Création d'un cluster K8S sur proxmox

Création de 3 VMS en désactivant le SWAP

1. $ free -h.
2. $ sudo swapoff -a.
3. $ sudo nano /etc/fstab.
4. # /dev/sda3 none swap sw 0 0.
5. $ sudo swapoff -a.

Installation des outils

1. Update the `apt` package index and install packages needed to use the Kubernetes `apt` repository:

   ```
   sudo apt-get update
   sudo apt-get install -y apt-transport-https ca-certificates curl gpg
   ```

2. Download the public signing key for the Kubernetes package repositories. The same signing key is used for all repositories so you can disregard the version in the URL:

   ```
   curl -fsSL https://pkgs.k8s.io/core:/stable:/v1.29/deb/Release.key | sudo gpg --dearmor -o /etc/apt/keyrings/kubernetes-apt-keyring.gpg
   ```

   Note: In releases older than Debian 12 and Ubuntu 22.04, folder `/etc/apt/keyrings` does not exist by default, and it should be created before the curl command.

3. Add the appropriate Kubernetes `apt` repository. If you want to use Kubernetes version different than v1.29, replace v1.29 with the desired minor version in the command below:

   ```
   echo 'deb [signed-by=/etc/apt/keyrings/kubernetes-apt-keyring.gpg]
   https://pkgs.k8s.io/core:/stable:/v1.29/deb/ /' | sudo tee /etc/apt/sources.list.d/kubernetes.list
   ```

   Note: To upgrade kubectl to another minor release, you'll need to bump the version in `/etc/apt/sources.list.d/kubernetes.list` before running `apt-get update` and `apt-get upgrade`. This procedure is described in more detail in Changing The Kubernetes Package Repository.

4. Update `apt` package index, then install kubectl:

```
sudo apt-get update
sudo apt-get install -y docker.io kubelet kubeadm kubectl kubernetes-cni
```

```
containerd config default | sudo tee /etc/containerd/config.toml >/dev/null 2>&1
```

Edit the file '/etc/containerd/config.toml' and look for the section '[plugins."io.containerd.grpc.v1.cri".containerd.runtimes.runc.options]' and change 'SystemdCgroup = false' to 'SystemdCgroup = true'

```
$ sudo vi /etc/containerd/config.toml
```

Enable-SystemCgroup-Containerd-Debain12

Save and exit the file.

reboot

Initialisation du kube

Sur le noeud 1

```
kubeadm init
```

To start interacting with cluster, run following commands on master node,

```
$ mkdir -p $HOME/.kube
$ sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
$ sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

Run following kubectl command to get nodes and cluster information,

```
$ kubectl get nodes
$ kubectl cluster-info
```

Output of above commands

Ajout de nodes dans le kube

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