



THE VEGA SETUP GUIDE

AZURE SUBSCRIPTIONS

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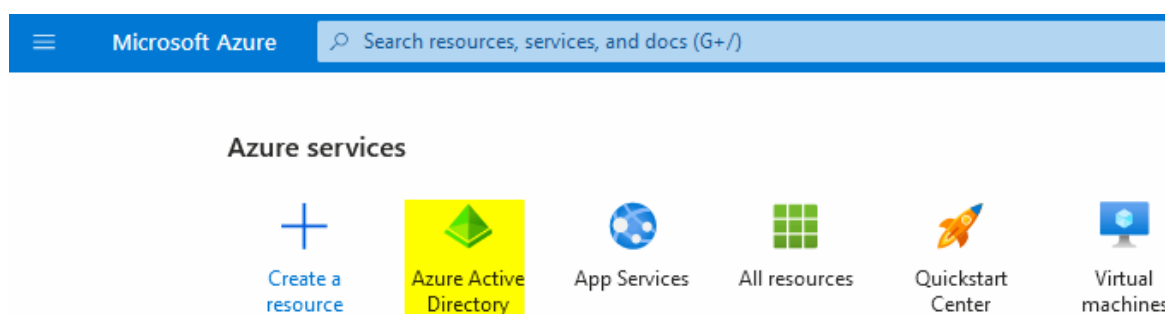
SECTION 01

New App Registration: Add Vega to Subscription

When you use a 3rd party software application with your Azure Subscription, you need to create an application registration. This registration is the first step of the process in allowing an Azure Subscription to be imported to the Vega platform.

To get started: Log into your Azure Portal (<https://portal.azure.com/>).

From the Azure Portal Home Screen, select "**Azure Active Directory**".

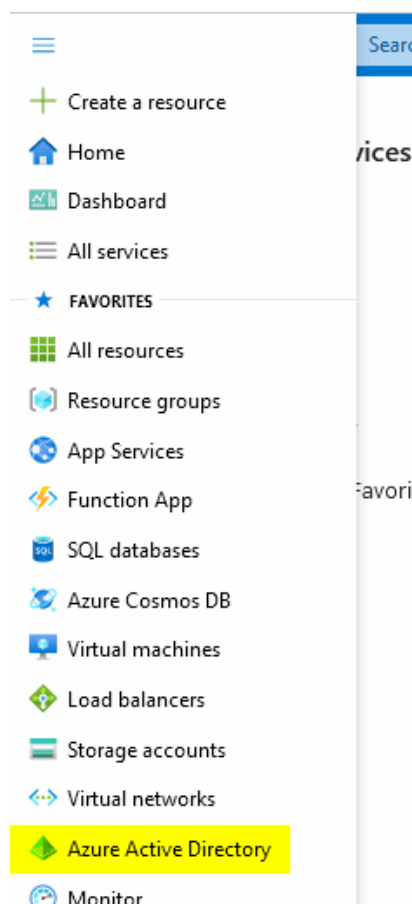


If you do not see the Home Screen, select the hamburger icon in the upper left of the screen. This is the Azure Portal Menu.

Select **"Home"** from the top of the menu list.

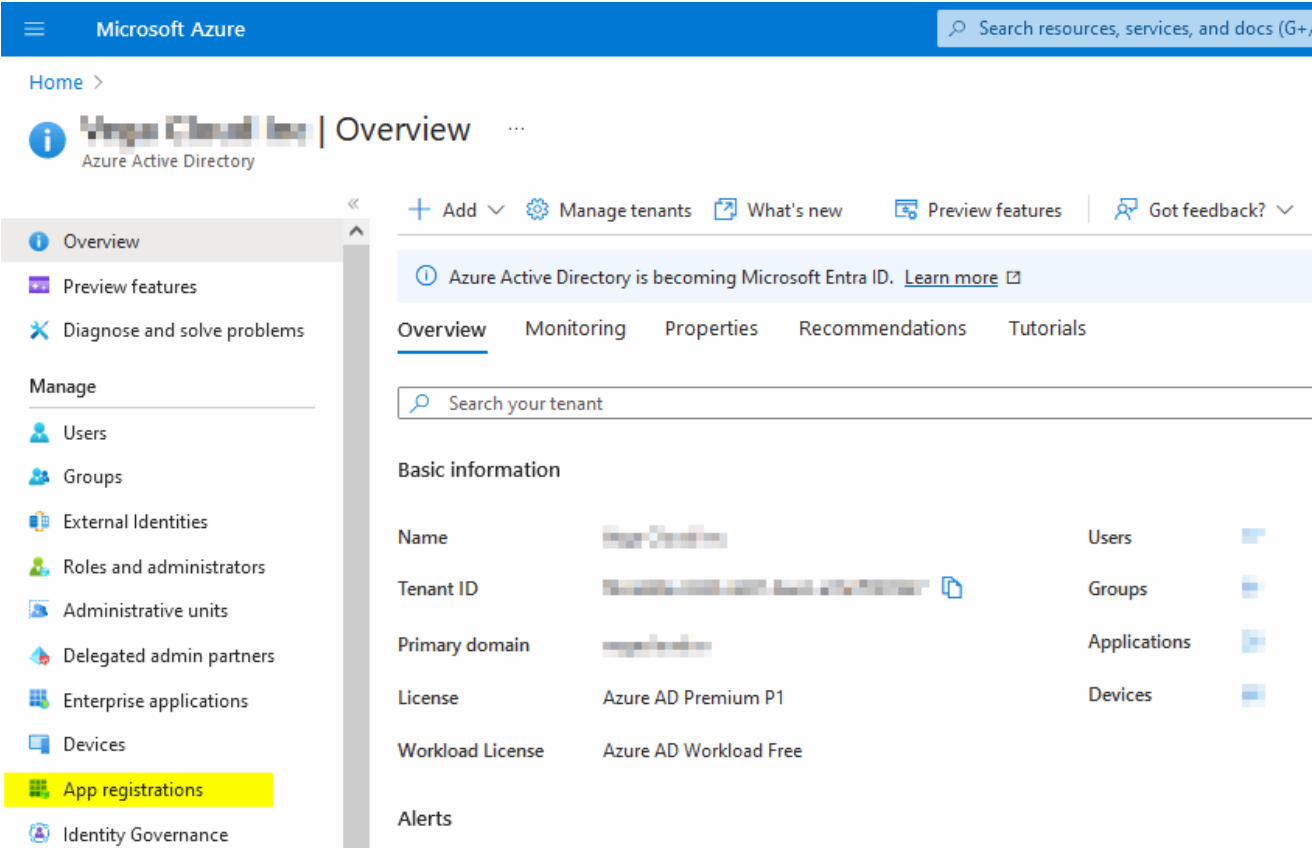
Once you are on the Home Screen, you need to select **"Azure Active Directory"** from your Azure services list.

If the "Azure Active Directory" entry is not in your list of services, it can be found in the Azure Portal Menu.



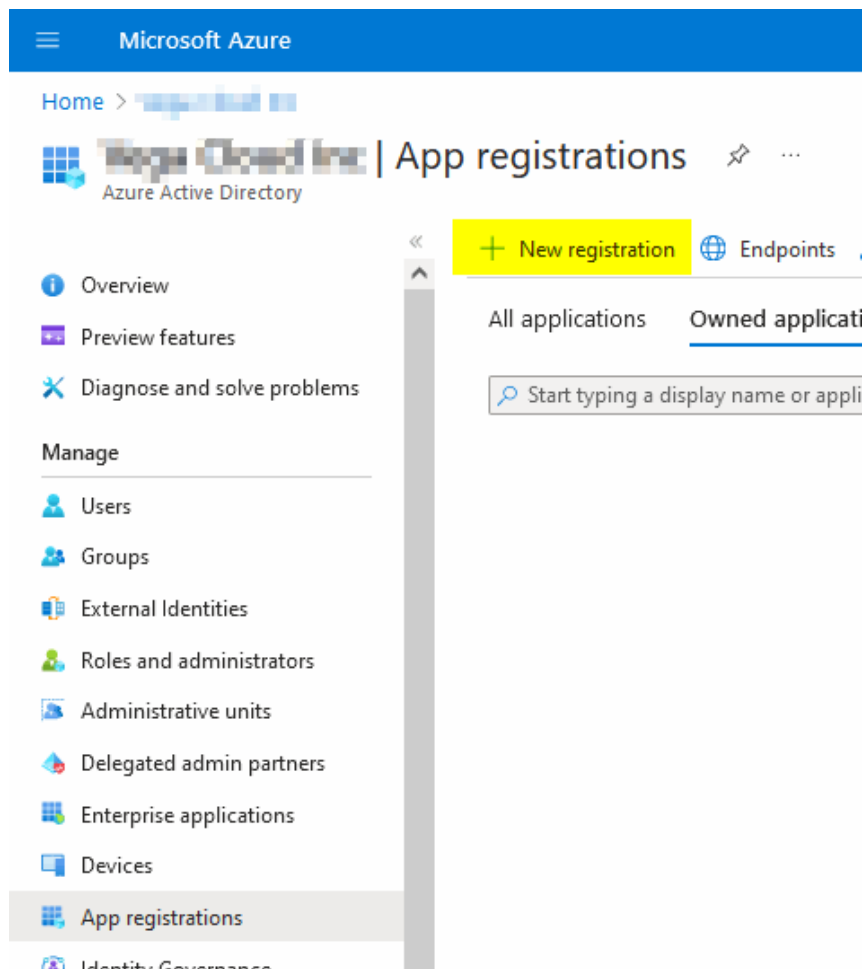
AZURE PORTAL MENU

Once you're on the Active Directory Screen, select “App Registrations” from the left navigation menu.



AZURE ACTIVE DIRECTORY SCREEN

On the App Registration Screen, click the “+ **New registration**” (highlighted here). You will have to enter a Name, we suggest “**VegaAzureApp**”.



AZURE APP REGISTRATION SCREEN

Select the Supported account type of “**Accounts in the organizational directory only**” - single tenant.

Next select your Redirect URI, this should be “**Single-page application (SPA)**” with a URL = “**https://portal.vegacloud.io/azureauth**”.

Once all these values are provided, select “**Register**” and you've finished creating the Vega Azure App.

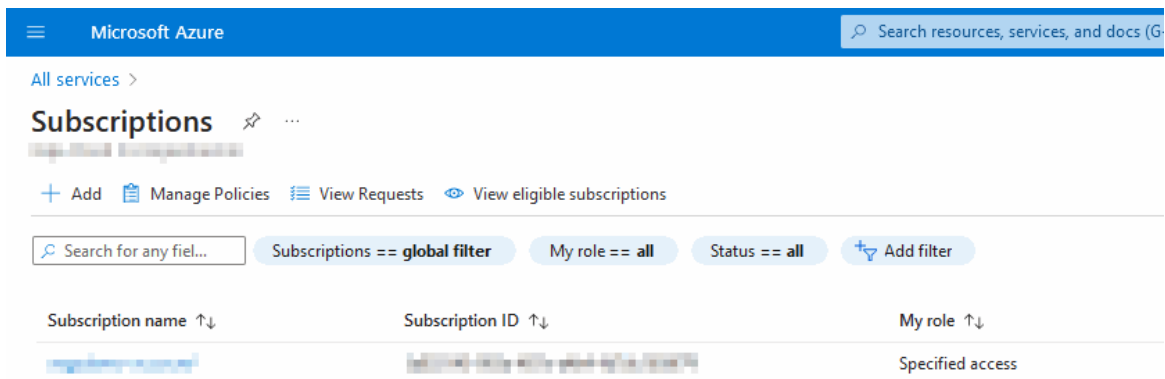
SECTION 02

New Custom Role: Give Vega Permissions

Now that we have an application registration, we need to control the amount of access we grant to the application. This is done by creating a limiting custom role in the subscription you are importing into Vega. Vega will supply the required JSON needed to create this custom role, based on the setting you selected in Vega for this particular subscription.

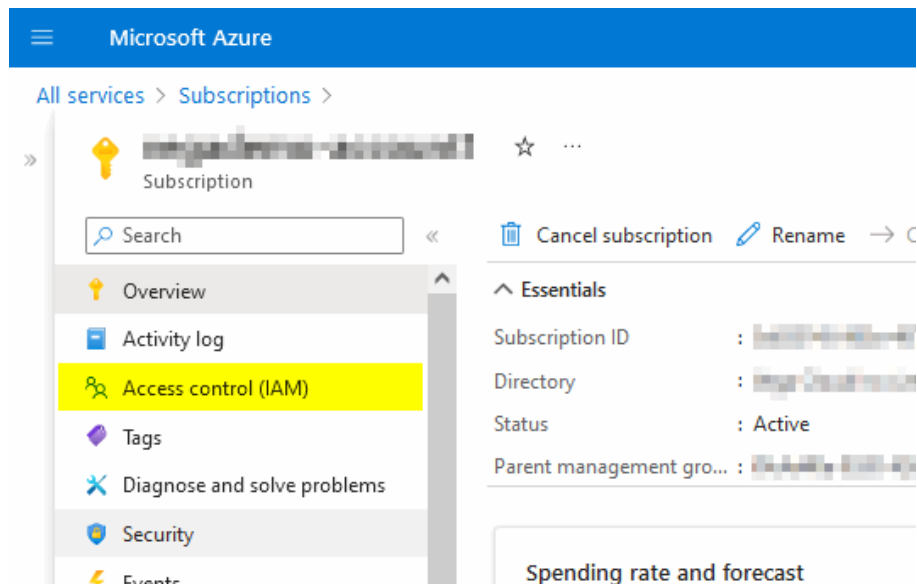
Let’s start creating the custom role. First select the subscription that you are importing. This is done from the “**Azure Home Screen**”. Click “More services” to see full services list. Search “Subscriptions” from the top search bar, or select “Subscriptions”, found in the General category of services.

Select “**Subscriptions**”. Then select the subscription being imported.



AZURE SUBSCRIPTIONS SCREEN

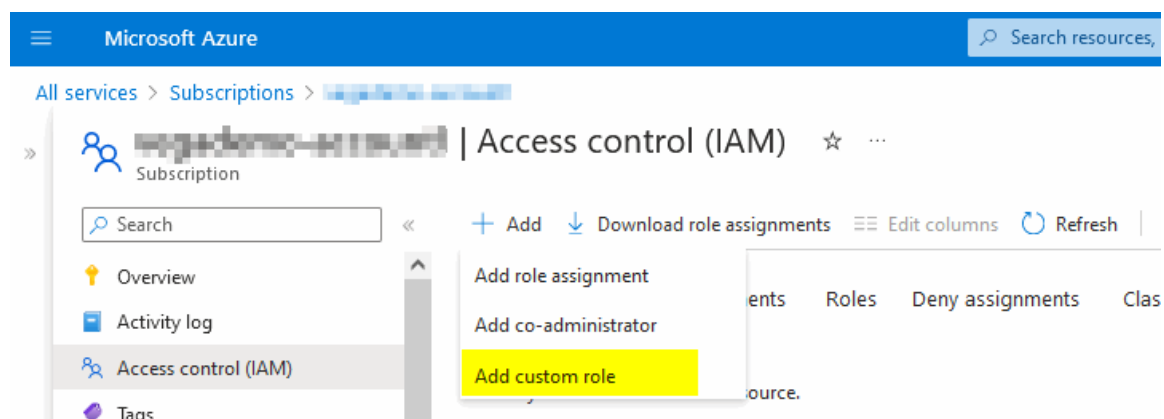
Select “**Access control (IAM)**” from the left side navigation menu.



AZURE SUBSCRIPTION DETAIL SCREEN

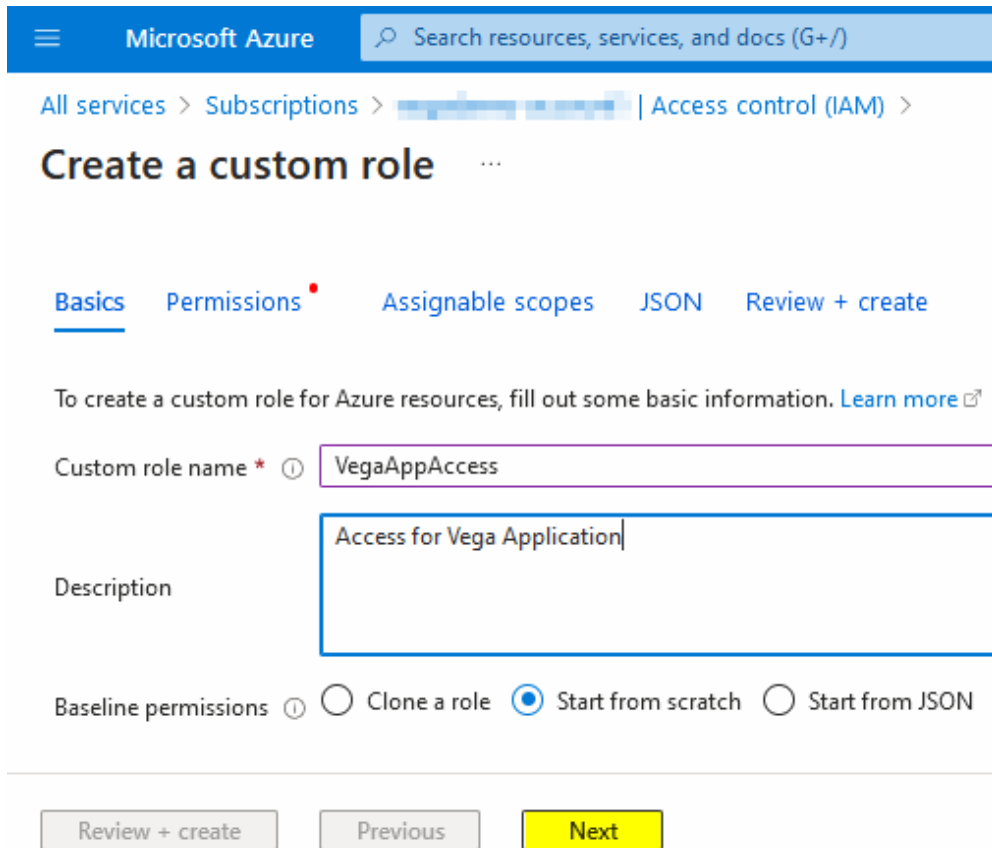
Select “**+ Add**” from the top navigation menu.

Then, select “**Add custom role**” (highlighted here)



AZURE ACCESS CONTROL (IAM) SCREEN

NEW CUSTOM ROLE: Once the modal opens, fill in **"Basics"** tab information. First create a custom role name, we recommend **"VegaAppAccess"**. Add a useful Description like **"Access for Vega Application"**. For your Baseline permissions, select **"Start from scratch"**.



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

All services > Subscriptions > [Subscription Name] | Access control (IAM) >

Create a custom role

Basics Permissions Assignable scopes JSON Review + create

To create a custom role for Azure resources, fill out some basic information. [Learn more](#)

Custom role name * VegaAppAccess

Description Access for Vega Application

Baseline permissions ☐ Clone a role ☒ Start from scratch ☐ Start from JSON

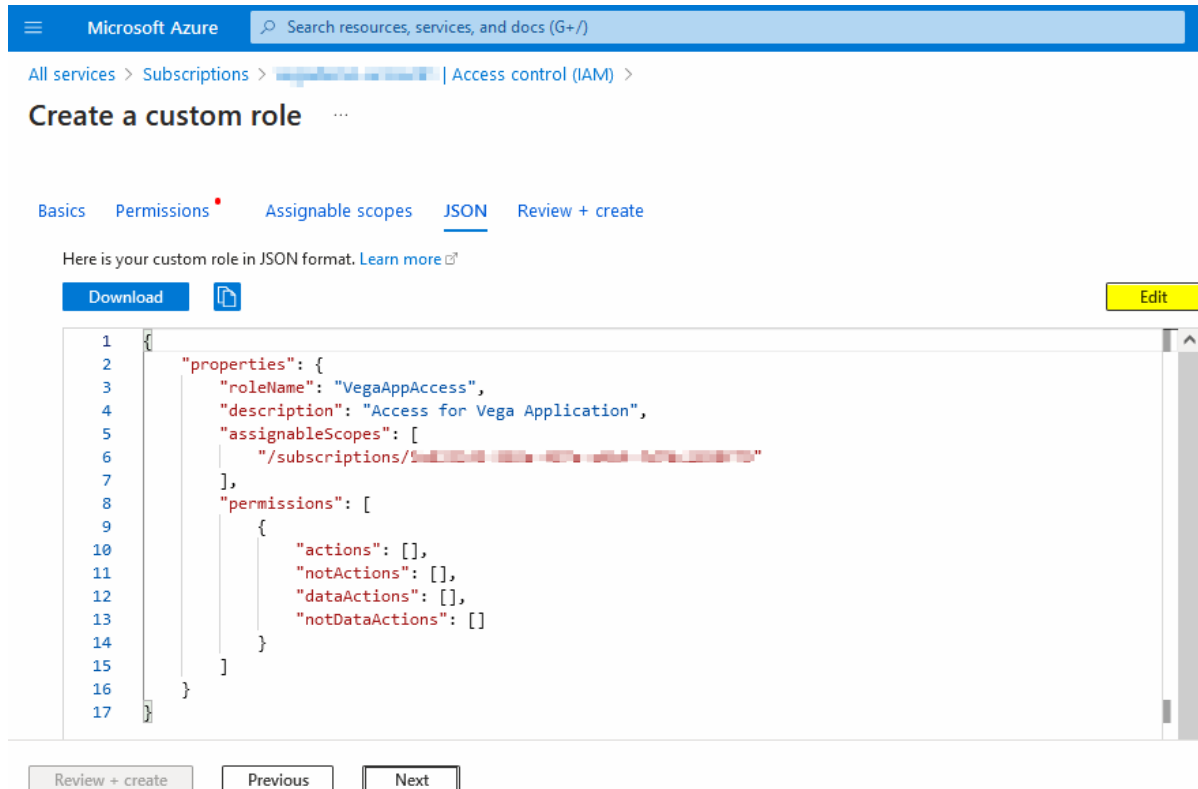
Review + create Previous Next

AZURE CREATE CUSTOM ROLE: BASIC SCREEN

Then, select **"Next"** to move on to the "Permissions" tab. We will leave this tab as is.

Select **"Next"** to move onto the "Assignable scopes" tab. We will also leave this tab as is.

"Next" again to select the **"JSON"** tab.

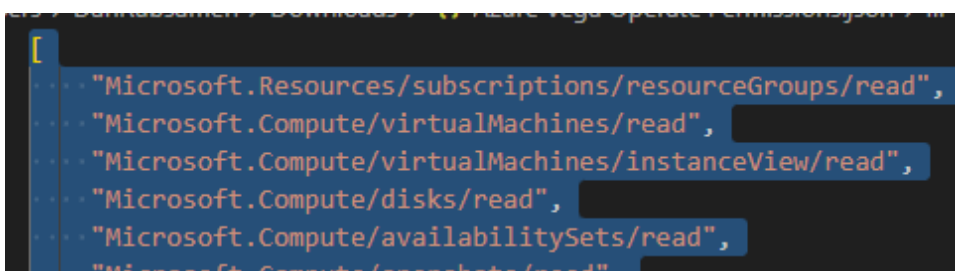


The screenshot shows the Microsoft Azure portal interface for creating a custom role. The breadcrumb navigation is 'All services > Subscriptions > [subscription] > Access control (IAM) > Create a custom role'. The 'JSON' tab is selected, displaying a JSON role definition for 'VegaAppAccess'. The JSON includes a description 'Access for Vega Application' and a permissions array with a single permission block. The 'Edit' button is highlighted in yellow. At the bottom, there are buttons for 'Review + create', 'Previous', and 'Next'.

```
1 {
2   "properties": {
3     "roleName": "VegaAppAccess",
4     "description": "Access for Vega Application",
5     "assignableScopes": [
6       "/subscriptions/[subscription-id]"
7     ],
8     "permissions": [
9       {
10        "actions": [],
11        "notActions": [],
12        "dataActions": [],
13        "notDataActions": []
14      }
15    ]
16  }
17 }
```

Click **"Edit"**

You need to update the default Azure Role permissions block with the JSON permissions provided to you by your Vega Rep. There are two files. One Azure permissions JSON file is for discovery only (**Azure Vega Inform Optimize Permissions.json**), if your corporate policy only allows for third parties such as Vega read only access and the other file (**Azure Vega Operate Permissions.json**) enables Vega the access to take actions such as Instance Parking on your behalf. **Copy** the provided permissions block from your chosen permission set file into the editor.



The screenshot shows a file named 'Azure Vega Operate Permissions.json' with a list of permissions. The visible permissions are:

- "Microsoft.Resources/subscriptions/resourceGroups/read",
- "Microsoft.Compute/virtualMachines/read",
- "Microsoft.Compute/virtualMachines/instanceView/read",
- "Microsoft.Compute/disks/read",
- "Microsoft.Compute/availabilitySets/read",
- "Microsoft.Compute/snapshots/read"

Find the "actions" array in the "permissions" section. Select the square bracket pair and paste in the Vega-provided permissions. (See image below)

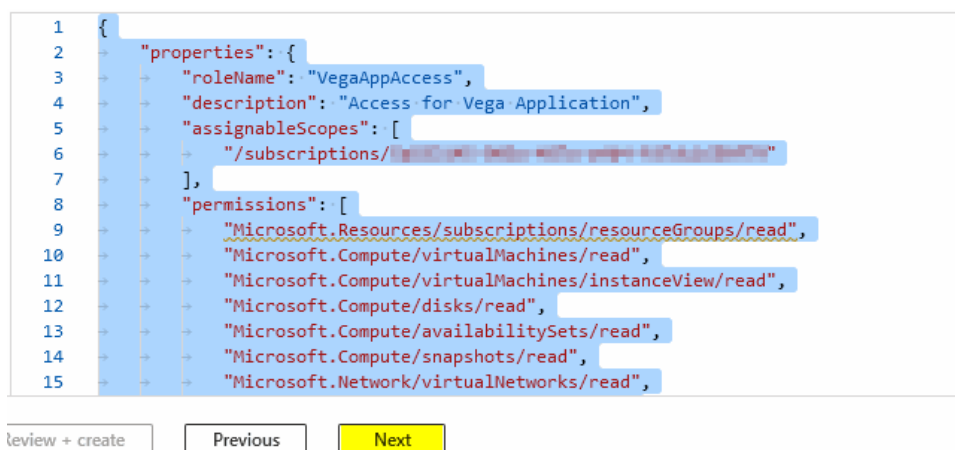


```

1  {
2    "properties": {
3      "roleName": "VegaAppAccess",
4      "description": "Access for Vega Application",
5      "assignableScopes": [
6        "/subscriptions/[REDACTED]"
7      ],
8      "permissions": [
9        {
10         "actions": [],
11         "notActions": [],
12         "dataActions": [],
13         "notDataActions": []
14       }
15     ]
16   }
17 }

```

After pasting in the content, it will need formatting before you can save.



```

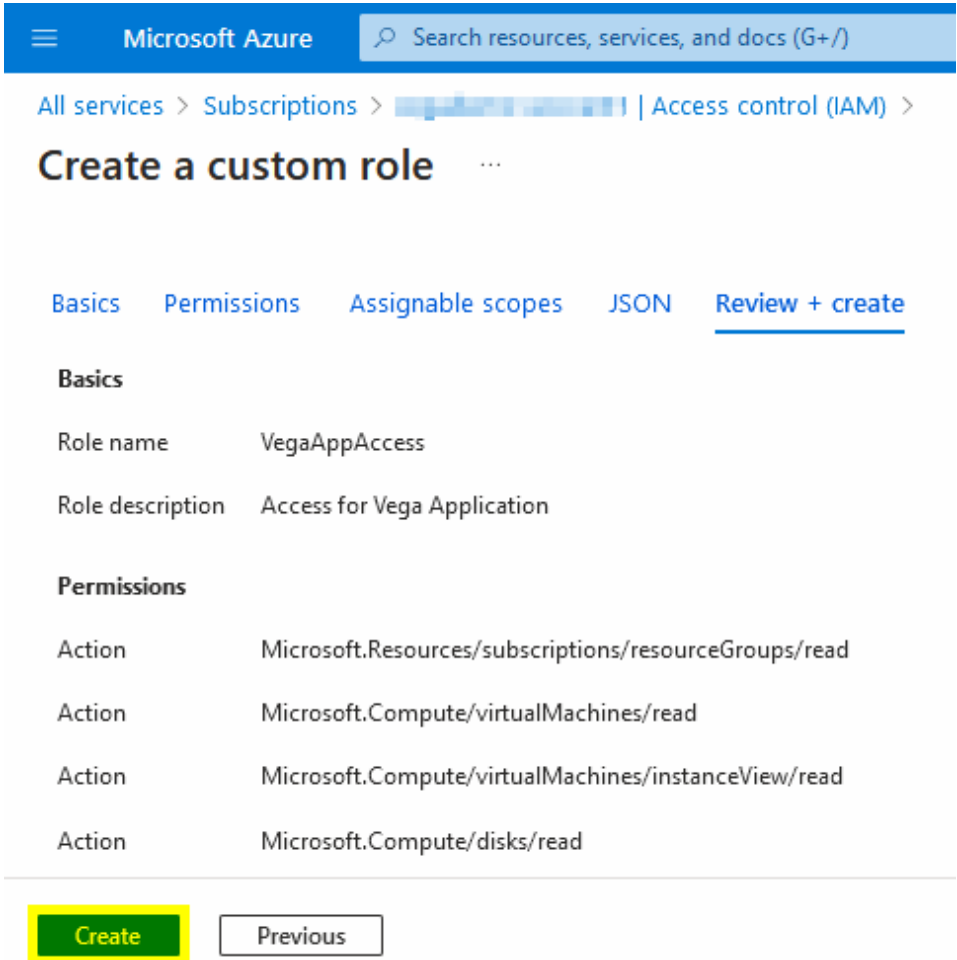
1  {
2    "properties": {
3      "roleName": "VegaAppAccess",
4      "description": "Access for Vega Application",
5      "assignableScopes": [
6        "/subscriptions/[REDACTED]"
7      ],
8      "permissions": [
9        "Microsoft.Resources/subscriptions/resourceGroups/read",
10       "Microsoft.Compute/virtualMachines/read",
11       "Microsoft.Compute/virtualMachines/instanceView/read",
12       "Microsoft.Compute/disks/read",
13       "Microsoft.Compute/availabilitySets/read",
14       "Microsoft.Compute/snapshots/read",
15       "Microsoft.Network/virtualNetworks/read",

```

review + create Previous Next

1. **select all the text** in the Azure Portal role edit window using **<ctrl + a>**
2. To format the JSON in the edit window correctly **press <ctrl + k>** keys, then **<ctrl + f>** keys.
3. **"Save"** with the button over the edit window, then click **"Next"** below the edit window.

PERMISSIONS: On the "Review + create" tab, click **"Create"** and you have finished creating a custom role.



AZURE CREATE CUSTOM ROLE: REVIEW + CREATE SCREEN

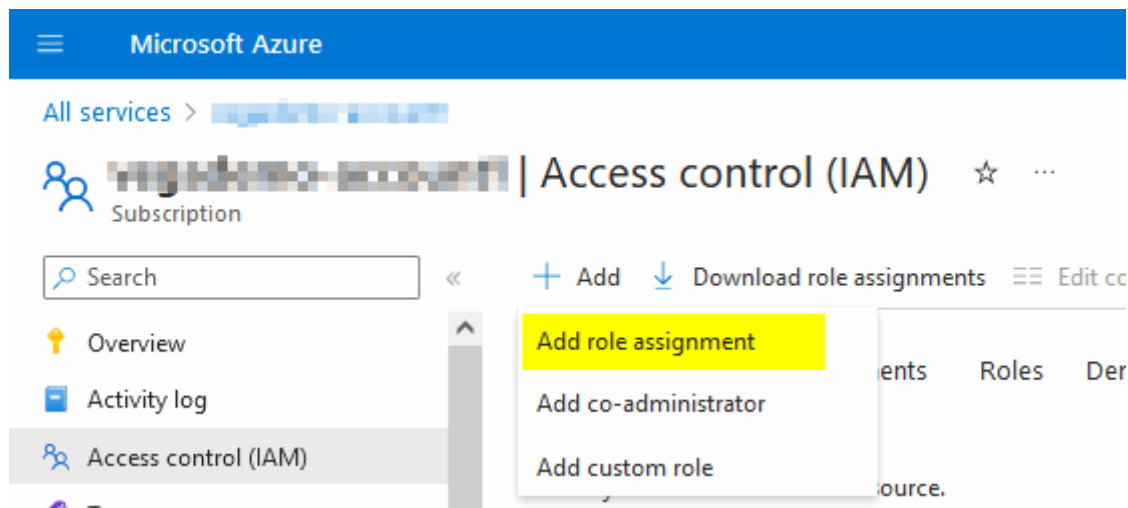
SECTION 03

Assign Custom Role:
Give App Registration Permissions

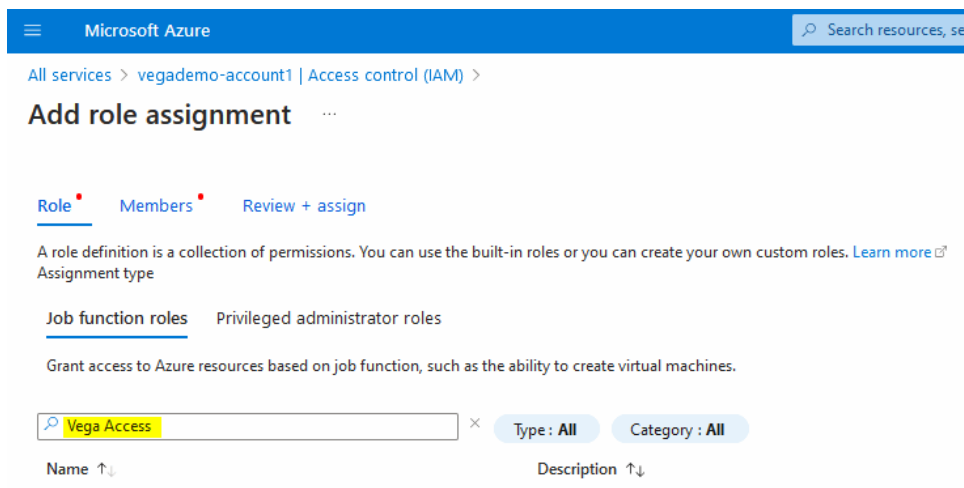
Now that we have both the new App Registration and new Custom Role, we can give the application the subscription access required by the Vega Application. This is the last step in the import of an Azure Subscription. First select the subscription that you are importing. This is done from the **"Azure Home Screen"**

Select **"Subscriptions"**, then select the specific subscription being imported. Select **"Access control (IAM)"** from the left side navigation menu.

Select **"Add"** from the top navigation menu, then select **"Add role assignment"**



Select your role **“Vega Access”** (You can type **“Vega”** to filter the dropdown list to find it more easily). Leave the default for **“Assign access to”** selection.



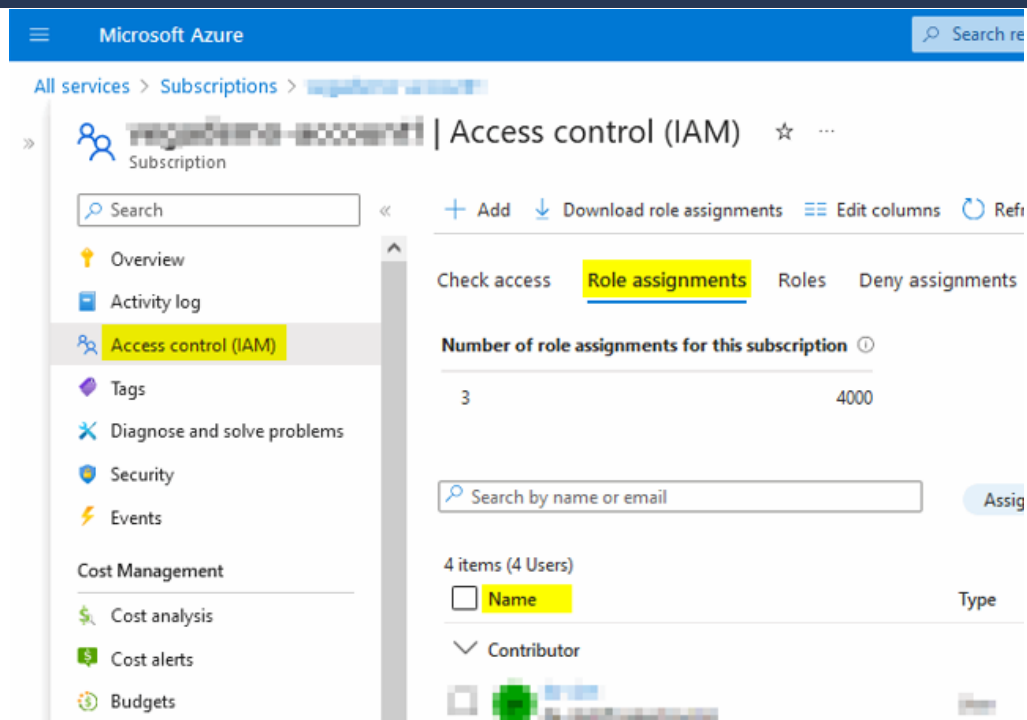
Select your app registration, you need to do this by typing the name **“VegaAzureApp”**, or just **“Vega”** will also bring up your selection to select.

Click **“Save”** and you have finished assigning a custom role.

Now you should see your *Vega Access Role* assigned to your *VegaAzureApp* Application Registration.

Vega should now be able to work with this subscription. If you wish to verify your role assignment, you can go to your subscription’s role assignments and verify your newly attached role.

You will have to perform these steps for each Azure Subscription you wish to work with in the Vega Application.



AZURE SUBSCRIPTION ROLE ASSIGNMENTS

SECTION 04

Vega Create Workload: Get Azure Subscription Info

Now that we have the Azure Subscription configured, we can now supply the required information to the Vega Create Workload process. You need to supply **4 pieces** of Azure specific information to Vega so we can perform actions within your Azure Subscription, then add all the required information and click the “Add Resource Pool” button.

Home / Spaces / Corporate

Create Vega Resource Pool (Azure Subscription)

Resource Pool Information

Resource Pool Type

Resource Pool Budget

Budget (Optional)

\$ 0

Azure Details

Subscription ID [\(see page21\)](#)

Tenant ID [\(see page22\)](#)

Client ID [\(see page23\)](#)

Client Secret Key [\(see page24\)](#)

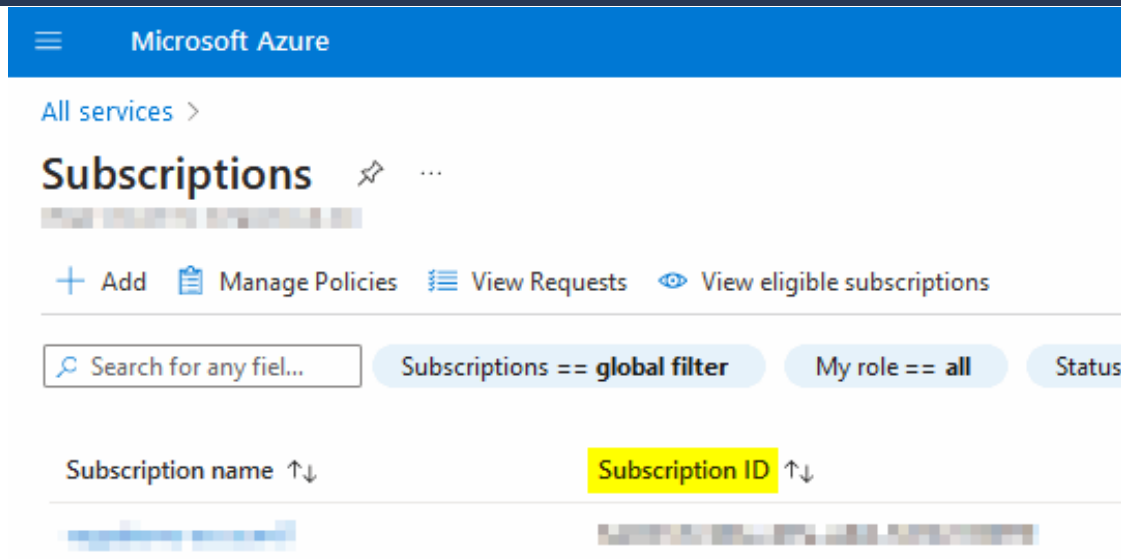
Cancel

Add Resource Pool

CREATE VEGA RESOURCE POOL

Getting your Subscription ID

1. Log into your **Azure Portal**
2. Select "**Subscriptions**" in the left navigation menu
3. **Select the specific Subscription** you are creating a Vega Workload from
4. From the navigation menu, click "**Overview**"
5. **Copy your Subscription ID** from here and paste it into the Subscription ID field in the Vega Workload Azure Details form



SUBSCRIPTION ID SCREEN

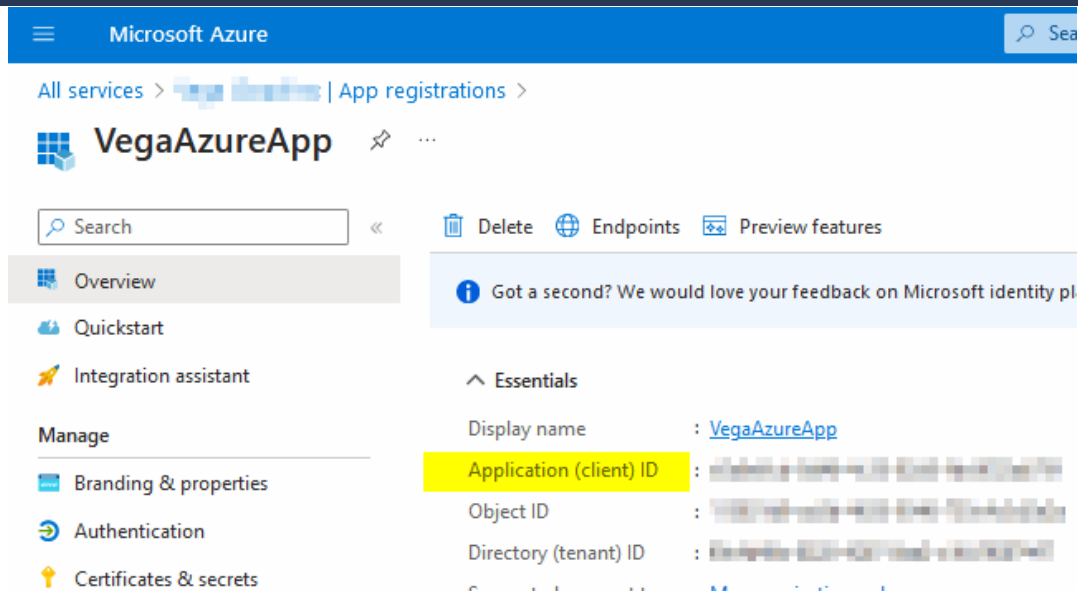
Getting your Tenant ID

1. Log into your **Azure Portal**
2. Select "**Azure Active Directory**" in the left navigation menu
3. Click on "**Properties**"
4. **Copy your Directory/Tenant ID** from here and paste it into the Tenant ID field in the Vega Workload Azure Details form

TENANT ID SCREEN

Getting your Application/ Client ID

1. Log into your **Azure Portal**
2. Select **"Azure Active Directory"** in the left navigation menu
3. Select **"Enterprise Applications"**
4. Select **"All Applications"**
5. Select the **"VegaAzureApp"** application that you created
6. Click **"Properties"**
7. **Copy your "Application ID"** from here and paste it into the Client ID field in the Vega Workload Azure Details form



APPLICATION/CLIENT ID SCREEN

Getting your Application Access Key/ Client Secret Key

1. Log into your **Azure Portal**
2. Select "**Azure Active Directory**" in the left navigation menu
3. Select "**App registrations**"
4. Select the "**VegaAzureApp**" application that you created
5. Select "**Certificates and Secrets**"
6. Select "**+ New Client Secret**"
7. Add a key description such as "**Vega Azure App**"
8. Set expiration to "**Never**"
9. Click "**Add**"

Microsoft Azure

Search resources, services, and docs (G+)

All services > App registrations > VegaAzureApp

VegaAzureApp | Certificates & secrets

Search

Got feedback?

Overview

Quickstart

Integration assistant

Manage

Branding & properties

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Owners

Roles and administrators

Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web address (scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Application registration certificates, secrets and federated credentials can be found in the tabs below.

Certificates (0) **Client secrets (1)** Federated credentials (0)

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

+ New client secret

Description	Expires	Value	Secret ID
...	NOT THIS FIELD

10. Copy your Application Access Key/ Client Secret Key **Value** from here and paste into the *Client Secret ID* field in the *Vega Workload Azure Details* form.

NOTE: Store this value in a safe place as you will not be able to retrieve this again once you leave the page in Azure Portal.

**If you have any questions, please contact
your client success manager**

