Step by Step BigBang DSOP Deployment

Deploying Big Bang is a two stage operation.

- Stage 1: Deployment of an RKE2 cluster (**DSOP-RKE2**)
- Stage 2: Deployment of Big Bang on the RKE2 cluster created in stage 1 (**DSOP-ENVIRONMENT**)

Stage 1: Deployment of an RKE2 cluster (**DSOP-RKE2**)

- Repository: https://azure-ecosystem.visualstudio.com/Azure%20Gov%20Engineering/_git/dsop-rke2

Following tools required for the dsop-rke2:

Terraform	○ https://www.techrepublic.com/article/how-to-install-terraform-on-ubuntu-server/ ○ wget https://releases.hashicorp.com/terraform/1.0.1/terraform_1.0.1_linux_amd64.zip ○ sudo apt-get install zip -y ○ unzip terraform*.zip ○ sudo mv terraform /usr/local/bin
Chocolatey	https://chocolatey.org/install
JQ	https://www.educba.com/linux-jq/ Install JQ: (JQ is a lightweight and flexible command-line JSON processor) ○ **chocolatey install jq**
Kubectl	https://kubernetes.io/docs/tasks/tools/install-kubectl-windows/

Follow the below steps to install dsop-rke2:

Step1	git clone https://azure-ecosystem.visualstudio.com/Azure%20Gov%20Engineering/_git/dsop-rke2
Step2	○ cd example ○ Copy `terraform.tfvars.sample` to `terraform.tfvars` ○ Change `cluster_name` and other settings, but most can be left as the defaults ○ Example: cluster_name = "rke2-csu-example" ○ Make sure the following set to true ○ # Connectivity options ○ server_public_ip = true ○ server_open_ssh_public = true
Step3	○ Run `terraform init` ○ Run `terraform apply -auto-approve`
Step4	○ sudo apt install jq ○ sudo apt-get update ○ terraform output -raw kv_name ○ KV_NAME=${1:-$(terraform output -raw kv_name)} ○ echo $KV_NAME ○ source ../scripts/fetch-kubeconfig.sh ○ FILE=$(realpath rke2.kubeconfig) ○ echo $FILE ○ az keyvault secret show --name kubeconfig --vault-name $KV_NAME | jq -r '.value' > $FILE ○ export KUBECONFIG=$PWD/rke2.kubeconfig ○ echo $KUBECONFIG
Step5	Download the Private Key ○ az keyvault secret show --name node-key --vault-name rke2-bc-example-yj0 | jq -r '.value' > rke2.priv_key ○ type rke2.priv_key

Step6	Execute the following command from terraform state folder.. Run `source ../scripts/fetch-kubeconfig.sh` (script creates the file --> rke2.kubeconfig)
Step7	○ chmod 400 rke2.priv_key ○ ssh rke2@52.245.251.153 -p 5001 -i rke2.priv_key ○ kubectl get nodes ○ kubectl get nodes -A

Stage 2: Deployment of Big Bang on the RKE2 cluster created in stage 1 (**DSOP-ENVIRONMENT**)

1) **DSOP-ENVIRONMENT Repo:**

https://azure-ecosystem.visualstudio.com/Azure%20Gov%20Engineering/_git/dsop-environment

2) **Setup Instructions:** Readme file contains step by step instructions for the PlatformOne DSOP installation…

https://azure-ecosystem.visualstudio.com/Azure%20Gov%20Engineering/_git/dsop-environment?path=/readme.md