Cloudockit's Optimal Setup - MSP - AWS

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 AWS environment.

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

Based on our experience we have identified that the optimal way is to create an EC2 instance and install Cloudockit desktop to automate your document generation.

Step 1 – Create the IAM User

Your chosen IAM User will be used to list all of the accounts in the organization to enable Cloudockit Desktop to loop through the accounts and assume roles in each of them.

Create the User

Sign in to the AWS Console and open the IAM console: <u>Amazon IAM</u>

In the navigation panel, choose **Users**, press **Add** user.



Set User details and Select AWS access type

Enter a name

In Access Type, check **Programmatic access**

Click: Permissions

Add user



| Set user deta | ails | |
|---------------------|--------------------|--|
| You can add multipl | User name* | th the same access type and permissions. Learn more CDKOptimalMultiAccountScan |
| | | O Add another user |
| Select AWS acc | ess type | |
| Select how these | ers will access AW | /S. Access keys and autogenerated passwords are provided in the last step. Learn more |
| | Access type* | Programmatic access Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools. |
| | | AWS Management Console access Enables a password that allows users to sign-in to the AWS Management Console. |

* Required

Cancel

Next: Permissions

Create the Policy

Select Attach existing policies directly.

Click: Create Policy



| 2 Cr | eate p | Add user | existing user | lirectly | |
|---------|--------|--------------------|--|------------------|-------------------------|
| Filt | er po | licies 🗸 Policy | Q Search name ▼ | Туре | Used as |
| | • | aco | cessToUmaknowAccount | Customer managed | Permissions policy (1) |
| | • | ad | xpascaltest1 | Customer managed | None |
| | • | 🚺 Ad | ministratorAccess | Job function | Permissions policy (23) |
| | • | 🧊 Ale | xaForBusinessDeviceSetup | AWS managed | Boundary (1) |
| | • | 🧊 Ale | xaForBusinessFullAccess | AWS managed | None |
| | • | 🧊 Ale | xaForBusinessGatewayExecution | AWS managed | None |
| | • | 🧊 Ale | xaForBusinessLifesizeDelegatedAccessPolicy | AWS managed | None |
| | • | 🧊 Ale | xaForBusinessPolyDelegatedAccessPolicy | AWS managed | None |

Set permissions boundary

| Cancel | Previous | Next: Tags |
|--------|----------|------------|
| | | |

Make the following selections:

- In Service, select **Organizations**
- In action, select Access Level / List Accounts and ListAccountsForParent
- In Resources, select **All resources**

Click: Review Policy

| Create policy | | 1 2 |
|---|---|-----------------------|
| A policy defines the AWS permissions that you c | an assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON. Learn more | |
| Visual editor JSON | | Import managed policy |
| Expand all Collapse all | | |
| Organizations (2 actions) | | Clone Remove |
| 1, Service | Organizations | |
| 2 Actions | List ListAccounts ListAccountsForParent | |
| 3 • Resources close | Specific All resources | |

| | As a best practice, define permissions for only specific resources. Alternatively, you can grant least privilege using condition keys. Learn more |
|--------------------------------|--|
| Request conditions | Specify request conditions (optional) |
| | • Add additional permissions |
| | |
| | |
| Character count: 172 of 6,144. | Cancel Review policy |

Give your Policy a unique name and press **Create Policy**.

| Create policy | | 1 2 |
|---------------|---|-----|
| Review policy | | |
| Name* | CDKOptimalMultipleAccountPolicy | |
| | Use alphanumeric and '+=,.@' characters. Maximum 128 characters. | |
| Description | | |
| | Maximum 1000 characters. Use alphanumeric and '+=,.@' characters. | |

| Summany | | | | | | |
|------------|-------------------------------|------------------|---------------|------------------------------|--|--|
| Summary | Q Filter | | | | | |
| | Service 👻 | Access level | Resource | Request condition | | |
| | Allow (1 of 241 services) She | ow remaining 240 | | | | |
| | Organizations | Limited: List | All resources | None | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| * Required | | | c | ancel Previous Create policy | | |
| | | | | | | |

Close the opened tab to create the new policy.

Go back to the user creation screen and refresh the list.

Select the newly created policy

Click: Tags

Add user



| Set permissions | | | | | | |
|---|-------------------------------------|--|--------------|------------------------------|------------------------|--|
| Add user to group | Copy permissions from existing user | | Atta dire | ch existing policies ctly | 0 | |
| Create policy | | | | | | |
| Filter policies V Q cdk Showing 5 results | | | esults | | | |
| Policy name 👻 | | | | Туре | Used as | |
| CDK-NoPermissionCo | ostAndUsageReport | | | Customer managed | None | |
| 2 cdkCostExplorerServi | ceMissingPermissions | | | Customer managed | Permissions policy (1) | |
| CDKOptimalMultipleA | ccountPolicy | | | Customer managed | None | |
| CDKOptimalSetupPol | icy | | | Customer managed | None | |
| kinesis-analytics-servi | ice-cdkKinesisAnalytic-us-east-1 | | | Customer managed | Permissions policy (1) | |

Set permissions boundary

Add Tags

Add tags based on your organization's policies.

Click: Review

| Add tags (option | al) | |
|--|--|---|
| IAM tags are key-value pa title. You can use the tags | airs you can add to your user. Tags can include user information, such as an to organize, track, or control access for this user. Learn more | email address, or can be descriptive, such as a job |
| Кеу | Value (optional) | Remove |
| Add new key | | |
| You can add 50 more ta | gs. | |
| | | |
| | | |

| Cancel | Previous | Next: Review |
|--------|----------|--------------|

Review

Review the parameters and create a user.

Add ucor





Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

| User name | CDKOptimalMultiAccountScan |
|----------------------|--|
| AWS access type | Programmatic access - with an access key |
| Permissions boundary | Permissions boundary is not set |

Permissions summary

The following policies will be attached to the user shown above.

| Туре | Name |
|----------------|---------------------------------|
| Managed policy | CDKOptimalMultipleAccountPolicy |

Tags

No tags were added.

| | | Cancel | Previous | Create user |
|--|--|--------|----------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Save the Access key ID as well as the Secret access key in a safe place.

You will need them to authenticate the account for Cloudockit.

| You successfully created the users shown below. You can view and download user security credentials. You can also e instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to c you can create new credentials at any time. | | | | | |
|---|--|--|-------------------|--|--|
| | Users with AWS Management Console access can sign-in at: | https://349224196492.signin.aws.amazon.com | /console | | |
| | | | | | |
| Dow | vnload .csv | | | | |
| Dow | vnload .csv User | Access key ID | Secret access key | | |

Step 2 – EC2 Instance Role and Policies

Let's create a policy and the role required for the EC2 instance to access the accounts and generate documentation.

Create a Policy

Connect to the AWS Console and select IAM.

Select **Policies** and press **Create Policy.**



Select the JSON tab and paste this JSON into the window.

```
"Version": "2008-10-17",
"Statement": {
"Effect": "Allow",
"Action": "sts:AssumeRole",
```

Click: Review Policy

| Create policy | 1 2 | | | | | | |
|--|-----------------------|--|--|--|--|--|--|
| A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON. Learn more | | | | | | | |
| Visual editor JSON | Import managed policy | | | | | | |
| <pre>1 * { 2 "Version": "2012-10-17", 3 * "Statement": { 4 "Effect": "Allow", 5 "Action": "sts:AssumeRole", 6 "Resource": "*" 7 } 8 9 </pre> | | | | | | | |

| Character count: 96 of 6,144. | Cancel | Review policy |
|-------------------------------|--------|---------------|

Give the policy a unique name and press **Create policy.**

| Create policy | | | | 1 2 | | | |
|--|------------------------------------|----------------------------------|---------------|-------------------|--|--|--|
| Review policy | | | | | | | |
| Name* | CDKOptimalAssumeRole | | | | | | |
| | Use alphanumeric and '+=,.@' char | acters. Maximum 128 characters. | | | | | |
| Description | Description | | | | | | |
| | Maximum 1000 characters. Use alpha | anumeric and '+=,.@' characters. | | 10 | | | |
| Summary Q Filter | | | | | | | |
| | Service 🔻 | Access level | Resource | Request condition | | | |
| Allow (1 of 241 services) Show remaining 240 | | | | | | | |
| | STS | Limited: Write | All resources | None | | | |

| * | Required | | |
|---|----------|--|--|
| | Required | | |

Cancel Previous

Create policy

Add Tags

Add tags based on your organization's policies.

Click: Review

Add tags (optional)

 IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more

| Key | Value (optional) | Remove |
|-------------|------------------|--------|
| Add new key | | |

You can add 50 more tags.

| Cancel | Previous | Next: Review |
|--------|----------|--------------|

Review

Give the policy a unique name and review to make sure everything is in order.

Click: Create Role

| Create policy | | 1 2 | |
|---------------|---|-----|--|
| Review policy | | | |
| Name* | CDKOptimalAssumeRole | | |
| | Use alphanumeric and '+=,.@' characters. Maximum 128 characters. | | |
| Description | | | |
| | Maximum 1000 characters. Use alphanumeric and '+=,.@' characters. | | |
| Summary | Q Filter | | |

| Service 🔻 | Access level | Resource | Request condition |
|-----------------------------|-------------------|---------------|-----------------------|
| Allow (1 of 241 services) S | how remaining 240 | | |
| STS | Limited: Write | All resources | None |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | Canc | Previous Create polic |

Create an EC2 Role for Cross-Account Documentation

Connect to the AWS Console and select IAM.

Select Roles and press Create role.

| aws Services ▼ | |
|---|-------------------------|
| Identity and Access Management (IAM) | Create role Delete role |
| Dashboard | Q Search |
| | Role name 👻 |
| Groups | adkauto |
| | adklambda1 |
| Roles | AdkRoleReadOnlyAccess |
| Policies | adminonlypascalamazon |
| Identity providers | adminpascalgmail |
| Account settings | |

Under Select type of trusted entity, select AWS Service.



Choose a use case

20mmon use cases

EC2

Allows EC2 instances to call AWS services on your behalf.

Lambda

Allows Lambda functions to call AWS services on your behalf.

Or select a service to view its use cases

| API Gateway | CloudWatch Events | EKS | KMS | Rekognition |
|--------------------------|------------------------|---------------------------|--------------------|-----------------|
| AWS Backup | CodeBuild | EMR | Kinesis | RoboMaker |
| AWS Chatbot | CodeDeploy | ElastiCache | Lake Formation | S3 |
| AWS Marketplace | CodeGuru | Elastic Beanstalk | Lambda | SMS |
| AWS Support | CodeStar Notifications | Elastic Container Service | Lex | SNS |
| Amplify | Comprehend | Elastic Transcoder | License Manager | SWF |
| AppStream 2.0 | Config | ElasticLoadBalancing | Machine Learning | SageMaker |
| AppSync | Connect | Forecast | Macie | Security Hub |
| Application Auto Scaling | DMS | GameLift | Managed Blockchain | Service Catalog |
| Application Discovery | Data Lifecycle Manager | Global Accelerator | MediaConvert | Step Functions |
| Service | Data Pipeline | Glue | Migration Hub | Storage Gateway |
| Batch | DataSync | Greengrass | OpsWorks | S ans Manager |

* Reauired

Cancel Next: Permissions

From the Attach permissions policies screen select the following policies:

- ReadOnlyAccess
- CDKOptimalAssumeRole (Name of the policy you have created in the previous setup)

Click: Tags

| Create role | 1 2 3 4 |
|---|------------------------|
| Attach permissions policies | |
| Choose one or more policies to attach to your new role. | |
| Create policy | 2 |
| Filter policies ~ Q CDK | Showing 6 results |
| Policy name 👻 | Used as |
| CDK-NoPermissionCostAndUsageReport | None |
| cdkCostExplorerServiceMissingPermissions | Permissions policy (1) |
| CDKOptimalAssumeRole | None |
| CDKOptimalMultipleAccountPolicy | Permissions policy (1) |
| CDKOptimalSetupPolicy | None |
| kinesis-analytics-service-cdkKinesisAnalytic-us-east-1 | Permissions policy (1) |

| Set permissions boundary | | | |
|--|--------|----------|------------|
| | | | |
| * Required | Cancel | Previous | Next: Tags |

Add tags based on your organization'ss policies.

Click: Review

| Add tags (optio | nal) | |
|---|--|---|
| IAM tags are key-value title. You can use the tag | pairs you can add to your user. Tags can include user information, suc gs to organize, track, or control access for this user. Learn more | h as an email address, or can be descriptive, such as a job |
| Кеу | Value (optional) | Remove |
| Add new key | | |

You can add 50 more tags.

| Cancel | Previous Next: Review |
|--------|-----------------------|
| | |

Enter a unique name for your role.

Review the parameters and press **Create Role**.

| Create role | 1 2 3 4 |
|---|---|
| Review | |
| Provide the required information below and review | this role before you create it. |
| Role name* | CDKOptimalEC2RoleCrossAccount |
| | Use alphanumeric and '+=,.@' characters. Maximum 64 characters. |
| Role description | Allows EC2 instances to call AWS services on your behalf. |
| | |
| | Maximum 1000 characters. Use alphanumeric and '+=,.@' characters. |
| Trusted entities | AWS service: ec2.amazonaws.com |
| Policies | FeadOnlyAccess |
| | CDKOptimalAssumeRole 🗹 |
| Permissions boundary | Permissions boundary is not set |
| No tags were added. | |

| * | Required | | Can | Pre | vious | Create role |
|---|----------|--|-----|-----|-------|-------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

Step 3 – Creation of the EC2 Instance

Connect to the AWS Console and go to the EC2.

From the EC2 Dashboard page Press the **Launch instance** button.



EC2 Dashboard New Events New Tags Limits

Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Scheduled Instances

Capacity Reservations

Images

AMIs

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

we're redesigning the EC2 console to make it easier to use and improve performance. We'll re the new console, use the New EC2 Experience toggle.

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

| Running instances | 1 | Dedicated Hosts |
|------------------------|----|-----------------|
| Instances (all states) | 14 | Key pairs |
| Placement groups | 0 | Security groups |
| Volumes | 14 | |

(i) Easily size, configure, and deploy Microsoft SQL Server Always On availability group

aunch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance 🔻

Note: Your instances will laurch in the US East (N. Virginia) Region



Choose an Amazon Machine Image (AMI)

Select Microsoft Windows Server 2019 Base. (Linux OS is not supported).

| aws Services ▼ | a Tuna - 3 Conf | A haithem @ 3492-2419-6492 ▼ | N. Virginia 🔻 Support 🔻 |
|---------------------|------------------------------|---|---|
| Step 1: Choose an A | mazon Ma | achine Image (AMI) Ubuntu Server 20.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services). Root device type: ebs Virtualization type: hvm ENA Enabled: Yes | Cancel and Exit 64-bit (x86) 64-bit (Arm) |
| | Free lier eligible | Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-0817d428a6fb68645 (64-bit x86) / ami-0f2b111fdc1647918 (64-bit Arm) Ubuntu Server 18.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services). Root device type: ebs Virtualization type: hvm ENA Enabled: Yes | Select 64-bit (x86) 64-bit (Arm) |
| | Amazon RDS | Are you launching a database instance? Try Amazon RDS. Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale your database on AWS by automating time-consuming database management tasks. With RDS, you can easily deploy An MariaDB, MySQL, Oracle, PostgreSQL, and SQL Server databases on AWS. Aurora is a MySQL- and PostgreSQL-compatible, enterprise-class database at 1/10th the cost of commercial databases. Learn m Launch a database using RDS | Hide nazon Aurora, nore about RDS |
| | Windows Free Ber eligible | Microsoft Windows Server 2019 Base - ami-0412e100c0177fb4b Microsoft Windows 2019 Datacenter edition. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes | Select 64-bit (x86) |
| | 0 | Deep Learning AMI (Ubuntu 18.04) Version 36.0 - ami-063585f0e06d22308 MXNet-1.7.0, TensorFlow-2.3.1, 2.1.0 & 1.15.3, PyTorch-1.4.0 & 1.7.0, Neuron, & others. NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker, NVIDIA-Docker & EFA support. For fully managed experience, check: https://aws.amazon.com/sagemaker Root device type: ebs Virtualization type: hvm ENA Enabled: Yes | Select 64-bit (x86) |
| | ۲ | Deep Learning AMI (Ubuntu 16.04) Version 36.0 - ami-Oct2702a48aac44ba MXNet-1.7.0, TensorFlow-2.3.1, 2.1.0 & 1.15.3, PyTorch-1.4.0 & 1.7.0, EI, Neuron, & others. NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker, NVIDIA-Docker & EFA. For fully managed experience, check: https://aws.amazon.com/sagemaker Root device type: ebs Virtualization type: hvm ENA Enabled: Yes | Select 64-bit (x86) |
| | 🗊 Amazon Linux | Deep Learning AMI (Amazon Linux 2) Version 36.0 - ami-0f899ff8474ea45a9 MXNet-1.7.0, TensorFlow-2.3.1, 2.1.0 & 1.15.3, PyTorch-1.4.0 & 1.7.0, Neuron, & others. NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker, NVIDIA-Docker & EFA support. For fully managed experience, check: https://aws.amazon.com/sagemaker | Select 64-bit (x86) |
| | | | |

Choose an Instance Type

We have identified that Cloudockit Desktop performs at its best with 4 CPUs and 16 GiB of memory. You can however choose the type that you prefer.

| aw | Services ▼ | | | | | | ♣ haithem @ 3492-2419-6492 ▼ N. V | firginia 🔻 Support 🔻 |
|--------------------------|---|---|---|---|--|--|---|------------------------|
| 1. Cho | ose AMI 2. Choose Instance Type 3. Cor | nfigure Instance 4. Add St | orage 5. Add Tags 6. Con | figure Security Group 7. Review | | | | |
| Step Amazo resourc | D 2: Choose an Instance Ty n EC2 provides a wide selection of instance to ses for your applications. Learn more about i | ype types optimized to fit differ nstance types and how the | ent use cases. Instances are vir ey can meet your computing ne | tual servers that can run applica eds. | tions. They have varying combinations of C | CPU, memory, storage, and networking cap | acity, and give you the flexibility to choose | the appropriate mix of |
| Filter t | All instance families V Curre | ent generation 👻 Sho | ow/Hide Columns | | | | | |
| Cum | ently selected: t2.large (- ECUs, 2 vCPUs, 2 | .3 GHz, -, 8 GiB memory, | EBS only) | | | | | |
| | Family | - Туре - | vCPUs (i) - | Memory (GiB) ~ | Instance Storage (GB) () - | EBS-Optimized Available (i) - | Network Performance (i) - | IPv6 Support 🕕 🗸 |
| | 12 | t2.nano | 1 | 0.5 | EBS only | - | Low to Moderate | Yes |
| | 12 | t2.micro Free tier eligible | 1 | 1 | EBS only | | Low to Moderate | Yes |
| | 12 | t2.small | 1 | 2 | EBS only | - | Low to Moderate | Yes |
| | 12 | t2.medium | 2 | 4 | EBS only | - | Low to Moderate | Yes |
| | 12 | t2.large | 2 | 8 | EBS only | | Low to Moderate | Yes |
| | t2 | t2.xlarge | 4 | 16 | EBS only | - | Moderate | Yes |
| | 12 | t2.2xlarge | 8 | 32 | EBS only | - | Moderate | Yes |
| | 13 | t3.nano | 2 | 0.5 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.micro | 2 | 1 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.small | 2 | 2 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.medium | 2 | 4 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.large | 2 | 8 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.xlarge | 4 | 16 | EBS only | Yes | Up to 5 Gigabit | Yes |
| | 13 | t3.2xlarge | 8 | 32 | EBS only | Yes | Up to 5 Gigabit | Yes * |
| | | | | | | Cancel Previous | Review and Launch Next: Confi | gure Instance Details |

Configure Instance Details

Configure the instance based on your organization's best practices and make sure to select the CrossAccount IAM role created in the previous step.

| 1. Choose AMI | 2. Choose Instance Type | 3. Co | onfigure Instance | 4. Add Storage | 5. Add Tags | 6. Con | figure | Security Group | 7. Review |
|----------------------------|--|-------|-----------------------------------|---------------------|------------------|------------|--------|------------------|-----------------------|
| Step 3: Configure the inst | onfigure Instan stance to suit your require | ce D | etails You can launch m | ultiple instances f | rom the same A | MI, reque | est S | pot instances to | take advantage of the |
| | Number of instances | (j) | 1 | | Launch into Au | uto Scalir | ng Gr | roup (j) | |
| | Purchasing option | () | C Request Spo | ot instances | | | | | |
| | Network | (j) | vpc-9eff53e6 | default-vpc (defa | ult) | \$ | С | Create new VP | с |
| | Subnet | i | No preference | (default subnet in | any Availability | Zone | | Create new sub | onet |
| | Auto-assign Public IP | (j) | Use subnet set | tting | | \$ | | | |
| | Placement group | (j) | □ Add instance | e to placement gro | oup | | | | |
| | Capacity Reservation | (j) | Open | | | \$ | | | |
| | Domain join directory | (i) | No directory | | | \$ | С | Create new dir | ectory |

| IAM role | () | CDKOptimalEC2RoleCrossAccount | \$ (| C Create new IAM role |
|-------------------------------|-----|---|------|-----------------------|
| CPU options | (j) | Specify CPU options | | |
| Shutdown behavior | () | Stop | \$ | |
| Stop - Hibernate behavior | (j) | Enable hibernation as an additional stop behavior | | |
| Enable termination protection | (j) | Protect against accidental termination | | |
| Monitoring | (j) | Enable CloudWatch detailed monitoring Additional charges apply. | | |
| Tenancy | () | Shared - Run a shared hardware instance Additional charges will apply for dedicated tenancy. | \$ | |
| Elastic Graphics | () | Add Graphics Acceleration Additional charges apply. | | |
| Credit specification | (i) | | | |

Add Storage

You can leave the default parameters.
Add Tags

Add the tags based on your organization's tagging policy.

Configure Security Group

Create or assign a security group based on your organization's security policies.

Review Instance Launch

Review the parameters that have been set and press launch to create the instance.

Step 4 – Installing Cloudockit Desktop

Downloading the Document

You can get the Cloudockit installation file from our website.

Press the Download Now button to get the MSI.



Launch your instance and copy the MSI file on the instance.

Double click the Cloudockit icon to start the installation.

Click: Next



Carefully read the terms in the license agreement.

Check the box "I accept the terms in the License Agreement".

Click: Next

| End-User License Agreement Please read the following license agreement carefully | | Cloudo | ockit |
|--|--|--------------------------|-------|
| By subscribing, accessing or using the Services you terms of this Agreement. If you are accepting these behalf of another person, corporation or other lega represent and warrant that you have full authority to person, corporation, or legal entity to these terms. | ou agree t e terms or al entity, y to bind th | to the n rou at | ^ |
| ÜMAknow and Customer agree to the following Agree any Confirmation. | reement a | and | Ļ |
| ☑ I accept the terms in the License Agreement | | | |
| | | C | -1 |

Select the path where you want to install Cloudockit Desktop.

Click: Next

| Gloudockit Setup − □ × | |
|---|--|
| Destination Folder Click Next to install to the default folder or click Change to choose another. Cloudockit | |
| Install Cloudockit to: | |
| C:\Program Files\CloudocKit\ Change | |
| | |
| | |
| <u>B</u> ack <u>N</u> ext Cancel | |
| | |

Click: Instal



Once the installation is complete.

Click: Finish



Step 5 – Creation of the Bucket

The bucket will allow you to save the documentation and be available to employees in your organization.

From the AWS Console, select **S3**

Press **Create bucket** in the upper right corner.

| 6 | S3 Replic | ation lets you simply copy objects from one S3 bucket to and | other. | | | | | | | Learn more | × |
|---|-----------|---|----------------------------|--------|----------|-------------------------------|-----------|------------------------|----------------|---------------|---|
| | Amazon S | 3 | | | | | | | | | |
| | Buckets | ets (23) are containers for data stored in S3. Learn more 🔀 ind buckets by name | | | | C | 🗇 Copy AR | N Empty | Delete | Create bucket |] |
| | | Name | Region | | ∇ | Access | ∇ | Creation date | | ∇ | - |
| | 0 | adk-elb-accesslog | US East (N. Virginia) us- | east-1 | | Objects can be public | | April 6, 2018, 15:29 (| UTC-04:00) | | |
| | 0 | adk-leo-test-bucket | EU (Frankfurt) eu-centra | l-1 | | Bucket and objects not public | | March 13, 2020, 14:0 | 7 (UTC-04:00) | | |
| | 0 | adk-polly-mp3s2018 | US East (N. Virginia) us-e | east-1 | | Objects can be public | | March 5, 2018, 23:23 | (UTC-05:00) | | |
| | 0 | adk-polly-website2018 | US East (N. Virginia) us-e | east-1 | | A Public | | March 5, 2018, 23:22 | (UTC-05:00) | | |
| | 0 | adklifecyclepolicies | US East (N. Virginia) us-e | east-1 | | Objects can be public | | March 26, 2018, 13:2 | 0 (UTC-04:00) | | |
| | 0 | amazondockit | US West (Oregon) us-we | st-2 | | Objects can be public | | March 11, 2016, 17:0 | 6 (UTC-05:00) | | |
| | 0 | aws-logs-349224196492-us-east-1 | US East (N. Virginia) us-e | east-1 | | Objects can be public | | March 28, 2019, 14:2 | 8 (UTC-04:00) | | |
| | 0 | cdk-iot-job-bucket | US East (N. Virginia) us- | east-1 | | Objects can be public | | August 22, 2018, 09: | 50 (UTC-04:00) | | |

General Configuration

Name your bucket and select the Region of your choice.

| ucket name | |
|---|---|
| CDKOptimalSetup | |
| | paces or uppersage letters. See rules for busket name |
| ucket name must be unique and must not contain s | paces of uppercase terrers. See rules for bucket fram |
| ucket name must be unique and must not contain s | paces of uppercase tetters. See rules for bucket har |
| ucket name must be unique and must not contain s egion | pates of uppercase letters. See rules for bucket ha |
| egion US East (N. Virginia) us-east-1 | |
| egion US East (N. Virginia) us-east-1 | |
| egion US East (N. Virginia) us-east-1 | |

Bucket Settings for Block Public Access

Define the public access based on your organization's best practices.

Bucket settings for Block Public Access

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more

Block all public access

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

Block public access to buckets and objects granted through new access control lists (ACLs)

S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

Block public access to buckets and objects granted through any access control lists (ACLs) S3 will ignore all ACLs that grant public access to buckets and objects.

Block public access to buckets and objects granted through *new* public bucket or access point policies
 S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

Block public and cross-account access to buckets and objects through *any* public bucket or access point policies

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.



Turning off block all public access might result in this bucket and the objects within becoming public AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

 I acknowledge that the current settings might result in this bucket and the objects within becoming public.

Bucket Versioning

| Bucket Versioning Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. Learn more | • |
|--|---|
| Bucket Versioning Disable Enable | |

You can enable or disable bucket versioning based on your preferences.

Tags

| Tags (0) - optional Track storage cost or other criteria by tagging your bucket. Learn more |
|---|
| No tags associated with this bucket. Add tag |

Default Encryption

| Default encryption Automatically encrypt new objects stored in this bucket. Learn more | |
|--|--|
| Server-side encryption Disable Enable | |

Ensure to copy the Bucket ARN in a secure place. You will need it later.

Click: Finish

S3 Bucket Policy

You must now give your IAM user the policy to allow the S3 bucket to drop the files that Cloudockit will create.

Sign in to the AWS Console and open the IAM console at https://console.aws.amazon.com/iam/.

In the navigation panel, choose **Users** and search for the user you created.

Select the username

| aws Services ▼ | |
|---|----------------------------|
| Identity and Access Management (IAM) | Add user Delete user |
| Dashboard | Q, cdk |
| | User name 🔻 |
| Groups | Cdkdesktopjfc |
| Users | cdkfullaccesskeys |
| Roles | CDKOptimalMultiAccountScan |
| Policies | cdkUserDev |
| Identity providers Account settings | cdkUserReadonly |
| ✓ Access reports | |
| Access analyzer | |
| Archive rules | |
| Analyzers | |
| Settings | |

Click: Add Permissions

Add Permissions to Users

Select Attach existing policies directly.

Click: Create Policy

| Add permissions to cdkoptimalsetup | | 1 2 |
|---|------------------|-------------------------|
| Grant permissions | | _ |
| Use IAM policies to grant permissions. You can assign an existing policy peate a new one. | | |
| Add user to group Copy permissions from existing user Attach existing policies directly | | |
| Create policy | | c |
| Filter policies ~ Q. Search | | Showing 644 results |
| Policy name 👻 | Туре | Used as |
| accessToUmaknowAccount | Customer managed | Permissions policy (1) |
| adkpascaltest1 | Customer managed | None |
| AdministratorAccess | Job function | Permissions policy (23) |
| AlexaForBusinessDeviceSetup | AWS managed | Boundary (1) |
| AlexaForBusinessFullAccess | AWS managed | None |
| AlexaForBusinessGatewayExecution | AWS managed | None |
| AlexaForBusinessLifesizeDelegatedAccessPolicy | AWS managed | None |
| AlexaForBusinessPolyDelegatedAccessPolicy | AWS managed | None |
| | | |

Create Policy

Select JSON tab and paste the following code in the window.

```
{
    "Version": "2008-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action":[ "s3:*" ],
            "Resource":[ "arn:aws:s3:::cdkoptimalsetup" ]
        }
]
```

Under the Resource value, make sure you replace arn:aws:s3:::cdkoptimalsetup with the Bucket ARN saved in the previous step.

Click: Review Policy



| 8 9 - 10 11 12 13 14 14 } | <pre>ss:" }, "Resource": ["arn:aws:s3:::cdkoptimalsetup"]</pre> | | |
|---|---|--------|---------------|
| | | | |
| Character count: 119 | of 6,144. | Cancel | Review policy |

Review Policy

Give your policy a unique name, a description and press **Create Policy**.

| Create policy | | | | 1 2 |
|---------------|--|--|---|---------------------------------|
| Review policy | | | | |
| Name* | CDKOptimalSetupPolicy | | | |
| | Use alphanumeric and '+=,.@' cha | racters. Maximum 128 characters. | | |
| Description | | | | |
| | | | | |
| | Maximum 1000 characters. Use alph | anumeric and '+=,.@' characters. | | 11 |
| Summary | This policy defines some ac applicable resource or cond | ctions, resources, or conditions that do not pro dition. For details, choose Show remaining. L | ovide permissions. To grant access, policies earn more | must have an action that has an |
| | Q Filter | | | |
| | Service 👻 | Access level | Resource | Request condition |
| | Allow (1 of 241 services) Sh | now remaining 240 | | |
| | S3 | Limited: List, Read, Write, Permissions management, Tagging | BucketName string like cdkoptimalsetup | None |

| * Required | Cancel | Previous Create policy |
|------------|--------|------------------------|

Storage Account

From the Storage Account, click on **Permissions** and then **Bucket Policy**. Ensure you have the following statement: replace the IAM User Arn and Resource.

```
"Version": "2008-10-17",
"Id": "Policy1335892530063",
"Statement": [
        {
        "Sid": "Stmt1335892526597",
        "Effect": "Allow",
        "Principal": {
            "AWS": "arn:aws:iam::xxxx:user/xxxxxxx"
        },
        "Action": "s3:PutObject",
```

Step 6 – Policies

Now that we have a user created, an EC2 Instance created as well as a storage account, it is time to apply the policies.

Policies were already given to the user account in the previous step, therefore it has read access at the account level.

AWS Billing

To read billing information from AWS, the credentials used to generate the documentation must have "**aws-portal:ViewBilling**" policy.

AWS Trusted Advisor

To read information from AWS Trusted Advisor, the credentials used to generate the documentation must have the following policy.

AWS Organizations Accounts

In the generated documents, if you want to view details of the accounts from your organization, you will need to choose an AWS master account when logging on Cloudockit website.

| AWS Organizations × + | | | |
|---|-------|------------|--------------------|
| ← → C | | | |
| 👯 Apps 📕 HR 📕 Cloudockit Support 📕 Cloudockit Dev 📕 UMAknow Support 📕 Microsoft Certificati | | | |
| aws Services V | | | ¢ |
| | | | |
| Accounts Organize accounts Policies | | | |
| | | | |
| Add account Remove account Hide Failed account creation requests | | Q, Filter | |
| Account name | Email | Account ID | Status |
| • * | | | Joined on 1/30/18 |
| | | | Joined on 1/30/18 |
| | | | Created on 4/27/18 |
| | | | Created on 7/4/19 |
| | | | Created on 3/9/20 |
| | | | |
| | | | |

AWS Organizational Units and Accounts

If you want to view details of the organizational units and accounts of your organization in the generated documents, you will need to choose an AWS master account when logging on Cloudockit website.

| aws Services ▼ | | |
|----------------------------|---------------------------|-------------------|
| | | |
| Accounts Organize accounts | Policies | |
| ^ _ | | Root |
| ⊖Root | | Q Filter |
| + cloudockit-ou | Organizational units (2) | |
| Cloudochicou | + New organizational unit | cloudockit-ou |
| | Accounts (2) | |
| | CloudockitProduction | Cloudockit-Test-2 |
| | | |
| | | |
| | | |

AWS Member Account

When you choose an AWS member account, the generated documents will display the information of your organization and minimum information about your account (e.g.: Id, ARN).

Step 7 – AWS Cross-Account Roles

In each AWS Account you want to scan, you need to create a role named CloudockitScanRole (or any name that you prefer).

Here are the steps to create this role:

From IAM console, click on Roles and then Create role.

- Select Another AWS Account. Enter the Account ID where you are installing the EC2 instance that will run Cloudockit Desktop.
- Click Next and select the *ReadOnlyAccess*
- Click Next: Review
- Enter the name: CDKOptimalScanRole (Or which ever name you gave it)
- Click on create role
- Repeat those steps in all AWS Accounts

Step 8 – Launch Cloudockit Desktop and Schedule a Document Generation

Connect to the EC2 Instance created.

Launch Cloudockit 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 haven't purchased a product key, please visit https://www.cloudockit.com/pricing/

You will see a message confirming that the activation was done successfully.

Click: OK

Connecting to an AWS Platform

Select Start or Schedule a Document Generation

| | Ð | Start or Schedule a document generation | |
|---|-----|--|--|
| | ğ | View all schedules | |
| | æ | View all document generations | |
| | ନ୍ମ | Manage license | |
| | ? | Help | |
| _ | | | |

Select Cross-Account Role.

| Select your platform | | × |
|----------------------|-----|---|
| aws | | |
| A Microsoft Azur | | |
| Google Cloud | | |
| vmware 🕂 Hyper-' | v . | |
| | | |

Select AWS from the list of platforms.



Enter the Access Key ID, Secret Access Key, and Role to Assume.

Click: Login

| Sign in to aWS | |
|---|--|
| List all accounts with : IAM User Custom list | |
| Access Key ID : | |
| AKIAVCT3CLGGPZGRZMRL | |
| Secret Access Key : | |
| | |
| Role To Assume : | |
| CDKOptimalEC2RoleCrossAccount | |
| Use AWS Government | |
| Remember Credentials ① | |
| Login | |
| | |

You now need to select the accounts you want to document.

Click: Continue

| | Select the account(s) to scan : | |
|----------------------|---------------------------------|--|
| | All accounts | |
| adktestuser3 | | |
| CloudockitProduction | | |
| Cloudockit-Test-2 | | |
| Pascal Bonheur | | |
| umaknow | | |
| | 078780907003 | |
| | | |
| | 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 for track changes. This will allow you to see the differences that have occurred between a previous document generation and the one running right now.

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



| 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 set | lected 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. | |
| 5 Track Changes | ir no value is entered or the storage is invalid. The default local folger will be used. | |
| C Drop-off | Cloud Storage | 3 |
| E Compliance | cdkoptimalsetup | Validate Clear |
| ③ Generate | 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 | | |
| Hanage Configurations | | |
| | | |
| | | |

Enter the name of the bucket in the Account Name box and press **validate**.

A confirmation message will display that the bucket is valid.



Check the box Save a snapshot for comparison.

This will save a JSON file in the storage account every time a document generation runs.



| 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. |
| ⑦ 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 | it no value is entered of the storage is invalid. The detault local tolder will be used. |
| ි Drop-off | Cloud Storage Account Name (ex: companynameclouddockit) |
| 🗄 Compliance | cdkoptimalsetup 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 If you want to compare to latest snaphost available, please select the first emtpy row |
| | |

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.
Save snapshot for future comparisons

Compare with a previously generated document (in the selected directory)

If you want to compare to latest snaphost available, please select the first emtpy row

Thursday, November 5, 2020 8:19:26 PM Thursday, November 5, 2020 8:15:48 PM Thursday, November 5, 2020 8:05:47 PM Thursday, November 5, 2020 7:53:28 PM Thursday, November 5, 2020 7:46:00 PM Thursday, November 5, 2020 7:36:20 PM

Drop-Off

In the Drop-Off settings, the same bucket as defined in the Track changes section is selected.



Scheduling

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

| aws | | | | | | | • |
|--|---|-------------------|---------|---------------|--|----------|---------|
| Cloudockit - Options | Schedule the documents ge | eneration | | | | | |
| Documents Workloads Organize Content Track Changes Drop-off Compliance Generate Scheduling Manage Configurations | Minutes Hourly Every 01 • hour(s) Enter a description for scheduling. This will | Daily Weekly | Monthly | Save Schedule | Next 5 Scheduled Dates Tuesday, 10 November 2020 14:00 Tuesday, 10 November 2020 15:00 Tuesday, 10 November 2020 16:00 Tuesday, 10 November 2020 18:00 | | |
| | Subscription | Schedule Descript | n | Send To | Schedule | Next Run | Actions |

Configuration

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

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

| aws | | |
|---|--|---|
| Cloudockit - Options | Manage Configurations | |
| Documents Workloads Organize Content Track Changes Drop-off | 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. Save Configuration Save Current Configuration | Export Configuration ① Encrypt Configuration File Browse X Export |
| Compliance Generate Scheduling Manage Configurations | Existing Configurations ① | Import Configuration ① Browse X Apply |
| | Configuration Description Actions | |



Step 9 – 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.**

You will see in the list the scheduled documentation you configured.

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

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



| This is the list of all your current schedules | | | | | | |
|--|----------------------|---------|----------------------|------------------|----------------|--|
| Subscription | Schedule Description | Send To | Schedule | Next Run | Actions | |
| 349224196492 | AWS Optimal Setup | | 000?*MON* | 11/16/2020 00:00 | Run Now Delete | |
| Microsoft Azure Sponsorship - Cloudockit Development | Unique Name | | 0 0 16 ? * MON,FRI * | 11/13/2020 16:00 | Run Now Delete | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

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

You have the list of all generated documents.

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 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 Sponsonship - 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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