Chapter 1: Docker Networking Primer
Chapter 2: Docker Networking Internals
Host A is accessible from the outside world. Host C has access to internal systems.

Containers running on Weave network.
Chapter 3: Building Your First Docker Network
The diagram illustrates a network setup with two hosts, Host 1 and Host 2, each containing a container.

**Host 1**
- Container 1
- Network setup: eth0, docker0, br0, gre0, Open vSwitch
- Tunnel: GRE tunnel to Host 2
- IP Address: 192.168.10.8

**Host 2**
- Container 1
- Network setup: eth0, docker0, br0, gre0, Open vSwitch
- IP Address: 192.168.10.9

**Additional Network Elements**
- **Flanneld (flannel daemon)**
  - Host 1: flanneld
  - Host 2: flanneld
- **Flannel Bridge**
  - (10.1.30.1/24 Subnet)

The diagram also shows the IP addresses connected through the GRE tunnel:
- Host 1: 30.30.30.5
- Host 2: 30.30.30.7
<table>
<thead>
<tr>
<th>Network Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weave</td>
<td>Virtual Overlay Network</td>
</tr>
<tr>
<td>Flannel</td>
<td>Creates separate Subnet</td>
</tr>
<tr>
<td>Open vSwitch</td>
<td>GRE Tunneling</td>
</tr>
<tr>
<td>Pipework</td>
<td>Legacy Linux Bridge</td>
</tr>
</tbody>
</table>
Chapter 4: Networking in a Docker Cluster
An error occurred fetching key pair data. You are not authorized to perform this operation.

Create Key Pair

Key pair name: mesos-dcos
Select DCOS AWS Template

Standard AWS Usage Fees Apply.

Select Your AWS Region

US West (N. California) (us-west-1)

Define Stack Configuration

1 Master  HA: 3 Masters

Get Started  Close

For more information on creating a DCOS cluster, see the Mesosphere Documentation.

Select Template

Select the template that describes the stack that you want to create. A stack is a group of related resources that you manage as a single unit.

Design a template

Use AWS CloudFormation Designer to create or modify an existing template. Learn more.

Choose a template

A template is a JSON-formatted text file that describes your stack's resources and their properties. Learn more.

- Select a sample template

- Upload a template to Amazon S3

Choose File: No file chosen

- Specify an Amazon S3 template URL

https://s3.amazonaws.com/downloads.mesosphere.io/dcos/3.1/
Specify Details

Specify a stack name and parameter values. You can use or change the default parameter values, which are defined in the AWS CloudFormation template. Learn more.

Stack name: Nessos

Parameters

- **AcceptEULA**: Yes
- **AdminLocation**: 0.0.0.0
- **KeyName**: nessos
- **PublicSlaveInstanceCount**: 1
- **SlaveInstanceCount**: 5

Review

Template

- **Description**: Launching the Messosphere DCOS cluster
- **Cost**

Stack details

- **Stack name**: Nessos
- **AcceptEULA**: Yes
- **AdminLocation**: 0.0.0.0
- **KeyName**: nessos
- **PublicSlaveInstanceCount**: 1
- **SlaveInstanceCount**: 5
- **Create IAM resources**: Yes

Options
Chapter 5: Security and QoS for Docker Containers

Diagram:
- Docker Container
  - Writable Image
  - Image #2
  - Image #1
  - Ubuntu Image (rootfs)
  - Debian Image (rootfs)
  - SUSE Image (rootfs)
  - Linux Kernel (cgroups, namespaces, devicemapper)
    - bootfs
Chapter 6: Next Generation Networking Stack for Docker: libnetwork