

IBSNOW: Installation on Azure



New IoT Bridge for Snowflake Available

This document covers v2.0.0 and older versions of IoT Bridge for Snowflake. It now ships as part of Chariot. To see the latest IoT Bridge for Snowflake documentation, go to [IoT Bridge for Snowflake in Chariot](#).

Prerequisites

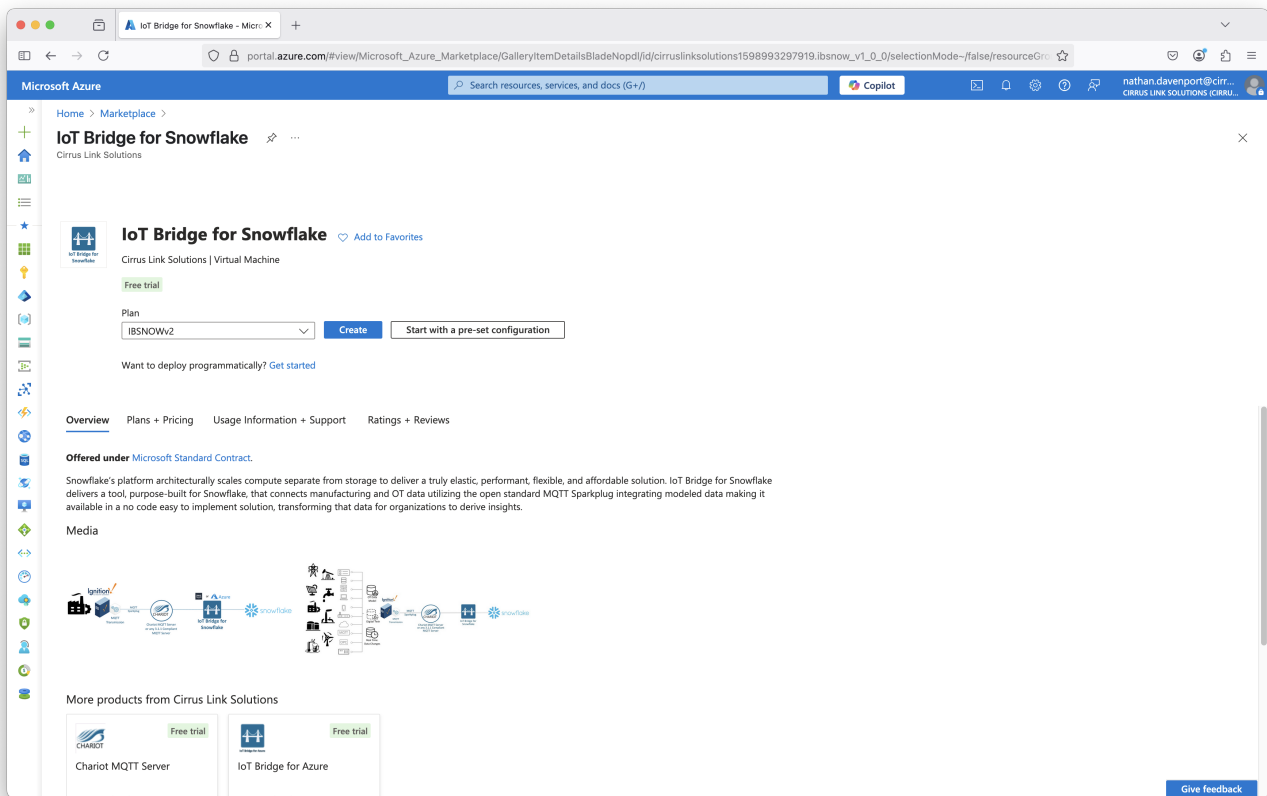
Before being able to install and set up IoT Bridge for Snowflake on Azure you must have a Microsoft Azure account. If you do not already have one, you can create one [here](#).

Summary

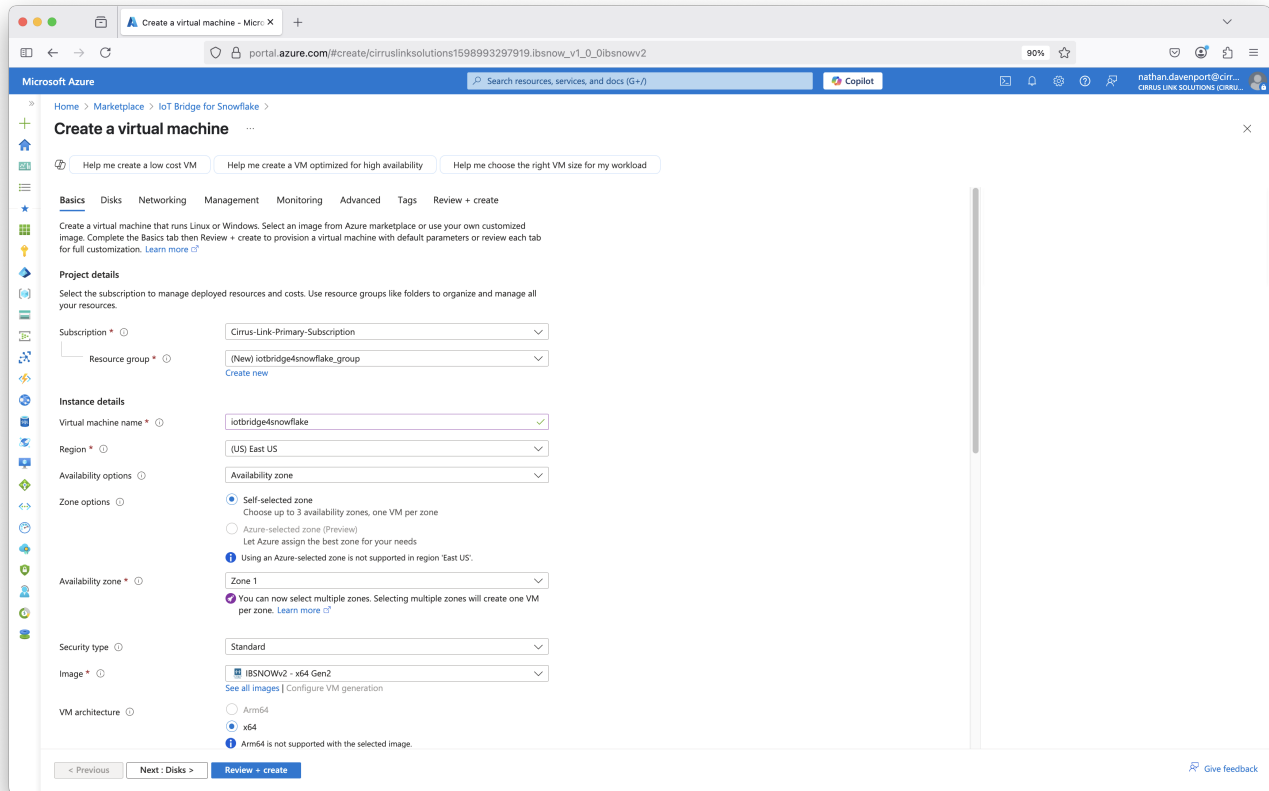
This process covers installing the IoT Bridge for Snowflake into an Azure account as a virtual machine.

IoT Bridge Installation

Begin by browsing to Azure Marketplace [here](#) and search for 'IoT Bridge for Snowflake'. That will bring you to the following page:



Click the blue 'Create' button near the top of the page. This will bring you to the following page.



In the page above, make sure you specify the following (and any other settings you want).

- Subscription and Resource Group
 - This can be any resource group you want and can even be a new one as shown above



If the subscription is a Microsoft CSP (Cloud Solution Provider) created subscription, the CSP Tenant ID must be provided to CirrusLink to be added to the CSP whitelist on the offering.

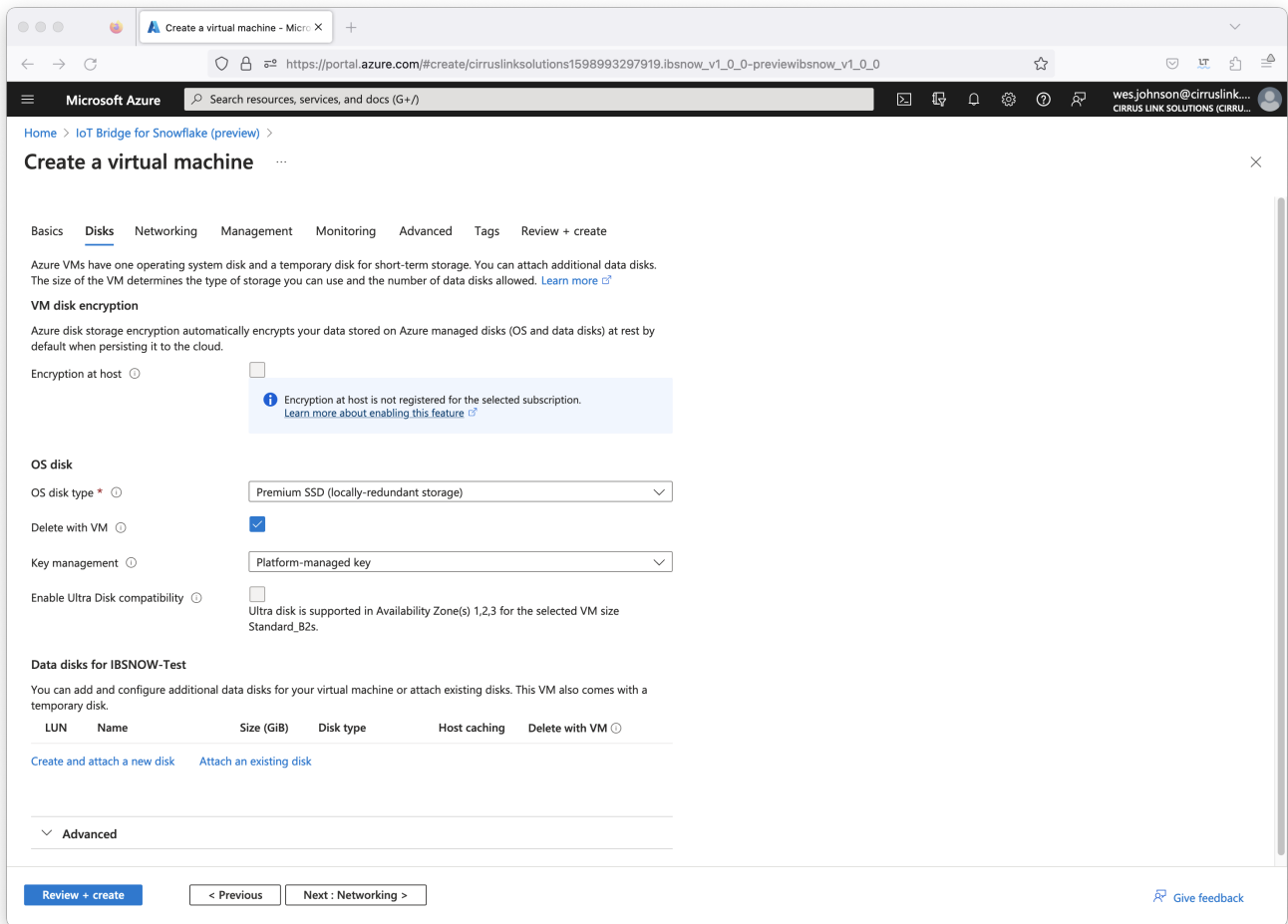
The IoT Bridge will fail to deploy with a subscription error if this has not been completed.

To get the Tenant ID:

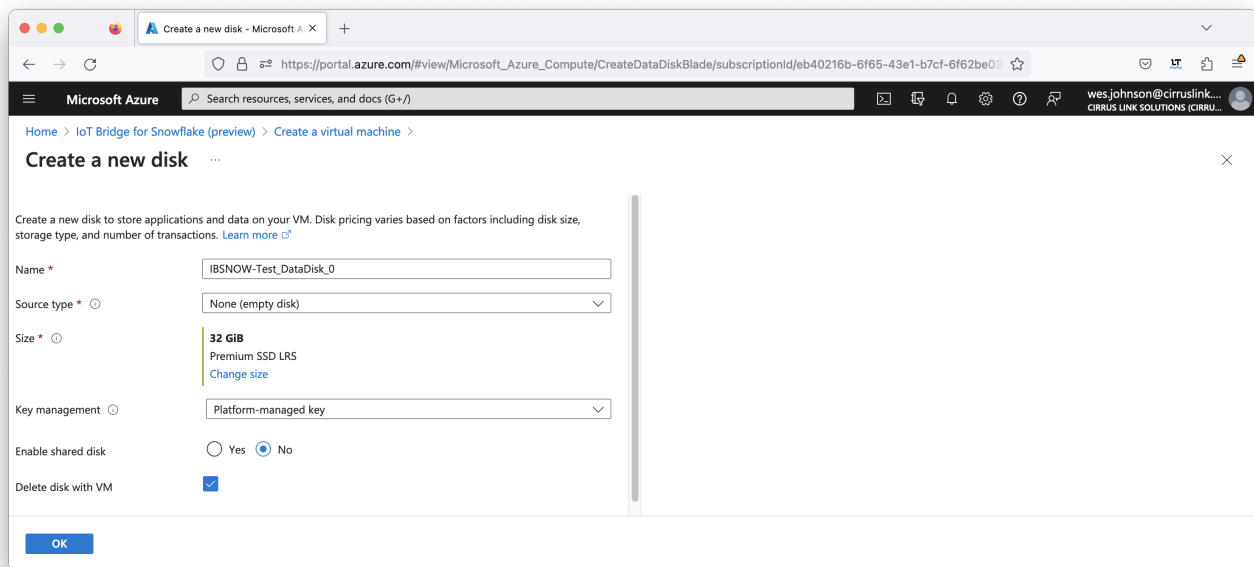
- Provide the subscription ID to the CSP to give to Microsoft Support
 - The CSP needs to request their CSP Tenant ID for the subscription ID from Microsoft Support
- Provide support@cirrus-link.com the Tenant ID to be added to the CSP whitelist on the offering
 - It usually takes 24 - 48 hours for this submission to complete

- Virtual Machine Name
 - This can be anything you want
- Region
 - It is recommended to have this be in the same region where your Snowflake account is
- Image
 - Make sure you select 'Standard - x64 Gen1' as shown above. Note it has the 'IoT Bridge for Snowflake' icon next to it.
- Size
 - Select the VM size you want.
- Login details
 - Select these as you want
- Select inbound ports
 - Make sure SSH is enabled. This is required for configuration of the IoT Bridge for Snowflake instance

After configuring the above items, select 'Next: Disks'. This will bring you to the following page.



Select 'Create and attach a new disk' near the bottom of the page. This will bring you to the following page:



Set the values as you want. Note IBSNOW doesn't need a lot of disk space as there isn't a lot of persisted data. Also, it is recommended to 'Delete disk with VM' as shown above so resources are cleaned up when the VM is deleted. After setting the variables as you want, click 'OK'. At this point you should see the disk as shown below:

Create a virtual machine - Microsoft Azure

Home > IoT Bridge for Snowflake (preview) > Create a virtual machine

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

VM disk encryption

Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.

Encryption at host

Encryption at host is not registered for the selected subscription. [Learn more about enabling this feature](#)

OS disk

OS disk type *

Delete with VM

Key management

Enable Ultra Disk compatibility

Ultra disk is supported in Availability Zone(s) 1,2,3 for the selected VM size Standard_B2s.

Data disks for IBSNOW-Test

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching	Delete with VM
0	IBSNOW-Test_DataDis...	32	Premium SSD LRS	None	<input checked="" type="checkbox"/>

[Create and attach a new disk](#) [Attach an existing disk](#)

Advanced

[Review + create](#) [< Previous](#) [Next: Networking >](#) [Give feedback](#)

Now click 'Next: Networking'. This will bring you to the following page:

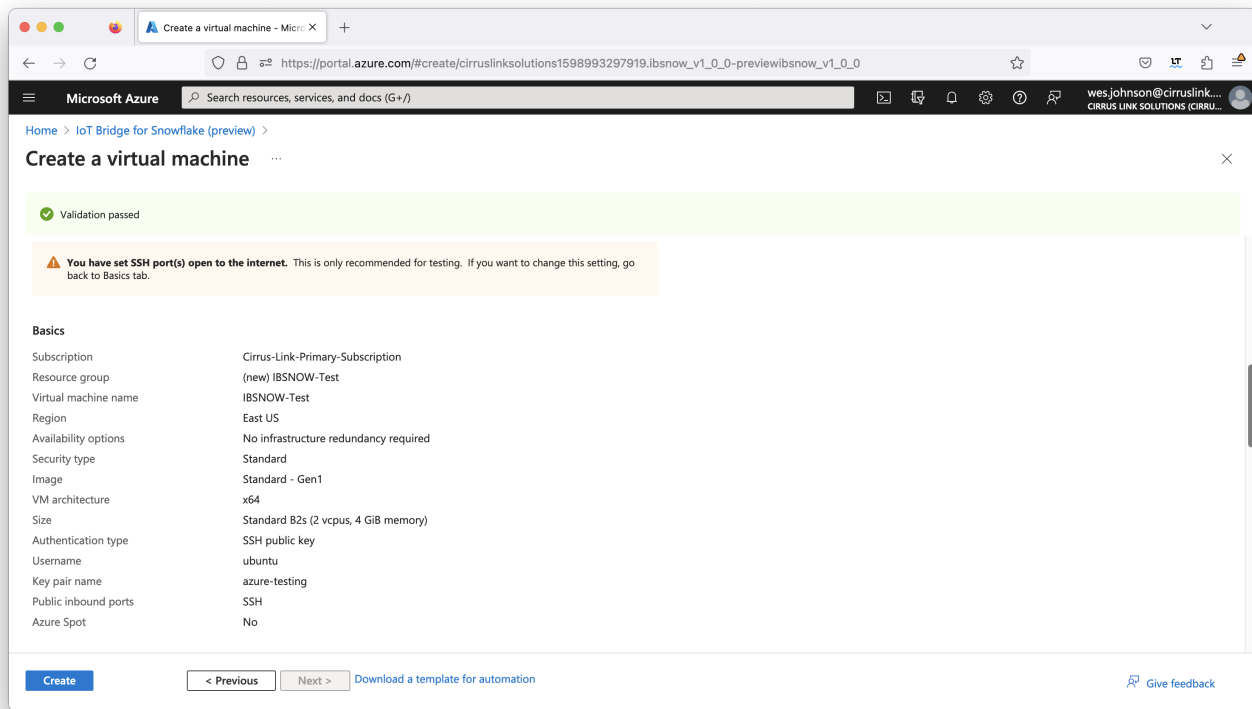
The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal, specifically the 'Networking' tab. The page is titled 'Create a virtual machine' and includes a breadcrumb trail: 'Home > IoT Bridge for Snowflake (preview) > Create a virtual machine'. The 'Networking' tab is selected, and the page content is as follows:

- Basic** | **Disks** | **Networking** | Management | Monitoring | Advanced | Tags | Review + create
- Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution. [Learn more](#)
- Network interface**
- When creating a virtual machine, a network interface will be created for you.
- Virtual network * [Create new](#)
- Subnet *
- Public IP [Create new](#)
- NIC network security group None Basic Advanced
- Public inbound ports * None Allow selected ports
- Select inbound ports *
- ⚠ This will allow all IP addresses to access your virtual machine.** This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.
- Delete public IP and NIC when VM is deleted
- [Review + create](#) | [< Previous](#) | [Next: Management >](#) | [Give feedback](#)

As shown in the page above, it is recommended to 'Delete public IP and NIC when VM is deleted'. Also, make sure port 22 is open to allow SSH access is open to the VM. Then click 'Next: Management'. This will bring you to the following page:

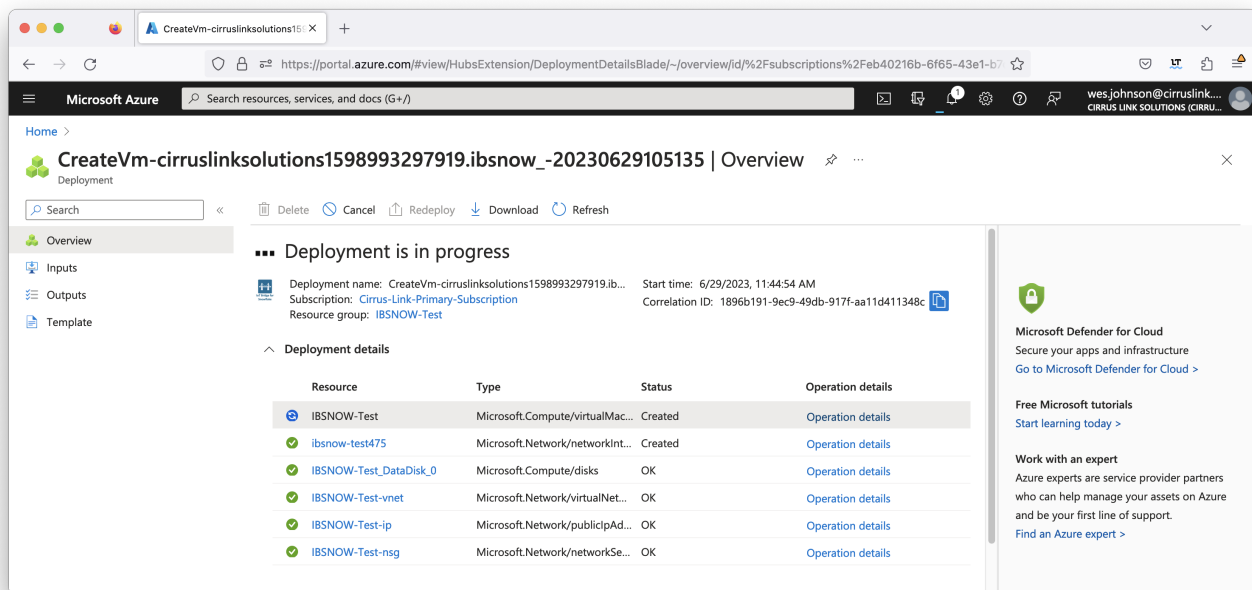
The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal, specifically the 'Management' tab. The page is titled 'Create a virtual machine' and has a breadcrumb trail: 'Home > IoT Bridge for Snowflake (preview) >'. The navigation tabs are 'Basics', 'Disks', 'Networking', 'Management' (selected), 'Monitoring', 'Advanced', 'Tags', and 'Review + create'. Below the tabs, there is a section for 'Microsoft Defender for Cloud' with a green checkmark indicating that the subscription is protected by Microsoft Defender for Cloud basic plan. The 'Identity' section has a checkbox for 'Enable system assigned managed identity' which is unchecked. The 'Azure AD' section has a checkbox for 'Login with Azure AD' which is also unchecked. A yellow warning box states 'This image does not support Login with Azure AD.' The 'Auto-shutdown' section has a checkbox for 'Enable auto-shutdown' which is unchecked. The 'Guest OS updates' section has a dropdown menu for 'Patch orchestration options' set to 'Image default', with a blue information icon and text stating 'Some patch orchestration options are not available for this image. Learn more'. At the bottom, there is a blue 'Review + create' button, a '< Previous' button, and a 'Next: Monitoring >' button. A 'Give feedback' link is located in the bottom right corner.

In this 'Management' tab, you can accept the defaults or change any settings you require. This is true for the 'Monitoring', 'Advanced', and 'Tags' tabs as well. Select the defaults or change anything you require. Once complete, click 'Review + create'. This will bring you to the following page:

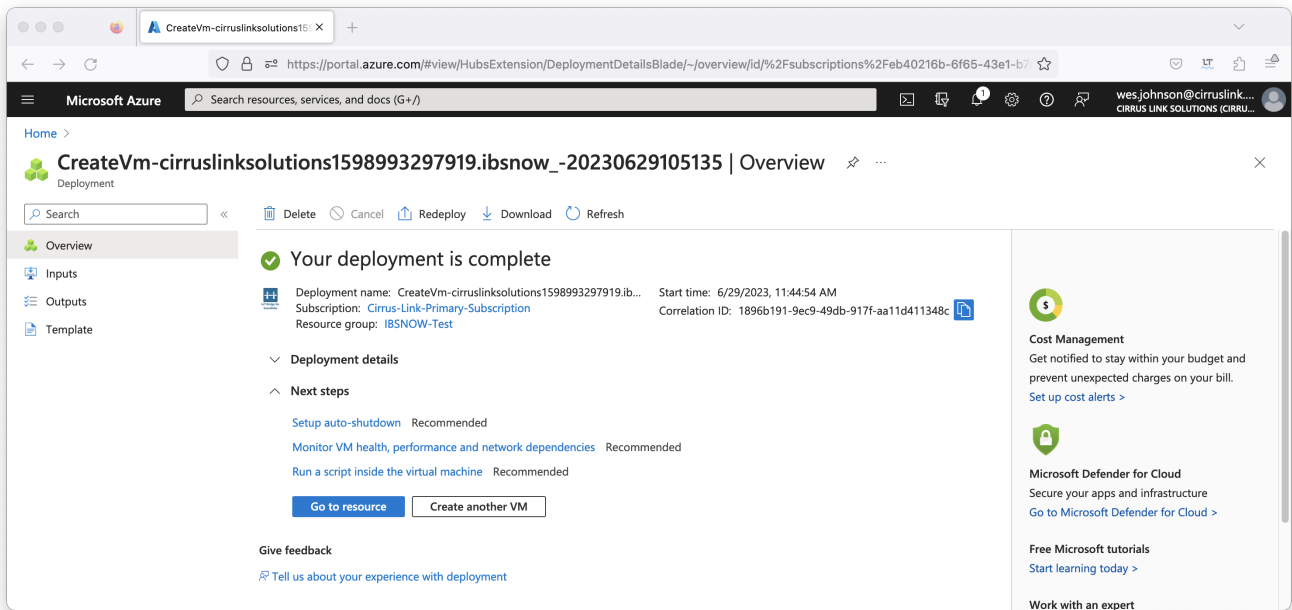


Review the configuration and click 'Create' if everything looks good.

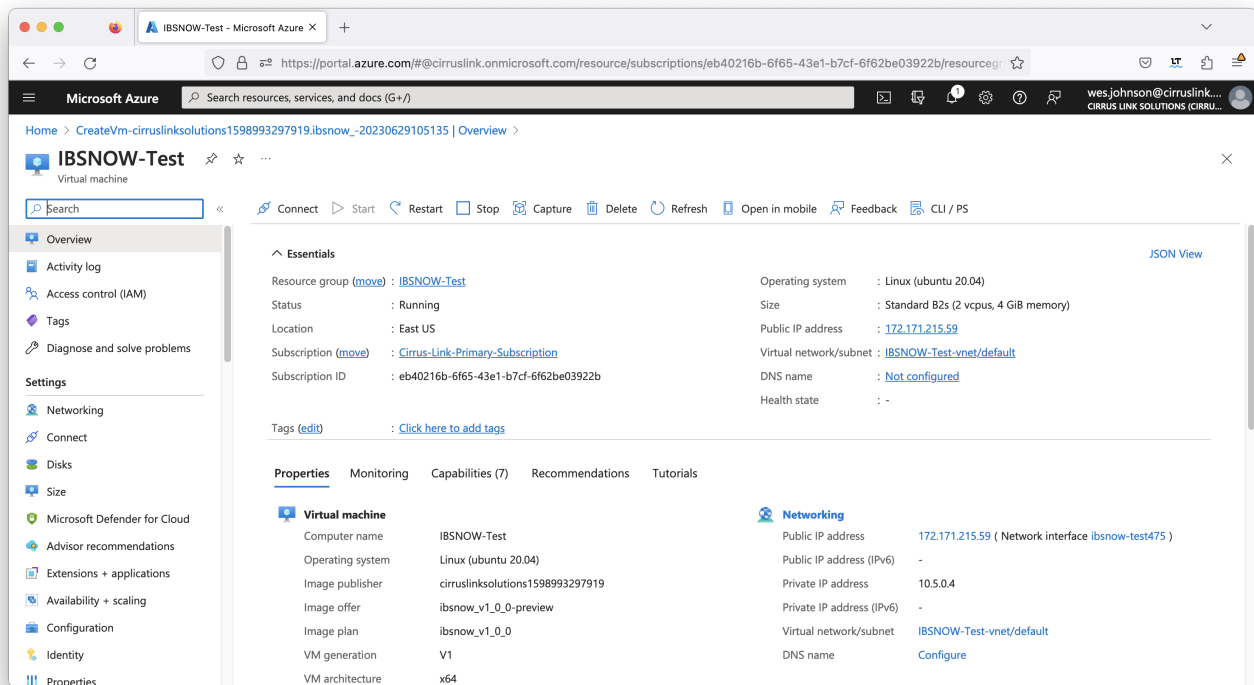
If validation of the configuration is successful, it will bring you to the following page:



Deployment takes a few minutes to complete. Once it is complete, you will see the following:



Now click the blue 'Go to resource' button. This will bring you to the following page:



Note the 'Public IP address' above. This will be used for SSH access and configuration of the IoT bridge for Snowflake VM.

IoT Bridge Configuration

For configuration details, please see: [IoT Bridge for Snowflake - Configuration](#)

Reference Documentation

The [IoT Bridge Quickstart Guide](#) covers end to end setup of IoT Bridge including Edge setup, IB setup, and seeing data in Snowflake.

The [IoT Bridge Configuration Reference](#) covers configuration options for the IoT Bridge Virtual Machine.