

创业公司的



体验



Agenda:

1. 背景介绍
2. Docker 之于 测试开发
3. Docker 之于 线上部署

CuriosityChina is a **digital** and **tech** company focusing on the development of **social CRM**, building a one stop social media customer/user management platform - CURIO.

By **tracking, analyzing** and combining the **data** of clients' customer/user behavior across all online channels, planning and executing strategically according to the clients' brand DNA/features, CuriosityChina improves the performances across social media platforms particularly on WeChat and Weibo, enlarges or builds up the CRM database, and brings higher quality and more loyal customers.

We have offices in Beijing, Shanghai, Hong Kong and Paris, providing international working environments with employees from all over the world.

CURIOSITYCHINA
— DigitalActivation —





谨慎


 docker / docker

 Watch 2,146  Unstar 24,338  Fork 6,237

Docker - the open-source application container engine <http://www.docker.com>

 17,940 commits  3 branches  111 releases  1,071 contributors

 Branch: master 


Merge pull request #15822 from vdemeester/docs-update-filtering-ps-an... 

 moxlegirl authored 2 hours ago

latest commit 04b0fb6314 

 api Add volume API/CLI a day ago


 builder Builder counts from 1 a day ago

 cli cli: new daemon command and new cli package a month ago

 Code

 Issues 952

 Pull requests 88

 Wiki

 Pulse

 Graphs

STEP 1

引入到开发环境中

目标

1. 新人加入团队能快速上手
2. 按需配置



应用程序运行环境的依赖描述！



之于

应用程序

=



之于



=

Godeps

之于



=

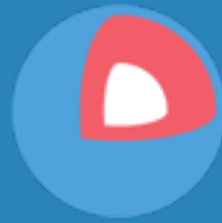
pip

之于





+



CoreOS

+



+



+



Docker Compose



 **docker-compose.yml** 372 Bytes

```
1  msupervisor:
2    image: dev
3    volumes:
4      - /home/vagrant/shared/codes/golang/src:/go/src
5    ports:
6      - "80:8080"
7      - "9088:49895"
8    links:
9      - redis
10     - mongo
11    working_dir: /go/src/
12
13  redis:
14    image: redis
15    ports:
16      - "6379:6379"
17
18  mongo:
19    image: mongo-rs
20    ports:
21      - "27017:27017"
```



“

Do you have a web interface?

KDocker-Web

English

Containers in local Create

Containers

Images

Registry

Config

| ID | Description | Image | Command | Port | Status | Action |
|--------------|--------------------------------------|-------------------------------|--|-----------------------------|---------------------------|--|
| fabf0688 ... | pm-test123 | dev:latest | /bin/bash | 49895 -> 9088 80 -> 8080 | Up About a minute | Attach Pause Stop Commit Remove |
| cc3646d6 ... | pm-test123/redis/pm-test123-redis | docker.cn/docker/redis:2.8.17 | /entrypoint.sh redis-server | -> 6379 | Up About a minute | Attach Pause Stop Commit Remove |
| c07f3ba5 ... | pm-test123/mongo-rs/pm-test123-mongo | mongo-rs:latest | /bin/sh -c 'mongod --replSet mm0 --logpath /var/log/mongodb/mongo.log --smallfiles --noprealloc' | -> 27017 | Up About a minute | Attach Pause Stop Commit Remove |
| 8750584d ... | pm-pages-new | dev:latest | /bin/bash | | Exited (0) 6 hours ago | Attach Pause Start Commit Remove |
| 4b5c4116 ... | pm-wechat-statistics | dev:latest | /bin/bash | 80 -> 5000 | Exited (0) 3 days ago | Attach Pause Start |

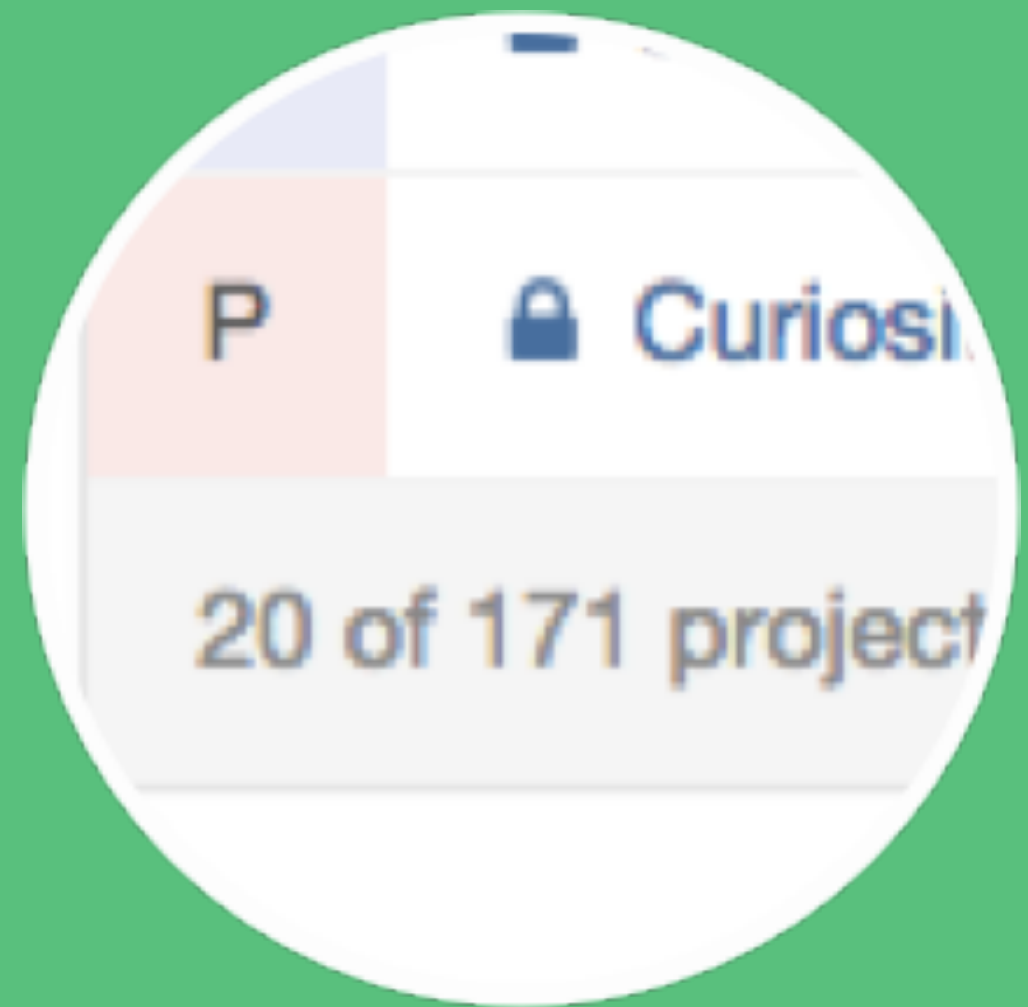
v0.1.14-5

引入到开发环境中



Business Driven

项目太多

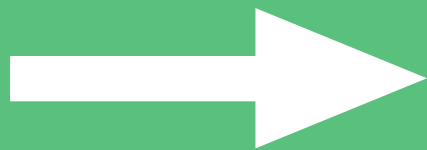


扩容麻烦

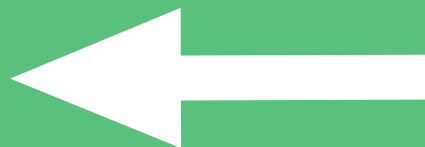
| | | | |
|------------------------|------|------------------------------|-----|
| olas-3 | ● 活跃 | rtr-5y8epftm | 192 |
| ach-qixi-11 | ● 活跃 | rtr-5y8epftm | 121 |
| ach-qixi-8 | ● 活跃 | rtr-5y8epftm | 120 |
| ach-qixi-12 | ● 活跃 | rtr-5y8epftm | 121 |
| e-helpcenter | ● 活跃 | rtr-5y8epftm | 122 |
| e-helpcenter-dashboard | ● 活跃 | rtr-5y8epftm | 122 |
| e-question-phone-2 | ● 活跃 | rtr-5y8epftm | 122 |
| genew-2 | ● 活跃 | rtr-5y8epftm | 121 |
| olas-2 | ● 活跃 | rtr-5y8epftm | 192 |
| olas-1 | ● 活跃 | rtr-5y8epftm | 192 |
| e-command | ● 活跃 | rtr-5y8epftm | 122 |
| e-qrcode | ● 活跃 | rtr-5y8epftm | 122 |
| e-datacenter-1 | ● 活跃 | rtr-5y8epftm | 122 |

定制化





Supervisor



目标

1. 自动的服务发现（负载均衡）
2. 计算资源调度，最大利用机器的资源
3. CI 流程自动化
4. 监控系统
5. 开发/部署环境统一
6. 可扩展

生产环节的尝试

3

第一次尝试



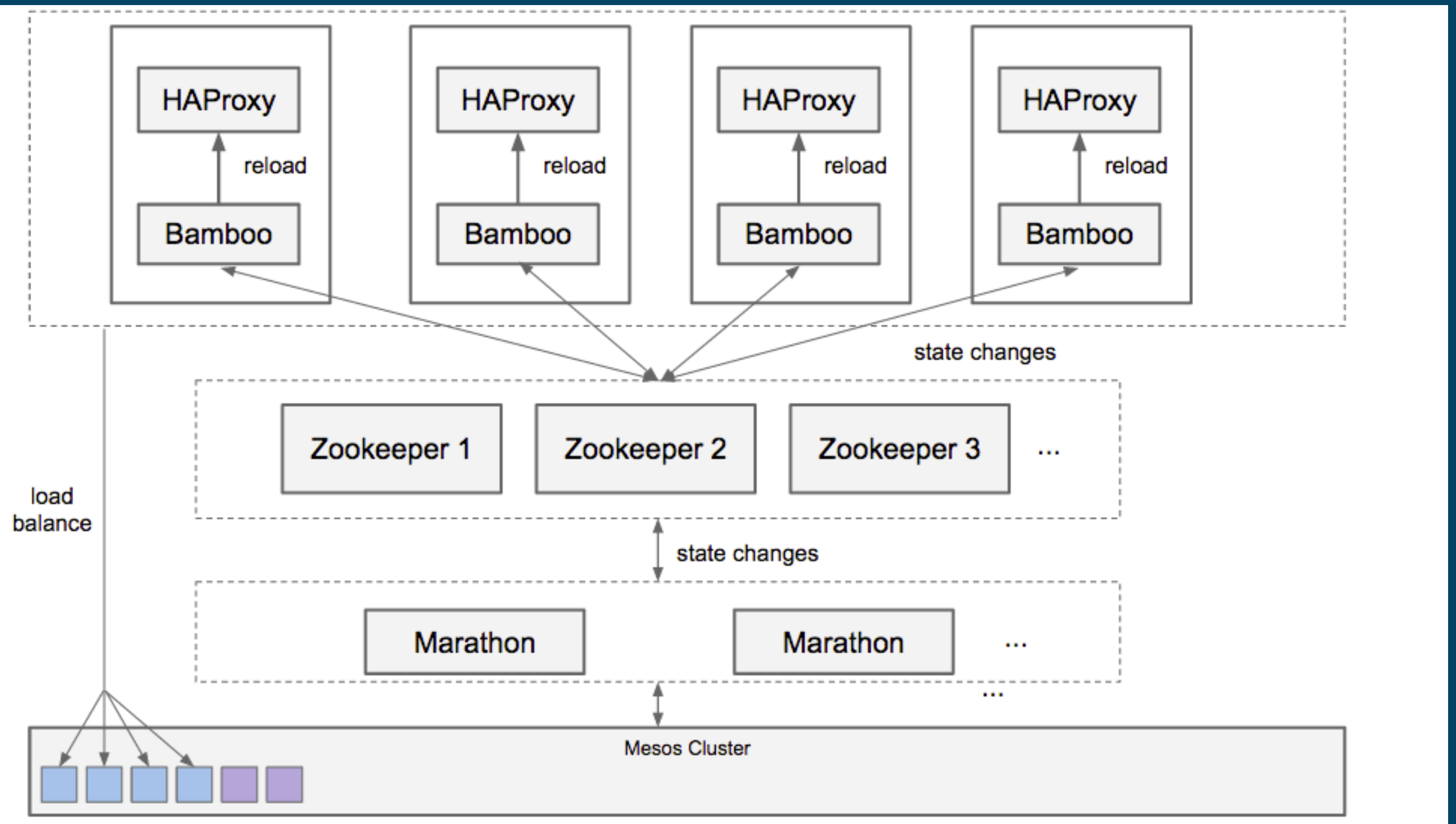
快速失败

1. 青云的CoreOS最初的镜像版本有问题
2. CoreOS 更新不方便（翻墙）
3. CoreOS 迭代速度快，暂时稳定
4. etcd 2.0 将替换 0.46

第二次尝试



MESOS



God

中文

hello

删除保存

基本设置
Basic Setting

Marathon高级设置
Marathon Advanced

高级设置

Args + -

Constraints + -

Env +

Marathon-container-docker-image
docker.curio.im/hacker/bamboo:latest

Marathon-container-docker-network
BRIDGE

Marathon-container-docker-portMappings: Type, ContainerPort, HostPort, ServicePort
tcp 8080 0 servicePort +

Marathon-container-volumes + -

HealthChecks
HTTP path 10 5 +

God

中文





Project 族群

项目服务

创建

hello

hacker-bamboo-latest 2015-08-21 15:20:49
+0800



失败:理想很丰满，现实很骨感

1. 没有zookeeper的运维经验
2. Marathon 的 event bus 不稳定
3. 应用无故的死掉，Mesos Cluster 瘫痪



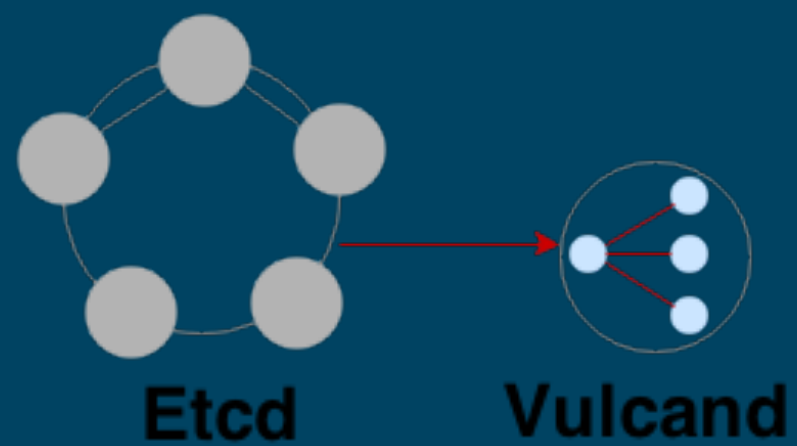
只有对当下的自己合适且必须，
也确实在用的东西，
才会留在你的空间里。

—— 《断·舍·离》

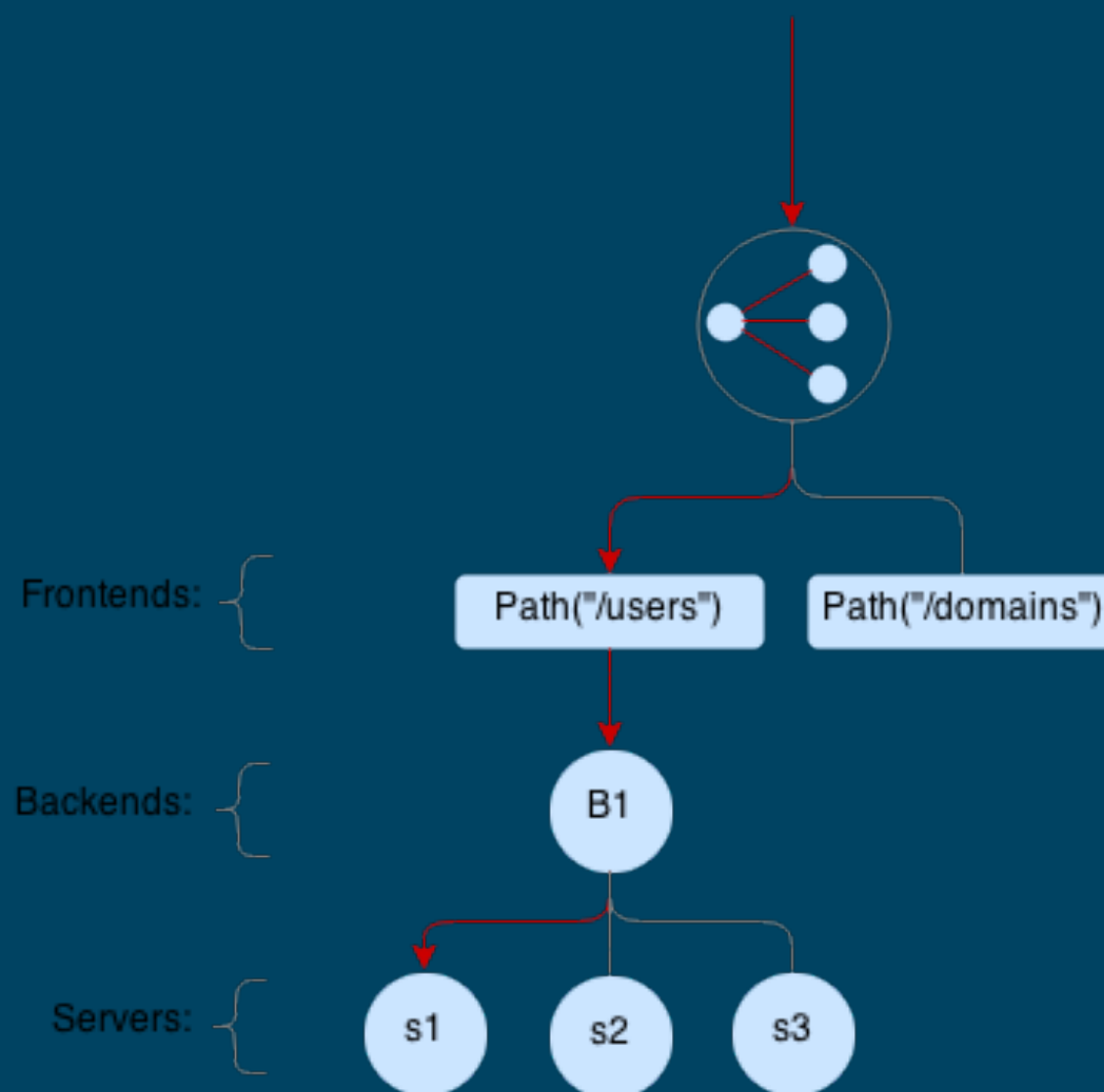
第三次尝试



VM 的应用



VM 的应用



Container 的应用



MESOS

zookeeper 和 Mesos-Master 系统隔离



QINGCLOUD 青云

消息队列与集群管理

目前可快速创建基于 ZooKeeper 协调管理的消息系统 (Kafka) 以处理大量活跃流式数据。

ZooKeeper

在线伸缩

实时监控

监控告警

Kafka

灵活组网

版本

名称

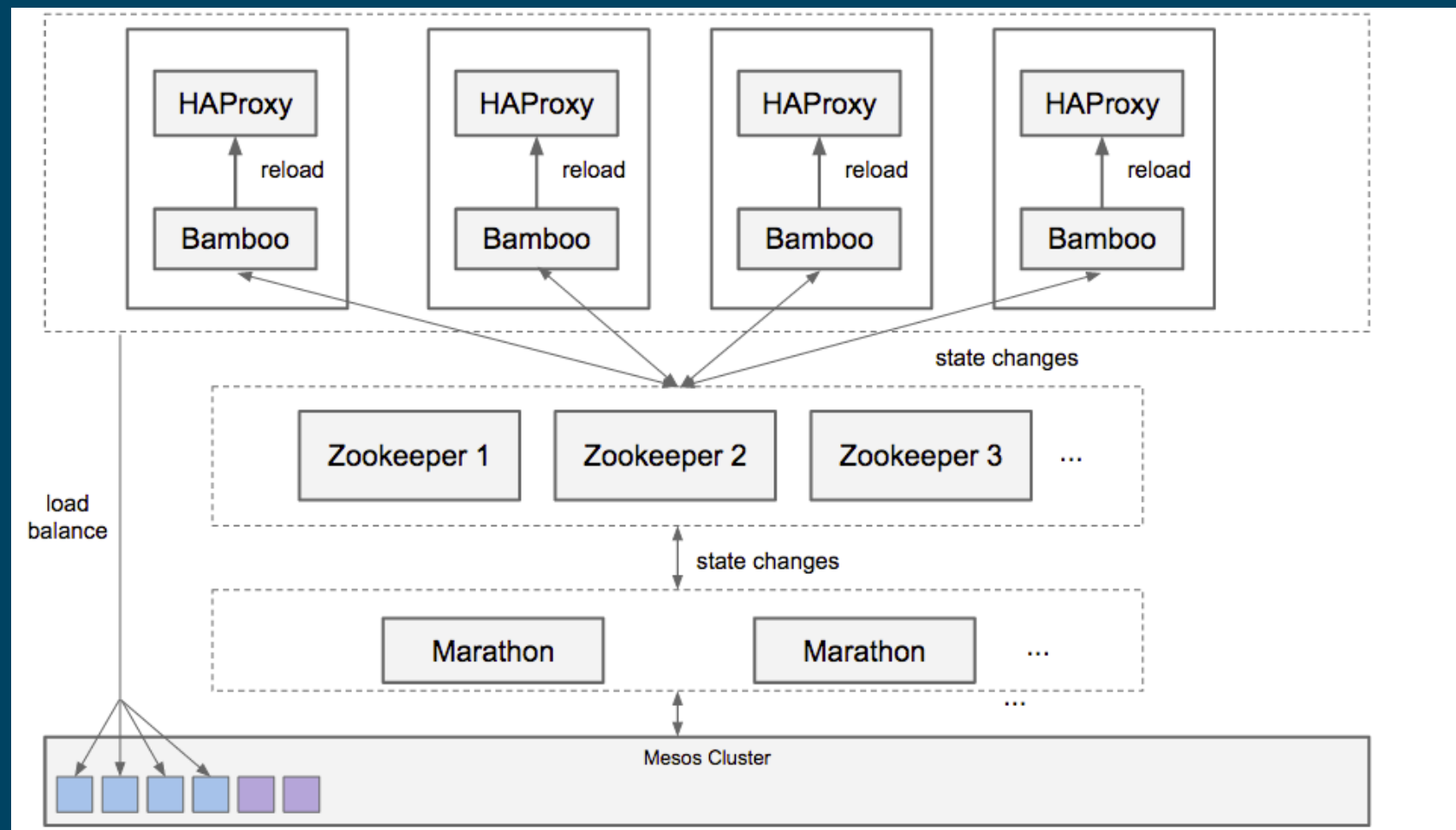
配置 ☐ 1核1G ☒ 1核2G ☐ 2核4G ☐ 4核8G

节点数量
节点个数只能为奇数，最多9个。

ZooKeeper

ZooKeeper 是一个高可用的分布式数据管理与系统协调软件，它可以为分布式应用提供状态同步、配置管理、名称服务、群组服务、分布式锁及队列、以及 Leader 选举等服务。

[阅读文档](#)




```

(venv)➔ curio-cli git:(master) ✕ curio --help
Usage: curio [OPTIONS] COMMAND [ARGS]...

CuriosityChina Internal Tools.

Options:
  -v, --verbose  Enables verbose mode.
  -h, --help     Show this message and exit.

Commands:
  apps  Get all apps running in marathon.
  lc    Launch the common service in web browser.
  ps    Resize the apps.
(venv)➔ curio-cli git:(master) ✕ curio apps all
ID                                     VERSION                                CPUS    MEM    INSTANCES
/bridged-webapp                       2015-08-21T23:06:25.953Z               0.5     64.0    2
/prod/app/curiositychina/pm-question-dashboard-76b37a-2015-08-22-00 2015-08-21T22:08:09.413Z               0.1    128.0    3
(venv)➔ curio-cli git:(master) ✕ curio ps /bridged-webapp
Please enter number you want to resize?: 3
{u'deploymentId': u'6383e901-baf4-4ed6-94df-b1901bcfa1b4', u'version': u'2015-08-22T10:08:50.128Z'}
(venv)➔ curio-cli git:(master) ✕ |

```

| MARATHON Apps Deployments About Docs ↗ | | | | | | |
|--|-------------|------|-------------------|-------------|---------|--|
| + New App | | | | | | |
| ID ↕ | Memory (MB) | CPUs | Tasks / Instances | Health | Status | |
| /bridged-webapp | 64 | 0.5 | 3 / 3 | <div></div> | Running | |
| /prod/app/curiositychina/pm-question-da... | 128 | 0.1 | 3 / 3 | <div></div> | Running | |

Prod App

- 12h

+

<<

Until

>>

↺

every 30s ▾

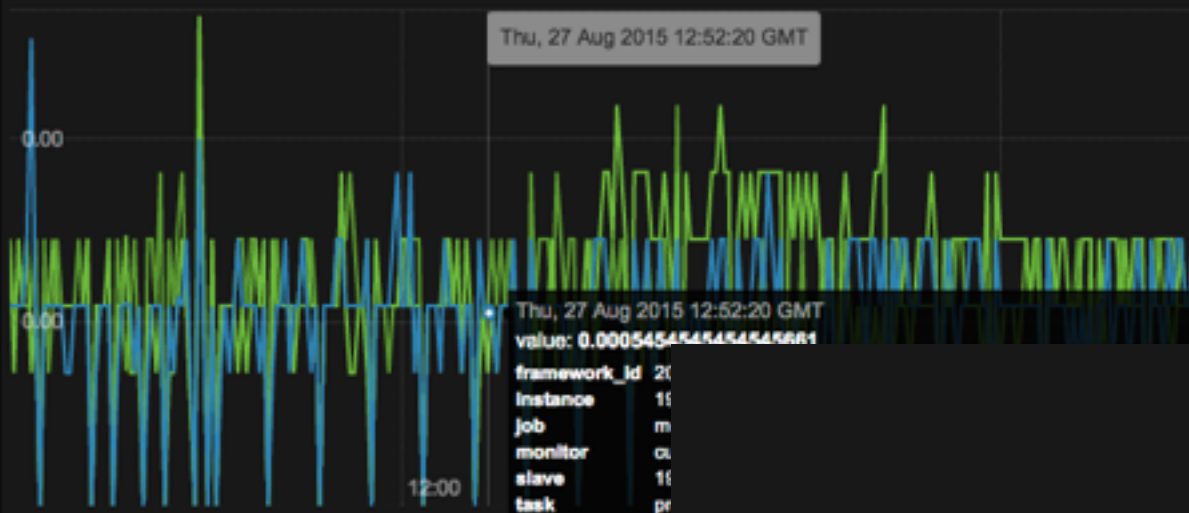
□

□

□

Save Changes

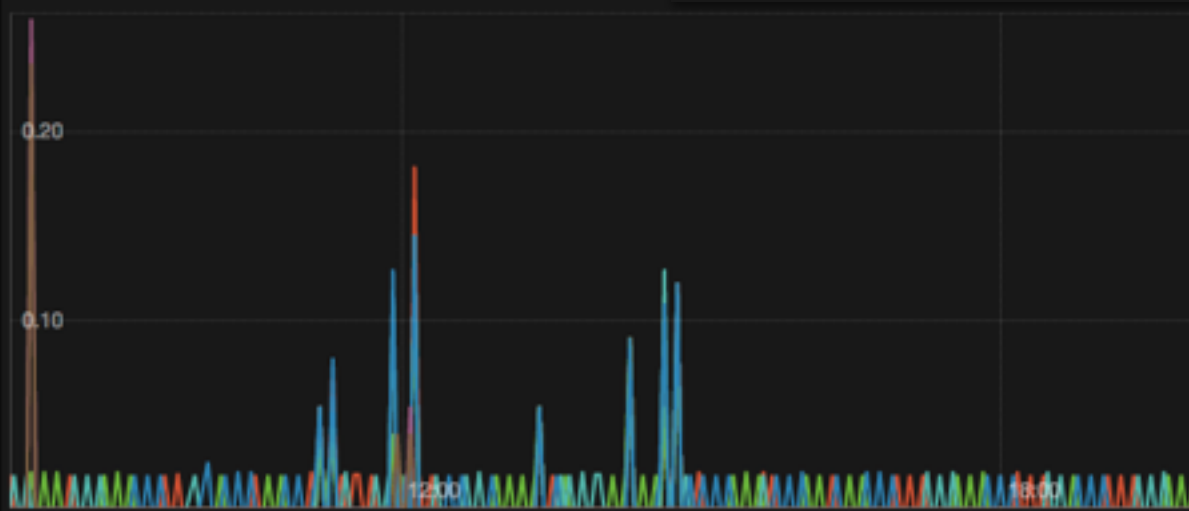
CPU usage per minute



memory usage per minute



App connections per minute



bytes per minute



Add Graph

Add Pie Chart

Add Gauge

Add Frame

Clone Widget

1. 现有的开发环节中一定要有自动部署
2. container中一定要有健康检查
3. marathon 的 task 需要考虑人类的感受
4. docker 是以 scalability 弥补 availability

Join US





麦可思哲

北京 朝阳



扫一扫上面的二维码图案，加我微信

CURIOSITYCHINA

DigitalActivation