal. Enterprise Manager notifies the connected and relevant Enterprise Manager users and begins the de-configuration process.

### **Disconnect Enterprise Manager Cloud Control Access**

You can disconnect and unconfigure the link between the Oracle Enterprise Manager Ops Center and Cloud Control applications.

1. Log into Oracle Enterprise Manager Ops Center.
2. Click **Administration**, then click **Enterprise Manager Cloud Control**.



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**Note:**

In Oracle Enterprise Manager Ops Center 11g, click **Grid Control** in the Administration section of the Navigation pane.

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3. Click **Disconnect/Unconfigure** in the Actions pane.
4. Confirm the action.

### Related Resources

For Oracle Enterprise Manager Cloud Control, see the documentation library at [http://docs.oracle.com/cd/E24628\\_01/index.htm](http://docs.oracle.com/cd/E24628_01/index.htm).

- For information about installing the Enterprise Manager Cloud Control software and agents, see the Oracle Enterprise Manager Cloud Control Basic Installation Guide or the Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide.
- For more information about plug-ins, including how to undeploy a plug-in, see the Oracle Enterprise Manager Cloud Control Administrator's Guide.

For Oracle Enterprise Manager Ops Center 12c Release 3, see the documentation library at [http://docs.oracle.com/cd/E59957\\_01/index.htm](http://docs.oracle.com/cd/E59957_01/index.htm).

See the following for more information:

- Installing and configuring the Enterprise Controller and Proxy Controller: Oracle Enterprise Manager Ops Center Installation Guide for Oracle Solaris Operating System or the Oracle Enterprise Manager Ops Center Installation Guide for Linux Operating Systems
- Monitoring: Oracle Enterprise Manager Ops Center Configure Reference
- Annotations: Oracle Enterprise Manager Ops Center Operations Reference

For Oracle Enterprise Manager Ops Center 12c Release 2, see the Oracle Enterprise Manager Ops Center Feature Reference Guide and other documentation in the library at [http://docs.oracle.com/cd/E40871\\_01/index.htm](http://docs.oracle.com/cd/E40871_01/index.htm).

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Oracle® Enterprise Manager System Monitoring Plug-in for Oracle Enterprise Manager Ops Center Guide, 12c Release 5 (12.1.0.5.0)  
E38529-08

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