Cloudockit's Optimal Setup - MSP - 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.

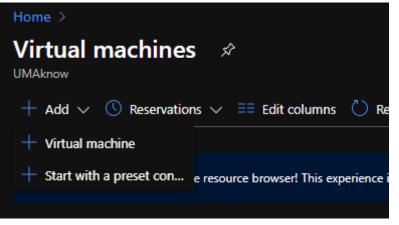
Cloudockit desktop can be installed in many ways. On a workstation, on a server, or on a virtual machine.

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.



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

OS disk type	e* (i)	Standard HDD			\sim
			oads. Virtual machines v	disks. We recommend Premiu with Premium SSD disks qualify	
Encryption t	type *	(Default) Encry	ption at-rest with a plat	form-managed key	~
Enable Ultra	Disk compatibility 🛈	🔿 Yes 💿 N			
		Ultra disk is avai	lable only for Availability	y Zones in eastus.	
	l and configure additior	nal data disks for your vir	tual machine or attach e	existing disks. This VM also con	nes with a
	l and configure additior	al data disks for your vir Size (GiB)	tual machine or attach e Disk type	existing disks. This VM also con Host caching	nes with a
You can add temporary d LUN	l and configure additior disk. Name				nes with a
You can add temporary d LUN	l and configure addition disk. Name attach a new disk A	Size (GiB)			nes with a
You can add temporary d LUN Create and a	l and configure addition disk. Name attach a new disk A	Size (GiB)			nes with a

Click: Networking

Networking

Network Interface

Define the configuration as shown in the image below.

Network interface

When creating a virtual machine, a network	c interface will be created for you.
Virtual network * 🛈	(new) Patate_group-vnet 🗸 🗸
	Create new
Subnet * 🛈	(new) default (10.0.4.0/24)
Public IP 🕡	(new) Patate-ip 🗸
	Create new
NIC network security group ③	None Basic Advanced
Public inbound ports * 🛈	None Allow selected ports
Select inbound ports *	RDP (3389) V
	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	On Off The selected image does not support accelerated networking.

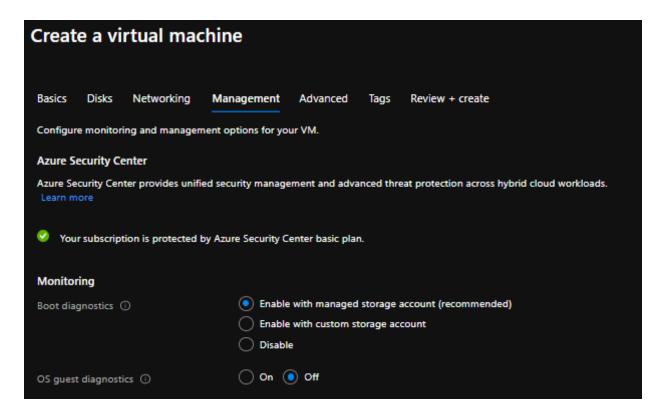
Load Balancing

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.

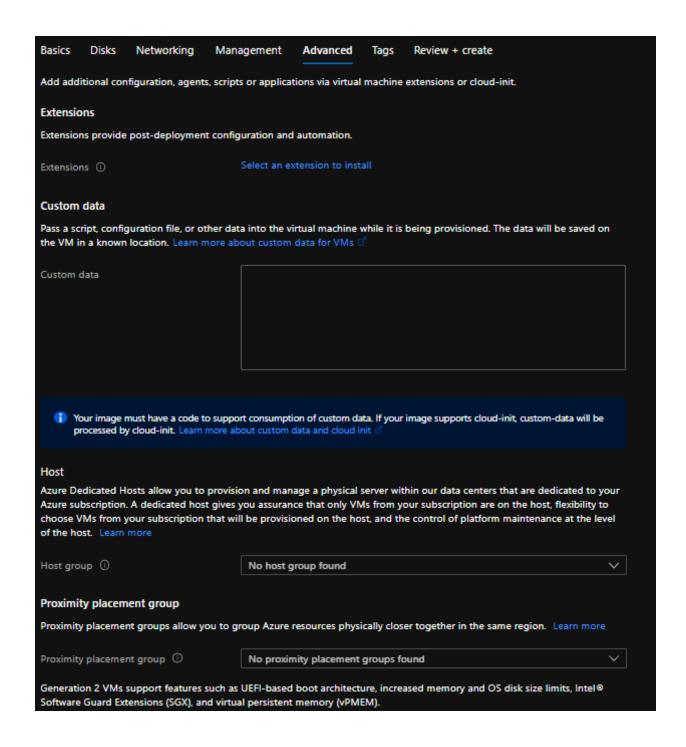


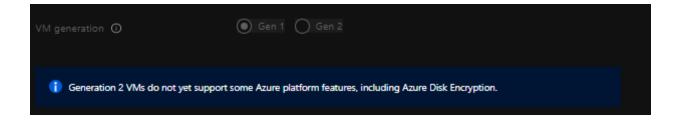
Identity	
System assigned managed identity ①	On Off
Azure Active Directory	
Login with AAD credentials (Preview) ①	On Off
🛕 This image does not support Login wit	th AAD.
Auto-shutdown	
Enable auto-shutdown ①	On Off
Guest OS updates	
Patch installation	
	OS-orchestrated patching: patches will be installed 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.





Click: Tags

Tags

Define tags based on your organization's tagging policy.

Click: Review + Create

Review & Create

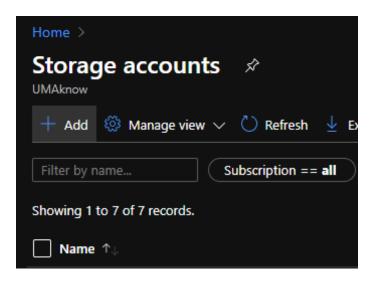
Review the parameters of the virtual machine and press Create.

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 deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *		
	Microsoft Azure Sponsorship - Cloudockit Development	\sim
Resource group *	CDK_Desktop_Optimal_Setup	\sim
	Create new	
Instance details		
	Manager, which supports the latest Azure features. You may choose to deploy u oose classic deployment model	using
Storage account name * 🛈	cdkdskoptimalsetupv2	~
Location *	(US) East US	\sim
Performance i	Standard Premium	
Account kind ①	StorageV2 (general purpose v2)	\sim
Replication (i)	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.	You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.				
Connectivity method *	Public endpoint (all networks)				
	Public endpoint (selected networks)				
	O Private endpoint				
	Il networks will be able to access this storage account. Learn more about connectivity methods				
Network routing					
Determine how to route your traffic as it tra	avels from the source to its Azure endpoint. Microsoft network routing is recommended for most customers.				
Routing preference * 🛈	 Microsoft network routing (default) 				
	Internet routing				

Click: Data Protection

Data Protection

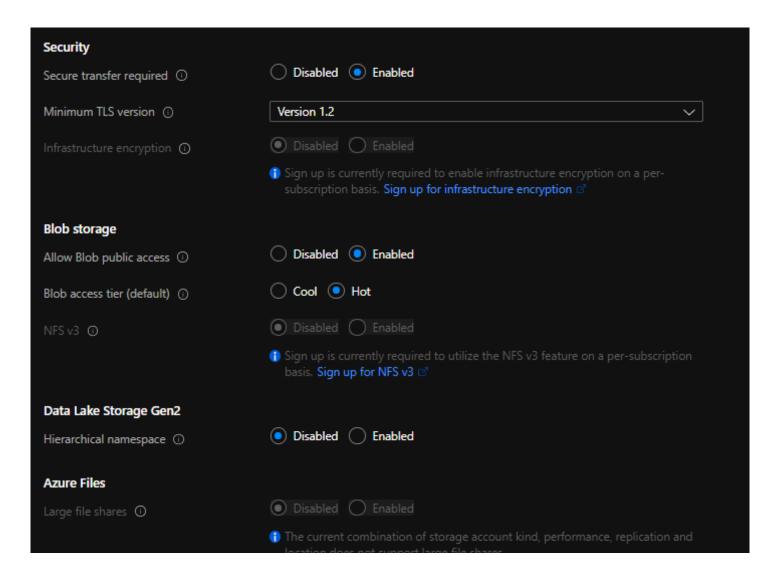
Define the Data Protection based on your organization's policies.

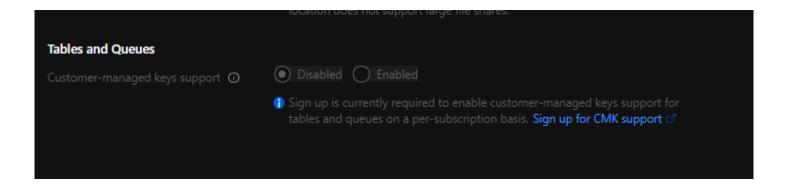
Rec	overy
\Box	Turn on point-in-time restore for containers
	Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. Learn more
	Turn on soft delete for blobs
	Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten.
	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 🖻
Trac	cking
	Turn on versioning for blobs
	Use versioning to automatically maintain previous versions of your blobs for recovery and restoration. Learn more 🖻
\square	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.

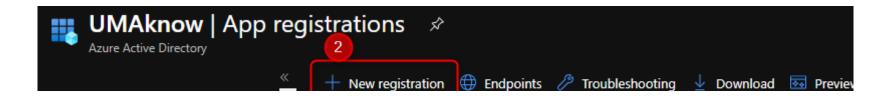
Step 3 – Creating an App Registration

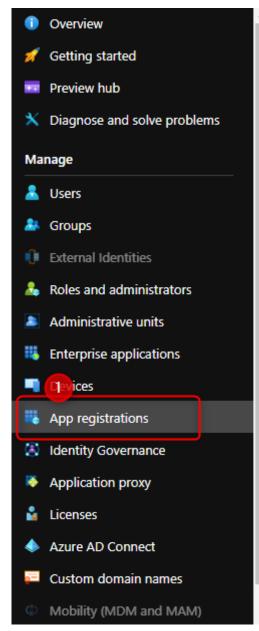
Your customer can create an app registration on their tenant and share these credentials to allow you to connect to their subscription and generate documentation on their cloud infrastructure.

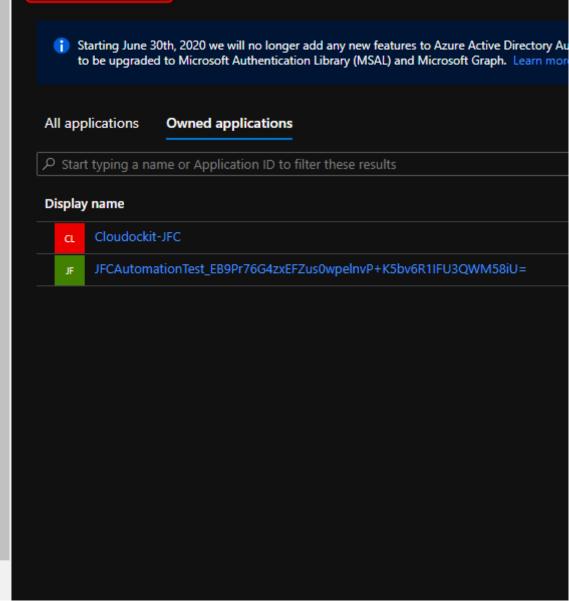
Creating an App Registration

- Connect to your Azure Portal
- Select Active Directory
- From the menu, select App Registrations

Click: New Registration







Enter the unique name of your application.

Click: Register

	•			
Rec	jister	an ar	nlica	tion
Neu	I SLEI	anap	pineo	
_				

* Name

The user-facing display name for this application (this can be changed later).

CDKOptimalSetup

Supported account types

Who can use this application or access this API?

Accounts in this organizational directory only (UMAknow only - Single tenant)

 \sim

Accounts in any organizational directory (Any Azure AD directory - Multitenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

Personal Microsoft accounts only

Help me choose...

Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

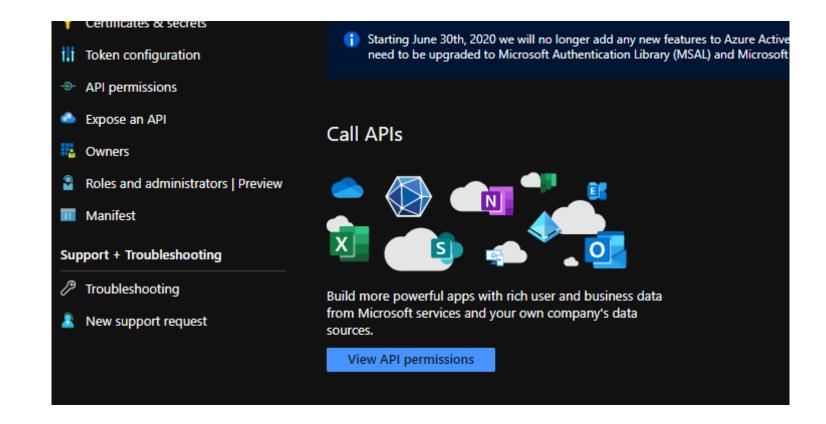
Web

e.g. https://myapp.com/auth

By proceeding, you agree to the Microsoft Platform Policies \square^n	
Register	

Save the Application and Directory ID.

CDKOptimalSetup	\$
	📋 Delete 🜐 Endpoints 💀 Preview features
😽 Overview	
🗳 Quickstart	Display name : CDKOptimalSetup
🚀 Integration assistant Preview	Application (client) ID : disconsistenced and a second sec
· ····································	Directory (tenant) ID : Direct
Manage	Object ID : fdc1c20a-7a21-4535-b9a8-30bdf9bc77b6
Branding	
Authentication	Welcome to the new and improved App registrations. Looking to learn how it's

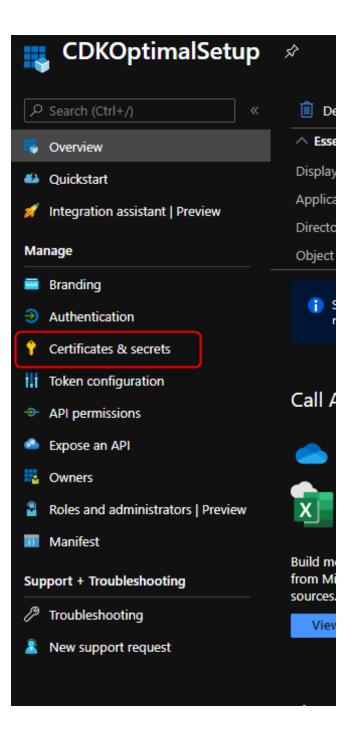


Creating an App Secret

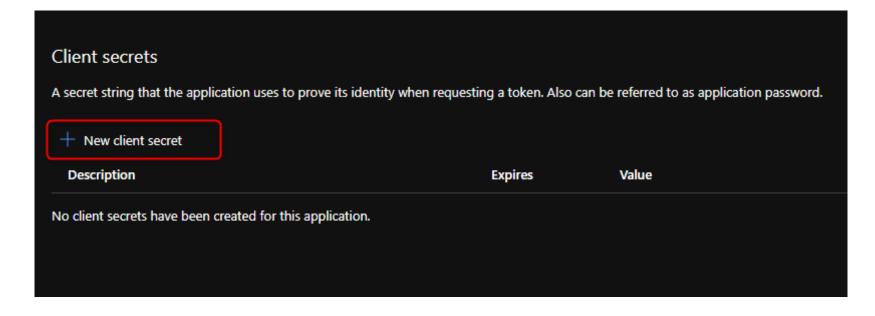
From within the Application

Click: Certificated and Secrets

Home > UMAknow >

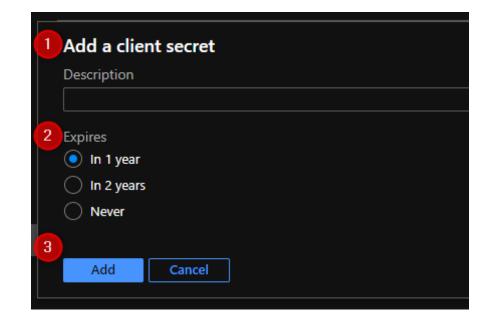


Click: New client secret



Enter a unique description, select the duration of the secret.

Click: Add



Copy the secret string. Keep it and save it with the Application and Directory ID.

Client secrets					
A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.					
+ New client secret					
Description	Expires	Value			
CDKOptimalSetup	10/26/2021	12iOpegVZzzg1jjUG~	Ū	Û	

Step 4 – Giving the Proper Permissions

Using an App registration gives you the ability to connect to your client's environments and generate documentation for them securely.

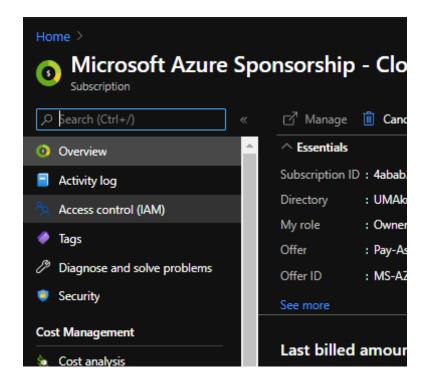
You will be able to set scheduled document generation for your different customers and run everything in an automated fashion. From scheduling all the way to dropping the information in one of your customer's storage account.

Giving Permissions to the Application on the Subscription

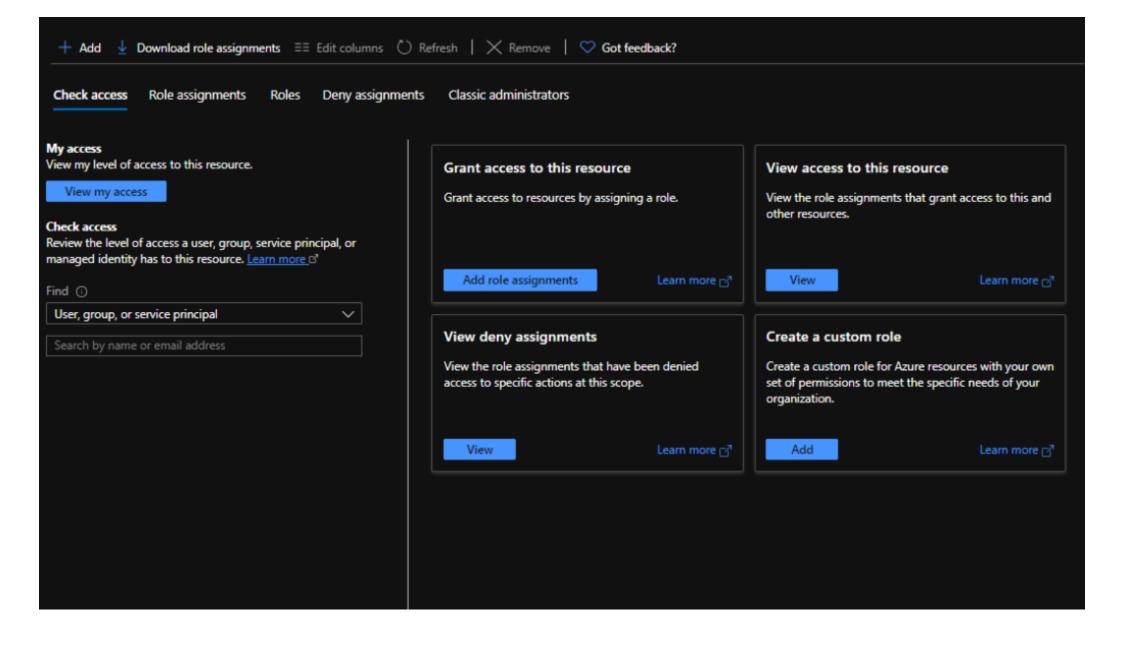
Privilege requirements to gather information from the cloud provider's public APIs is "Reading".

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.



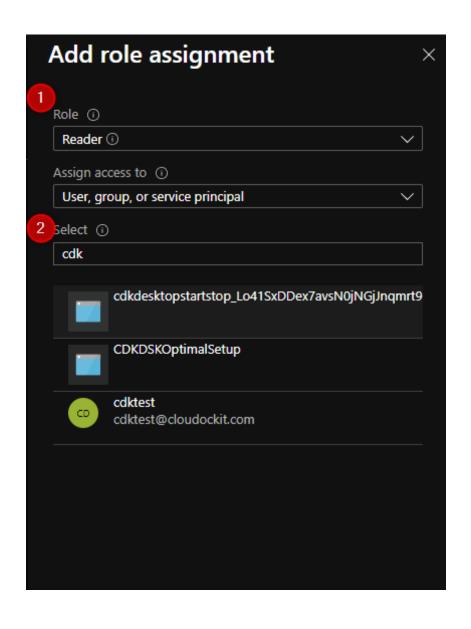
In the Add a role assignment section, select the following:

Role: Reader

Select the Application you have created.

Make sure the application is in the Selected members' section.

Click: Save

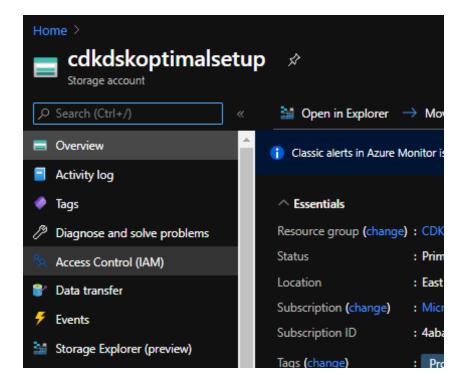


Selected men	nbers:	
	KOptimalSetup	Remove
3		
Save	Discard	

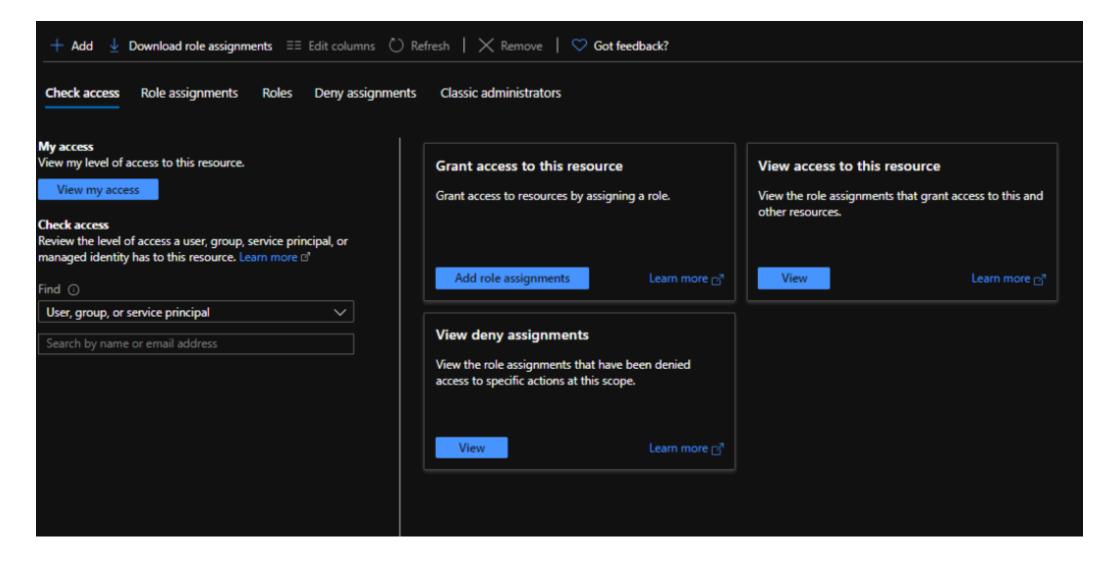
Giving the Application Permissions on the Storage Account

Access the list of storage accounts in your subscription and select the one where you want to drop off your documents from Cloudockit Desktop.

Click: Access Control (IAM)



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



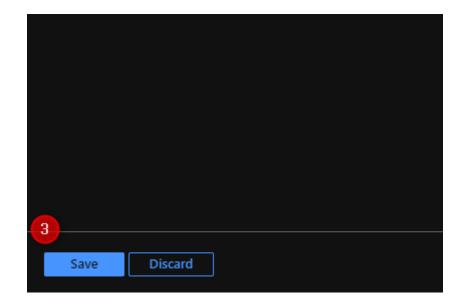
In the Add a role assignment section, select the following:

Role: Reader and Data Access

Select: Select the virtual machine you created

Make sure the Virtual machine is in the Selected members' section.

Add role assignment	>
1 Role 🕡	
Reader and Data Access 🛈	~
Assign access to (i)	
User, group, or service principal	~
2 elect ()	
cdk	
cdkdesktopstartstop_Lo41SxDDex	k7avsN0jNGjJnqmrt9
CDKDSKOptimalSetup	
cD cdktest cdktest@cloudockit.com	
Selected members:	
CDKOptimalSetup	Remove



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.

Documentation for Role-Based Access Control.

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 "**Security Reader**" privileges.

Dependency 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 to allow Cloudockit to 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) to allow Cloudockit to connect to the cluster and retrieve the details.

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

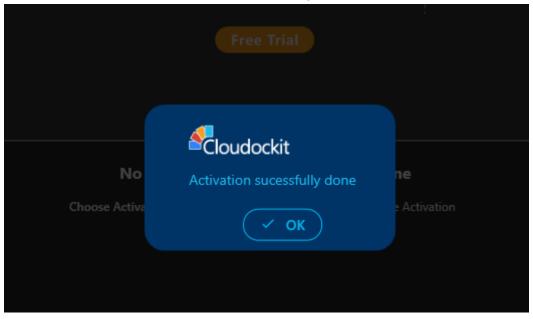
Create a shortcut and place it on your desktop.

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.



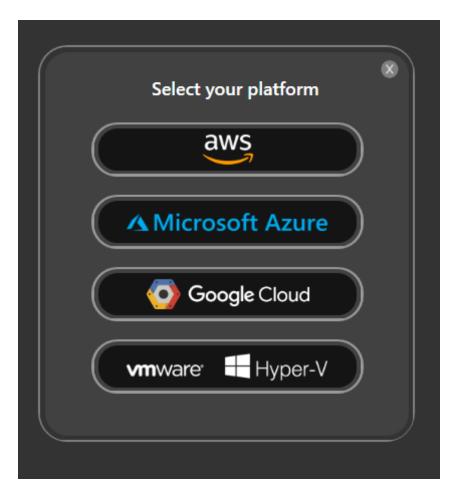
Click: OK

Connecting to an Azure platform

Press Start or Schedule a document generation.

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

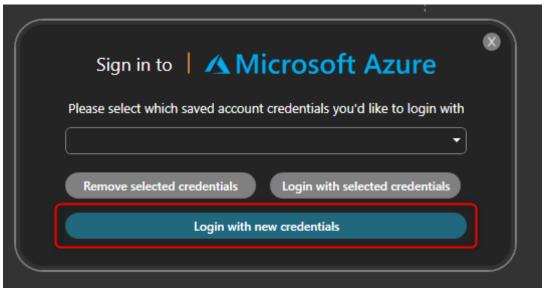
Select **Microsoft Azure** from the list of platforms.



Select Managed Identity (Preview).

	8
Sign in to A Microsoft Azure	
Please choose an authentication method	
AAD Application	
User	
Managed Identity (Preview)	

Press Login with new credentials.



Enter the Directory ID, Application ID, and Application secret.

You can also check the Remember Credentials box and give these credentials a unique name to access them quickly next time around.

Press **Login**



Select the subscription(s) you want to document, and press **Continue**.

Select the subscription(s) to scan :	⊘
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

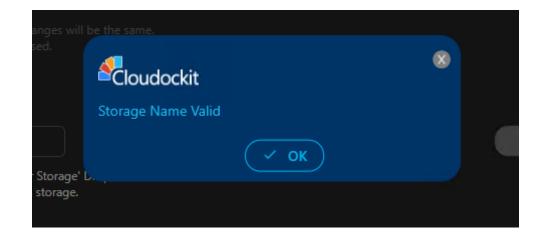
Use the storage account created previously to track changes. This will allow you to see the differences that have occurred between a previous document and the one running right now.

Select **Track Changes** from the menu to the left.

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

A 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. If no value is entered or the storage is invalid. The default local folder will be used.
🗟 Track Changes	Cloud Storage
C Drop-off	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	
Manage 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.

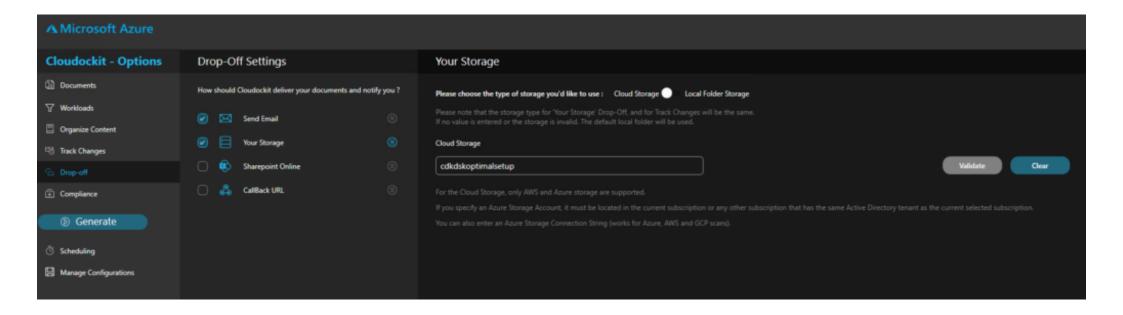
This will always select the most recent file in the storage account to compare.

▲ 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. If no value is entered or the storage is invalid. The default local folder will be used.				
🗟 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				
Hanage Configurations	Compare with a previously generated document				
	Tuesday, October 20, 2020 6x43 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	Minutes Hourly Daily	Weekly Monthly	_	Next 5 Scheduled Dates	_		
√ Workloads	The second secon	includy includy		Friday, 23 October 2020 19:00			
Organize Content				Friday, 23 October 2020 19:00			
18 Track Changes	Every 01 - hour(s)			Friday, 23 October 2020 21:00			
C Drop-off				Friday, 23 October 2020 22:00			
Compliance	Enter a description for scheduling. This will allow you to id			Friday, 23 October 2020 23:00			
③ Generate	Enter a description for scheduling. This will allow you to id	entry the scheduling easily					
() Generate							
🖑 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	Use this screen to save your current configuration.	
√ Workloads	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
🖽 Track Changes	Save Current Configuration	Encrypt Configuration File
C Drop-off		Browse X Export
E Compliance		
Senerate	Existing Configurations ①	Import Configuration ①
ैं Scheduling		Browse X Apply
Manage 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	
Č	View all schedules	
	View all document generations	
	Manage license	
	Help	

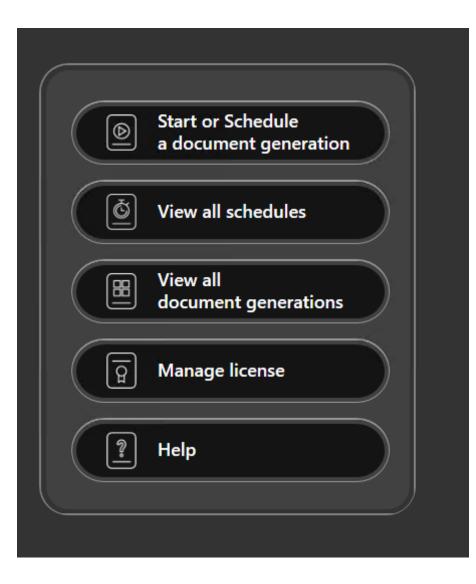
In the list, you will see the scheduled documentation you have configured.

This is the list of all your current schedules						٠
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 All

Refresh List

Subscription(s)		Platform	Generation Type	Status	Process ID	Start Time	Actions
Cloudockit - Test Environmen	114	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
349224196492 Microsoft Azure Sponsorship Microsoft Azure Sponsorship	- Cloudockit Development	AWS Azure Azure	Manual Scheduled Manual	Successful Successful Successful	5884 5624 716	10/1/2020 1:29:00 PM 9/20/2020 10:00:00 AM 9/18/2020 7:05:02 PM	View Document

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Great new Cloudockit Features Including Compliance Rules, AWS Backups, Google Cloud Billing, and More.

Great new features for Azure and AWS users plus download Cloudockit Desktop easily

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