# 1 Rancher CheatSheet

CLOUD

Updated: July 12, 2019

- PDF Link: cheatsheet-rancher-A4.pdf, Category: Cloud
- Blog URL: https://cheatsheet.dennyzhang.com/cheatsheet-rancher-A4
- $\bullet$  Related posts: OpenShift CheatSheet, PKS CheatSheet, #denny-cheatsheets

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## 1.1 Rancher Summary

Name	Command
Setup rancher in vagrant	GitHub: quickstart/vagrant, https://172.22.101.101/admin/admin
Start rancher control plane with container	docker run -d -p 80:80 -p 443:443 rancher/rancher
Reference	Rancher v2.0 Documentation, Rancher Slack, Rancher Forum
Reference	YouTube: Rancher Overview, YouTube: Setup Rancher In A Hard Way
Reference	OpenShift CheatSheet, Rancher CheatSheet, PKS CheatSheet

https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-rancher-A4/rancher-architectual com/dennyzhang.com/master/cheatsheet-rancher-architectual com/dennyzhang.com/de

## 1.2 Rancher Components

Name	Command
Control plane - rancher	Complete container management platform
cli	Rancher CLI
VM distro - os	Tiny Linux distro that runs the entire OS as Docker containers
Storage - longhorn	Distributed block storage for Kubernetes

## 1.3 rancher Concepts

Name	Command
Node driver	
Node template	

## 1.4 rancher Command Line

Name	Command
Reference	Link: Rancher CLI
Login to cluster	rancher login https:// <server_url>token <bearer_token></bearer_token></server_url>
Select project	rancher context switch
Rancher ssh to vm	rancher ssh node-001
Run kubectl command	rancher kubectl get nodes

## 1.5 Rancher Source Code

Name	Command
Rancher API Layer	GitHub: rancher/norman
Rancher Kubernetes Engine	GitHub: rancher/rke, GitHub: rancher/kontainer-engine

# 1.6 Rancher Footprint

> kubectl get all --all-namespaces

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NAMESPACE	NAME	READY	STATUS	RESTARTS	AGE
cattle-system	<pre>pod/cattle-cluster-agent-55897c6cb-xdj96</pre>	1/1	Running	0	6m
cattle-system	<pre>pod/cattle-node-agent-89jgs</pre>	1/1	Running	0	6m
ingress-nginx	<pre>pod/default-http-backend-797c5bc547-669zf</pre>	1/1	Running	0	6m
ingress-nginx	pod/nginx-ingress-controller-4gdhf	1/1	Running	0	6m
kube-system	pod/kube-dns-7588d5b5f5-xpfmg	3/3	Running	0	6m
kube-system	pod/kube-dns-autoscaler-5db9bbb766-kdhdn	1/1	Running	0	6m
kube-system	pod/kube-flannel-x686d	2/2	Running	0	6m
kube-system	pod/metrics-server-97bc649d5-8pf7f	1/1	Running	0	6m

kube-system	pod/rke-ingress-controller-dep	oloy-job-7wr	n5h 0/	/1 C	ompleted	0	6m		
kube-system	pod/rke-kubedns-addon-deploy-job-2pzw6				ompleted	0	6m		
kube-system	pod/rke-metrics-addon-deploy-j	ob-69zxc	0/	′1 C	ompleted	0	6m		
kube-system	pod/rke-network-plugin-deploy-	-job-bv4jc	0/	/1 C	ompleted	0	6m		
NAMESPACE	NAME	TYPE	CLUST	ΓER-IP	EXTERNA	L-IP	PORT(S)		AGE
default	service/kubernetes	ClusterIP	10.43	3.0.1	<none></none>		443/TCP		7m
ingress-nginx	service/default-http-backend	ClusterIP	10.43	3.142.185	<none></none>		80/TCP		6m
kube-system	service/kube-dns	ClusterIP	10.43	3.0.10	<none></none>		53/UDP,53/	TCP	6m
kube-system	service/metrics-server	ClusterIP	10.43	3.20.15	<none></none>		443/TCP		6m
NAMESPACE	NAME		DESIRE	ED CURRE	NT READ	Y	UP-TO-DATE	AVA	ILABL
cattle-system	daemonset.apps/cattle-node-age	ent	1	1	1		1	1	
ingress-nginx	daemonset.apps/nginx-ingress-c	controller	1	1	1		1	1	
kube-system	daemonset.apps/kube-flannel		1	1	1		1	1	
NAMESPACE	NAME	DI	ESIRED	CURRENT	UP-TO-DA	ATE	AVAILABLE	AGE	
cattle-system	deployment.apps/cattle-cluster	-agent 1		1	1		1	6m	
ingress-nginx	deployment.apps/default-http-h	_		1	1		1	6m	
kube-system	deployment.apps/kube-dns	1		1	1		1	6m	
kube-system	deployment.apps/kube-dns-autos	scaler 1		1	1		1	6m	
kube-system	deployment.apps/metrics-server	1		1	1		1	6m	
NAMESPACE	NAME			DESIRED	CURREN	Γ RE	ADY AGE		
cattle-system	replicaset.apps/cattle-cluster	-agent-5589	97c6cb	1	1	1	6m		
ingress-nginx	replicaset.apps/default-http-h	-		1	1	1	6m		
kube-system	replicaset.apps/kube-dns-75886	l5b5f5		1	1	1	6m		
kube-system	replicaset.apps/kube-dns-autos	caler-5db9k	obb766	1	1	1	6m		
kube-system	replicaset.apps/metrics-server	-97bc649d5		1	1	1	6m		
NAMESPACE	NAME		DES]	IRED SUC	CESSFUL	AGE			
kube-system	job.batch/rke-ingress-controller	-deploy-job	1	1		6m			
kube-system	job.batch/rke-kubedns-addon-depl		1	1		6m			
kube-system	job.batch/rke-metrics-addon-depl		1	1		6m			
kube-system	job.batch/rke-network-plugin-dep		1	1		6m			

# 1.7 Rancher CLI Help

Denny > ./rancher --help

Rancher CLI, managing containers one UTF-8 character at a time

Usage: rancher [OPTIONS] COMMAND [arg...]

Version: v2.0.5

#### Options:

--debug Debug logging
--help, -h show help

--version,  $\mbox{-}\mbox{v}$  print the version

#### Commands:

apps, [app] Operations with apps catalog Operations with catalogs clusters, [cluster] Operations on clusters context Operations for the context View details of resources inspect kubectl Run kubectl commands login, [1] Login to a Rancher server namespaces, [namespace] Operations on namespaces

Updated: July 12, 2019

nodes, [node]

projects, [project]

ps

Show workloads in a project

settings, [setting]

Show settings for the current server

ssh

SSH into a node

up

apply compose config

help, [h]

Shows a list of commands or help for one command

Run 'rancher COMMAND --help' for more information on a command.

#### 1.8 More Resources

https://rancher.com/docs/rancher/v2.x/en/quick-start-guide/deployment/License: Code is licensed under MIT License.

Updated: July 12, 2019