

# DOCKER搭建测试环境

dockercon14

June 9-10, 2014 • San Francisco



# 困境 DILEMMA

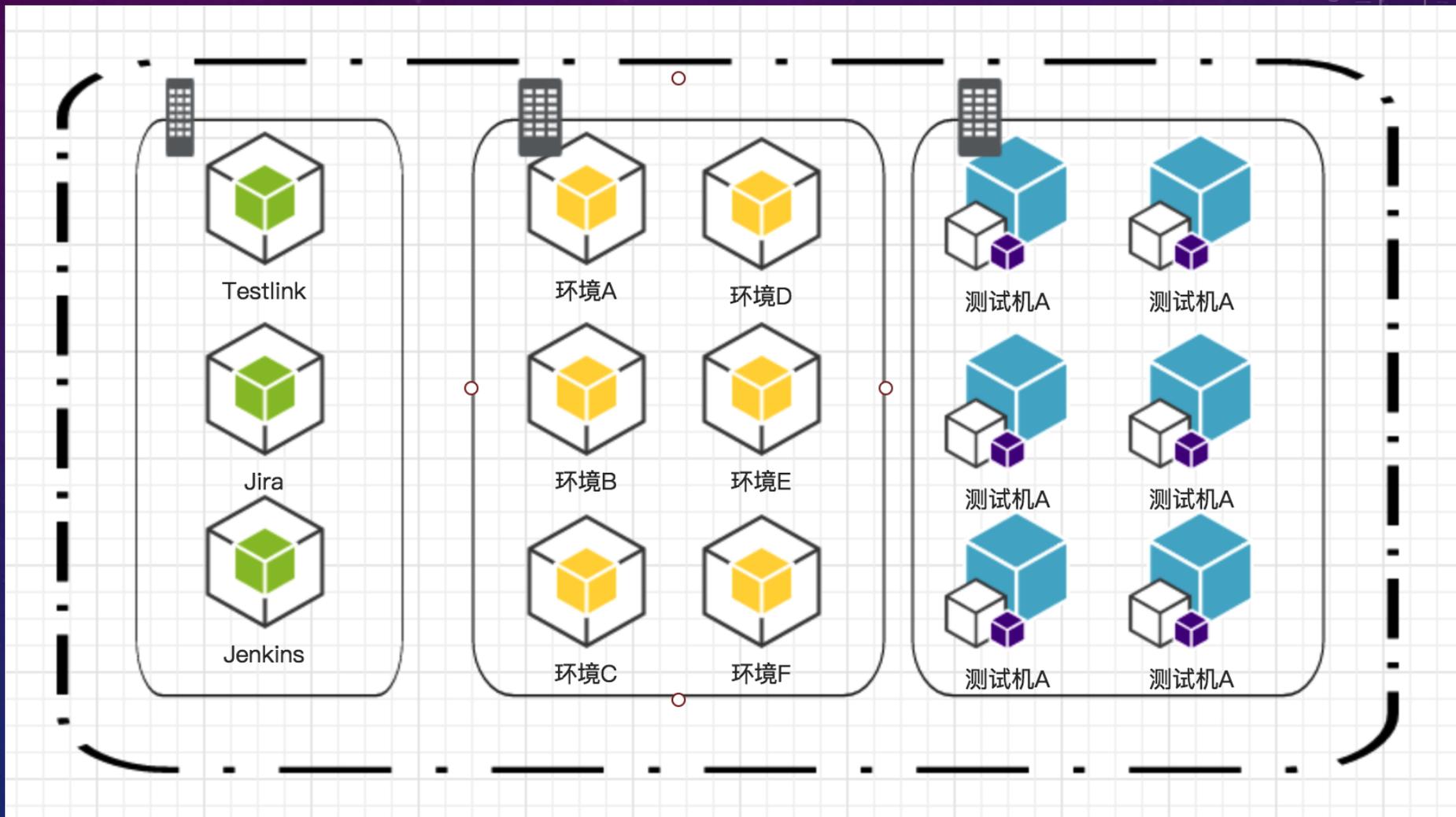
- 环境搭建困难
- 环境不一致
- 一套环境多人共用
- 测试机器稀缺

# 解决方案 SOLUTION

- 自动化
- 标准化
- 集群化

# DOCKER

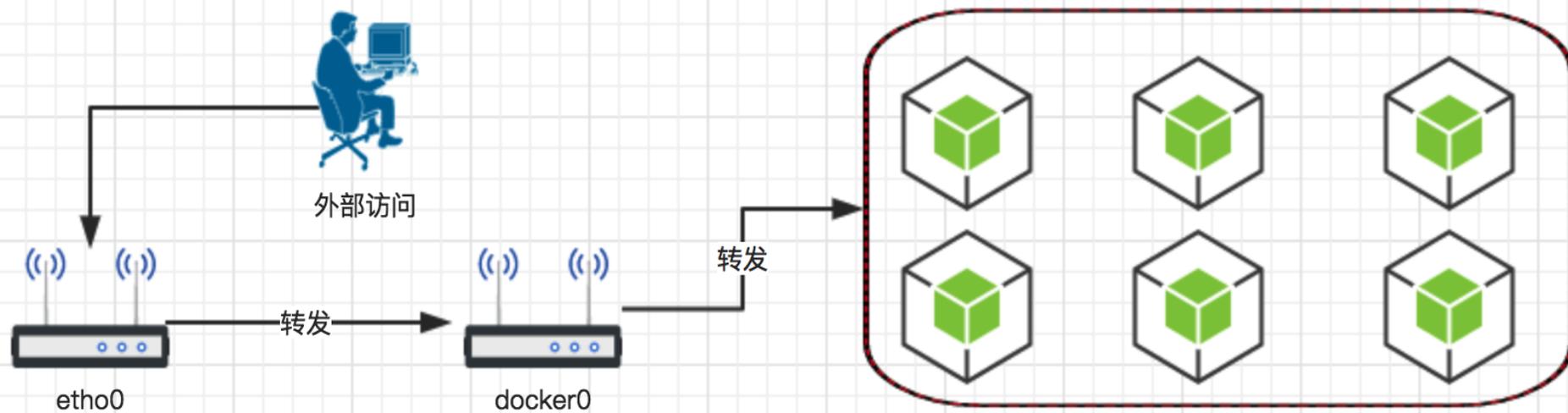
- 节省资源
- 简化运维成本
- 迁移方便
- 用完既删



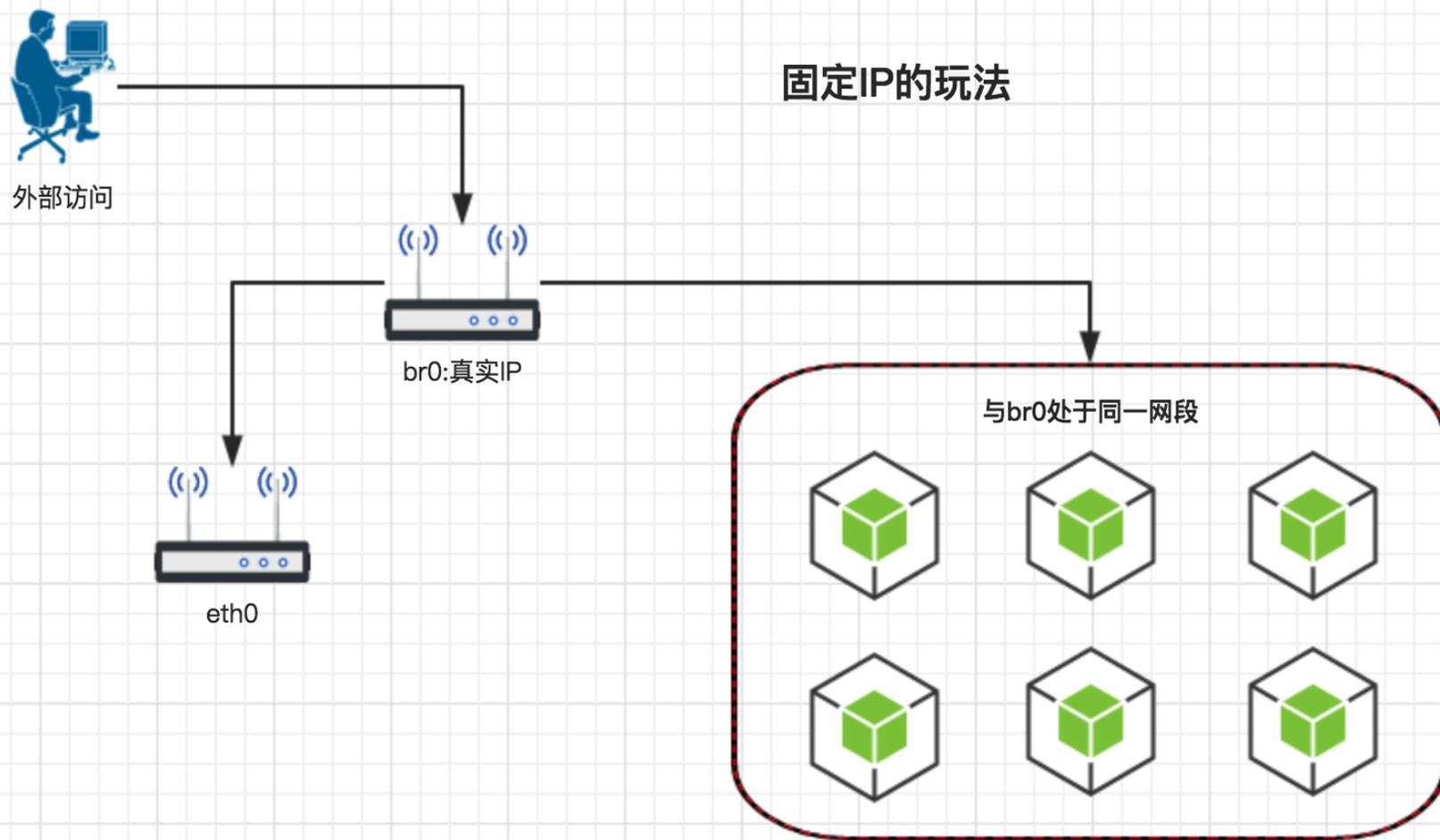
# 网络的玩法 NETWORK

- 端口映射
- 固定IP

## 端口映射的玩法



## 固定IP的玩法



# 环境部署 DEPLOYMENT

- Container模式
- 打包模式

### container模式



模块A



模块B



模块C



模块D

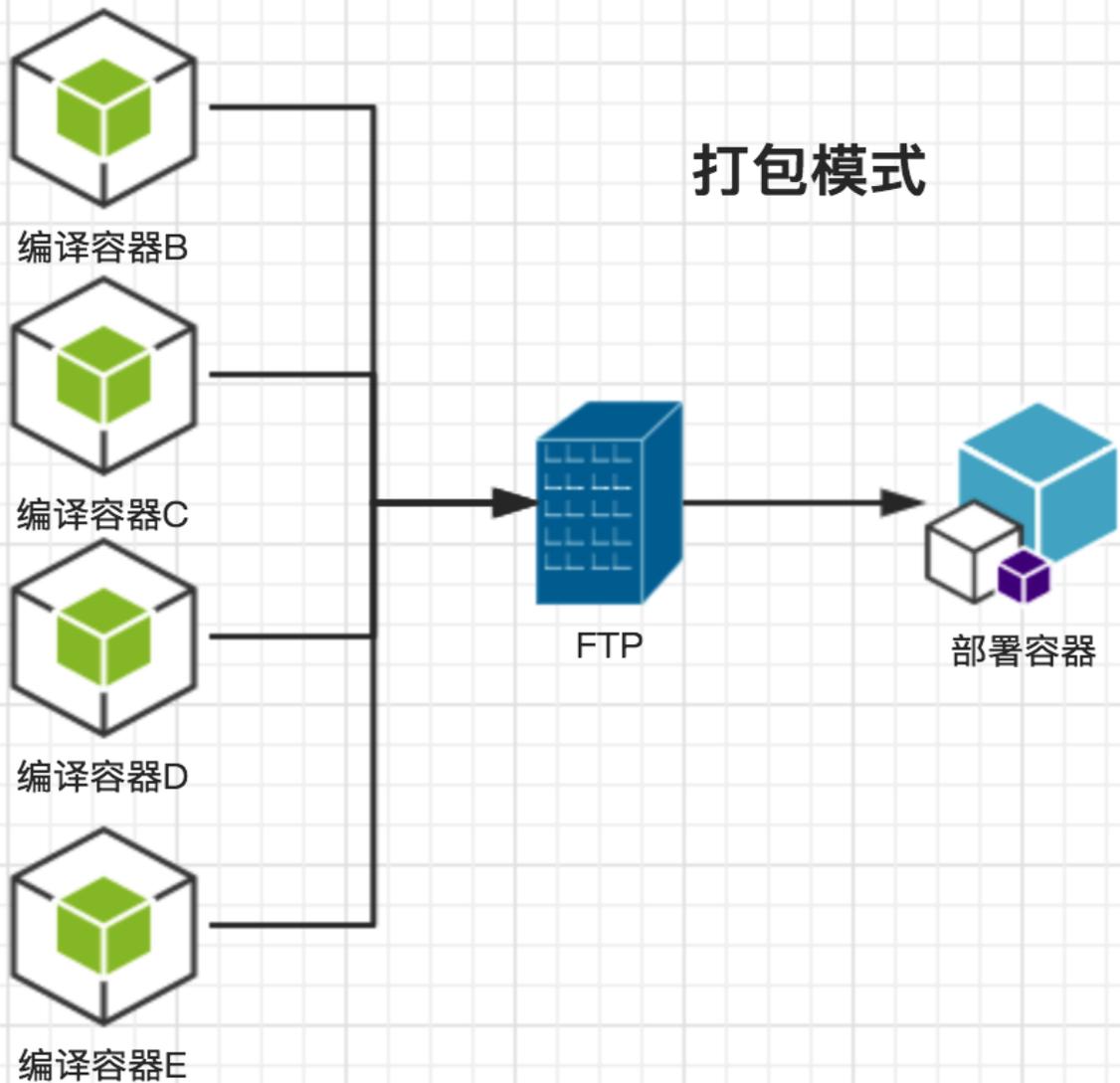


模块E

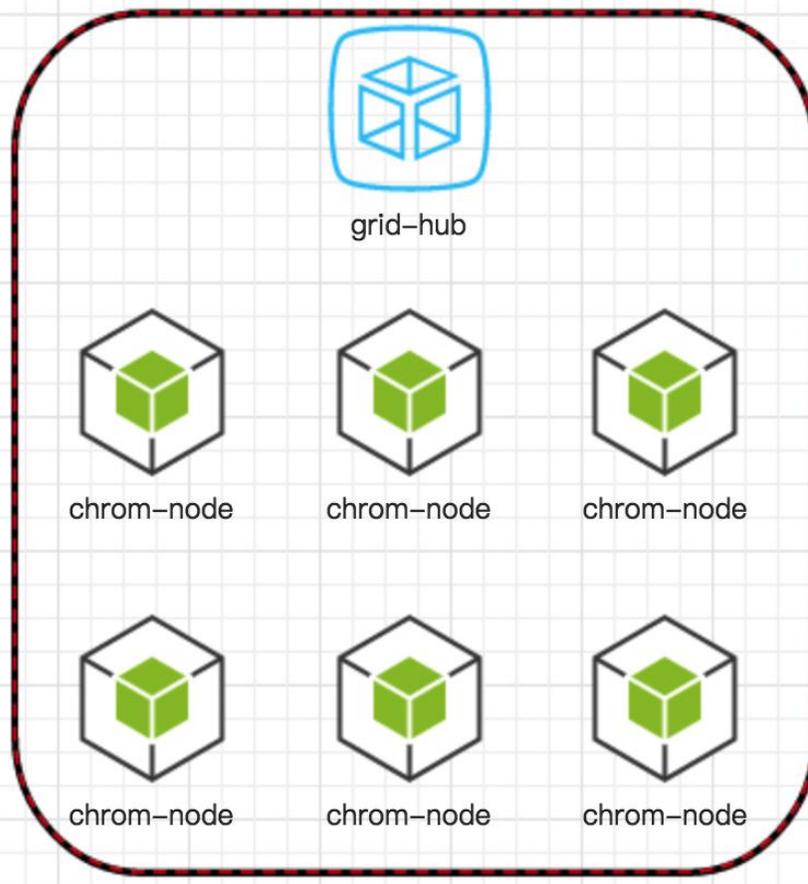
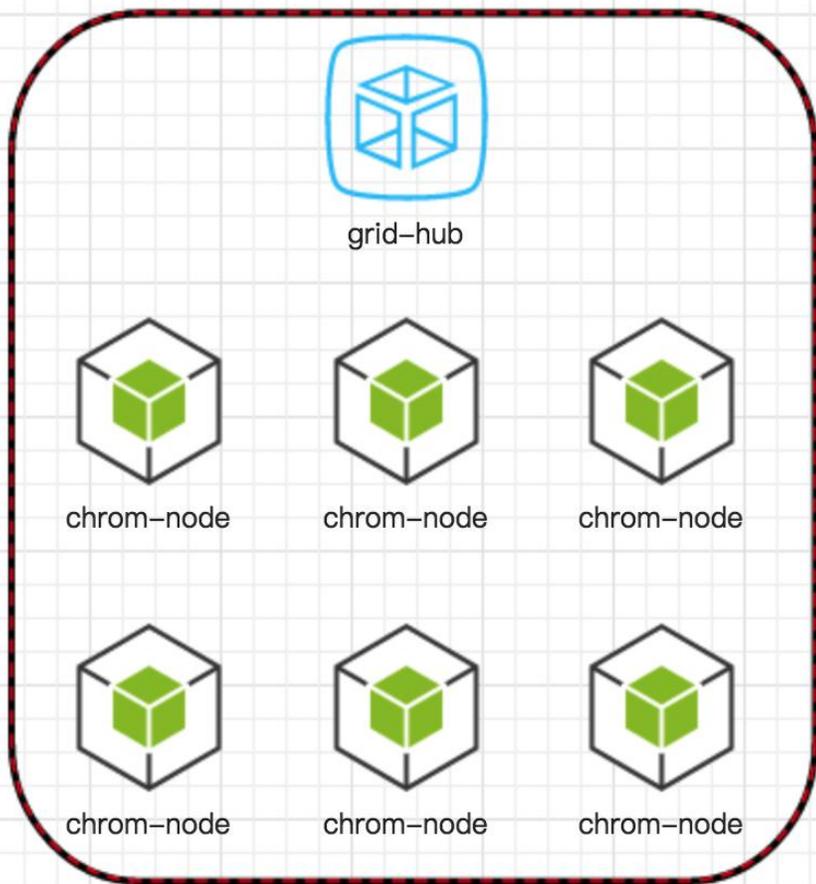


模块F

# 打包模式



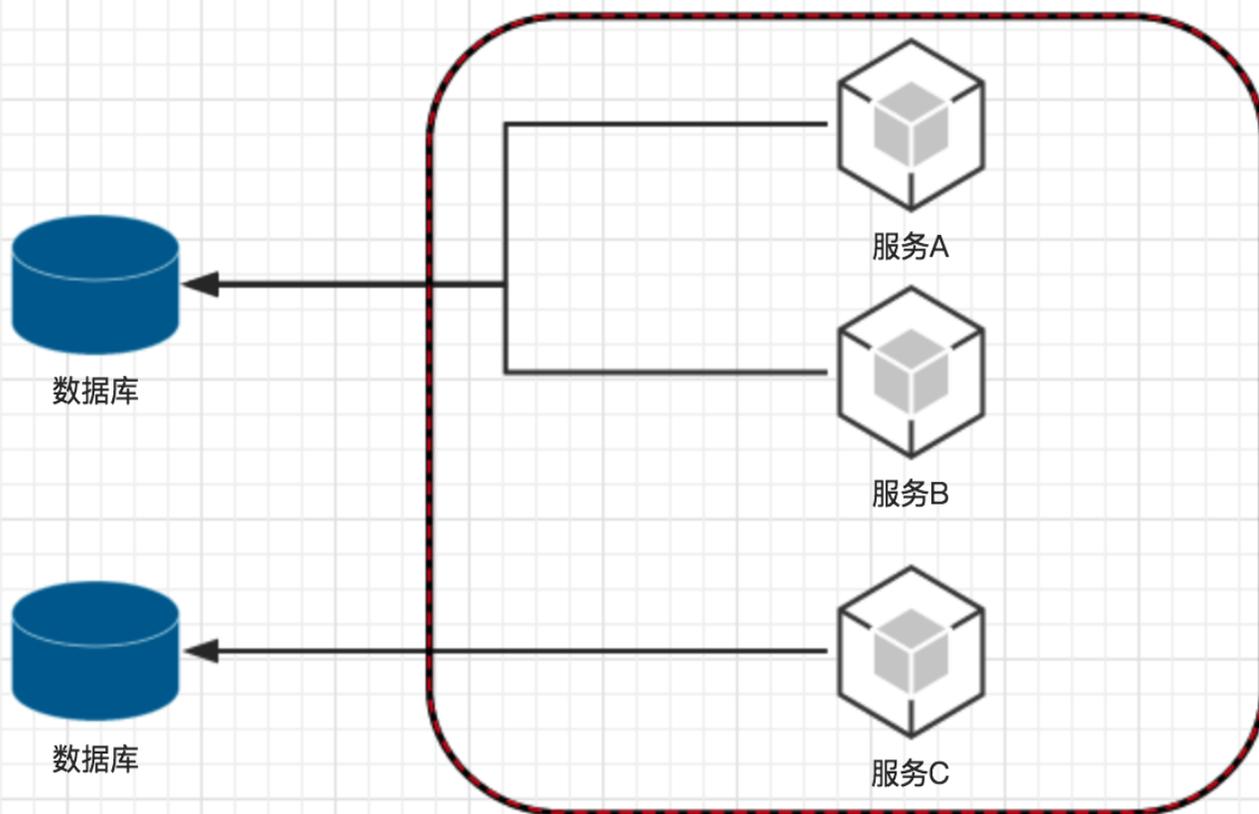
### 测试执行机器的玩法



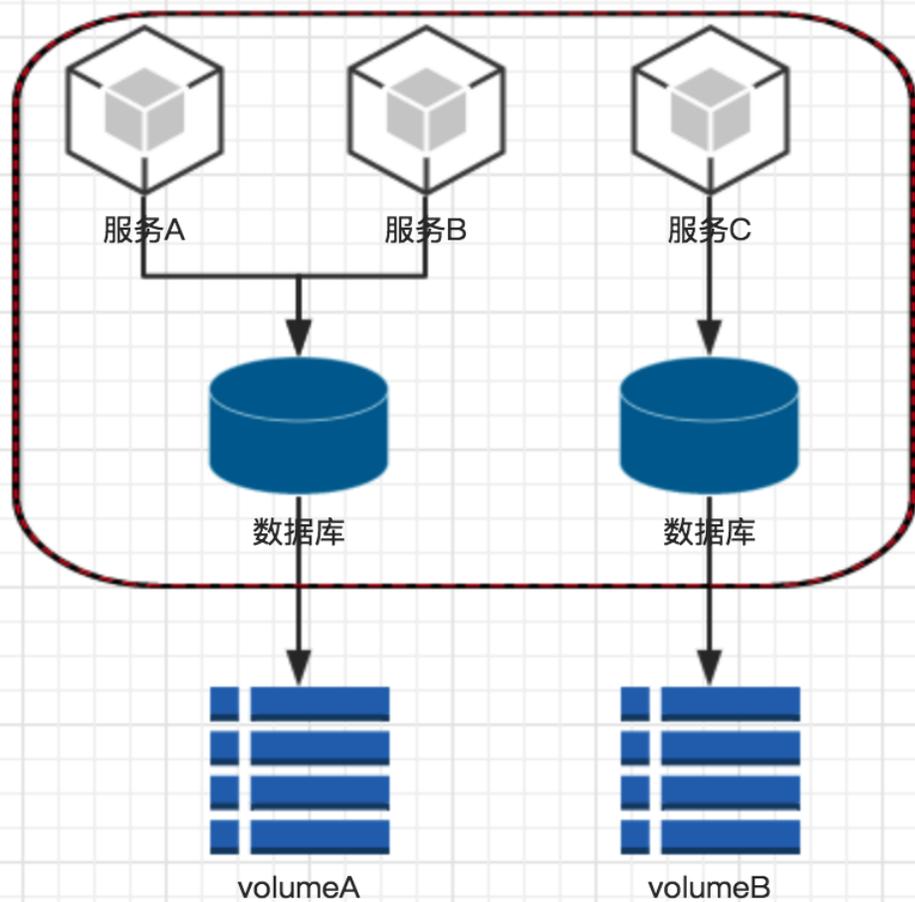
# 存储的玩法 STORAGE

- 外部存储
- Volumes

## 外部存储



### volume存储



# 集群 CLUSTER

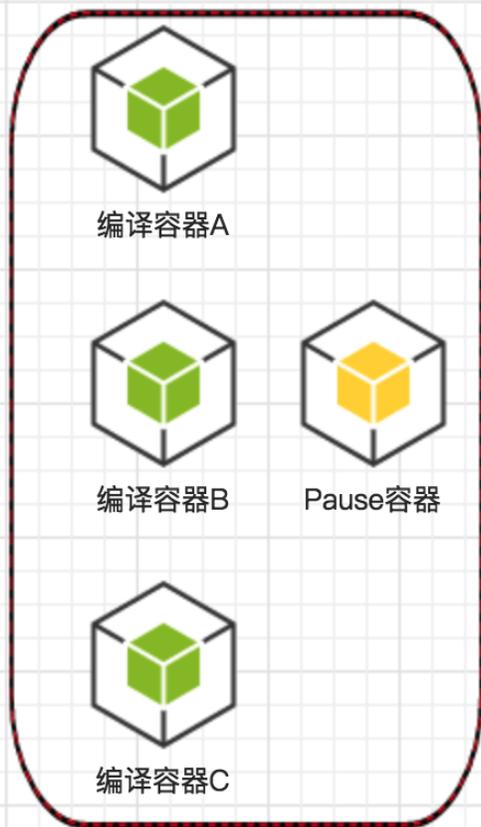
- Mesos
- Kubernetes
- Swarm mode

# K8S基本概念

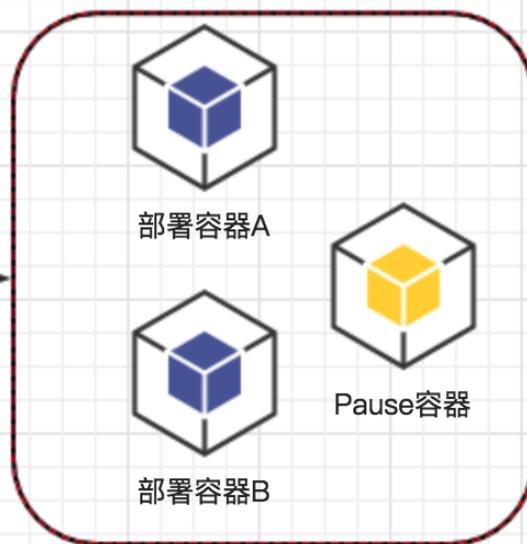
- Pod
- Deployment
- service

### 为PM定制产品环境

#### 编译Pod

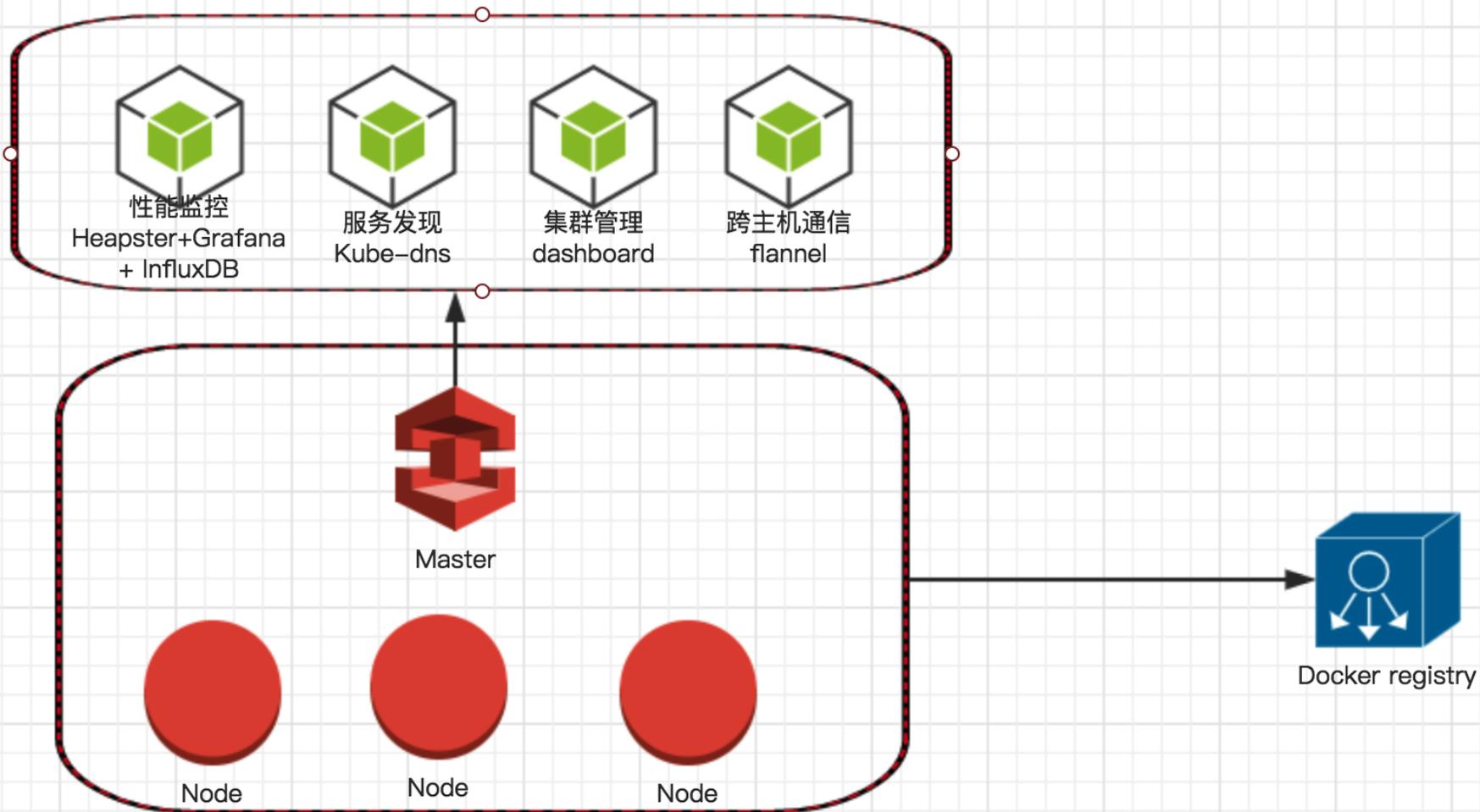


#### 部署Pod



# 安装服务

- 夸主机通信
- 服务发现
- 集群管理
- 容器级监控
- 镜像仓库



Admin

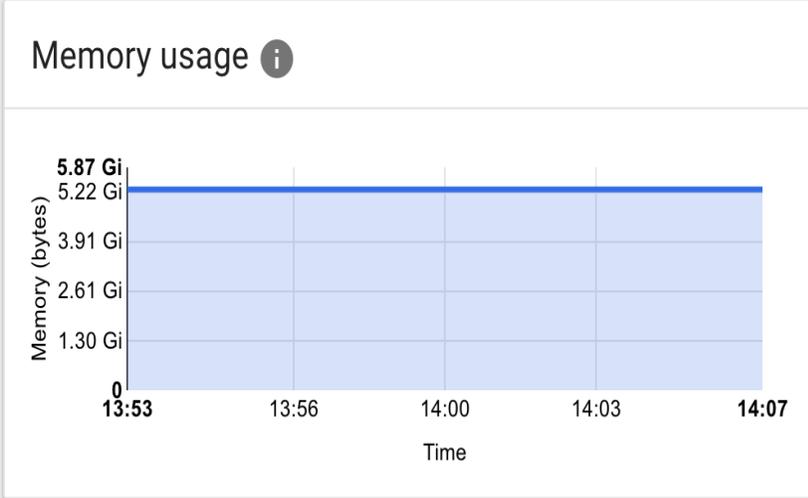
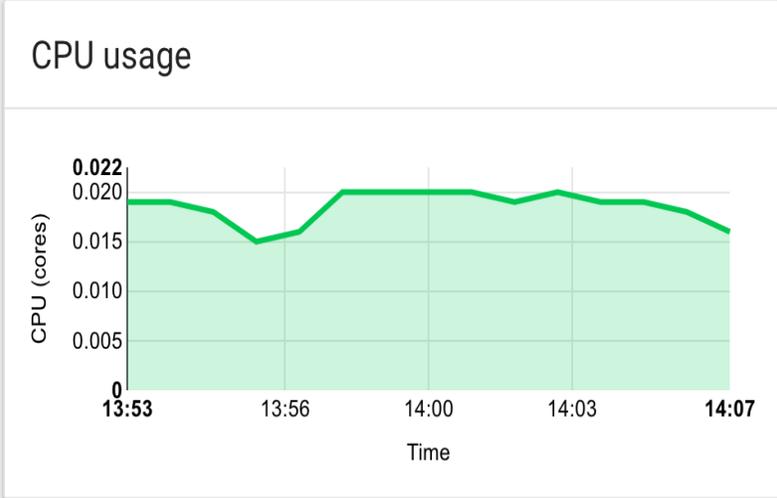
- Namespaces
- Nodes
- Persistent Volumes
- Storage Classes

Namespace

default ▾

Workloads

- Deployments
- Replica Sets
- Replication Controllers
- Daemon Sets
- Stateful Sets
- Jobs

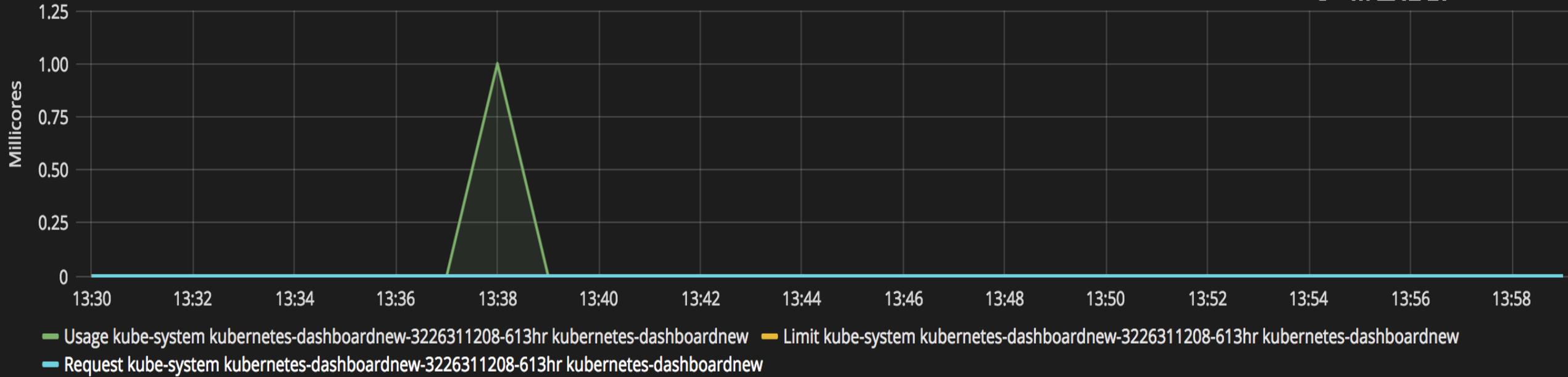


### Pods

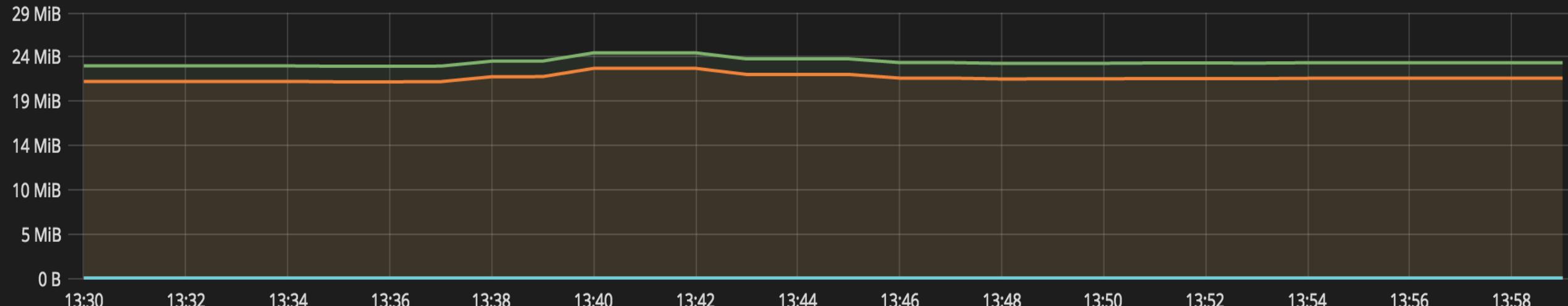
Name	Status	Restarts	Age	CPU (cores)	Memory (bytes)		
<span style="color: green;">✔</span> <a href="#">gaofei02-deploy</a>	Running	0	a day	<div style="width: 0%; background-color: #ccc;">0</div>	<div style="width: 46%; background-color: #007bff;">461.797 Mi</div>	☰	⋮
<span style="color: green;">✔</span> <a href="#">gaofei02-pma1</a>	Running	0	a day	<div style="width: 0%; background-color: #ccc;">0</div>	<div style="width: 34%; background-color: #007bff;">34.758 Mi</div>	☰	⋮
<span style="color: green;">✔</span> <a href="#">gaofei03-deploy</a>	Running	0	4 days	<div style="width: 16%; background-color: #28a745;">0.016</div>	<div style="width: 47%; background-color: #007bff;">4.790 Gi</div>	☰	⋮



## Individual CPU Usage: kube-system kubernetes-dashboardnew-3226311208-613hr



## Individual Memory Usage: kube-system kubernetes-dashboardnew-3226311208-613hr





THANK YOU

