

AZURE SELF-HOSTED



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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.



- 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.

* Name	
CloudCheckr	~
VM disk type 🛛	
SSD	~
* User name	
azureamiadmin	~
* Authentication type	
SSH public key Password	
••••	
* Password	
* Confirm password	
•••••	~
Subscription	
Pay-As-You-Go(Converted to EA)	~
* Resource group 0	
○ Create new	
vmimagetestload	~
* 1	
Fact IIS	~
Lax ob	

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.

'	Done	<u> </u>	Suppo	rted disk type	Minimur	n vCPUs Mi	inimum	memory (GiB)
2	Size Choose virtual machine size	>	SSD	*		10	Recor	nmended View al
			D16	S_V3 Standard	D32	S_V3 Standard	D64	S_V3 Standard
3	Settings	>	16	vCPUs	32	vCPUs	64	vCPUs
	Configure optional features		64	GB	128	GB	256	GB
			8	32 Data disks	8	32 Data disks	8	32 Data disks
4	Summary Ubuntu Server 14.04 LTS	>	<u></u>	32000 Max IOPS	0	64000 Max IOP5	0	128000 Max IOP5
				128 GB	10	256 GB	10	512 GB
			-	Premium disk support		Premium disk support		Premium disk support
			-	Load balancing		Load balancing		Load balancing
				571.39 USD/MONTH (ESTIMATED)		1,142.78 USD/MONTH (ESTIMATED)		2,285.57 USD/MONTH (ESTIMATED
			E165	5_V3 Standard	E325	5_V3 Standard	E32	165_V3 Standard
			16	vCPUs	32	vCPUs	16	vCPUs
			128	GB	256	GB	256	GB
			8	32 Data disks	8	32 Data disks	8	32 Data disks
			<u>(</u>	32000 Max IOP5	(64000 Max IOPS	<u>(</u>	64000 Max IOPS
			6	256 GB Local SSD	6	512 GB Local SSD	6	512 GB Local SSD
			-	Premium disk support		Premium disk support		Premium disk support
				Load balancing		Load balancing	٠	Load balancing
				704.00		4 500 00		4 500 00

- 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 it associated features and estimated monthly cost.



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.

Create virtual machine	×	Settings	×
1 Basics Done	~	High availability * Availability set > None	^
2 Size Done	~	Storage Use managed disks 0	
3 Settings Configure optional featur	es >	No Yes Network	
4 Summary	>	* Virtual network • >	
		* Subnet • >	
		* Public IP address • >	
		Network security group (tirewall)	
		Extensions Extensions >	
		Auto-shutdown Enable auto-shutdown O Off On	l
		Monitoring Boot diagnostics O Disabled Enabled	
		Guest OS diagnostics 🕈	Ŷ



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.
- 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.
- 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
 - o Access: Allow
 - Protocol: Tcp
 - o 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
 - o Protocol: Tcp
 - o Direction: Inbound
 - o 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.

R Save X Discard				
OS disk				
NAME	SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING
myOsDisk	150 GiB	Standard_LRS	Not enabled	Read/write
Data disks				
None				
	- /	Add data disk		

2. Click + Add data disk.

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

* Nume * Source type * Account type ● * Socie (siti) ● * Socie (siti) ● * Statistic DEPGORMANCE ● (DPS limit SD) * Socie container * Socie blob name		I CISK	
Source type Account type Account type Size (Gill) Size (Gill) Standard DPERFORMANCE OPS limit 80 Sociage container Sociage container Sociage blob name	Name		
Account type Account type Stre (GR) Stre (GR) Stre (GR) Stre (GR) Streage container Streage blob name	Source.tune		
Account type	source type		~
Ster (GB)	Account type 0		
Ster (GB)			~
STMATED PERFORMANCE DPS limit 50 hroughput limit (MB(r)) 60 Storage container Storage blob nume	Size (GiB) 0		
STINATE DEPROMINACE © OPS Ima 500 Thoroughput Imit (108/u) 50 Sorage container Storage blob name			
PS limit 200 htvogshput limit (MB(r) 60 Storage container Storage blob name	STIMATED PERFORMANCE Ø		
kroughput limit (Mikr) 60 Storage container Storage blob name	DPS limit	500	
Storage cotainer Storage blob name	hroughput limit (MB/s)	60	
Storage blob name	Storage container		
Storage blob name			
			Browse
	Storage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse
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	Storage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse
	Sorage blob name		Browse
	Storage blob name		Browse
	Storage blob name		Browse

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.

Storage account	ts ×
+ Storage account	U Refresh
ρ Search storage acc	counts
NAME	
	Calif.
<	>

f. Click + Storage account.

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

* Name			
INdiffe			
		.core.wind	ows.net
Dorforman	ce θ		
Performan			
Standard	Premium		
Standard	Premium		

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

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

Storage accounts	×
+ Storage account 👌 Refresh	
♀ Search storage accounts	
NAME	
cs242d1462430a5x4c74x92e	
monitoractivitylogs	
myccstorageaccount	
standalonevmimage	1
vmprodimagestorage	
< >>	

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.

Containers myccstorageacco	Int			
+ Container	U Refresh			
New contair	ıer			
* Name Public access le	vel O			
1			\sim	
ОК	Cancel			

- 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.

U Attach unmanaged disk	×
* Name	
testimage-20180116-090933	~
* Source type	
New (empty disk)	~
* Account type 🖲	
Standard (HDD)	~
* Size (GiB) 🛛	
1023	
ESTIMATED PERFORMANCE	
Throughput limit (MB/s) 60	
Storage container https://mycstorageaccount.blob.core.windows.net/mystoragecontainer Browse	
* Storage blob name	
testimage-20180116-090933.vhd	×
ОК	

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

The new disk is now listed under Data Disks.

😑 testimage - Disks _{Virtual machine}						
, Search (Ctrl+/)	🖋 Edit					
Overview	OS disk NAME		SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING
Activity log	myOsDisk		150 GiB	Standard_LRS	Not enabled	Read/write
🝰 Access control (IAM)						
🖉 Tags	Data disks					
	LUN	NAME	SIZE	STORAGE ACCOUNT TYPE	ENCRYPTION	HOST CACHING
Diagnose and solve problems	0	testimage-20180116-090933	1023 GiB	Standard_LRS	Not enabled	None
SETTINGS			+ Ado	l data disk		
Networking						
🛎 Disks						

- 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.

2	Computer Management	_ 🗆 X
File Action View Help		
🗢 🏟 📰 🔒 🖬 🖬		
🌆 Computer Management (Local	Name	Actions
A 🎁 System Tools	System Tools	Computer Manageme +
File French Viewer	Storage	More Actions
Shared Folders	in services and Applications	
Local Users and Groups		
Performance		
Device Manager		
Windows Server Backup		
📄 Disk Management		
Services and Applications		

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.

#		Computer M	lanagement		_ 🗆 X
File Action View Help					
🗢 🔿 🙍 📷 🗟 🖬	5				
🛃 Computer Management (Local	Name	Туре	Description	Actions	
⊿	Windows Server Backup			Storage	
Fask Scheduler	Disk Management(Lo	Snap-in	Virtual Disk Manager	More Actio	ins 🕨
Shared Folders				Disk Manage	ement(Lo +
P Performance				More Actio	ins 🕨
Device Manager					
△ Storage					
Disk Management					
Services and Applications					
< III >					

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**.

Initialize Disk
You must initialize a disk before Logical Disk Manager can access it.
Select disks:
☑ Disk 2
Use the following partition style for the selected disks:
MBR (Master Boot Record)
O GPT (GUID Partition Table)
Note: The GPT partition style is not recognized by all previous versions of Windows.
OK Cancel

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



The New Simple Volume Wizard opens.

New Simple Volume Wizard	X
Welcome to the New Simple Volume Wizard	
This wizard helps you create a simple volume on a disk. A simple volume can only be on a single disk.	
To continue, click Next.	
< <u>B</u> ack <u>N</u> ext > Can	cel

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.

New Simple	Volume Wizard
Specify Volume Size Choose a volume size that is between the	e maximum and minimum sizes.
Maximum disk space in MB: Minimum disk space in MB: Simple volume size in MB:	8
	< <u>B</u> ack <u>N</u> ext > Cancel

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.

New Simple Vo	lume Wizard	X
Assign Drive Letter or Path For easier access, you can assign a drive lette	er or drive path to your partition.	
Assign the following drive letter: Mount in the following empty NTFS folder: Do not assign a drive letter or drive path	F B F Br G H I J K L M N O P Q Q R S Cance V W X Z	el

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:
 - 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:

New S	imple Volume W	/izard	X
Format Partition To store data on this partition, you	u must format it first.		
Choose whether you want to form	at this volume, and if	so, what settings you want to u	ise.
O Do not format this volume			
 Format this volume with the 	following settings:		
File system:	NTFS	~	
Allocation unit size:	Default	~	
Volume label:	CloudCheckr		
Perform a quick form	at		
Enable file and folder	compression		
	< Back	k Next > Ca	ncel

i. Click Next.

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

j. Verify your settings and click Finish.

New Simple Volume Wizard	X
Completing the New Simple Volume Wizard	
You have successfully completed the New Simple Volume Wizard. You selected the following settings:	
Volume type: Simple Volume ∧ Disk selected: Disk: 2 ∨ Volume size: 1047549 MB ≡ Drive letter or path: F: File system: NTFS Allocation unit size: Default ∨ Volume label: CloudCheckr ∨ Casiek format: Yes ✓ To close this wizard, click Finish.	
< Back Finish Cano	el

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

Basic CloudCheckr (F:) 1023.00 GB 1023.00 GB NTFS Online Healthy (Primary Partition)



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.

ave all fields emtpy for a local, integrated security authentication.	
1.0.31927 - Commercial - Centralized	
rver Name	
ser Name	Password
Data Storage Drive	
-Select a Drive- *Note this can not be a temporary drive, and is recomm C:1 D:1 E:1	ened to be at least 500GB.

2. Click Verify Installation.



Learn more about the CloudCheckr Cloud Management Platform at <u>www.cloudcheckr.com</u>.

