

# Install AWS CLI

Official AWS CLI download page: <https://docs.aws.amazon.com/cli/latest/userguide/install-windows.html>

- **Download the installer:**

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  - Visit the official AWS CLI download page: <https://docs.aws.amazon.com/cli/latest/userguide/install-windows.html>
  - Choose the 64-bit Windows installer (MSI) under "Latest Version."


- **Run the installer:**

- Double-click the downloaded installer file.
- Follow the on-screen instructions, ensuring you choose the option to "Add AWS CLI to PATH". This allows you to run the `aws` command from any command prompt.

- **Verify installation:**

- Open a command prompt and type `aws --version`. If successful, you should see the installed version displayed.

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 Administrator: Windows PowerShell

```
PS C:\Users\Administrator>
PS C:\Users\Administrator> aws --version
aws-cli/1.32.49 Python/3.8.10 Windows/10 exec-env/EC2 botocore/1.34.49
PS C:\Users\Administrator>
PS C:\Users\Administrator> _
```

## Install Chocolatey (Package Manager for Windows)

```
Set-ExecutionPolicy Bypass -Scope Process -Force;
[System.Net.ServicePointManager]::Expect100Continue = $false; iex ((New-Object
System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))
```

```
PS C:\Users\Administrator> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::Expect100Continue = $false;
iex ((New-Object System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))
Forcing web requests to allow TLS v1.2 (Required for requests to Chocolatey.org)
Getting latest version of the Chocolatey package for download.
Not using proxy.
Getting Chocolatey from https://community.chocolatey.org/api/v2/package/chocolatey/2.2.2.
Downloading https://community.chocolatey.org/api/v2/package/chocolatey/2.2.2 to C:\Users\ADMINI~1\AppData\Local\Temp\2\chocolatey\chocoIns
tall\chocolatey.zip
```

Administrator: Windows PowerShell

```
PS C:\Users\Administrator>
PS C:\Users\Administrator> choco --version
2.2.2
PS C:\Users\Administrator> _
```

## Install EKSCTL Tool

### Reference Links

- ◆ [Installation - eksctl](#)
- ◆ [Setting up to use Amazon EKS - Amazon EKS](#)

```
PS C:\Users\Administrator> choco install eksctl
Chocolatey v2.2.2
Installing the following packages:
eksctl
By installing, you accept licenses for the packages.
Progress: Downloading eksctl 0.172.0... 100%

eksctl v0.172.0 [Approved]
eksctl package files install completed. Performing other installation steps.
The package eksctl wants to run 'chocolateyInstall.ps1'.
Note: If you don't run this script, the installation will fail.
Note: To confirm automatically next time, use '-y' or consider:
choco feature enable -n allowGlobalConfirmation
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint): Y

eksctl is going to be installed in 'C:\ProgramData\chocolatey\lib\eksctl\tools'
Downloading eksctl 64 bit
  from 'https://github.com/eksctl-io/eksctl/releases/download/v0.172.0/eksctl_Windows_amd64.zip'
Progress: 100% - Completed download of C:\Users\Administrator\AppData\Local\Temp\2\chocolatey\eksctl\0.172.0\eksctl_Windows_amd64.zip (34.62 MB).
Download of eksctl_Windows_amd64.zip (34.62 MB) completed.
Hashes match.
Extracting C:\Users\Administrator\AppData\Local\Temp\2\chocolatey\eksctl\0.172.0\eksctl_Windows_amd64.zip to C:\ProgramData\chocolatey\lib\eksctl\tools...
C:\ProgramData\chocolatey\lib\eksctl\tools
ShimGen has successfully created a shim for eksctl.exe
The install of eksctl was successful.
Software installed to 'C:\ProgramData\chocolatey\lib\eksctl\tools'

Chocolatey installed 1/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

Did you know the proceeds of Pro (and some proceeds from other
licensed editions) go into bettering the community infrastructure?
Your support ensures an active community, keeps Chocolatey tip-top,
plus it nets you some awesome features!
https://chocolatey.org/compare
PS C:\Users\Administrator> _
```

Administrator: Windows PowerShell

```
PS C:\Users\Administrator>
PS C:\Users\Administrator> eksctl version
0.172.0
PS C:\Users\Administrator>
PS C:\Users\Administrator> _
```

# Install KUBECTL Tool

## Reference Links

- ◆ <https://kubernetes.io/docs/tasks/tools/install-kubect/>
- ◆ [Install and Set Up kubectl on Windows | Kubernetes](#)

```
PS C:\Users\Administrator> choco install kubernetes-cli
Chocolatey v2.2.2
Installing the following packages:
kubernetes-cli
By installing, you accept licenses for the packages.
Progress: Downloading kubernetes-cli 1.29.1... 100%

kubernetes-cli v1.29.1 [Approved]
kubernetes-cli package files install completed. Performing other installation steps.
The package kubernetes-cli wants to run 'chocolateyInstall.ps1'.
Note: If you don't run this script, the installation will fail.
Note: To confirm automatically next time, use '-y' or consider:
choco feature enable -n allowGlobalConfirmation
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint): Y

Extracting 64-bit C:\ProgramData\chocolatey\lib\kubernetes-cli\tools\kubernetes-client-windows-amd64.tar.gz to C:\ProgramData\chocolatey\lib\kubernetes-cli\tools
Extracting 64-bit C:\ProgramData\chocolatey\lib\kubernetes-cli\tools\kubernetes-client-windows-amd64.tar to C:\ProgramData\chocolatey\lib\kubernetes-cli\tools
ShimGen has successfully created a shim for kubectl-convert.exe
ShimGen has successfully created a shim for kubectl.exe
The install of kubernetes-cli was successful.
Software installed to 'C:\ProgramData\chocolatey\lib\kubernetes-cli\tools'

Chocolatey installed 1/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

Enjoy using Chocolatey? Explore more amazing features to take your
experience to the next level at
https://chocolatey.org/compare
PS C:\Users\Administrator>
```

## Administrator: Windows PowerShell

```
PS C:\Users\Administrator>
PS C:\Users\Administrator> kubectl version --client
Client Version: v1.29.1
Kustomize Version: v5.0.4-0.20230601165947-6ce0bf390ce3
PS C:\Users\Administrator>
PS C:\Users\Administrator>
```

```
PS C:\Users\Administrator> aws configure
AWS Access Key ID [None]: AKIAZEZ7WQBM5AX5WE5O
AWS Secret Access Key [None]: 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
Default region name [None]: ap-south-1
Default output format [None]: json
PS C:\Users\Administrator>
```



# Command to Provision an EKS Cluster

## For Private Subnet:

```
eksctl create cluster -r eu-central-1 --name Testing-new-k8s-cluster --version 1.25  
--nodegroup-name test-new-dev-workers --node-type t3.medium --nodes 2 --nodes-min 1  
--nodes-max 3 --vpc-private-subnets=subnet-0889f4d7b1641748d,subnet-  
0ebca37dc8f461b1d -P
```

## For Public Subnet:

```
eksctl create cluster -r ap-south-1 --name my-cluster --version 1.25 --nodegroup-  
name my-workers --node-type t2.micro --nodes 2 --nodes-min 1 --nodes-max 3 --vpc-  
public-subnets=subnet-0024e0a8b4385349c,subnet-080927fada1a41643
```

VPC dashboard X

EC2 Global View

Filter by VPC:

Select a VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

### Subnets (3) Info

Find resources by attribute or tag

	Name	Subnet ID	State	VPC
<input type="checkbox"/>	-	subnet-0024e0a8b4385349c	Available	vpc-0
<input type="checkbox"/>	-	subnet-080927fada1a41643	Available	vpc-0
<input type="checkbox"/>	-	subnet-0a795d2aa8097d873	Available	vpc-0

```
PS C:\Users\Administrator> eksctl create cluster -r ap-south-1 --name my-cluster --version 1.25 --nodegroup-name my-workers --node-type t2.micro --nodes  
2 --nodes-min 1 --nodes-max 3 --vpc-public-subnets=subnet-0024e0a8b4385349c,subnet-080927fada1a41643  
2024-02-25 07:30:08 [I] eksctl version 0.172.0  
2024-02-25 07:30:08 [I] using region ap-south-1  
2024-02-25 07:30:08 [✓] using existing VPC (vpc-0976a24a30b516395) and subnets (private:map[] public:map[ap-south-1a:{subnet-0024e0a8b4385349c ap-south-  
1a 172.31.32.0/20 0 } ap-south-1b:{subnet-080927fada1a41643 ap-south-1b 172.31.0.0/20 0 }])  
2024-02-25 07:30:08 [I] custom VPC/subnets will be used; if resulting cluster doesn't function as expected, make sure to review the configuration of VPC  
/subnets  
2024-02-25 07:30:08 [I] nodegroup "my-workers" will use "" [AmazonLinux2/1.25]  
2024-02-25 07:30:08 [I] using Kubernetes version 1.25  
2024-02-25 07:30:08 [I] creating EKS cluster "my-cluster" in "ap-south-1" region with managed nodes
```

```
2024-02-25 07:45:17 [I] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"  
2024-02-25 07:45:17 [I] waiting for the control plane to become ready  
2024-02-25 07:45:18 [✓] saved kubeconfig as "C:\\Users\\Administrator\\.kube\\config"  
2024-02-25 07:45:18 [I] no tasks  
2024-02-25 07:45:18 [✓] all EKS cluster resources for "my-cluster" have been created  
2024-02-25 07:45:18 [I] nodegroup "my-workers" has 2 node(s)  
2024-02-25 07:45:18 [I] node "ip-172-31-39-101.ap-south-1.compute.internal" is ready  
2024-02-25 07:45:18 [I] node "ip-172-31-8-252.ap-south-1.compute.internal" is ready  
2024-02-25 07:45:18 [I] waiting for at least 1 node(s) to become ready in "my-workers"  
2024-02-25 07:45:18 [I] nodegroup "my-workers" has 2 node(s)  
2024-02-25 07:45:18 [I] node "ip-172-31-39-101.ap-south-1.compute.internal" is ready  
2024-02-25 07:45:18 [I] node "ip-172-31-8-252.ap-south-1.compute.internal" is ready  
2024-02-25 07:45:18 [I] kubect command should work with "C:\\Users\\Administrator\\.kube\\config", try 'kubect get nodes'  
2024-02-25 07:45:19 [✓] EKS cluster "my-cluster" in "ap-south-1" region is ready  
PS C:\Users\Administrator>
```

# Command to Delete an EKS Cluster

Command:

```
eksctl delete cluster --name my-cluster
```

Administrator: Windows PowerShell

```
PS C:\Users\Administrator>
PS C:\Users\Administrator> eksctl delete cluster --name my-cluster
2024-02-25 07:57:02 [D] deleting EKS cluster "my-cluster"
2024-02-25 07:57:02 [D] will drain 0 unmanaged nodegroup(s) in cluster "my-cluster"
2024-02-25 07:57:02 [D] starting parallel draining, max in-flight of 1
2024-02-25 07:57:03 [D] deleted 0 Fargate profile(s)
2024-02-25 07:57:03 [✓] kubeconfig has been updated
2024-02-25 07:57:03 [D] cleaning up AWS load balancers created by Kubernetes objects of Kind Service or Ingress
2024-02-25 07:57:04 [D]
2 sequential tasks: { delete nodegroup "my-workers", delete cluster control plane "my-cluster" [async]
}
2024-02-25 07:57:04 [D] will delete stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 07:57:04 [D] waiting for stack "eksctl-my-cluster-nodegroup-my-workers" to get deleted
2024-02-25 07:57:04 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 07:57:34 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 07:58:26 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 08:00:17 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 08:02:09 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 08:03:02 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 08:04:30 [D] waiting for CloudFormation stack "eksctl-my-cluster-nodegroup-my-workers"
2024-02-25 08:04:30 [D] will delete stack "eksctl-my-cluster-cluster"
2024-02-25 08:04:30 [✓] all cluster resources were deleted
PS C:\Users\Administrator> _
```