Installing kubectl

PDF (eks-ug.pdf#install-kubectl) | RSS (doc-history.rss)

Kubernetes uses a command line utility called `kubectl` for communicating with the cluster API server. The `kubectl` binary is available in many operating system package managers, and this option is often much easier than a manual download and install process. You can follow the instructions for your specific operating system or package manager in the Kubernetes documentation (https://kubernetes.io/docs/tasks/tools/install-kubectl/) to install.

This topic helps you to download and install the Amazon EKS vended `kubectl` binaries for macOS, Linux, and Windows operating systems. Select the tab name of your operating system. These binaries are identical to the upstream community versions, and are not unique to Amazon EKS or AWS.

> **Note**
>
> You must use a `kubectl` version that is within one minor version difference of your Amazon EKS cluster control plane. For example, a 1.21 `kubectl` client works with Kubernetes 1.20, 1.21 and 1.22 clusters.

Select the tab with the name of the operating system that you want to install `kubectl` on.

macOS | **Linux** | **Windows**

To install `kubectl` on macOS

1. Download the Amazon EKS vended `kubectl` binary for your cluster's Kubernetes version from Amazon S3.
   - **Kubernetes 1.22**

     ```
     curl -o kubectl https://s3.us-west-2.amazonaws.com/amazon-eks/1.22.6/2022-03-09/bin/darwin/amd64/kubectl
     ```

   - **Kubernetes 1.21**

```
curl -o kubectl https://s3.us-west-
2.amazonaws.com/amazon-eks/1.21.2/2021-07-
05/bin/darwin/amd64/kubectl
```

- **Kubernetes 1.20**

```
curl -o kubectl https://s3.us-west-
2.amazonaws.com/amazon-eks/1.20.4/2021-04-
12/bin/darwin/amd64/kubectl
```

- **Kubernetes 1.19**

```
curl -o kubectl https://s3.us-west-
2.amazonaws.com/amazon-eks/1.19.6/2021-01-
05/bin/darwin/amd64/kubectl
```

- **Kubernetes 1.18**

```
curl -o kubectl https://s3.us-west-
2.amazonaws.com/amazon-eks/1.18.9/2020-11-
02/bin/darwin/amd64/kubectl
```

- **Kubernetes 1.17**

```
curl -o kubectl https://s3.us-west-
2.amazonaws.com/amazon-eks/1.17.12/2020-11-
02/bin/darwin/amd64/kubectl
```

2. (Optional) Verify the downloaded binary with the SHA-256 sum for your binary.
   a. Download the SHA-256 sum for your cluster's Kubernetes version for macOS.
      - **Kubernetes 1.22**

```
curl -o kubectl.sha256 https://s3.us-west-
2.amazonaws.com/amazon-eks/1.22.6/2022-03-
09/bin/darwin/amd64/kubectl.sha256
```

      - **Kubernetes 1.21**

```
curl -o kubectl.sha256 https://s3.us-west-2.amazonaws.com/amazon-eks/1.21.2/2021-07-05/bin/darwin/amd64/kubectl.sha256
```

- **Kubernetes 1.20**

```
curl -o kubectl.sha256 https://s3.us-west-2.amazonaws.com/amazon-eks/1.20.4/2021-04-12/bin/darwin/amd64/kubectl.sha256
```

- **Kubernetes 1.19**

```
curl -o kubectl.sha256 https://s3.us-west-2.amazonaws.com/amazon-eks/1.19.6/2021-01-05/bin/darwin/amd64/kubectl.sha256
```

- **Kubernetes 1.18**

```
curl -o kubectl.sha256 https://s3.us-west-2.amazonaws.com/amazon-eks/1.18.9/2020-11-02/bin/darwin/amd64/kubectl.sha256
```

- **Kubernetes 1.17**

```
curl -o kubectl.sha256 https://s3.us-west-2.amazonaws.com/amazon-eks/1.17.12/2020-11-02/bin/darwin/amd64/kubectl.sha256
```

b. Check the SHA-256 sum for your downloaded binary.

```
openssl sha1 -sha256 kubectl
```

c. Compare the generated SHA-256 sum in the command output against your downloaded SHA-256 file. The two should match.

3. Apply execute permissions to the binary.

```
chmod +x ./kubectl
```

4. Copy the binary to a folder in your `PATH`. If you have already installed a version of `kubectl`, then we recommend creating a `$HOME/bin/kubectl` and ensuring that `$HOME/bin` comes first in your `$PATH`.

```
mkdir -p $HOME/bin && cp ./kubectl $HOME/bin/kubectl
&& export PATH=$HOME/bin:$PATH
```

5. (Optional) Add the `$HOME/bin` path to your shell initialization file so that it is configured when you open a shell.

```
echo 'export PATH=$PATH:$HOME/bin' >> ~/.bash_profile
```

6. After you install `kubectl`, you can verify its version with the following command:

```
kubectl version --short --client
```