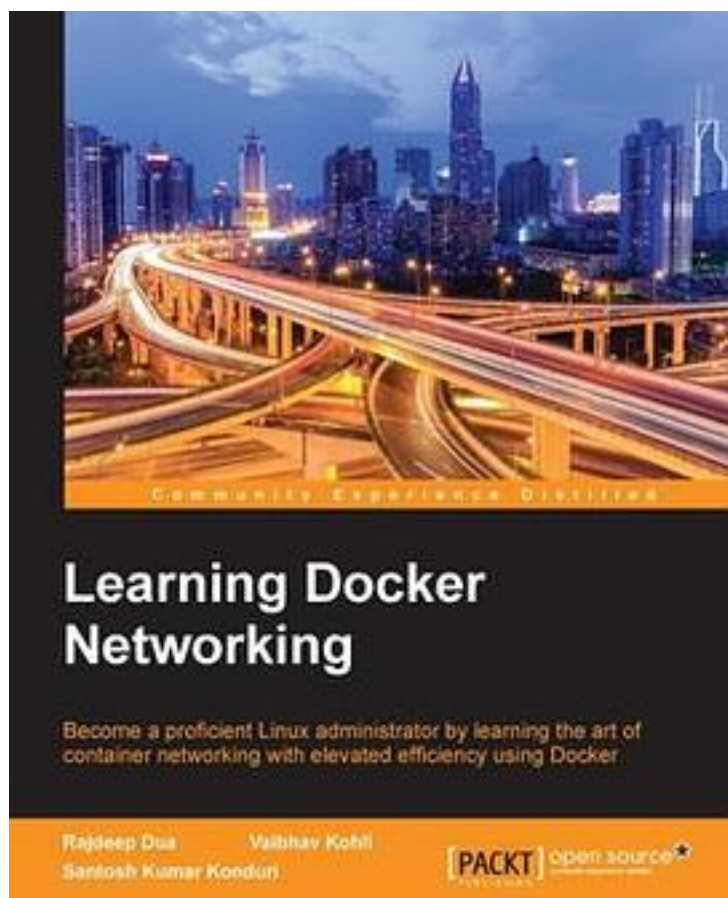


Learning Docker Networking



[Learning Docker Networking 下载链接1](#)

著者:Santosh Kumar Konduri

出版者:Packt Publishing

出版时间:2016-2

装帧:平装

isbn:9781785280955

Set up, configure, and monitor a virtual network of containers using a bridge network and virtual switches

Master the skill of networking Docker Containers using frameworks such as

Kubernetes, Docker Swarm, and Mesosphere

Acquire hands-on experience through practical examples of Docker networking spanning multiple containers, over multiple hosts, clubbed with various frameworks

作者介绍:

Rajdeep Dua has over 16 years of experience in distributed systems. He has worked in R&D and Developer Relation roles at Microsoft, Google, VMware, and Salesforce.com. He has exposure to multiple cloud platforms like Google App Engine, Heroku, Force.com, vSphere, and Google Compute Engine. Rajdeep has been working on Docker and related container technologies for more than two years now. He did his MBA in IT from IIM Lucknow in the year 2000. Vaibhav Kohli has around 3 years of working experience in the research and development department of VMware, and he has been teaching computer engineering for a year at the esteemed Mumbai University. He has published many research papers and filed three patents from VMware in the container domain. He has also conducted workshops in various companies and meetups on container technology (Docker) and Kubernetes. Santosh Kumar Konduri has around 5 years of IT experience. He is an expert OpenStack administrator with 3 years of experience.

目录: Learning Docker Networking

Table of Contents

Learning Docker Networking

Credits

About the Authors

About the Reviewer

www.PacktPub.com

eBooks, discount offers, and more

Why subscribe?

Preface

What this book covers

What you need for this book

Who this book is for

Conventions

Reader feedback

Customer support

Downloading the example code

Downloading the color images of this book

Errata

Piracy

Questions

1. Docker Networking Primer

Networking and Docker

Linux bridges

Open vSwitch

NAT

IPtables

AppArmor/SELinux

The docker0 bridge

The --net default mode

The --net=none mode

- The --net=container:\$container2 mode
- The --net=host mode
- Port mapping in Docker container
- Docker OVS
- Unix domain socket
- Linking Docker containers
- Links
- What's new in Docker networking?
- Sandbox
- Endpoint
- Network
- The Docker CNM model
- Summary
- 2. Docker Networking Internals
- Configuring the IP stack for Docker
- IPv4 support
- IPv6 support
- Configuring a DNS server
- Communication between containers and external networks
- Restricting SSH access from one container to another
- Configuring the Docker bridge
- Overlay networks and underlay networks
- Summary
- 3. Building Your First Docker Network
- Introduction to Pipework
- Multiple containers over a single host
- Weave your containers
- Open vSwitch
- Single host OVS
- Creating an OVS bridge
- Multiple host OVS
- Networking with overlay networks – Flannel
- Summary
- 4. Networking in a Docker Cluster
- Docker Swarm
- Docker Swarm setup
- Docker Swarm networking
- Kubernetes
- Deploying Kubernetes on AWS
- Kubernetes networking and its differences to Docker networking
- Deploying the Kubernetes pod
- Mesosphere
- Docker containers
- Deploying a web app using Docker
- Deploying Mesos on AWS using DCOS
- Summary
- 5. Security and QoS for Docker Containers
- Filesystem restrictions
- Read-only mount points
- sysfs
- procfs
- /dev/pts
- /sys/fs/cgroup
- Copy-on-write

Linux capabilities
Securing containers in AWS ECS
Understanding Docker security I – kernel namespaces
pid namespace
net namespace
Basic network namespace management
Network namespace configuration
User namespace
Creating a new user namespace
Understanding Docker security II – cgroups
Defining cgroups
Why are cgroups required?
Creating a cgroup manually
Attaching processes to cgroups
Docker and cgroups
Using AppArmor to secure Docker containers
AppArmor and Docker
Docker security benchmark
Audit Docker daemon regularly
Create a user for the container
Do not mount sensitive host system directories on containers
Do not use privileged containers
Summary
6. Next Generation Networking Stack for Docker: libnetwork
Goal
Design
CNM objects
Sandbox
Endpoint
Network
Network controller
CNM attributes
CNM lifecycle
Driver
Bridge driver
Overlay network driver
Using overlay network with Vagrant
Overlay network deployment Vagrant setup
Overlay network with Docker Machine and Docker Swarm
Prerequisites
Key-value store installation
Create a Swarm cluster with two nodes
Creating an overlay network
Creating containers using an overlay network
Container network interface
CNI plugin
Network configuration
IP allocation
IP address management interface
Project Calico's libnetwork driver
Summary
Index
• • • • • ([收起](#))

[Learning Docker Networking_ 下载链接1_](#)

标签

云计算

network

docker

计算机与信息

虚拟化技术

网络虚拟化

程序员

评论

非常好的介绍性书籍，全面系统地介绍了docker的网络生态圈最新的动态和解决方案

First Docker file specialized on networking, with plenty of graphs and detailed explanation. This book is very different from most other Docker books, which are very similar to the official Docker tutorial.

[Learning Docker Networking_ 下载链接1_](#)

书评

Set up, configure, and monitor a virtual network of containers using a bridge network and virtual switches Master the skill of networking Docker Containers using frameworks such as Kubernetes, Docker Swarm, and Mesosphere Acquire hands-on experience through...

[Learning Docker Networking_下载链接1_](#)