Cisco Spaces: Connector AMI

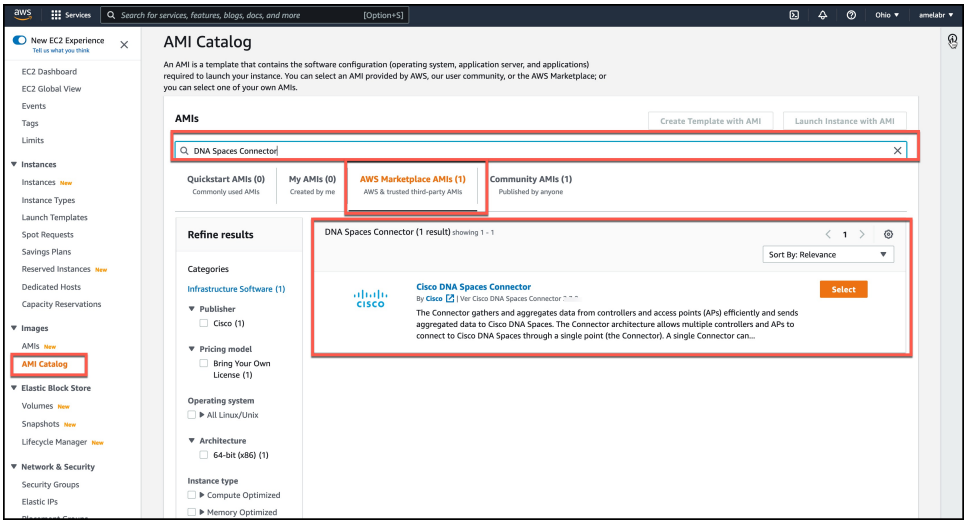
Launch Connector 3 as an EC2 Instance from AMI

This chapter provides information about how to launch a connector 3 as an EC2 instance from Amazon Machine Images (AMI), configure the connector 3 instance, and finally obtain a URL to log in to the connector connector and CLI.

Step 1 Log in to your Amazon Web Services account and navigate to the **EC2 Dashboard**. In the left-navigation pane, choose **Images > AMI Catalog**.

Step 2 In the **AMIs** search area, click **AWS MarketPlace AMIs** and enter `DNA Spaces Connector`. Press **Enter**.

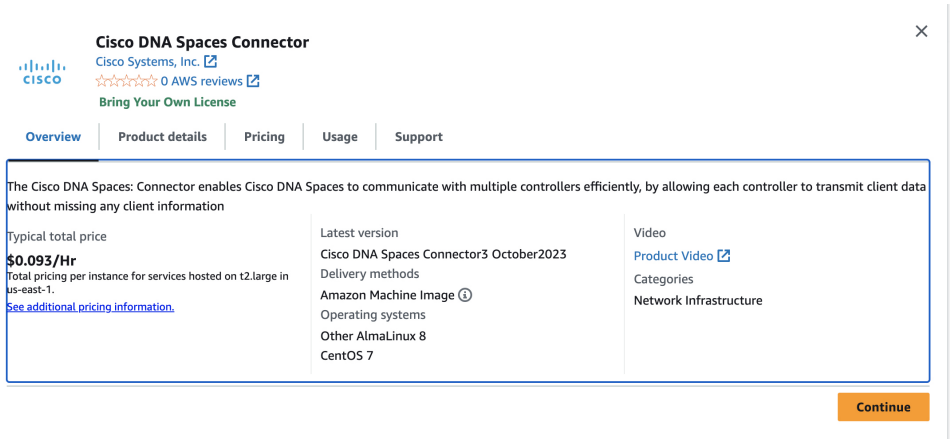
Figure 1: Configuration



Step 3 Click the displayed image and click **Select**.

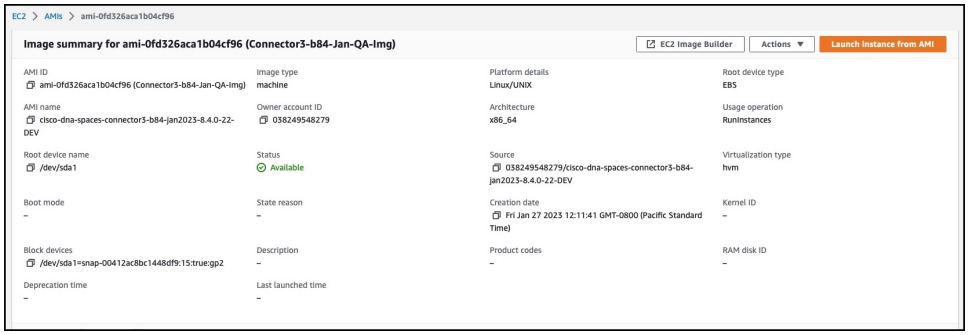
Step 4 In the **Cisco DNA Spaces Connector** window displayed, click **Continue**.

Figure 2: AWS MarketPlace AMIs



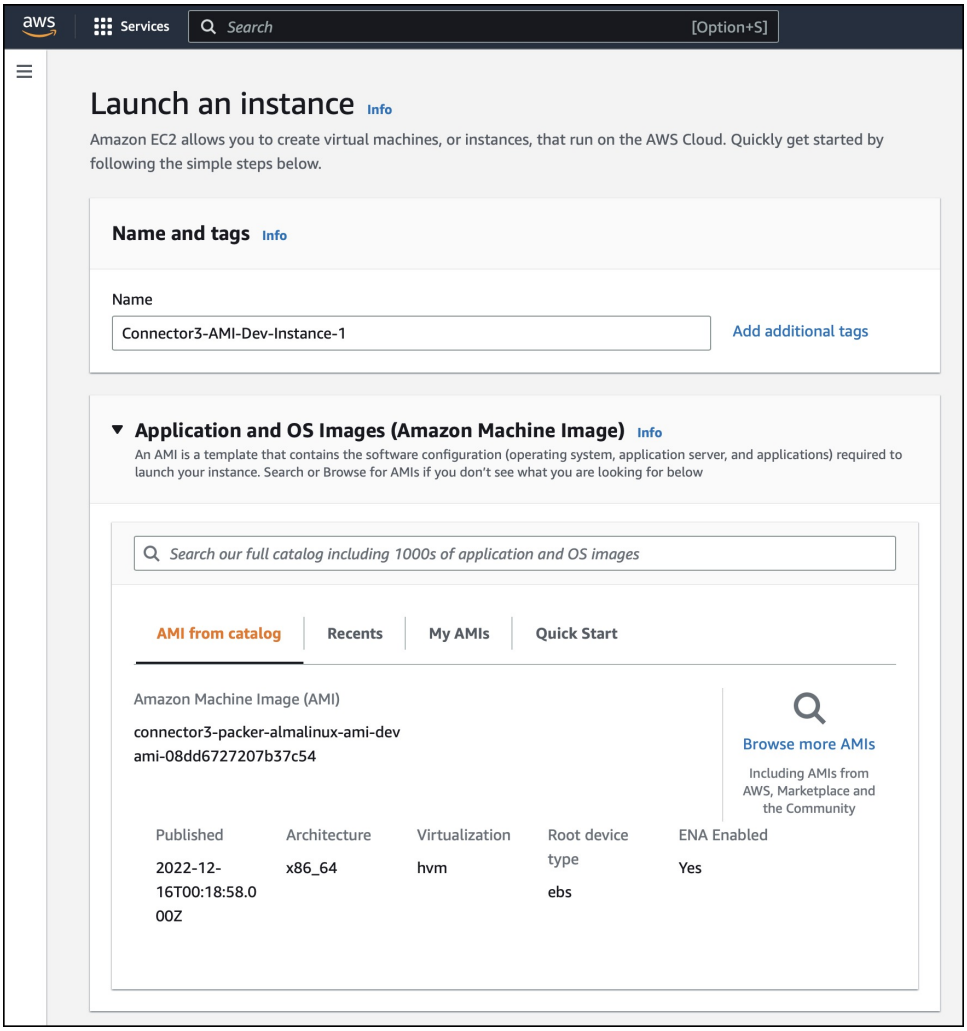
Step 5 In the **Image Summary** window displayed, click **Launch Instance from AMI**

Figure 3: Launch Instance from AMI



Step 6 In the **Launch an Instance** window displayed, enter an instance name, and add any additional labels for your instance by clicking the **Add Additional tags** button.

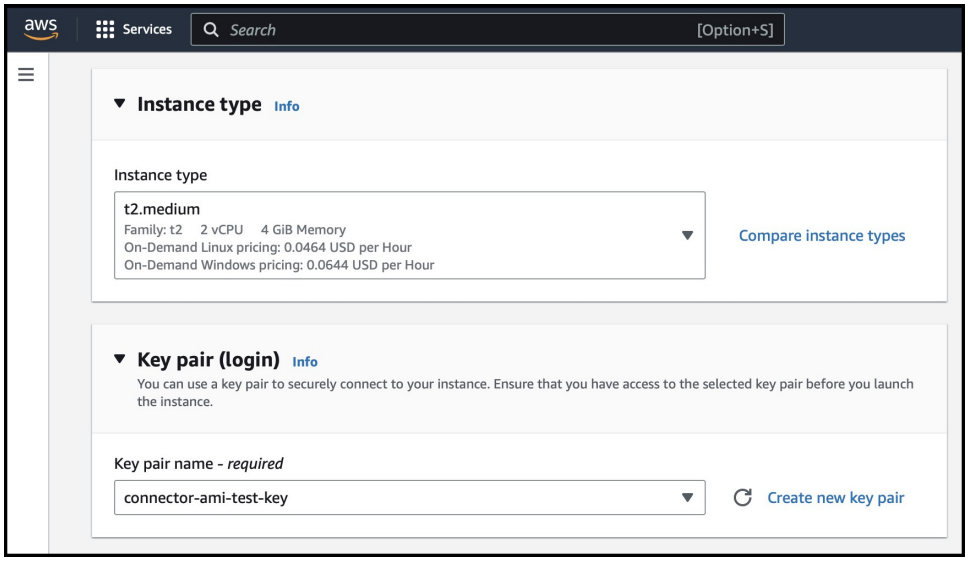
Figure 4: Launch Instance from AMI



Step 7 Choose an instance with the corresponding **Type** as **t2.medium** that has **vCPU** value as **2** and **Memory (GB)** as **4**. Click **Next: Configure Instance Details**.

t2.medium corresponds to a standard window with 2vCPUs and 4-GB memory and is the recommended setting.

Figure 5: Configure Instance Details



Note You can have a more advanced configuration by choosing an option with higher vCPU and memory, by choosing an instance type with one of the following configurations. If an exact match is unavailable, you can choose a configuration with the next-available vCPU or memory:

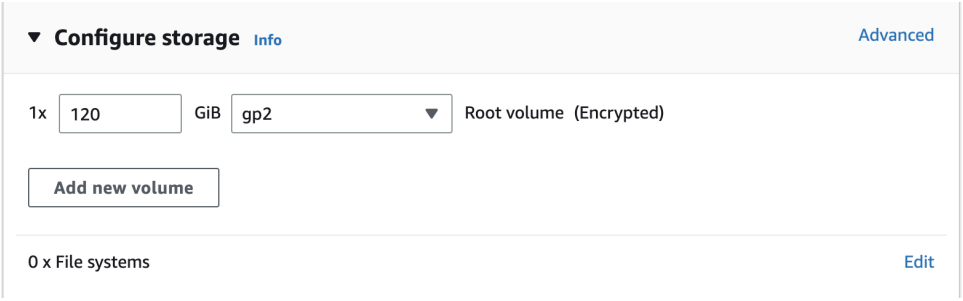
- 4 vCPUs and 8-GB memory (referred to in this document as **Advanced1**)
- 8 vCPUs and 16-GB memory (referred to in this document as **Advanced2**)

Step 8 Choose a **Network** and a **Subnet**. Click **Next: Add Storage**.

Figure 6: Add Storage

Step 9 Enter the value of **Size(GB)** as 120. Click **Next: Configure Security Group**.

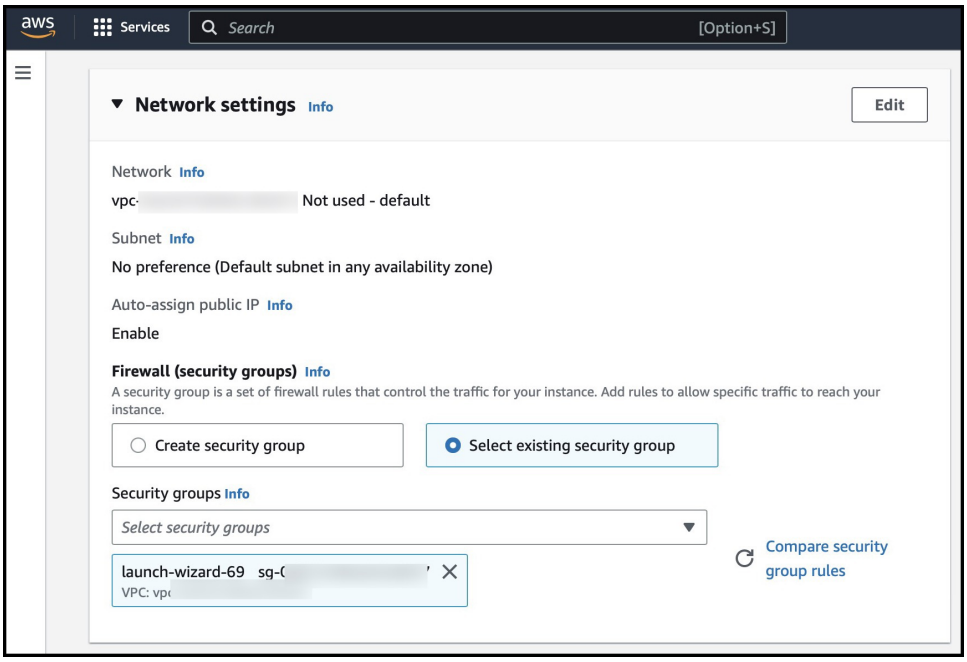
Figure 7: Configure Storage



Step 10 Configure a security group by following these steps:

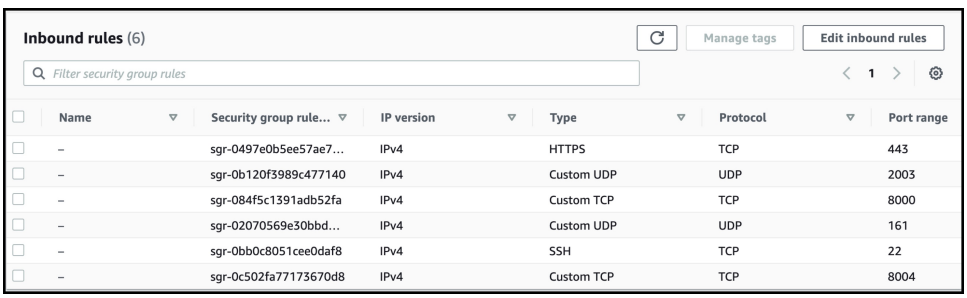
a) Create a new security group or modify an existing one by clicking the respective radio button.

Figure 8: Configure Security Group



b) Configure rules permitting inbound traffic to specific ports, as shown in the following image. You can allow inbound traffic to these ports for all IP addresses or choose to restrict them for specific IP addresses.

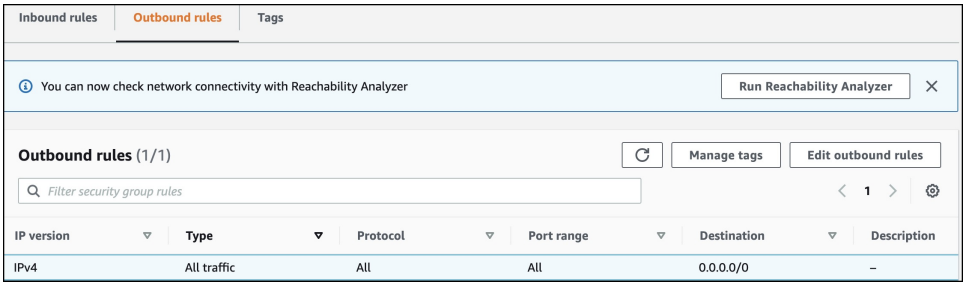
Figure 9: Configure These Inbound Rules Permitting Traffic to Specific Ports



Note Using an inbound rule, you can also specify the network subnet range that can access this instance (For example, through SSH).

c) Configure the outbound rule shown in the following image.

Figure 10: Configure This Outbound Rule



Note For various connector services to work, you must open specific ports. See the respective **Information About Open Ports** section of the connector service for more information.

Step 11 In the displayed **Select an existing key pair or create a new key pair** dialog box, do either of the following:

- Choose **Create a new key pair** from the drop-down list. Provide a **Key pair name** and click **Download Key Pair** to download it. Then click **Launch Instance** to launch the instance.
- Choose **Choose an existing key pair** from the drop-down list. Select the previously downloaded key pair from the **Select a key Pair** drop-down list. Then click **Launch Instance** to launch the instance.

Figure 11: Create a New Key Pair

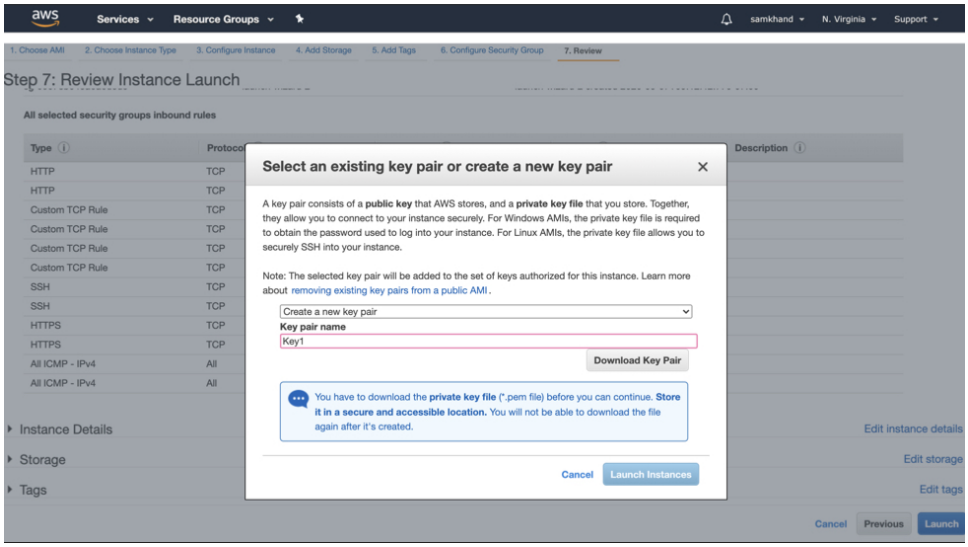
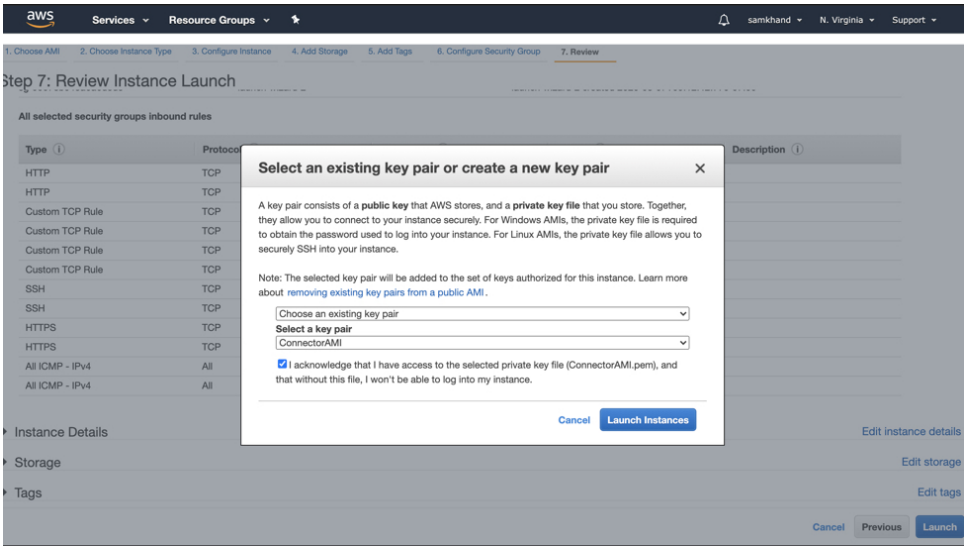


Figure 12: Choose an Existing Key Pair

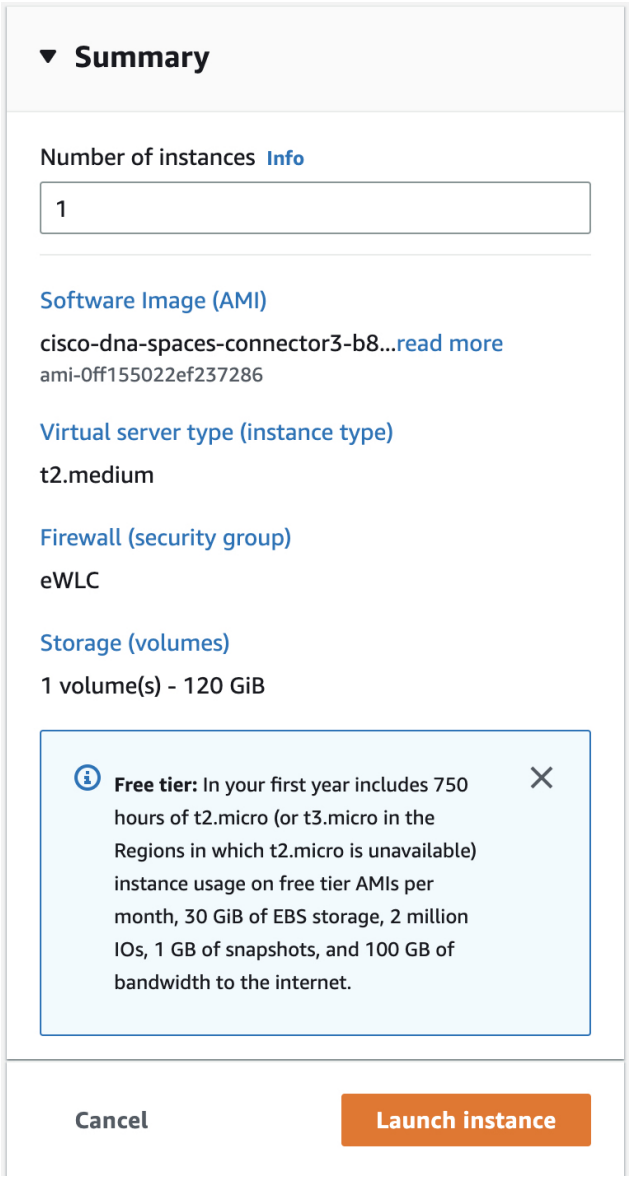


Step 12 After you have downloaded the key pair (.pem) file to your system, navigate to the file location. Configure appropriate permissions for the .PEM file using the **chmod** command.

```
chmod 400 /path/to/MyAccessKey1.pem
```

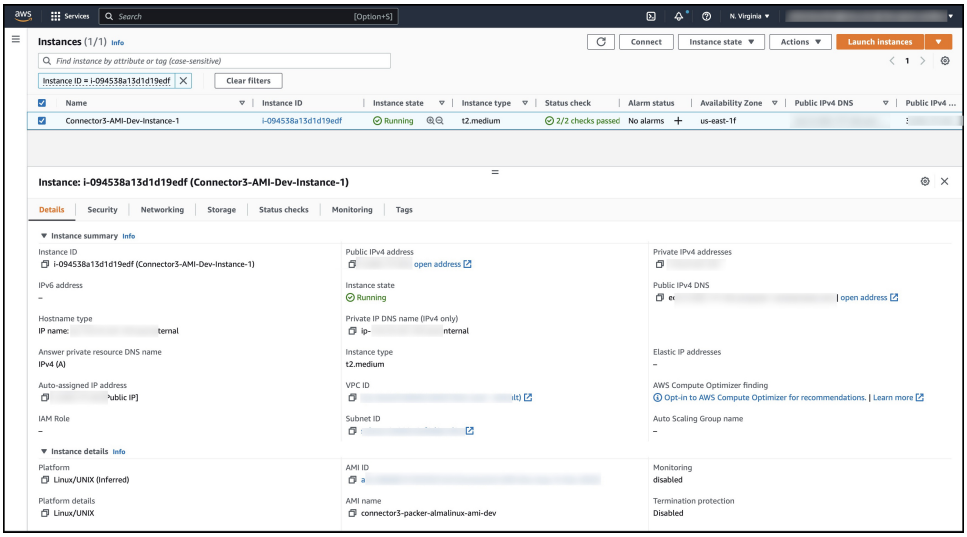
Step 13 Review the instance and click **Launch**.

Figure 13: Review Instance and Launch



Step 14 On the EC2 dashboard, wait for the instance to finish launching and the status to change to **Running**. Alternatively, you can see the running instances on the **Instances** page. Click the instance to obtain the IPv4 address of the instance.

Figure 14: Obtain IPv4 Address of Instance



Step 15 Perform initial setup to configure a hostname, and change passwords for **spacesadmin** and **root** users.

a) Log in to the connector using the **ssh -i** command and the following parameters:

- The .PEM key pair downloaded in Step 11
- ec2-user
- The IPv4 address obtained in Step 14

```
ssh -i /path/to/key/MyAccessKey1.pem ec2-user@IPv4-address
```

b) Change passwords for **spacesadmin** and **root** users. Avoid a BAD PASSWORD prompt by complying with the following password requirements:

- Length is more than 14 characters.
- Includes at least one uppercase letter.
- Includes at least one lowercase letter.
- Includes at least one special character.

The following is a sample output of the command:

```
Welcome to Cisco Spaces Connector Setup
Changing password for user spacesadmin.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
Password changed successfully
Setting rbash...
Restarting docker...
Changing shell for root.
Shell changed.
Changing shell for spaces.


Remove default users...
Relabeled /etc/sudoers from unconfined_u:object_r:user_tmp_t:s0 to unconfined_u:object_r:etc_t:s0
```

```
Cisco Spaces Connector UI:
https://XX.XXX.XX.XXX
Username log in: spacesadmin
The install is complete, a reboot will occur in 10 seconds...
```

Once the installation is complete, a reboot occurs within 10 seconds. Note down the public IP address before reboot.

Step 16 Log in to the connector and configure the connector further. Do one of the following using the public IPv4 address from the previous step (Step 15):

- Log in to the connector GUI using the browser window and the address https://*public-ipv4-address*
- Log in to the connector CLI using the SSH command and the username **spacesadmin**. Use the command **ssh spacesadmin@***public-ipv4-address*. When prompted, use the password configured for the **spacesadmin** user.