Creating a Cloudbreak Credential on Azure

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Credential options on Azure

Before you can start creating clusters, you must first create a credential. Without this credential, you will not be able to create clusters via Cloudbreak. Cloudbreak works by connecting your Azure account through this credential, and then uses it to create resources on your behalf.

There are two methods for creating a credential:

Method	Description	Prerequisite
Interactive	The advantage of using the interactive method is that the app and service principal creation and role assignment are fully automated, so the only input that you need to provide is the Subscription ID and Directory ID. During the interactive credential creation, you are required to log in to your Azure account.	(1) Your account must have the "Owner" role (or its equivalent) in the subscription. (2) You must be able log in to your Azure account.
App-based	The advantage of the app-based method is that it allows you to create a credential without logging in to the Azure account, as long as you have been given all the information. In addition to providing your Subscription ID and Directory ID, you must provide information for your previously created Azure AD application (its ID and key which allows access to it).	(1) Your account must have the "Contributor" role (or equivalent) in the subscription. (2) You or your Azure administrator must perform prerequisite steps of registering an Azure application and assigning the "Contributor" role (or equivalent) to it. This step typically requires admin permissions so you may have to contact your Azure administrator.

Related Information
Core concepts

Required Azure roles

In order to provision clusters on Azure, Cloudbreak must be able to assume a sufficient Azure role ("Owner" or "Contributor") via credential.

- In the subscription in order to create a credential by using the interactive credential method, your account must have the "Owner" role (or a role with equivalent permissions).
- In order to create a credential by using the app-based credential method, your account must have the "Contributor" role (or a role with equivalent permissions) in the subscription.

To check the roles in your subscription, log in to your Azure account and navigate to Subscriptions.
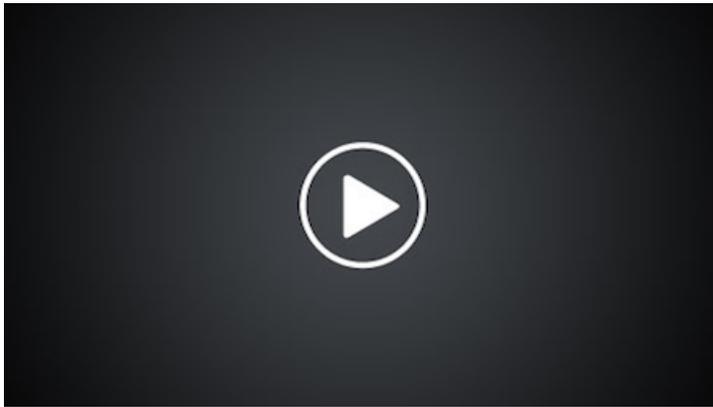
Related Information
Owner (Azure)
Contributor (Azure)
Cloudbreak credential options on Azure

Create an interactive credential

Follow these steps to create an interactive credential.

The following video demonstrates how to create an interactive credential on Azure:

Prerequisites

Your account must have the Owner role in order for the interactive credential creation to work. If your account does not have the Owner role, you must use the app-based credential option instead of the interactive option.

Steps

1. In the Cloudbreak web UI, select Credentials from the navigation pane.
2. Click Create Credential.
3. Under Cloud provider, select "Microsoft Azure".
4. Select Interactive Login.
5. Provide the following information:

| Parameter	Description
Name	Enter a name for your credential.
Description	(Optional) Enter a description.
Subscription Id	Copy and paste the Subscription ID from your Subscriptions.
Tenant Id	Copy and paste your Directory ID from your Active Directory > Properties.
Azure role type	You have the following options: • "Use existing Contributor role" (default): If you select this option, Cloudbreak will use the Contributor role to create resources. This requires no further input. • "Reuse existing custom role": If you select this option and enter the name of an existing role, Cloudbreak will use this role to create resources. • "Let Cloudbreak create a custom role": If you select this option and enter a name for the new role, the role will be created. When choosing role name, make sure that there is no existing role with the name chosen. For information on creating custom roles, refer to Azure documentation. If using a custom role, use the following role definition, which includes the minimum necessary action set for Cloudbreak to be able to manage clusters.

To obtain the Subscription Id:
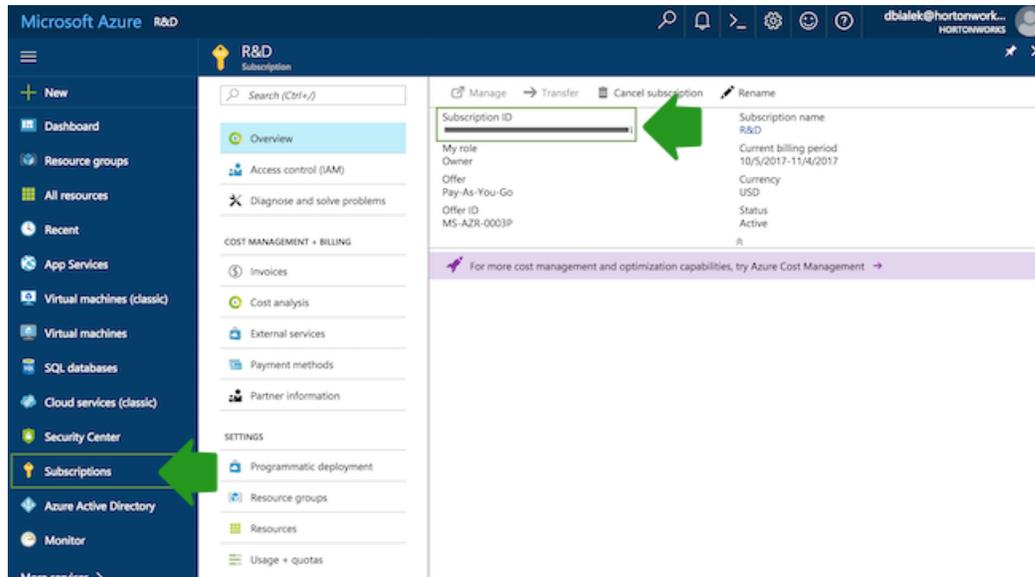
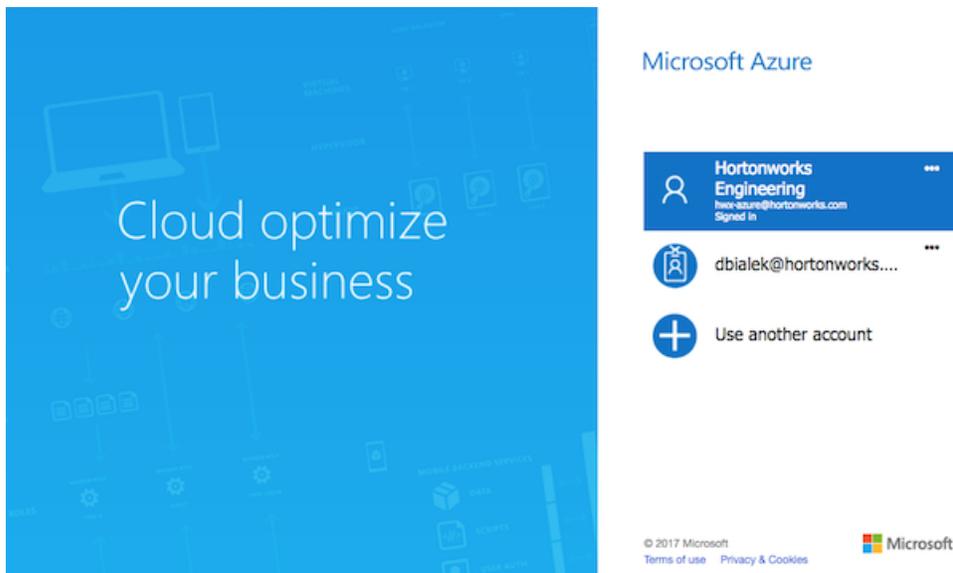To obtain the Tenant ID (actually Directory Id):
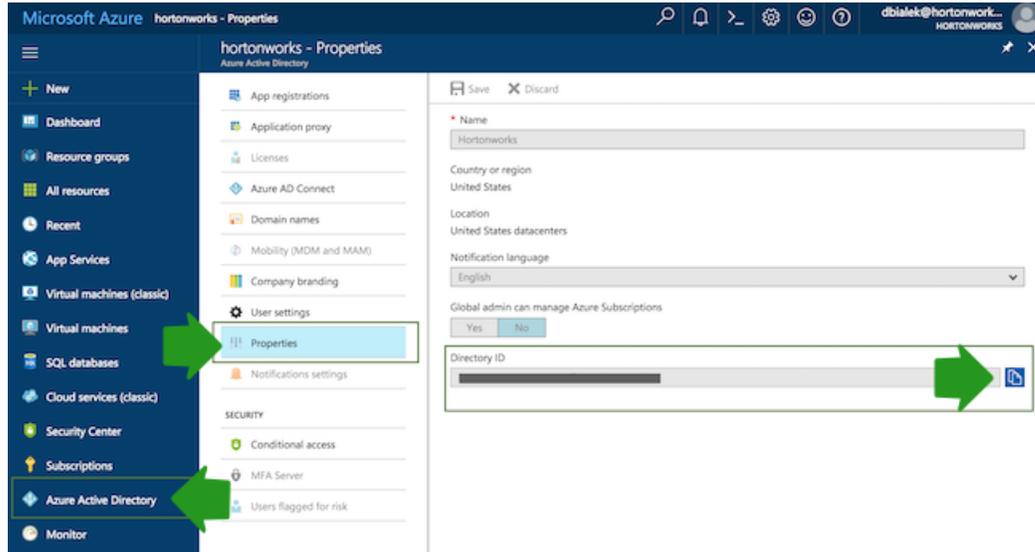
6. After providing the parameters, click Interactive Login.
7. Copy the code provided in the UI:
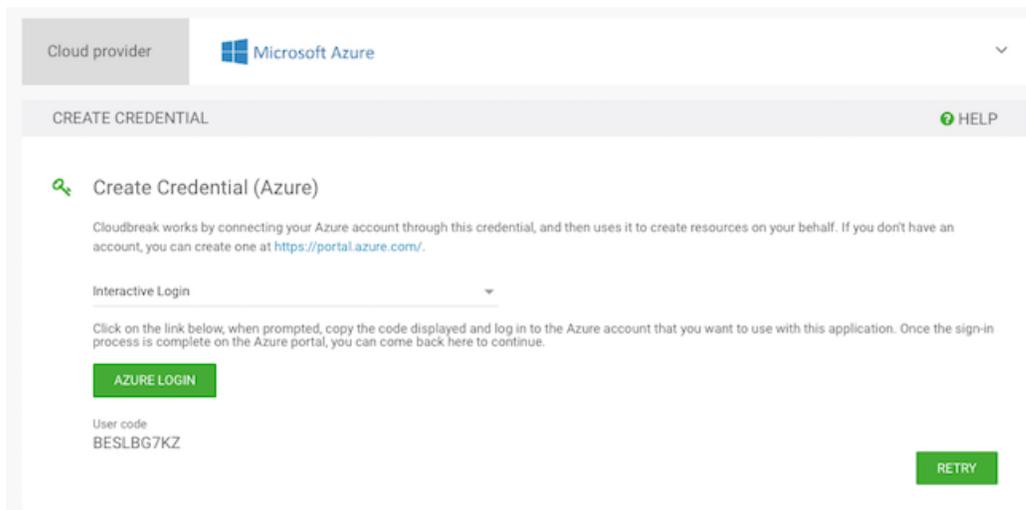
8. Click Azure login and a new Device login page will open in a new browser tab:
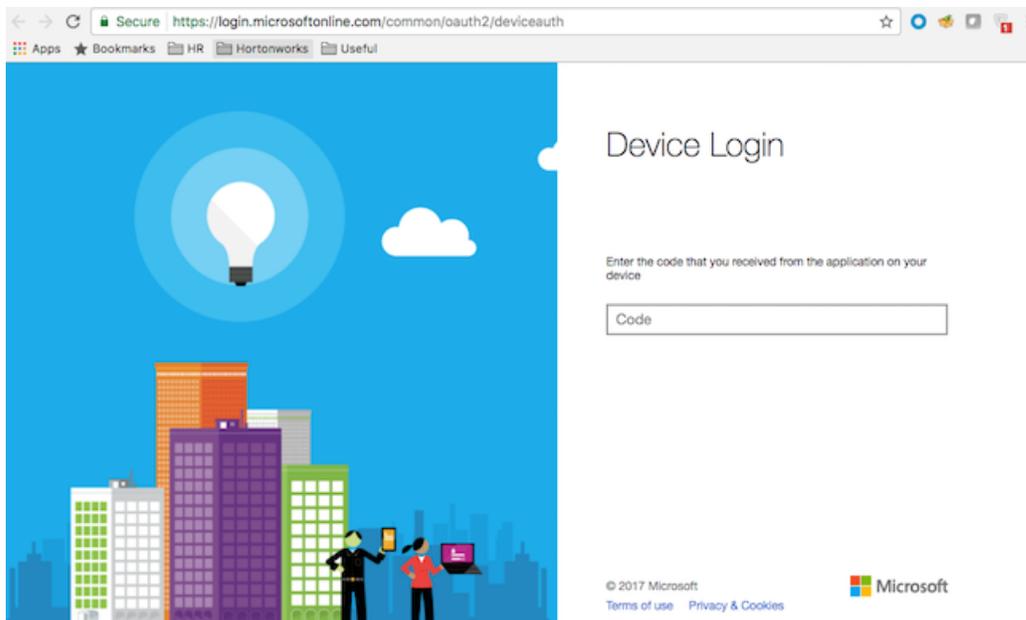
9. Next, paste the code in field on the Device login page and click Continue.

10. Confirm your account by selecting it:

11. A confirmation page will appear, confirming that you have signed in to the Microsoft Azure Cross-platform Command Line Interface application on your device. You may now close this window.

Now that you have created a credential, you can start creating clusters.

Related Information
Create an app-based credential
Custom roles in Azure (Azure)
Contributor (Azure)
Owner (Azure)
Credential creation errors

Create an app-based credential

Follow these steps to create an app based credential.

The following video demonstrates how to meet the prerequisites for and create an app-based credential on Azure:
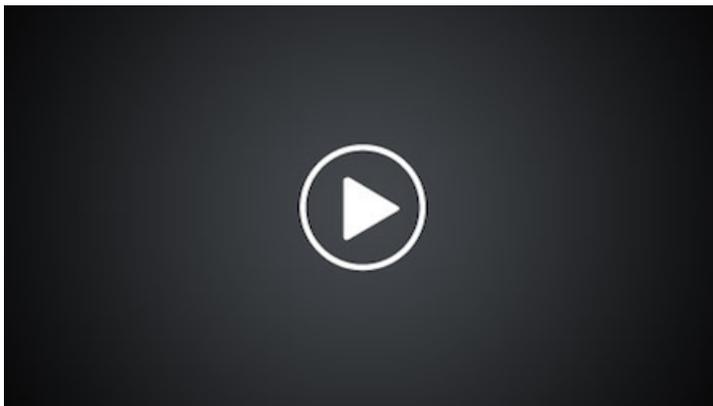
Prerequisites

1. On Azure Portal, navigate to the Active Directory > App Registrations and register a new application. For more information, refer to Azure documentation.

> **Note:**
>
> Aa an alternative to the steps listed below for creating an application registration, you can use a utility called azure-cli-tools. The utility supports app creation and role assignment. It is available at https://github.com/sequenceiq/azure-cli-tools/blob/master/cli_tools.
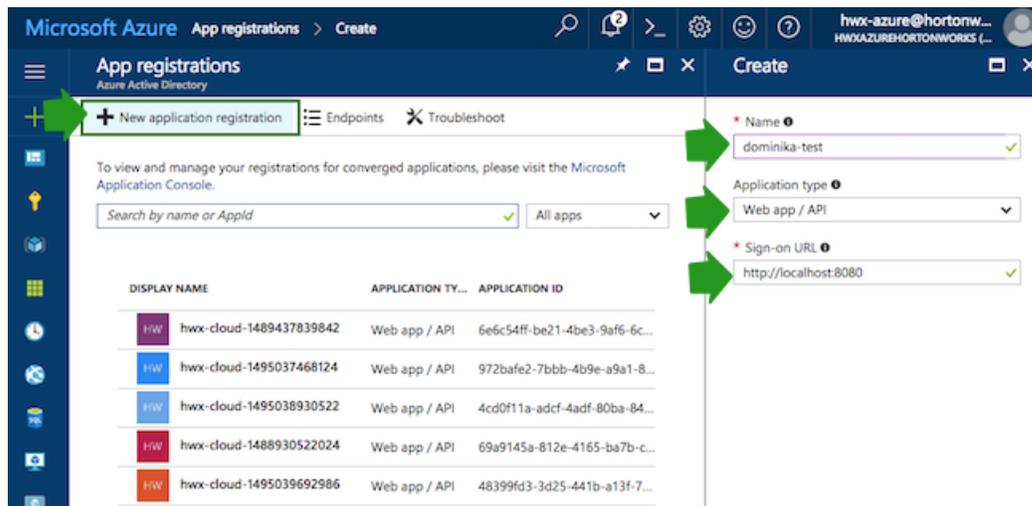
2. Navigate to the Subscriptions, choose Access control (IAM).
3. Click Add and then assign the "Contributor" role to your newly created application by:

   • Under Role selecting "Contributor" or other role that includes the minimum required action set (If using a custom role, use the following role definition).
   • Typing your app name under Select and then selecting it:

   > **Note:**
   >
   > If you are unable to use the "Contributor" role, you can create a custom role by using the following role definition, which includes the minimum permissions required for creating clusters with Cloudbreak.

   > **Note:**
   >
   > This step can only be performed by a user with the Owner role, so you may have to contact your Azure administrator.
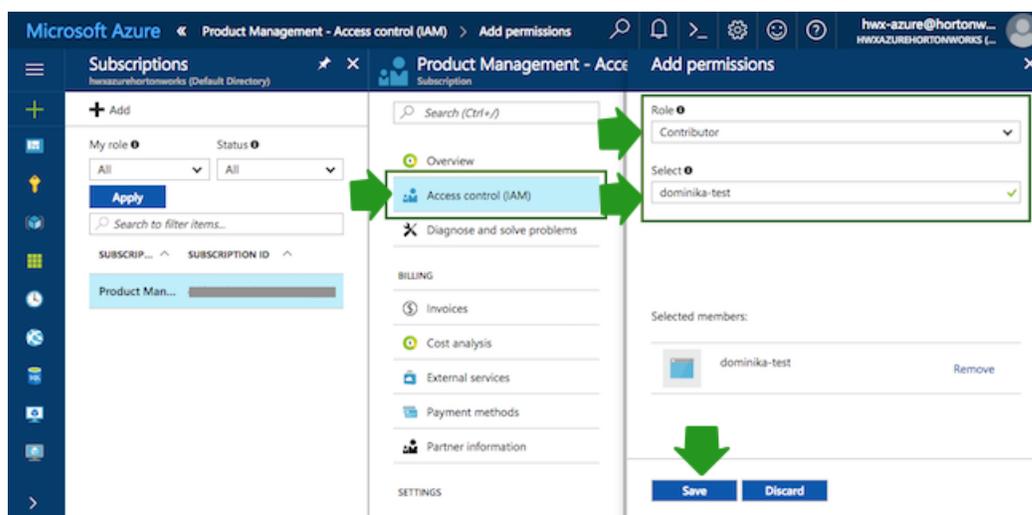

Steps

1. In the Cloudbreak web UI, select Credentials from the navigation pane.

2. Click Create Credential.
3. Under Cloud provider, select "Microsoft Azure".
4. Select App based Login.
5. On the Configure credential page, provide the following parameters:

Parameter	Description
Select Credential Type	Select App based.
Name	Enter a name for your credential.
Description	(Optional) Enter a description.
Subscription Id	Copy and paste the Subscription ID from your Subscriptions.
Tenant Id	Copy and paste your Directory ID from your Active Directory > Properties.
App Id	Copy and paste the Application ID from your Azure Active Directory > App Registrations > your app registration's Settings > Properties.
Password	This is your application key. You can generate it from your Azure Active Directory app registration's Settings > Keys.

To obtain the Subscription Id from Subscriptions:
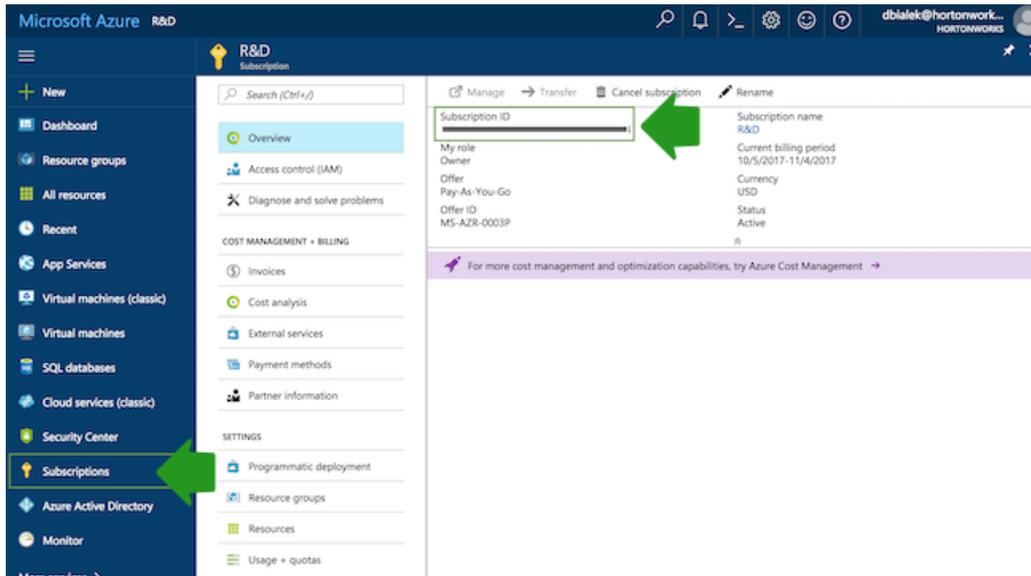
To obtain the App ID (actually Application ID) and an application key from Azure Active Directory:

To obtain the Tenant ID (actually Directory Id) from Azure Active Directory:

6. Click Create.

Now that you have created a credential, you can start creating clusters.

Related Information

Contributor (Azure)

Owner (Azure)

Use portal to create an Azure Active Directory application (Azure)

Credential creation errors