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/
```

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