

Deploy the ExtraHop Command Appliance in Azure

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The following procedures explain how to deploy an ExtraHop Command virtual appliance in a Microsoft Azure environment. You must have experience administering in an Azure environment to complete these procedures.

System requirements

Your environment must meet the following requirements to deploy a virtual Command Appliance in Azure:

- An Azure storage account
- A Linux, Mac, or Windows client with the latest version of [Azure CLI](#) installed
- The ExtraHop Command virtual hard disk (VHD) file, available on the [ExtraHop Customer Portal](#)
- A Command appliance product key
- An Azure instance size that most closely matches the performance needs of the Command appliance based on the number of connected Discover appliances.

Performance guidelines

The following table provides Azure instance sizing guidelines that can help you optimize the performance of the Command appliance when you have multiple connected ExtraHop appliances.

Connected ExtraHop Appliances	1-4	5-16	17-64	65 or more
Azure Instance Size	Standard_D2_v3	Standard_D4_v3	Standard_D8_v3	Standard_D16_v3

Deploy the Command appliance

Before you begin

The procedures below assume that you do not have the required resource group, storage account, storage container, and network security group configured. If you already have these parameters configured, you can proceed to step 6 after you log into your Azure account.

1. Open a terminal application on your client and log into to your Azure account.

```
az login
```

2. Open <https://aka.ms/devicelogin> in a web browser and enter the code to authenticate, and then return to the command-line interface.
3. Create a resource group.

```
az group create --name <name> --location <location>
```

For example, create a new resource group in the West US region.

```
az group create --name exampleRG --location westus
```

4. Create a storage account.

```
az storage account create --resource-group <resource group name> --name
<storage account name>
```

For example:

```
az storage account create --resource-group exampleRG --name exampleSA
```

5. View the storage account key. The value for `key1` is required for step 5.

```
az storage account keys list --resource-group <resource group name> --
account-name <storage account name>
```

For example:

```
az storage account keys list --resource-group exampleRG --account-name
exampleSA
```

Output similar to the following appears:

```
[
  {
    "keyName": "key1",
    "permissions": "Full",
    "value":
    "CORuU8mTcxLxq0bbszhZ4RKTb93CqLpjZdAhCrNJugAorAyvJjhGmBSedjYPmnzXPikSRigd
5T5/YGYBoIzxNg=="
  },
  {
    "keyName": "key2",
    "permissions": "Full",
    "value": "D0lda4+6U3Cf5TUAng8/GKotfX1HHJuc3yljAlU+aktRAF4/
KwVQUuAUhndrw2yg5Pba5FpZn6oZYvRONcnT8Q=="
  }
]
```

6. Set default Azure storage account environment variables. You can have multiple storage accounts in your Azure subscription. To select one account to apply to all subsequent storage commands, set these environment variables. If you do not set environment variables you will always have to specify `--account-name` and `--account-key` in the commands in the rest of this procedure.

```
export AZURE_STORAGE_ACCOUNT=<storage account name>
```

```
export AZURE_STORAGE_ACCESS_KEY=<key1>
```

Where `<key1>` is the storage account key value that appears in step 5.

For example:

```
export AZURE_STORAGE_ACCOUNT=exampleSA
```

```
export
AZURE_STORAGE_ACCESS_KEY=CORuU8mTcxLxq0bbszhZ4RKTb93CqLpjZdAhCrNJugAor
AyvJjhGmBSedjYPmnzXPikSRigd5T5/YGYBoIzxNg==
```

7. Create a storage container.

```
az storage container create --name <storage container name>
```

For example:

```
az storage container create --name exampleSC
```

8. Upload the Discover appliance VHD file to the blob storage.

```
az storage blob upload --container-name <container> --type page --name  
<blob name> --file <path/to/file> --validate-content
```

For example:

```
az storage blob upload --container-name exampleSC --type page  
--name command_appliance.vhd --file /Users/admin/Downloads/extrahop-eca-  
azure-7.2.0.5000.vhd --validate-content
```

9. Retrieve the blob URI. You will need the URI when you create the managed disk in the next step.

```
az storage blob url --container-name <storage container name> --name  
<blob name>
```

For example:

```
az storage blob url --container-name exampleSC --name  
command_appliance.vhd
```

Output similar to the following example appears:

```
https://exampleSA.blob.core.windows.net/exampleSC/command_appliance.vhd
```

10. Create a managed disk, sourcing the Discover VHD file.

```
az disk create --resource-group <resource group name> --location <Azure  
region>  
--name <disk name> --sku <Azure sku> --source <blob uri> --size-gb <size  
gb>
```

Where *sku* specifies the type of disk and desired replication pattern. Managed disks support only *Standard_LRS* and *Premium_LRS*. *Premium_LRS* has a maximum disk size of 1 TB and *Standard_LRS* has a maximum disk size of 4TB.

For example:

```
az disk create --resource-group exampleRG --location westus  
--name exampleDisk --sku Standard_LRS --source https://  
exampleSA.blob.core.windows.net/exampleSC/discover_appliance.vhd  
--size-gb 60
```

11. Create the VM and attach the managed disk. This command creates the Discover appliance VM with a default network security group and dynamic public IP address.

```
az vm create --resource-group <resource group name> --location <Azure  
region>  
--name <vm name> --os-type linux --attach-os-disk <disk name> --size  
<azure machine size>
```

For example:

```
az vm create --resource-group exampleRG --location westus --name  
exampleVM --os-type linux  
--attach-os-disk exampleDisk --size Standard_D2_v3
```

- Log into the Azure portal, <https://portal.azure.com>, and configure the networking rules for the appliance. The network security group must have the following rules configured:

Table 1: Inbound Port Rules

Name	Port	Protocol
HTTPS	443	TCP
SSH	22	TCP

Table 2: Outbound Port Rules

Name	Port	Protocol
HTTPS	443	TCP
SSH	22	TCP

Next steps

Open a web browser and log into the Admin UI on the Discover appliance through the configured public IP address. The default login name is `setup` and the password is `default`.

Complete the following recommended procedures:

- [Register your ExtraHop appliance](#)
- [Configure the system time](#)
- [Configure email settings for notifications](#)
- [Connect the Discover and Command appliances to Explore appliances](#)
- [Connect the Discover and Command appliances to the Trace appliance](#)