Prepare a independence server (call it as support server in this doc)

* + Install docker and docker-compose
  + Install gradle command on that server
  + This server can be accessible from ICP cluster

1. **Setup Docker Repository with Harbor** **(on support server)**

<https://github.com/goharbor/harbor/blob/master/docs/installation_guide.md>

        Quick Setup:

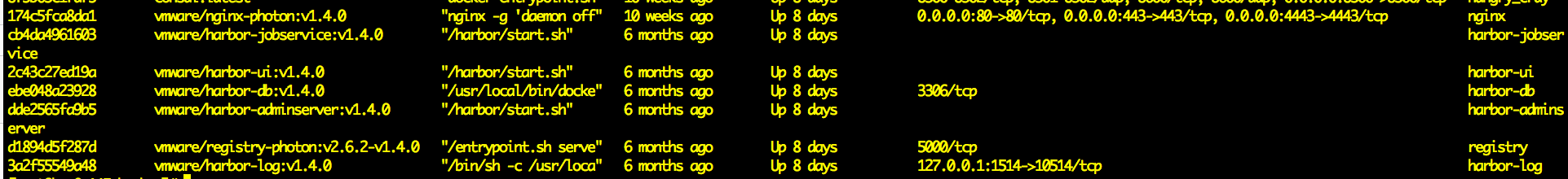
          1) Unzip package ( online or offline is okay, dependence on your server's network condition )

          2) Edit /harbor/harbor.cfg

                   \* set "hostname" to current server ip address

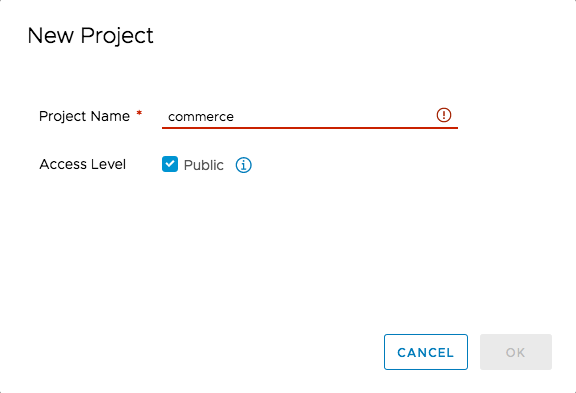
                   \* set "ui\_url\_protocol" to http

          3) Run /harbor/install.sh and waiting all docker start up success

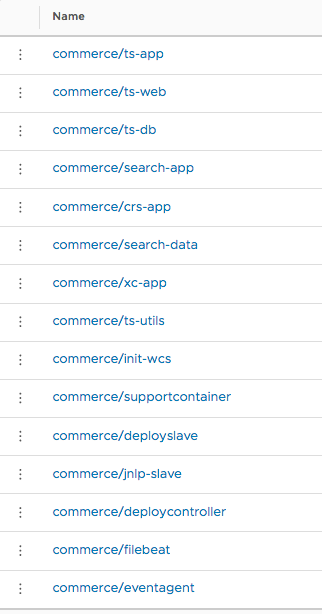


4) Access Harbor with url <http://IP_Address/harobr> ( admin/Harbor12345 )

5) Create a new project named as “commerce”



6) Upload All Commerce Docker Images



7) Make sure all Kubernetes node can pull docker image from Docker Harbor ( On all ICP Node )

* Add docker repository as insecurity mode
* Restart docker daemon
* Try to pull docker image from docker repository

1. Setup Nexus **(on support server)**

<https://hub.docker.com/r/sonatype/nexus/>

1. docker run -d -p 8081:8081 --name nexus sonatype/nexus
2. access nexus with url <http://IP_Address:8081/nexus> ( admin/admin123 )

1. Package customization package upload to Nexus **(on support server)**

* Create build.gradle file with below content

apply plugin: "maven"

apply plugin: "maven-publish"

publishing{

repositories {

maven {

url "http://<Nexus\_IP\_Address>:8081/nexus/content/repositories/releases"

credentials {

username 'admin'

password 'admin123'

}

}

}

publications {

zip(MavenPublication) {

groupId 'commerce.demo'

artifactId '<component\_name>'

version '<valida\_version>'

artifact '<path\_of\_customization\_package>/xxx.zip'

}

}

}

component\_name: search-app / ts-app / crs-app

version: you can name is as the data e.g 20181015

artifact: absolute path of zip package

* Run gradle command to publish package to Nexus

#> gradle publish

Run this command on the same directory with build.gradle

1. Setup the helm repository ( On ICP Master Node )

https://github.com/IBM/wc-helmchart/tree/master/WCSDevOps

The Quick way to setup Helm Charts Repository is leverage the Helm Client ( You can get help by run helm serve --help )

1. Logon Server Witch has installed Helm Client
2. Create Folder "HelmChartsRepo"
3. Upload Commerce V9 Helm Chart package "WCSV9" to ./HelmChartsRepo
4. Run Helm package command to package "WCSV9" folder

helm pacakge WCSV9

1. Run command to start Helm Serve service: helm serve --repo-path ./HelmChartsRepo --address ServerIPAddress:8879 ( replace the ServerIPAddress with real IP )

When you finish all steps you will see WCSV9-ChartVersion.tgz file and index.yaml file under ./HelmChartsRepo

you can check helm repo server by open index.yml. There should have one record like below:

apiVersion: v1

entries:

WCSV9:

- apiVersion: v1

created: 2018-08-02T17:06:31.80912053+08:00

description: Commerce Helm chart

digest: 8fac0a50d9c5831dc046b29645a98f3948aac97d8e5aecebe284830571fc4b38

name: WCSV9

urls:

- http://x.x.x.x:8879/WCSV9-0.1.x.tgz

version: 0.1.x

1. Build Docker Image for Tool Chain and upload to docker repository under “commerce” namespace

Tips:

* + If your ICP has enabled tls – when you run helm, you must add –tls, please follow this guide Please follow: https://github.com/IBM/wc-devops-utilities/tree/master/utilities/DeploySlave/BuildICPSlave
  + When you upload those tool chain to docker reposiroty, please tag them with latest tag. Because as default devops-utilities will use those docker image with latest tag~
  + When you build deployslave, if you are using ICP, you need get the helm client from ICP UI and put under the the root path of Dockerfile.

1. Deploy wc-devops-utilites on Kubernetes with helm chart ( On ICP Master Node )

<https://github.com/IBM/wc-helmchart/tree/master/WCSDevOps>

create cust-values.yaml with below content (correct the value with <>)

Vault / Consul docker image will pull from internet, if you already have them on private docker repository, you can change the image url point to address on your private repository

|  |
| --- |
|  |

|  |
| --- |
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|  |
| --- |
| VaultConsul: |
|  |

|  |
| --- |
|  |

|  |
| --- |
| VaultImage: docker.io/vault |
|  |

|  |
| --- |
| VaultTag: 0.9.5 |
|  |

|  |
| --- |
| ConsulImage: docker.io/consul |
|  |

|  |
| --- |
| ConsulTag: 1.0.6 |
|  |

|  |
| --- |
| Enable: true |
|  |

|  |
| --- |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| DeployController: |
|  |

|  |
| --- |
| Replicas: 1 |
|  |

|  |
| --- |
| Image: <Docker\_Harbor\_IP\_Address>/commerce/deploycontroller |
|  |

|  |
| --- |
| Tag: latest |
|  |

|  |
| --- |
| EnvParameters: |
|  |

|  |
| --- |
| InCluster: true |
|  |

|  |
| --- |
| VaultUrl: |
|  |

|  |
| --- |
| VaultToken: |
|  |

|  |
| --- |
| KubernetesUrl: |
|  |

|  |
| --- |
| BundleRepo: http://<Nexuse\_IP\_Address>:8081/nexus/content/repositories/releases/commerce |
|  |

|  |
| --- |
| DockerRepo: <Docker\_Harbor\_IP\_Address> |
|  |

|  |
| --- |
| DockerRepoPwd: Harbor12345 |
|  |

|  |
| --- |
| DockerRepoUser: admin |
|  |

|  |
| --- |
| HelmChartsRepo: http://<Master\_Node\_IP\_Address>:8879/charts |
|  |

Run Helm Deploy

Helm install –name=deploycontroller ./WCSDevOps -f cust-values.yaml

Access deploycontroller with url http://<IPC\_Ingress\_Prox\_IP\_Address>:31899 ( admin/admin )

1. Check if global configuration set correctly