Oracle® Cloud

Administering Oracle Internet of Things Cloud Service

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Preface

Administering Oracle Internet of Things Cloud Service provides information and procedures for implementing Oracle Internet of Things Cloud Service. Oracle Internet of Things Cloud Service lets you connect, analyze, and integrate device data into you business processes and applications, enabling your business to deliver innovative new services faster and with less risk.

Topics:

- Audience
- Documentation Accessibility
- Diversity and Inclusion
- Related Documents
- Conventions

Audience

Administering Oracle Internet of Things Cloud Service is intended for system administrators who are responsible for implementing Oracle Internet of Things Cloud Service.

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.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure

continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Documents

For more information, see these Oracle resources:

- Oracle Cloud at http://cloud.oracle.com
- *Getting Started with Oracle Cloud*
- *Using Oracle Business Intelligence Cloud Service*
- *Getting Started with Oracle Stream Explorer*

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

Get Started with Oracle IoT Intelligent Applications Cloud

After you sign up for an Oracle Cloud Account and log in to the Service Management Console, you can start using your Oracle Cloud services.

For detailed information on getting started with Oracle Cloud, refer to Getting Started with Oracle Cloud.

This chapter covers the following topics:

- Order Oracle IoT Intelligent Applications Cloud
- Activate Your Order from Your Welcome Email
- Sign In to Oracle Cloud For the First Time
- Access Your Oracle IoT Intelligent Applications

Order Oracle IoT Intelligent Applications Cloud

You can order Oracle IoT Intelligent Applications Cloud by contacting Oracle Sales. After your order is processed, you can then activate your services.

To order a subscription to Oracle IoT Intelligent Applications:

1. Go to the Oracle Cloud website and browse the Oracle Cloud Applications.

   For example, select **Supply Chain Management** under **Applications**, and then select **Oracle IoT Intelligent Applications** under **Products**.

2. Review the features and capabilities of the service.

   The following IoT application are available:

   - *Oracle IoT Asset Monitoring Cloud Service*
   - *Oracle IoT Fleet Monitoring Cloud Service*
   - *Oracle IoT Production Monitoring Cloud Service*
   - *Oracle IoT Connected Worker Cloud Service*

3. When you're ready to order, select the **Pricing** tab.

   The website provides some basic pricing information.

4. Click **Contact or Call** or **Start Chat** to contact Oracle Sales.

Later, after you have worked with Oracle Sales to order the Oracle IoT Intelligent Application cloud, you will receive an email, which contains a link you can use to activate the service you've ordered.

Activate Your Order from Your Welcome Email

If you are a new Oracle Cloud Applications user, you'll likely receive a Welcome email after your order is processed.

When an Oracle Sales representative purchases Oracle Cloud services on your behalf, you'll receive a welcome email and you'll be designated as an activator of the services. To activate your services, you must provide your details and set up your account with us. Review the instructions in the email to create an account and start using your services.

1. Open the email you received from Oracle Cloud.

2. Review the information about your service in the email.

3. Click **Activate My Services**.

4. Fill out the form to sign up for your new Oracle Cloud Account.

   You will be asked to:

   - Create a new account name, which will be used to identify your Cloud Account.

   - Provide your email address if prompted. You must provide the same email address at which you received your welcome email. Instructions for logging in to your new Cloud Account will be sent to this address. You'll be prompted for the email ID only if you don't already have a Cloud Account.

   - Provide Cloud Account Administrator details. The person you specify here will be both a Cloud Account Administrator and a Service Administrator and can create other users as required. This person will manage and monitor services in the specified Cloud Account.

   - When you have entered all the required information, click **Create Account** to submit your request for an Oracle Cloud Account.

After successful provisioning and activation, you'll receive another email with your login credentials. Use this information to sign into your account and change your password on initial login.

Sign In to Oracle Cloud For the First Time

After you sign up for the free Oracle Cloud promotion or sign up for a paid account, you'll get a welcome email. The email provides you with your cloud account details and sign in credentials.

1. Open the welcome email and scroll down to the **Access Details** section.

2. Note the user name and password, and then click the application URL.

3. Enter the user name and temporary password from the welcome email, and then click **Sign In**. The temporary password is valid only for 60 days.

4. You'll be prompted to change your password the first time you sign in.

You're directed to the Service Management Console dashboard. You can customize the dashboard to view your services. See Discover Oracle Cloud Applications on Applications Console in the *Getting Started with Oracle Cloud* guide for more information.

Next: Complete all the tasks mentioned in the Service Administrator Action List. See https://download.oracle.com/tutorials/docs/Service-Administrator-Action-List.pdf.

Access Your Oracle IoT Intelligent Applications

Access your Oracle Internet of Things Intelligent Application from the Service Management Console dashboard.

As an administrator when you sign in to the Service Management Console, you are redirected to a single window to access all the Oracle IoT Applications.

1. Sign in to your Oracle Cloud URL.
2. From the Service Management Console dashboard, click the name of the Oracle Internet of Things Cloud Service application that you wish to access.
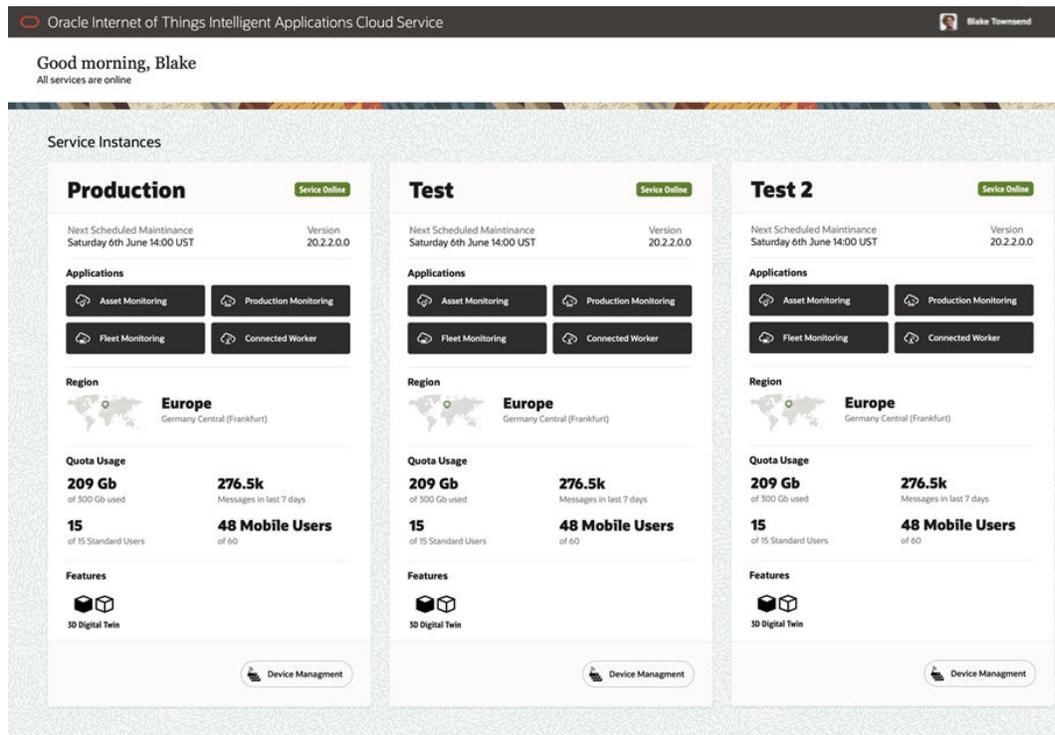
The following Oracle IoT applications are available:

- **Oracle Internet of Things (IoT) Asset Monitoring Cloud Service**

  The URL format used by this application is: *<iot instance name>.<domain name>*/**am**

  For example: https://myiotcs.mydomain.**oraclecloud.com/am** or https://myiotcs.mydomain.**oracleiotcloud.com/am**.

- **Oracle Internet of Things (IoT) Fleet Monitoring Cloud Service**

  The URL format used by this application is: *<iot instance name>.<domain name>*/**fm**

  For example: https://myiotcs.mydomain.**oraclecloud.com/fm** or https://myiotcs.mydomain.**oracleiotcloud.com/fm**.

- **Oracle Internet of Things (IoT) Production Monitoring Cloud Service**

The URL format used by this application is: *<iot instance name>.<domain name>*/**pm**

For example: `https://myiotcs.mydomain.`**`oraclecloud.com/pm`** or `https://myiotcs.mydomain.`**`oracleiotcloud.com/pm`**.

- **Oracle Internet of Things (IoT) Connected Worker Cloud Service**

    The URL format used by this application is: *<iot instance name>.<domain name>*/**cw**

    For example: `https://myiotcs.mydomain.`**`oraclecloud.com/cw`** or `https://myiotcs.mydomain.`**`oracleiotcloud.com/cw`**.

The URL format to access the IoT management console is: *<iot instance name>.<domain name>*/**ui**

For example: `https://myiotcs.mydomain.`**`oraclecloud.com/ui`** or `https://myiotcs.mydomain.`**`oracleiotcloud.com/ui`**.

About the Service Instances Dashboard:

- By default an administrator can view a **Production** instance and a **Test** instance. If a customer has purchased additional test instances, they are displayed on the service management console.

- The administrator can share the URL of the IoT Applications with the users, for them to access the instance.

- The **Scheduled Maintenance Window** area displays the next scheduled downtime for maintenance, which occurs once every quarter. Customers can raise a service request (SR) to provide their preferred month for upgrade. The test instances are upgraded on the first Friday and the production instance is upgraded on the third Friday of the specified month of a quarter.

- Currently Europe and North America are supported for **Region**, which is automatically determined from the order booked by the sales personnel.

- The **Quota Usage** is updated in real-time. Refresh the page to view the latest quota usage.

- The dashboard also displays the current version, the online/offline status, the 3D digital twin feature enabled if selected, and a link to the device management page for the instances.

2

Manage Users

Add user accounts to assign access privileges to your Oracle Internet of Things Cloud Service instance and reset the password. Edit, search or remove a user account as required.

Topics

- Supported Browsers and Languages
- Understand Oracle Internet of Things Cloud Service User Roles

Supported Browsers and Languages

Supported Browsers

Oracle Internet of Things Cloud Service supports the following web browsers:

- Google Chrome
- Microsoft Edge
- Mozilla Firefox
- Apple Safari

See Oracle Software Web Browser Support Policy for more information

Supported Languages

Besides English, Oracle Internet of Things Cloud Service supports the following languages:

- Arabic
- Chinese (Simplified)
- Chinese (Traditional)
- Dutch
- Finnish
- French
- German
- Hebrew
- Italian
- Japanese
- Korean
- Portuguese (Brazilian)
- Russian
- Spanish

- Swedish

- Thai

- Turkish

- Vietnamese

If you've set your system's or web browser's language to one from the previous list, you can view and use Oracle Internet of Things Cloud Service in the same language.

Understand Oracle Internet of Things Cloud Service User Roles

Access to Oracle Internet of Things Cloud Service functionality is determined by roles. To let users access specific functionality, assign the user to a role that allows access to this functionality. For example, a user cannot create device models unless they are assigned an Administrator (IoTAdministrator) role.

Oracle IoT Intelligent Applications Cloud includes global and application-specific roles. Global roles are common and apply across all your IoT applications, such as Asset Monitoring, Production Monitoring, Connected Worker, and Fleet Monitoring. Application specific roles are specific to a particular application. The Administrator (IoTAdministrator) role is automatically assigned to the user who created the Oracle Internet of Things Cloud Service instance. The other common roles such as Technician (IoTTechnician) is assigned to users after the Oracle Internet of Things Cloud Service instance is created and provides the user with technician privileges. The Viewer (IoTViewer) role is assigned to users after the Oracle Internet of Things Cloud Service instance is created and provides the user with viewer privileges. The Integrator (IoTIntegrator) role is assigned to users after the Oracle Internet of Things Cloud Service instance is created and provides the user with privileges to configure integrations with other Oracle applications or external applications.

Role Name	Description
Administrator (IoTAdministrator)	The administrator is responsible for the overall administration of the application. The Administrator role is a global superuser role applicable across the Oracle Internet of Things Cloud Service applications. The administrator can manage organizations and users.
Technician (IoTTechncian)	The Technician role is a global role applicable across Oracle Internet of Things Cloud Service applications. For each application, the technician is responsible for the on-boarding and management of entities. This includes creating entity instances and configuring device connections. The technician also performs troubleshooting, and has access to the entity inventory, digital twin views, and incident updates.
Viewer (IoTViewer)	The Viewer role is a global role applicable across Oracle Internet of Things Cloud Service applications. For each application, a viewer can view the entities of the applications such as dashboards, digital twins ad notifications.
	A non-admin user should have a Viewer role in order to access the Oracle IoT management console `(/ui)`

Role Name	Description
Integrator (IoTIntegrator	The Integrator is a common role but is primarily used in the Fleet Monitoring application. An integrator can configure integrations with other applications and configure the target applications for access.

3

Manage Cloud Service Settings

Use the Settings tab in the Oracle Internet of Things Cloud Service Management Console to set the storage configuration for all the messages, how long the OAuth access token is valid for the devices, and what date and time display format to use system wide, including for messages.

Topics

- Set the Date and Time Display to UTC
- Set the Command Notification Timeout Value
- Set the Storage Retention Period for Messages and Data
- Remove Messages from Message Storage
- Set the Management Console Timeout Interval
- Set the OAuth Access Token Lifetime
- Set the Cross Origin Resource Sharing Value
- Add a Defined Host Name Suffix
- Add an Allowed Host for Syndicated Widgets
- Delegate Device Management to a Third Party
- Manage Analytics Resource Allocation

Set the Date and Time Display to UTC

By default, the Oracle IoT Cloud Service Management Console uses local time for the system's date and time format. This includes the timestamps of the messages and alerts that are being displayed in the **Data** page.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.
2. Click the **Menu** (≡) icon, and then click **Settings**.
3. Select **UTC** in the **Date & Time Display** list in the **UI** area.

Set the Command Notification Timeout Value

Change the command notification timeout value to change the display duration for successful command execution notifications. The default is 5 seconds.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.
2. Click the **Menu** (≡) icon, and then click **Settings**.
3. Select a duration in the **Dismiss Notification Banner** list in the **UI** area.

Set the Storage Retention Period for Messages and Data

The message storage retention period defines how long messages and data are retained before deletion. A longer retention period requires additional storage space. Messages older than the specified storage period are automatically deleted.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click **Menu** ≡ and **Settings**.

3. Set these retention periods in the **Retention Period** area:

   • **Data Message:** Select a retention period for data messages or select **Custom** and create a custom retention period.

   • **Alert Message:** Expand **Alert Message**, select **Set duration per severity** to set the retention period for alert messages by severity, and then select a retention period for data messages or select **Custom** and create a custom retention period.

   • **Analyzed Message:** Select a retention period for analyzed messages or select **Custom** and create a custom retention period.

   • **Request/Response Message:** Select a retention period for request and response messages or select **Custom** and create a custom retention period.

   • **Other Message:** Select a retention period for other messages or select **Custom:** and create a custom retention period.

   • **User Data:** Select a retention period for user data or select **Custom** and create a custom retention period.

   • **Metric Data:** Select a retention period for metric data or select **Custom** and create a custom retention period.

   • **Sensor Data:** Select a retention period for metric data or select **Custom** and create a custom retention period.

Remove Messages from Message Storage

If the **Storage Usage** indicator on the **Settings** dashboard is indicating 90% or greater, remove messages from message storage to create additional storage space.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Expand **Storage Cleanup**.

4. In the **Date Range** list, select a date range for stored messages or select **Custom** and specify a custom date range.

5. Select one of these options in the **Message Selection** field:

   • **All Messages:** Select this option to remove all messages for the selected period from message storage.

- **Messages for specific IoT Application:** Select this option and select an application to remove specific application messages for the selected period from message storage.

6. Click **Start Cleanup Process** and click **Yes**.

Set the Management Console Timeout Interval

You can set the duration that the Management Console remains connected. The default is an hour. If your devices send messages every few seconds, consider setting the timeout interval to an hour. If your devices send messages every few hours and sending the message takes a few seconds, consider setting the timeout interval to a minute.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Select a duration in the **Device Connectivity Timeout** list in the **Communication** area.

Set the OAuth Access Token Lifetime

By default, the OAuth access token that is assigned to any activated device or enterprise application expires after one hour of inactivity.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Select a duration in the **Device OAuth Access Token Lifetime** list in the **Security** area.

Set the Cross Origin Resource Sharing Value

The cross origin resource sharing setting specifies if the system that is hosting a web application is allowed to access Oracle IoT Cloud Service resources. The assumption is that the web application is running in a browser that is also implementing the CORS specification. Any browser based JavaScript client running on the specified host can access Oracle IoT REST APIs. However they will need to follow the Oracle IoT REST API authorization process to run any operations.

For more information about cross origin resource sharing, see Cross-Origin Resource Sharing

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Enter the host name in the **Allowed Hosts for Cross-Origin Resource Sharing** field in the **Security** area.

Add a Defined Host Name Suffix

Add a host name suffix to identify the suffix that can be accepted when an external application submits a WildCard SSL certificate.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Enter the host name in the **Trusted CN** field in the **Security** area.

Add an Allowed Host for Syndicated Widgets

The host name identifies the URL used by Oracle Internet of Things Cloud Service to access an external syndicated widget.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Enter the syndicated widget URL in the **Allowed Hosts for Syndicated Widgets** field in the **Security** area and press **Enter**.

Delegate Device Management to a Third Party

Delegate device management to a third party when you want to allow external applications to create and manage devices.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Select **Enable Device Management through a Third Party** in the **Security** area and then complete the entries in the **Third Party Device Management** table.

Manage Analytics Resource Allocation

To conserve computational resources, you can reduce the amount of resources that are allocated to application or worksheet analytic calculations.

1. Open the Oracle Internet of Things Cloud Service Management Console. See Accessing the Cloud Service.

2. Click the **Menu** (≡) icon, and then click **Settings**.

3. Move the slider in the **Adjust** column for applications or worksheets in the **Analytics Resource Allocation** area.