

Oracle® Cloud

Consuming APIs with the Oracle API Platform Cloud Service Developer Portal



E69191-12
January 2019



Oracle Cloud Consuming APIs with the Oracle API Platform Cloud Service Developer Portal,
E69191-12

Copyright © 2017, 2019, Oracle and/or its affiliates. All rights reserved.

Primary Author: Oracle Corporation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

Audience	v
Documentation Accessibility	v
Related Resources	v
Conventions	vi

1 Get Started with the Developer Portal

About the Oracle API Platform Cloud Service Developer Portal	1-1
Sign In to the Developer Portal	1-1
Sign Out of the Developer Portal	1-2
Typical Workflow for Consuming APIs in the Developer Portal	1-2

2 Register and Manage Applications

Create an Application	2-1
View Application Details	2-1
Edit Application Details	2-2
View the API Plans to Which an Application is Subscribed	2-3
Control Who Can Manage or View an Application	2-4
About Application Grants	2-5
Issue an Application Grant to a User or Group	2-5
Reissue an Application Key	2-6
Delete an Application	2-7

3 Discover and Subscribe to APIs

Find APIs	3-1
View API Details	3-2
Subscribe to a Plan to Use an API	3-3
View Applications Subscribed to an API	3-5
Unsubscribe an Application from a Plan	3-6

4 Discover and Entitle Plans

Understand the Plans List Page	4-1
Understand the Plan Overview Page	4-1
Understand the Plan Entitlements Page	4-2

5 Use Application Analytics

View Analytics for an Application	5-1
View Analytics for a Specific Time Period	5-1
Which Analytics Charts Are Available on the General Page?	5-2
Request Volume Chart	5-3
Response Time Chart	5-3
Payload Size Chart	5-4
Requests by API Chart	5-4
Requests by Resource Chart	5-5
Analytics Charts Available on the Errors and Rejections Page	5-5
Rejection Rate Chart	5-6
Rejection Distribution Chart	5-6
Application Error Rate Chart	5-7
Application Error Distribution Chart	5-7

Preface

Topics:

- Audience
- Documentation Accessibility
- Related Resources
- Conventions

Consuming APIs with the Oracle API Platform Cloud Service Developer Portal describes how you discover, evaluate, and register applications to APIs published with Oracle API Platform Cloud Service.

Audience

Consuming APIs with the Oracle API Platform Cloud Service Developer Portal is intended for application developers who want to use APIs managed with Oracle API Platform Cloud Service in their applications.

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

See these Oracle resources:

- Oracle Public Cloud
<http://cloud.oracle.com>
- *Using Oracle API Platform Cloud Service*
- *REST API for the Consumer Service in Oracle API Platform Cloud Service*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Get Started with the Developer Portal

Learn about the Oracle API Platform Cloud Service Developer Portal, how to sign in and out of the Developer Portal, and how to consume APIs using a typical workflow.

Topics

- [About the Oracle API Platform Cloud Service Developer Portal](#)
- [Sign In to the Developer Portal](#)
- [Sign Out of the Developer Portal](#)
- [Typical Workflow for Consuming APIs in the Developer Portal](#)

About the Oracle API Platform Cloud Service Developer Portal

The Oracle API Platform Cloud Service enables you to discover, evaluate, register, and consume APIs.

API Managers publish APIs to the Developer Portal. The Developer Portal is a simple catalog that collects and provides information about published APIs. You use this catalog to find and evaluate APIs to use with your applications. After you find APIs that interest you, learn how to access and use them with detailed documentation provided by API Managers.

After you've discovered APIs you want to use, register them to your applications. Registering your applications enables you to send requests and gives you advanced analytics metrics you use to evaluate APIs performance, review errors, and monitor data trends.

See these topics to get started:

- [Sign In to the Developer Portal](#)
- [Typical Workflow for Consuming APIs in the Developer Portal](#)

Sign In to the Developer Portal

Sign in to the Developer Portal to begin creating applications, discovering available APIs, and registering APIs to your applications.

1. Contact your administrator to receive the Developer Portal URL, then open this URL in a browser.
2. Enter your user name and password.
3. Click **Sign In**.

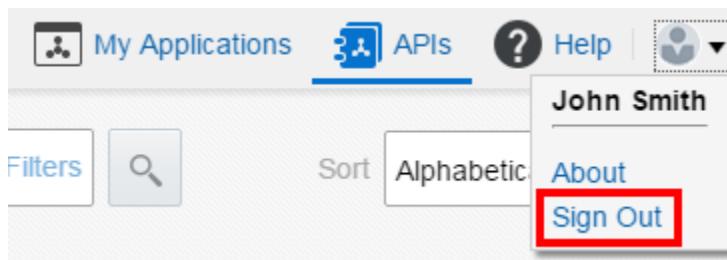
Sign Out of the Developer Portal

Sign out of the Developer Portal from the User menu.

1. Click the **User Menu** icon to expand the user menu.



2. Click **Sign Out**.



Typical Workflow for Consuming APIs in the Developer Portal

To start consuming APIs with the Oracle API Platform Cloud Service Developer Portal, refer to the typical task workflow.

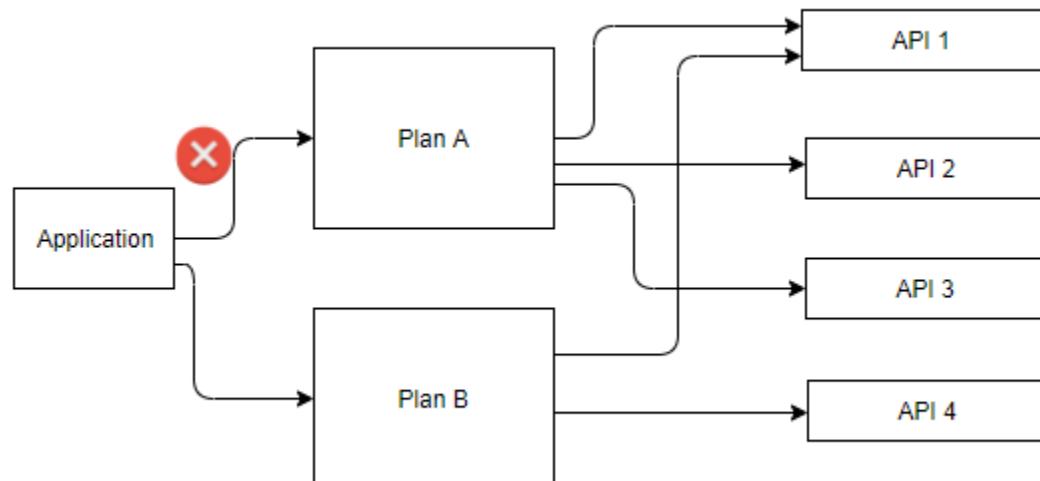
Task	Description	More Information
Register applications	Create entries for your applications in the Developer Portal.	Create an Application
Find APIs	Use the Developer Portal to discover and evaluate APIs.	Find APIs
Learn how to use an API	Review detailed documentation provided with an API to learn how to use it with your applications.	View API Documentation
Subscribe your applications to plans that provide access to APIs	After you've found an API you want to use, evaluate the plans that provide access to the API. Then subscribe to a plan to enable your application to begin using the API.	Subscribe to a Plan to Use an API

Task	Description	More Information
Review analytics for your applications	Use analytics metrics to determine how an application's registered APIs are performing, review how often and why requests are rejected, and monitor data trends.	View Analytics for an Application

About Plans Subscriptions

To access an API, applications need to subscribe to a plan that provides entitlement to the API. A plan can provide access to several APIs, and an application can subscribe to multiple plans to get access to different APIs. However, an application cannot subscribe to different plans that provide entitlement to the same API. For example, suppose Plan A provides access to API1, API2, and API3, whereas Plan B provides access to API1 and API4. Suppose your application has subscribed to Plan A to get access to API1. Now your application requires access to API4 as well. To access API4, your application cannot subscribe to Plan B because Plan B has a common entitlement with Plan A for API1. Your application needs to unsubscribe to Plan A and then subscribe to Plan B to get access to API1 and API4.

Applications can unsubscribe to a plan if they no longer need access to its APIs. Unsubscribing from a plan removes access to all the APIs entitled by the plan. You cannot unsubscribe from individual APIs.



Register and Manage Applications

Learn how to register and manage applications using the Oracle API Platform Cloud Service Developer Portal.

Topics

- [Create an Application](#)
- [View Application Details](#)
- [Edit Application Details](#)
- [View the API Plans to Which an Application is Subscribed](#)
- [Reissue an Application Key](#)
- [Control Who Can Manage or View an Application](#)
- [Delete an Application](#)

Create an Application

Create new applications from the My Applications page.

You create applications in the Developer Portal to manage which of your applications can send requests to APIs. You can view analytics metrics for each application that subscribes to an API.

1. Click the **My Applications** tab.
2. Click **Register Application**.
3. Enter the application name and an optional description.
4. Select the **Application Types** that apply to your application.
5. In the **Contact Information** section, enter your first name, last name, and email address. Optionally enter your phone number and company name.
6. Click **Save**.

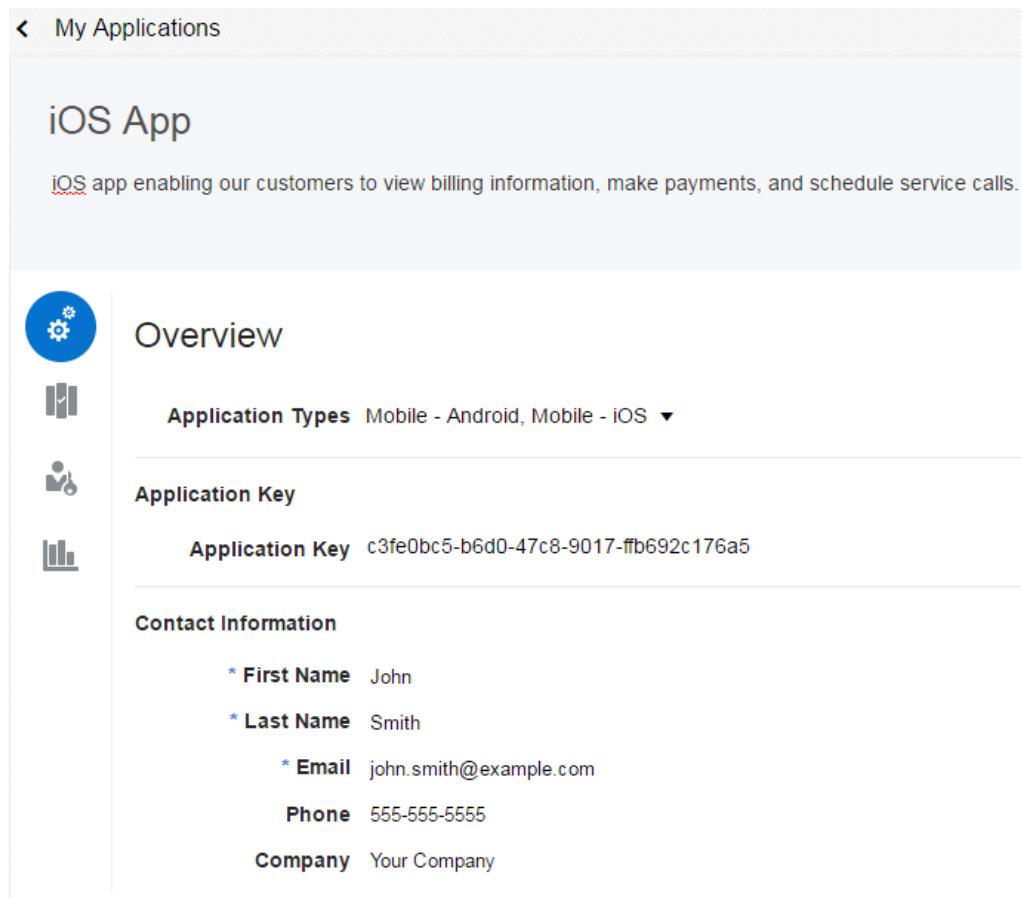
You've registered the application. You can now subscribe it to APIs, as described in [Subscribe to a Plan to Use an API](#). You can also register applications while subscribing to an API.

View Application Details

View the application type (like web application or mobile application), the application key, and contact information for an application on its Overview page.

1. Click **My Applications**.
2. Click the application you want to learn about.

The application details page appears. The Overview tab is selected by default.



iOS App
iOS app enabling our customers to view billing information, make payments, and schedule service calls.

Overview

Application Types Mobile - Android, Mobile - iOS

Application Key c3fe0bc5-b6d0-47c8-9017-ffb692c176a5

Contact Information

* **First Name** John

* **Last Name** Smith

* **Email** john.smith@example.com

Phone 555-555-5555

Company Your Company

The Overview tab displays the application type, application key, and contact information. You can copy an application key by hovering the mouse over it, and then clicking the **Copy to Clipboard** icon.

Application Key

Application Key 04c1e921-5bf6-447d-b880-0905b0725061



Re-issue

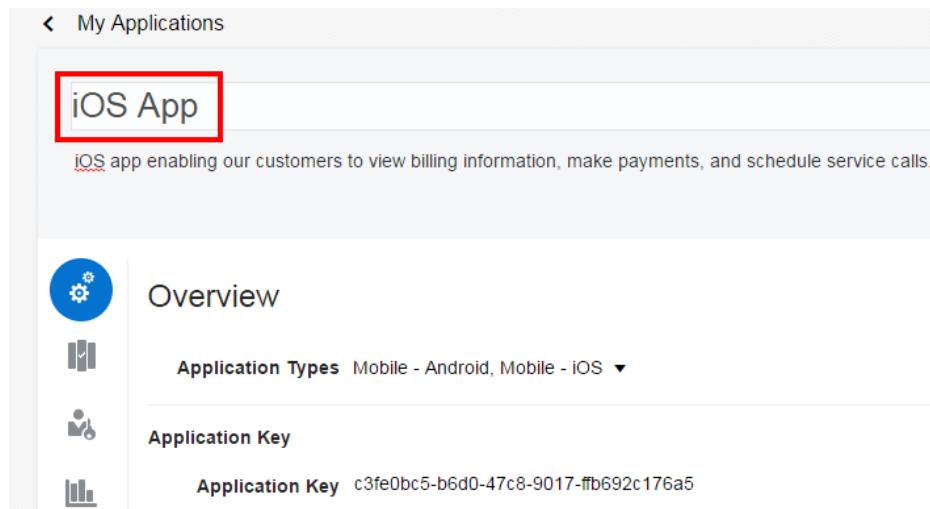
Edit Application Details

Edit an application's name, description, type, and contact information from its Overview page.

1. Click **My Applications**.
2. Click the application you want to edit.

The application details page appears. The Overview tab is selected by default.

3. To edit application details:
 - a. Click the application name to edit it.



The screenshot shows the 'My Applications' page with a single application listed: 'iOS App'. The application name is highlighted with a red box. Below it, a description states: 'iOS app enabling our customers to view billing information, make payments, and schedule service calls.' To the left of the application details, there is a sidebar with four icons: a gear (Overview), a bar chart (Metrics), a person (Application Key), and a bar chart (Logs). The 'Overview' section is currently selected. The 'Application Key' section shows the key 'c3fe0bc5-b6d0-47c8-9017-ffb692c176a5'. The 'Metrics' section is partially visible.

- b. Click the description to edit it.
- c. Click the **Application Types** list to select or remove values.
- d. Click a field in the **Contact Information** section to edit it.
4. Click **Save**.

View the API Plans to Which an Application is Subscribed

View the plans to which your applications have subscribed to for accessing APIs.

To send requests to an API, your application must subscribe to a plan that provides access to that API. A plan can provide access to several APIs, and an application can subscribe to multiple plans to get access to different APIs. However, an application cannot subscribe to different plans that provide entitlements to the same API.

On the **My Applications** page, the **Subscriptions** section for each application lists the plans that the application has subscribed to and the APIs available under each plan. Valid subscriptions to plans are shown as **Active**; subscriptions awaiting approval are shown as **Pending**; rejected subscriptions are shown as **Rejected**. If a subscription was approved, but later suspended for whatever reason, the status is shown as **Suspended**. APIs within a plan are shown as either active or inactive, depending on their availability in the plan.

1. Click **My Applications**.
2. Click the application for which you want to view subscribed plans.
3. Click the **Subscriptions** icon on the application details page.
4. Click a plan to view its details.

The **Subscriptions** tab displays all the plans that the application has subscribed to.

The plan displays details such as names of all applications that have subscribed to the plan, APIs entitled by the plan, and the endpoint URL.

ORACLE API Platform Cloud - Developer Portal

My Applications

Western Real Estate

View Real Estate Trends, Analysis and Statistics

Subscriptions

Plan	Status	Request Rate
Plan Energy Supreme	Active	45K requests/hour 1500 requests/minute
Plan Real Estate Gold	Suspended	100K requests/day 1K requests/minute

Subscribed Application: Western Real Estate

View APIs Entitled to this Application

Endpoint URL/s: Production Gateway

Energy 1.0

Energy Supreme

Control Who Can Manage or View an Application

Grants determine the actions a user can perform on an application in the Developer Portal.

Topics

- [About Application Grants](#)
- [Issue an Application Grant to a User or Group](#)

About Application Grants

Grants enable users to view the details of or manage applications.

Users issued grants for a specific application have the privileges to perform the associated actions on that application.

Grant Name	Description	Can be Issued To	Associated Actions
Manage Application	People issued this grant can view, modify and delete this application. API Manager users issued this grant can also issue grants for this application to others.	API Managers, Application Developers, Plan Managers	ApplicationEdit ApplicationDelete ApplicationView ApplicationGrantManageApplication
View All Details	People issued this grant can see all details about this application in the Developer Portal.	API Managers, Application Developers, Plan Managers	ApplicationViewAllDetails

Issue an Application Grant to a User or Group

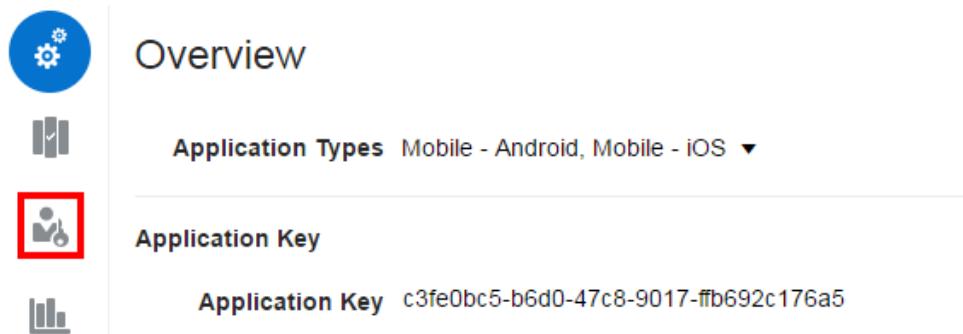
Issue users or groups grants to an application on its User Management page.

Grants are issued per application; repeat this task if you want to issue grants for multiple applications.

1. Click the **My Applications** tab.
2. Click the name of the application for which you want to manage grants.

The Application Details page appears.

3. Click the **User Management** tab.

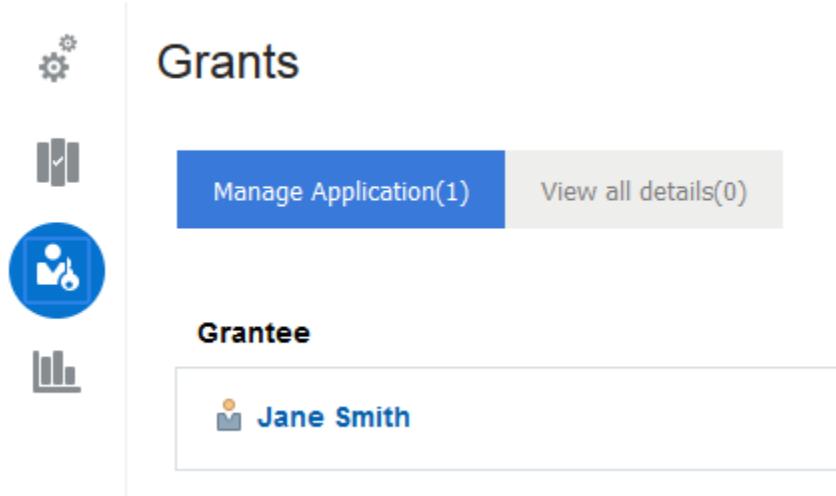


The screenshot shows the Oracle Application Details page. The 'User Management' tab is selected. The page displays the following information:

- Overview** icon (blue circle with gear)
- Application Types**: Mobile - Android, Mobile - iOS
- Application Key**: c3fe0bc5-b6d0-47c8-9017-ffb692c176a5
- Application Key** icon (blue square with person)

4. Click the tab that corresponds to the grant you want to issue to users or groups:
 - **Manage Application**: users issued this grant can modify and delete this application. Users issued this grant can also issue grants for this application to other users.

- **View All Details:** users issued this grant can see all details about this application.



5. Click **Add Grantee**.

The Choose Grantee dialog appears.

6. From the Select Grantee section, click **Group** if you want to issue this grant to groups. **User** is selected by default; ensure that it is selected if you want to issue the grant to individual user accounts.
7. In the **Grantee Name/Email** field, enter the name or email addresses of the user or group you want to add.
8. Click **Add**.

The user or group is issued the grant if they exist in the identity management system. If the user or group does not exist, you receive an error like this: Grantee user was not added. The user with ID "user" does not exist.

9. Repeat Step 6 through Step 8 to issue the grant to additional users or groups.

The user(s) or group(s) are issued the application grant you chose.

Reissue an Application Key

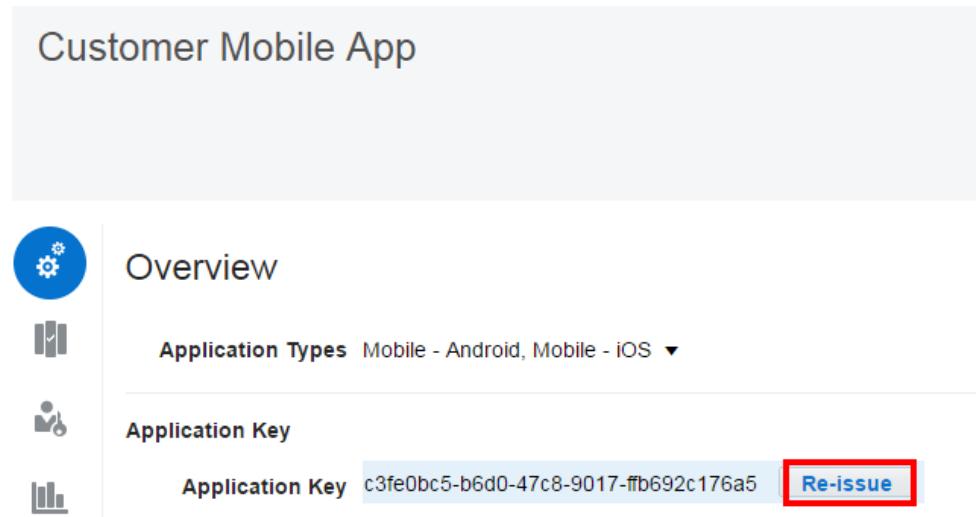
Reissue a key for an application from its Overview page.

A unique application key is created for each application. This key can be passed in a header or as a query parameter with the request for APIs that require it. Analytics metrics are aggregated for requests sent with an application key. Reissue an application key when the existing key is compromised. When you reissue a key, requests to APIs the application is subscribed to may fail until they are sent using the new key. Analytics are also not aggregated for requests sent with the old key.

You must be issued the Manage Application grant for an application to reissue its key.

Management Portal administrators can choose to hide application keys in the Developer Portal. You cannot reissue an application key if it is not displayed in the Developer Portal.

1. Click the **My Applications** tab.
2. Click the application for which you want to reissue the key.
3. Hover the mouse over the existing key, and then click **Re-issue**.



Customer Mobile App

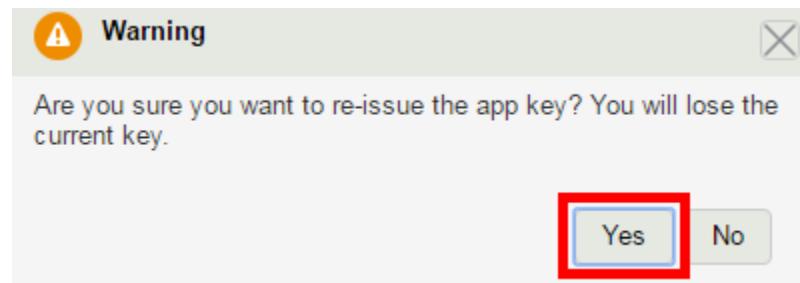
Overview

Application Types Mobile - Android, Mobile - iOS

Application Key

c3fe0bc5-b6d0-47c8-9017-ffb692c176a5 **Re-issue**

4. Click **Yes**.



You've reissued the application key. The new key is displayed in the **Application Key** field. Update your requests to use the new key.

Delete an Application

Delete an application you're not using from its Overview page.

You lose analytics metrics when you delete an application. Your requests to registered APIs might also fail. Make sure you're OK with this before you delete an application.

1. Click **My Applications**.
2. Click the name of the application you want to delete.
3. Click the **Delete** icon.
4. Click **Yes** on the dialog that appears.

3

Discover and Subscribe to APIs

Learn how to discover and subscribe to APIs for your applications in the Developer Portal.

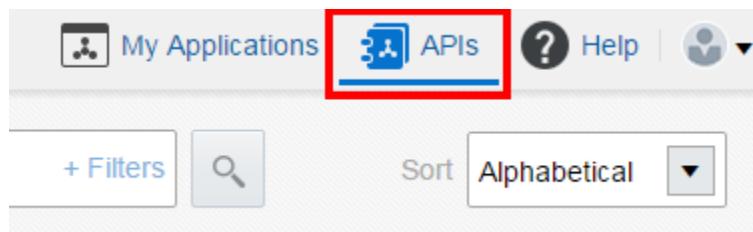
Topics

- [Find APIs](#)
- [View API Details](#)
- [Subscribe to a Plan to Use an API](#)
- [View Applications Subscribed to an API](#)
- [Unsubscribe an Application from a Plan](#)
- [View API Documentation](#)

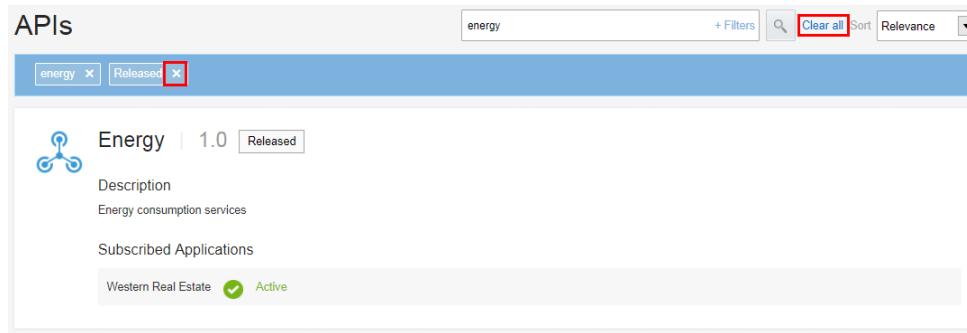
Find APIs

Use the APIs page to find APIs published to the Developer Portal. You can filter the list to quickly find APIs you're interested in.

1. Click the **APIs** tab.



2. To filter the APIs displayed on the APIs page:
 - Enter text into the search field and press **Enter**. This displays APIs whose name, description, or version includes your query.
 - Click the **+Filters** link, and select an option to display APIs of a state (Alpha, Beta, Deprecated, Released, or Retired) or APIs your applications have subscribed to (**Subscriptions**)
 - Select an option in the **Sort By** list to sort APIs by alphabetical order, by publication date (**Newest**), by number of registrations (**Usage**), or by relevance to the filter criteria you specified.
3. Click the **Remove** icon (x) for a filter in the bar under the search field to remove a filter, or click **Clear all** to clear all filters.



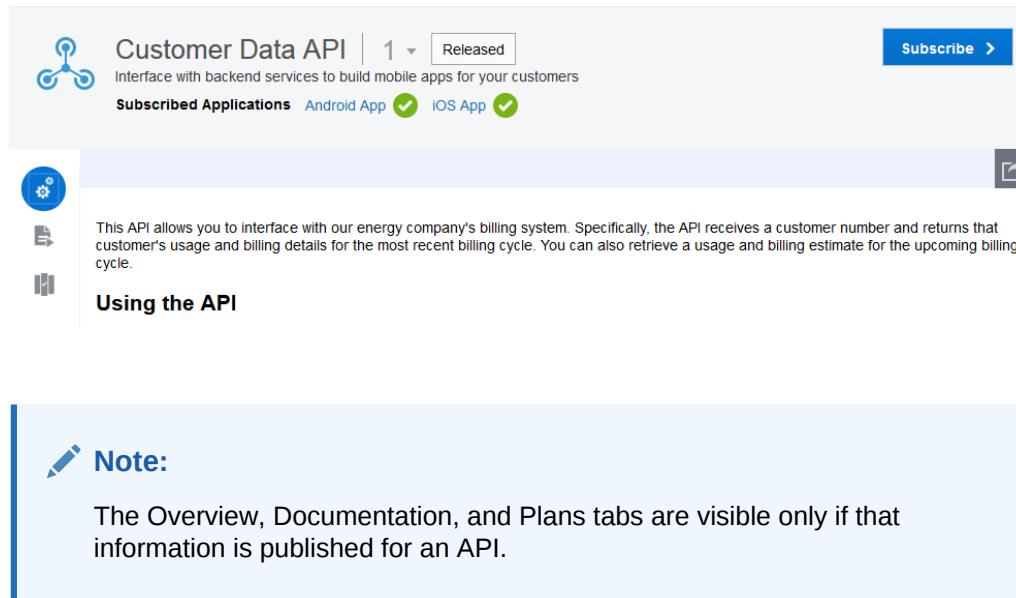
The screenshot shows a search interface for APIs. The search bar contains 'energy'. Below the search bar are two filter buttons: 'energy' and 'Released', with 'Released' being the one highlighted by a red box. The results list shows an API named 'Energy' with version 1.0, labeled as 'Released'. It has a description: 'Energy consumption services' and a section for 'Subscribed Applications' which lists 'Western Real Estate' with a status of 'Active'.

View API Details

View details of an API, including an overview of its functionality and intended use, details of plans through which the API is available, and applications that have subscribed to the API.

The API details page includes three tabs: Overview, Documentation, and Plans. You can click the **Open New Tab** icon to open the Overview and Documentation tabs in a new browser tab.

- Clicking the **Overview** icon displays the API's subscribed applications, a short description of what the API does, and a summary of its functionality and intended use.
- Clicking the **Documentation** icon displays the detailed usage instructions for the API.
- Clicking the **Plans** icon displays details of the plans through which the API is available.



The screenshot shows the details page for the 'Customer Data API'. It displays the API name 'Customer Data API', version 1, and status 'Released'. It also shows 'Subscribed Applications' for 'Android App' and 'iOS App'. A note section explains that the API allows interfacing with the energy company's billing system to retrieve usage and billing details. A 'Using the API' section is also present.

Note:
The Overview, Documentation, and Plans tabs are visible only if that information is published for an API.

1. Click the **APIs** tab.
2. (Optional) Filter the APIs displayed, as desired.

3. Click the API you want to view details for.

Subscribe to a Plan to Use an API

Subscribe to a plan to enable your applications to use an API.

Oracle API Platform Cloud Service manages API access and analytics through plans. For an application to access an API, the application must subscribe to a plan that provides entitlement to the API.

A plan can provide access to several APIs, and an application can subscribe to multiple plans to get access to different APIs. However, an application cannot subscribe to multiple plans that provide entitlement to the same API. For example, suppose Plan A provides access to API1, API2, and API3, whereas Plan B provides access to API1 and API4. Suppose your application has subscribed to Plan A to get access to API1. Now your application requires access to API4 as well. To access API4, your application cannot subscribe to Plan B because Plan B has a common entitlement with Plan A for API1. Your application will need to unsubscribe to Plan A and then subscribe to Plan B to get access to API1 and API4.

1. Click the **APIs** tab.
2. Click the API you want to subscribe to.
3. Click the **Plans** icon on the API details page.
4. Evaluate the plans that provide access to the API.

The Plans page of an API lists all the plans that provide access to the API. A plan shows the name of the plan, description, rate limits for using the plan, and the number of APIs entitled by the plan. Clicking the **View Plan Details** link shows additional details such as names of all the APIs entitled by the plan.

5. Click **Subscribe**.

You can click the **Subscribe** button on the top-right corner of the page. If you are sure about the plan you want to select, you can click the **Subscribe** link displayed above **View Plan Details** on the plan.

The screenshot shows the Oracle API Platform Cloud - Developer Portal. At the top, the API is identified as 'Energy | 1.0' with a status of 'Released' and a description of 'Energy consumption services'. A green checkmark indicates that 'Western Real Estate' is a 'Subscribed Application'. The main section is titled 'Plans' and lists two options: 'Real Estate Gold' and 'Energy Supreme'. The 'Real Estate Gold' plan is highlighted with a blue background and includes a building icon. It allows for 'high usage' with 100K requests/day and 1K requests/minute, and is entitled to 4 APIs. The 'Energy Supreme' plan allows for 'intermediate usage' with 45K requests/hour and 1500 requests/minute, and is entitled to 1 API. Both plans have a 'Subscribe' button and a 'View Plan Details' link.

6. Click the plan you want to use and click **Select Plan**.

If you clicked the **Subscribe** link for a particular plan in the previous step, the plan's details are already displayed.

7. Click the application subscribing to the plan to access the API.

When you select an application, application details appear in the right pane. To edit application details, select an application and click **Edit this Application**. You can choose to create a new application while subscribing to a plan. To create an application, click **Create New Application**. After you create an application from this page, you're returned to the registration page and the application is selected for you.

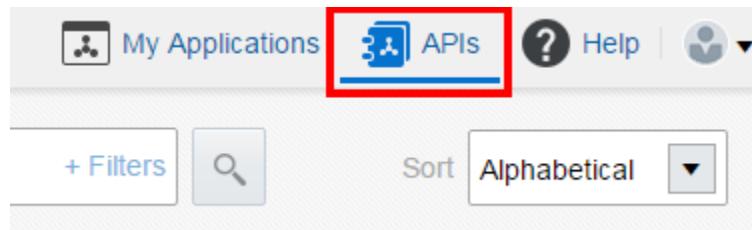
8. Click **Subscribe.**

Your application now has subscription to a plan that provides access to the API.

View Applications Subscribed to an API

View the applications that have subscribed to an API through a plan.

1. Click the **APIs tab.**



2. Optionally, filter the APIs displayed, as described in [Find APIs](#).

The applications that have subscribed to a plan providing access to an API are listed in the **Subscribed Applications** section of that API. An approved subscription to a plan for this API is shown as **Active**, a subscription awaiting approval to the plan is shown as **Pending**; a rejected subscription is shown as **Rejected**; and a subscription that was active but has been suspended appears as **Suspended**.

APIs

 Energy | 1.0 Released

Description
Energy consumption services

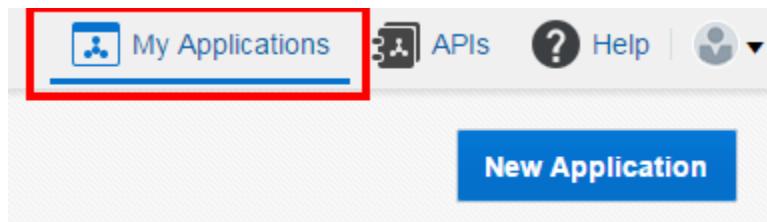
Subscribed Applications

World Weather	 Pending
GeoServices	 Rejected
Allied Mortgage Calculator	 Suspended
Western Real Estate	 Active

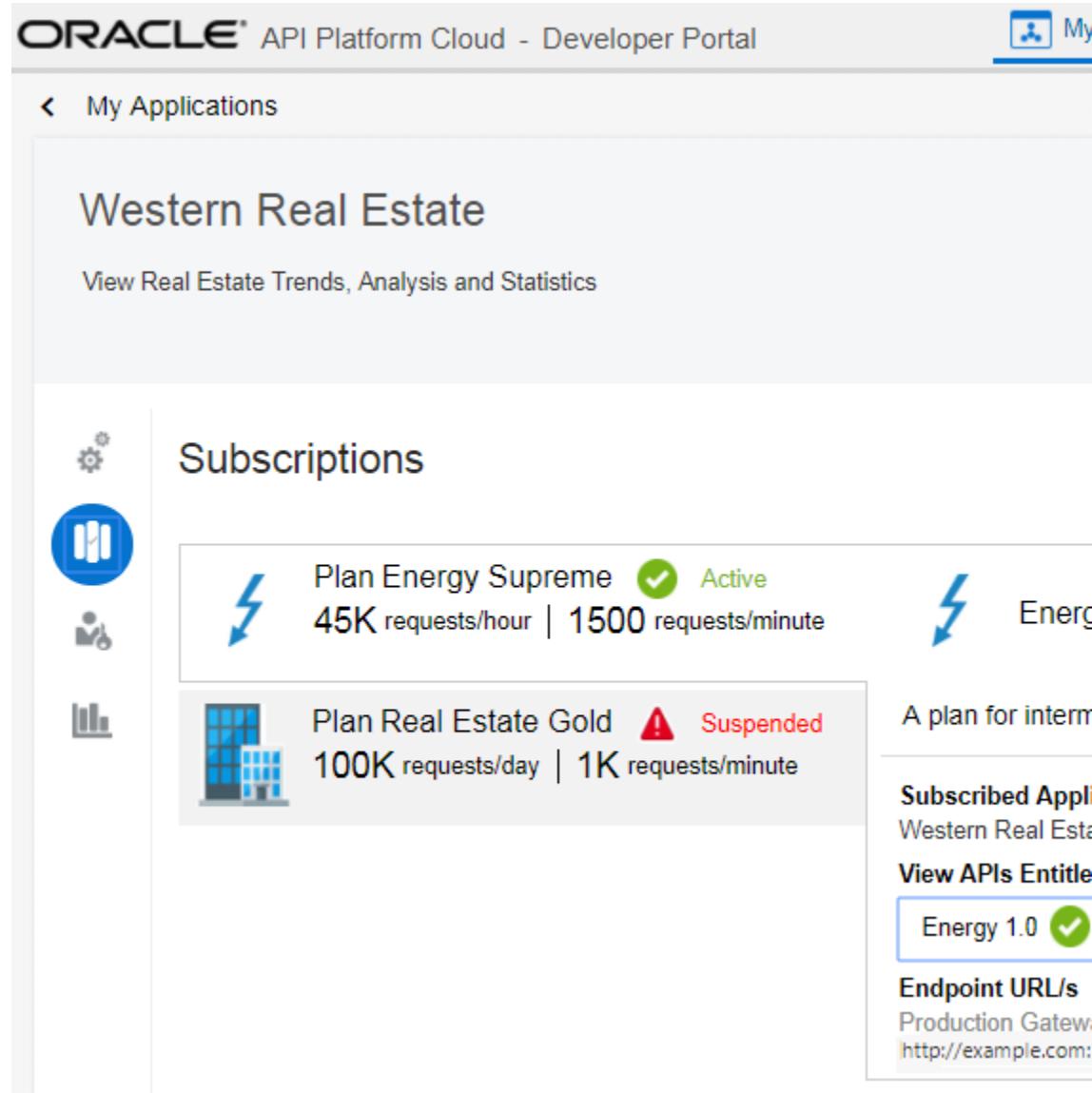
Unsubscribe an Application from a Plan

Unsubscribe an application from a plan. Unsubscribing from a plan removes access to all the APIs entitled by the plan. You cannot unsubscribe from individual APIs.

1. Click **My Applications**.



2. Click the name of the application you want to unsubscribe.
3. Click the **Subscriptions** icon.
4. Click the API plan from which you want to unsubscribe.
5. Click **Unsubscribe**.



Subscriptions

Plan	Entitlements	Status
Plan Energy Supreme	45K requests/hour 1500 requests/minute	Active
Plan Real Estate Gold	100K requests/day 1K requests/minute	Suspended

Unsubscribe

A plan for inter...

Subscribed Apps: Western Real Estate

View APIs Entitled: Energy 1.0

Endpoint URLs: Production Gateway: http://example.com:

6. Click **Yes**.

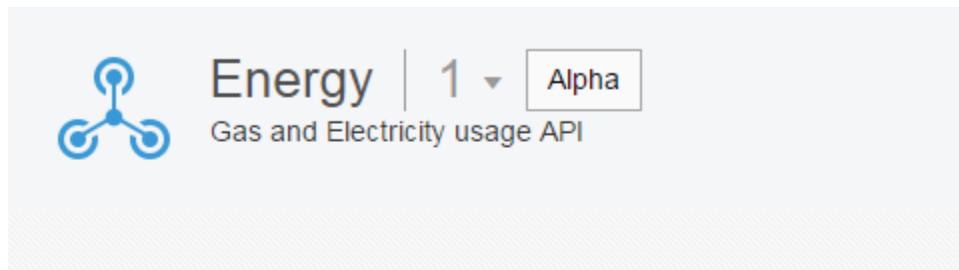
After unsubscribing to a plan, all requests from an application to the entitled APIs are rejected. You need to re-subscribe to a plan to access its APIs.

View API Documentation

View detailed usage instructions for an API on its Documentation page.

The Documentation page contains information about an API's security schemes, methods, resources, and other details to aid you in its use. Documentation references are provided by API Managers when an API is published to the Developer Portal. If an API Manager has enabled it, the Documentation page can display interactive documentation, a mock console, and other features on [Oracle Apairy](#).

1. On the APIs page, click an API.
2. Click the **Documentation** icon.



This API allows you to calculate your monthly energy bill.



Documentation for the API appears. You can click



to open the documentation in a new tab.

Discover and Entitle Plans

Learn how to discover and subscribe plans for your applications in the Developer Portal.

Topics:

- [Understand the Plans List Page](#)
- [Understand the Plan Overview Page](#)
- [Understand the Plan Entitlements Page](#)

Understand the Plans List Page

The Plans List page displays all plans created in the Management Portal.

To view the Plans List page, click the **Plans** tab to the right. Entries for plans display the following information in the Developer Portal:

- The name and version of the plan.
- The description of the plan.
- The rate limit of the plan.
- The number of application subscriptions.
- The number of API entitlements.

If you have a long list of items on the page, use the **Sort** list to display the newest items first or display them in alphabetical order.

Understand the Plan Overview Page

If you have published the plan in the Management Portal, the Developer Portal displays the Overview page.

On the Plans List page, select the plan whose Overview page you want to view. If, in the Management Portal, there is either an HTML file or Markdown text for the overview, and the plan has been published to the Developer Portal, the overview text appears on this page.

Note:

There is an icon in the lower right corner of the page. If you hover over it, it expands to display the text **Open new tab**. You can click this icon to open the overview text in a new tab in your browser. If the overview text is long, this allows you to scroll through the text.

You can also click the **Subscribe** button to subscribe applications to the plan.

Understand the Plan Entitlements Page

An entitlement is the relationship between an API and a plan, describing that a plan entitles a client application to invoke an API, and under what conditions.

There is a many-to-many relationship between plans and APIs. A given plan can have entitlements to multiple APIs; for example, to group related APIs. A given API can be entitled by multiple plans; for example, to provide different quality of service criteria. Note that two entitlements of the same plan cannot point to the same entire API, or to the same action in an API.

To view the details of an entitlement:

1. On the Plans List page, click the plan whose entitlements you want to view.
2. On the Plans page, click the **Entitlements** icon.
3. To view details about an entitlement, click the **Expand** icon to the right.

In addition to the description and rate limit, you can also view the **Go to API** link . If you click the **Go to API** link, the API Overview page is displayed.

You can also click the **Subscribe** button to subscribe applications to the plan.

5

Use Application Analytics

Learn how to use advanced analytics metrics for APIs registered to your applications.

Topics

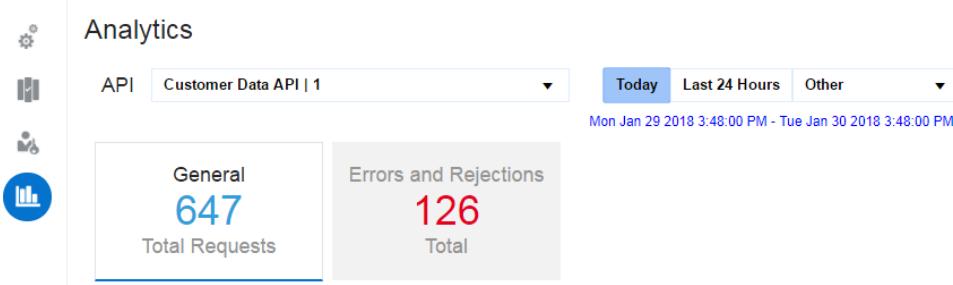
- [View Analytics for an Application](#)
- [View Analytics for a Specific Time Period](#)
- [Which Analytics Charts Are Available on the General Page?](#)
- [Analytics Charts Available on the Errors and Rejections Page](#)

View Analytics for an Application

View an application's analytics metrics on its Analytics page.

Use analytics to determine how an application's registered APIs are performing, review how often and why requests are rejected, and monitor data trends.

1. On the **My Applications** page, click an application.
2. Click the **Analytics** tab.
3. In the **API** list, select an API this application is subscribed to.
Analytics data for this API appears. The General page appears by default.
4. Click the **General** or **Errors and Rejections** pages to view the available charts.



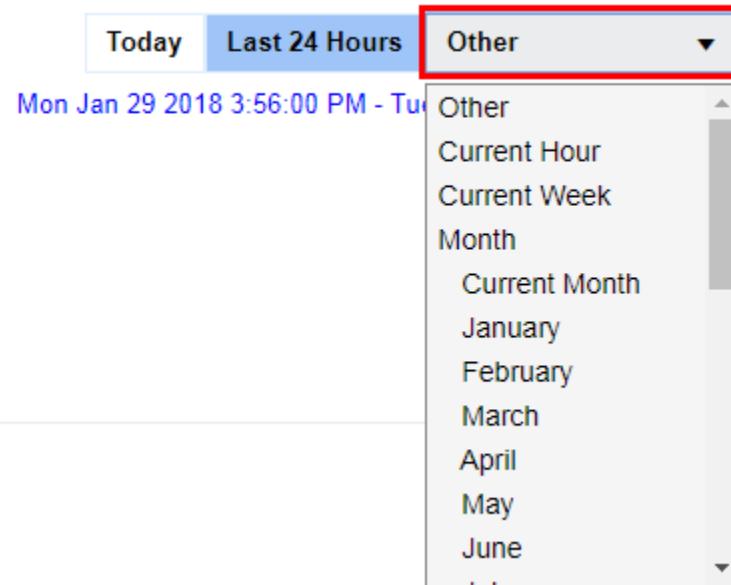
View Analytics for a Specific Time Period

Time controls enable you to retrieve analytics data for specific time periods.

By default, data from today (from 12:00AM, expressed in the default time zone set for the platform, to the current time) appears. To change the displayed analytics data time period:

Click **Last 24 Hours** to display data for that period, stretching back 24 hours from the current time. If you want to display data over a different period, you can either:

- Select a pre-defined time period (current hour or week, specific month or year, last 15 minutes, etc.) from the **Other** list, or



- Click the time interval below the **Other** list to manually specify a start and end time and date.



Analytics data for the time period you selected appears.

Which Analytics Charts Are Available on the General Page?

View the request volume, response time, and other metrics about requests sent from your applications on the General page.

Topics

- [Request Volume Chart](#)
- [Response Time Chart](#)

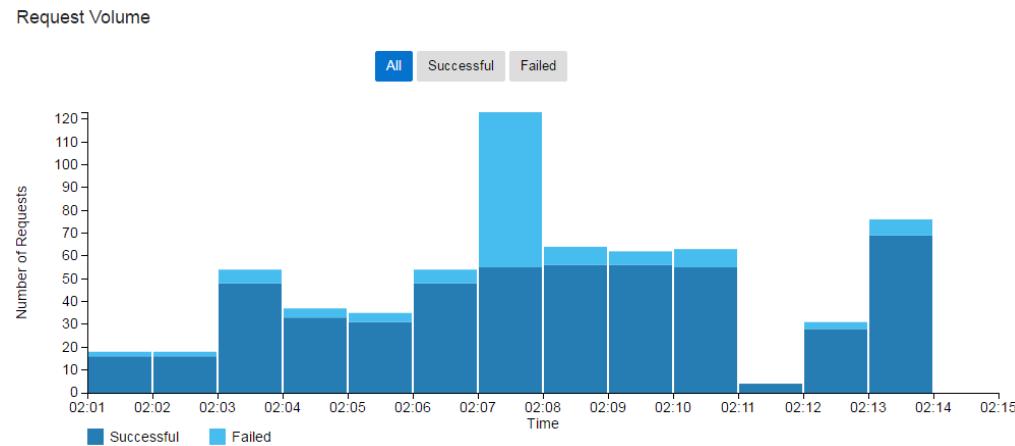
Request Volume Chart

Use the Request Volume chart to view request traffic volume, request trends, and request success or failure rates.

The Request Volume chart displays the number of requests sent by an application.

To view Request Volume chart data:

- Select **All** to display all requests.
- Select **Successful** to display successful requests.
- Select **Failed** to display requests that failed.



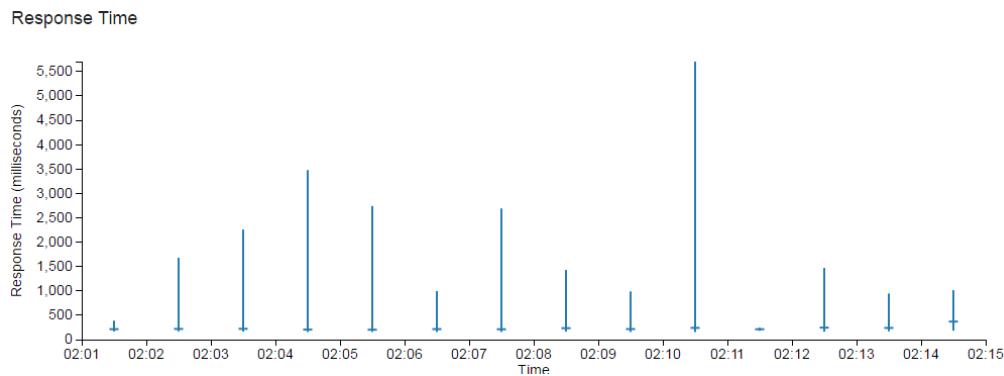
To view summary information for a specific period, hover your mouse over a vertical bar in the Request Volume chart.

By default, data for the last 24 hours is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

Response Time Chart

Use the Response Time chart to view the response times for requests.

The Response Time chart displays round-trip request and response times (in milliseconds) for the selected application. The shortest and longest response times for the period are represented by vertical bars. A horizontal bar indicates the median round-trip time for the period.



To view summary information for a specific period, hover your mouse over a vertical or horizontal bar in the Response Time chart.

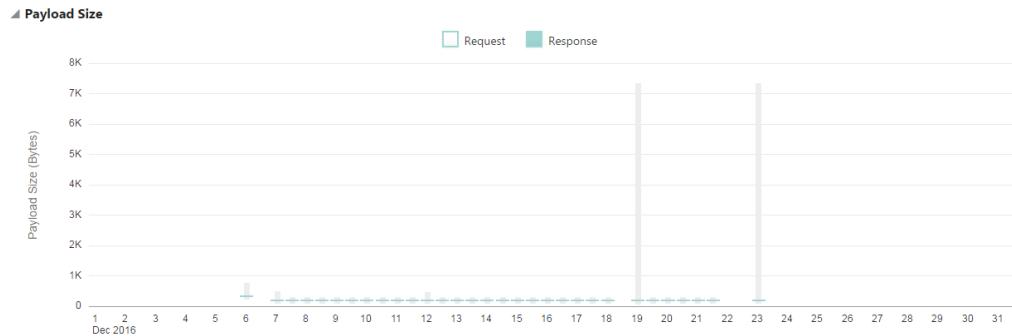
By default, data for the last 24 hours is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

Payload Size Chart

The Payload Size chart displays the size of the payload sent with each request. The largest and smallest payload sizes for the period are represented by vertical bars. A horizontal bar indicates the median payload size during the period.

To view Payload Size chart data:

- Select **Request** to view request payload sizes for the period.
- Select **Response** to view response payload sizes for the period.



To view summary information for a specific period, hover your mouse over a vertical bar in the Payload Size chart.

By default, data for the current day is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

Requests by API Chart

The Requests by API chart displays requests, rejections, and errors for each API deployed to the gateway.

The Requests by API chart displays this data:

- The volume of requests sent to each API.

- The percentage of requests sent to each API.
- The volume of rejected requests for each API.
- The percentage of rejected requests for each API.
- The error volume for each API.
- The error percentage for each API.

Requests by Resource Chart

The Requests by Resource chart displays the volume and distribution of requests (as a percentage) to resources for an API.

The Requests by Resource chart displays this data:

- The volume of requests sent to each resource.
- The percentage of requests sent to each resource.
- The volume of rejected requests for each resource.
- The percentage of rejected requests for each resource.
- The volume of errors processed by each resource.
- The percentage of errors processed by each resource.

Request Path	Requests		Rejections		Errors	
	Volume	Distribution	Volume	Distribution	Volume	Distribution
/test	13	0.0%			13	0.2%
/customer/1	1590929	20.0%	103967	100.0%	4237	53.7%
/webpost/posts/1	1590764	20.0%			1156	14.6%
/time	1590666	20.0%			1222	15.5%

Analytics Charts Available on the Errors and Rejections Page

View rejection and error metrics about requests sent to or from APIs, gateways, or applications on the Errors and Rejections page. Available charts and options vary based on the rights you have.

Topics

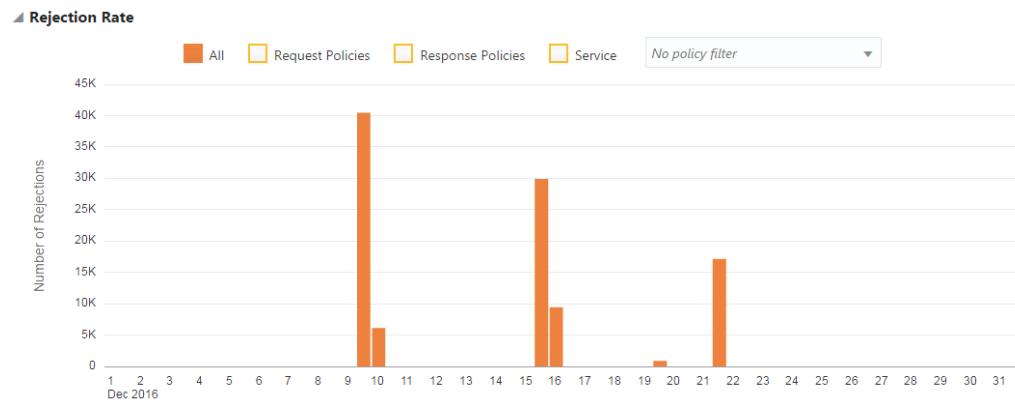
- [Rejection Rate Chart](#)
- [Rejection Distribution Chart](#)
- [Application Error Rate Chart](#)
- [Application Error Distribution Chart](#)

Rejection Rate Chart

The Rejection Rate chart displays the number of rejected requests .

To view Rejection Rate chart data:

- Select **All** to view all rejections for the period.
- Select **Request Policies** to view requests that were rejected by request policies for the period.
- Select **Response Policies** to view responses that were rejected by response policies for the period.
- Select **Service** to view requests that were rejected by the backend service.
- Select an option in the **no policy filter** list to view data for a specific policy type.



To view summary information for a specific period, hover your mouse over a vertical bar in the Rejection Rate chart.

By default, data for the current day is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

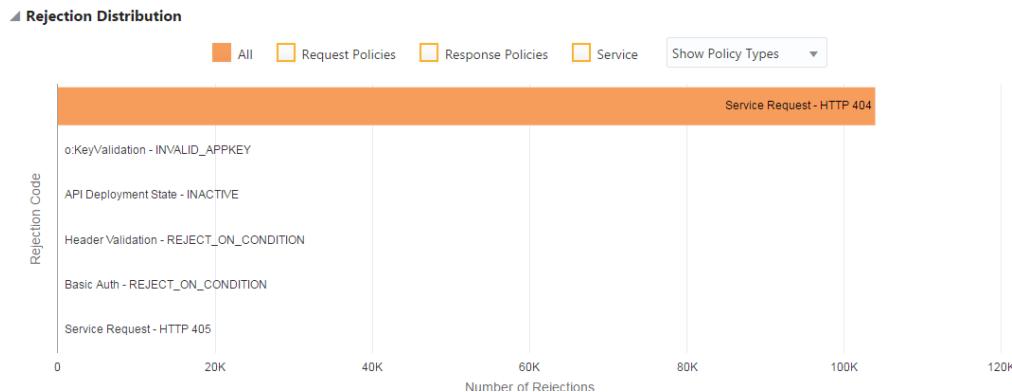
Rejection Distribution Chart

The Rejection Distribution chart displays the number of rejections by specific policies or services.

To view Rejection Distribution chart data:

- Select **All** to view all rejections per policy or service.
- Select **Request Policies** to view the number of rejections per request policy.
- Select **Response Policies** to view the number of rejections per response policy.
- Select **Service** to view the number of rejections per service.
- Select **Show Policy Types** to view rejections for each policy type. For example, if you have multiple header validation policies, selecting **Show Policy Types** displays all header validation policy rejections as a single data point.
- Select **Show Policy Instances** to view rejections for each instance of a policy. For example, if you have multiple header validation policies, selecting **Show Policy**

Instances displays rejections from each of the header validation policies as separate data points.

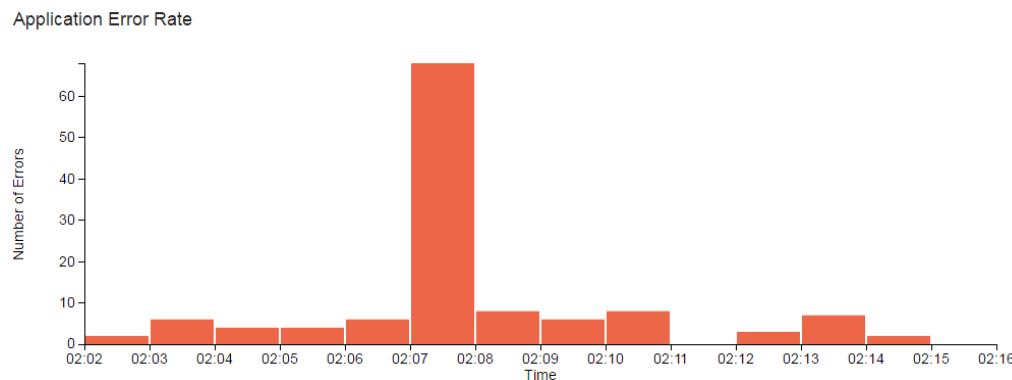


To view summary information for a specific policy, hover your mouse over a horizontal bar in the Rejection Distribution chart.

By default, data for the current day is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

Application Error Rate Chart

The Application Error rate chart displays the number of errors produced by requests from an application.



To view summary information for a specific period, hover your mouse over a vertical bar in the Application Error Rate chart.

By default, data for the last 24 hours is displayed. To display data for a different period, see [View Analytics for a Specific Time Period](#).

Application Error Distribution Chart

The Application Error Distribution chart displays the number of occurrences of each error as a percentage of all errors for the defined period..

Application Error Distribution

Error Code	Number of Errors	Percent of Total Errors
svc - HTTP 404	62	50%
svc - HTTP 429	62	50%