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CHAPTER 1

Introduction

This guide explains how to set up Backup Gateway on Microsoft Azure to store backups in the Azure cloud.

Typically, you will only need to create a VM with Acronis Cyber Infrastructure on Azure, specifying the required details like VM user name and password, credentials for a partner account in Acronis Backup Cloud, and such.

Once the virtual machine is running, you should be able to store backups in the Azure cloud, without having to log in to Acronis Cyber Infrastructure.

1.1 Important Requirements and Restrictions

• When working with public clouds, Backup Gateway uses the local storage (inside the VM) as the staging area as well as to keep service information. It means that the data to be uploaded to the cloud is first stored locally and only then sent to the destination. Because of this, you must make sure that the local storage is redundant and permanent. Using temporary disks may result in data loss.

• Choose a correct disk template to ensure desired backup performance (see example in the next paragraph). Make sure to plan ahead, because disk template cannot be changed. In such a case, you will need to add a new disk with the correct template to the VM, add the new disk to the storage cluster, release the old disk from the storage cluster, and delete it from the VM.

Performance and size of a local VM disk depends on its template. For example, a STANDARD_DS1 virtual machine has the dedicated bandwidth of 32 MB/s for premium storage disk traffic. In turn, a P10 premium storage disk can provide the bandwidth of 100 MB/s. If a P10 premium storage disk is attached to a STANDARD_DS1 virtual machine, its performance will be capped at 32 MB/s instead of the maximum 100 MB/s it can provide. For more details on premium storage, see Azure documentation.
• Use a separate object container for each Backup Gateway cluster.

• To increase the local storage space for Backup Gateway, add one or more disks to the virtual machine. Do not resize VM's existing disks, as it will not be detected by Acronis Cyber Infrastructure.

• To be able to register Backup Gateway in Acronis Backup Cloud, two-factor authentication (2FA) should be disabled for your partner account.
CHAPTER 2

Creating Acronis Cyber Infrastructure Virtual Machine

First, you need to create a VM with Acronis Cyber Infrastructure. Do the following:

1. On the Dashboard, click **Create a resource**.

2. On the **Home > New** pane, find and click **Acronis Backup Gateway** in the Azure Marketplace.
Chapter 2. Creating Acronis Cyber Infrastructure Virtual Machine

3. On the **Home > New > Acronis Backup Gateway** pane, click **Create**.

   The VM creation wizard will open.

4. On the wizard's **Basics** pane, specify a user name and password for VM's admin account, set the public access policies, specify a password for the Acronis Cyber Infrastructure web panel, choose a subscription type, resource group, and location. Click **OK**.
Chapter 2. Creating Acronis Cyber Infrastructure Virtual Machine

Create Acronis Backup Gateway

1 Basics
   Configure basic settings

2 Gateway settings
   Configure VM and storage

3 Acronis Backup Cloud settings
   Register cloud storage

4 Summary
   Acronis Backup Gateway

5 Buy

Basics

User name *
backup_gateway_admin

Authentication type *
Password
SSH public key

Password *

Confirm password *

Public SSH access to Acronis Storage node *
Restrict

Public access to Acronis Storage management panel *
Restrict

Acronis Storage management panel password *

Confirm password *

Subscription
Pay-As-You-Go (Converted to EA)

Resource group *
(New) backup_gateway

Create new

Location *
(US) East US

OK
5. On the wizard’s **Gateway settings** pane:

- In **Virtual machine size**, the recommended VM size, **Standard A4 v2**, should be selected by default.

- In **Storage account**, give a name to the account and click **OK**.

  - In **Storage account container**, specify a name.

  - In **Public IP address**, select **Static** in **Assignment** and click **OK**.
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6. **In DNS prefix**, specify a DNS prefix for your Backup Gateway, e.g., `backupgateway`.

The Backup Gateway will be registered in Acronis Backup Cloud under the static public IP address and DNS name.

- **Note:** The public IP address and DNS name cannot be changed later.

Having set the required options, click **OK**.

6. On the wizard’s **Acronis Backup Cloud settings** pane, provide the credentials of your partner account in Acronis Backup Cloud. The cloud management portal URL, `https://cloud.acronis.com`, should be specified by default. Click **OK**.

- **Important:** Make sure that two-factor authentication (2FA) is disabled for your partner account. You can also disable it for a specific user within a 2FA-enabled tenant as described in **Acronis Cyber Cloud**
7. On the wizard's **Summary** pane, make sure all the options are set correctly, wait until validation passes, and click **OK**.
8. On the wizard’s **Create** pane, read the terms of use and privacy policy and click **Create**.

After the VM is running, log in to the Acronis Cyber Cloud admin panel and check that the new Acronis Cyber Infrastructure is shown in the **Locations** section (for more details, see the Acronis Cyber Cloud documentation). Finally, perform a test backup to the Azure cloud to make sure that everything is working correctly.
Before you create new disks, consider the following recommendations for their sizing:

1. If you have a cluster of several nodes, the nodes should be the same size for redundancy reasons. Then, the data will be spread more evenly among them. For more information, refer to Understanding Allocatable Disk Space.

2. Having the same-size disks helps distribute the loads more evenly. Inside a cluster, the disk usage is proportional to the disk size. For example, if you have a disk of 10 TB and a disk of 2 TB, a 50% cluster load will use 5 TB and 1 TB respectively.

3. The disk performance depends on its size. In general, the greater the disk capacity, the higher the performance. However, in particular cases, the throughput of several smaller disks can exceed that of one larger disk. For example, the comparison of Premium SSD sizes in Azure shows that two 1-terabyte disks provide a higher total throughput than one 2-terabyte disk. Therefore, carefully consider your needs and your cloud provider’s recommendations.

If you want to increase physical space in your storage cluster, you need to create and attach new data disks. Do not use the resize disk function of Azure on your Acronis Cyber Infrastructure VM, as the file system will not be resized correspondingly. Instead, create a new managed data disk and attach it as described below.

Create and attach a new disk to your Acronis Cyber Infrastructure VM as outlined in Add a data disk. After that, the added disk will be listed in the node’s disks in the admin panel of Acronis Cyber Infrastructure.

In the admin panel, follow these steps to configure the new disk:

1. On the INFRASTRUCTURE > Nodes screen, click the node with the created disk. Click the DISKS>
section to see all the node disks.

2. The disk with the **Unassigned** role is the one that you created earlier. Select it and click **Assign** on the right.

3. On the **Choose role** screen, select the **Storage** role, a tier, and enable checksumming if required. For more info, see *Assigning Disk Roles Manually*.

   ![Choose role](image)

   You can also remove the virtual disk from a virtual machine as described in *Detach a data disk using the portal*.
CHAPTER 4

Performing Additional Tasks

Normally, you only need to create and run a VM with Acronis Cyber Infrastructure on Azure to be able to store backups in the Azure cloud. Logging in to Acronis Cyber Infrastructure itself is not required.

If, however, you need to perform some additional tasks that require you to log in to Acronis Cyber Infrastructure, you can access your Azure VM using the domain name and user credentials specified during VM deployment. You will also need to open a port to the VM.

Note: Acronis Cyber Infrastructure always shows Microsoft Azure disks (even premium SSDs) as HDD, because Hyper-V does not provide information on the disk type.

The tasks related to Backup Gateway that you can perform in Acronis Cyber Infrastructure are described in the more general Backup Gateway Quick Start Guide:

- Connecting to Public Cloud Storage via Backup Gateway
- Migrating Backups from Older Solutions
- Monitoring Backup Gateway
- Releasing Nodes from Backup Gateway