1 CheatSheet: CRI-O CLOUD

- PDF Link: cheatsheet-crio-A4.pdf, Category: Cloud
- Blog URL: `https://cheatsheet.dennyzhang.com/cheatsheet-crio-A4`
- Related posts: Docker CheatSheet, Kubectl CheatSheet, #denny-cheatsheets

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1.1 cri-o Basic

Name	Summary
cri-o	Another container runtime like dockerd. Initialized from Redhat
`cri-o` vs `dockerd`	
Reference	CheatSheet: Docker, CheatSheet: CRI-O, CheatSheet: rkt, CheatSheet: containerd

1.2 cri-o Components

Name	Summary
crictl	For troubleshooting and working directly with CRI-O container engines
runc	For running container images
podman	CLI tool to manage pods and images
Buildah	For building, pushing and signing container images
Skopeo	For copying, inspecting, deleting, and signing images
Quay	Builds, analyzes, distributes your container images. Like CNCF Harbor

https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-crio-A4/crio-arch.png

1.3 Run cri-o as k8s container engine

Name	Summary
Run cri-o with minikube	`minikube start --network-plugin=cni --container-runtime=cri-o`
cri-o conf file	`/etc/crio/crio.conf`
Configure cri-o image registry	`registries = ['docker.io']`
Restart cri-o	`minikube ssh`, then `systemctl restart crio`
Check status	`systemctl status`
Reference	Link: Using the CRI-O Container Engine

1.4 podman

Name	Summary
podman image registry file	`/etc/containers/registries.conf`
pull container	`podman pull nginx:alpine`
List all images	`podman images`
List all contianers	`podman ps`

1.5 podman online usage

```
$ sudo podman --help
WARN[0000] unable to find /etc/containers/registries.conf. some podman (image shortnames) commands may be lim
NAME:
   podman - manage pods and images

USAGE:
   podman [global options] command [command options] [arguments...]

VERSION:
   0.4.1

COMMANDS:
```

```
    attach           Attach to a running container
    commit           Create new image based on the changed container
    build            Build an image using instructions in a Dockerfile
    create           create but do not start a container
    diff             Inspect changes on container's file systems
    exec             Run a process in a running container
    export           Export container's filesystem contents as a tar archive
    history          Show history of a specified image
    images           list images in local storage
    import           Import a tarball to create a filesystem image
    info             display system information
    inspect          Displays the configuration of a container or image
    kill             Kill one or more running containers with a specific signal
    load             load an image from docker archive
    login            login to a container registry
    logout           logout of a container registry
    logs             Fetch the logs of a container
    mount            Mount a working container's root filesystem
    pause            Pauses all the processes in one or more containers
    ps               List containers
    port             List port mappings or a specific mapping for the container
    pull             pull an image from a registry
    push             push an image to a specified destination
    restart          Restart one or more containers
    rm               podman rm will remove one or more containers from the host.  The container name or ID c
                                This does not remove images.  Running containers will not be removed withou
    rmi              removes one or more images from local storage
    run              run a command in a new container
    save             Save image to an archive
    search           search registry for image
    start            Start one or more containers
    stats            Display percentage of CPU, memory, network I/O, block I/O and PIDs for one or more cont
    stop             Stop one or more containers
    tag              Add an additional name to a local image
    top              Display the running processes of a container
    umount, unmount  Unmount a working container's root filesystem
    unpause          Unpause the processes in one or more containers
    version          Display the PODMAN Version Information
    wait             Block on one or more containers
    help, h          Shows a list of commands or help for one command

GLOBAL OPTIONS:
   --cni-config-dir value            path of the configuration directory for CNI networks
   --config value, -c value          path of a config file detailing container server configuration options
   --conmon value                    path of the conmon binary
   --cpu-profile value               path for the cpu profiling results
   --log-level value                 log messages above specified level: debug, info, warn, error (default),
   --root value                      path to the root directory in which data, including images, is stored
   --runroot value                   path to the 'run directory' where all state information is stored
   --runtime value                   path to the OCI-compatible binary used to run containers, default is /us
   --storage-driver value, -s value  select which storage driver is used to manage storage of images and cont
   --storage-opt value               used to pass an option to the storage driver
   --help, -h                        show help
   --version, -v                     print the version
```

1.6 More Resources

```
https://github.com/containers
   https://cri-o.io/
```