Container Networking

Nigel Poulton

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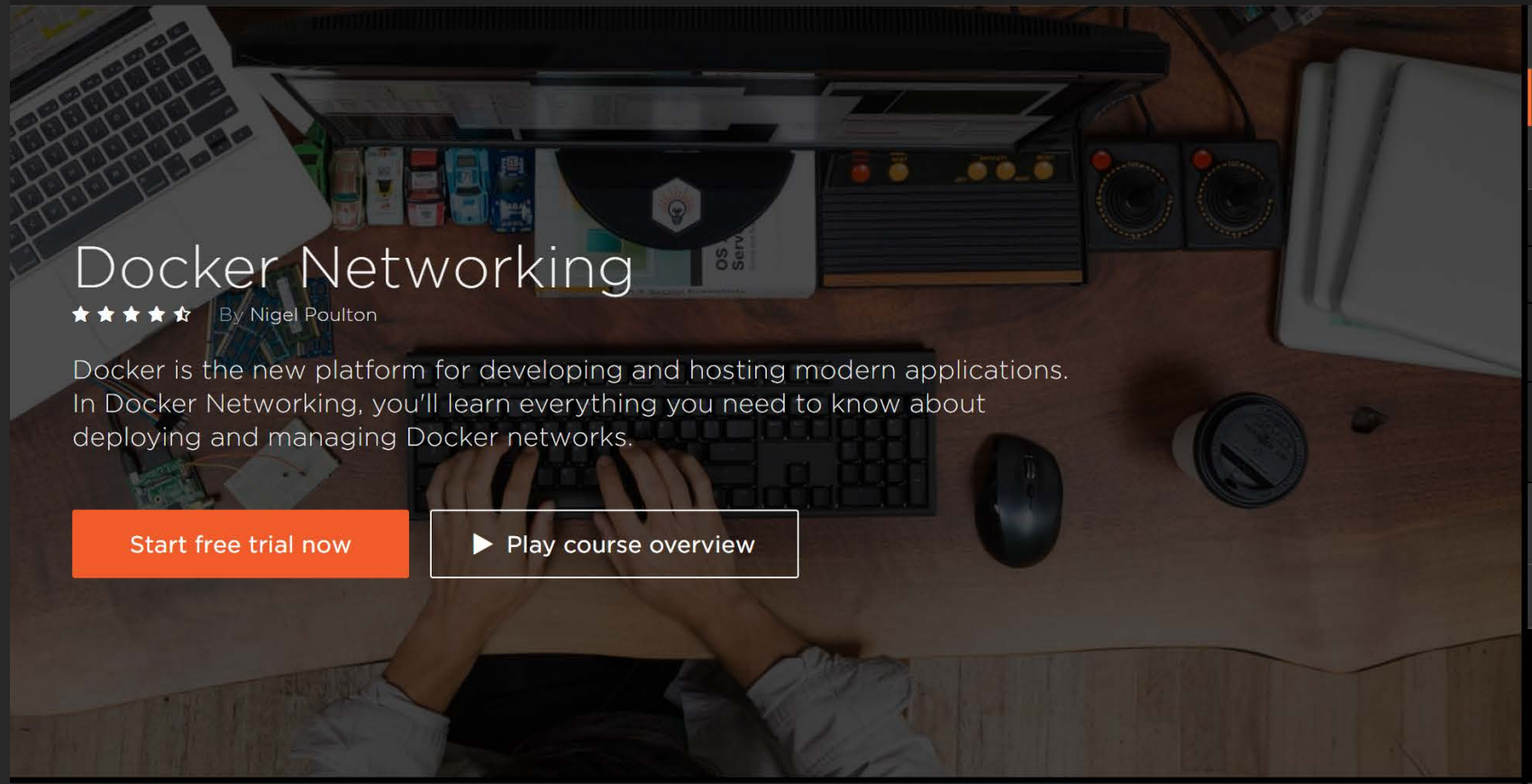

Docker Networking

By Nigel Poulton

Docker is the new platform for developing and hosting modern applications. In Docker Networking, you'll learn everything you need to know about deploying and managing Docker networks.

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Play course overview

Course info

Rating	(68)
Level	Intermediate
Updated	February 8, 2017
Duration	1h 49m

Description

Docker is the new platform for developing and hosting modern applications. In this course, Docker Networking, you will learn everything you need to know about deploying and managing Docker networks. First, you'll learn about the Container Network Model (CNM) and Libnetwork, which are the foundation of all Docker networks. Next, you will delve into building and managing single-host and multi-host networks. Finally, you will learn how to build container networks that integrate with existing VLANs and application networks. When you are finished with this course, you'll have the skills and knowledge needed to start deploying and managing Docker networks within your organization.

Recommended

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Course Overview 1m 42s

Course Overview 1m 42s

PATHS

Container Management using Docker

Author: Nigel Poulton

Containers represent a higher-density kind of "virtualization" that can meet the needs of certain scenarios better than traditional hypervisors. Here you'll learn everything you... Read more

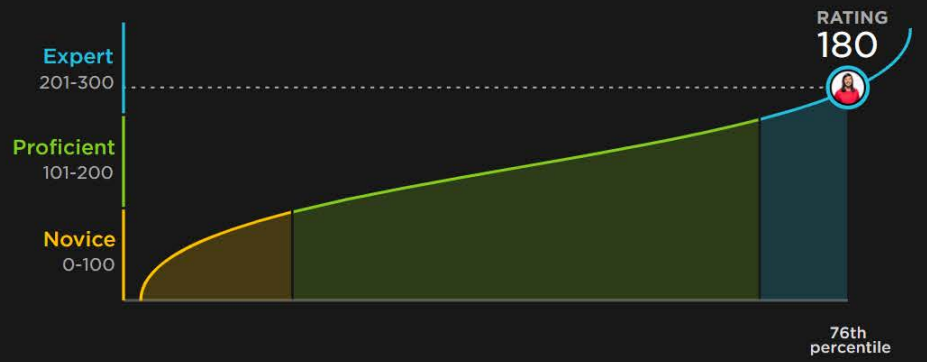
Get Started

RELATED TOPICS

Cloud Operations | Virtualization Administrator | Microsoft Hyper-V | VMware vSphere | Linux

ASSESSMENT DETAILS

Container Management using Docker: Expert



Updated February 8, 2017

Duration 1h 49m

Network Model (CNM) and Libnetwork, which are the foundation of all Docker networks. Next, you will delve into building and managing single-host and multi-host networks. Finally, you will learn how to build container networks that integrate with existing VLANs and application networks. When you are finished with this course, you'll have the skills and knowledge needed to start deploying and managing Docker networks within your organization.

course

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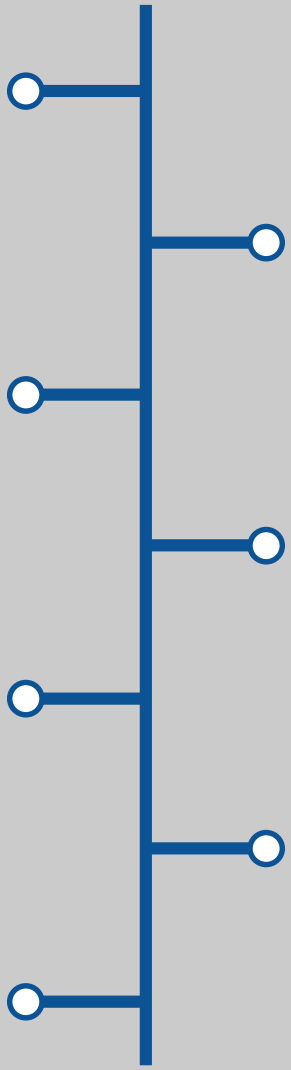
ARTICLE



Module Outline

Network Types in Docker

Network Services

Recap

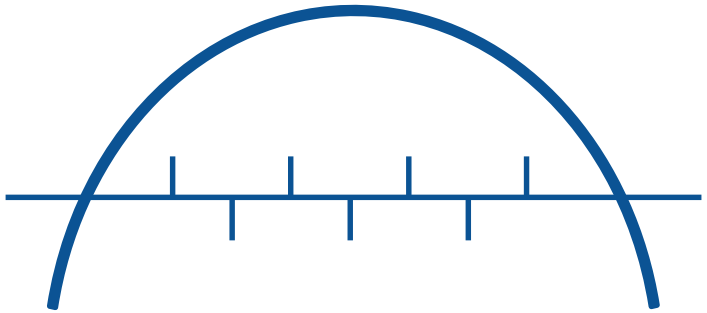
Domain 4: Networking

- Create a Docker bridge network for a developer to use for their containers
- Publish a port so that an application is accessible externally
- Identify which IP and port a container is externally accessible on
- Describe the different types and use cases for the built-in network drivers
- Deploy a service on a Docker overlay network

Network Types in Docker

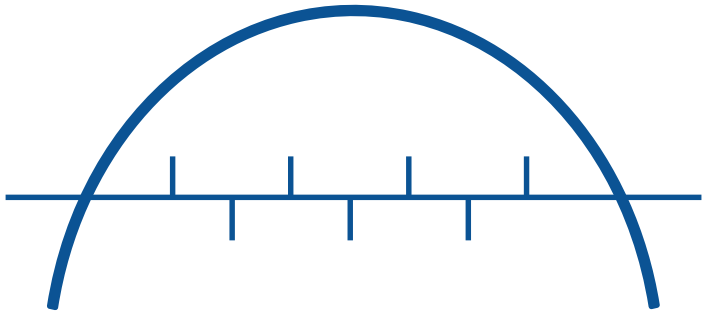
It's good to talk

Bridge Networking



bridge driver Linux
nat driver Windows

Bridge Networking



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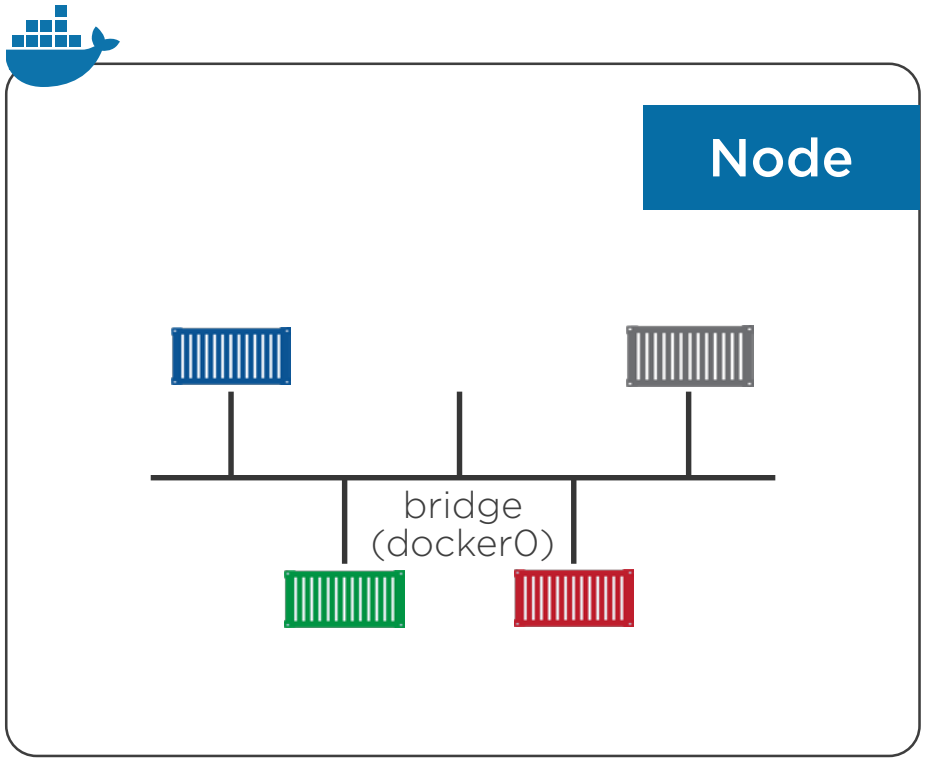

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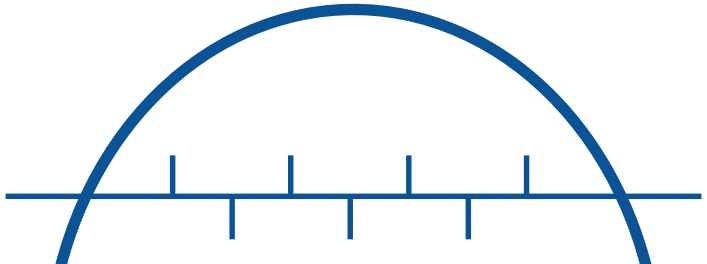
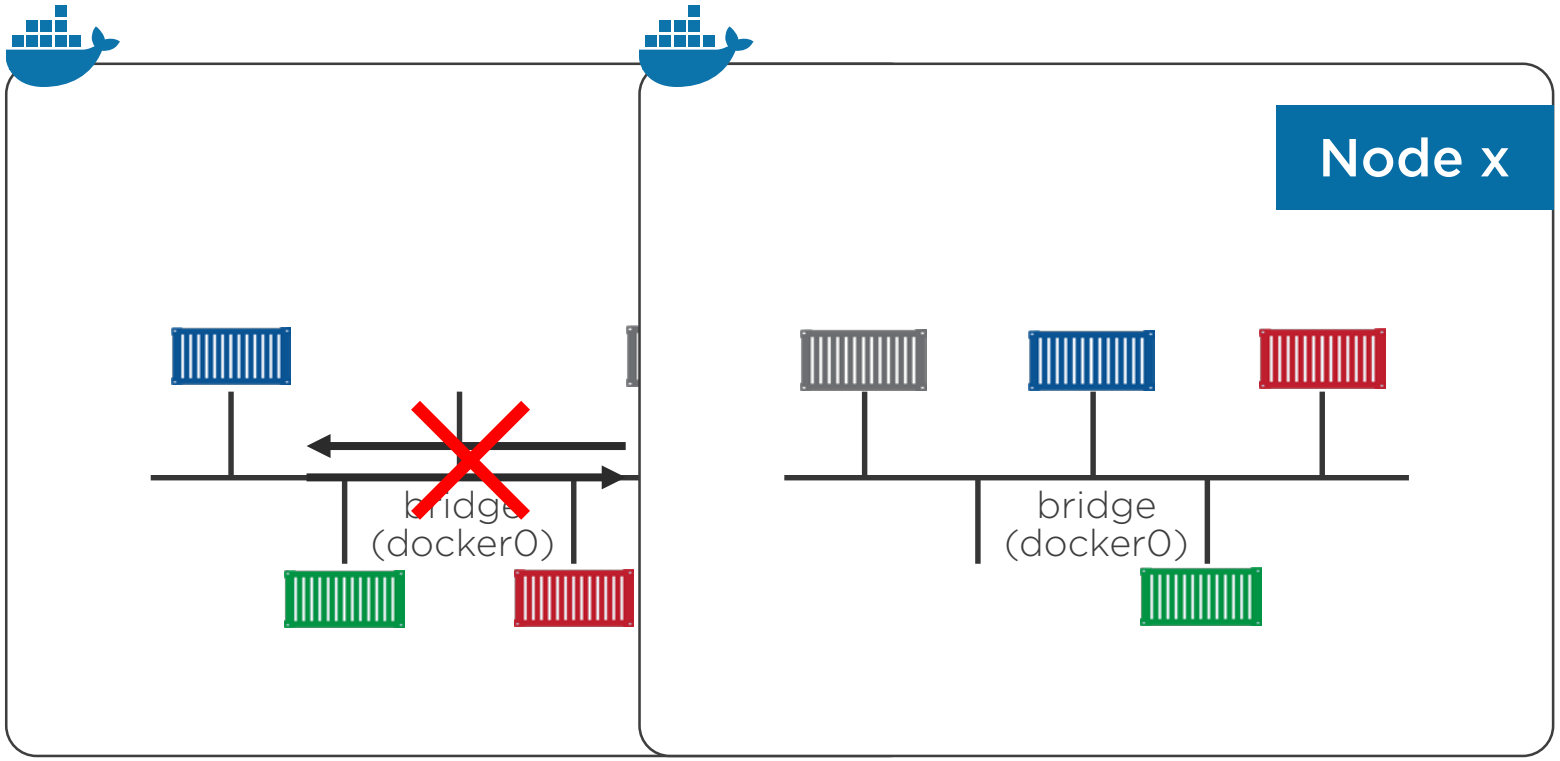


Bridge Networking



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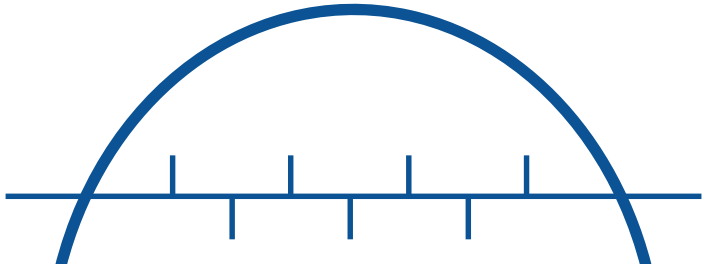

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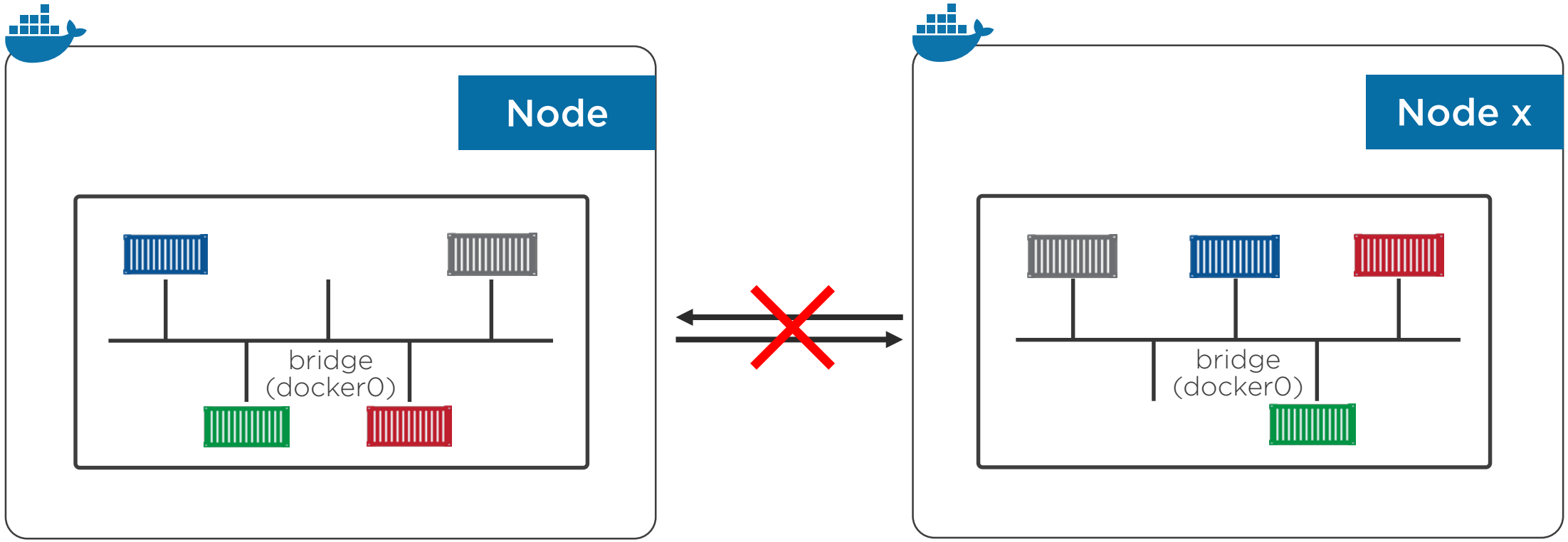

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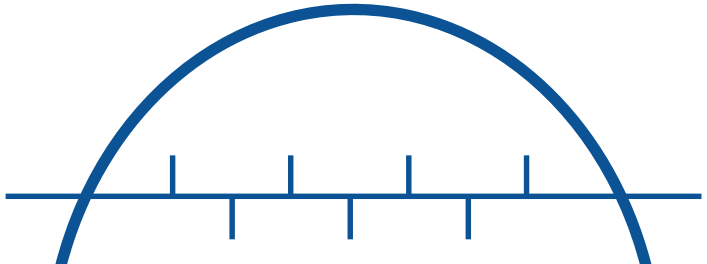

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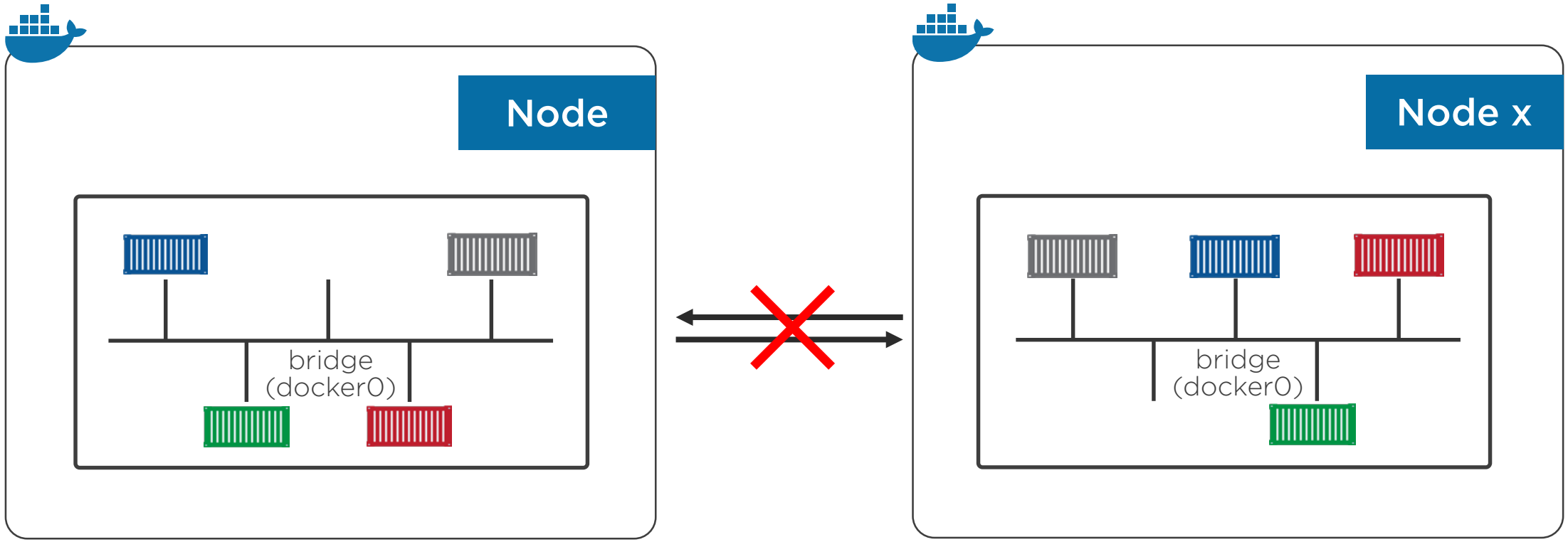

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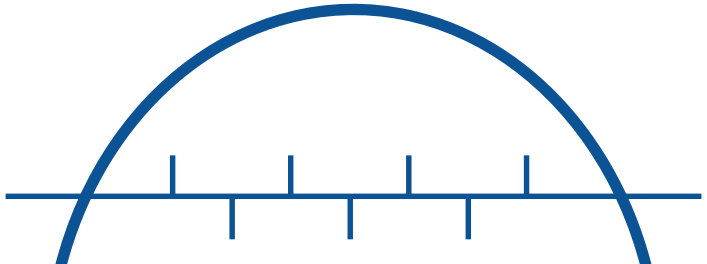
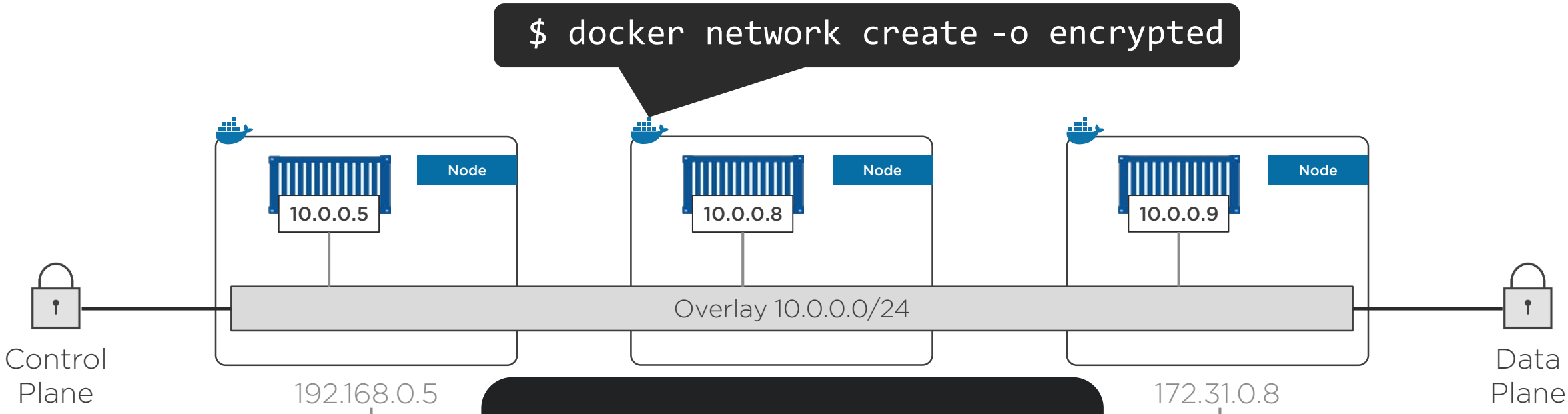


Overlay Networking



More detail: **Docker Networking**

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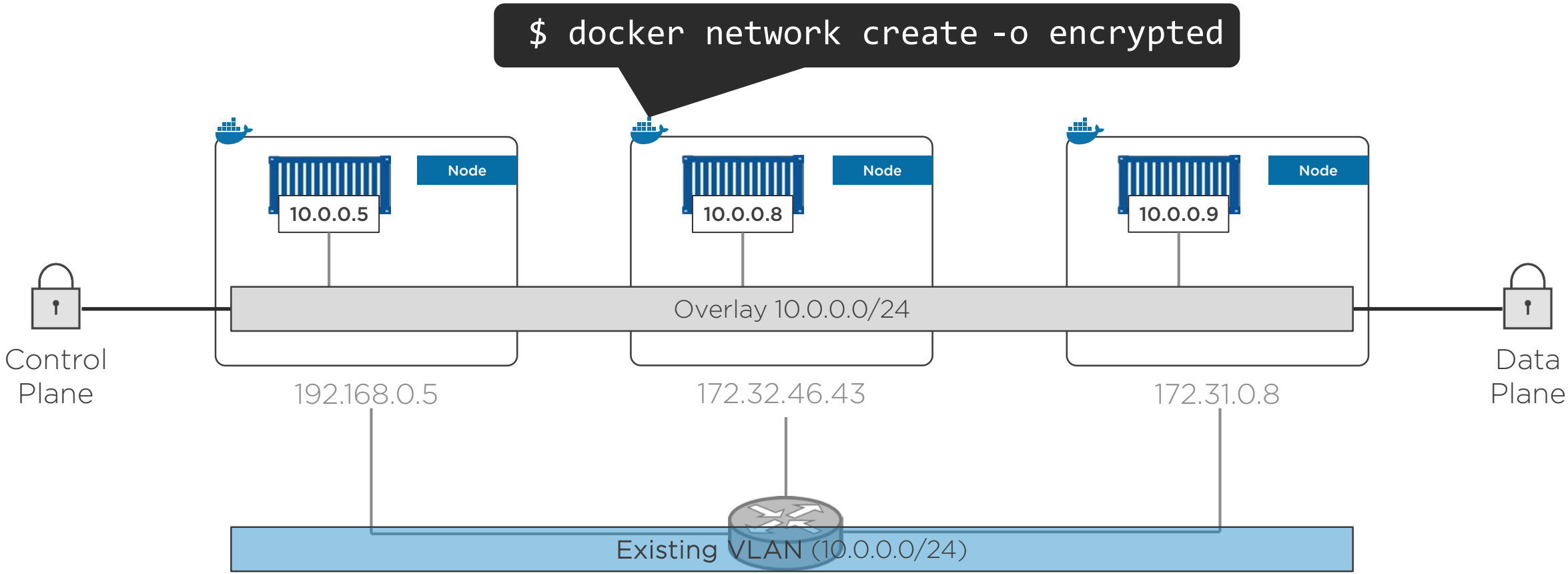
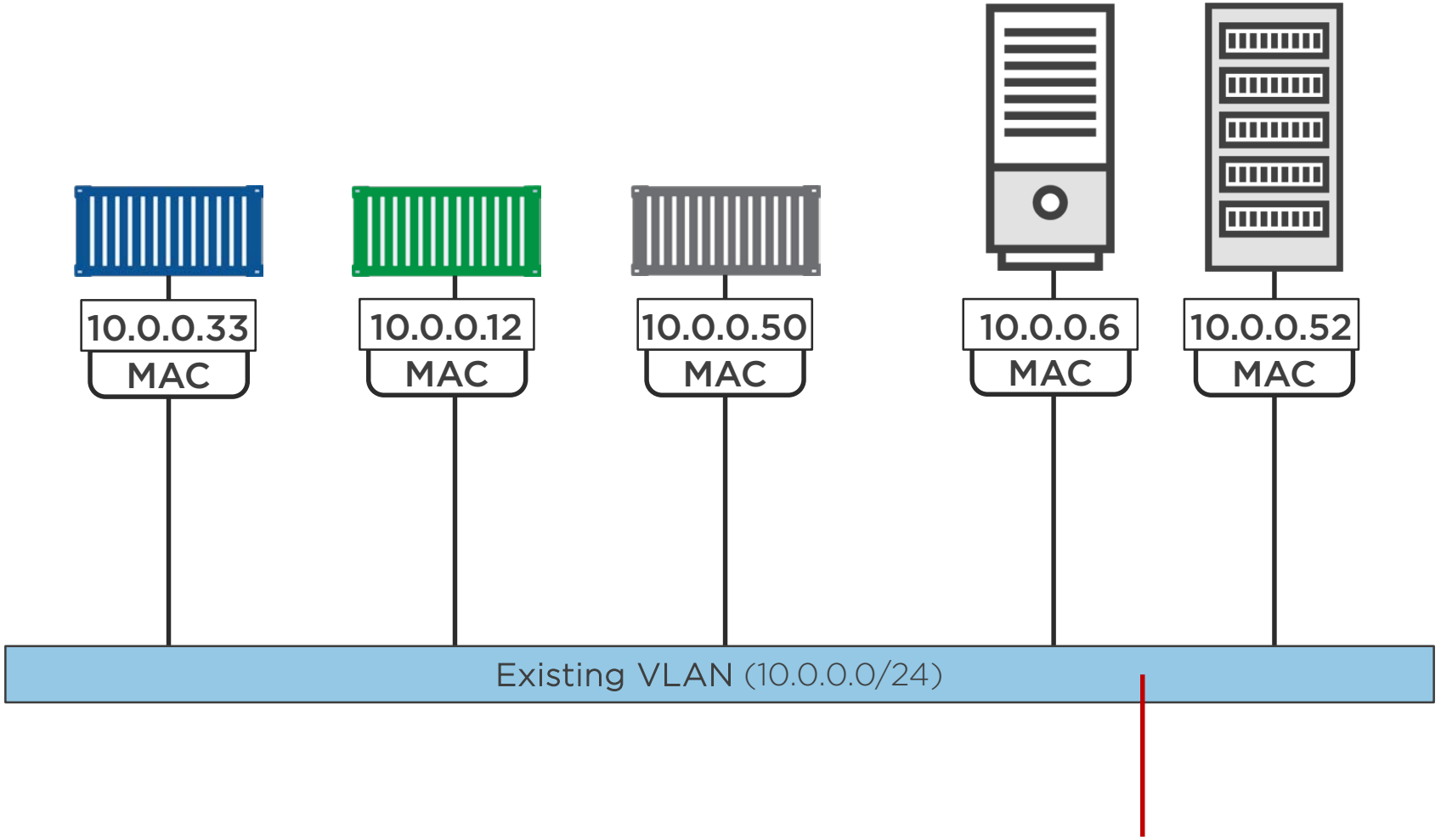
Overlay Networking



MACVLAN

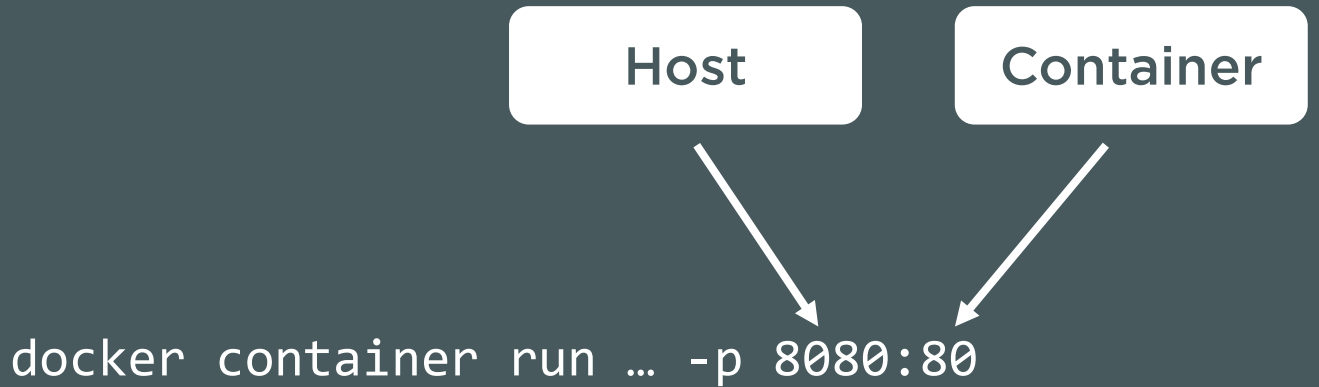


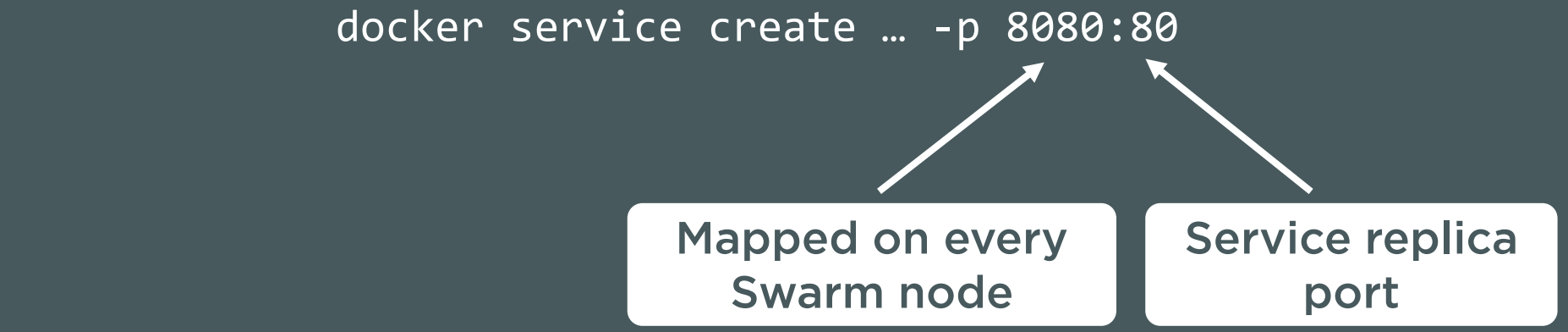
Must allow promiscuous mode

transparent driver Windows

Coming up

Network Services

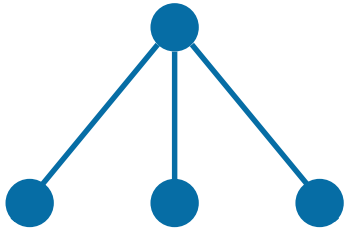

Host
Container
docker container run … -p 8080:80


docker service create … -p 8080:80
Mapped on every Swarm node
Service replica port

Network Services

Helpful stuff

Service Discovery 

Load Balancing 

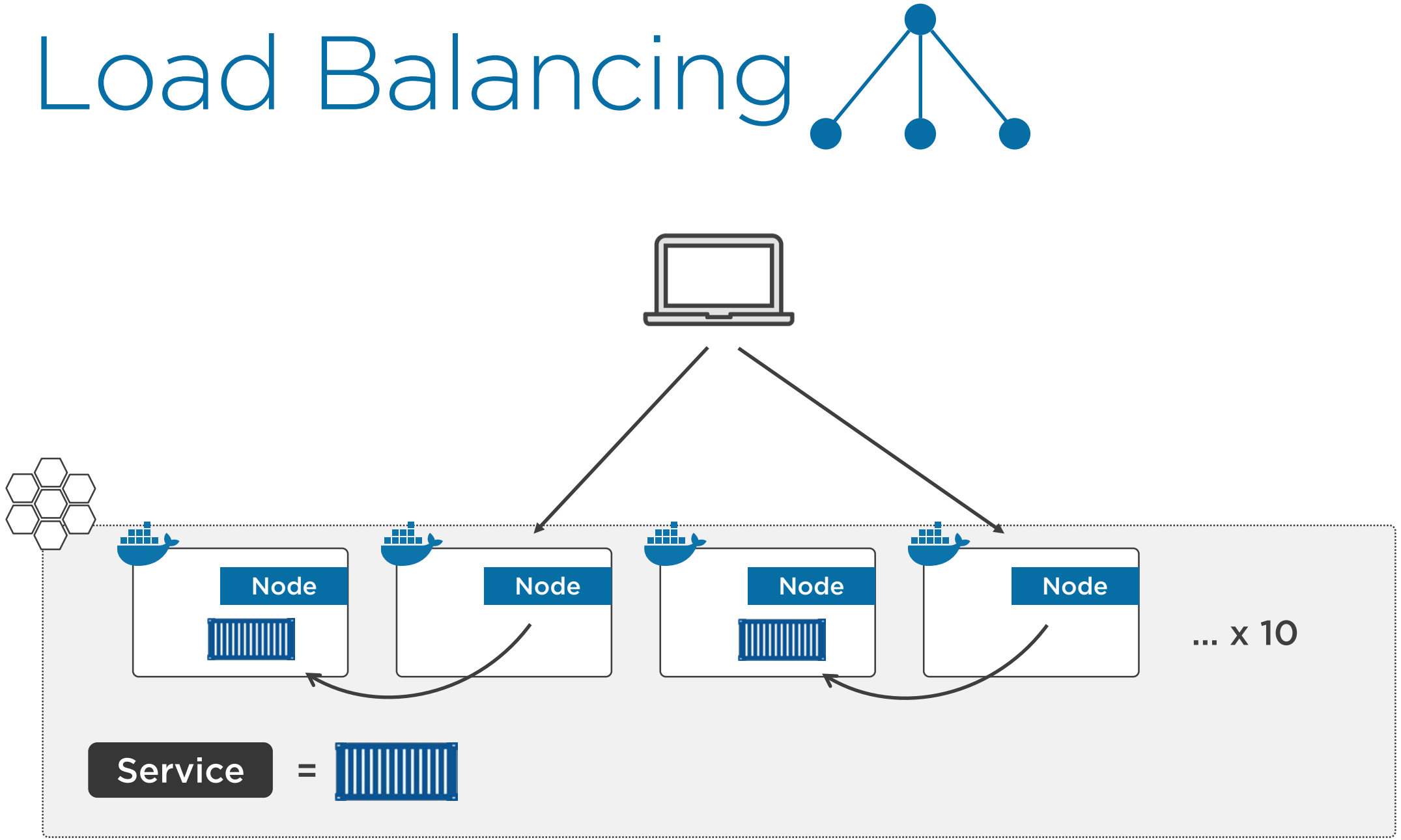
Service Discovery

Every service gets a name

Names are registered with Swarm DNS

Every service uses Swarm DNS

Load Balancing



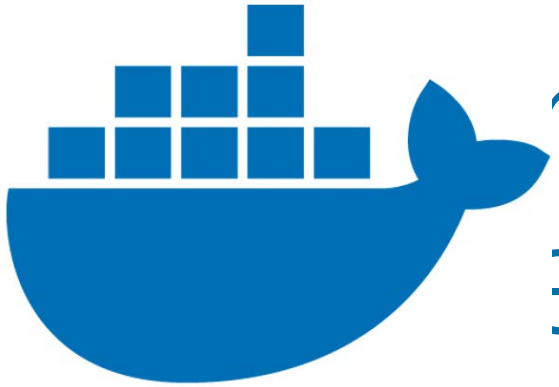
Coming up

Recap

Recap

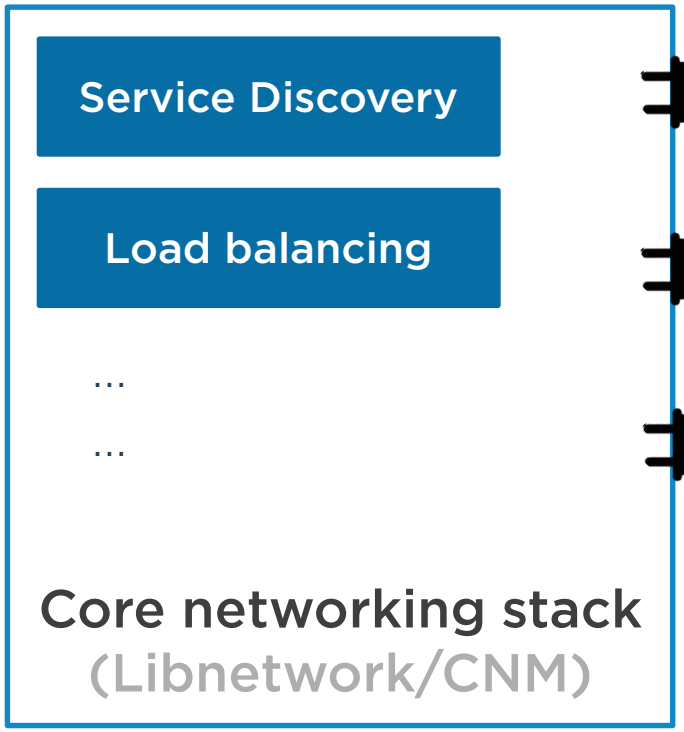
Remember this...

Container networking

Ne  ng

is ex

made simple...



Bridge: Single-host
(a.k.a NAT on Windows)

Overlay: Multi-host
(Container-only)

MACVLAN: Existing VLANs
(Requires promiscuous mode)

Coming up

NEXT MODULE

Volumes and Persistent Data