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	Docker CheatSheet, Kubectl CheatSheet

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	`systemctl restart crio`
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/
   License: Code is licensed under MIT License.
```