



AZURE SELF-HOSTED

# INSTALLATION GUIDE

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# AZURE SETUP

To set up the self-hosted version of CloudCheckr in the Azure environment, you must first:

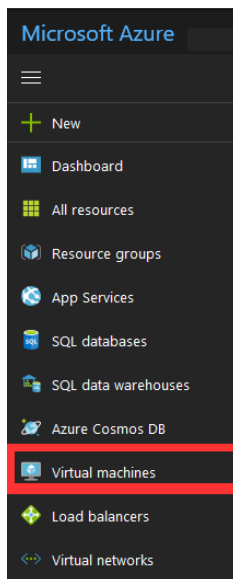
- install a virtual machine
- attach a data disk

This document will show you how to complete these installation steps.

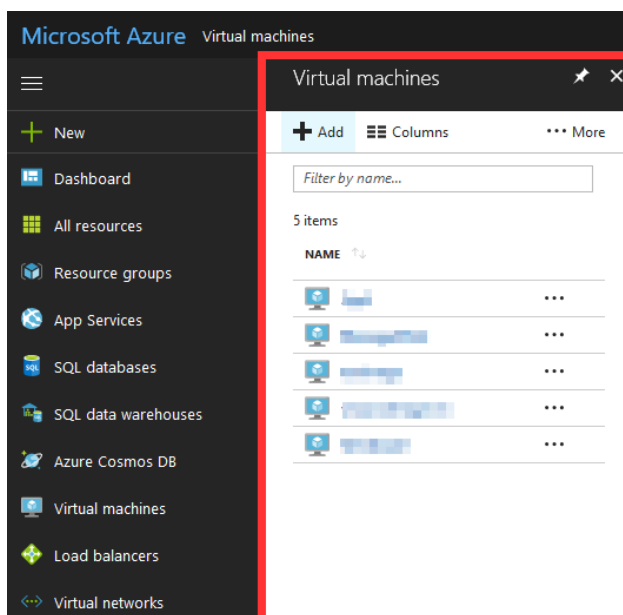
For information on how to perform the post-installation, see the document, **Azure Self-Hosted Post Installation Guide**.

## Install a Virtual Machine

1. In the Azure portal, go to the left navigation pane and select **Virtual machines**.



The Virtual machines pane opens to the right of the left navigation pane.



2. Click **+ Add**.
3. Select **CloudCheckr** as the virtual machine image.
4. Select **Resource Manager** as the deployment model.
5. Click **Create**.

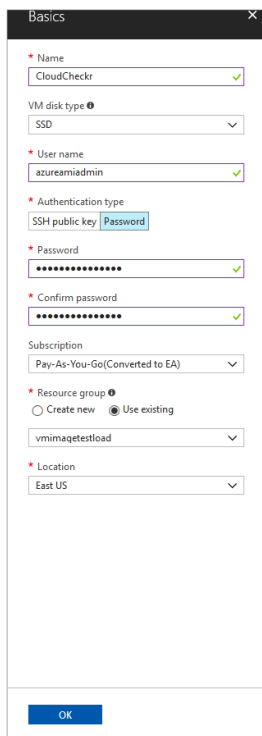
A wizard opens with step 1, **Basics: Configure basic settings**, selected by default.

A third pane displays the details you need to complete.

The screenshot shows the 'Create virtual machine' wizard. The left pane shows four steps: 1. Basics (Configure basic settings), 2. Size (Choose virtual machine size), 3. Settings (Configure optional features), and 4. Summary (Ubuntu Server 14.04 LTS). Step 1 is selected and highlighted with a red box. The right pane, titled 'Basics', contains the following fields: Name (text field), VM disk type (drop-down menu), User name (text field), Authentication type (radio buttons for SSH public key and Password), Password (text field), Confirm password (text field), Subscription (drop-down menu), Resource group (radio buttons for Create new and Use existing), and Location (drop-down menu). An 'OK' button is at the bottom right of the pane.

6. Provide the following information:
  - a. In the Name text field, type **CloudCheckr**
  - b. From the VM disk type drop-down menu, select **SSD**.
  - c. In the User name text field, type your preferred user name
  - d. Select **Password** as your authentication type.
  - e. In the Password text field, type a password.
  - f. In the Confirm password text field, type the password you entered in the previous step.
  - g. From the Subscription drop-down menu, select a type of subscription.
  - h. For the resource group, select **Use existing** and select a group from the drop-down menu.
  - i. In the Location drop-down menu, select your preferred location.

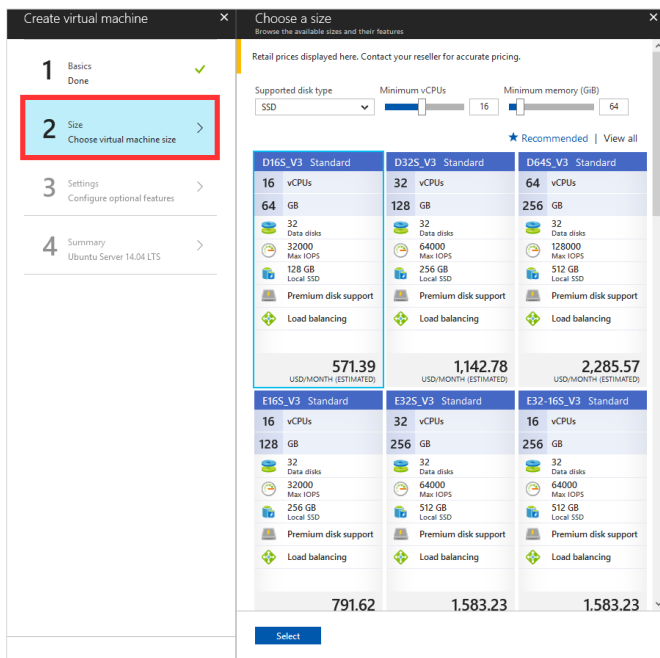
The Basics pane is now populated with the provided details.



7. Click **OK**.

Step 2, **Size: Configure virtual machine size**, is now selected in the second pane.

The third pane displays the details you need to complete.



8. Select the following attributes:

- a. From the Supported disk type drop-down list, select **SSD**.

- b. Move the **Minimum vCPUs** slider until your desired value displays in the text field.
- c. Move the **Minimum memory (GiB)** slider until your desired value displays in the text field.

The sizes that match your attributes display.

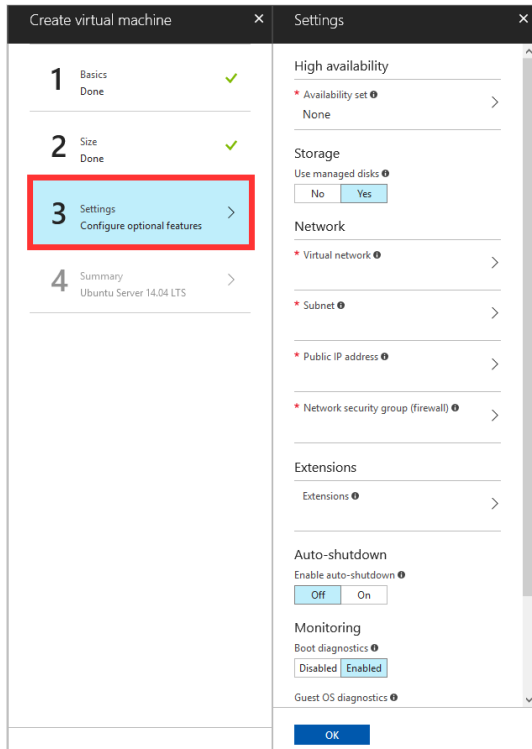
Each size lists its associated features and estimated monthly cost.

<b>D16S_V3 Standard</b> 16 vCPUs 64 GB 32 Data disks 32000 Max IOPS 128 GB Local SSD Premium disk support Load balancing <b>571.39</b> <small>USD/MONTH (ESTIMATED)</small>	<b>D32S_V3 Standard</b> 32 vCPUs 128 GB 32 Data disks 64000 Max IOPS 256 GB Local SSD Premium disk support Load balancing <b>1,142.78</b> <small>USD/MONTH (ESTIMATED)</small>	<b>D64S_V3 Standard</b> 64 vCPUs 256 GB 32 Data disks 128000 Max IOPS 512 GB Local SSD Premium disk support Load balancing <b>2,285.57</b> <small>USD/MONTH (ESTIMATED)</small>
<b>E16S_V3 Standard</b> 16 vCPUs 128 GB 32 Data disks 32000 Max IOPS 256 GB Local SSD Premium disk support Load balancing <b>791.62</b>	<b>E32S_V3 Standard</b> 32 vCPUs 256 GB 32 Data disks 64000 Max IOPS 512 GB Local SSD Premium disk support Load balancing <b>1,583.23</b>	<b>E32-16S_V3 Standard</b> 16 vCPUs 256 GB 32 Data disks 64000 Max IOPS 512 GB Local SSD Premium disk support Load balancing <b>1,583.23</b>

- 9. Select a size from the list and click **Select**.

Step 3, **Settings: Configure optional features**, is now selected in the second pane.

The third pane displays the details you need to complete.



10. Select the following attributes for your settings:

**Note:** The values used in this procedure are for example only; customers may modify as needed.

- a. From the Virtual network drop-down menu, select **mysubnet** as the name and **10.0.0/24** as your address prefix.
- b. From the Subnet drop-down menu, select **myVnet** as the name, **10.0.0/16** as your address prefix, and select **mysubnet** as the name as the subnet name.
- c. From the Public IP address drop-down menu, select **myPip** as the name and **dynamic** as the allocation method.
- d. From the Network Interface section, select **myNic** as the name, **mysubnet** as the subnet, and **myPIP** as the public IP.
- e. From the Security Rule section, select the following options:
  - Name: **allowRDP**
  - Description: **Allow RDP**
  - Access: **Allow**
  - Protocol: **Tcp**
  - Direction: **Inbound**
  - Priority: **110**
  - Source Address Prefix: **Internet**
  - Source Port Range: **\***
  - Destination Address Prefix: **\***
  - Destination Port Range: **3389**
- f. From the Security Rule section, select the following options:
  - Name: **allowSSL**
  - Description: **Allow SSL**
  - Access: **Allow**
  - Protocol: **Tcp**
  - Direction: **Inbound**
  - Priority: **130**
  - Source Address Prefix: **Internet**
  - Source Port Range: **\***
  - Destination Address Prefix: **\***
  - Destination Port Range: **443**
- g. From the Network Security Group, select the following options:
  - Name: **myNsg**
  - Security Rules: **allowRDP**, **allowSQL**, and **allowSSL**
- h. In the Extensions section, select an extension if applicable.
- i. In the Auto-shutdown section, toggle the feature **On** or **Off**.
- j. In the Monitoring section, toggle boot diagnostics as **Enabled** or **Disabled**.

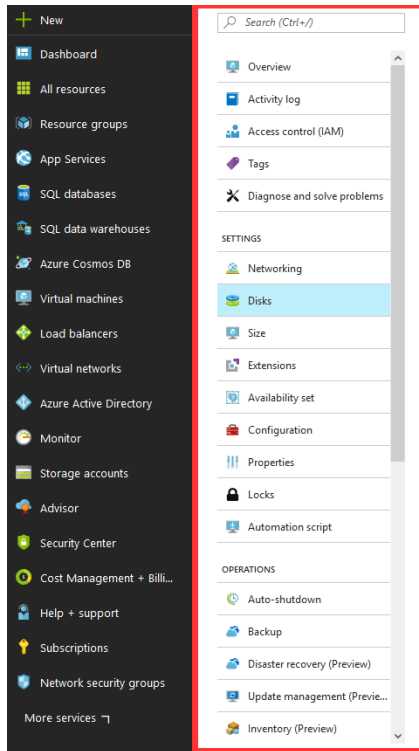
11. Click **OK**.

Step 4, **Summary**, is now selected in the second pane.

The third pane displays the details you need to complete.

12. Once the validation has passed, click **Create** to launch the VM with the CloudCheckr image.

A panel opens to the right of the left navigation pane. It provides more options that you can configure for your VM.

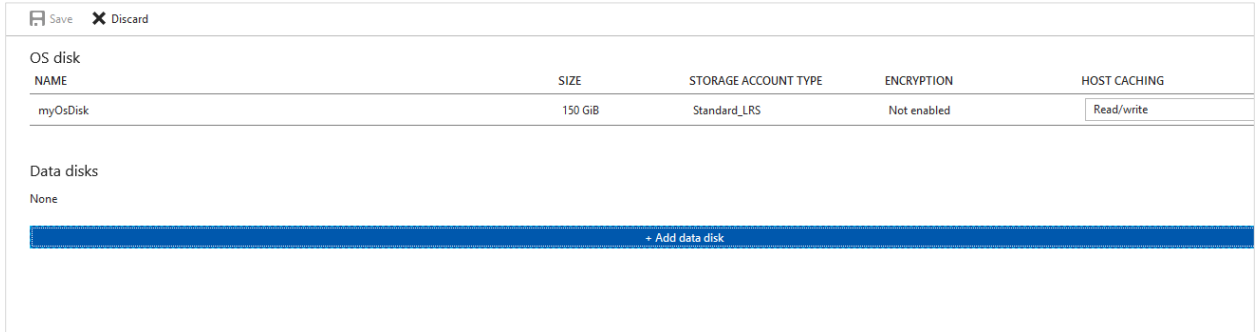




## Attach a Data Disk

1. From the Settings menu, select **Disks**.

A pane opens to the right of the panel—indicating the details of the OS disk.



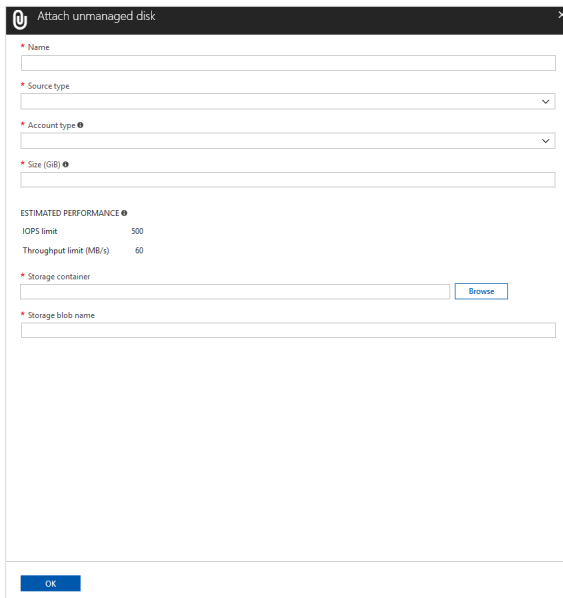
The screenshot shows a settings pane with a 'Save' button and a 'Discard' button. It displays the details for an OS disk:

OS disk	NAME	SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING
	myOsDisk	150 GiB	Standard_LRS	Not enabled	Read/write

Below the OS disk details, there is a section for 'Data disks' which currently shows 'None'. A blue button labeled '+ Add data disk' is located at the bottom of this section.

2. Click **+ Add data disk**.

A new pane, **Attach unmanaged disk**, opens to the right of the panel.



The screenshot shows the 'Attach unmanaged disk' dialog box with the following fields and options:

- Name:
- Source type:
- Account type:
- Size (GiB):
- ESTIMATED PERFORMANCE:
  - IOPS limit: 500
  - Throughput limit (MB/s): 60
- Storage container:
- Storage blob name:

An 'OK' button is located at the bottom left of the dialog.

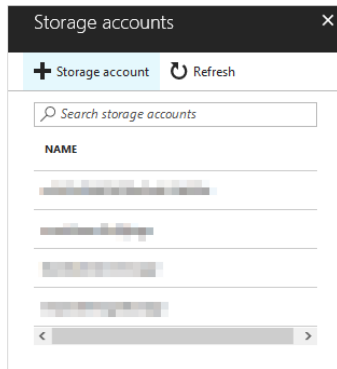
3. Configure the details of the disk.

The data disk can reside in any resource group under your subscription, but it's recommended that you keep it in the same resource group as your CloudCheckr VM to access it quickly after an upgrade.

**Note:** The values used in this procedure are for example only; customers may modify as needed.

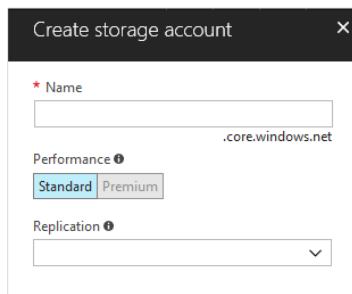
- a. In the Name text field, type **testimage-20180116-09-933**
- b. In the Source type drop-down menu, select **New (empty disk)**.
- c. In the Account type drop-down menu, select **Standard (HDD)**.
- d. In the Size (GiB) text field, type **1023**  
**Note:** Disk should be larger than 500 GiBs.
- e. In the Storage container text field, click **Browse**.

A second pane, **Storage accounts**, opens to the right of the Attach unmanaged pane.



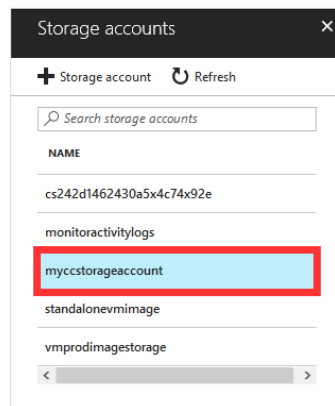
- f. Click **+ Storage account**.

A third pane, **Create storage account**, opens to the right of the Storage accounts pane.



- o In the Name text field, type **myccstorageaccount**
- o Under Performance, verify that the button is toggled to **Standard**.
- o In the Replication drop-down menu, select **Locally-redundant storage (LRS)**.

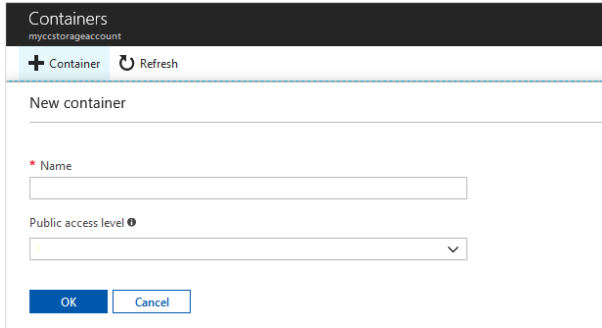
The new storage account is displayed in the list of storage accounts.



A new pane, **Containers**, opens to the right of the Storage accounts pane.

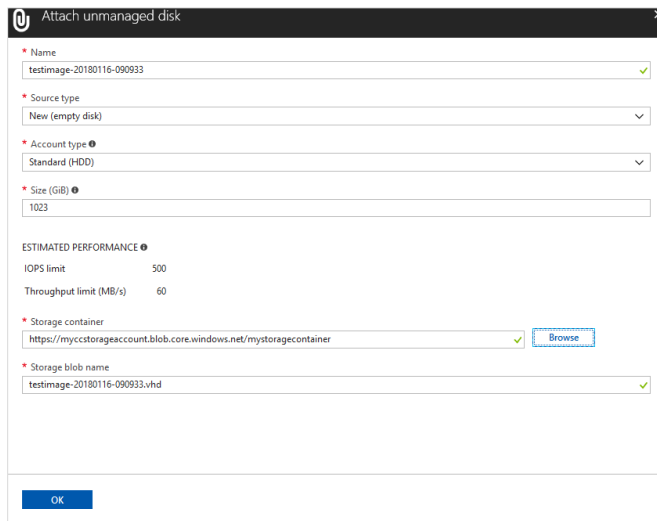
4. Click **+ Container** to add a container.

The section, **New Container**, displays.



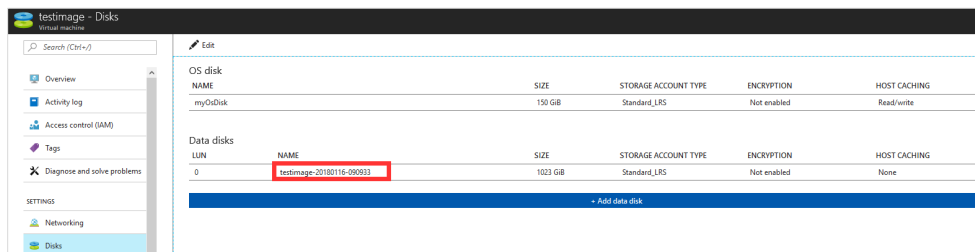
- a. In the Name text field, type **mystoragecontainer**
- b. In the Public access level drop-down menu, select **Private (no anonymous access)**.
- c. Click **OK** to create the container.
- d. Click **Select**.

The details configured in the previous steps are now populated in the Attach unmanaged disk pane.



- e. Click **OK** to save the changes to the new VM.

The new disk is now listed under Data Disks.

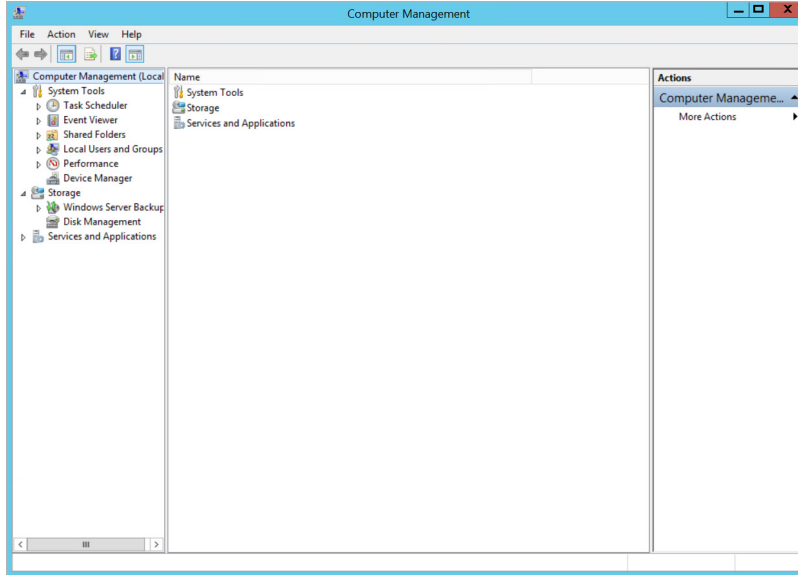


OS disk					
NAME	SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING	
myOsDisk	150 GiB	Standard_LRS	Not enabled	Read/write	
Data disks					
LUN	NAME	SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING
0	testimage-20180116-090933	1023 GiB	Standard_LRS	Not enabled	None

5. Click **Save**.
6. Mount the disk.

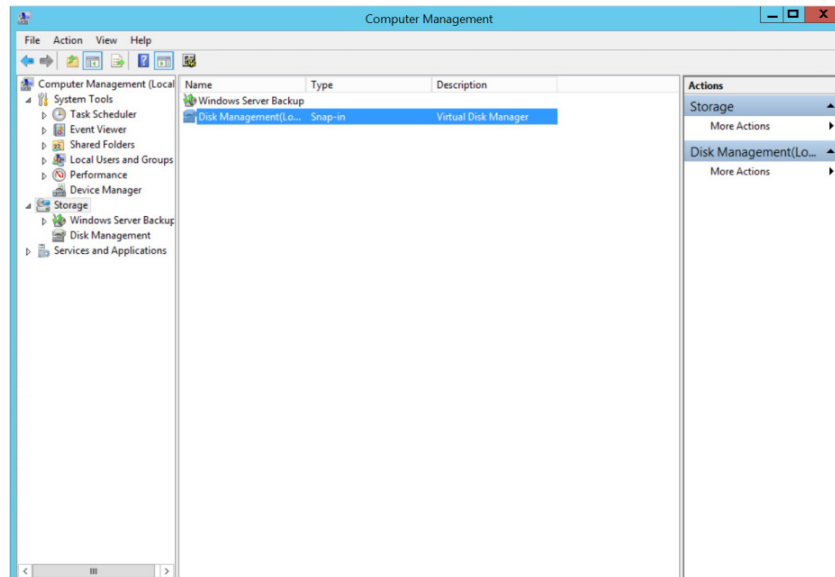
- a. Remote into the VM.
- b. Open the Server Manager.
- c. From the Server Manager Dashboard, select **Tools > Computer Management**.

The Computer Management screen opens.



- d. From the left navigation pane, select **Storage > Disk Management**.

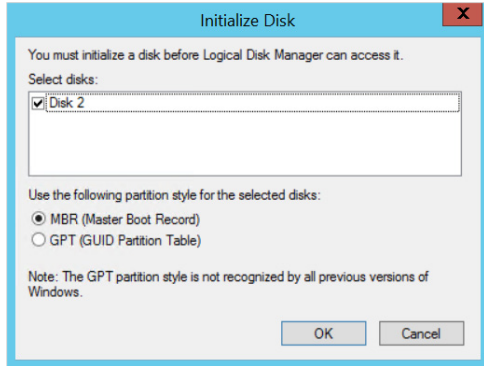
The second pane displays Disk Management selected and a third pane brings up an Actions menu.



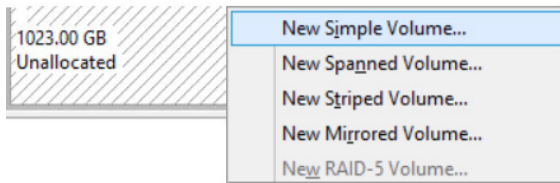
7. Initialize the disk.

Because the Disk Management feature recognizes that your disk is not initialized, it prompts you with the Initialize Disk window.

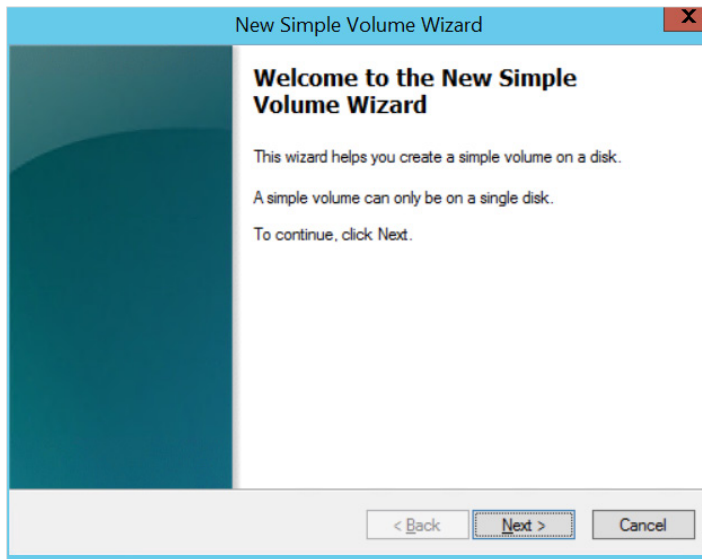
- a. Verify that the new disk is selected and click **OK**.



- b. Since the new disk is unallocated, right-click anywhere on the disk and select **New Simple Volume...**



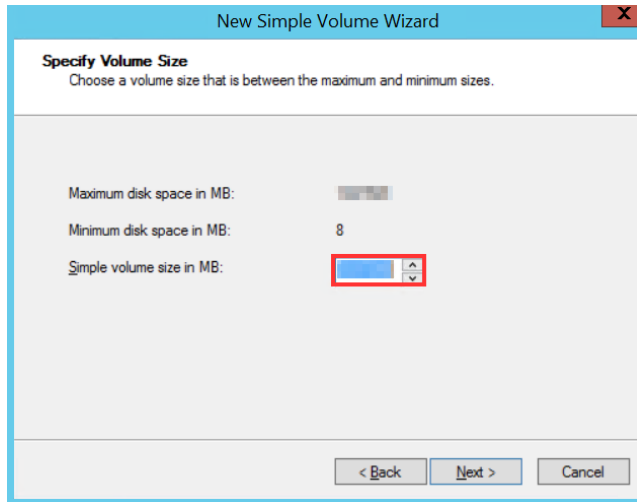
The New Simple Volume Wizard opens.



- c. Click **Next**.

The Specify Volume Size page of the wizard opens.

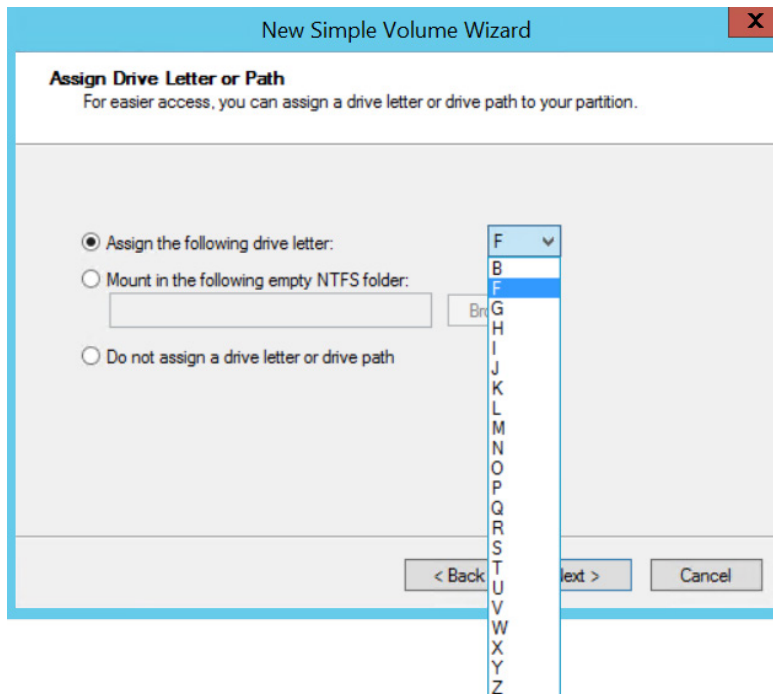
- d. In the Simple volume size in MB section, select a size equal to the maximum disk space and click **Next**.



The Assign Drive Letter or Path page of the wizard opens.

- e. Select **Assign the following drive letter** radio button and from the drop-down menu, select your drive.  
f. Write down the letter of your drive for future reference.  
g. Click **Next**.

**Note:** This drive represents the data disk drive that you will select when installing CloudCheckr. Drives **F** or **G** are preferred.

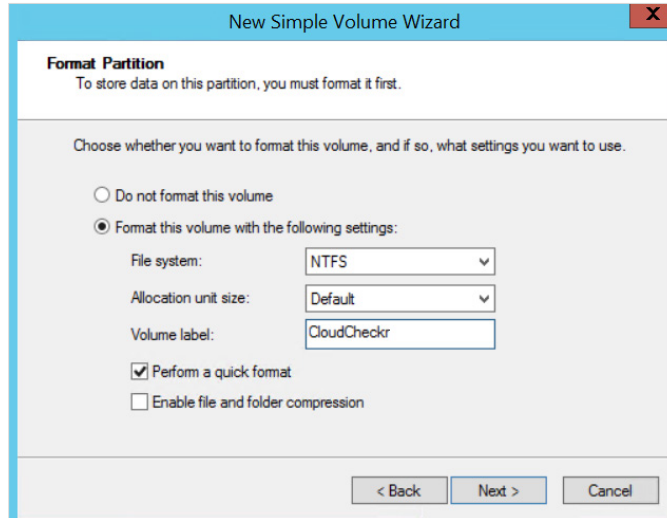


The Format Partition page of the wizard opens.

- h. Select the **Format this volume with the following settings** radio button and perform the following actions:
- o From the File system drop-down menu, select **NTFS**.

- From the Allocation unit size drop-down menu, select **Default**.
- From the Volume label text field, type **CloudCheckr**
- Select the **Perform a quick format** check box.

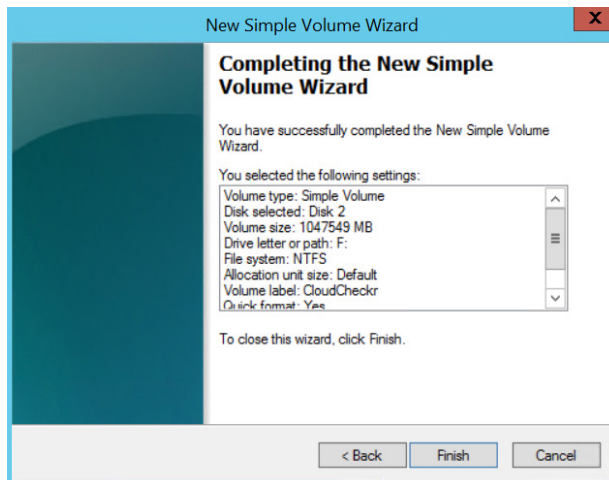
The populated page will look like this image:



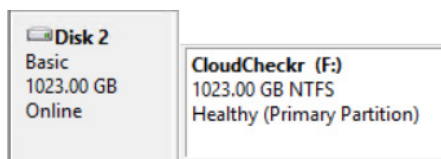
- i. Click **Next**.

The Completing the New Simple Volume Wizard page of the wizard opens.

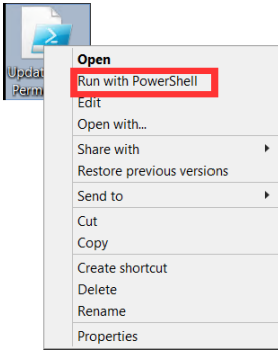
- j. Verify your settings and click **Finish**.



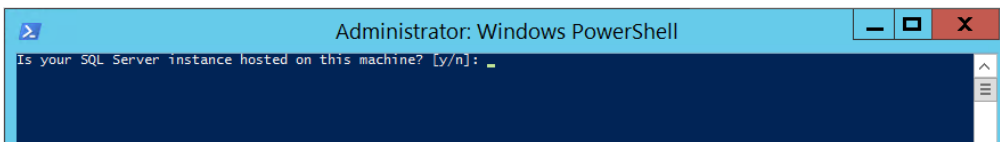
When the disk is finished formatting, the details for the disk display on the screen.



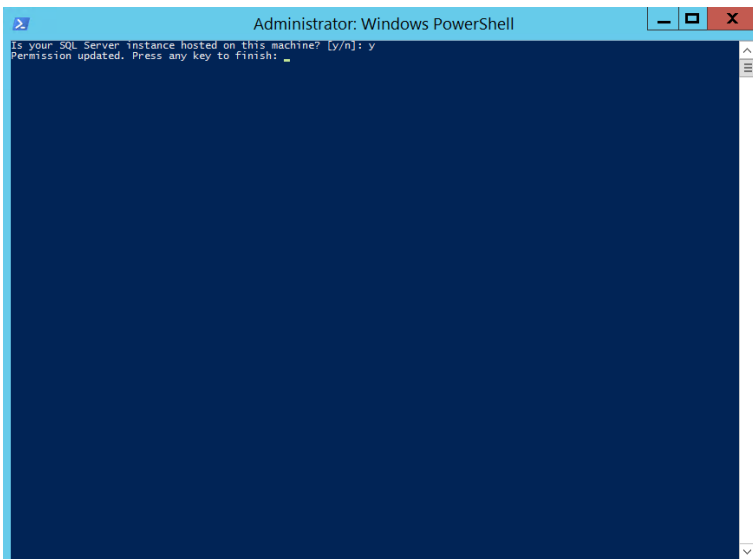
8. Right-click your desktop script, and from the fly-out menu, select **Run with PowerShell**.



Windows PowerShell opens, and displays Is your SQL Server instance hosted on this machine? [y/n]



9. Type **y**  
A new message indicates that Windows PowerShell has updated the permissions.
10. Press any key.

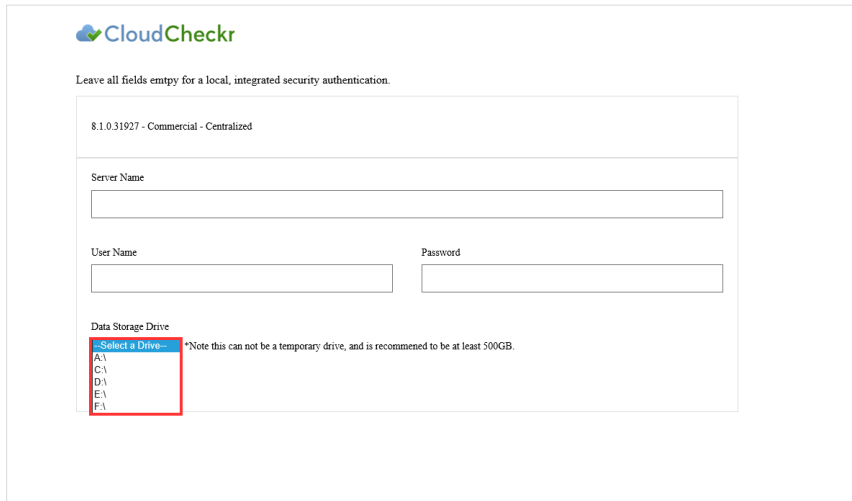




# CLOUDCHECKR SETUP

After Windows updates the permissions, the CloudCheckr application launches.

1. Leave all text fields blank except Data Storage Drive. Select the letter of the drive you configured.



The screenshot shows the CloudCheckr setup window. At the top left is the CloudCheckr logo. Below it, the text reads: "Leave all fields empty for a local, integrated security authentication." The window contains several input fields: a version field with the text "8.1.0.31927 - Commercial - Centralized"; a "Server Name" field; "User Name" and "Password" fields; and a "Data Storage Drive" dropdown menu. The dropdown menu is open, showing options "A:", "C:", "D:", "E:", and "F:". A red box highlights the dropdown menu. To the right of the dropdown menu, there is a note: "\*Note this can not be a temporary drive, and is recommended to be at least 500GB."

2. Click **Verify Installation**.



Learn more about the CloudCheckr Cloud Management Platform at [www.cloudcheckr.com](https://www.cloudcheckr.com).