

ORACLE

# User provisioning from AzureAD to IDCS

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**Inge Os**

Master Principal Cloud Specialist

Oracle Norway

## Required information

The Base IDCS URL, in the format:

`https://idcs-518xxxxxxxxxxxxxxxxxxxxxxxxx728.identity.oraclecloud.com/`

AzureAD require two URL's

Identity Identifier:

`<base IDCS URL>/fed`

Reply URL (Assertion Consumer Service URL)

`<base IDCS URL> //fed/v1/sp/sso`

Sign on URL

`https://console.eu-frankfurt-1.oraclecloud.com/`

Includes home region, in this case eu-Frankfurt-1

# Creation of azureAD Enterprise Application from gallery

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# Initial creation

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The easiest way to integrate Oracle IDCS with azureAD, is to use the Enterprise application from the Enterprise Application Gallery in azureAD

The name is a bit misleading “Oracle Cloud Infrastructure”, is not for direct integration with OCI IDM, but for integration between azureAd and Oracle IDCS

# Choose the desired directory to integrate with

The screenshot displays the Microsoft Azure portal interface. The browser address bar shows the URL: `portal.azure.com/#blade/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/Overview`. The page title is "Default Directory | Overview" under the "Azure Active Directory" section. A left-hand navigation pane lists various management options: Overview, Getting started, Preview hub, Diagnose and solve problems, and a "Manage" section containing Users, Groups, External Identities, Roles and administrators, Administrative units, Enterprise applications, Devices, App registrations, and Identity Governance. The main content area features a top bar with actions: Switch tenant, Delete tenant, Create a tenant, What's new, Preview features, and Got feedback?. Below this is a search bar labeled "Search your tenant". The content is divided into two columns: "Tenant information" and "Azure AD Connect".

Tenant information	Azure AD Connect
<b>Your role</b> Global administrator <a href="#">More info</a>	<b>Status</b> Not enabled
<b>License</b> Azure AD Premium P2	<b>Last sync</b> Sync has never run
<b>Tenant ID</b> 9badf00e-b89a-490a-971b-bddf... <a href="#">Copy</a>	
<b>Primary domain</b> ingeosoracle.onmicrosoft.com	



# Select Enterprise applications

Enterprise applications - Microsoft

portal.azure.com/#blade/Microsoft\_AAD\_IAM/StartboardApplicationsMenuBlade/AllApps/menuld/

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications

Enterprise applications | All applications

Default Directory - Azure Active Directory

Overview

Overview

Diagnose and solve problems

Manage

All applications

Application proxy

User settings

Collections

Security

Conditional Access

Consent and permissions

Activity

Sign-ins

New application

Columns

Preview features

Got feedback?

Try out the new Enterprise Apps search preview! Click to enable the preview. →

Application type

Enterprise Applications

Applications status

Any






Application visibility

Any

Apply

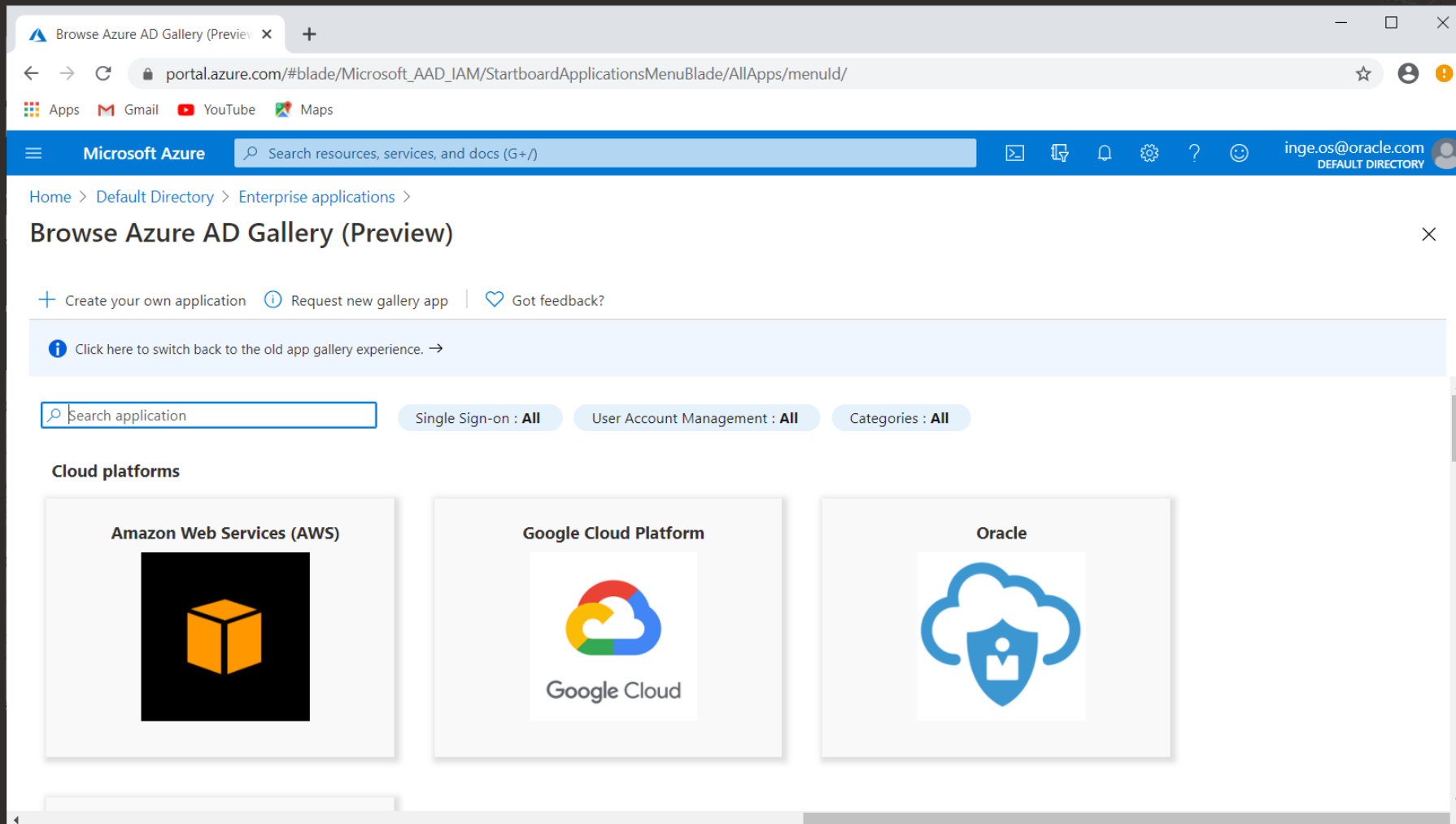
Reset

First 50 shown, to search all of your applications, enter a display name or the application ID.

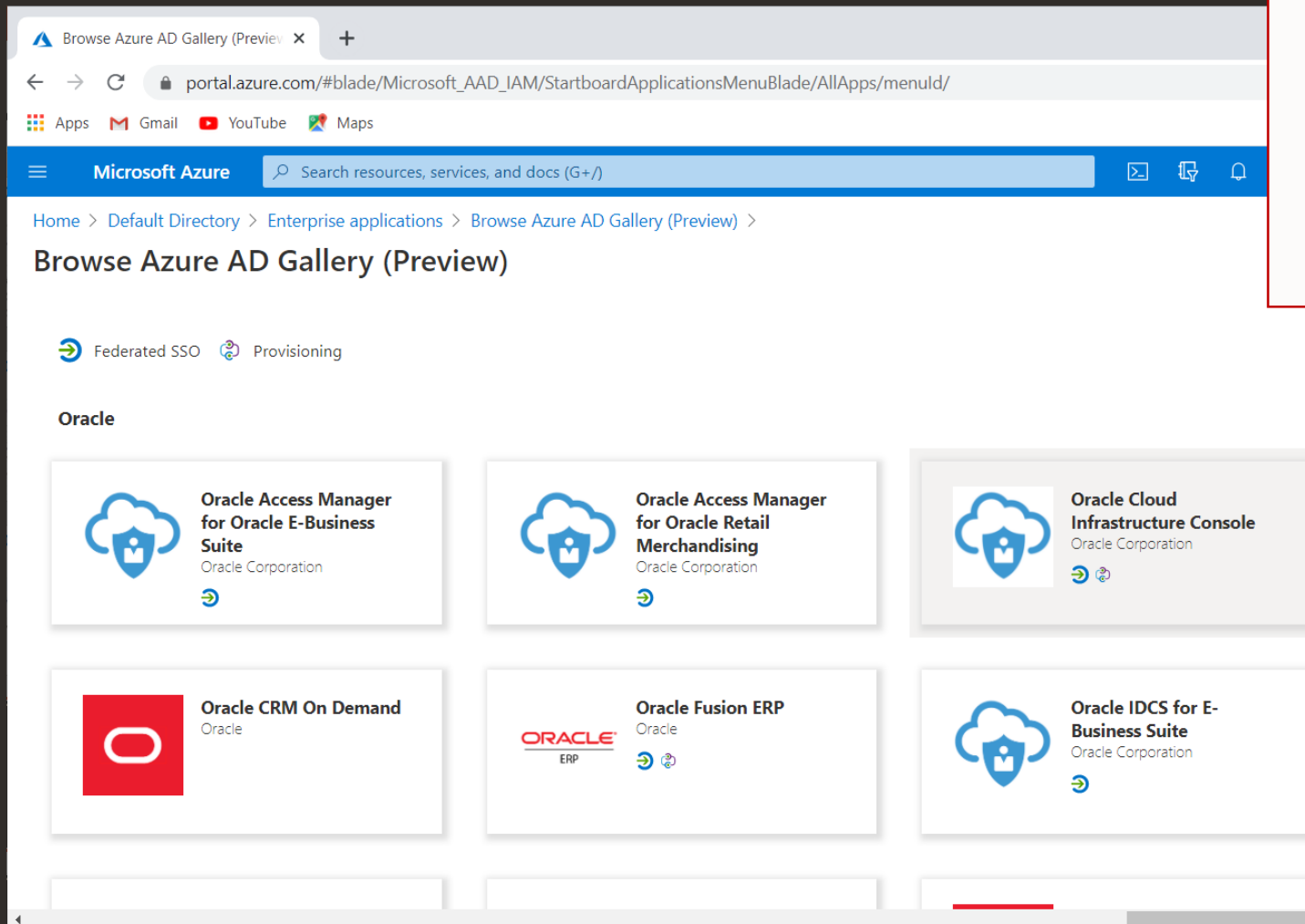
Name	Homepage URL	Object ID	Application ID
 Office 365 Exchange Online	http://office.microsoft.com/outlook/	32b04168-8921-425d-9b22-873...	00000002-0000-0ff1-ce00-00000...
 Office 365 Management APIs		4aa618ba-64fa-4395-96c2-628c7...	c5393580-f805-4401-95e8-94b7...
 Office 365 SharePoint Online	http://office.microsoft.com/sharepoint/	6fd99538-964b-4993-a371-8bba...	00000003-0000-0ff1-ce00-00000...
 Outlook Groups		c7bd6ca7-dd3f-4371-aecf-4f91f7...	925eb0d0-da50-4604-a19f-bd8d...
 Skype for Business Online		b382bb89-1317-4e97-a6e9-3496...	00000004-0000-0ff1-ce00-00000...



# Choose Oracle or search for Oracle in the search box



# Select Oracle cloud Infrastructure console



The name is a bit confusing. The gallery app is in fact for Oracle IDCS integration not OCI IDM integration



# Click on the tile to gain access to the create panel

Oracle Cloud Infrastructure Console

portal.azure.com/#blade/Microsoft\_AAD\_IAM/StartboardApplicationsMenuBlade/AllApps/menuId/

Apps Gmail YouTube Maps


Microsoft Azure Search resources, services, and docs (G+)

Home > Default Directory > Enterprise applications > Browse Azure AD Gallery (Preview) >

Browse Azure AD Gallery (Preview)


Federated SSO Provisioning

Oracle




Oracle Access Manager for Oracle E-Business Suite

Oracle Corporation




Oracle Access Manager for Oracle Retail Merchandising

Oracle Corporation



Oracle CRM On Demand

Oracle




Oracle Fusion ERP

Oracle

Oracle Cloud Infrastructure Console

Logo



Name

Oracle Cloud Infrastructure Console

Publisher

Oracle Corporation

Provisioning

Automatic provisioning supported

Single Sign-On Mode

SAML-based Sign-on  
Linked Sign-on

URL

https://cloud.oracle.com/en\_US/iaas


Read our step-by-step Oracle Cloud Infrastructure Console integration tutorial

Oracle Cloud Infrastructure combines the benefits of public cloud and on-premises environments (governance, predictability, control) into a single offering.

Create

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[Date]



# Select the Enterprise App after it is created, for bot federation and provisioning

Enterprise applications - Microso

portal.azure.com/#blade/Microsoft\_AAD\_IAM/StartboardApplicationsMenuBlade/AllApps/menuId/

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications

Enterprise applications | All applications

Default Directory - Azure Active Directory

Overview

Overview

Diagnose and solve problems

Manage

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User settings

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Consent and permissions

Activity

Sign-ins

New application

Columns

Preview features

Got feedback?

Try out the new Enterprise Apps search preview! Click to enable the preview. →

Application type

Enterprise Applications

Applications status

Any







Application visibility

Any

Apply

Reset

First 50 shown, to search all of your applications, enter a display name or the application ID.

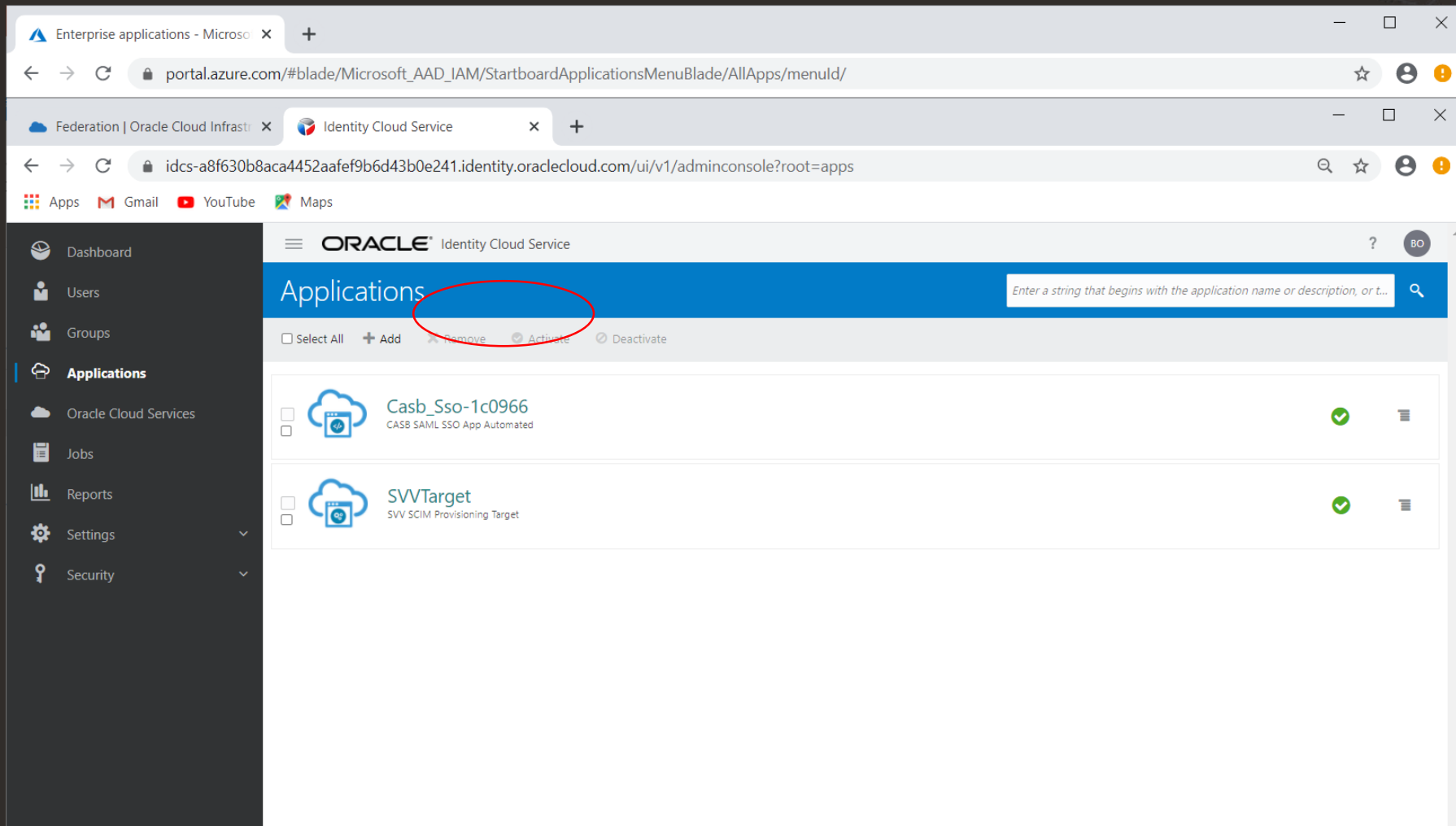
Name	Homepage URL	Object ID	Application ID
 Office 365 Exchange Online	http://office.microsoft.com/outlook/	32b04168-8921-425d-9b22-873...	00000002-0000-0ff1-ce00-00000...
 Office 365 Management APIs		4aa618ba-64fa-4395-96c2-628c7...	c5393580-f805-4401-95e8-94b7...
 Office 365 SharePoint Online	http://office.microsoft.com/sharepoint/	6fd99538-964b-4993-a371-8bba...	00000003-0000-0ff1-ce00-00000...
 Oracle Cloud Infrastructure Console	https://cloud.oracle.com/en_US/iaas	619fd6bd-c551-4030-8516-5ceff...	1576b356-63d5-4eb1-8a19-020...
 Outlook Groups		c7bd6ca7-dd3f-4371-aecf-4f91f7...	925eb0d0-da50-4604-a19f-bd8d...
 Skype for Business Online		b382bb89-1317-4e97-a6e9-3496...	00000004-0000-0ff1-ce00-00000...



# Creation of Oracle IDCS Confidential Application


---

# Add a Confidential application to IDCS, click add




# Select Confidential Applications

Add Application




App Catalog

Add an application from the Application Catalog.




SAML Application

Create an application that supports SAML for Single Sign On.




Mobile Application

Create a mobile/single-page application that uses OAuth 2.0. These applications cannot maintain the confidentiality of their client secret.



Confidential Application

Create a web-server/server-side application that uses OAuth 2.0. These apps typically run on a server and can maintain the confidentiality of their client secret.



Enterprise Application

Create a web application that is protected by the App Gateway.

# Just enter the name

Federation | Oracle Cloud Infrastr

Identity Cloud Service

← → ↻

idcs-a8f630b8aca4452aafe9b6d43b0e241.identity.oraclecloud.com/ui/v1/adminconsole?root=apps&app=add-CustomWebAppTemplateId

🔍 ☆ 👤 ⚠

📱 Apps

📧 Gmail

📺 YouTube

📍 Maps

🏠 Dashboard

👤 Users

👥 Groups

📁 Applications

☁ Oracle Cloud Services

📅 Jobs

📊 Reports

⚙ Settings

🔑 Security

ORACLE Identity Cloud Service

?

BO

Cancel

1 Details

2 Client

3 Resources

4 Authorization

Next >

Add Confidential Application

App Details


\* Name

IDCS Azure

Enter 125 or fewer characters.

Description

Application Icon



Upload

Application URL

Custom Login URL

Custom Logout URL

Custom Error URL

Linking callback URL





# Select Client Credentials

Federation | Oracle Cloud Infrast

Identity Cloud Service

←

→

↻

idcs-a8f630b8aca4452aafef9b6d43b0e241.identity.oraclecloud.com/ui/v1/adminconsole?root=apps&app=add-CustomWebAppTemplateId

🔍

☆

👤

🔔

📱 Apps

📧 Gmail

📺 YouTube

📍 Maps

Dashboard

Users

Groups

**Applications**

Oracle Cloud Services

Jobs

Reports

Settings

Security

ORACLE Identity Cloud Service

?

BO

Add Confidential Application

← Back

○

2

3

4

Details

Client

Resources

Authorization

Next >

☒ Configure this application as a client now

☐ Skip for later

Authorization

Allowed Grant Types

☐ Resource Owner

☒ Client Credentials

☐ JWT Assertion

☐ SAML2 Assertion

☐ Refresh Token

☐ Authorization Code

☐ Implicit

☐ Device Code

Allow non-HTTPS URLs

☐

Redirect URL

Logout URL

Post Logout Redirect URL

Security

☐ Trusted Client Certificate

Import

Allowed Operations

☐ Introspect

☐ On behalf Of

Bypass Consent

☐

Token Issuance Policy ⓘ

Authorized Resources

☐ All

☐ Tagged

☒ Specific

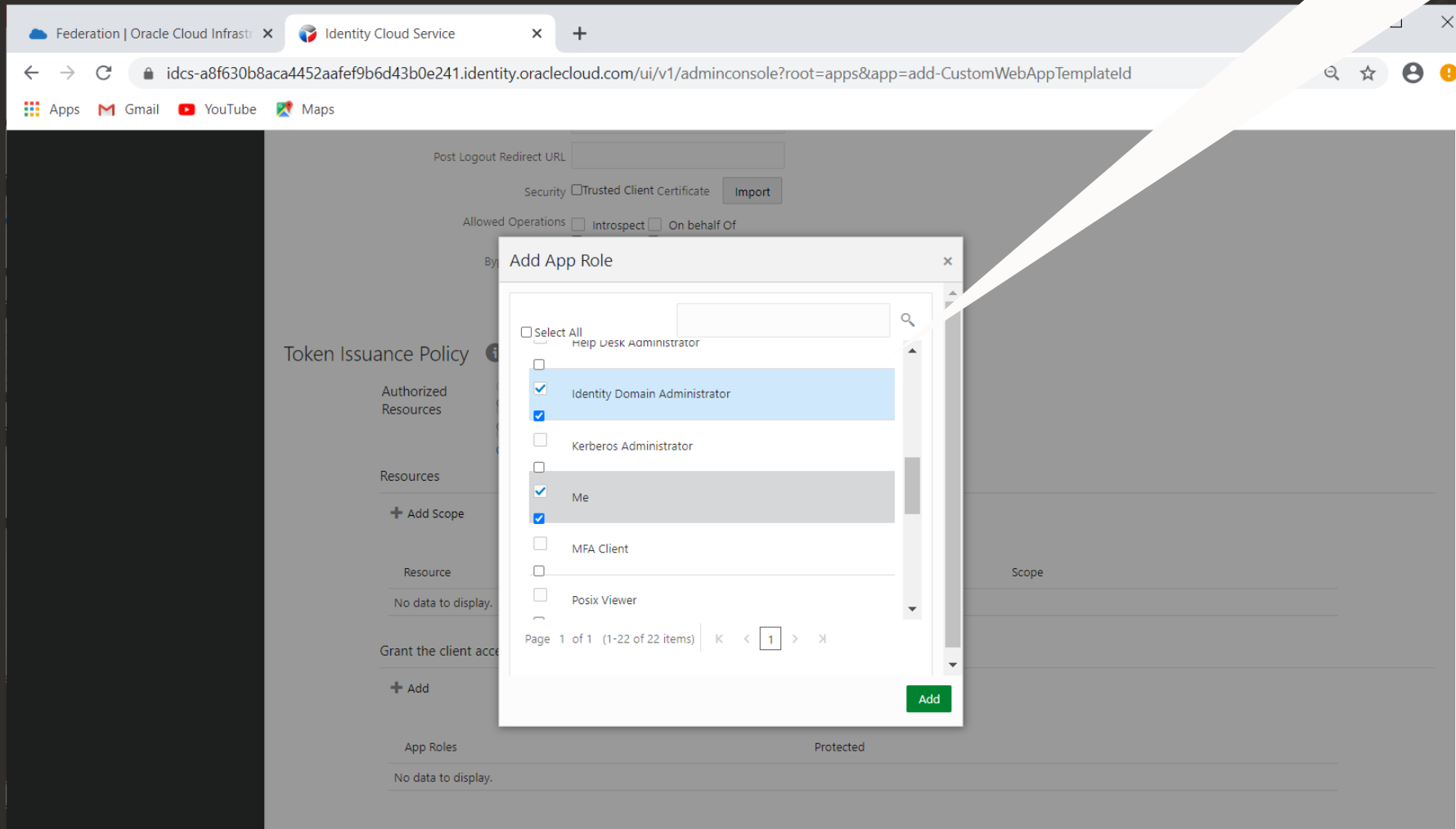
Copyright © 2020, Oracle and/or its affiliates

[Public]

[Date]

# Add applicable groups

Select Identity Domain Administrator and Me



# Confirm group selection

Federation | Oracle Cloud Infrastr

Identity Cloud Service

←

→

↺

idcs-a8f630b8aca4452aaef9b6d43b0e241.identity.oraclecloud.com/ui/v1/adminconsole?root=apps&app=add-CustomWebAppTemplateId

🔍

☆

👤

🔔

📱 Apps

📧 Gmail

📺 YouTube

📍 Maps

Security

☐ Trusted Client Certificate

Import

Allowed Operations

☐ Introspect

☐ On behalf Of

Bypass Consent

☐

Token Issuance Policy

📘

Authorized Resources

☐ All

☐ Tagged

☒ Specific

Resources

+ Add Scope

Resource	Protected	Scope
No data to display.		

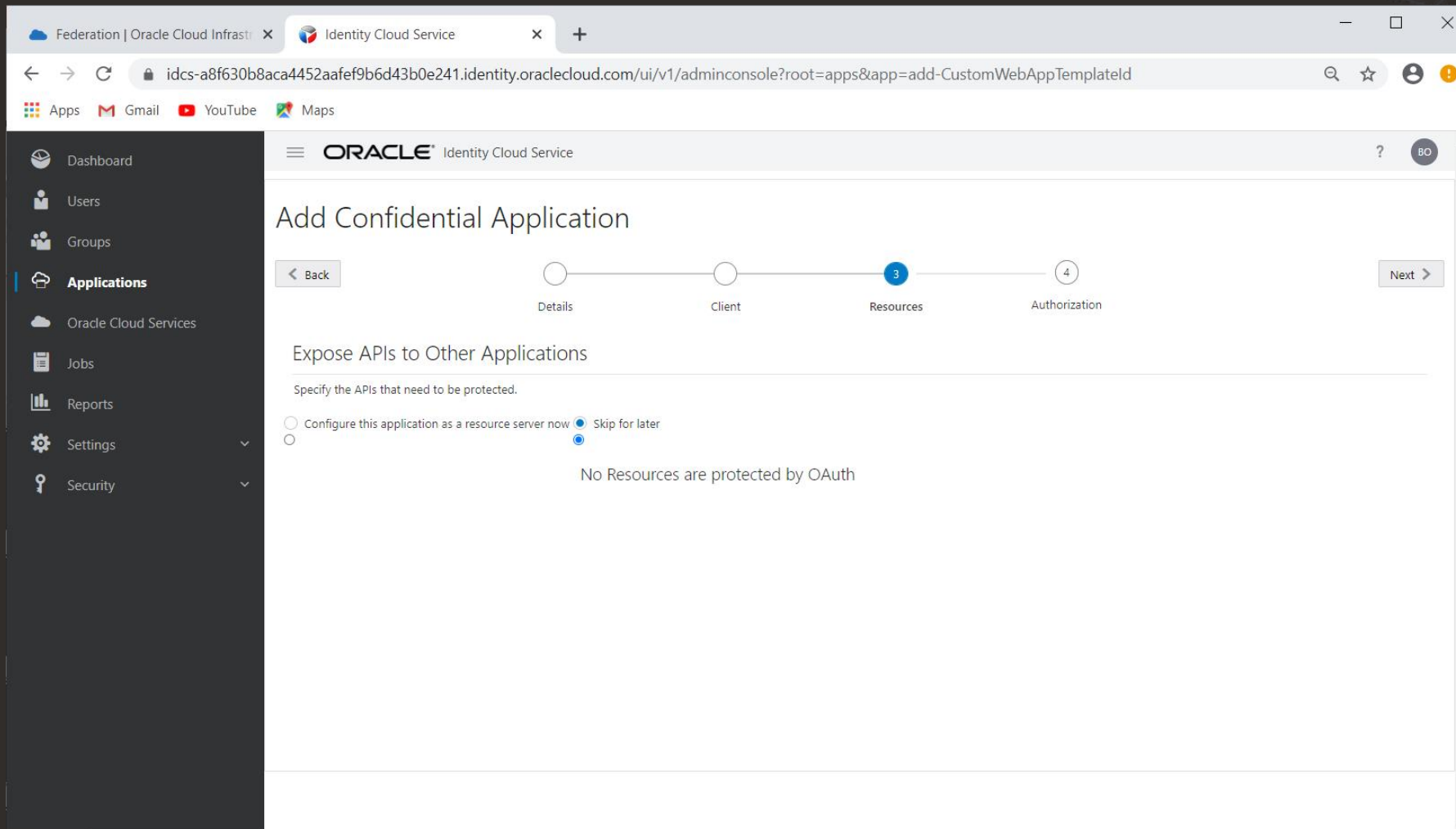
Grant the client access to Identity Cloud Service Admin APIs

+ Add

App Roles	Protected	
Identity Domain Administrator	No	×
Me	No	×



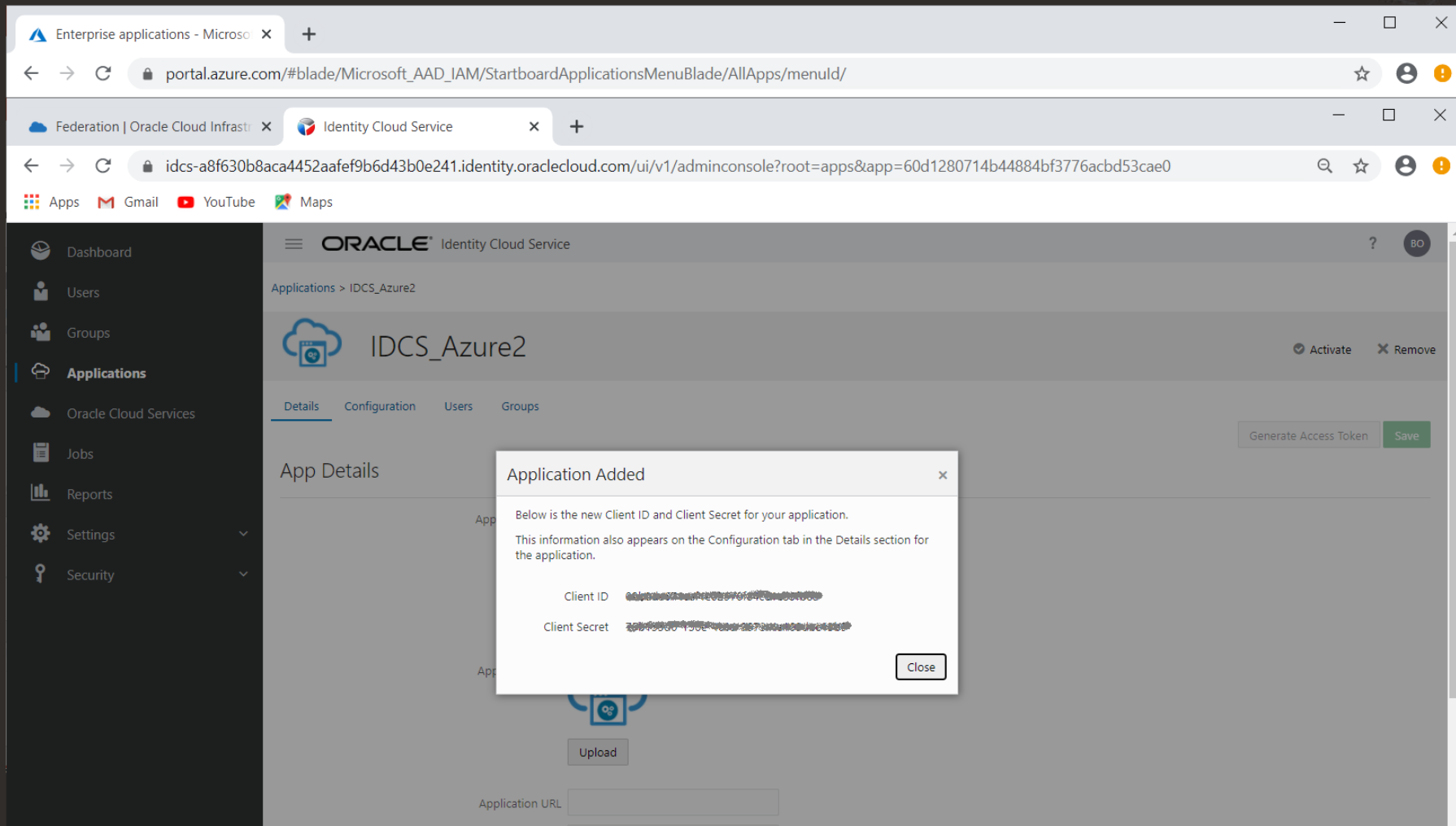
# Next next finnish



# Just next next finish

The screenshot shows the Oracle Identity Cloud Service (IDCS) admin console. The browser address bar displays the URL: `idcs-a8f630b8aca4452aafe9b6d43b0e241.identity.oraclecloud.com/ui/v1/adminconsole?root=apps&app=add-CustomWebAppTemplateId`. The left sidebar contains a navigation menu with the following items: Dashboard, Users, Groups, Applications (highlighted), Oracle Cloud Services, Jobs, Reports, Settings, and Security. The main content area is titled "Add Confidential Application" and shows a progress bar with four steps: Details, Client, Resources, and Authorization (the current step, marked with a blue circle and the number 4). A "Back" button is located to the left of the progress bar, and a "Finish" button is to the right. Below the progress bar, the "Authorization" section is visible, featuring a checkbox labeled "Enforce Grants as Authorization" which is currently unchecked.

# Take a note of the client ID and client secret





# Provisioning from azureAD as IdP

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# Provisioning aka user synchronization

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AzureAd uses Oracle SCIM REST for provisioning.

The following is required at the Oracle Side:

- Create an Enterprise application on the oracle side
- Grab the clientid and client secret
- Grab the full URL of the IDCS instance

A few concepts

- The AzureAD enterprise app might be assigned to a user or group. If assigned to a group, only users that is a member of the group is provisioned
- The provisioning defines a set of scope, user provisioning scope/filter and group provisioning scope/filter
- Group provisioning is only group membership add/revoke. If the user is revoked from the group to be provisioned the user is not deactivated on the oracle side
- Only deleted azureAd users or users revoked from the group assigned to the enterprise app is revoked.

Enterprise applications - Microsoft

portal.azure.com/#blade/Microsoft\_AAD\_IAM/StartboardApplicationsMenuBlade/AllApps/menuld/

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications

Enterprise applications | All applications

Default Directory - Azure Active Directory

Overview

Overview

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Application proxy

User settings

Collections

Security

Conditional Access

Consent and permissions

Activity

Sign-ins

+ New application

Columns

Preview features

Got feedback?

Try out the new Enterprise Apps search preview! Click to enable the preview. →

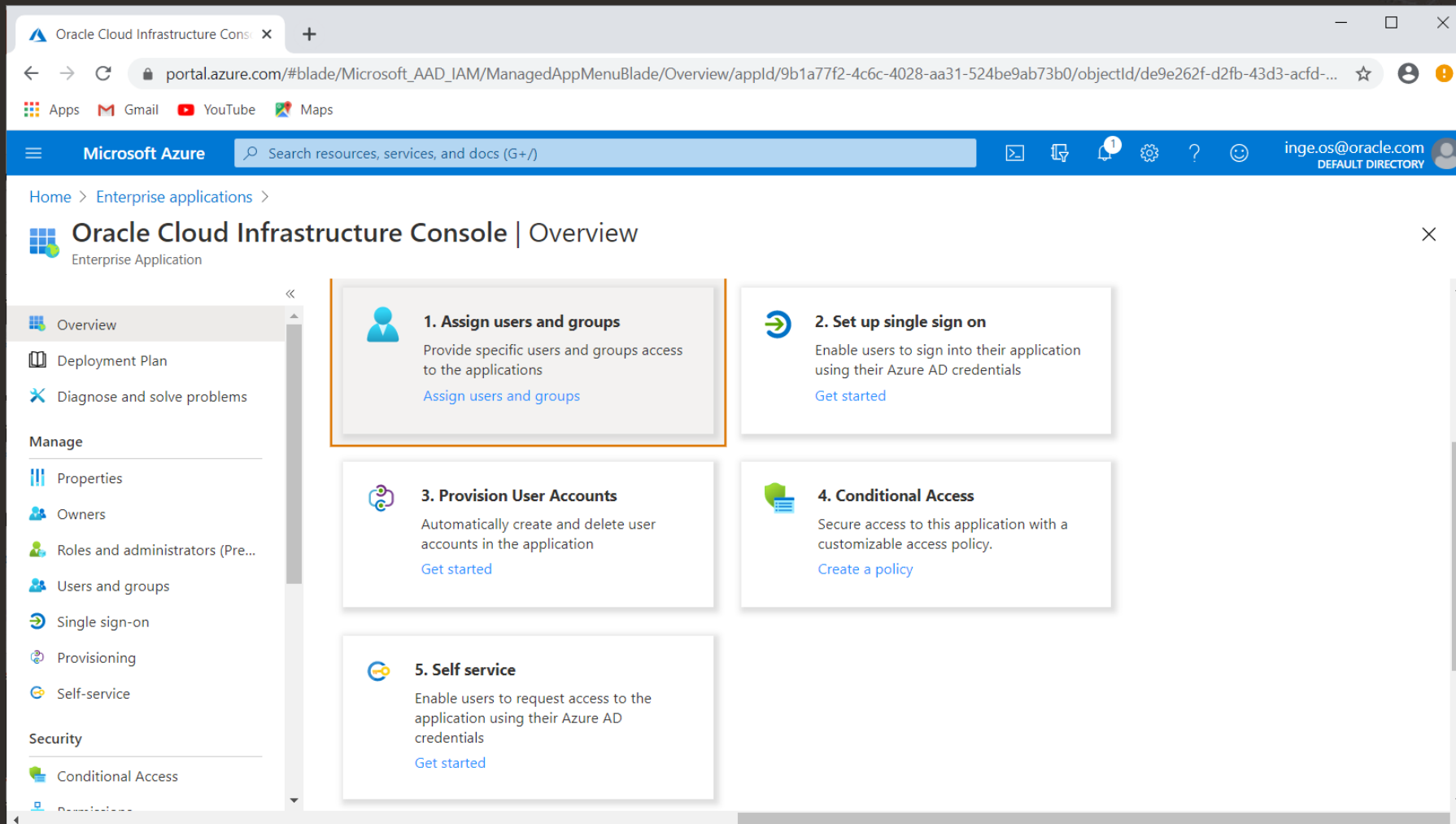
Enterprise Applications Any Any Apply Reset

First 50 shown, to search all of your applications, enter a display name or the application ID.

Name	Homepage URL	Object ID	Application ID
Office 365 Exchange Online	http://office.microsoft.com/outlook/	32b04168-8921-425d-9b22-873...	00000002-0000-0ff1-ce00-00000...
Office 365 Management APIs		4aa618ba-64fa-4395-96c2-628c7...	c5393580-f805-4401-95e8-94b7...
Office 365 SharePoint Online	http://office.microsoft.com/sharepoint/	6fd99538-964b-4993-a371-8bba...	00000003-0000-0ff1-ce00-00000...
Oracle Cloud Infrastructure Console	https://cloud.oracle.com/en_US/iaas	619fd6bd-c551-4030-8516-5ceff...	1576b356-63d5-4eb1-8a19-020...
Outlook Groups		c7bd6ca7-dd3f-4371-aecf-4f91f7...	925eb0d0-da50-4604-a19f-bd8d...
Skype for Business Online		b382bb89-1317-4e97-a6e9-3496...	00000004-0000-0ff1-ce00-00000...



# Select oracle OCI Enterprise app



The screenshot shows the Microsoft Azure portal interface. The browser address bar displays the URL: `portal.azure.com/#blade/Microsoft_AAD_IAM/ManagedAppMenuBlade/Overview/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-43d3-acfd-...`. The page title is "Oracle Cloud Infrastructure Console | Overview". The left sidebar contains a navigation menu with the following items: Overview (selected), Deployment Plan, Diagnose and solve problems, Manage (Properties, Owners, Roles and administrators (Pre...), Users and groups, Single sign-on, Provisioning, Self-service), and Security (Conditional Access, Permissions). The main content area displays five steps for setting up the application:

- 1. Assign users and groups**  
Provide specific users and groups access to the applications  
[Assign users and groups](#)
- 2. Set up single sign on**  
Enable users to sign into their application using their Azure AD credentials  
[Get started](#)
- 3. Provision User Accounts**  
Automatically create and delete user accounts in the application  
[Get started](#)
- 4. Conditional Access**  
Secure access to this application with a customizable access policy.  
[Create a policy](#)
- 5. Self service**  
Enable users to request access to the application using their Azure AD credentials  
[Get started](#)

# Add group DEV to the Enterprise app

The screenshot shows the Microsoft Azure portal interface. The breadcrumb navigation is: Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console. The page title is "Oracle Cloud Infrastructure Console | Users and groups". On the left sidebar, under the "Manage" section, "Users and groups" is selected. The main content area has a toolbar with buttons: "+ Add user", "Edit", "Remove", "Update Credentials", "Columns", and "Got feedback?". Below the toolbar is a blue information banner: "The application will appear on the Access Panel for assigned users. Set 'visible to users?' to no in properties to prevent this. →". Underneath is a search bar: "First 100 shown, to see all users & groups, enter a display name." Below the search bar is a table with headers: "Display Name", "Object Type", and "Role assigned". The table content shows "No application assignments for". A red arrow originates from a red-bordered box containing the text "Add users and groups" and points to the "+ Add user" button in the toolbar.

Microsoft Azure

Search resources, services, and docs (G+)

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console

Oracle Cloud Infrastructure Console | Users and groups

Enterprise Application

Overview

Deployment Plan

Diagnose and solve problems

Manage

Properties

Owners

Roles and administrators (Pre...

Users and groups

Single sign-on

Provisioning

Self-service

Security

Conditional Access

+ Add user Edit Remove Update Credentials Columns Got feedback?

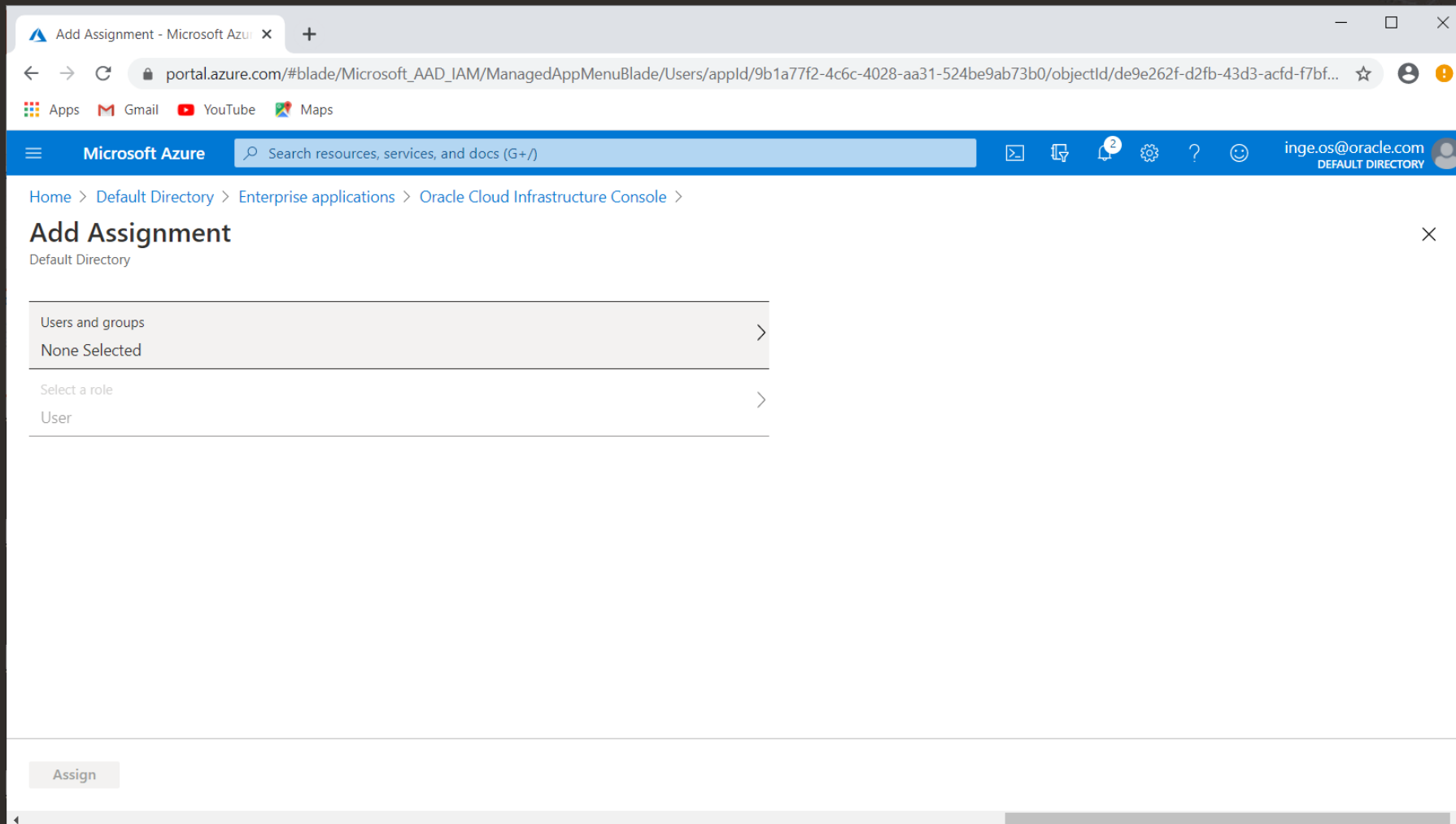
The application will appear on the Access Panel for assigned users. Set 'visible to users?' to no in properties to prevent this. →

First 100 shown, to see all users & groups, enter a display name.

Display Name	Object Type	Role assigned
No application assignments for		

Add users and groups

# Assign applicable group





# Select group to assign to the Enterprise app

The screenshot shows the Microsoft Azure portal interface. The main heading is "Add Assignment" under the "Default Directory". The breadcrumb navigation is: Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >. The left sidebar shows "Users and groups" with "None Selected". The main content area is titled "Users and groups" and contains a search bar. Below the search bar, there is a list of users and groups. The "dev" group is highlighted and marked as "Selected". Below this list, there is a "Selected items" section showing the "dev" group. At the bottom left, there is an "Assign" button. At the bottom right of the "Users and groups" panel, there is a "Select" button.

Microsoft Azure portal interface showing the "Add Assignment" page for an Enterprise application. The page displays a list of users and groups, with the "dev" group selected. The "Assign" button is visible at the bottom left.

Add Assignment - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/Users/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-43d3-acfd-f7bf...

Apps Gmail YouTube Maps

Microsoft AzureSearch resources, services, and docs (G+)

inge.os@oracle.comDEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

# Add Assignment

Default Directory

⚠

When you assign a group to an application, only users directly in the group will have access. The assignment does not cascade to nested groups.

×

Users and groups

1 group selected.

>

Select a role

User

>

Assign

# The Enterprise app will only be applicable to users assigned to the group

Oracle Cloud Infrastructure Console

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/Users/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-43d3-acfd-f7bf...

Apps Gmail YouTube Maps

Microsoft Azure Search resources, services, and docs (G+)

inge.os@oracle.com DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console

Oracle Cloud Infrastructure Console | Users and groups

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Users and groups

Single sign-on

Provisioning

Self-service

Security

Conditional Access

Permissions

+ Add user

Edit

Remove

Update Credentials

Columns

Got feedback?

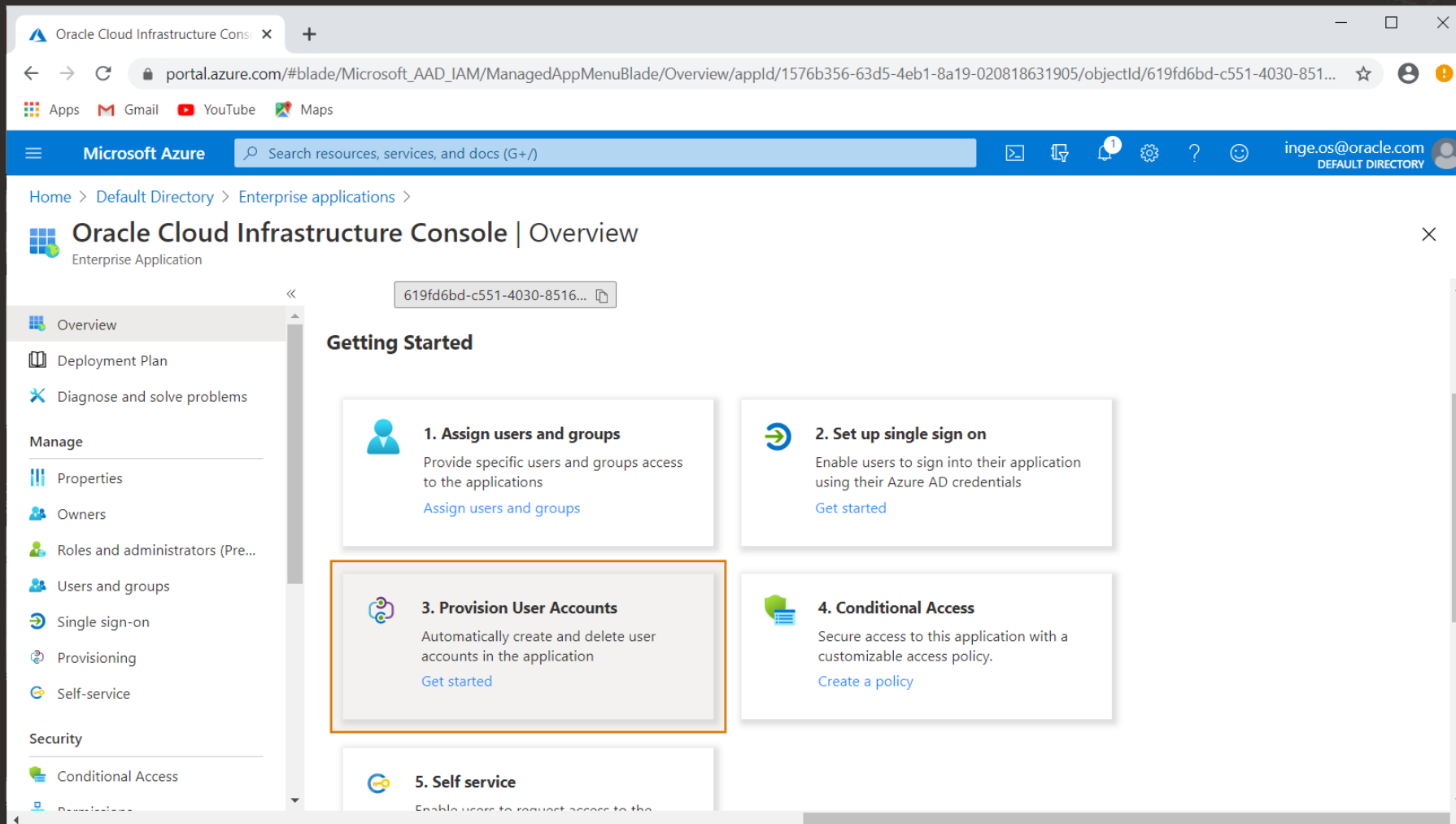
The application will appear on the Access Panel for assigned users. Set 'visible to users?' to no in properties to prevent this. →

First 100 shown, to search all users & groups, enter a display name.

Display Name	Object Type	Role assigned
<input type="checkbox"/> DE dev	Group	User



# Select provisioning



The screenshot displays the Microsoft Azure portal interface. The browser address bar shows the URL: `portal.azure.com/#blade/Microsoft_AAD_IAM/ManagedAppMenuBlade/Overview/appld/1576b356-63d5-4eb1-8a19-020818631905/objectId/619fd6bd-c551-4030-851...`. The page title is "Oracle Cloud Infrastructure Console | Overview". The left sidebar contains a navigation menu with the following items: Overview, Deployment Plan, Diagnose and solve problems, Manage (Properties, Owners, Roles and administrators (Pre...), Users and groups, Single sign-on, Provisioning, Self-service), and Security (Conditional Access, Permissions). The "Provisioning" item is highlighted with an orange box. The main content area is titled "Getting Started" and lists five steps: 1. Assign users and groups, 2. Set up single sign on, 3. Provision User Accounts (highlighted with an orange box), 4. Conditional Access, and 5. Self service.

Oracle Cloud Infrastructure Console | Overview

Enterprise Application

619fd6bd-c551-4030-8516...

**Getting Started**

- 1. Assign users and groups**  
Provide specific users and groups access to the applications  
[Assign users and groups](#)
- 2. Set up single sign on**  
Enable users to sign into their application using their Azure AD credentials  
[Get started](#)
- 3. Provision User Accounts**  
Automatically create and delete user accounts in the application  
[Get started](#)
- 4. Conditional Access**  
Secure access to this application with a customizable access policy.  
[Create a policy](#)
- 5. Self service**  
Enable users to request access to the application

Oracle Cloud Infrastructure Console

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-...

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Browse Azure AD Gallery (Preview) > Browse Azure AD Gallery (Preview) > Oracle Cloud Infrastructure Console

Oracle Cloud Infrastructure Console | Provisioning

Enterprise Application

Overview

Deployment Plan

Diagnose and solve problems

Manage

Properties

Owners

Roles and administrators (Pre...

Users and groups

Single sign-on

Provisioning


Self-service

Security

Conditional Access

Permissions

Got a second? We would love your feedback on user provisioning. →



Automate identity lifecycle management with Azure Active Directory

Automatically create, update, and delete accounts when users join, leave, and move within your organization. [Learn more.](#)

Get started


What is provisioning?

Plan an application deployment.

Configure automatic provisioning.

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[Date]



# Choose automatic

Provisioning - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-...

Apps Gmail YouTube Maps

Microsoft AzureSearch resources, services, and docs (G+)

inge.os@oracle.comDEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Browse Azure AD Gallery (Preview) > Browse Azure AD Gallery (Preview) > Oracle Cloud Infrastructure Console >

Provisioning

Save Discard

i

This provisioning connector is in preview. Please click here to provide us feedback.

Provisioning ModeAutomatic

Use Azure AD to manage the creation and synchronization of user accounts in Oracle Cloud Infrastructure Console based on user and group assignment.

Admin Credentials

Admin Credentials

Azure AD needs the following information to connect to Oracle Cloud Infrastructure Console's API and synchronize user data.

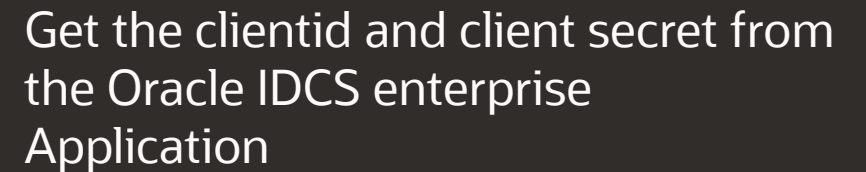
Tenant URL \* ⓘ

Secret Token \* ⓘ

Test Connection







As one string and base 64 encode it  
Simple tool at  
<https://www.base64encode.org/>



# Add credentials from previous slide and IDCS endpoint

Enterprise applications - Microsoft x +

portal.azure.com/#blade/Microsoft\_AAD\_IAM/StartboardApplicationsMenuBlade/AllApps/menuld/

Provisioning - Microsoft Azure x +

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-...

Apps Gmail YouTube Maps

Microsoft Azure Search resources, services, and docs (G+)

Home > Default Directory > Enterprise applications > Browse Azure AD Gallery (Preview) > Browse Azure AD Gallery (Preview) > Oracle Cloud Infrastructure Console >

## Provisioning

Save Discard

Provisioning Mode Automatic

Use Azure AD to manage the creation and synchronization of user accounts in Oracle Cloud Infrastructure Console based on user and group assignment.

### Admin Credentials

Admin Credentials

Azure AD needs the following information to connect to Oracle Cloud Infrastructure Console's API and synchronize user data.

Tenant URL \*

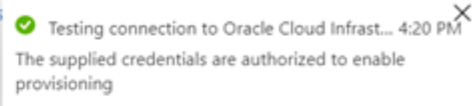
Secret Token \*

Test Connection

Endpoint is in format:

`https://idcs-<idcs tenant id>.identity.oraclecloud.com/admin/v1`

11/11/2016



# Leave default mapping as is, if required add groups the users shall be added as mebers of in group scope definition

Provisioning - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-...

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

Provisioning

Save Discard

Provisioning Mode Automatic

Use Azure AD to manage the creation and synchronization of user accounts in Oracle Cloud Infrastructure Console based on user and group assignment.

Admin Credentials

Mappings

Mappings

Mappings allow you to define how data should flow between Azure Active Directory and OracleIDCS.

Name	Enabled
Provision Azure Active Directory Groups	Yes
Provision Azure Active Directory Users	Yes

☐ Restore default mappings



# Enable provisioning, and save

Attribute Mapping - Microsoft Az

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/9b1a77f2-4c6c-4028-aa31-524be9ab73b0/objectId/de9e262f-d2fb-...

Apps Gmail YouTube Maps

Microsoft Azure Search resources, services, and docs (G+)

inge.os@oracle.com DEFAULT DIRECTORY

Home > Oracle Cloud Infrastructure Console > Provisioning >

Attribute Mapping

Save Discard

Name

Provision Azure Active Directory Groups

Enabled

Yes

No

Source Object (Azure Active Directory)

Group

Source Object Scope

All records

Target Object (OracleIDCS)

urn:ietf:params:scim:schemas:core:2.0:Group

Target Object Actions

☒ Create

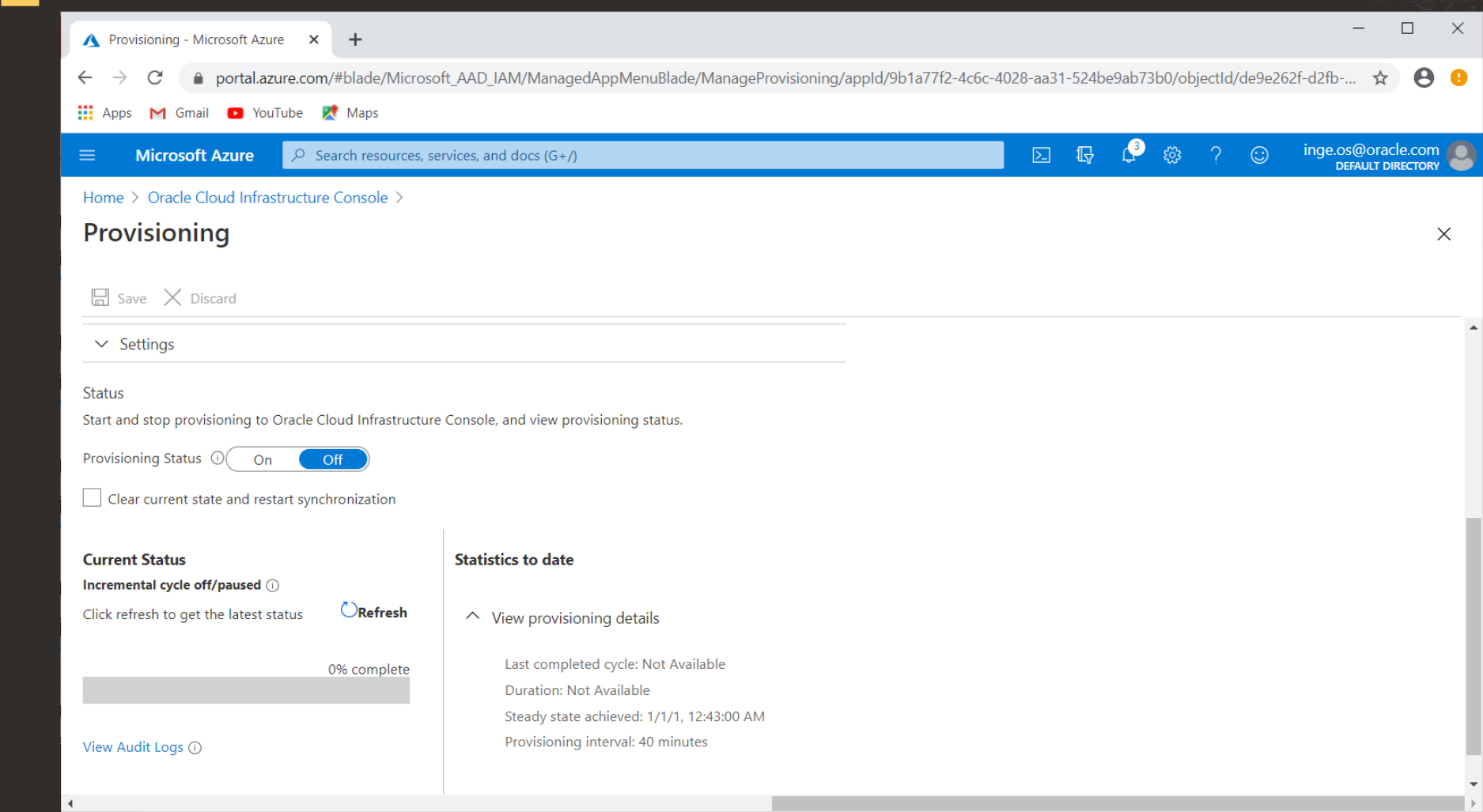
☒ Update

☒ Delete





# Enable provisioning status display, and save



# Click start provisioning when ready

The screenshot shows the Oracle Cloud Infrastructure Console's Provisioning page for an Enterprise Application. The page is accessed via a browser at `portal.azure.com`. The left sidebar contains navigation links for Overview, Deployment Plan, Diagnose and solve problems, and a Manage section with links to Properties, Owners, Roles and administrators, Users and groups, Single sign-on, Provisioning (which is highlighted), and Self-service. Below the Manage section are Security links for Conditional Access and Permissions. The main content area has a top bar with actions: Start provisioning, Stop provisioning, Restart provisioning, Edit provisioning, Provision on demand, and Refresh. Below this is a feedback message: "Got a second? We would love your feedback on user provisioning. →". The main content is divided into two columns. The left column, "Current cycle status", shows "Incremental cycle stopped." and a progress bar at "0% complete". The right column, "Statistics to date", includes expandable sections for "View provisioning details" and "View technical information". Under "View provisioning details", it lists: "Completed:", "Duration: Not available", "Steady state achieved: Not available", and "Provisioning interval: 40 minutes". At the bottom of the main content area is a "Manage provisioning" section with a link to "Update credentials".

Oracle Cloud Infrastructure Console | Provisioning

Enterprise Application

Start provisioning ☐ Stop provisioning [Restart provisioning](#) [Edit provisioning](#) [Provision on demand](#) [Refresh](#)

Got a second? We would love your feedback on user provisioning. →

**Current cycle status**

Incremental cycle stopped.

0% complete

**Statistics to date**

View provisioning details

**Completed:**

**Duration:** Not available

**Steady state achieved:** Not available

**Provisioning interval:** 40 minutes

View technical information

View provisioning logs

**Manage provisioning**

[Update credentials](#)

# Verify members of group to be provisioned.

dev - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/GroupDetailsMenuBlade/Members/groupId/9fe360b8-9769-4770-81e8-5df758f25203

Apps Gmail YouTube Maps

Microsoft Azure Search resources, services, and docs (G+)

inge.os@oracle.com DEFAULT DIRECTORY

Home > Default Directory > Groups > dev

dev | Members

Group

Overview

Diagnose and solve problems

Manage

Properties

Members

Owners

Administrative units

Group memberships

Applications

Licenses

Azure role assignments

Activity

Access reviews

+ Add members

Remove

Refresh

Bulk operations

Columns

Preview features

Got feedback?

This page includes previews available for your evaluation. View previews →

Direct members

	Name	Type	Email	User type
<input type="checkbox"/>	<div>MM</div> Mikke Mus	User		Member
<input type="checkbox"/>	<div>MM</div> Minni Mus	User	Minni@oracle.com	Member
<input type="checkbox"/>	<div>DV</div> Dart Vader	User		Member

The group is the one initially assigned to the Enterprise app



# Status of initial run.

Provisioning - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0

AppsGmailYouTubeMaps

Microsoft Azure

Search resources, services, and docs (G+/I)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

Provisioning

SaveDiscard

Admin Credentials

Mappings

Settings

Status

Start and stop provisioning to Oracle Cloud Infrastructure Console, and view provisioning status.

Provisioning Status OnOff

Clear current state and restart synchronization

Current Status

Incremental cycle completed

Click refresh to get the latest status

Refresh

100% complete

Users3Groups1

View Audit Logs

Statistics to date

Us...3

Gr...1

View provisioning details

View technical information



# Verify that users has been provisioned

The screenshot displays the Oracle Identity Cloud Service (IDCS) administration console. The left sidebar contains navigation links for Dashboard, Users, Groups, Applications, Oracle Cloud Services, Jobs, Reports, Settings, and Security. The main content area is titled 'Users' and features a search bar and a table of users. The table lists three users, each with a selection checkbox, a profile icon, an email address, a display name, and a status indicator (a green checkmark).

	Profile Icon	Email	Display Name	Status
<input type="checkbox"/>	DV	Dvader@ingeosoracle.onmicrosoft.com	Dart Vader	✓
<input type="checkbox"/>	MM	mikke@ingeosoracle.onmicrosoft.com	Mikke Mus	✓
<input type="checkbox"/>	MM	Minni@ingeosoracle.onmicrosoft.com	Minni Mus	✓

# Remove one user (Dart Vader) and add one new (Chris Craft)

dev - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/GroupDetailsMenuBlade/Members/groupId/9fe360b8-9769-4770-81e8-5df758f25203

Apps Gmail YouTube Maps

Microsoft Azure

Search resources, services, and docs (G+/)

inge.os@oracle.com

DEFAULT DIRECTORY

Home > Default Directory > Groups > dev

dev | Members

Group

Overview

Diagnose and solve problems

Manage

Properties

Members

Owners

Administrative units

Group memberships

Applications

Licenses

Azure role assignments

Activity

Access reviews

Audit logs

Bulk operation results

Troubleshooting + Support

New support request

«

+ Add members

Remove

Refresh

Bulk operations

Columns

Preview features

Got feedback?

This page includes previews available for your evaluation. View previews →

Direct members

	Name	Type	Email	User type
<input type="checkbox"/>	Mikke Mus	User	mikkemus@gmail.com	Member
<input type="checkbox"/>	Minni Mus	User	Minni@oracle.com	Member
<input type="checkbox"/>	Chris Craft	User		Member





# Wait for next run. Runs every 40 min.

The screenshot shows the Microsoft Azure Provisioning console. The top navigation bar includes the Microsoft Azure logo, a search bar, and the user's email (inge.os@oracle.com). The breadcrumb trail is: Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console > Provisioning. The main content area has a 'Settings' section with a 'Provisioning Status' toggle set to 'On' and a 'Clear current state and restart synchronization' checkbox. Below this, the 'Current Status' section shows 'Incremental cycle completed' with a 'Refresh' button and a green progress bar at 100% complete. A summary card displays '3' Users and '1' Groups, with a 'View Audit Logs' link. The 'Statistics to date' section shows 'Us...' as 3 and 'Gr...' as 1. A 'View provisioning details' section lists: Last completed cycle: 10/30/2020, 10:37:09 AM; Duration: 1 sec; Steady state achieved: 10/30/2020, 10:37:09 AM; Provisioning interval: 40 minutes. A 'View technical information' section is partially visible at the bottom.

Provisioning - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0

Microsoft Azure

Search resources, services, and docs (G+)

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console > Provisioning

Save Discard

Settings

Status

Start and stop provisioning to Oracle Cloud Infrastructure Console, and view provisioning status.

Provisioning Status ☒ On ☐ Off

☐ Clear current state and restart synchronization

Current Status

Incremental cycle completed

Click refresh to get the latest status Refresh

100% complete

Users 3 Groups 1

View Audit Logs

Statistics to date

Us... 3

Gr... 1

View provisioning details

Last completed cycle: 10/30/2020, 10:37:09 AM

Duration: 1 sec

Steady state achieved: 10/30/2020, 10:37:09 AM

Provisioning interval: 40 minutes

View technical information

# One user failed

Provisioning - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0

AppsGmailYouTubeMaps

Microsoft Azure

Search resources, services, and docs (G+)

inge.os@oracle.com  
DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

Provisioning

SaveDiscard

Admin Credentials

Mappings

Settings

Status

Start and stop provisioning to Oracle Cloud Infrastructure Console, and view provisioning status.

Provisioning Status OnOff

☐ Clear current state and restart synchronization

Current Status

Incremental cycle completed

Click refresh to get the latest status

Refresh

100% complete

Users2

Groups1

Statistics to date

Us...2

Gr...1

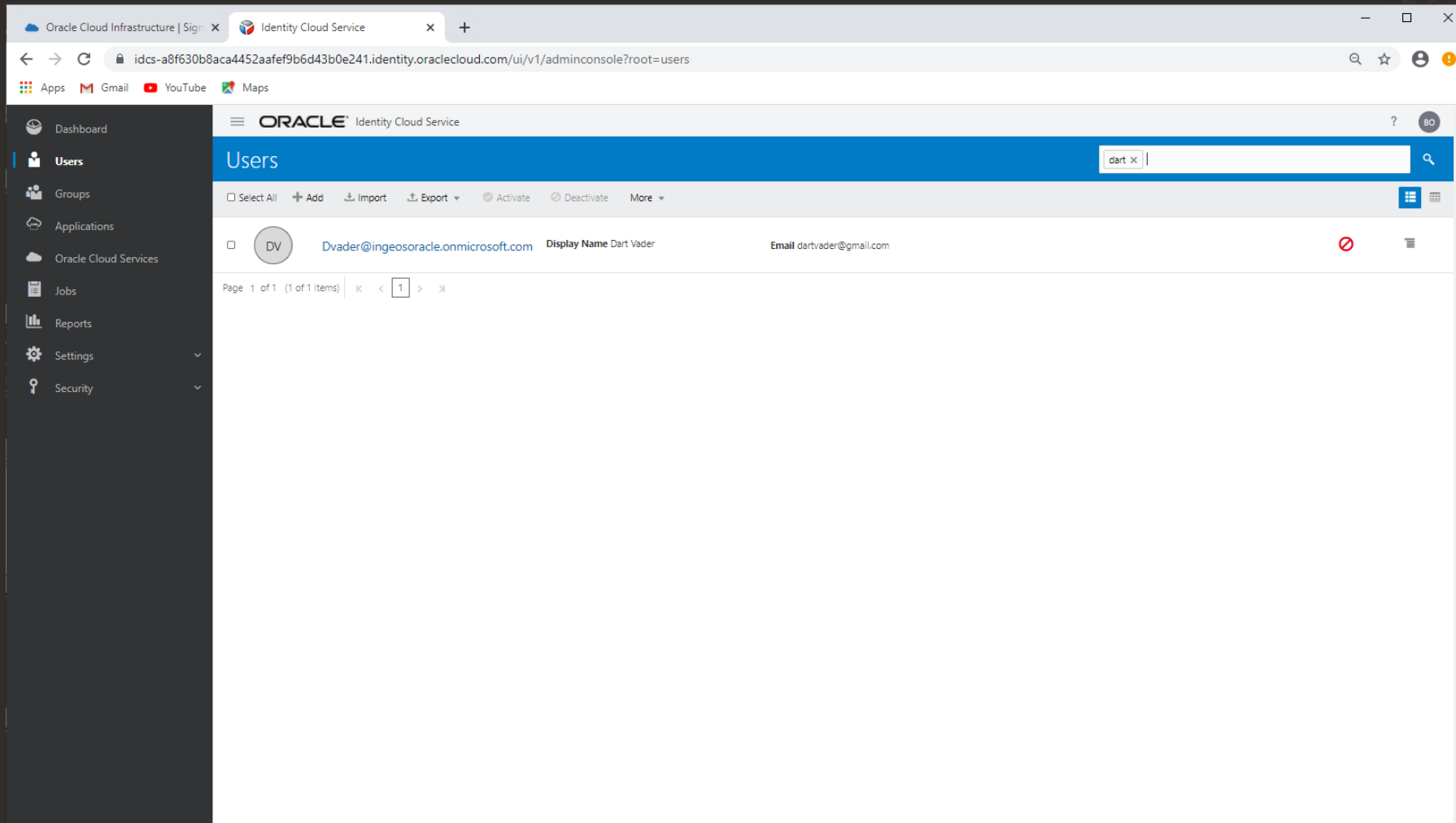
View provisioning details

View technical information

1 Errors are being retried, view Audit logs



# Verify that the user removed from the group is disabled



# Simple Diagnosis

---

## Diagnoses by running ondemand provisioning

---

The email attribute is mandatory on the Oracle IDCS side. If this attribute is blank in Azure AD the provisioning will fail

Diagnose can be turned on in IDCS, it is valid for 15 minutes. Each provisioning run on azureAd is every 40 min, so the diagnose needs to be turned on to hit a provisioning window

Alternatively, on demand provisioning directly displays the REST payload returned from Oracle IDCS when a HTTP code higher than 200 is returned.

# One user provisioned failed

The screenshot shows the Microsoft Azure Provisioning console. The page title is "Provisioning - Microsoft Azure". The breadcrumb navigation is "Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console > Provisioning". The page has a "Save" button and a "Discard" button. The "Admin Credentials" section is expanded. The "Mappings" section is expanded. The "Settings" section is expanded. The "Status" section shows "Start and stop provisioning to Oracle Cloud Infrastructure Console, and view provisioning status." The "Provisioning Status" is "On". There is a checkbox for "Clear current state and restart synchronization". The "Current Status" section shows "Incremental cycle completed" and a "Refresh" button. A green progress bar indicates "100% complete". The "Statistics to date" section shows "Us... 2" and "Gr... 1". There are links for "View provisioning details" and "View technical information". At the bottom, there is a warning message: "1 Error is being retried, view Audit logs".



# Review the audit log, and note the failing user

Provisioning Logs - Microsoft Az... portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0

Microsoft Azure Search resources, services, and docs (G+)

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

Provisioning Logs

Refresh Columns Got feedback?

Identity Name or ID Date: Last 24 hours Show dates as: Local Status: All Action: All Application contains a2859605-633e-4f5e-8448-6e5f9625d3d0 Add filters

Date	Identity	Action	Source System	Target System	Status
10/30/2020, 11:17:19 AM	Display Name Chris Craft Source ID 7cce1046-4f4d-4a2b-a81d-20a333	Create	Azure Active Directory	OracleIDCS	Failure
10/30/2020, 11:16:42 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751 Target ID 9a0951c86d794150b94b7baea798	Update	Azure Active Directory	OracleIDCS	Success
10/30/2020, 11:16:42 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751	Skipped	Azure Active Directory	OracleIDCS	Skipped
10/30/2020, 11:16:42 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751 Target ID 9a0951c86d794150b94b7baea798	Skipped	Azure Active Directory	OracleIDCS	Skipped
10/30/2020, 11:16:42 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751	Skipped	Azure Active Directory	OracleIDCS	Skipped
10/30/2020, 11:16:42 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751	Skipped	Azure Active Directory	OracleIDCS	Skipped
10/30/2020, 11:16:41 AM	Display Name Chris Craft Source ID 7cce1046-4f4d-4a2b-a81d-20a333	Create	Azure Active Directory	OracleIDCS	Failure
10/30/2020, 11:16:41 AM	Display Name Dart Vader Source ID 7b641dbb-4a49-4ce6-bde7-c3246 Target ID 4735720c203d4f0dbc026f15d2423	Disable	Azure Active Directory	OracleIDCS	Success
10/30/2020, 10:36:31 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751 Target ID 9a0951c86d794150b94b7baea798	Update	Azure Active Directory	OracleIDCS	Success
10/30/2020, 10:36:31 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751 Target ID 9a0951c86d794150b94b7baea798	Update	Azure Active Directory	OracleIDCS	Success
10/30/2020, 10:36:31 AM	Display Name dev Source ID 9fe360b8-9769-4770-81e8-5df751	Update	Azure Active Directory	OracleIDCS	Success

Details



# The enterprise app offers provisioning on demand

The screenshot displays the Oracle Cloud Infrastructure Console interface for provisioning an enterprise application. The browser address bar shows the URL: `portal.azure.com/#blade/Microsoft_AAD_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0`. The page title is "Oracle Cloud Infrastructure Console | Provisioning".

The left sidebar contains a navigation menu with the following items:

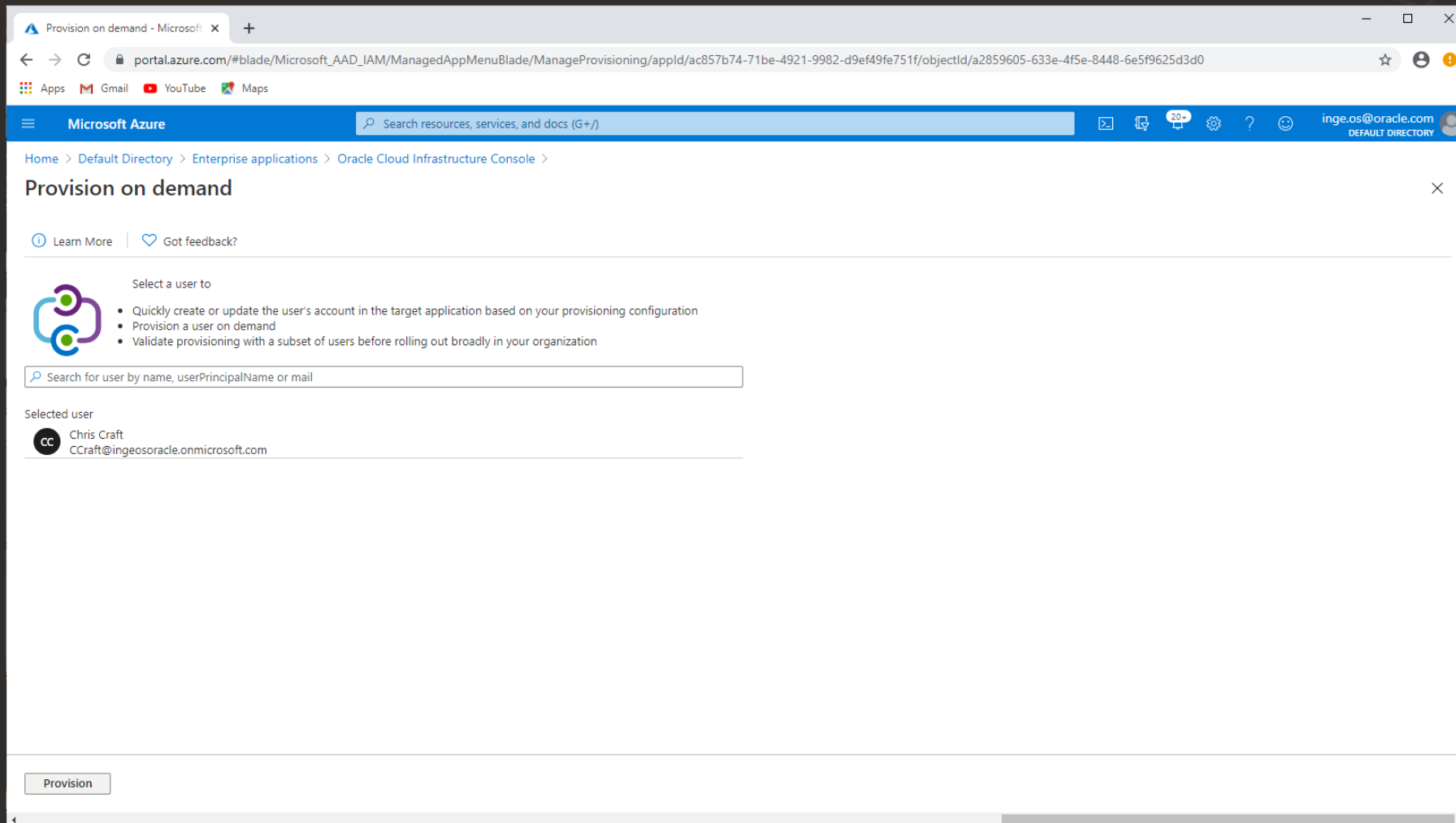
- Overview
- Deployment Plan
- Diagnose and solve problems
- Manage
  - Properties
  - Owners
  - Roles and administrators (Pre...)
  - Users and groups
  - Single sign-on
  - Provisioning
  - Self-service
- Security
  - Conditional Access
  - Permissions
  - Token encryption
- Activity
  - Sign-ins
  - Usage & insights (Preview)
  - Audit logs

The main content area shows the provisioning status for the "Enterprise Application". At the top, there are buttons: "Start provisioning", "Stop provisioning", "Restart provisioning", "Edit provisioning", "Provision on demand", and "Refresh". Below these buttons is a message: "Got a second? We would love your feedback on user provisioning. →".

The "Current cycle status" section indicates that the "Incremental cycle completed" with a "100% complete" progress bar. The "Statistics to date" section shows "Users: 2" and "Groups: 1". There is a warning message: "1 errors are being retried." and a link to "View provisioning logs".

The "Manage provisioning" section includes links for "Update credentials", "Edit attribute mappings", "Add scoping filters", and "Provision on demand".

# Search for and select the failing user



# The JSON output from the failed SCIM request is immediately displayed

Export details - Microsoft Azure

portal.azure.com/#blade/Microsoft\_AAD\_IAM/ManagedAppMenuBlade/ManageProvisioning/appld/ac857b74-71be-4921-9982-d9ef49fe751f/objectId/a2859605-633e-4f5e-8448-6e5f9625d3d0

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Microsoft Azure

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inge.os@oracle.com

DEFAULT DIRECTORY

Home > Default Directory > Enterprise applications > Oracle Cloud Infrastructure Console >

Provision on demand

Learn More

Technical details

Got feedback?

Import user

Successfully imported user

View details

Determine if user is in scope

User is in scope

View details

Match user between source and target system

Successfully matched user

View details

Perform action

Failed to create user in target system

View details

Retry

Provision another user

Export details

Failed to create User 'CCraft@ingeosoracle.onmicrosoft.com' in OracleIDCS

Error code

SystemForCrossDomainIdentityManagementServiceIncompatible

Error message

Status Code: BadRequest

Message: Processing of the HTTP request resulted in an exception. Please see the HTTP response returned by the 'Response' property of this exception for details.

Web Response:

{  
 "schemas": [  
 "urn:ietf:params:scim:api:messages:2.0:Error",  
 "urn:ietf:params:scim:api:oracle:ids:extension:messages:Error",  
 "detail": "The primary email must be specified.",  
 "status": "400",  
 "urn:ietf:params:scim:api:oracle:ids:extension:messages:Error":  
 {  
 "messageId": "error.identity.user.primaryEmailNotSpecified"  
 }  
 ]  
}

Target attribute name	Target attribute value
active	True
displayName	Chris Craft
userName	CCraft@ingeosoracle.onmicrosoft.com
name.givenName	Chris
name.familyName	Craft

In this example we see that the provisioning failed due to missing email attribute

