

## Step 1: Create a Virtual Machine Without a Public IP Address

### 1. Log into Azure Portal:

- Go to the [Azure Portal](#) and sign in.

### 2. Create a Resource Group (if needed):

- Click on **Resource groups** in the left-hand menu.
- Click **+ Create**.
- Fill in the required details (name, region) and click **Review + Create**, then **Create**.

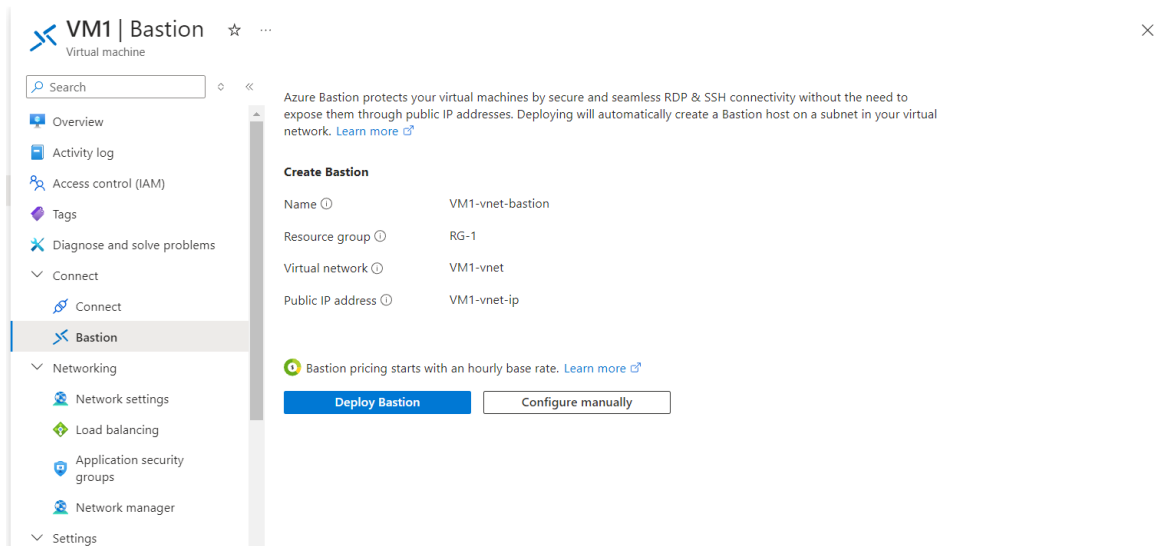
### 3. Create the Virtual Machine:

- Click on **Create a resource > Compute > Virtual Machine**.
- Fill in the required details:
  - **Subscription:** Choose your subscription.
  - **Resource Group:** Select the resource group you just created or an existing one.
  - **Virtual Machine Name:** Give your VM a name (e.g., MyVM).
  - **Region:** Choose the desired region.
  - **Image:** Select the operating system (e.g., Ubuntu Server).
  - **Size:** Select an appropriate size for the VM.
  - **Authentication Type:** Choose between SSH public key or password.
- **Networking:**
  - **Virtual Network:** Either create a new virtual network or select an existing one.
  - **Subnet:** Choose the default subnet or create a new one.
  - **Public IP:** Select **None** (to create a VM without a public IP address).
  - **NIC Network Security Group:** Select **Basic** or **Advanced** based on your requirements.
- Configure other settings as necessary, then click **Review + Create** and **Create** to deploy the VM.

## Step 2: Create a Bastion Host

### 1. Create the Bastion Host:

- Go back to the **Resource group** that contains your VM.
- Click on **+ Add** and search for **Bastion**.



- Select **Bastion** and click **Create**.
- Fill in the required details:
  - **Subscription:** Choose your subscription.
  - **Resource Group:** Select the same resource group as your VM.
  - **Name:** Give your Bastion host a name (e.g., MyBastionHost).
  - **Region:** Ensure this is the same region as your VM.
  - **Pricing Tier:** Choose the appropriate pricing tier.
  - **Public IP:** A public IP will be created for the Bastion host. You can either create a new one or use an existing IP.
- Click **Review + Create**, then **Create** to deploy the Bastion host.

## Step 3: Connect to the VM Using Bastion Host

### 1. Navigate to the Bastion Host:

- In the Azure Portal, go to the resource group that contains your Bastion host.
- Click on the Bastion host you created.

## 2. Connect to the VM:

- In the Bastion host overview, click on **Connect**.
- A connection panel will appear; fill in the following:
  - **Username:** Enter the username you specified when creating the VM.
  - **Password:** Enter the password (if using password authentication) or provide the SSH key (if using SSH key authentication).
- Click on **Connect**.

## 3. Access the VM:

```
<  →  ↻  🌐 bst-a006bde8-8115-46aa-89c9-2c1c7fb49f81.bastion.azure.com/#/client/Vk0xAGMAVmlmcm9zdA==?trustedAuthority=https:%2F%2Fhyt
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1015-azure x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Sat Sep 28 09:18:24 UTC 2024

System load:  0.08      Processes:           107
Usage of /:   5.0% of 28.02GB   Users logged in:     0
Memory usage: 27%      IPv4 address for eth0: 10.0.0.4
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.
>>
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

azureuser@VM1:~$
```