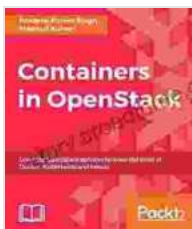


Leverage Openstack Services To Make The Most Of Docker Kubernetes And Mesos

In this article, we will explore how to leverage OpenStack services to make the most of Docker, Kubernetes, and Mesos. We will cover how to use OpenStack to provision and manage virtual machines for running Docker containers, how to use OpenStack to create and manage Kubernetes clusters, and how to use OpenStack to deploy Mesos frameworks.



Containers in OpenStack: Leverage OpenStack services to make the most of Docker, Kubernetes and Mesos by Madhuri Kumari

★★★★☆ 4 out of 5

Language : English
File size : 4932 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 176 pages



Using OpenStack to provision and manage virtual machines for running Docker containers

OpenStack provides a number of services that can be used to provision and manage virtual machines (VMs). These services include:

- Nova: Nova is the OpenStack compute service. It provides an API for creating, managing, and deleting VMs.

- Neutron: Neutron is the OpenStack networking service. It provides an API for creating, managing, and deleting networks, subnets, and security groups.
- Cinder: Cinder is the OpenStack block storage service. It provides an API for creating, managing, and deleting volumes.

To use OpenStack to provision and manage VMs for running Docker containers, you will need to create a project, create a network, create a subnet, create a security group, and create a VM. You can use the following commands to create these resources:

```
# Create a project openstack project create my-project
```

```
# Create a network openstack network create my-network
```

```
# Create a subnet openstack subnet create my-subnet --network my-network --cidr 10.0.0.0/24
```

```
# Create a security group openstack security group create my-security-group
```

```
# Create a VM openstack server create my-vm --image cirros --flavor m1.small --network my-network --security-group my-security-group
```

Once you have created a VM, you can SSH into it and install Docker. You can then use Docker to create and manage containers on the VM.

Using OpenStack to create and manage Kubernetes clusters

OpenStack provides a number of services that can be used to create and manage Kubernetes clusters. These services include:

- **Magnum:** Magnum is the OpenStack container orchestration service. It provides an API for creating, managing, and deleting Kubernetes clusters.
- **Neutron:** Neutron is the OpenStack networking service. It provides an API for creating, managing, and deleting networks, subnets, and security groups.
- **Glance:** Glance is the OpenStack image service. It provides an API for storing and retrieving images.

To use OpenStack to create and manage Kubernetes clusters, you will need to create a project, create a network, create a subnet, create a security group, and create a Kubernetes cluster. You can use the following commands to create these resources:

```
# Create a project openstack project create my-project
```

```
# Create a network openstack network create my-network
```

```
# Create a subnet openstack subnet create my-subnet --network my-network --cidr 10.0.0.0/24
```

```
# Create a security group openstack security group create my-security-group
```

```
# Create a Kubernetes cluster openstack cluster create my-cluster --master-flavor m1.large --node-flavor m1.small --num-masters 1 --num-
```

```
nodes 2 --image cirros --network my-network --security-group my-security-group
```

Once you have created a Kubernetes cluster, you can use the `kubectl` command to manage the cluster.

Using OpenStack to deploy Mesos frameworks

OpenStack provides a number of services that can be used to deploy Mesos frameworks. These services include:

- **Mesos:** Mesos is the Apache Mesos cluster manager. It provides an API for deploying and managing applications on a cluster of machines.
- **Neutron:** Neutron is the OpenStack networking service. It provides an API for creating, managing, and deleting networks, subnets, and security groups.
- **Glance:** Glance is the OpenStack image service. It provides an API for storing and retrieving images.

To use OpenStack to deploy Mesos frameworks, you will need to create a project, create a network, create a subnet, create a security group, and create a Mesos cluster. You can use the following commands to create these resources:

```
# Create a project openstack project create my-project
```

```
# Create a network openstack network create my-network
```

```
# Create a subnet openstack subnet create my-subnet --network my-network --cidr 10.0.0.0/24
```

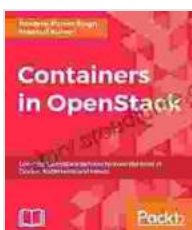
```
# Create a security group openstack security group create my-security-group
```

```
# Create a Mesos cluster openstack cluster create my-cluster --mesos-master-flavor m1.large --mesos-slave-flavor m1.small --num-masters 1 --num-slaves 2 --image cirros --network my-network --security-group my-security-group
```

Once you have created a Mesos cluster, you can use the Marathon command to deploy Mesos frameworks.

In this article, we have explored how to leverage OpenStack services to make the most of Docker, Kubernetes, and Mesos. We have covered how to use OpenStack to provision and manage virtual machines for running Docker containers, how to use OpenStack to create and manage Kubernetes clusters, and how to use OpenStack to deploy Mesos frameworks.

By leveraging OpenStack services, you can take advantage of the benefits of cloud computing, such as scalability, elasticity, and cost savings. You can also use OpenStack to manage your infrastructure more efficiently and to deploy applications more quickly and easily.



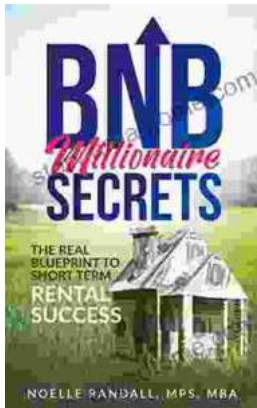
Containers in OpenStack: Leverage OpenStack services to make the most of Docker, Kubernetes and

Mesos by Madhuri Kumari

★★★★☆ 4 out of 5

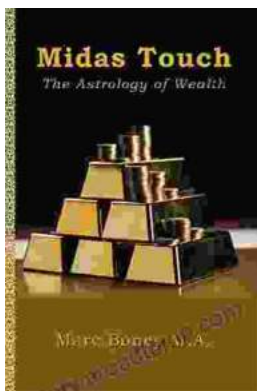
Language : English
File size : 4932 KB
Text-to-Speech : Enabled
Screen Reader : Supported

Enhanced typesetting : Enabled
Print length : 176 pages



The Real Blueprint to Short-Term Rental Success

Are you ready to create a thriving short-term rental business? If so, then you need The Real Blueprint to Short-Term Rental Success. This comprehensive...



Midas Touch: The Astrology Of Wealth

Are you ready to tap into the cosmic forces that govern wealth and prosperity? In the captivating new book, "Midas Touch: The Astrology of Wealth," renowned...