**Ansible + Docker + Jenkins (continuation of CI with Docker + Jenkins)**

In this document it is assumed that you have completed CI with Docker and Jenkins.

**Step 1: docker installation**

- writing ansible playbook for installation of docker. Its installation differs on centos and ubuntu, so you have to write two playbooks (for installation process you can refer standard docker doc or my written scripts).

- for ansible to work with docker we need no install “docker-py” package with **version 0.3.0 only.**

If you install other version it will give **client – server api version mismatch error.**

**Ubuntu steps:**

- install apt-transport-https

- add docker repository to APT sources

- import docker repository key

- install docker

- install pip

- install docker-py

- install supervisor

**Centos steps:**

- add epel repo

- remove old epel-release-6-8.noarch.rpm

- install new epel-release-6-8.noarch.rpm

- edit epel-testing.repo, epel.repo files (see in issues section of document)

- install docker

- install pip

- install docker-py

- install supervisor

**Step 2: Add user to docker group**

- Add user to docker group. Write playbook for adding remote user to docker group

**Step 3: installation and configuration of CA-certificate**

- For downloading docker image form **private local docker repository,** you need to install and configure ca-certificate

**Ubuntu steps:**

**-** In ubuntu ca-certificate is installed by default, so no need to install

- create folder mkdir /usr/local/share/ca-certificates/docker-dev-cert

- copy ca-certificate to /usr/local/share/ca-certificates/docker-dev-cert/ from machine in which docker repository is set.

- run command “update-ca-certificates”

**Centos steps:**

**-** install ca-certificate

- run command “update-ca-trust force-enable”

- copy ca-certificate to /etc/pki/ca-trust/source/anchors/ from machine in which docker repository is set.

- run command “update-ca-trust extract”

**Step 4: update /etc/hosts**

- Make entry of docker repository url and ip address in /etc/hosts file

**Step 4: pulling docker image**

- before pulling docker image from docker private local repository, you need authentication against repository. The easiest way of authentication is to copy “.dockercfg” file to remote host home directory.

- (optional) if you want to delete previous version of deployment then stop previous docker container and remove previous image.

- Now pull the image

**Issues Faced and Solutions**

1) ca-certificates installation using yum module of ansible not working properly, so use shell module of ansible

2) docker-io pkg downloading problem in centos :- So, edit /etc/yum.repos.d/epel.repo and /etc/yum.repos.d/epel-testing.repo ,comment mirror repositories line and uncomment baseurl line

3) dockr-py(0.3.0) pkg installation:- by default it will install 0.7.0 version (version 0.3.0 is not available in yum repository, so either add it or use shell module to run docker cmds), which does not work with docker . So, use shell module to run docker commands