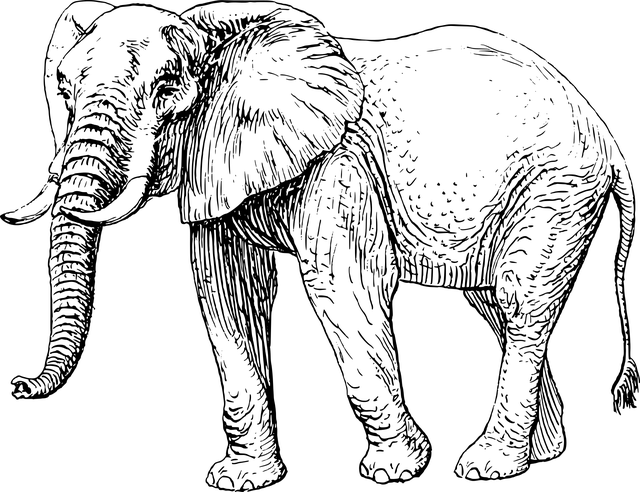
Moja Reporting Tool

ENVIRONMENT SETUP GUIDE

02 December 2020



# 

# Introduction

This document provides a step by step guide for setting up the Reporting Tool System Environment

# Prerequisites

This chapter highlights the requirements for setting up the Reporting Tool:

|  | Requirements | |
| --- | --- | --- |
| 1. | Hardware | |
| 1.1. | Processor | Intel Core i7, with Virtualization Support |
| 1.2. | RAM | 16GB |
| 1.3. | Hard Drive | 1TB, SSD |
| 2. | Software | |
| 2.1. | Ubuntu Server | 20.04 LTS |
| 2.2. | GIT | 2.17.1, Minimum |
| 2.3. | Nano Text Editor | 2.9.3, Minimum |
| 3. | Other | |
| 3.1. | Github Account | The account should have a valid Personal Access Token |
| The account should have access to the Reporting Tool repository |

## 

# Environment Setup

This chapter highlights how to prepare the environment for the deployment of the Reporting Tool system.

## Scripts

The Reporting Tool system has a collection of scripts that have been designed for use in the setup of its environment. In the chapter on Environment Setup, we discuss the usage of these scripts in setting up a Reporting Tool environment. We recommend that the operator downloads and familiarizes themselves with these scripts.

The download instructions are as given below:

| 💡 | Please note that it is assumed that the operator has a Github Account with access to the scripts repository and a Personal Access Token set up |
| --- | --- |

| 1. In the target installation server, open a shell session and clone the setup scripts into the administrative user's home directory: | |
| --- | --- |
| cd ~ && \  git clone \  --recursive \  --depth 1 \  -b MASTER \  https://<Personal\_Access\_Token>@github.com/Reporting Tool/scripts.git scripts | |
| * Please see “[Creating a personal access token for the command line”](https://help.github.com/en/github/authenticating-to-github/creating-a-personal-access-token-for-the-command-line) for more information on personal access tokens | |

| 2. Once the cloning is complete, please confirm that you can see a non-empty directory named environment under the scripts directory: | |
| --- | --- |
| cd ~/scripts && ls -l | |
| * This will see to it that the subsequent RUN commands are executed from this directory. | |

## 

## Summary Of Tasks

|  | Environment Setup Task | |
| --- | --- | --- |
| 1. | System Environment | |
| 1.1. | Update /etc/environment file | |
| 1.2. | Update /etc/hosts file | |
| 2. | Security Environment | |
| 2.1. | Set up SSL files | |
| 3. | Java Environment | |
| 3.1. | Install JDK | |
| 3.2. | Install Maven | |
| 4. | NodeJS Environment | |
| 4.1. | Install NodeJS | |
| 4.2. | Install NPM | |
| 4.3. | Install Angular CLI | |
| 4.4. | Install Meta | |
| 5. | Docker Environment | |
| 5.1. | Install Docker Engine | |
| 5.2. | Install Docker Compose | |
| 5.3. | Install Docker Registry | |
| 6. | Kubernetes Environment | |
| 6.1. | Install Kubernetes | |
| 6.2. | Create Kubernetes Cluster | |
| 6.3. | Add Docker Registry Secret to the cluster | |
| 6.4. | Add Weavenet to the cluster | |
| 6.5. | Add Helm to the cluster | |
| 6.6. | Add Traefik to the cluster | |
| 6.7. | Add Storage Volumes to the cluster | |

| 6.8. | Add PostgreSQL to the cluster | |
| --- | --- | --- |
| 6.9. | Add Cassandra to the cluster | |
| 6.10 | Add RabbitMQ to the cluster | |

## 

## System Environment Setup

### 1.1. Update the /etc/environment file

Follow the instructions below to ready the /etc/environment file for the system installation:

| 1.1.1. Open the /etc/environment file: | |
| --- | --- |
| sudo nano /etc/environment | |

| 1.1.2. Add the followings environment variables to the /etc/environment file: | |
| --- | --- |
| export HOST\_NAME="<kubernetes.machine.name>"  export API\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  export POSTGRESQL\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  export RABBITMQ\_SERVER\_HOST\_NAME="<rabbitmq.reportingtool.org>"  export REGISTRY\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  export TRAEFIK\_SERVER\_HOST\_NAME="<traefik.reportingtool.org>" | |
| * Please remember to replace the sections in angular brackets with actual values * HOST\_NAME should match one of the hostnames in “kubectl get nodes” | |

| 1.1.3. Press Ctrl + X button and the enter Y to save the updates: | |
| --- | --- |

| 1.1.4. Reload the /etc/environment file: | |
| --- | --- |
| . /etc/environment | |

### 1.2. Update the /etc/hosts file

Follow the instructions that follow to ready the /etc/hosts file for the system installation:

| 1.2.1. Open the /etc/hosts file: | |
| --- | --- |
| sudo nano /etc/hosts | |

| 1.2.2. Add the followings hosts line to the /etc/hosts file: | |
| --- | --- |
| <10.118.16.9> <cloud.reportingtool.org> <rabbitmq.reportingtool.org> <traefik.reportingtool.org> | |
| * Please remember to replace the sections with angular brackets with actual values * Please note that this assumes that the cloud, rabbitmq and traefik are all on a single server | |

| 1.2.3. Press Ctrl + X button and the enter Y to save the updates: | |
| --- | --- |

| 1.2.4. Reload the /etc/hosts file: | |
| --- | --- |
| . /etc/hosts | |

### 1.3. Install jq

jq is a lightweight and flexible command-line JSON processor.

Follow the instructions that follow to install it on your system

| sudo apt-get install jq | |
| --- | --- |

## Security Environment Setup

### 2.1. SSL Files Setup

#### 2.1.2. Where SSL Files already exist (Preferable)

If the server has an official key and a certificate that has been signed by a public CA, proceed as follows:

|  | File | Preparation |
| --- | --- | --- |
| 2.1.2.1. | CA Certificate | Copy it to the server root (/) folder and rename it as ca.crt |
| 2.1.2.2. | Server Key | Copy it to the server root (/) folder and rename it as server.key |
| 2.1.2.3. | Server Certificate | Copy it to the server root (/) folder and rename it as server.crt |

#### 

#### 2.1.3. Where SSL Files do not already exist

If the server has no official key or certificate that has been signed by a public CA, proceed as follows:

| 2.1.3.1. Navigate to the openssl scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/openssl | |

| 2.1.3.2. Invoke the generate keys and certificates script: | |
| --- | --- |
| ./generate\_keys\_and\_certificates.sh | |

2.1.3.2. Follow the wizards instructions:

| 💡 | Should you come across the following error: "Can't load /root/.rnd into RNG", please follow the  Instructions below: |
| --- | --- |

| a). Clear any file that might have been generated by the script | |
| --- | --- |
| sudo rm /\*.key && sudo rm /\*.cnf && sudo rm /\*.crt | |

| b). Create the /root/.rnd file file | |
| --- | --- |
| sudo touch /root/.rnd | |

c). Rerun the instructions above

## Java Environment Setup

### 3.1. Install JDK

Follow the instructions below to install the JDK:

| 3.1.1. Navigate to the jdk scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/jdk | |

| 3.1.2. Invoke the jdk installation script: | |
| --- | --- |
| ./install\_jdk.sh | |

### 3.2. Install Apache Maven

Follow the instructions below to install Maven:

| 3.2.1. Navigate to the maven scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/maven | |

| 3.2.2. Invoke the maven installation script: | |
| --- | --- |
| ./install\_maven.sh | |

## NodeJS Environment Setup

### 4.1. Install NodeJS

Follow the instructions below to install the NodeJS:

| 4.1.1. Navigate to the nodejs scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/nodejs | |

| 4.1.2. Invoke the nodejs installation script: | |
| --- | --- |
| ./install\_nodejs.sh | |

### 4.2. Install NPM

Follow the instructions below to install NPM:

| 4.2.1. Navigate to the npm scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/npm | |

| 4.2.2. Invoke the npm installation script: | |
| --- | --- |
| ./install\_npm.sh | |

### 4.3. Install Angular

Follow the instructions below to install Angular:

| 4.3.1. Navigate to the angular scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/angular | |

| 4.3.2. Invoke the angular installation script: | |
| --- | --- |
| ./install\_angular.sh | |

### 4.4. Install Meta

Follow the instructions below to install Meta:

| 4.41. Navigate to the meta scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/meta | |

| 4.4.2. Invoke the meta installation script: | |
| --- | --- |
| ./install\_meta.sh | |

## Docker Environment Setup

### 5.1. Install Docker Engine

Follow the instructions below to install Docker Engine CE:

| 5.1.1. Navigate to the docker scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker | |

| 5.1.2. Invoke the docker installation script: | |
| --- | --- |
| ./install\_docker.sh | |

### 5.2. Install Docker Compose

Follow the instructions below to install Docker Compose:

| 5.2.1. Navigate to the docker-compose scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker/compose | |

| 5.2.2. Invoke the docker-compose installation script: | |
| --- | --- |
| ./install\_docker\_compose.sh | |

### 5.3. Install Docker Registry

Follow the instructions below to install Docker Registry:

| 💡 | If you have Let's Encrypt SSL Set Up, please update the ssl section in ~/scripts/environment/docker/registry/registry.conf to the following specifications:  ssl on;  ssl\_certificate /etc/letsencrypt/live/cloud.reportingtool.org/fullchain.pem;  ssl\_certificate\_key /etc/letsencrypt/live/cloud.reportingtool.org/privkey.pem;  (assuming of course that the system’s domain is: cloud.reportingtool.org) |
| --- | --- |

| 5.3.1. Navigate to the docker-registry scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker/registry | |

| 5.3.2. Invoke the docker-registry installation script: | |
| --- | --- |
| ./install\_docker\_registry.sh | |

## Kubernetes Environment Setup

### 6.1. Install Kubernetes

Follow the instructions below to install Kubernetes:

| 6.1.1. Navigate to the kubernetes scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes | |

| 6.1.2. Invoke the kubernetes installation script: | |
| --- | --- |
| ./install\_kubernetes.sh | |

### 6.2. Create Kubernetes Cluster

Follow the instructions below to create a Kubernetes cluster:

| 6.2.1. Navigate to the kubernetes-cluster scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes/cluster | |

| 6.2.2. Invoke the kubernetes-cluster initialization script: | |
| --- | --- |
| ./initialize\_kubernetes\_cluster.sh | |
| If you see “/var/lib/etcd is not empty” error, run kubeadm reset and remove the /var/lib/etcd as kubeadm is expecting it to be empty. See: <https://github.com/kubernetes/kubernetes/issues/53356> | |
| If you see error execution phase preflight: [preflight] Some fatal errors occurred:  [ERROR Port-10259]: Port 10259 is in use  [ERROR Port-10257]: Port 10257 is in use  [ERROR Port-10250]: Port 10250 is in use  Please check if you have another kubernetes instance e.g minikube installed. If not:   1. Run sudo netstat -tupln | grep 1025 2. Run sudo kill <pid> (to kill the processes that are using the ports) 3. Invoke the command again   See: <https://github.com/kubernetes/kubeadm/issues/339> | |

### 6.3. Add Docker Registry Secret to the Cluster

Follow the instructions below to add Docker Registry secret to the cluster:

| 6.3.1. Navigate to the kubernetes-cluster-secrets scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes/secrets | |

| 6.3.2. Invoke the add private docker registry secret script: | |
| --- | --- |
| ./add\_private\_docker\_registry\_secret.sh | |

### 6.4. Add Weavenet to the Cluster

Follow the instructions below to add Weavenet to the cluster:

| 6.41. Navigate to the weavenet scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/weavenet | |

| 6.4.2. Invoke the meta installation script:   | 💡 | Before installing the following script, please open the install\_weavenet.sh file and make sure that weavenet’s IP Allocation Range is not within the server’s IP Allocation range | | --- | --- | | |
| --- | --- | --- | --- |
| ./install\_weavenet.sh | |

| 💡 | Before proceeding, wait for weavenet to start: run “ls” and make sure that the weavenet / coredns services have a running status |
| --- | --- |

### 6.5. Install Helm

Follow the instructions below to install Helm:

| 6.5.1. Navigate to the helm scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/helm | |

| 6.5.2. Invoke the helm installation script: | |
| --- | --- |
| ./install\_helm.sh | |

### 6.6. Add Traefik to the Cluster

Follow the instructions below to add Traefik to the cluster:

| 6.6.1. Navigate to the traefik scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/traefik | |

| 💡 | Before executing the next step, make sure you have the correct external IP set up. Open the values.yaml file e.g by typing sudo nano ./values.yaml and go to the line that says externalIPs then modify it as is appropriate to something like this:  externalIPs:  - 192.168.100.4 *(where 192.168.100.4 is your external IP)* |
| --- | --- |

| 6.6.2. Invoke the traefik installation script: | |
| --- | --- |
| ./install\_traefik.sh | |

### 6.7. Add Storage Volumes to the Cluster

Follow the instructions below to add local storage volumes to the cluster:

| 💡 | Before starting, make sure you have a directory named /mnt/disks. If not, create it by running sudo mkdir -p /mnt/disks. This will be the target location for the local storage |
| --- | --- |

| 6.7.1. Navigate to the kubernetes local storage scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes/storage | |

| 6.7.2. Reload the environmental variables: | |
| --- | --- |
| . /etc/environment | |
| * This will help pull the correct host name if set as a variable and prevent node affinity errors   See [1.1. Update the /etc/environment file](#_v1cuaujfhjcj) | |

| 6.7.3. Invoke the local storage volumes installation script: | |
| --- | --- |
| ./install\_storage\_volumes.sh | |

### 6.**8. Add** PostgreSQL **to the Cluster**

Follow the instructions below to add PostgreSQL to the cluster:

| 6.8.1. Navigate to the PostgreSQL setup scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/postgres | |

| 6.8.2. Invoke the postgres installation script: | |
| --- | --- |
| ./install\_postgres.sh | |

# 

### 6.8. Add Cassandra to the Cluster

Follow the instructions below to add Cassandra to the cluster:

| 6.8.1. Navigate to the postgres setup scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/cassandra | |

| 6.8.2. Invoke the postgres installation script: | |
| --- | --- |
| ./install\_cassandra.sh | |

### 

### 6.10. Add RabbitMQ to the Cluster

Follow the instructions below to add RabbitMQ to the cluster:

| 6.10.1. Navigate to the rabbitmq scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/rabbitmq | |

| 6.10.2. Invoke the rabbitmq installation script: | |
| --- | --- |
| ./install\_rabbitmq.sh | |

# 

# Environment Cleanup

This chapter highlights how to destroy an environment that was previously set up for a Reporting Tool system.

## Scripts

The Reporting Tool system has a collection of scripts that have been designed for use in the teardown of its environment. In the chapter on Environment Teardown, we discuss the usage of these scripts in destroying a Reporting Tool environment. Before then it is important that the operator downloads and familiarizes themselves with the scripts.

The download instructions are as given below:

| 💡 | Please note that it is assumed that the operator has a Github Account with access to the scripts repository and a Personal Access Token set up |
| --- | --- |

| 1. In the target uninstallation server, open a shell session and clone the setup scripts into the administrative user's home directory: | |
| --- | --- |
| cd ~ && \  git clone \  --recursive \  --depth 1 \  -b MASTER \  https://<Personal\_Access\_Token>@github.com/Reporting Tool/scripts.git scripts | |
| * Please see “[Creating a personal access token for the command line”](https://help.github.com/en/github/authenticating-to-github/creating-a-personal-access-token-for-the-command-line) for more information on personal access tokens | |

| 2. Once the cloning is complete, please confirm that you can see a non-empty directory named environment under the scripts directory: | |
| --- | --- |
| cd ~/scripts && ls -l | |
| * This will see to it that the subsequent RUN commands are executed from this directory. | |

## 

## Summary Of Tasks

|  | Environment Cleanup Task | |
| --- | --- | --- |
| 1. | System Environment | |
| 1.1. | Clean up /etc/environment file | |
| 1.2. | Clean up /etc/hosts file | |
| 2. | Security Environment | |
| 2.1. | Clean up SSL files | |
| 3. | Java Environment | |
| 3.1. | Uninstall Maven | |
| 3.2. | Uninstall JDK | |
| 4. | NodeJS Environment | |
| 4.1. | Uninstall Meta | |
| 4.2. | Uninstall Angular CLI | |
| 4.3. | Uninstall NPM | |
| 4.4. | Uninstall NodeJS | |
| 5. | Docker Environment | |
| 5.1. | Uninstall Docker Registry | |
| 5.2. | Uninstall Docker Compose | |
| 5.3. | Uninstall Docker Engine | |
| 6. | Kubernetes Environment | |
| 6.1. | Reset Kubernetes Cluster | |
| 6.2. | Remove Storage Volumes | |
| 6.3. | Uninstall Kubernetes | |

## System Environment Cleanup

### 1.1. Clean the /etc/environment file

Follow the instructions below to clear /etc/environment file changes:

| 1.1.1. Open the /etc/environment file: | |
| --- | --- |
| sudo nano /etc/environment | |

| 1.1.2. Remove the following lines from the /etc/environment file: | |
| --- | --- |
| API\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  POSTGRESQL\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  RABBITMQ\_SERVER\_HOST\_NAME="<rabbitmq.reportingtool.org>"  REGISTRY\_SERVER\_HOST\_NAME="<cloud.reportingtool.org>"  TRAEFIK\_SERVER\_HOST\_NAME="<traefik.reportingtool.org>" | |
| * Please remember to replace the sections in angular brackets with actual values | |

| 1.1.3. Press Ctrl + X button and the enter Y to save the updates: | |
| --- | --- |

| 1.1.4. Reload the /etc/environment file: | |
| --- | --- |
| . /etc/environment | |

### 1.2. Clean the /etc/hosts file

Follow the instructions below to clear /etc/hosts file changes:

| 1.2.1. Open the /etc/hosts file: | |
| --- | --- |
| sudo nano /etc/hosts | |

| 1.2.2. Remove the followings hosts line from the /etc/hosts file: | |
| --- | --- |
| <10.118.16.9> <cloud.reportingtool.org> <rabbitmq.reportingtool.org> <traefik.reportingtool.org> | |
| * Please remember to replace the sections with angular brackets with actual values * Please note that this assumes that the cloud, rabbitmq and traefik are all on a single server | |

| 1.2.3. Press Ctrl + X button and the enter Y to save the updates: | |
| --- | --- |

| 1.2.4. Reload the /etc/hosts file: | |
| --- | --- |
| . /etc/hosts | |

## Security Environment Cleanup

### 2.1. SSL Files Setup

Follow the instructions below to clear security environment changes:

2.1.1.. Clear all files that might have been generated by the script

| sudo rm /\*.key && sudo rm /\*.cnf && sudo rm /\*.crt | |
| --- | --- |
| * Please be careful not to delete your official security files if they exist in the root folder | |

## Java Environment Cleanup

### 3.1. Uninstall Apache Maven

Follow the instructions below to uninstall Maven:

| 3.1.1. Navigate to the maven scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/maven | |

| 3.1.2. Invoke the maven uninstallation script: | |
| --- | --- |
| ./uninstall\_maven.sh | |

### 3.2. Uninstall JDK

Follow the instructions below to uninstall the JDK:

| 3.2.1. Navigate to the jdk scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/jdk | |

| 3.2.2. Invoke the jdk uninstallation script: | |
| --- | --- |
| ./uninstall\_jdk.sh | |

## NodeJS Environment Cleanup

### 4.1. Uninstall Meta

Follow the instructions below to uninstall Meta:

| 4.1.1. Navigate to the meta scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/meta | |

| 4.1.2. Invoke the meta uninstallation script: | |
| --- | --- |
| ./uninstall\_meta.sh | |

### 4.2. Uninstall Angular

Follow the instructions below to uninstall Angular:

| 4.2.1. Navigate to the angular scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/angular | |

| 4.2.2. Invoke the angular uninstallation script: | |
| --- | --- |
| ./uninstall\_angular.sh | |

### 4.3. Uninstall NPM

Follow the instructions below to uninstall NPM:

| 4.3.1. Navigate to the npm scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/npm | |

| 4.3.2. Invoke the npm uninstallation script: | |
| --- | --- |
| ./uninstall\_npm.sh | |

### 

### 4.4. Uninstall NodeJS

Follow the instructions below to uninstall the NodeJS:

| 4.4.1. Navigate to the nodejs scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/nodejs | |

| 4.4.2. Invoke the nodejs uninstallation script: | |
| --- | --- |
| ./uninstall\_nodejs.sh | |

## Docker Environment Cleanup

### 

### 5.1. Uninstall Docker Registry

Follow the instructions below to uninstall Docker Registry:

| 5.1.1. Navigate to the docker-registry scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker-registry | |

| 5.1.2. Invoke the docker-registry uninstallation script: | |
| --- | --- |
| ./uninstall\_docker\_registry.sh | |

### 5.2. Uninstall Docker Compose

Follow the instructions below to uninstall Docker Compose:

| 5.2.1. Navigate to the docker-compose scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker-compose | |

| 5.2.2. Invoke the docker-compose uninstallation script: | |
| --- | --- |
| ./uninstall\_docker\_compose.sh | |

### 5.3. Uninstall Docker Engine

Follow the instructions below to uninstall Docker Engine CE:

| 5.3.1. Navigate to the docker scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/docker | |

| 5.3.2. Invoke the docker uninstallation script: | |
| --- | --- |
| ./uninstall\_docker.sh | |

## Kubernetes Environment Cleanup

### 6.1. Reset Kubernetes Cluster

Follow the instructions below to create a Kubernetes cluster:

| 6.2.1. Navigate to the kubernetes-cluster scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes-cluster | |

| 6.2.2. Invoke the kubernetes-cluster reset script: | |
| --- | --- |
| ./reset\_kubernetes\_cluster.sh | |

### 6.2. Remove Storage Volumes

Follow the instructions below to remove local storage directories:

| 6.2.1. Navigate to the kubernetes local storage scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes-cluster-local-storage | |

| 6.3.2. Invoke the local storage volumes uninstallation script: | |
| --- | --- |
| ./uninstall\_storage\_volumes.sh | |

### 6.1. Uninstall Kubernetes

Follow the instructions below to uninstall Kubernetes:

| 6.1.1. Navigate to the kubernetes scripts directory on the server: | |
| --- | --- |
| cd ~/scripts/environment/kubernetes | |

| 6.1.2. Invoke the kubernetes uninstallation script: | |
| --- | --- |
| ./uninstall\_kubernetes.sh | |

# Abbreviations

| **Abbreviation** | **Meaning** |
| --- | --- |
| CA | Certificate Authority |
| CE | Community Edition |
| CPU | Central Processing unit |
| HW | Hardware |
| JDK | Java Development Kit |
| OS | Operating System |
| RAM | Random Access Memory |
| SSH | Secure Shell |
| SSL | Secure Sockets Layer |
| TCP | Transmission Control Protocol |

# 