Oracle® Cloud

Using Oracle Integration Generation 2 on Oracle Cloud Infrastructure US Government Cloud





Oracle Cloud Using Oracle Integration Generation 2 on Oracle Cloud Infrastructure US Government Cloud,

F31941-14

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Primary Author: Oracle Corporation

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Preface

This guide describes how to use Oracle Integration Generation 2 in Oracle Cloud Infrastructure US Government environments.

Topics:

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

Audience

This guide is intended for administrators who want to use Oracle Integration Generation 2 in an Oracle Cloud Infrastructure *US Government Cloud with FedRAMP* or *US Federal Cloud with DISA Impact Level 5 Authorization* environment. To use Oracle Integration Generation 2 in a commercial, UK government, or commercial US government environment, see Overview of Oracle Integration Generation 2 in *Provisioning and Administering Oracle Integration Generation 2*.

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 Resources

For more information, see these Oracle resources:

Oracle Integration documentation on the Oracle Help Center.



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.	



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Get Started with Oracle Integration on Oracle Cloud Infrastructure US Government Cloud

Oracle Integration is a fully managed service that allows you to integrate your cloud and onpremises applications.

With Oracle Integration, you can design integrations to monitor and manage connections between your applications, selecting from our portfolio of hundreds of prebuilt adapters and recipes to connect with Oracle and third-party applications.

Topics:

- How to Use This Guide
- About Oracle Integration Generation 2 on Oracle Cloud Infrastructure US Government Cloud
- Restrictions

How to Use This Guide

This guide is intended for administrators using Oracle Integration Generation 2 in an Oracle Cloud Infrastructure US Government Cloud region.

This guide is intended to complement the documentation available in the Oracle Integration Generation 2 documentation library. Use this guide to learn about:

- Oracle Integration Generation 2 feature availability and restrictions in an Oracle Cloud Infrastructure US Government Cloud region.
- Tasks for setting up users and groups, provisioning an Oracle Integration Generation 2 instance, and viewing instance details in an Oracle Cloud Infrastructure US Government Cloud region.

About Oracle Integration Generation 2 on Oracle Cloud Infrastructure US Government Cloud

Oracle Integration Generation 2 supports the following two levels of government operators:

- OC2 realm (Oracle Cloud Infrastructure US Government Cloud with FedRAMP Authorization) in the US Gov East (Ashburn) and West (Phoenix) regions
- OC3 realm (Oracle Cloud Infrastructure US Federal Cloud with DISA Impact Level 5 Authorization) in the US DoD East (Ashburn), North (Chicago), and West (Phoenix) regions

Notes:

- This guide is intended for administrators using Oracle Integration Generation 2 in the Oracle Cloud Infrastructure US Government Cloud regions listed above. To use Oracle Integration Generation 2 in a commercial or United Kingdom Government region, see the Oracle Integration documentation on the Oracle Help Center.
- In the OC2 realm, you can provision a new Oracle Integration Generation 2
 instance only if your tenancy was created before 1 January 2023. After this date,
 Oracle updated regions in OC2 to use identity domains, and Oracle Integration
 Generation 2 instances do not support identity domains in OC2.
 - If your tenancy was created *after* 1 January 2023, contact your Oracle Customer Success Manager or sales representative for assistance with provisioning a new Oracle Integration Generation 2 instance.
- In the OC3 realm, you can provision a new Oracle Integration Generation 2 instance regardless of when your tenancy was created, as regions in OC3 have not yet been updated to use identity domains.

For more information, see:

- Oracle Cloud Infrastructure US Government Cloud with FedRAMP Authorization
- Oracle Cloud Infrastructure US Federal Cloud with DISA Impact Level 5 Authorization

Topics:

- Oracle Integration Feature Availability on Oracle Cloud Infrastructure US Government Cloud
- Useful Resources for Oracle Integration on Oracle Cloud Infrastructure US Government

Oracle Integration Feature Availability on Oracle Cloud Infrastructure US Government Cloud

Oracle Integration on Oracle Cloud Infrastructure US Government Cloud is available in both Standard and Enterprise editions, but not all features are available in US government realms. Review the following table for an overview of feature availability in Oracle Integration instances on Oracle Cloud Infrastructure US Government Cloud environments.

Oracle Integration Features	Notes	
Integrations	Available, except for the following:	
	 Accept mapping recommendations with the recommendations engine. 	
	 Invoke a process from an integration. 	
	 Map Insight milestones to integration actions. 	
Processes	Not available.	
Visual Builder	Not available.	
Insight	Not available.	
File Server	Not available.	



Oracle Integration Features	Notes
B2B	Not available.
Adapters	All Oracle Integration Adapters available.
Authentication	Client credentials is the only authorization grant flow supported for OAuth authentication in Oracle Cloud Infrastructure in government environments.
Announcements feature	Not available in Oracle Integration.
	Note that Oracle Cloud Infrastructure announcements are available to Oracle Cloud Infrastructure administrators in the Oracle Cloud Infrastructure Console.
Oracle Assistant for Oracle Integration	Not available.
Upgrading from Oracle Integration Generation 2 to Oracle Integration 3	Not available.

Useful Resources for Oracle Integration on Oracle Cloud Infrastructure US Government Cloud

Review the following documentation resources.

Documentation	Notes and Main Differences in US Government Cloud
What's New for Oracle Integration Generation 2 Known Issues for Oracle Integration Generation 2 Getting Started with Oracle Integration Generation 2 Using Integrations in Oracle Integration Generation 2 Oracle Integration Adapters Provisioning and Administering Oracle Integration Generation 2	When reviewing the Oracle Integration documentation, ignore references to features that are not currently supported in Oracle Cloud Infrastructure US Government Cloud, as listed in Oracle Integration Feature Availability on Oracle Cloud Infrastructure US Government Cloud. Also ignore references to Oracle Identity Cloud Service. In Oracle Cloud Infrastructure US Government Cloud environments, you use IAM to manage users and groups.
Oracle Cloud Infrastructure US Government Cloud with FedRAMP Authorization	Provides information specific to Oracle Cloud Infrastructure US Government Cloud with the FedRAMP High Joint Authorization Board.
Oracle Cloud Infrastructure US Federal Cloud with DISA Impact Level 5 Authorization	Provides information specific to Oracle Cloud Infrastructure US Federal Cloud with DISA Impact Level 5 authorization.

Restrictions

Note the following current restrictions when creating Oracle Integration instances and using them in Oracle Cloud Infrastructure US Government Cloud environments.

New Oracle Integration Generation 2 instances

You cannot provision a new Oracle Integration Generation 2 instance in the Oracle US Defense Cloud (realm key: OC3). Additionally, most organizations cannot provision a new Oracle Integration Generation 2 instance in the Oracle US Government Cloud (realm key: OC2). The only organization that can provision a new Oracle Integration Generation 2 instance in the Oracle US Government Cloud are tenancies that do not use identity



domains. To create an Oracle Integration 3 instance, see Create an Oracle Integration Instance in Using Oracle Integration 3 on Oracle Cloud Infrastructure US Government Cloud.

· Export and import of design-time metadata

US Government Cloud environments currently don't support export and import of designtime metadata between instances (see Import and Export Instances in *Provisioning and Administering Oracle Integration Generation 2*), whether you use the Import/Export page or the REST API Clone command in US Government Cloud environments. Note that you can import and export packages.

Credentials for API invocations

In US Government Cloud realm (OC2 and OC3) accounts, you can use login credentials (username and password) for console-based login flows. However, you can't use these login credentials for programmatic API invocations. To use a user account for Basic Auth authentication to invoke programmatic APIs, you must create an OAuth 2.0 client credential under that user account and use that credential as a Basic Auth credential. See Configure Basic Authentication Using Client Credentials.

Use of FTP Adapter with private keys

If you use the FTP Adapter with private keys (with a passphrase) in government environments, only OpenSSH-formatted keys are supported. RSA keys are not supported if the private key is associated with a passphrase.

Account for running scheduled integrations

To run a scheduled integration in an Oracle Cloud Infrastructure US Government Cloud environment, you must use a non-federated account. The user should ideally be a service account user profile, and not an actual in-person user account profile.

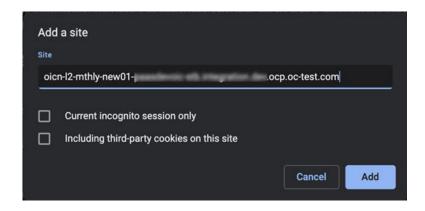
If you use a federated account, the scheduler cannot trigger jobs and intermittently errors out with a Schedule request submitted message.

Logging out in an incognito browser

For users working in Chrome incognito mode: Add your Oracle Integration service instance application domain for third-party cookies as shown below. This workaround ensures users are logged out of their sessions after signing out.

- 1. From an incognito browser window, click , then Settings.
- 2. Select Privacy and Security from the left pane, then Cookies and other site data.
- 3. Click Add next to Sites that can always use cookies.
- In the Add a site dialog that appears, enter your service instance application domain, leave the two checkboxes deselected, and click Add.





This ensures users are logged out of their sessions after signing out.



Set Up Users and Groups on Oracle Cloud Infrastructure US Government Cloud

Configure users and groups in Oracle Cloud Infrastructure and grant them the right level of access.

Topics:

- Configure Access to Create and Manage Instances
- Configure OAuth Authentication in Oracle Cloud Infrastructure US Government Cloud Environments

Configure Access to Create and Manage Instances

Create users and grant them permission to create and manage Oracle Integration instances.

A user's permissions to access Oracle Cloud Infrastructure services comes from the groups to which they belong. The permissions for a group are defined by policies. Policies define what actions members of a group can perform, and in which compartments. Users can then access services and perform operations based on the policies set for the groups in which they are members.

Extend Oracle Integration permissions to Oracle Cloud Infrastructure users by creating groups for key Oracle Integration roles, adding users to the groups, then creating policies that grant access to specified resources and permissions to users in those groups.

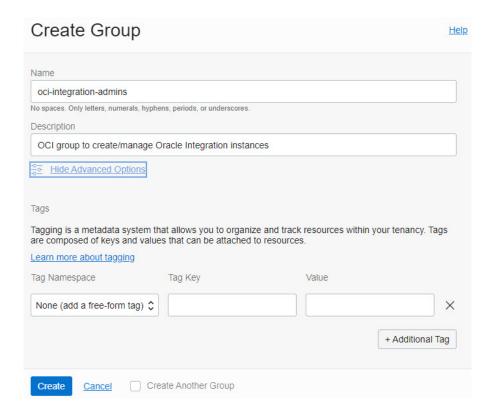
As an administrator, follow these main steps:

- Create an Oracle Cloud Infrastructure Group and Users
- Create an Oracle Cloud Infrastructure Policy
- Assign Policies to Oracle Integration Service Role Groups

Create an Oracle Cloud Infrastructure Group and Users

To create an instance administrator group in Oracle Cloud Infrastructure IAM and add users to it:

- 1. Open the navigation menu and click **Identity & Security**. Under **Identity**, click **Groups**.
- 2. Click Create Group.
- 3. In the Create Group screen, assign a name to the group (for example, oci-integration-admins), and enter a description.



- 4. Click Create.
- 5. Add users to your new group so they can create and manage Oracle Integration instances.
 - a. Open the navigation menu and click **Identity & Security**. Under **Identity**, click **Users**.
 - b. Click Create User.
 - c. Complete the following entries and click **Create**.
 - Name: A unique name or email address for the user. The name must be unique across all users in your tenancy. You cannot change this value later. The name must meet the following requirements: no spaces, only Basic Latin letters (ASCII), numerals, hyphens, periods, underscores, +, and @.
 - Description: This value could be the user's full name, a nickname, or other descriptive information. You can change this value later.
 - Email: Enter an email address for the user. This email address is used for
 password recovery. The email address must be unique in the tenancy. If the user
 forgets their password, they can click Forgot Password on the sign on page, and
 a temporary password is generated and sent to the email address provided here.
 The user or an administrator can also update the email address later.
 - d. On the user details page, add users to the group.



For more information, see Managing Users in the Oracle Cloud Infrastructure Documentation.

Click Groups.

- Click Add User to Group.
- Select the group from the drop-down list, and then click Add.

Create an Oracle Cloud Infrastructure Policy

Create a policy to grant permission to the users in a group to work with Oracle Integration instances within a specified tenancy or compartment.

To create and assign a policy to the Oracle Cloud Infrastructure group:

- 1. Open the navigation menu and click **Identity & Security**. Under **Identity**, click **Policies**.
- 2. Click Create Policy.
- 3. In the Create Policy window, enter a name (for example, IntegrationGroupPolicy) and a description.
- 4. In the Policy Builder, select Show manual editor and enter the required policy statements:

Syntax::

 allow group group_name to verb resource-type in compartment compartmentname

allow group group name to verb resource-type in tenancy

Example: allow group oci-integration-admins to manage integration-instance in compartment OICCompartment

This policy statement allows the oci-integration-admins group in the admin domain to manage instance integration-instance in compartment OICCompartment.

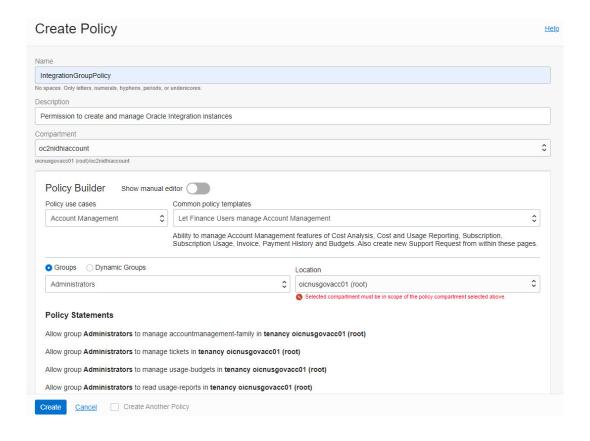
You can create separate groups for different permissions, such as a group with read permission only.

Want to learn more about policies? See How Policies Work and Policy Reference, or click **Help** in the window.

- When defining policy statements, you can specify either verbs (as used in these steps) or permissions (typically used by power users).
- The read and manage verbs are most applicable to Oracle Integration. The manage verb has the most permissions (create, delete, edit, move, and view).

Verb	Access
read	Includes permission to view Oracle Integration instances and their details.
manage	Includes all permissions for Oracle Integration instances.





Click Create.

The policy statements are validated and syntax errors are displayed.

Assign Policies to Oracle Integration Service Role Groups

After an Oracle Integration instance has been created, create and assign a policy for each Oracle Integration service role and scope needed.

Extend Oracle Integration permissions to Oracle Cloud Infrastructure users by creating groups for key Oracle Integration roles, adding users to the groups, then creating policies that grant access to specified resources and permissions to users in those groups.

Oracle Integration provides a standard set of service roles, which govern access to features. See Oracle Integration Service Roles.

To assign policies to Oracle Integration service role groups:

 Create the appropriate groups and users. See Create an Oracle Cloud Infrastructure Group and Users.

Depending on the Oracle Integration features your organization uses, you may need to create groups for some or all of the roles. For example, you might create and name groups as follows:

- OICServiceAdministrators to grant admin permissions in service instances
- OICServiceDevelopers to grant developer permissions in service instances
- OICServiceInvokers to grant service invoke only permission to one instance
- OICServiceMonitors to grant monitor only permission to one or more instances
- 2. Create the appropriate policies. See Create an Oracle Cloud Infrastructure Policy.



Syntax: allow group group_name to be service_role for resource-type in compartment compartment-name



You can also restrict access to a specified instance by including an optional where clause.

Description	Example Policy
Grant the ServiceAdministrator role for a compartment	allow group OICAdminGroup to be ServiceAdministrator for integration-instances in compartment OICCompartment
Grant the ServiceDeveloper role for a compartment	allow group OICDeveloperGroup to be ServiceDeveloper for integration-instances in compartment OICCompartment
Grant the ServiceInvoker role for an Oracle Integration instance	allow group OICInvokerGroup to be ServiceInvoker for integration-instances in compartment OICCompartment
	<pre>where all {target.app.name='test-instance1', target.app.type='integration-instances'}</pre>
	Here the where clause grants users assigned to group <code>OICInvokerGroup</code> the <code>ServiceInvoker</code> role to one Oracle Integration instance identified by its instance name and created in <code>OICCompartment</code> .
Grant the ServiceMonitor role for two Oracle Integration instances	allow group OICMonitorGroup to be ServiceMonitor for integration-instances in compartment OICCompartment
	<pre>where any {target.app.name='test-instance1', target.app.name='instance-prod-1'}</pre>
	This policy grants the ServiceMonitor Role to the OICMonitorGroup group over two instances identified by their respective names in OICCompartment.

Oracle Integration Service Roles

Oracle Integration predefined roles govern access to various Oracle Integration features.

The following table lists the predefined roles available in Oracle Integration, and the general tasks that users assigned the roles can perform. You can assign one or more of the predefined roles to Oracle Integration users and groups.

Oracle Integration ServiceAdministrator	Description	
	A super user who can manage and administer the features provisioned an Oracle Integration instance.	
ServiceDeveloper	Develops the artifacts specific to the features provisioned in an Oracle Integration instance. A developer can create integrations.	
ServiceMonitor	Monitors the features provisioned in an Oracle Integration instance. For example, a user assigned this roled can view instances and metrics, find out response times, and track whether instance creation completed successfully or failed.	
	This role provides privileges for users with limited knowledge of Oracle Integration, but with high-level knowledge of monitoring it. This user role does not grant permissions to change anything.	
ServiceDeployer	Publishes the artifacts developed in a feature.	
	This role is not applicable for the Integrations feature.	



Oracle Integration Description		
ServiceUser	Privileges to utilize only the basic functionality of a feature such as access to the staged and published applications.	
	For example, in Integrations the user can navigate to resource pages (such as integrations and connections) and view details, but can't edit or modify anything. The user can also run integrations.	
ServiceInvoker	Invokes any integration flow in an Oracle Integration instance that is exposed through SOAP/REST APIs or a scheduled integration. A user with ServiceInvoker role cannot: Navigate to the Oracle Integration user interface or perform any administrative actions in the user interface. Invoke any of the documented Oracle Integration REST APIs.	
ServiceViewer	Navigates to all Oracle Integration resource pages (for example, integrations, connections, lookups, libraries, and so on) and view details. The user cannot edit any resources or navigate to the administrative setting pages.	

In Oracle Integration, when you assign a role to a user, the user is granted that role for all Oracle Integration features provisioned on an instance. Further, each role grants different privileges for different features to the same user. Note that not all Oracle Integration predefined roles are available in all features.

Configure OAuth Authentication in Oracle Cloud Infrastructure US Government Cloud Environments

Configure OAuth 2.0 or Basic Authentication using client credentials, and configure a connectivity agent.

Topics:

- Configure OAuth 2.0 Authentication Using Client Credentials
- Configure Basic Authentication Using Client Credentials
- Configure the Connectivity Agent

Configure OAuth 2.0 Authentication Using Client Credentials

To configure OAuth 2.0 authentication for invoking Oracle Integration APIs, configure and use client credentials.

For OAuth authentication in Oracle Cloud Infrastructure in government environments, client credentials is the only authorization grant flow supported. OAuth client credentials grant flow semantics are built into Oracle Cloud Infrastructure's IAM and scoped to an IAM user profile. Any user can create an OAuth 2.0 client credentials user for their user account using the Oracle Cloud Infrastructure Console.

To configure OAuth client credentials, follow these main steps:

- Gather Needed Information
- Generate the Client Credentials
- Obtain an OAuth Bearer Token
- Use the Bearer Token to Invoke Oracle Integration APIs

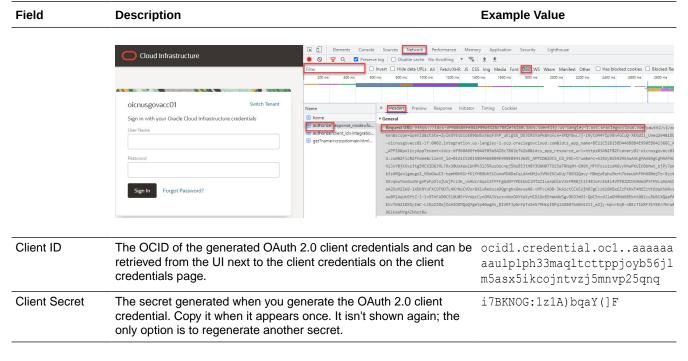


Gather Needed Information

Ensure you have the information described in the following table available.

Field	Description	Example Value	
Instance (friendly URL)	On the Integration Instance Details page, this is the value of the Service Console URL.	https://canary02- oicnusgovacc01- lf.0002.integration.us- langley-1.ocp.oraclegovcloud .com/ic/home	
Audience (permanent URL)	allowed to access. This value is automatically populated by the OAuth resource	https:// 1403FE2A654445B7AAC83480F67E 8C48.0001.integration.dev.oc p.oc-test.com:443	
Scope	The applications you want this client to invoke or the APIs of the service instances you want to invoke. Scopes relevant for Oracle Integration are listed. You can use either one. This value is automatically populated by the OAuth resource selector.	urn:opc:resource:consume r::all/ic/api/	
Associated UPI stripe	The associated UPI stripe for the Oracle Integration instance, along with its admin user and admin password. This is used to obtain an OAuth 2.0 token. To find the UPI stripe: 1. On the Integration Instance Details page, copy the Service Console URL. For example: https://canary02-oicnusgovacc01-lf.0002.integration.us-langley-1.ocp.oraclegovcloud.com/ic/home 2. Open a browser window, then right-click on the browser and select Inspect to open the developer tools pane. 3. In the developer tools pane, click the Network tab, then click Doc. Make sure that the Filter field is empty. 4. Paste the service console URL from step 1 into your browser address bar. 5. In the developer tools pane, in the Name column, click the authorize? call, then click Headers. The first part of the Request URL specifies the UPI stripe. For example: https://idcs- df980486fe044f09a5428c7862e7b2b0.idcs.identity.us-langley-1.oci.oraclegovcloud.com	• UPI stripe: https://idcs- df980486fe044f09a5428c78 62e7b2b0.idcs.identity.u s- langley-1.oci.oraclegovc loud.com • Admin user: upi-test- admin-user • Admin password: Welcome@123456	





Generate the Client Credentials

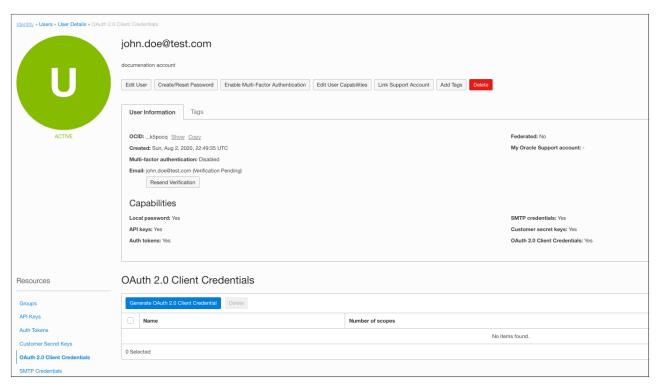
To generate the client credentials:

 Open the navigation menu and click Identity & Security. Under Identity, click Users. In the Name column, click the user name that you want to update. The User Details screen is displayed.

To programmatically invoke an API, you typically create a client credential under a service account user. The credential must be created at the user level, not a group level.

Under Resources, select OAuth 2.0 Client Credentials.





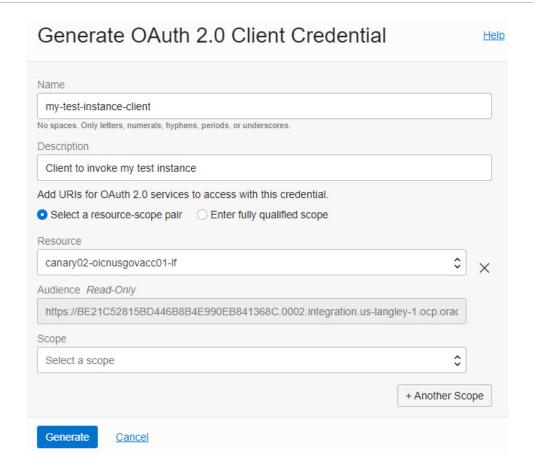
Click Generate OAuth 2.0 Client Credential.

The Generate OAuth 2.0 Client Credential dialog is displayed.

4. Use the resource selector to select an Oracle Integration instance and populate audience and scope fields.

The resource selector dropdown lists all Oracle Integration instances across all subscribed regions in your Oracle Cloud Infrastructure tenancy. The list is further filtered by the compartments to which you have access. This view enables you to select the Oracle Integration instance that the client needs to invoke, and doing so automatically populates the audience and scope values, as shown below. Note that IAM users and by extension OAuth 2.0 client credentials are global, whereas Oracle Integration instances are created in a region and so are regional.





Complete additional entries in the Generate OAuth 2.0 Client Credential dialog.For more information, refer to the table in Gather Needed Information.

Click Generate.

The generated credential is displayed. The client credential includes the client credential's OCID and a one-time password.

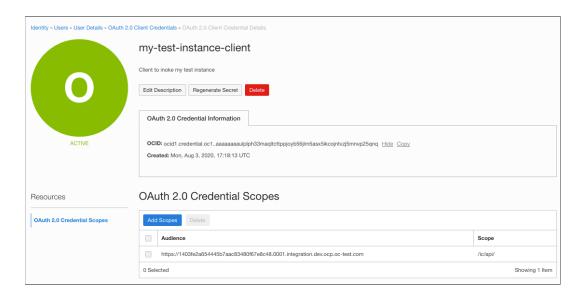


7. Note the password, then click **Close**.

The credential password appears here just once. There is no way to retrieve a password; if you lose it, you must regenerate the credential.

8. If needed, edit the client credential.

The generated client credential is listed under **OAuth 2.0 Client Credentials**. You can view or change its attributes and regenerate the client secret if needed on the credential details screen.



Obtain an OAuth Bearer Token

Once you have the OAuth client credential configured, you can get an OAuth bearer token based on the generated values.

To obtain an OAuth bearer token, enter the following values in your API request, using either POSTMAN or curl:

- Client ID and secret:
 - Client ID:

ocid1.credential.oc1..aaaaaaaaulplph33maqltcttppjoyb56jlm5asx5ikcojntvzj5mnvp25qnq

- Client Secret: i7BKNOG:1z1A) bqaY(]F
- 2. UPI stripe token request endpoint (POST):

```
https://idcs-364c06d3202948828edee2b8ba4dbc16.idcs.identity.us-phoenix-1.oci.oraclecloud.com/oauth2/v1/token
```

3. Scope definition in the POST request payload:

For this instance the scope definition is a concatenation of the audience and scope (exactly) as defined in the client credentials creation step above.

```
'grant_type=client_credentials'
'scope=https://
1403FE2A654445B7AAC83480F67E8C48.0001.integration.dev.ocp.oc-
test.com:443urn:opc:resource:consumer::all https://
1403FE2A654445B7AAC83480F67E8C48.0001.integration.dev.ocp.oc-
test.com:443/ic/api'
```

4. Request:

```
curl -X POST \
  https://idcs-364c06d3202948828edee2b8ba4dbc16.idcs.identity.us-
phoenix-1.oci.oraclecloud.com/oauth2/v1/token \
  -H 'Accept: application/json'\
  -H 'Authorization: Basic
```



b2NpZDEuY3J1ZGVudG1hbC5vYzEuLmFhYWFhYWFhdWxwbHBoMzNtYXFsdGN0dHBwam95YjU2amx
tNWFzeDVpa2Nvam50dnpqNW1udnAyNXFucTppN0JLTk9HOjF6MUEpYnFhWShdRg=='\
-H 'Cache-Control: no-cache' \
-H 'Content-Type: application/x-www-form-urlencoded' \
U leache control: page 2006.

-H 'cache-control: no-cache' \
-d 'grant_type=client_credentials&scope=https://
1403FE2A654445B7AAC83480F67E8C48.0001.integration.dev.ocp.octest.com:443urn:opc:resource:consumer::all https://
1403FE2A654445B7AAC83480F67E8C48.0001.integration.dev.ocp.oc-

5. Response:

"access token":

test.com:443/ic/api'

"eyJ4NXQjUzI1NiI6Ijc3NmdPRkNZZUxSZ0J2Q2JFcHE4dkq3OVc1UUxhWG91Q1c1QkN0U0xEek EilCJ4NXQiOiJtejFrdVE4TEJudUF1VEs3S3EwQ31RUlpCMmsilCJraWQiOiJhc3ctb2F1dGhfb 2MxXzY1MmI4YjI5IiwiYWxnIjoiUlMyNTYifQ.eyJ1c2VyX3R6IjoiTVNUIiwic3ViIjoiam9ob i5kb2VAdGVzdC5jb20iLCJ1c2VyX2xvY2FsZSI6IkVOIiwidXNlc19kaXNwbGF5bmFtZSI6Impv aG4uZG9lQHRlc3QuY29tIiwic3ViX21hcHBpbmdhdHRyIjoidXNlck5hbWUiLCJpc3MiOiJhdXR oU2VydmljZS5vcmFjbGUuY29tIiwidG9rX3R5cGUiOiJBVCIsInB0eXBlIjoidXNlciIsInVzZX JfdGVuYW50bmFtZSI6ImlkY3MtMzY0YzA2ZDMyMDI5NDq4MjhlZGVlMmI4YmE0ZGJjMTYiLCJjb GllbnRfaWQiOiJvY21kMS5jcmVkZW50aWFsLm9jMS4uYWFhYWFhYWF1bHBscGgzM21hcWx0Y3R0 cHBqb3liNTZqbG01YXN4NWlrY29qbnR2emo1bW52cDI1cW5xIiwiYXVkIjpbImh0dHBz0lwvXC9 0ZXN0ZG5zdXBpNnVzaW5nbWlnbGFiLWlkYWF0MzFkanZpcy1jcGkuMDAwMS5pbnR1Z3JhdGlvbi 5kZXYub2NwLm9jLXR1c3QuY29tOjQ0MyIsImh0dHBzOlwvXC8xNDAzRkUyQTY1NDQ0NUI3QUFDO DM00DBGNjdF0EM00C4wMDAxLmludGVncmF0aW9uLmRldi5vY3Aub2MtdGVzdC5jb206NDQzIiwi dXJuOm9wYzpsYmFhczpsb2dpY2FsZ3VpZD0xNDAzRkUyQTY1NDQ0NUI3QUFDODM0ODBGNjdFOEM 00CJdLCJ1c2VyX21kIjoib2NpZDEudXNlci5vYzEuLmFhYWFhYWFhMjdqZW1vcmZ3YXp2ZDVtc2 JiNzJxM2hlN3Frd2JzeXlkNzd0bWxvbmVoYzU0aGs1cG9jcSIsInN1Y190eXBlIjoidXNlciIsI nNjb3BlIjoidXJuOm9wYzpyZXNvdXJjZTpjb25zdW1lcjo6YWxsIFwvaWNcL2FwaSIsImNsaWVu dF90ZW5hbnRuYW1lIjoiaWRjcy0zNjRjMDZkMzIwMjk00Dgy0GVkZWUyYjhiYTRkYmMxNiIsInV zZXJfbGFuZyI6IkVOIiwiZXhwIjoxNTk2NTYzNzcwLCJpYXQiOjE1OTY1NjAxNzAsImNsaWVudF 9ndWlkIjoib2NpZDEuY3J1ZGVudGlhbC5vYzEuLmFhYWFhYWFhdWxwbHBoMzNtYXFsdGN0dHBwa m95YjU2amxtNWFzeDVpa2Nvam50dnpqNW1udnAyNXFucSIsImNsaWVudF9uYW11IjoibXktdGVz dC1pbnN0YW5jZS1jbG1lbnQiLCJ0ZW5hbnRfaXNzIjoiaHR0cHM6XC9cL2lkY3MtYmEyZDI0NDg 0MmJhNGZiYWJ1NmIzM2V1MGIxM2MwYzEuaWRjcy5pZGVudG10eS51cy1hc2hidXJuLTEub2NpLm 9yYWNsZWNsb3VkLmNvbSIsImp0aS16IjkyZGNkMDQzLTc0MDYtNGJhZi1hZTMxLTVmY2JmZTk4Y zRiNSIsInRlbmFudCI6ImlkY3MtMzY0YzA2ZDMyMDI5NDg4MjhlZGVlMmI4YmE0ZGJjMTYifQ.J 8atPO-RjSsplzzzTYkT5 NCYo33gfHQJqZomJ3dZvrSpGdPDJ6Xxtb-UrLMLFGOZEaw-b4-JaY z4KWETjlicseeMTBIgnpeiqf0QppqS0vJeMzy3kA EIJrtcX NQgl0UYpGtyNq5-HTix6fPULYMf ZMhLm7XAh551QAwL TP gz1QAXRsbYkzN 19Hs kgJZ-K1Z2cwYL12H3o36x2d2V3ESZNejPwSwutky8nT0bLBT78kwfc3YRzkhThb613XD3r4oLyYLGbTi e9wHbufHjkAbcZRX7JR hPjSxhm ijVlOlEvFCy5Smn5-vss3dDBKJocGIIpbSfFyffxHQ", "token type": "Bearer", "expires in": "3600"

Use the Bearer Token to Invoke Oracle Integration APIs

Using the bearer token obtained in Obtain an OAuth Bearer Token, you can now invoke Oracle Integration APIs. See REST API for Oracle Integration.

For example:

Configure Basic Authentication Using Client Credentials

To configure Basic Authentication for invoking Oracle Integration APIs in an Oracle Cloud Infrastructure US Government Cloud environment, use the client ID and secret from an OAuth 2.0 client credential as the Basic Authentication credentials.

As a general Oracle Cloud Infrastructure security rule, Basic Authentication is not recommended as an authentication method, due to its inherent flaws.

Oracle Cloud Infrastructure's IAM model doesn't allow user login credentials to be used as Basic Authentication credentials. This means that login credentials (to log into the Oracle Cloud Infrastructure Console or to the Oracle Integration functional console) can't be used when invoking Oracle Integration APIs as a Basic Authentication credential. Instead, use the ID and secret from OAuth 2.0 client credentials as the Basic Authentication credentials (user name and password).

To configure OAuth client credentials as Basic Authentication credentials:

Create OAuth client credentials.

Follow the steps in Configure OAuth 2.0 Authentication Using Client Credentials on generating the client credential. Note the client ID and client secret that are generated.

Example values:

- Client ID:
 - ocid1.credential.oc1..aaaaaaaaulplph33maqltcttppjoyb56jlm5asx5ikcojntvzj5mnvp25qnq
- Client Secret: i7BKNOG:1z1A)bqaY(]F
- 2. Use the OAuth credentials as the Basic Auth credentials directly in a command.

See these examples that use values from above.

Using base64 encoding:

```
# echo
'ocid1.credential.oc1..aaaaaaaaulplph33maqltcttppjoyb56jlm5asx5ikcojntvz
j5mnvp25qnq:i7BKNOG:1z1A)bqaY(]F' | base64
b2NpzDEuY3J1ZGVudGlhbC5vYzEuLmFhYWFhYWFhdWxwbHBoMzNtYXFsdGN0dHBwam95YjU2
amxtNWFzeDVpa2Nvam50dnpqNW1udnAyNXFucTppN0JLTk9H0jF6MUEpYnFhWShdRgo=
```

Returned base64 string in the Authorization header:

```
curl -X GET \
  testdnsupi6usingmiglab-idaat31djvis-cpi.0001.integration.dev.ocp.oc-
test.com:443/ic/api/integration/v1/connections \
  -H 'Authorization: Basic
```



b2NpZDEuY3J1ZGVudG1hbC5vYzEuLmFhYWFhYWFhdWxwbHBoMzNtYXFsdGN0dHBwam95YjU2 amxtNWFzeDVpa2Nvam50dnpqNW1udnAyNXFucTppN0JLTk9H0jF6MUEpYnFhWShdRgo=' \
-H 'cache-control: no-cache'

Configure the Connectivity Agent

The Connectivity Agent is required to connect Oracle Integration with an on-premises database. To use the Connectivity Agent in an Oracle Cloud Infrastructure US Government Cloud environment, it needs a non-federated account with the ServiceAdministrator role.

If you try to run the Connectivity Agent installation as a federated user, it fails. To prevent this issue, follow the steps below to configure a nonfederated (IAM) user to install the agent. This user enables the agent to communicate with Oracle Integration.

1. Configure a user with permissions to install the agent, by adding an IAM policy that assigns the ServiceAdministrator role for the compartment.

Syntax: allow group OICAdminGroup to be ServiceAdministrator for integration-instances in compartment OICCompartment

Example: allow group OICServiceDevelopers to be ServiceAdministrator for integration-instances in compartment OrganizationCompartment

2. In the Connectivity Agent, configure Basic Authentication using client credentials.

Use the client ID and secret instead of a username and password for the authentication.

- a. Generate the OAuth client credentials. See Generate the Client Credentials.
- Use the client credentials in Basic Authentication in the Connectivity Agent configuration. See Configure Basic Authentication Using Client Credentials.
- 3. If you need to restart the Connectivity Agent at some point, ensure that the username and password credentials for the user you configured above are still valid.



3

Work with Oracle Integration Generation 2 Instances on Oracle Cloud Infrastructure US Government Cloud

Create and edit Oracle Integration Generation 2 instances in the Oracle Cloud Infrastructure Console.

Topics:

- Create an Oracle Integration Instance
- View Instance Details

Create an Oracle Integration Instance



You cannot provision a new Oracle Integration Generation 2 instance in the Oracle US Defense Cloud (realm key: OC3). Additionally, most organizations cannot provision a new Oracle Integration Generation 2 instance in the Oracle US Government Cloud (realm key: OC2). The only organization that can provision a new Oracle Integration Generation 2 instance in the Oracle US Government Cloud are tenancies that do not use identity domains. To create an Oracle Integration 3 instance, see Create an Oracle Integration Instance in Using Oracle Integration 3 on Oracle Cloud Infrastructure US Government Cloud.

To create an Oracle Integration instance in a selected compartment:

1. In the upper corner, note your selected region.

Once created, instances are visible only in the region in which they were created.



Open the navigation menu and click Developer Services. Under Application Integration, click Integration.



3. From the **Compartment** list, click through the hierarchy of compartments and select the one in which to create the instance. You may need to expand the + icon to find the compartment to use. Compartments can contain other compartments. It may take several minutes for the new compartment to appear after the policy has been created.





Do NOT select the root or ${\tt ManagedCompartmentForPaaS}$ compartment in which to create your instance.

The page is refreshed to show any existing instances in that compartment.



- 4. Click Create.
- 5. Enter the following details and click **Create**:

Field	Description	
Display Name	Enter the display name for the instance. Note that the display name becomes part of the URL for accessing the instance.	



Field	Description
Consumption Model	Lists consumption models available in this tenancy. Typically, one model is displayed, but multiple consumption models are listed if your tenancy is enabled for more than one. Available models include: Metered (Universal Credit) Oracle Integration Government
	Note: Oracle Integration Government is a license and doesn't specify the realm.
License Type	 Select to create a new Oracle Integration license in the cloud. This provides you with packages of 5K messages per hour. Select to bring an existing Oracle Fusion Middleware license to the cloud for use with Oracle Integration. This provides you with packages of 20K messages per hour. This option is also known as bring your own license (BYOL).
Message Packs	The message pack options available for selection are based on the version of Oracle Integration instance you are creating. Select the number of message packs. The total number of messages available per pack is based on the License Type option you selected. You can select up to 3 message packs if you bring an existing Oracle Fusion Middleware license to the cloud. You can select up to 12 message packs if you create a new Oracle Integration license in the cloud.

Typically, the selected model is displayed after **Consumption Model**. If multiple consumption models are listed, choose the model you'd like used for this instance.

Instance creation takes some time. If you attempt to click the instance name and receive a 401: Authorization failed or a 404: Not Found error, but followed all the correct steps, instance creation has not completed. Wait a few more minutes.

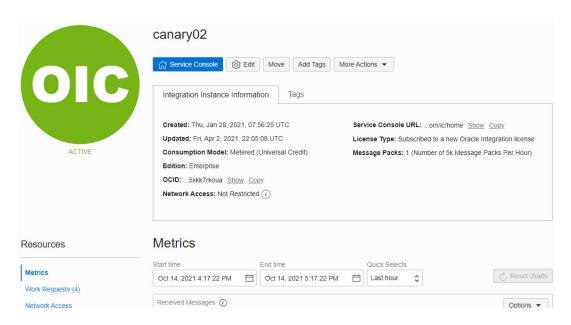
6. When instance creation completes successfully, the instance shows as **Active** in the **State** column.

View Instance Details

You can view details about a provisioned instance and perform tasks such as accessing the instance login page to design integrations, viewing custom endpoint details, editing an instance, adding tags, and deleting instances.

- 1. Open the navigation menu and click **Developer Services**. Under **Application Integration**, click **Integration**.
- In the Display Name column, click a specific instance name. The Details page is displayed. The word Active is displayed beneath the green circle to indicate that this instance is running.





The following table describes the key information shown on the instance details page:

Field	Description
Integration Instance Information tab	 Creation date Last updated date (for example, the last time started) Selected consumption (billable) model Edition (standard or enterprise) OCID value that uniquely identifies the instance, which can be shown in full and easily copied Network access setting, which you can change by clicking Network Access under Resources. Service Console URL, which can be shown in full and easily copied License type (either a new cloud license or an existing license brought over from Oracle Fusion Middleware). If you are viewing an Oracle Integration for SaaS instance, the License Type field is not displayed. Number of message packs and the quantity of messages in each pack
Service Console	Click to access the login page. See the Oracle Integration Help Center. Note: You can also access the login page from the main Oracle Cloud Infrastructure Console page for Oracle Integration. At the far right, click for the specific instance, and select Service Console.
Edit	Click to edit your settings. See Editing the Edition, License Type, Message Packs, and Custom Endpoint of an Instance in Provisioning and Administering Oracle Integration Generation 2.



Field	Description
Move	Click to move the instance to a different compartment. This action can take some time to complete.
	See Moving an Instance to a Different Compartment in <i>Provisioning and Administering Oracle Integration Generation 2</i> .
Add Tags	Click to add tags to the instance. You can use tags to search for and categorize your instances in your tenancy.
	See Resource Tags in the Oracle Cloud Infrastructure Documentation.
More Actions	Contains options to stop, start, or delete the instance. See in <i>Provisioning and Administering Oracle Integration Generation 2</i> : Stopping and Starting an Oracle Integration Instance Deleting an Instance
Metrics	Displays message metrics.
	See Viewing Message Metrics in <i>Provisioning</i> and Administering Oracle Integration Generation 2.
Work Requests	Lists instance life cycle activity, such as instance creation time, instance stop and start times, and so on.
Network Access	Click Edit to change the Network Access setting. Select Restrict Network Access to disallow inbound traffic from external networks.

