Oracle® Cloud
Working with Oracle Management Cloud

ORACLE®

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Preface

The *Working with Oracle Management Cloud* guide provides information about Oracle Management Cloud common framework functionality such as managing entities and creating dashboards.

Topics:

- Audience
- Documentation Accessibility
- Related Resources
- Conventions

Audience

Working with Oracle Management Cloud is intended for users who want to add and manage Oracle Management Cloud entities and use common framework features.

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 Resources

For more information, see these Oracle resources:

Oracle Cloud

Documentation

- About Oracle Application Performance Monitoring in *Using Oracle Application Performance Monitoring*
- Configure Oracle Infrastructure Monitoring in *Using Oracle Infrastructure Monitoring*
- Configure Oracle Log Analytics in *Using Oracle Log Analytics*
- Configure Oracle IT Analytics in *Using Oracle IT Analytics*

- Configure Oracle Orchestration in *Using Oracle Orchestration*

Oracle by Example

- Adding a WebLogic Server Entity to Oracle Log Analytics and Later Oracle Infrastructure Monitoring
- Adding Multiple Entities with a Single JSON File

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.

1

Add Oracle Management Cloud Entities

Using Oracle Management Cloud you can add and monitor various entities. This chapter provides information on the prerequisites and the steps involved in adding entities to Oracle Management Cloud.

Topics:

- Before You Begin
- Typical Workflow for Adding Entities
- Add Entities Using the Administration Console
- Add Entities Using JSON Files
- Oracle Management Cloud Service-Specific Tasks to Complete Entity Addition

Before You Begin

Here are some basic concepts about Oracle Management Cloud entities.

Software or hardware resources, and other business objects whose properties, configuration, status, and performance are tracked and analyzed, are known to Oracle Management Cloud as *entities*. Oracle Management Cloud uses *cloud agents* to monitor and collect data (for example: metrics, configuration information, logs) from entities that reside on hosts, or on virtual hosts, on-premises or in a cloud.

Typically, a user assigned the OMC Administrator role deploys cloud agents on the same hosts as the entities of interest. Cloud agents are made aware of entities from which they need to monitor and collect metrics through the process of *adding entities*.

Term	Definition
Agents	Oracle Management Cloud agents collect configuration, performance, availability, and log data from monitored entities and make this information available in Oracle Management Cloud.
Associations	Associations (association instances) define a relationship between two managed entities. The association type that you define, either via the user interface or based on a written document Oracle provides, determines how data is correlated and visualized in Oracle Management Cloud. In many cases, associations are defined automatically by Oracle Management Cloud.
Entities	Entities are monitored resources such as databases, host servers, compute resources, or application servers.

Term	Definition
Entity Types	Entity types are a type of monitored resource, such as a host or database, which define where that entity fits in the Oracle Management Cloud hierarchical structure. In Oracle Management Cloud, each entity is defined by a set of characteristics, it has a parent and may have other children. For example, a generic host is an operating system (OS) independent target and it has children entities that are specific OS hosts, such as Linux and Windows. The metrics collection functionality takes advantage of this inheritance model so each monitored entity has entity-specific metrics as well as metrics inherited from each level it descended from. For example, Oracle Management Cloud collects metrics at level three that are common to all generic hosts, independent of the vendor. A Linux host, since its parent is a generic host, inherits all the metrics collected for generic hosts and its ancestors, as well as Linux-specific ones, if any.
JSON	JavaScript Object Notation (JSON) allows data to be concisely and precisely defined in a format that is both human and machine-readable. Oracle provides sample JSON files for defining entities. JSON files are then edited with your own custom parameters and are passed on to agents. This configuration step defines the entities with that agent and Oracle Management Cloud.
omcli	Oracle Management Cloud agent control command line interface utility (omcli) is used to interface with Cloud agents and define entities using customized JSON files.

Typical Workflow for Adding Entities

This section lists the tasks that you must perform to add entities to Oracle Management Cloud.

Task	More Information

Prerequisite: Set up your service	Before you begin, ensure that you've completed the following tasks to set up your Oracle Management Cloud service such as Oracle Infrastructure Monitoring or Oracle Log Analytics:
	
	• You must have a valid subscription to the Oracle Management Cloud service you want to use. For example, if you want to use Oracle Infrastructure Monitoring to monitor entities, you must purchase and enable the Oracle Management Cloud – Standard or Oracle Management Cloud – Enterprise license editions. For information on license editions, see:
	  – Oracle Management Cloud Offerings in *Getting Started with Oracle Management Cloud*
	  – Enable License Editions in *Getting Started with Oracle Management Cloud*
	• You must install agents to collect data from entities that you want to manage and monitor from Oracle Management Cloud. See Workflow for Installing Oracle Management Cloud Agents in *Installing and Managing Oracle Management Cloud Agents*.
	
	For detailed information on setting up your Oracle Management Cloud service, see the sections listed under **Documentation** in Related Resources.
	
	Once you add the required entities, you can edit or delete them later as per your requirement.

Add entities	You can add the required entities to Oracle Management Cloud using one of the following methods: • Add entities from the Administration console in Oracle Management Cloud. See Add Entities Using the Administration Console. • Add entities using JSON files. See Add Entities Using JSON Files.
Perform Oracle Management Cloud service-specific tasks	See Oracle Management Cloud Service-Specific Tasks to Complete Entity Addition.

Add Entities Using the Administration Console

You can add entities that are monitored by Cloud agents directly from the Add Entities page in the Administration console in Oracle Management Cloud.

See Add Entities from the Console in *Using Oracle Infrastructure Monitoring*. To learn more about adding an entity from the Administration console, see the Adding Entities to Oracle Management Cloud Using the Graphical Interface tutorial.

Add Entities Using JSON Files

You can add entities to Oracle Management Cloud by adding the respective JSON files using the `omcli add_entity` command.

> **❗ Important:**
>
> This section provides information on adding entities using JSON files to
> Oracle Infrastructure Monitoring and Oracle Log Analytics. Oracle IT
> Analytics and Oracle Orchestration rely on Oracle Infrastructure Monitoring,
> and the procedures for adding entities are identical.

Topics:

- Add Entities to Oracle Infrastructure Monitoring
- Add Entities to Oracle Log Analytics

Add Entities to Oracle Infrastructure Monitoring

Using Oracle Infrastructure Monitoring, you can monitor a wide range of entities for
availability status and performance.

Before you add entities to Oracle Infrastructure Monitoring, ensure that you've met the
following prerequisites:

- Set up Oracle Infrastructure Monitoring. See the first row in Typical Workflow for
  Adding Entities.

- Determine whether the entity types you want to monitor are currently supported.
  See Supported Entity Types in *Using Oracle Infrastructure Monitoring*.

- Monitoring credentials are required to monitor most entities using Cloud agents
  and you must determine whether you have to define monitoring credentials for the
  entity you want to add. See Prerequisites and Monitoring Credentials in *Using
  Oracle Infrastructure Monitoring*.

Perform the following steps to add entities to Oracle Infrastructure Monitoring:

1. Download the sample JSON files to add entities. See Download and Customize
   Oracle Infrastructure Monitoring JSONs in *Using Oracle Infrastructure Monitoring*.

2. Add entities. See Add Entities Using JSON Files in *Using Oracle Infrastructure
   Monitoring*.

> **✏️ Note:**
>
> All hosts are automatically added as entities when a Cloud agent is
> installed and you don't have to add them separately. However,
> monitoring of host entities is disabled by default. For information on how
> to enable host monitoring, see Enable Host Monitoring in *Using Oracle
> Infrastructure Monitoring*.

To learn more about adding entities to Oracle Infrastructure Monitoring, see the Adding
a MongoDB Entity to Oracle Infrastructure Monitoring tutorial.

Add Entities to Oracle Log Analytics

Using Oracle Log Analytics, you can view and analyze the logs related to a set of entities.

Before you add entities to Oracle Log Analytics, ensure that you've met the following prerequisites:

- Set up Oracle Log Analytics. See the first row in Typical Workflow for Adding Entities.

- Review the list of entities whose logs are commonly analyzed using Oracle Log Analytics. See Commonly Used Oracle Log Analytics Entities and Additional Entities in Oracle Log Analytics in *Using Oracle Log Analytics*.

You can now add entities to Oracle Log Analytics. See Add Entities to Oracle Log Analytics in *Using Oracle Log Analytics*.

Oracle Management Cloud Service-Specific Tasks to Complete Entity Addition

This section provides information on certain Oracle Management Cloud service-specific tasks that must be performed to complete entity addition.

Manage Associations in Oracle Log Analytics

Once you add entities to Oracle Log Analytics, you must associate those entities with existing log sources to enable log collection. See Work with Entity Associations in *Using Oracle Log Analytics*.

Enable Data Collection for Oracle IT Analytics

Oracle IT Analytics works with entities harvested from an on-premises Oracle Enterprise Manager system, as well as entities monitored by Oracle Infrastructure Monitoring. Additional privileges may be required for a monitoring user to enable data collection for Oracle IT Analytics. For information on enabling data collection for an Oracle Database, see Enable Data Collection for an Oracle Database in *Using Oracle IT Analytics*.

2
Manage Entities Using the Administration Console

You can use the Administration console in Oracle Management Cloud to perform a range of activities such as creating and setting tags and managing groups.

Topics:

- [Create and Set Tags for Entities](#)
- [Manage Groups](#)
- [Create and Set Global Properties](#)
- [Edit Property Values for Existing Entities](#)
- [Delete Entities from the Administration Console](#)
- [Enable License Editions](#)
- [Previously Provisioned Tenants: Enable or Disable Services on Entities](#)

> ✎ **Note:**
>
> The **Enable/Disable Services** option is displayed only if you're using an older version of Oracle Management Cloud, which allows you to enable a standalone service on entities. If you're a new customer, then the **Enable/Disable Services** option is not available and you'll have to enable license editions using the **Licensing** option in the Administration console.

Create and Set Tags for Entities

Setting tags for entities allows you to logically organize the entities according to the properties you've defined. A tag is a key-value pair that can be assigned to an entity. Tags offer enhanced categorizing, searching, and grouping capabilities of the entities with which they are associated. You can perform complex query operations and define concise rules for triggering alerts, and for automation and orchestration.

Define a Tag

Rules for defining tags:

- A tag key and value can be a maximum of 128 characters.
- A tag key and value is case insensitive.
- A tag value is optional.
- A tag key can have multiple values. For example, you can define a tag as follows:
  - Key: Location, Value: New York

    – Key: Location, Value: London

    – Key: Location, Value: Bangalore

To define a tag:

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Tags**.

3. To create a new tag, click **New Key**.

4. On the Create New Key page, enter the Key and Value (optional) for the tag. For example, you can enter the **Key** as **Location** and **Value** as **New York**.

5. Click the **Associate Entities** drop-down list to select one or more entities with which this tag is to be associated. Click **Save** to save the tag and return to the previous page.

Define New Values for a Tag

1. On the Tags page, select a key-value pair and click **New Value** or click the link in the **Value** column.

2. On the Edit page, you can define a new value for the selected key. You can also associate new entities for the tag.

3. Click **Save** to save the changes. You can define multiple values for a key and have several unique key-value pairs.

Perform a Search Operation

You can search for a tag based on the tag key. On the Tags page, enter the name of the key in the **Search** field and click the **Search** icon. All the tags that meet the Search criteria are displayed in the table.

Delete a Tag

1. Select the tag key and click the **Delete** icon.

2. You will see a confirmation message prompting you to delete the tag and all the associated values. For example, if you select the location key, all the values defined such as New York, London, or Bangalore will be deleted. This operation will remove the tag (key and all its values) from all the assigned entities.

To delete a specific key-value pair, select it from the list and click the **Delete** icon. The selected tag will be removed from the assigned entities.

Manage Groups

You can view, create, and delete groups in the Administration console in Oracle Management Cloud.

Groups are an efficient way to logically organize, manage, and monitor the entities in Oracle Management Cloud. Creating a group enables you to collectively monitor and administer multiple entities as a single logical unit. For example, you can define a group to contain all the WebLogic Servers in a production cluster. A group can include entities of the same type, such as all production databases, or it could include multiple types of entities.

Choose Which Type of Group to Use

You should consider the purpose of your group and the function it serves before determining which type of group to use to organize entities. You can choose from the following types of groups:

- **Static:** A static group does not have any qualifying criteria. The membership management for a static group is typically manual or static and you must decide which entities should be included in a static group. It is best suited for a group of entities whose membership is unlikely to change frequently. Static groups are created, updated, or deleted in the Administration console in Oracle Management Cloud.

- **Dynamic:** A dynamic group allows you to add entities to a group based on set membership criteria. In dynamic environments where new entities come into the system frequently, entities that match the membership criteria are added automatically to a dynamic group. As the owner of a dynamic group, you must specify the membership criteria during dynamic group creation (or modification) and membership in the group is determined solely by the criteria specified. Dynamic groups can be created, updated, or deleted using either the Administration console in Oracle Management Cloud or via Oracle Management Cloud REST API . Regardless of the method used to create dynamic groups, they can be viewed in the Administration console.

Create a Static Group

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Groups**.

3. On the Groups page, click **New Group**.

4. On the New Group page, enter the **Group Name**.

5. Under Membership Criteria, select **Static**.

6. Click **Add**.

7. In the **Select Entities** dialog box, select the entities that you want to add to the group and click **Select**.

8. Click **Save**.

The new static group is displayed on the Groups page.

Create a Dynamic Group

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Groups**.

3. On the Groups page, click **New Group**.

4. On the New Group page, enter the **Group Name**.

5. Under Membership Criteria, select **Dynamic**.

6. Click **Add Tag**.

7. Select a **Tag Key** from the drop-down menu and choose a value for the Tag Key or leave it blank to choose all available values. You can add additional tags by clicking **Add Tag**.

8. Select the tag inclusion criteria (All, Any, Combination). You can click **Validate** to validate the tag criteria

9. Click **View Members** to view a list of members found based on the tag criteria.

10. Click **Save**.

The new dynamic group is displayed on the Groups page.

Update a Group

1. On the Groups page, click the group you want to update.

2. On the specific group's page, you can perform the following actions:

   • Click **New** to add an entity.

   • Select the entity you want to delete and click **Delete** to delete the entity.

3. Click **Save**.

The group is updated with the changes you've made.

Delete a Group

1. On the Groups page, click the **Delete Group** icon against the group you want to delete.

2. Click **OK** in the confirmation message.

Perform a Search Operation

You can search for a static or dynamic group in the Administration console. On the Groups page, enter the name of the group in the **Search** field and click the **Search** icon. The relevant results are displayed.

Create and Set Global Properties

You can create and set global properties in the Administration console in Oracle Management Cloud.

After you create a global property, it becomes available for all the entities present in the tenant. Setting the value of a global property for an entity allows you to group or filter the entities based on the property value.
For example, if you want to filter your Oracle Database entities by location, then you can create a global property called location, and set different values (such as Austin or Chicago) for that property for different Oracle Database entities.

Create a Global Property

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Global Properties**.

3. Click **Create New Global Property**.

4. In the **Create New Global Property** dialog box, enter the display name of the property and click **OK**.

The property is created and is now available to be used by an entity in the Oracle Management Cloud tenant.

Set the Value of a Global Property For Entities

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Global Properties**.

3. In the **Select Entities** dialog box, select the entities for which you want to set the global property value and click **Select**.

   The Global Properties page is displayed with the list of available global properties in the tenant.

4. In the selected entities in the **New Value** field adjacent to the property name, enter the global property value that you want to set for the selected entities, and click **Set**.

   > **Note:**
   >
   > If a global property is set with different values for different entities, then **(mixed)** is displayed in the **Value** column for that property.

   The value of the global property is now set for the selected entities.

Edit Property Values for Existing Entities

You can edit property values of existing entities in the Administration console in Oracle Management Cloud.

For example, your service is monitoring an entity such as a WebLogic Administration Server, and for that service, the entity requires two mandatory properties to be set. At the time of adding the entity, you had specified some values for the mandatory properties and now you want to change the value of one of the mandatory properties (say Server Names).

To edit property values:

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Configure Entities**.

3. In the **Select Entities** dialog box, select the entity whose property values you want to change and click **Select**.

   The Configure Entities page now displays the list of mandatory properties for the selected entity for each service (considering the entity is monitored by a different Oracle Management Cloud service).

4. In the Configuration Properties section, select the service for which you want to change the property values from the service name drop-down list.

   A list of the service-specific properties for the selected entity is displayed. Note that the property listing changes based on the service that you select, because different services may require a different set of mandatory properties for the same entity.

5. Edit the required property values, and click **Save**.

> ✎ **Note:**
>
> If the selected entity doesn't have mandatory properties, then the following message is displayed in the Configuration Properties section:
>
> ```
> There are no configuration properties for selected entity
> ```

Delete Entities from the Administration Console

You can delete an entity from Oracle Management Cloud or view deleted entities in the Administration console.

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Delete Entities**.

3. In the **Select Entities** dialog box, select the entities that you want to delete and click **Select**.

   The selected entities are displayed on the Delete Entities page. If you want to remove one of the selected entities, then click the **Remove** button adjacent to the entity.

4. Click **Delete <*number*> Entities** to delete the selected entities.

View Deleted Entities

1. On the Delete Entities page, click the **Recently Deleted** tab.

2. Select a time frame in the **View entities deleted** drop-down list.

The entities deleted within the selected time frame are displayed.

Delete Entities Using omcli

You can delete a previously added entity using the `omcli delete_entity` command as shown below.

```
<AGENT_BASE_DIR>/agent_inst/bin/omcli delete_entity agent FILENAME
```

Where `FILENAME` is the name of the file that contains the entity definition to be deleted.

Example

Say you want to delete the Oracle WebLogic Server domain that you had previously added with the following JSON file: `omc_weblogic_domain.json`.

Run the following command to delete this WebLogic Server domain:

```
<AGENT_BASE_DIR>/agent_inst/bin/omcli delete_entity agent
omc_weblogic_domain.json
```

> **Note:**
>
> Cascading deletion is not supported. The JSON input for the delete command must include all entities and their sub-entities to be deleted.

Enable License Editions

Oracle Management Cloud services are categorized and available in license editions and you can select one or more license editions, based on your business requirements.

See Oracle Management Cloud Offerings in *Getting Started with Oracle Management Cloud*.

You can enable license editions in the Administration console in Oracle Management Cloud. See Enable License Editions in *Getting Started with Oracle Management Cloud*.

Previously Provisioned Tenants: Enable or Disable Services on Entities

In previous versions of Oracle Management Cloud, you can enable an Oracle Management Cloud service, such as Oracle IT Analytics, on an entity or a set of entities. Similarly, you can disable Oracle Management Cloud services on an entity or a set of entities.

> **Note:**
>
> This section is applicable only if you're using an older version of Oracle Management Cloud, which allows you to enable a standalone service on entities. If you're a new customer and you've purchased Oracle Management Cloud license editions, then this section is not applicable.

Enable Services on Entities

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Enable/Disable Services**.

3. In the **Select Entities** dialog box, select the entity or entities for which you want to enable services and click **Select**.

4. On the Enable/Disable Services page, click **Enable Services**.

   This displays the **Enable Services** dialog box.

5. Select the service that you want to enable on the selected entity or entities and click **Enable Services**.

Disable Services on Entities

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Entity Configuration** in the Administration navigation menu, then click **Enable/Disable Services**.

3. In the **Select Entities** dialog box, select the entity or entities for which you want to disable services and click **Select**.

4. On the Enable/Disable Services page, click **Disable Services**.

   This displays the **Disable Services** dialog box.

5. Select the service that you want to disable for the selected entity or entities and click **Disable Services**.

3

Use Maintenance Windows

A maintenance window is a period of time designated to perform regular maintenance activities on monitored entities. You can perform the tasks related to a maintenance window in the Administration console in Oracle Management Cloud.

A maintenance window can be scheduled to run immediately or in the future, and to run indefinitely or stop after a specific duration. It can be created on an as-needed basis, or scheduled to run at regular intervals. Notifications, such as emails and webhooks, are suppressed during the maintenance window. However, Oracle Management Cloud continues to monitor entities and display entity status, while indicating that the entity is currently under maintenance. Also, events are generated during the maintenance window, but event notifications are suppressed.

The availability percentage of an entity changes based on the maintenance window created for the entity. When creating a maintenance window, you can determine whether the maintenance window duration should be included in the availability calculation of entities.

Create a Maintenance Window

1. Select **Administration** in the Management Cloud navigation menu.

2. Select **Maintenance Windows** in the Administration navigation menu.

3. On the Maintenance Windows page, click **Create**.

4. On the Create Maintenance Window page:

   a. Enter a name for the maintenance window.

   Note that the **Type** field on the Create Maintenance Window page cannot be edited. Only notifications can be suppressed in the maintenance window, and the **Notification Suppression** option is selected by default in the **Type** field.

   Optionally, you could select **Include in Availability Calculation** to include the maintenance window duration in the availability calculation of the entity.

   > **Note:**
   >
   > If the maintenance window duration is included in the availability calculation, then the availability percentage will be affected based on the availability status of the entity in this duration. That is to say, if the entity is DOWN or has an ERROR status during the maintenance window, then the availability percentage decreases, and if the entity is UP, then the availability percentage increases. If the maintenance window duration is excluded from availability calculation, then the maintenance window duration itself is omitted from the availability percentage calculation.

   b. In the Scope section, click **Add Entities** and select the entities that you want to add to the maintenance window, and click **Select**.

   c. In the Schedule section, select the relevant options to determine the schedule of the maintenance window.

5. Click **Create**.

A maintenance window is created for the selected entities.

Note that alerts are generated and displayed in the user interface during the maintenance window, however, alert notifications are not sent.

Other Maintenance Window Tasks

This section lists the other tasks you can perform on the Maintenance Windows page. Depending on the completion status of the maintenance windows, they are categorized under the following tabs:

- **In Progress**
- **Planned**
- **Completed**
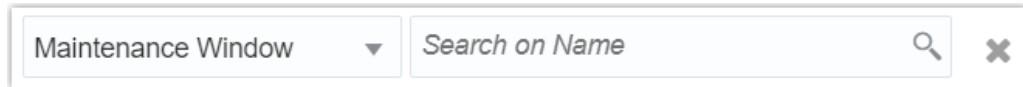
Click a maintenance window tab, for example, **Planned**, and select a maintenance window. The options given under the tab are enabled.

- Click the **Stop** (■) icon to stop a maintenance window that is in progress or is planned.

  Note that this option is not available for maintenance windows that are completed.

- Click the **Delete** (🗑) icon to delete a completed maintenance window.

  Note that this option is not available for maintenance windows that are in progress or planned.

- Click the **View** (▤) icon to view a maintenance window. The following information is displayed on the View *<name>* Maintenance Window page:

  – Maintenance window type

  – Whether entity downtime is included in availability calculations or not

  – Maintenance window status

  – When the maintenance window was created and by whom

  – When the maintenance window was last updated and by whom

  – Information about the entities in the maintenance window

  – Maintenance window schedule

- Click the **Edit** (✎) icon to update the following details for a maintenance window that is in progress or is planned.

  – Scope of the maintenance window. You can add entities or remove previously added entities.

  – Schedule of the maintenance window. You can change the start and end date and time, and the duration of the maintenance window.

  Note that this option is disabled for maintenance windows that are completed.

- Click the **Create Like** (⧉) icon to duplicate a maintenance window.

Perform a Search Operation

You can search for a maintenance window or an entity for which a maintenance window has been created. A drop-down list and a **Search** field are displayed on each of the tabs on the Maintenance Windows page.

| Maintenance Window ▼ | Search on Name 🔍 ✖ |

1. Depending on whether you're searching for a maintenance window or an entity for which a maintenance window has been created, select **Maintenance Window** or **Entity** in the drop-down list.

2. If you've selected **Maintenance Window** in the previous step, then enter the name of the maintenance window in the **Search** field and click **Search** (🔍). If you've selected **Entity** in the previous step, then select the entity in the **Select Entities** dialog box and click **Select**.

The relevant results are displayed.

4
Use Data Explorer

On the Data Explorer page in Oracle Management Cloud, you can explore operational data to find the information specific to your needs and analyze the data by various dimensions.

Data Explorer enables you to:

- **Perform ad hoc analysis:** You can use the attributes in Data Explorer to filter real-time and historical data by entities and other attributes and view specific information.

  You can perform:

  - Asset analysis, for example, you can analyze the breakdown of Oracle databases by version.

  - Performance analysis (trends, baselining, and correlation), for example, you can find out the average page response time for your application in the last 60 minutes.

  - Resource analysis (forecasting), for example, you can view the file system usage in the last one month.

  - Custom metrics, for example, you can find out if there is a correlation between the number of orders and the errors in your application.

- **Use it as a diagnostics tool:** You can use Data Explorer to isolate issues and analyze and correlate the cause and impact.

- **Create widgets and dashboards:** Data Explorer enables you to save the analyses and customized metric data visualizations that you've created and display them in widgets. These widgets can then be used to create dashboards.

Topics:

- [Access Data Explorer](#)
- [Filter, Visualize, and Analyze Data Using Data Explorer](#)
- [Save Your Analysis in a Widget](#)

Access Data Explorer

To access Data Explorer, select **Data Explorer** on the **Explorers** tile on the Oracle Management Cloud home page or click **Data Explorer** in the Management Cloud navigation menu.

Filter, Visualize, and Analyze Data Using Data Explorer

On the Data Explorer page, you can filter and search for the metrics you want to display, select your visualization options, and analyze your data.

The **Data** palette on the Data Explorer page lists entity and other attributes. The **Visualize** column provides the tools required to visually represent the data, making it easier to process. You can use the **Attribute Filter** to filter your data. For example, you can select an Entity Type and an attribute such as Entity Status or Open Alerts to display related data. You can

also click **Expression** to the right of the Attribute Filter to switch to expression-based filtering, which supports Entity Type, Entity Status, and Tags.

Using the options available in these three major components on the Data Explorer page, you can display advanced analytics, such as trend and forecast, correlation, and categorical analysis.

In the following example, the average CPU utilization metric of all the entities of the Relational Database entity type for a period of 7 days is displayed in a Line chart.
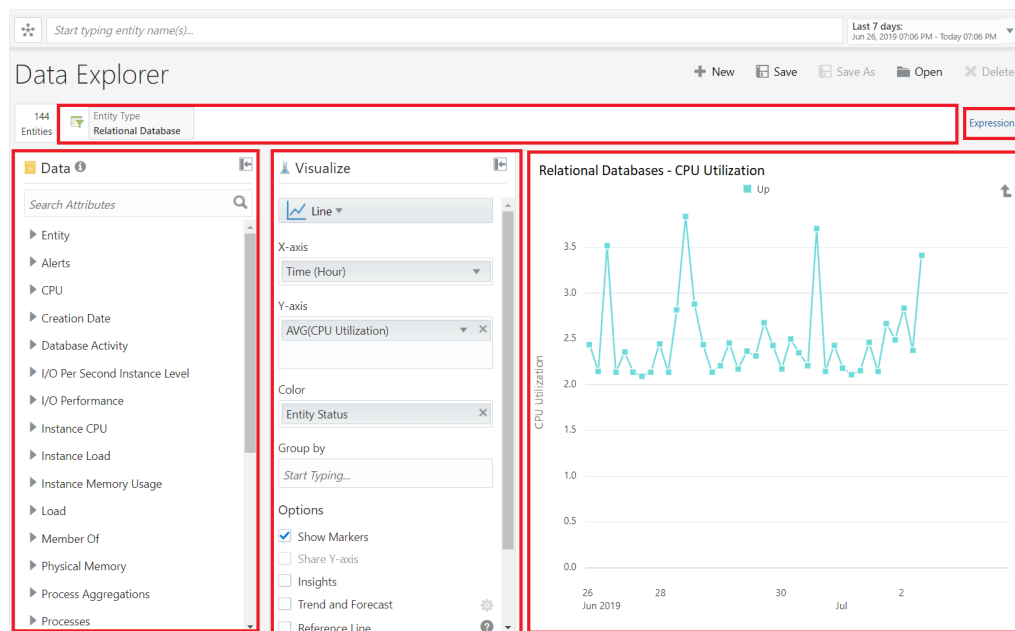
Here are a few more examples of what you can use Data Explorer for:

- View the trend of CPU and memory usage for your database entities (such as Oracle Database, MySQL) for the past 13 months, and forecast the values for the next three months, to detect seasonal trends.

- Identify all entities with a CPU usage of more than 50% that are running on a specific software version.

- View top five hosts with the highest memory utilization.

Data Explorer Visualization Options

The visualization options in Data Explorer, such as Line and Donut charts, enable quick and easy interpretation of data.
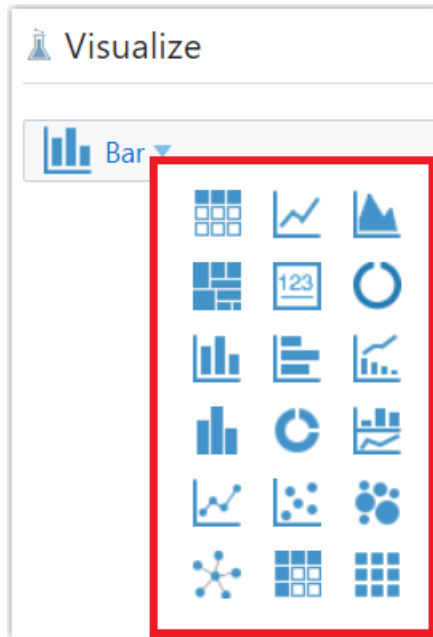
Here's the list of visualization options available to you:

Visualization Option	Description	An example of what you can do...
Analytics Line	View the data as a line, with points marked out for analysis. Specific attributes are measured along the x and y axes, and a third attribute determines the color of the line.	You can use this visualization option along with the **Insights** and **Trend and Forecast** analysis options to display the CPU utilization forecast for an entity type.
Area	View the data as a filled-in area. Specific attributes are measured along the x and y axes. Data can be grouped according to a third attribute.	You can use this visualization option to display the performance of a docker container over time, where performance data is categorized by different parameters such as Network I/O Rate.
Bar	View the data as a bar chart. Specific attributes are measured along the x and y axes, and a third attribute determines the color of the bars.	You can use this visualization option to display open alerts by severity.
Card	View the data pertaining to entities in cards, with each card displaying an entity and its critical metrics.	You can use this visualization option to display the critical metrics of all the entities of an entity type in cards. You can use the **Sort By** option to sort the entity cards by one of the attributes selected in the **Values** field or the Entity Status attribute.
Cluster	View data as a cluster chart, where information is clustered by a specific attribute. Use this option for identifying anomalies.	You can use this visualization option to display entities of an entity type that are clustered by their memory utilization. These entities are clustered and placed in a quadrant based on the usage and variance of the selected metric.

Visualization Option	Description	An example of what you can do...
Correlation	View specific attributes as correlated data, with a specific attribute measured along the y axis. Time is measured along the x axis, based on the total time period selected using the global time selector.	You can use this visualization option to display the correlation between the behaviors of different attributes such as SQL service response time and average executions in a database, over a given period of time.
Data Grid	View data in the form of a grid. You can specify which columns are to be displayed.	You can use this visualization option to display long active concurrent requests, wherein all the requests that have not been serviced and the corresponding details are listed.
Donut	View the breakdown of an attribute in a donut chart.	You can use this visualization option to display the number of entities by breakdown of availability status.
Gauge	View a specific attribute in a circular or vertical gauge chart.	You can use this visualization option to display the error percentage, for example the average AJAX error percentage in your application.
Histogram	View the data as a histogram with a selected attribute measured along the x axis. The data can be grouped according to a third attribute.	You can use this visualization option along with the **Insights** analysis option to display the memory utilization of the entities of an entity type and an insight into the number of entities that have high memory utilization.
Horizontal Bar	View the data as a horizontal bar chart.	You can use this visualization option along with the **Top/Bottom N** analysis option to display the top three host entities in terms of memory utilization.
Label	View a specific attribute as a label for your filtered entities.	You can use this visualization option to display business metrics.
Line	View the data as a line, with time displayed along the x axis and specific attributes measured along the y axis. A third attribute can be used to determine the color of the line, while data can also be grouped according to a fourth attribute. Use this option for the following analytics tasks: • Trending and forecasting • Baselining • Identifying the top or bottom X entities by attribute	You can use this visualization option to monitor the page response time of the web pages in your application. You can display the maximum response time of all the pages at different times of the day, to determine what could be causing a delay, and address it.
Pareto Chart	View data as a bar chart where the values are arranged in descending order and the line represents the cumulative value percentage. You can choose which attributes are measured along the x and y axes.	You can use this visualization option to display the network read rate of all the entities of an entity type. The bars in the Pareto chart represent individual values in descending order and the line represents the cumulative total.

Visualization Option	Description	An example of what you can do...
Scatter Chart	View data as a scatter chart with specific attributes measured along the x and y axes.	You can use this visualization option to display values for typically two variables for a set of data, for example CPU and memory consumption, of all the entities of an entity type.
Table	View the data as a table, with columns for each of the specified attributes. You can also choose to group the data by an attribute.	You can use this visualization option to categorize information in a tabular format. For example, you can display WebLogic servers by alerts in a table with entity name, WebLogic domain name, open alerts, and entity status columns.
Topology	View data as a topology chart. **Note:** This visualization option will be deprecated in a future release and it's recommended that you use the **Topology** option in the Global Context instead.	You can use the **Topology** option in the Global Context for a complete and interactive overview of all the entities of an entity type or in an application, and their relationships. You can also use the options in the **Topology** pane to view the status of entities, alert count, and so on.
Treemap	View the data as a map, showing the entities as cells, where the color of the cells is determined by a specific attribute and the size of the cells is determined by another attribute.	You can use this visualization option to display storage allocation of all the entities of an entity type, where the color of each cell denotes file system usage and the size denotes file system size. In addition, you can use the **Group by** option to categorize the information based on the Cloud provider.

Save Your Analysis in a Widget

When you create an analysis (by filtering data and selecting necessary visualization options) that you want to retain or want to share with others, then you can save it as a widget. Widgets can be used later to create dashboards.

When you save your analysis in a widget, you're saving:

- **Filters:** These are specific values or ranges for values that you select for attributes. Based on the values that you select, data is filtered out from the search results, for example, a specific entity type or entity name.

- **Visualization options:** This is the way to portray your data, for example, histogram, or treemap.

- **Analysis:** This is the mode of analysis that you select, for example, trending and forecasting.

You can create custom widgets in Data Explorer to meet your specific requirements or you can use the out-of-the-box widgets provided on the Data Explorer page. To view and use the out-of-the-box widgets, click **Open** on the Data Explorer page. In the list of available widgets, the widgets which have "Created by: ORACLE" under the description are the out-of-the-box widgets.

Example Scenario: Create a Widget in Data Explorer

Here's an example of a user scenario in which you're a DevOps engineer and you want to create a widget that displays the availability status of entities within an entity type.

1. Select **Data Explorer** in the Management Cloud navigation menu.

2. Click **New** on the Data Explorer page.

3. In the **Visualize** column, select the **Donut** chart to display the availability status of the entities.

4. In the **Attribute Filter**, enter and select the entity type whose status you want to display.
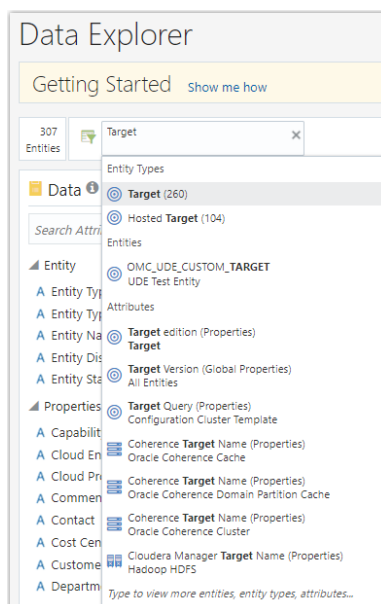
5. Enter and select **Entity Name** in the **Value** field in the **Visualize** column.

6. Enter and select **Entity Status** in the **Color** field in the **Visualize** column.

   You can also filter the entity statuses and only display those you're interested in, for example, the entities whose status is Up, Down, or Other. To do so, enter **Entity Status** in the **Attribute Filter** and select **Up**, **Down**, or **Other**, as required. The donut chart of all the entities within the selected entity type and status is displayed.
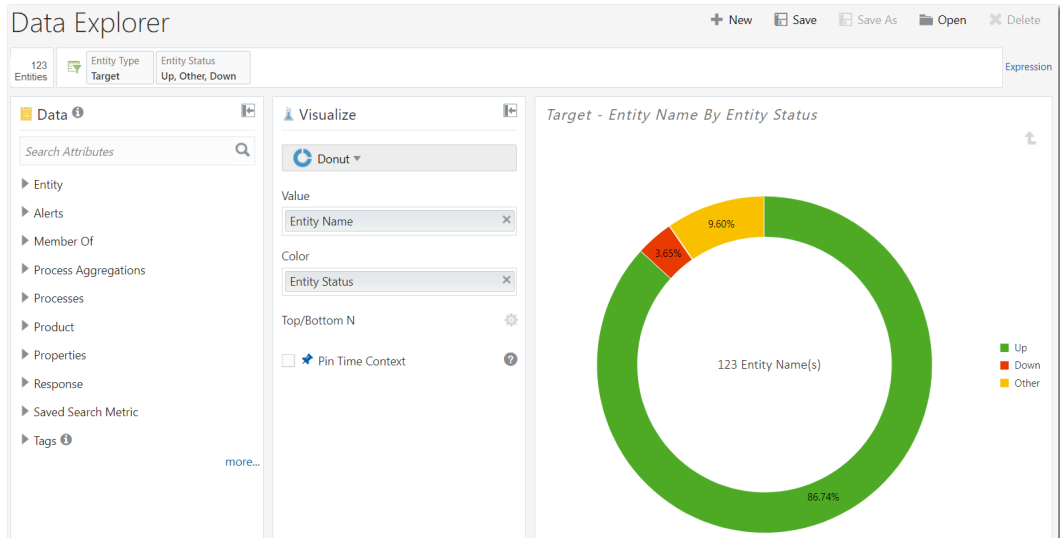
7. Click **Save** on the Data Explorer page, enter a name in the **Save Widget** dialog box, and then click **OK**.

5

Work with Dashboards

A **dashboard** is a collection of widgets on a single page, which provides quick access to multiple data analyses. You can access the Dashboards page by clicking the **Dashboards** tile on the Oracle Management Cloud home page or in the Management Cloud navigation menu.

Dashboards provide a quick insight into the health and performance of your IT infrastructure and applications and help identify outliers and take corrective action. With either the OMC Administrator or User role, you can create custom dashboards and use them to save and access the information specific to your needs, analyze the data by various dimensions, and share the dashboard with other users. For example, you can create an Application Dashboard, which will enable you to gather data from all tiers of an application and view information such as infrastructure metrics, log data, and business metrics on a single page.

Other than creating custom dashboards, you can also use the out-of-the-box dashboards provided on the Dashboards page. To view and use out-of-the-box dashboards, click the **Filter by** field on the Dashboards page and select **Oracle** from the drop-down list.

You can use dashboards to gather and view different types of data from various sources. You can use the following types of widgets to build a dashboard:

- Data Explorer widgets, which you can create on the Data Explorer page or you can use the out-of-the-box widgets provided on the Data Explorer page.

- Log Explorer widgets, which you can create on the Log Explorer page or you can use the out-of-the-box widgets provided on the Log Explorer page. You can use these widgets only if you've subscribed to Oracle Log Analytics. For information on Oracle Log Analytics out-of-the-box widgets, see Use Out-of-the-Box Widgets in *Using Oracle Log Analytics*.

- Text/HTML widgets, which you can add to customize your dashboard by adding text or HTML codes. You can add these widgets to the dashboard on the Dashboards page.

The following are the different types of dashboards:

- **Analytics Dashboards:** You can search and explore real-time and historical IT operational data and build these dashboards to view and analyze information. These dashboards are especially useful if you're troubleshooting an issue, for example, if you want to view the attributes specific to an entity that's experiencing frequent unplanned downtime. You can also conduct a time-series analysis and view the trend of resource utilization of your database and middleware entities, identify the top database and middleware entities by a specific attribute, and so on.

  The following is an example of an analytics dashboard, with data collected over a period of 30 days:
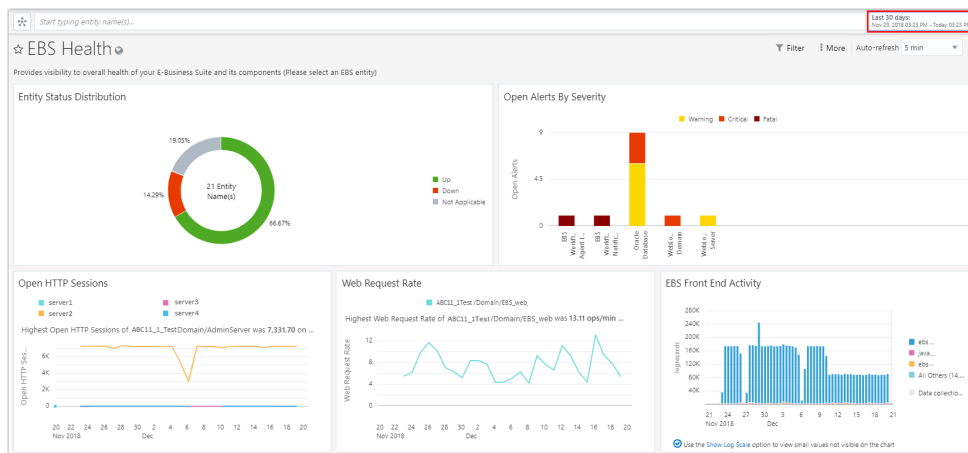
- **Monitoring Dashboards:** You can explore real-time data and build these dashboards to monitor the health and performance of your infrastructure or application. To build a monitoring dashboard, you can use Data Explorer to build widgets with Oracle Application Performance Monitoring summary metrics or the metrics collected by Oracle Infrastructure Monitoring. You can also add log widgets created using Log Explorer. For example, you can build a dashboard to view the status of your managed entities, number of open alerts, log trends of all entities in your application, and so on. You can also monitor by exception and create scatter charts to show performance and resource outliers or correlate performance and load metrics.

  The following is an example of a monitoring dashboard:
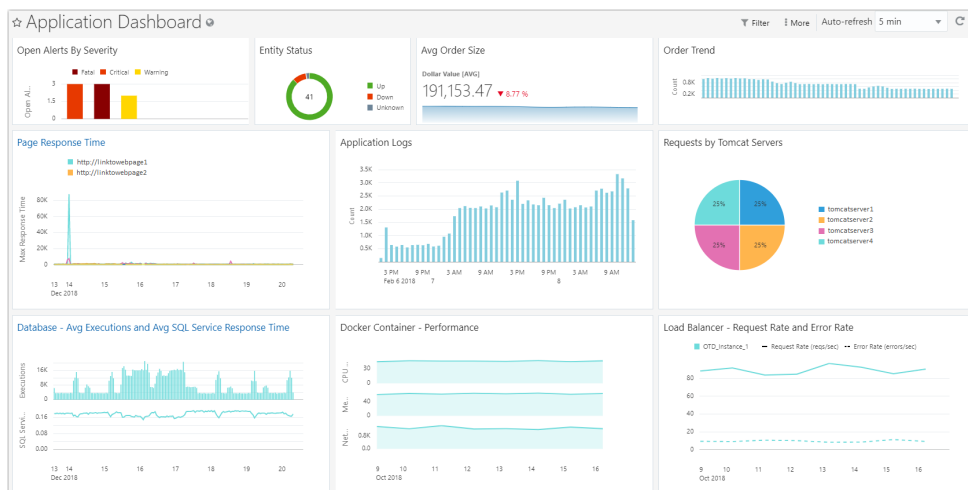
- **Executive Dashboards:** You can create these dashboards to provide high-level infrastructure or business information to senior executives in your organization.

  The following is an example of an executive dashboard:
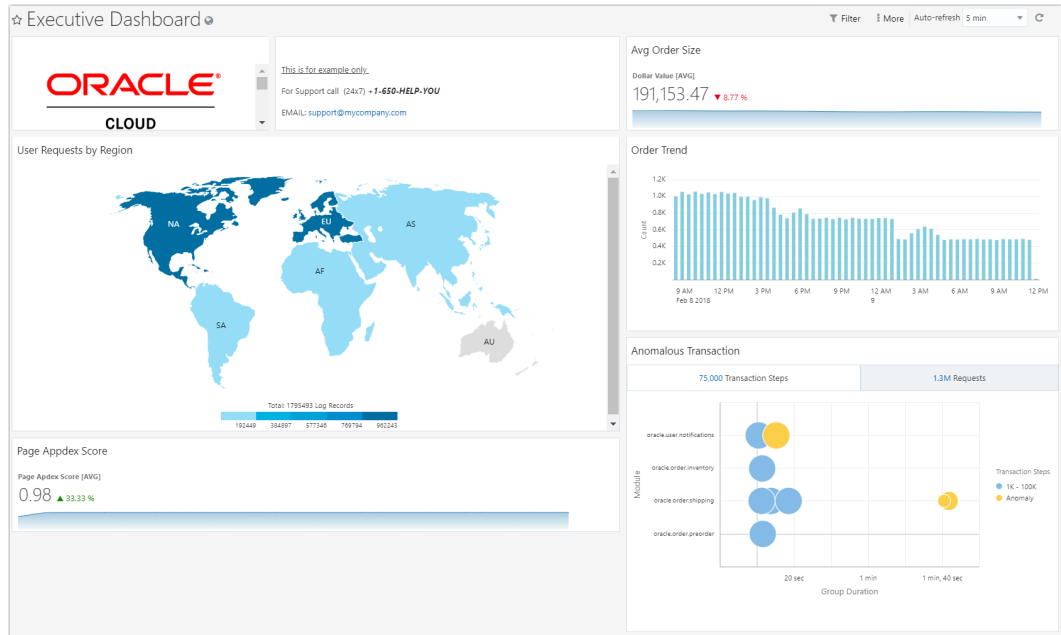
- **Reporting Dashboards:** You can create daily, weekly, and monthly reports on these dashboards and share them with various stakeholders.

  The following is an example of a reporting dashboard:
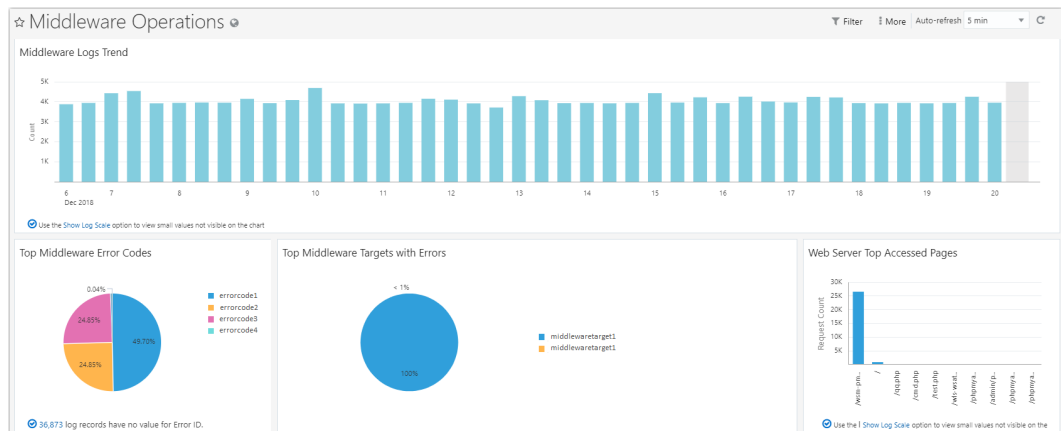
Topics:

- [Create Custom Dashboards](#)
- [Create Dashboard Sets](#)
- [Set Global Context for a Dashboard](#)
- [Set Global Context for a Dashboard Set](#)

Create Custom Dashboards

You can create custom dashboards on the **Dashboards** page by adding out-of-the-box widgets or the custom widgets you've created. You can also create a duplicate of one of the available dashboards and customize it to meet your requirements.

1. Select **Dashboards** in the Management Cloud navigation menu.

2. On the Dashboards page, click **Create**.

3. In the **Create Dashboard** dialog box, select **Dashboard (a single dashboard)**.

4. Specify the name of the dashboard and optionally, a description, and click **Create**.

5. On the new dashboard page, click **Edit** to add widgets.

   The **Add Widget** pane is displayed.

6. Click a widget in the **Add Widget** pane to add it to the dashboard.

   After you've added a widget, you can click the **Content Settings** (⋮) icon on the widget to perform various actions such as altering the size or placement of the widget, hiding or adding the title, linking the title of the widget to an Oracle Management Cloud page or dashboard, and removing the widget.

7. Optionally, you can click **Text/HTML Widget** at the bottom of the **Add Widget** pane to customize your dashboard by adding a text widget with a header, your company logo, or an HTML or email link.

8. Click **Done Editing** to save the new dashboard.

   After you click **Done Editing**, the dashboard is in View mode. At a later time, if you want to make changes to the contents of your dashboard, click **Edit** to go to the Edit mode.

After you've created a dashboard, you can use the following options on the Dashboards page to perform other tasks:

- Click the **Open in Data Explorer** (⬈) icon on a widget to open the widget in Data Explorer and make changes. If you want to make changes to a widget created by another user or to an out-of-the-box widget, you can click the **Save As** option in Data Explorer to create a copy of the widget and make changes to meet your requirements. Note that the copy of the widget isn't automatically added to the dashboard and you'll have to edit the dashboard and add it.

- Click the **Favorite the dashboard** (☆) icon next to the title of the dashboard. The dashboard is then displayed in the Dashboards menu and is easier to access.

- Click **Filter** to enable expression-based filtering by Entity Type, Entity Status, and Tags.

- Click the **Auto-refresh** drop-down list to set a time for auto-refresh or disable it.

- Click **More** to print the dashboard, set the dashboard as your home page, share the dashboard with other users, duplicate the dashboard, set global entity and time selector options, and delete the dashboard.

  Dashboard Collaboration Options

  As mentioned above, after creating a dashboard, you can click **More** > **Share with Others (view-only)** > **On** to allow all the users in the same tenant to view your

dashboard. In addition, you can use REST API to perform advanced dashboard collaboration tasks such as sharing your dashboard with selected users in the same tenant and allowing them to edit the dashboard. For information on REST API for dashboard collaboration, see Working with Dashboards in *Oracle Management Cloud Common REST API*.

Note that if you have the OMC Administrator role, you can view and edit dashboards created by other users in the same tenant.

Create Dashboard Sets

On the **Dashboards** page, you can also create a Dashboard Set, which includes multiple logically related dashboards.

Dashboard sets provide neatly categorized data with each dashboard displayed in a tab. This ensures that related information is available on one page and a dashboard set is easy to navigate through. For example, an application administrator can create a dashboard set, which includes a dashboard that provides details regarding the application's performance metrics, another dashboard for end-user performance metrics, and a third dashboard for underlying infrastructure metrics. Each of these dashboards can be accessed easily using the tabs in the dashboard set and the application administrator can obtain all the application-related information, which is categorized by tier, on one page.

The following is an example of a dashboard set with two dashboards.
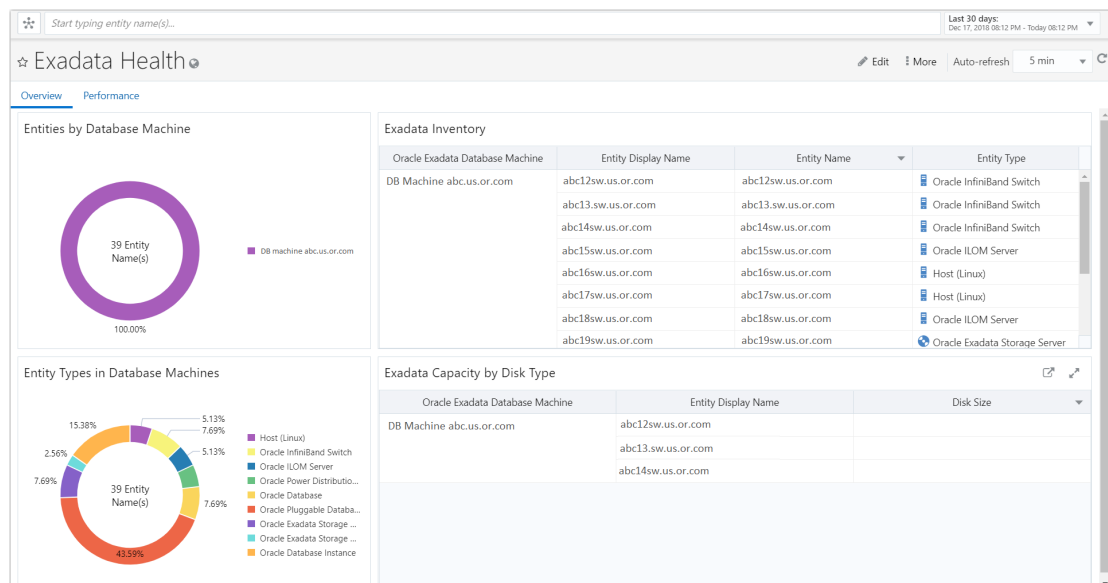
To create a dashboard set:

1. Navigate to the Dashboards page and click **Create**.

2. In the **Create Dashboard** dialog box, select **Dashboard Set (multiple dashboards on tabs)**.

3. Specify the name of the dashboard and optionally, a description, and click **Create**.

4. On the new dashboard set page, you can:

   • Click one of the dashboards displayed on the page to add it to the dashboard set.

- Click **Create** to create a custom dashboard and add it to the dashboard set.

5. Click **Add dashboard** to the left of the previously added dashboard to add another dashboard.

6. Click **Done Editing** to save the new dashboard set.

   After you click **Done Editing**, the dashboard set is in View mode. At a later time, if you want to make changes to the contents of your dashboard set, click **Edit** to go to the Edit mode.

As in the case of dashboards, after you've created the dashboard set, the **Favorite the dashboard** and the **Auto-refresh** options are available.

You can also click **More** to print the dashboard set, set the dashboard set as your home page, share the dashboard set with other users, duplicate the dashboard set, change global entity and time selector options, and delete the dashboard set.

Set Global Context for a Dashboard

You can view the information displayed on a dashboard within a global entity or time context.

Set Global Entity Context

The **Global Entity Selector** allows you to view the information displayed on the dashboard within a selected entity context.

When you navigate to a dashboard for the first time, it's likely that the information in the dashboard is within a previously selected context.

You can select an entity or composite entity in the Global Entity Selector to filter and display the information related to the selected entity, or change a previously selected entity. When you select an entity in the Global Entity Selector, the information displayed remains within the context of the selected entity even when you navigate away from the dashboard to other dashboards or Oracle Management Cloud pages. You can opt to disable the context of the selected entity by clicking **More** on the dashboard and selecting **Entity Selector** > **Off (Use entities defined in widget)**.

> **Note:**
>
> The **On (Local - not share between pages)** option is currently disabled and will be removed from the **Entity Selector** options in a future release.

If you're the author of a dashboard, you can select an entity context and share the dashboard with other users by clicking **More** > **Share with Others (view-only)**. The other users will then view the dashboard within the context you've set, if they don't have a previously selected entity context when they open the dashboard.

Set Global Time Context

The **Global Time Selector** allows you to view the information displayed on all the dashboards within a selected time context. To set a time context and view the information within a specific time frame, click the **Global Time Selector** drop-down list and select a time frame.

When you select a time frame, the information remains within the context of the selected time frame even when you navigate away from the dashboard to other dashboards or Oracle Management Cloud pages. You can opt to disable the context of the selected time frame by clicking **More** on the dashboard and selecting **Time Selector** > **Off (Use time range defined in widget)**.

> 📝 **Note:**
>
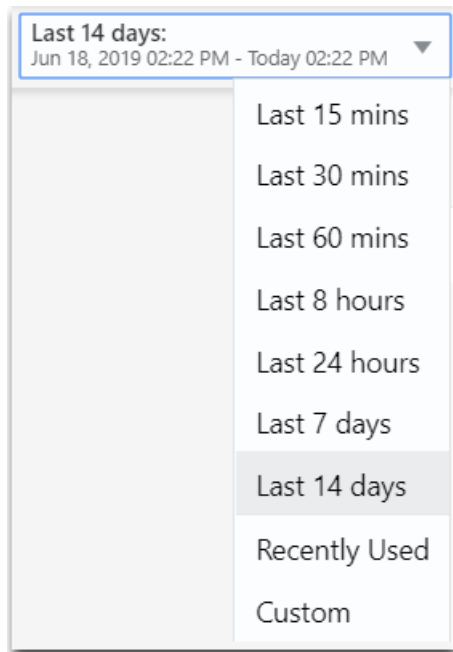> The **On (Local - not share between pages)** option is currently disabled and will be removed from the **Time Selector** options in a future release.

Set Global Context for a Dashboard Set

As in the case of dashboards, you can view the information displayed in a dashboard set within a global entity or time context.

The **Global Entity Selector** allows you to view the information displayed on all the dashboards in a dashboard set within a selected entity context.

If you navigate to a dashboard set for the first time, it's likely that the information in the dashboard set is within a previously selected context. You can select an entity or composite entity in the Global Entity Selector to filter and display the information related to the selected entity, or change a previously selected entity. If you're the author of a dashboard set, you can

select an entity context and share the dashboard set with other users. The other users will then view the dashboard set within the context you've set, if they don't have a previously selected entity context when they open the dashboard set.

The **Global Time Selector** allows you to view the information displayed on all the dashboards in a dashboard set within a selected time context.

You can opt to disable the global entity and time context by clicking **More** in the dashboard set and selecting **Global Entity & Time Selector** > **Off**.

A

omcli Command Options

omcli commands let you work with Oracle Management Cloud agents and entities.

Accessing omcli

omcli comes bundled with a deployment of Oracle Management Cloud. You can access omcli from the `<AGENT_BASE_DIR>`/agent_inst/bin folder.

omcli Commands

Command	Usage
start	omcli start agent Starts the Oracle Management Cloud agents on the host.
stop	omcli stop agent Stops the Oracle Management Cloud agents running on the host.
status	omcli status agent Retrieves the status of the Oracle Management Cloud agents running on the host.
setproperty	omcli setproperty agent [-allow_new] -name *PROPERTY_NAME* -value *PROPERTY_VALUE* Sets the specified property name and value in the agent configuration file. -allow_new is an optional parameter that inserts a new property in the agent configuration file if the property doesn't exist. -allow_new must be the first option to be provided to the command.
getproperty	omcli getproperty agent -name *NAME_1* [... *NAME_N*] | -category *NAME_1* Gets the specified properties or a category of properties from the agent configuration files. -name accepts a list of property names separated by spaces. However, you can't have spaces in the property names.
dumpstate	omcli dumpstate agent [-dump_full_state] [*COMPONENTNAME ...*] Dumps the internal state of the specified list of components.
clear_property	omcli clear_property agent -name *PROPERTY_NAME* Clears the value for the specified property in the agent configuration file.
status	omcli status agent [*TIMEOUT*] Returns the status of the agent. *TIMEOUT* is the timeout value in seconds.
reload	omcli reload agent Reloads the configuration properties of the agent.

Command	Usage
upgrade	`omcli upgrade agent` Requests an upgrade of the agent to the latest available version. The request will be accepted only if the agent is eligible for an upgrade. Once the request is accepted, the agent will be upgraded as soon as possible.
getversion	`omcli getversion agent` Prints the version of the agent.
status agent scheduler	`omcli status agent scheduler [-summary]` Displays the status of the agent scheduler. The `status agent scheduler` command lists the tasks that are periodically scheduled by the agent. It includes collection items and internal tasks.
status agent connectivity	`omcli status agent connectivity [-verbose]` Displays current connectivity issues the agent is suffering. Also, it indicates whether the agent is running or not. If the agent is not running, it displays connectivity issues experienced at the time of the shutdown.
config agent getTZ	`omcli config agent getTZ` Gets the system time zone from the environment.
config agent listtargets	`omcli config agent listtargets` Lists the entities that were registered with the agent.

Command	Usage
add_entity	`omcli add_entity agent FILENAME [-credential_file CREDENTIAL_FILE [-encryption_method_gpg]] [-tag_all] [-no_check] [-force]`

Adds the defined entity to Oracle Management Cloud.

- *FILENAME* is the name of the file that contains the entity definition to be added. This file cannot contain any credentials.
- *CREDENTIAL_FILE* is an optional parameter and is required only if you need to add entities with credentials.

A credential file follows this format:

```
{"credentials": [
                {"id":"id1", "name":"credName1",
"credType":"type1",
                    "properties":[{"name":"prop1",
"value":"CLEAR[value1]"},
                                {"name":"prop2",
"value":"FILE[/tmp/filename]"}]
                }
                ]
}
```

This sample format includes:
- A credential with an ID (`id1`). This credential must match the credential reference in the entity definition and must be unique.
- A name (`CredName1`) that you specify to distinguish your credentials.
- A credential type, from a predefined set of known types (for example, `DBCreds` for databases).
- A property name (`prop1`) whose value (`value1`) is specified in clear text.
- A property (`prop2`) whose value is the contents of the file `/tmp/filename`.

- `-encryption_method_gpg` is an optional parameter. If specified, this option indicates that the file is encrypted using `gpg` symmetric encryption.
- `-tag_all` is an optional parameter. If specified, the tags in the definition are applied to all the sub-entities as well. The default behavior is that the tags only apply to the entity.
- `-no_check` is an optional parameter. If specified, the credential password is *not* checked before updating. The default behavior is that the credential password is checked.
- `-force` is an optional parameter. If specified, all validation errors are ignored.

Command	Usage

update_entity	`omcli update_entity agent FILENAME [-credential_file CREDENTIAL_FILE [-encryption_method_gpg]] [-tag_all] [-no_check] [-force]`
	
	Updates an existing entity.
	
	• *FILENAME* is the name of the file that contains the entity definition to be updated. This file cannot contain any credentials.
	• *CREDENTIAL_FILE* is an optional parameter and is required only if you need to add entities with credentials.
	
	A credentials file follows this format:
	
	``
	{"credentials": [
	                {"id":"id1", "name":"credName1",
	"credType":"type1",
	                                "properties":
	[{"name":"prop1", "value":"CLEAR[value1]"},
	
	{"name":"prop2", "value":"FILE[/tmp/filename]"}]
	                }
	                ]
	}
	``
	
	This sample format includes:
	– A credential with an ID (`id1`). This credential must match the credential reference in the entity definition and must be unique.
	– A name (`CredName1`) that you specify to distinguish your credentials.
	– A credential type, from a predefined set of known types (for example, `DBCreds` for databases).
	– A property, (`prop1`), whose value, (`value1`), is specified in clear text.
	– A property, (`prop2`), whose value is the contents of the file `/tmp/filename`.
	• `-encryption_method_gpg` is an optional parameter. If specified, this option indicates that the file is encrypted using `gpg` symmetric encryption.
	• `-tag_all` is an optional parameter. If specified, the tags in the definition are applied to all the sub-entities as well. The default behavior is that the tags only apply to the entity.
	• `-no_check` is an optional parameter. If specified, the credential password is *not* checked before updating. The default behavior is that the credential password is checked.
	• `-force` is an optional parameter. If specified, all validation errors are ignored.

delete_entity	`omcli delete_entity agent FILENAME` Deletes an existing entity. *FILENAME* is the name of the file that contains the entity definition to be deleted.

Command	Usage
refresh_entity	`omcli refresh_entity agent` *FILENAME* `[-preserve]` Refreshes an existing entity, such as a WebLogic Domain, to ensure that Oracle Management Cloud is synchronized with the changes made to the entity. For example, if WebLogic Servers are added to or removed from the WebLogic Domain, then this command ensures that the changes reflect in Oracle Management Cloud as well. • *FILENAME* is the name of the file that contains the entity definition to be refreshed. • `[-preserve]` is an optional parameter. If specified, deleted entities are preserved and continue to exist in Oracle Management Cloud.
status_entity	`omcli status_entity agent FILENAME [-long] [-verbose]` Verifies and displays the status of the entity. • *FILENAME* is the name of the file that contains the entity definition whose status must be verified. The format of this file is the same as in the file used for the add or update entity operation. • `-long` is an optional parameter. If specified, the status of the entity is extracted from Oracle Management Cloud as well. • `-verbose` is an optional parameter. If specified, detailed messages for entity operations are extracted.
add_credential_store	`omcli add_credential_store agent [ wallet-file ] [ -no_password ]` Configures the agent to use a wallet-based credential store. The wallet can be pre-existing. The wallet can be found in the location identified by `wallet-file`; if no `wallet-file` is specified, then the wallet is created in `$EMSTATE/sysman/config/creds/`. If `-no_password` is specified, then an SSO wallet (protected only by file permissions) will be created and used. If the `-no_password` token is omitted, then you are prompted for a password to use in the wallet. **Note:** To add a credential store to an agent, stop the agent, add the credential store, then restart the agent.

Command	Usage
add_credentials	omcli add_credentials agent -credential_file CREDENTIALS_FILE [-encryption_method_gpg] [-allow_entityless]
	Adds a file full of credentials to the agent. Credentials listed in CREDENTIALS_FILE are of the following form:
	{ "entity":"lama.abc.example.com:1899", "name":"lama.abc.example.com:1899-HostSSHPwdCreds", "type":"HostSSHPwdCreds", "globalName":"AgentUserCredential", "description":"SSH Credential for the agent user", "properties":[{ "name":"USERNAME", "value":"<username>" }, { "name":"PASSWORD", "value":"<password>" }] }
	If -encryption_method_gpg is specified, then the credentials file is encrypted using symmetric gpg, and a passphrase may be needed. If -allow_entityless is specified, then the agent will not produce an error about credentials that are missing the entity field. However, a global name should be supplied if an entity isn't.
list_credentials	omcli list_credentials agent [TARGETNAME:TARGETTYPE	-global] [-usage USAGE]
	Lists the non-sensitive credential attributes for specified credentials.
	If an entity is specified, then only the credential definitions relative to the entity are listed. If -global is specified, then only the credential definitions with global names are listed. If neither is specified, then all credentials are listed. If -usage is specified, then only the credentials that may be used for that usage are listed. When supplied, USAGE can have one of the following values: • ORCHESTRATION • MONITORING • INTERNAL
disable_credential	omcli disable_credential agent CREDENTIAL_NAME [TARGETNAME:TARGETTYPE	-global]
	Disables the specified credential.
	If -global is provided, then only the credentials with the CREDENTIAL_NAME global name are disabled. If CREDENTIAL_NAME TARGETNAME:TARGETTYPE is specified, then only the credentials with the CREDENTIALS_NAME local name are disabled within the entity's scope.
enable_credential	omcli enable_credential agent CREDENTIAL_NAME [TARGETNAME:TARGETTYPE	-global]
	Enables the specified credential.
	If -global is provided, then only the credentials with the CREDENTIAL_NAME global name are enabled. If CREDENTIAL_NAME TARGETNAME:TARGETTYPE is specified, then only the credentials with the CREDENTIAL_NAME local name are enabled within the entity's scope.

Command	Usage
`remove_credential`	`omcli remove_credential agent CREDENTIAL_NAME [TARGETNAME:TARGETTYPE	-global]`  Removes the specified credential.  If `-global` is provided, then only the credential with the `CREDENTIAL_NAME` global name is removed.  If `CREDENTIAL_NAME TARGETNAME:TARGETTYPE` is specified, then the credential with name `CREDENTIAL_NAME` on the specified `TARGETNAME` (entity name) is removed.
`set_credential_alias`	`omcli set_credential_alias agent ALIAS_NAME TARGETNAME:TARGETTYPE CREDENTIAL_NAME [TARGETNAME:TARGETTYPE	-global]`  Sets the credential alias `ALIAS_NAME` to refer to credential `CREDENTIAL_NAME` within the entity.  If `-global` is provided, then the `ALIAS_NAME` credential alias will be created referring to the credential with global name `CREDENTIAL_NAME`.
`remove_credential_alias`	`omcli remove_credential_alias agent ALIAS_NAME TARGETNAME:TARGETTYPE` Removes the specified credential alias within the scope of the entity.
`generate_support_bundle`	`omcli generate_support_bundle agent DIRECTORY` Generates a specific set of logs and configuration information that can be used to diagnose problems with the agent. `DIRECTORY` specifies the directory in which the archive bundle will be generated.
`secure`	`omcli secure agent` Secures communication for the agent.
`secure add_trust_cert_to_jks`	`omcli secure add_trust_cert_to_jks [-password <password> -trust_certs_loc <loc> -alias <alias>]` Allows to add/import additional certificates to the agent's monitoring truststore for secure communication between the agent and its monitored entities. The location of the agent's monitoring truststore is: `<AGENT_BASE_DIR>/agent_inst/sysman/config/montrust/AgentTrust.jks` • If `-password` is specified, `<password>` is the password to `AgentTrust.jks` agent truststore. • If `-trust_certs_loc` is specified, `<loc>` is the location of the trust certificate file to import into the agent truststore. • If `-alias` is specified, `<alias>` is the alias for the certificate to import.

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Monitoring New Entity Types

Oracle Management Cloud (OMC) provides flexibility when monitoring new entity types. These types could be traditional on-premises entity types (e.g. PostgreSQL) or cloud-based services (e.g. Oracle Analytics Cloud).

On-premises Entity Types

- **Custom Scripts**: You can create custom scripts to collect metric data for an entity type, and then upload the metric data to Oracle Management Cloud using REST APIs. <link to both RAOMC and MOS note for REST API>. (Once the data is in OMC, you can use OMC's homepages and dashboards, and other monitoring features such as alerts and notifications.

- **collectd/Telegraf**: If an entity type can be monitored by collectd or Telegraf, then you can use OMC's integration with collectd/Telegraf to monitor the entities. See Expand Monitoring with collectd and Expand Monitoring with Telegraf for more information.

- **Logs**: Custom parser and Log sources can be created and associated with any entity, including the host entity if an agent can be deployed. If agents can't be deployed, you can use syslog or APIs to collect the logs. Once data is in OMC, use Log Analytics capabilities to analyze errors, create metrics, create alerts, etc.

Cloud-based Services

- There are different methods for monitoring new entity types which can be found in OMC documentation (shown below), however, there may be non-technical reasons for not supporting the monitoring of an entity type, such as licensing.

  Ensure you fully comply with other service agreements especially for stress, performance, or vulnerability monitoring of certain applications. For example, be sure to check your Oracle Cloud Services Agreement for the monitoring terms of Oracle Cloud Services.

- If the Cloud Service exposes REST APIs for its metric data, you can create custom scripts to query the data using their REST APIs, and then use OMC's REST APIs to upload to OMC. Once the data is in OMC, you can use OMC's homepages and dashboards, and other monitoring features such as alerts and notifications.

- Synthetics (see below)

- Options for collecting logs from Cloud Services:

  - If the Cloud Service has an endpoint to retrieve logs, you can then send these to OMC using the OMC APIs.

  - Some Cloud Services also have instrumentation to send logs to a syslog server, which can be used in conjunction with the OMC Syslog Listener on an agent to listen for logs.

  - Additionally, if the Cloud Service can send logs to Object Storage, OMC can pick up logs from there.

Checking for Entity Support

The following process should be followed to determine whether an entity type is supported by OMC.

1. Check the documentation for supported entities:

    • Oracle Application Performance Monitoring

    • Oracle Infrastructure Monitoring

    • Oracle Log Analytics

    • Oracle IT Analytics

2. Use Synthetic Monitoring to script or record user paths, and use this to simulate user transactions on the application. These paths can be continuously monitored through Application Performance Monitoring, and potential issues can be caught early, before the end-user experiences it. See Monitor Application Performance through Synthetic Tests.

3. If there is NO APM agent, see Entity Conversion Formulas.

4. Check the most recent MOS Notes.

    • Application Performance Monitoring 2092363.1

    • Monitoring 2195015.1

    • Log Analytics 2108591.1

    • IT Analytics 2107732.1