Cloudockit's Optimal Setup - Enterprise - Azure

Before you start, let us help you navigate all of the steps to Cloudockit Optimal Setup. Simply book a call with one of our experts.

Book a call

Introduction

The purpose of this document is to provide the detailed steps to install and configure Cloudockit Desktop in an optimal way so you can get going as quickly as possible with your automated documentation generation for your Azure environment.

Cloudockit desktop can be installed in many ways. On a workstation, on a server, or on a virtual machine.

Based on our experience, we have identified that the optimal way is to create a virtual machine using the image available on Azure Marketplace which includes Cloudockit Desktop.

Step 1 – Creating the virtual machine

Connect to the Azure portal and go to Virtual Machines

From the Virtual Machines page, press **Add** in the upper left corner and then **Virtual Machine**.



Basics

Project Details

Add the Virtual Machine to the Resource Group of your choice.

Instance Details

Virtual Machine Name: Name your virtual machine

Region: Select Region

Availability options: Select from the drop-down.

Image:



Click: Browse all public and private images

In Select an image, enter Cloudockit in the search bar and select **Cloudockit Desktop**.

Select an image	
Marketplace My Items	
AI + Machine Learning	:kit
Analytics	
Blockchain	Cloudockit Desktop CloudocKit
Compute	Cloudockit Desktop Plan is preloaded with Cloudockit Desktop
Containers	
Databases	

Azure Spot Instance: No

Size: Standard_A2_v2 – 2vcpus, 4 GiB memory (Suggested)

Administrator Account

Define the Username and Password

Inbound port rules

Public Inbound ports: Allow selected ports

Licensing

Would you like to use an existing Windows Server license? Based on your own preferences.

Click: Disk

Disks

Disk options					
OS disk type *	(j)	Standard HDD			\sim
		The selected VM high IOPS worklo 99.9% connectivi	size supports premiun oads. Virtual machines ty SLA.	n disks. We recommend Premiu with Premium SSD disks qualify	m SSD for 1 for the
Encryption type	e *	(Default) Encry	ption at-rest with a plat	tform-managed key	\sim
Enable Ultra Di	isk compatibility 🛈	🔿 Yes 💿 Na			
		Ultra disk is avail	able only for Availabilit	ty Zones in eastus.	
Data disks					
You can add ar temporary disk	nd configure additiona	al data disks for your virt	ual machine or attach	existing disks. This VM also cor	nes with a
LUN	Name	Size (GiB)	Disk type	Host caching	
Create and atta	ach a new disk At	tach an existing disk			
✓ Advance	ed				

Click: Networking

Networking

Network Interface

Define the configuration as shown in the image below.

Network interface				
When creating a virtual machine, a network interface will be created for you.				
Virtual network * (i)	(new) Patate_group-vnet \checkmark			
	Create new			
Subnet * 🕡	(new) default (10.0.4.0/24)			
Public IP (i)	(new) Patate-ip \checkmark			
	Create new			
NIC network security group ③	🔿 None 🧿 Basic 🔿 Advanced			
Public inbound ports * i)	None Allow selected ports			
Select inbound ports *	RDP (3389)			
	This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.			
Accelerated networking (i)	On Off The selected image does not support accelerated networking.			

Note:

• This setup with the Public IP can be done in different ways depending on your environment. If you have an isolated Virtual Network with a Jumpbox to access your virtual machines, you can absolutely use that instead of the Public IP

• If you use the Public IP, we strongly recommend that you activate the Just In Time Access to add additional security

Load Balancing

Do you want to place this virtual machine behind an existing load balancing solution?: No

Click: Management

Management

Define Management as shown on the image below.



	O Disable
OS guest diagnostics ①	🔿 On 💿 Off
Identity	
System assigned managed identity 🛈	● On ○ Off
Azure Active Directory	
Login with AAD credentials (Preview) 🛈	◯ On Off
🛕 This image does not support Login wi	th AAD.
Auto-shutdown	
Enable auto-shutdown 🛈	◯ On
Guest OS updates	
Patch installation ①	Azure-orchestrated patching (preview): patches will be installed by Azure
	OS-orchestrated patching: patches will be installed by OS
	Manual patching: Install patches yourself or through a different patching solution.

Click: Advanced

Advanced

Define the Advanced tab as shown in the image below.



Host group (i)	No host group found	\sim
Proximity placement group		
Proximity placement groups allow you to gr	oup Azure resources physically closer together in the same region. Learn more	
Proximity placement group ①	No proximity placement groups found	\sim
Generation 2 VMs support features such as Software Guard Extensions (SGX), and virtua	UEFI-based boot architecture, increased memory and OS disk size limits, Intel® I persistent memory (vPMEM).	
VM generation ①	● Gen 1 ○ Gen 2	
Generation 2 VMs do not yet support so	ome Azure platform features, including Azure Disk Encryption.	

Click: Tags

Tags

Define tags based on your organization's tagging policy.

Click: Review + Create

Review & Create

Review the parameters of the virtual machine and press Create.

Step 2 – Creating the Storage Account

The Storage Account will allow you to save the documentation that you create and be available to employees in your organization.

From the Azure Portal, select **Storage Accounts**

Press **Add** in the upper left corner.



Basics

Define the Basics section as shown in the image below.

Project details		
Select the subscription to manage deploye your resources.	ed resources and costs. Use resource groups like folders to organize a	ind manage all
Subscription *	Microsoft Azure Sponsorship - Cloudockit Development	\checkmark
Resource group *	CDK_Desktop_Optimal_Setup	\sim
	Create new	
Instance details		
The default deployment model is Resource the classic deployment model instead. Ch	Manager, which supports the latest Azure features. You may choose oose classic deployment model	to deploy using
Storage account name * 🛈	cdkdskoptimalsetupv2	
Location *	(US) East US	\sim
Performance (i)	Standard Premium	
Account kind (i)	StorageV2 (general purpose v2)	\sim
Replication 🛈	Read-access geo-redundant storage (RA-GRS)	\sim

Click: Networking

Networking

Define the Networking based on your organizations' policies.

Network connectivity	
You can connect to your storage account private endpoint.	either publicly, via public IP addresses or service endpoints, or privately, using a
Connectivity method *	Public endpoint (all networks)
	Public endpoint (selected networks)
	Private endpoint
	All networks will be able to access this storage account. Learn more about connectivity methods 2
Network routing	
Determine how to route your traffic as it tr	avels from the source to its Azure endpoint. Microsoft network routing is recommended for most customers.
Routing preference * (i)	Microsoft network routing (default)
	Internet routing

Click: Data Protection

Data Protection

Define the Data Protection based on your organization's policies.

Rec	covery
	Turn on point-in-time restore for containers
	Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. Learn more 🖻
	Turn on soft delete for blobs
	Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. Learn more
	Turn on soft delete for containers
	Soft delete enables you to recover containers that were previously marked for deletion. Learn more 🖻
	🗊 Sign up is required on a per-subscription basis to use container soft delete. Sign up for Container soft delete 🖻
	Turn on soft delete for file shares
	Soft delete enables you to recover file shares that were previously marked for deletion. Learn more 🖻
Tra	cking
	Turn on versioning for blobs
	Use versioning to automatically maintain previous versions of your blobs for recovery and restoration. Learn more 🖻
	Turn on blob change feed

Click: Advanced

Advanced

Define the Advanced tab as shown in the image below or based on your organization's policies.





Click: Tags

Tags

Define Tags based on your organization's tagging policy.

Click: Review & Create

Review & Create

Review the parameters of the virtual machine and press Create.

Step 3 – Giving the Proper Permissions

By enabling System Assigned Managed identity, this gives you the possibility to add permissions to the virtual machine instead of giving them to a user or a service principal.

The advantage of adding permissions to a virtual machine is to start document generation on new subscriptions without having to do any manual configuration in Cloudockit Desktop.

Giving Permissions to the Virtual Machine on your subscription

The only access needed to generate documentation with Cloudockit Desktop is "reading" privileges.

Access the subscription you want to give access to.

Click on the subscription name and select Access Control (IAM).



Press the **Add** button in the Add a role assignment box.



In the Add a role assignment section, select the following:

Role: Reader

Select: Select the virtual machine you have created

Make sure the Virtual machine is in the Selected Members section.

Click: Save



Selected members:	
CDKDSKOptimalSetup	Remove
Save Discard	

Giving the Virtual Machine Permissions on the Storage Account

Access the list of storage accounts in your subscription and select the account where you want documents from Cloudockit Desktop to be saved.

Click: Access Control (IAM)



Press the **Add** button in the Add a role assignment box.



In the Add a role assignment section, select the following:

Role: Contributor

Select: Select the Virtual Machine you have created.

Make sure the Virtual Machine is in the Selected Members section.

Click: Save





Additional permissions

Azure Classic Resources

Classic resources will not display in the documentation with reader privileges. You must add the credentials to the "**Classic Administrator**" of the subscription.

https://docs.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles

Azure Active Directory

Cloudockit cannot retrieve data from Azure Directory with reader privileges.

The credentials used to generate the documentation must have "Azure AD Global Administrator".

Azure Billing

Limited billing information can be retrieved with reader privileges.

To get access to additional billing information you must give the credentials "Billing Reader" privileges.

Azure Security Center

To read information from the Azure Security Center through the compliance rules, the credentials used to generate the documentation must have "**SecurityReader**" privileges.

Dependencies Detection in Azure App Services

Cloudockit automatically detects dependencies between components like Azure App Services & Functions and components like storages, queues, etc.

To do that, Cloudockit scans the App Settings and App Connection Strings to detect the components the App Service is communicating with.

"Contributor" access (on the App Service only) is needed so Cloudockit can list the App Settings and Connection Strings. If you have only Reader privileges, you will see the App Service Details but not the dependencies.

Azure Kubernetes Services

The credentials used to generate the documentation must have "**Azure Kubernetes Service RBAC Writer**" access (on the Kubernetes Cluster only) so Cloudockit can connect to the cluster and retrieve the details.

Step 4 – Cloudockit Endpoints

Cloudockit uses Azure's public APIs to collect the metadata which is used to create the reports and diagrams that you use. If the Virtual Machine that you use has internet connectivity, no need to worry about endpoints.

If you do not want to open this Virtual Machine to the internet, here is the list of endpoints that you will potentially need to open for Cloudockit to collect the data.

Endpoints	
Cloudockit license validation	generate.cloudockit.com:443
Azure APIs	login.microsoftonline.com:443

	management.core.windows.net:443
	management.azure.com:443
	ratecard.azure-api.net
	graph.windows.net
	login.microsoftonline.us
Azure GOV APIs	management.usgovcloudapi.net
	management.core.usgovcloudapi.net
Lucid chart diagrams	app.lucidchart.com:443
Email Notification	api.sendgrid.com:443

Step 5 – Launch Cloudockit Desktop and Schedule a Document Generation

Connect to the Virtual Machine just created.

Create a shortcut

The first step is to create a shortcut to launch Cloudockit from your desktop. Open Windows Explorer and go to this folder, C:\Program Files\CloudocKit Identify the file named Cloudockit.exe Create a shortcut and place it on your desktop.

Activating Cloudockit

Click on the desktop shortcut of Cloudockit to launch the application. You will need to enter your product key to activate Cloudockit Desktop. If you have not purchased a product key yet, please visit our Pricing Page. You will see a message confirming that the activation was done successfully.



Click: OK

Connecting to an Azure platform

Press Start or Schedule a document generation.

Ø	Start or Schedule a document generation	
Č	View all schedules	
æ	View all document generations	
P	Manage license	
?	Help	

Select **Microsoft Azure** from the list of platforms.



Select Managed Identity (Preview).

Sign in to Microsoft Azure Please choose an authentication method AAD Application User			
Please choose an authentication method AAD Application User	Sign in	to 🛆 Microsoft Azure	•
AAD Application User	Ple	ase choose an authentication method	
User		AAD Application	
		User	
Managed Identity (Preview)		Managed Identity (Preview)	

Select your Cloud Type and press Login.

Sign in to 🗥 Microsoft Azure	*
Please select your Cloud Type	
Azure Public	
Login	

Select All subscriptions and press Continue.

Select the subscription(s) to scan :	8
All subscriptions	
Microsoft Azure Sponsorship - Cloudockit Development	
4abab250-13d0-4696-92bd-8fbee69aebb9	
Back Continue	

Schedule a Document Generation

Now that you are logged in, it is time to define what information you want to generate using Cloudockit.

Set the desired parameters under Documents, Workloads, and Organize Content.

Track Changes

Use the storage account created previously to track changes. This will allow you to see the differences that have occurred between a previous document and the one running right now.

Select Track Changes from the menu to the left.

Enter the name of the storage account in the Account Name box and press validate.

▲ Microsoft Azure **Cloudockit - Options** Compare with previous versions Documents Track Changes feature saves a snapshot of your current environment and allows you to compare it with a previous snapshot. The snapshot will be saved in your selected storage. Workloads Please choose the type of storage you'd like to use : Cloud Storage 🔵 🔹 Local Folder Storage Organize Content Cloud Storage C Drop-off Account Name (ex: companynameclouddockit) E Compliance Validate Clear cdkdskoptimalsetup Please note that the cloud storage, once validated, will also be applied to 'Your Storage' Drop-Off. ③ Generate Please create and use a dedicated storage as CORS rules will be applied to this storage. Scheduling Hanage Configurations

A confirmation message will confirm that the storage account is valid.



Check the box Save a snapshot for comparison.

This will save a JSON file in the storage account every time a new document is generated.

Check the box Compare with a previously generated document.

Select the first empty row that appears below.

This will always select the most recent file in the storage account to compare.

▲ Microsoft Azure

Cloudockit - Options	Compare with previous versions
Documents	Track Changes feature saves a snapshot of your current environment and allows you to compare it with a previous snapshot. The snapshot will be saved in your selected storage.
Workloads	Please choose the type of storage you'd like to use : Cloud Storage 🔵 Local Folder Storage
Organize Content	Please note that the storage type for 'Your Storage' Drop-Off, and for Track Changes will be the same.
🗟 Track Changes	
C Drop-off	Cloud Storage Account Name (ex: companynameclouddockit)
🗄 Compliance	cdkdskoptimalsetup Validate Clear
Senerate	Please note that the cloud storage, once validated, will also be applied to 'Your Storage' Drop-Off. Please create and use a dedicated storage as CORS rules will be applied to this storage.
Scheduling	✓ Save snapshot for future comparisons
Manage Configurations	Compare with a previously generated document
	Tuesday, October 20, 2020 6:43 PM
	Sunday, September 20, 2020 10:01 AM
	Friday, September 18, 2020 7:06 PM
	Friday, September 18, 2020 7:02 PM

Drop-Off

In the Drop-Off settings, the same storage account as defined in the Track Changes section is automatically selected.



Scheduling

Define the desired schedule for your documentation to run and save your schedule.

A Microsoft Azure							(
Cloudockit - Options	Schedule the documents generation						
Documents	Marten Bauk	Westley Marshield	_		_		
√ Workloads	Minutes Houry Daily	weeky Monthly		Next 5 Scheduled Dates			
Organize Content				Finday, 23 October 2020 19:00			
四 Track Changes	Every 01 🖌 hour(s)			Friday, 23 October 2020 21:00			
C Donnell				Friday, 23 October 2020 22:00			
C super				Friday, 23 October 2020 23:00			
± Compliance	Enter a description for scheduling. This will allow you to id	entify the scheduling easily					
Senerate							
C Scheduling			Save Schedule				
Hanage Configurations							
	Subscription	Schedule Description	Send To	Schedule	Next Run	Actions	
	Microsoft Azure Sponsorship - Cloudockit Development	CDK Optimal Setup Test		0 0 10 ? * SUN *	10/25/2020 10:00	Delete	Edit

Configuration

Enter a unique name to the parameters you have set and press **Save Current Configuration**.

Your configuration is saved, you can load or edit it in the future.

A Microsoft Azure		
Cloudockit - Options	Manage Configurations	
 Documents Workloads 	Use this screen to save your current configuration. This will save the configurations like Documents ouptut, Selected Workloads, Organize Content, etc. This will not save your authentication settings and currently selected environments.	
Organize Content	Save Configuration	Export Configuration ①
백 Track Changes ⓒ Drop-off	Save Current Configuration	Encrypt Configuration File Browse X Export
 Compliance Generate 	Existing Configurations ①	Import Configuration ①
🖑 Scheduling		Browse X Apply
Hanage Configurations		
	Configuration Description Actions CDK Optimal Test Delete Edit Open	

Step 6 – Validate that documents are successfully generated

Once your scheduled document generation is complete, let's validate that it has been scheduled properly.

From the main menu, select **View all schedules.**

Start or Schedule a document generation	
View all schedules	
View all document generations	$\left \right $
Manage license	
Help	

In the list, you will see the scheduled documentation you have configured.

This is the list of all your current schedules					۲
Subscription	Schedule Description	Send To	Schedule	Next Run	Actions
Microsoft Azure Sponsorship - Cloudockit Development	CDK. Optimal Setup Test		0 0 10 ? * SUN *	10/25/2020 10:00	Run Now Delete

You can now press **run** to generate a manual document generation or wait for the schedule to run its course.

Once your document is completed, you will be able to access it from the Storage Account or from the desktop application.

Press **View** all document generations from the main menu.



You will see the list of the documents that have been generating.

You can access the documents from the View Documents button on the right.

List of all document generations

Status Al

- Refresh List

Subscription(s)	Platform	Generation Type	Status	Process ID	Start Time	Actions
Cloudockit - Test Environment 4	Azure	Manual	Successful	1028	10/1/2020 6:02:21 PM	View Documents
349224196492	AWS	Manual	Successful	3724	10/1/2020 5:13:45 PM	View Documents
349224196492	AWS	Manual	Stopped	3028	10/1/2020 3:13:47 PM	
CDK Test Environment 1	GCP	Manual	Successful	4520	10/1/2020 3:08:10 PM	View Documents
adkrpoject1	GCP	Manual	Successful	6328	10/1/2020 3:03:39 PM	View Documents
349224196492	AWS	Manual	Successful	5884	10/1/2020 1:29:00 PM	View Documents
Microsoft Azure Sponsorship - Cloudockit Development	Azure	Scheduled	Successful	5624	9/20/2020 10:00:00 AM	View Documents
Microsoft Azure Sponsorship - Cloudockit Development	Azure	Manual	Successful	716	9/18/2020 7:05:02 PM	View Documents
Microsoft Azure Sponsorship - Cloudockit Development	Azure	Manual	Successful	8336	9/18/2020 7:00:40 PM	View Documents

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