**AWX Setup**

**This document is for setting up AWX v24.6.1 (current latest) on Rocky Linux v9.5**

Starting in version 18.0, the AWX Operator is the preferred way to install AWX. As per official AWX Operator Documentation, the steps are as follows:

**Prerequisites**

* docker
* kubectl
* kind
* git & curl

**System Requirements**:

The following system requirements are recommended for AWX Operator:

* 16 GB of RAM
* 8 CPU cores
* At least 40GB of free space

**Installing docker**

Setup the repository & install

* sudo dnf config-manager --add-repo <https://download.docker.com/linux/centos/docker-ce.repo>
* sudo dnf install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
* sudo systemctl enable --now docker
* sudo usermod -aG docker $USER
* sudo reboot (reboot is required)

**Installing kubectl**

* curl -LO [https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl](https://dl.k8s.io/release/$(curl%20-L%20-s%20https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl)
* sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl

**Installing kind**

* [ $(uname -m) = x86\_64 ] && curl -Lo ./kind <https://kind.sigs.k8s.io/dl/v0.27.0/kind-linux-amd64>
* chmod +x ./kind
* sudo mv ./kind /usr/local/bin/kind

**Create the kind cluster**

create a file kind.yaml

*apiVersion: kind.x-k8s.io/v1alpha4*

*kind: Cluster*

*nodes:*

*- role: control-plane*

*extraPortMappings:*

*- containerPort: 80*

*hostPort: 80*

*protocol: TCP*

*- containerPort: 443*

*hostPort: 443*

*protocol: TCP*

Create a cluster using that config

* kind create cluster --config kind.yaml

Set cluster context for kubectl

* kubectl cluster-info --context kind-kind

Install NGINX Ingress controller

* wget <https://raw.githubusercontent.com/kubernetes/ingress-nginx/main/deploy/static/provider/kind/deploy.yaml>
* comment all fields named “nodeSelector” in deploy.yaml and then run
* kubectl apply -f deploy.yaml

**Install AWX Operator**

Set the namespace context

* kubectl config set-context --current --namespace=awx

Clone the AWX Operator repo & checkout the tag you want to install from (current latest v2.19.1)

* git clone <https://github.com/ansible/awx-operator.git>
* cd awx-operator
* git checkout tags/2.19.1

Create a file named **kustomization.yaml** in the root of local awx-operator clone, inclue the following:

*apiVersion: kustomize.config.k8s.io/v1beta1*

*kind: Kustomization*

*resources:*

*# Find the latest tag here: https://github.com/ansible/awx-operator/releases*

*- github.com/ansible/awx-operator/config/default?ref=2.19.1*

*# Set the image tags to match the git version from above*

*images:*

*- name: quay.io/ansible/awx-operator*

*newTag: 2.19.1*

*# Specify a custom namespace in which to install AWX*

*namespace: awx*

Run the following to apply the yaml

* kubectl apply -k .

Edit the file awx-demo.yaml located in the root of local awx-operator clone and put the following contents and any configurations changes you may wish to add:

*apiVersion: awx.ansible.com/v1beta1*

*kind: AWX*

*metadata:*

*name: awx-demo*

*spec:*

*service\_type: ClusterIP*

*hostname: rocky.local.com*

*ingress\_type: ingress*

*ingress\_tls\_secret: awx-tls-secret*

Create AWX

* kubectl apply -f awx-demo.yml

Generate a self-signed certificate and create kubectl secret

* openssl req -x509 -nodes -newkey rsa:4096 -keyout awx.key -out awx.crt
* kubectl create secret tls awx-tls-secret --cert=awx.crt --key=awx.key --namespace=awx

**Access the AWX**

It may take a few minutes to spin up the AWX instance. The AWX Tower should now be reachable at <https://rocky.local.com>

The default username is **admin** and the password is available in the <resources>-admin-password secret. To retrieve the admin password, run:

* kubectl get secret awx-demo-admin-password -o jsonpath="{.data.password}" | base64 –decode ; echo