

## Lab Tools

### Objectives

Install the IBM® Cloud Private command line interface (CLI) `cloudctl`. This CLI is used to create, access, and manage ICP clusters.

**NOTICE:** Some of the following instructions utilize the '`curl`' command. If `curl` is not installed on your laptop it must first be installed to complete this lab.

Scroll to a CLI tool and desired operating system then follow the installation instructions.

## cloudctl

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### macOS

1 - Download the macOS CLI to install:

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo cloudctl-darwin-amd64-3.1.1-973 https://<ICP IP>:8443/api/cli/cloudctl-dar
```

Example file name from the above curl command:

```
22939080 Dec 27 15:22 cloudctl-darwin-amd64-3.1.1-973
```

2 - Rename the above downloaded file to `cloudctl`.

```
mv cloudctl-darwin-amd64-3.1.1-973 cloudctl
```

3 - Make the `kubectl` binary executable.

```
chmod +x ./cloudctl
```

4 - Move the binary in to your `PATH`.

```
sudo mv ./cloudctl /usr/local/bin/cloudctl
```



## Linux

1 - Download the Linux CLI to install:

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo cloudctl-linux-amd64-3.1.1-973 https://<ICP IP>:8443/api/cli/cloudctl-linu
```

Example file name from the above curl command:

```
20504064 Dec 27 16:22 cloudctl-linux-amd64-3.1.1-973
```

2 - Rename the above downloaded file to kubect1.

```
mv cloudctl-linux-amd64-3.1.1-973 cloudctl
```

3 - Make the kubect1 binary executable.

```
chmod +x ./cloudctl
```

4 - Move the binary in to your PATH.

```
sudo mv ./cloudctl /usr/local/bin/cloudctl
```



## Windows

1 - Download the Windows CLI to install.

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo cloudctl-win-amd64-3.1.1-973.exe https://<ICP IP>:8443/api/cli/cloudctl-wi
```

Example file name from the above curl command:

2 - Run the above file to install the CLI on the Windows system.

3 - Add the binary in to your PATH.

## Verify the CLI is installed

From a terminal or command prompt enter:

```
kubectl version
```

Example output:

```
Client Version: 3.1.1-973+c18caee2d82dc45146f843cb82ae7d5c28da7bc7
Server Version: 3.1.1-973+c18caee2d82dc45146f843cb82ae7d5c28da7bc7
```

## docker

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**macOS**

Click this [link](#) and follow the official docker instructions.



**Linux**

- Centos - Click this [link](#) and follow the official docker instructions.
- Debian - Click this [link](#) and follow the official docker instructions.
- Fedora - Click this [link](#) and follow the official docker instructions.

- Ubuntu - Click this [link](#) and follow the official docker instructions.



**Windows**

Click this [link](#) and follow the official docker instructions.

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## Verify docker CLI is installed

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From a terminal or command prompt enter:

```
docker version
```

Example output:

```
Client: Docker Engine - Community
 Version:           18.09.0
 API version:       1.39
 Go version:        go1.10.4
 Git commit:        4d60db4
 Built:             Wed Nov  7 00:47:43 2018
 OS/Arch:           darwin/amd64
 Experimental:      false

Server: Docker Engine - Community
 Engine:
  Version:           18.09.0
  API version:       1.39 (minimum version 1.12)
  Go version:        go1.10.4
  Git commit:        4d60db4
  Built:             Wed Nov  7 00:55:00 2018
  OS/Arch:           linux/amd64
  Experimental:      true
```

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## kubect



## macOS

### Kubernetes web site

Use instructions from official Kubernetes [site](#)

### Download from ICP site using curl

1 - Download the macOS CLI to install:

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo kubectldarwinamd64v1.11.1 https://<ICP IP>:8443/api/cli/kubectldarwin-
```

Example file name from the above curl command:

```
54925568 Dec 27 15:24 kubectldarwinamd64v1.11.1
```

2 - Rename the above downloaded file to kubectl.

```
mv kubectldarwinamd64v1.11.1 kubectl
```

3 - Make the kubectl binary executable.

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

4 - Move the binary in to your PATH.

```
sudo mv ./kubectl /usr/local/bin/kubectl
```



## Linux

1 - Download the Linux CLI to install:

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo kubectllinuxamd64v1.11.1 https://<ICP IP>:8443/api/cli/kubectllinux-am
```

Example file name from the above curl command:

```
55400930 Dec 27 16:19 kubectl-linux-amd64-v1.11.1
```

2 - Rename the above downloaded file to kubectl.

```
mv kubectl-linux-amd64-v1.11.1 kubectl
```

3 - Make the kubectl binary executable.

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

4 - Move the binary in to your PATH.

```
sudo mv ./kubectl /usr/local/bin/kubectl
```



**Windows**

1 - Download the Windows CLI to install.

Replace with the IP address of the IBM Cloud Private instance from where the CLI will be obtained.

```
curl -kLo kubectl-win-amd64-v1.11.1.exe https://<ICP IP>:8443/api/cli/kubectl-win-amd64-v1.11.1.exe
```

Example file name from the above curl command:

```
55672320 Dec 27 16:20 kubectl-win-amd64-v1.11.1.exe
```

2 - Run the above file to install the CLI on the Windows system.

3 - Add the binary in to your PATH.

## Verify the CLI is installed

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From a terminal or command prompt enter:

```
kubectl version
```

Example output:

```
Client Version: version.Info{Major:"1", Minor:"11", GitVersion:"v1.11.1", GitCommit:"b1b29978270dc22fecc592ac55d903350454310a", GitTreeState:"clean", BuildDate:"2018-07-17T18:53:20Z", GoVersion:"go1.10.3", Compiler:"gc", Platform:"darwin/amd64"}
error: You must be logged in to the server (the server has asked for the client to provide credentials)
```

Once logged in an authenticated with a kubernetes cluster the error portion of the above message will not be shown.

```
////////////////////////////////////
```

## Hint Lab Tools

No hint available for this lab.

```
////////////////////////////////////
```

## Answer Lab Tools

Ensure CLI tools are installed.

Confirm Tools complete

```
////////////////////////////////////
```