# 1 Rancher CheatSheet

CLOUD

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

File me Issues or star this repo.

## 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 and the state of the stat

## 1.2 Rancher Components

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

## 1.3 rancher Concepts

| Name          | $\operatorname{Command}$ |
|---------------|--------------------------|
| 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

| , managed 600 c | arr namospasos                                      |       |         |          |     |
|-----------------|---|-------|---------|----------|-----|
| 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   | pod/default-http-backend-797c5bc547-669zf           | 1/1   | Running | 0        | 6m  |
| ingress-nginx   | <pre>pod/nginx-ingress-controller-4gdhf</pre>       | 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-7w       | 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         | -                 | 0,       |           | ompleted      | 0          | 6m         |        |       |
| kube-system   | pod/rke-network-plugin-deploy-         |                   | 0,       | /1 C      | ompleted      | 0          | 6m         |        |       |
| NAMESPACE     | NAME                                   | TYPE              | CLUST    | TER-IP    | EXTERNAL      | 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           | ${\tt ClusterIP}$ |          | 3.142.185 | <none></none> |            | 80/TCP     |        | 6m    |
| kube-system   | service/kube-dns                       | ClusterIP         |          | 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                                   |                   | DESIR    | ED CURRE  | NT READY      | <b>y</b> 1 | UP-TO-DATE | AVA    | ILABL |
| cattle-system | daemonset.apps/cattle-node-age         | nt                | 1        | 1         | 1             |            | 1          | 1      |       |
| ingress-nginx | daemonset.apps/nginx-ingress-c         | ontroller         | 1        | 1         | 1             |            | 1          | 1      | - 7   |
| kube-system   | daemonset.apps/kube-flannel            |                   | 1        | 1         | 1             | :          | 1          | 1      |       |
| NAMESPACE     | NAME                                   | D                 | DESIRED  | CURRENT   | UP-TO-DA      | ATE .      | AVAILABLE  | AGE    |       |
| cattle-system | deployment.apps/cattle-cluster         | r-agent 1         | -        | 1         | 1             |            | 1          | 6m     |       |
| ingress-nginx | deployment.apps/default-http-b         | oackend 1         | -        | 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   | CURRENT       | Γ RE.      | ADY AGE    | ı<br>1 |       |
| cattle-system | replicaset.apps/cattle-cluster         | -agent-558        | 397c6cb  | 1         | 1             | 1          | 6m         |        |       |
| ingress-nginx | replicaset.apps/default-http-b         | ackend-797        | ′c5bc547 | 1         | 1             | 1          | 6m         |        |       |
| kube-system   | replicaset.apps/kube-dns-7588d         | l5b5f5            |          | 1         | 1             | 1          | 6m         |        |       |
| kube-system   | replicaset.apps/kube-dns-autos         | caler-5db9        | )bbb766  | 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-jo        | ob 1     | 1         |               | 6m         |            |        |       |
| kube-system   | job.batch/rke-kubedns-addon-depl       | -oy-job           | 1        | 1         |               | 6m         |            |        |       |
|               | job.batch/rke-metrics-addon-depl       |                   | 1        | 1         |               | 6m         |            |        |       |
| kube-system   | job.batch/rke-network-plugin-dep       | loy-job           | 1        | 1         |               | 6m         |            |        |       |
| 1.7 Ranche    | r CLI Help                             |                   |          |           |               |            |            |        |       |

## 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, -v print the version

#### Commands:

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

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nodes, [node] Operations on nodes
projects, [project] Operations on projects
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.

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