

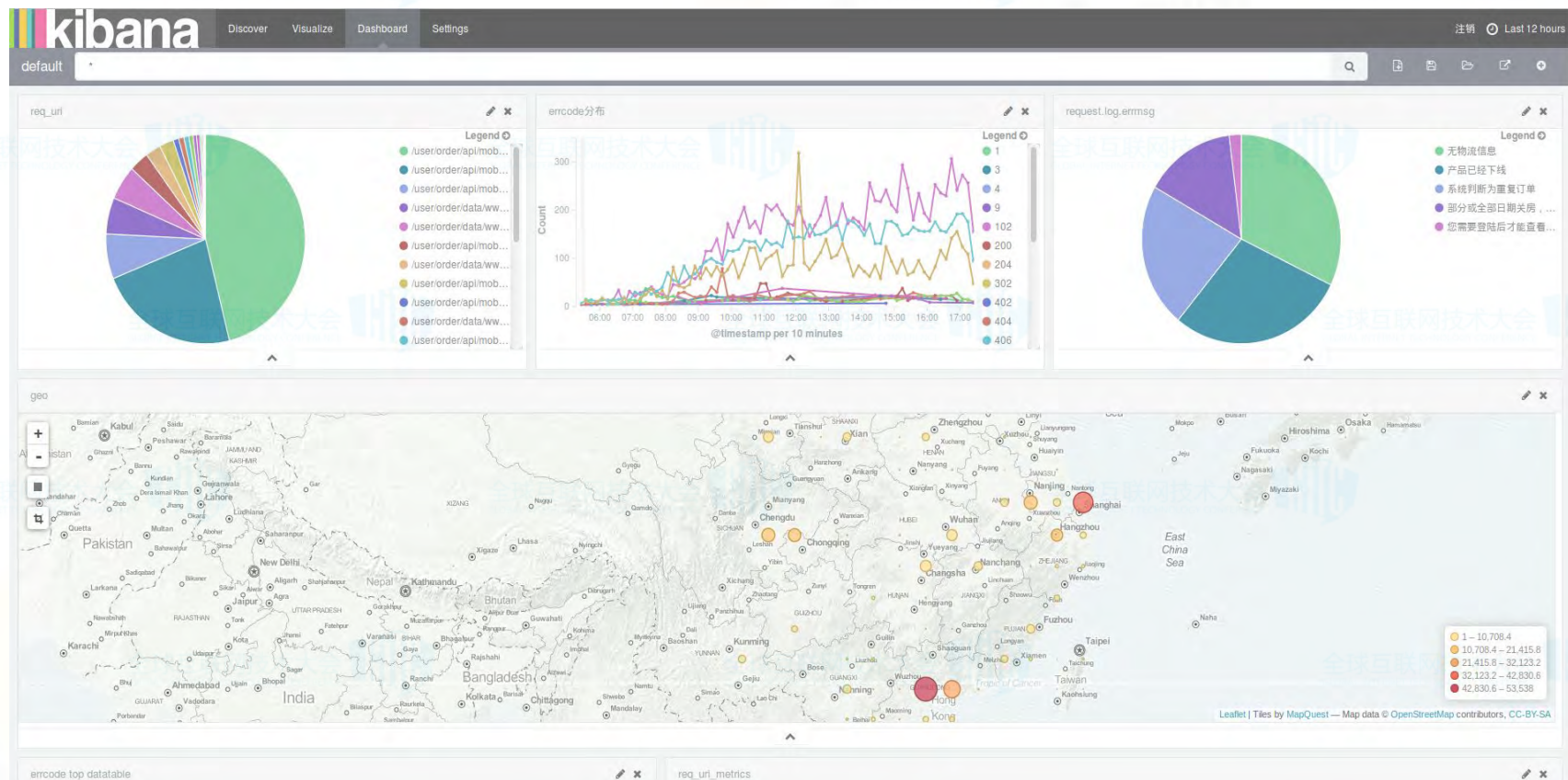


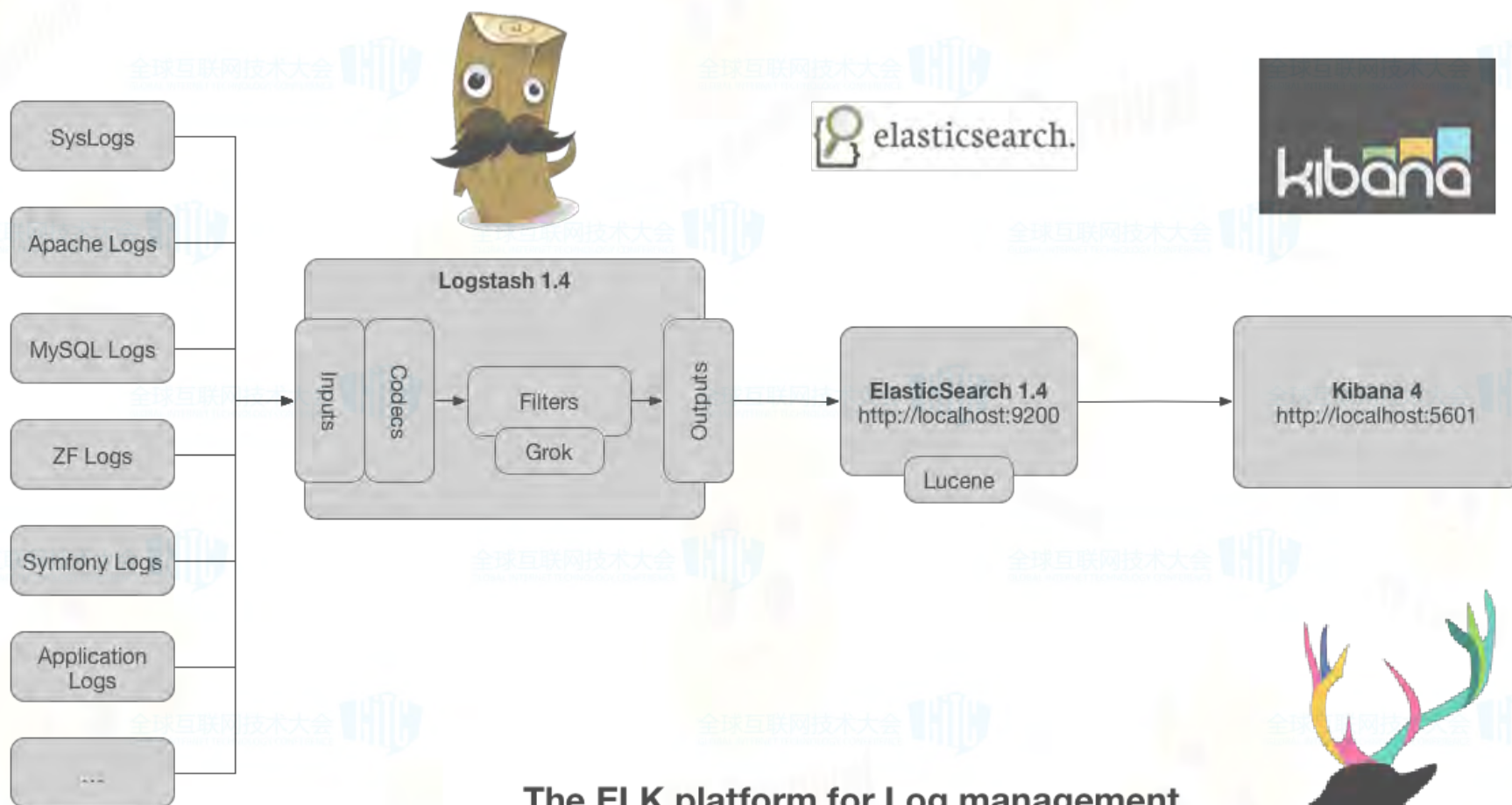
微信扫码关注

# Mesos在Qunar的应用



# 2015年Q2——ELK





The ELK platform for Log management







# 解决问题定位的瓶颈





# 面临的问题

- 快速构建业务
  - 自动化
- 快速扩容
  - Scale up
  - Scale out
- 业务隔离
  - 数据隔离
  - 访问隔离
  - 资源隔离



# 方案



docker



MARATHON



MESOS



# 2015年Q4——流处理

  
**Spark**



**STORM**

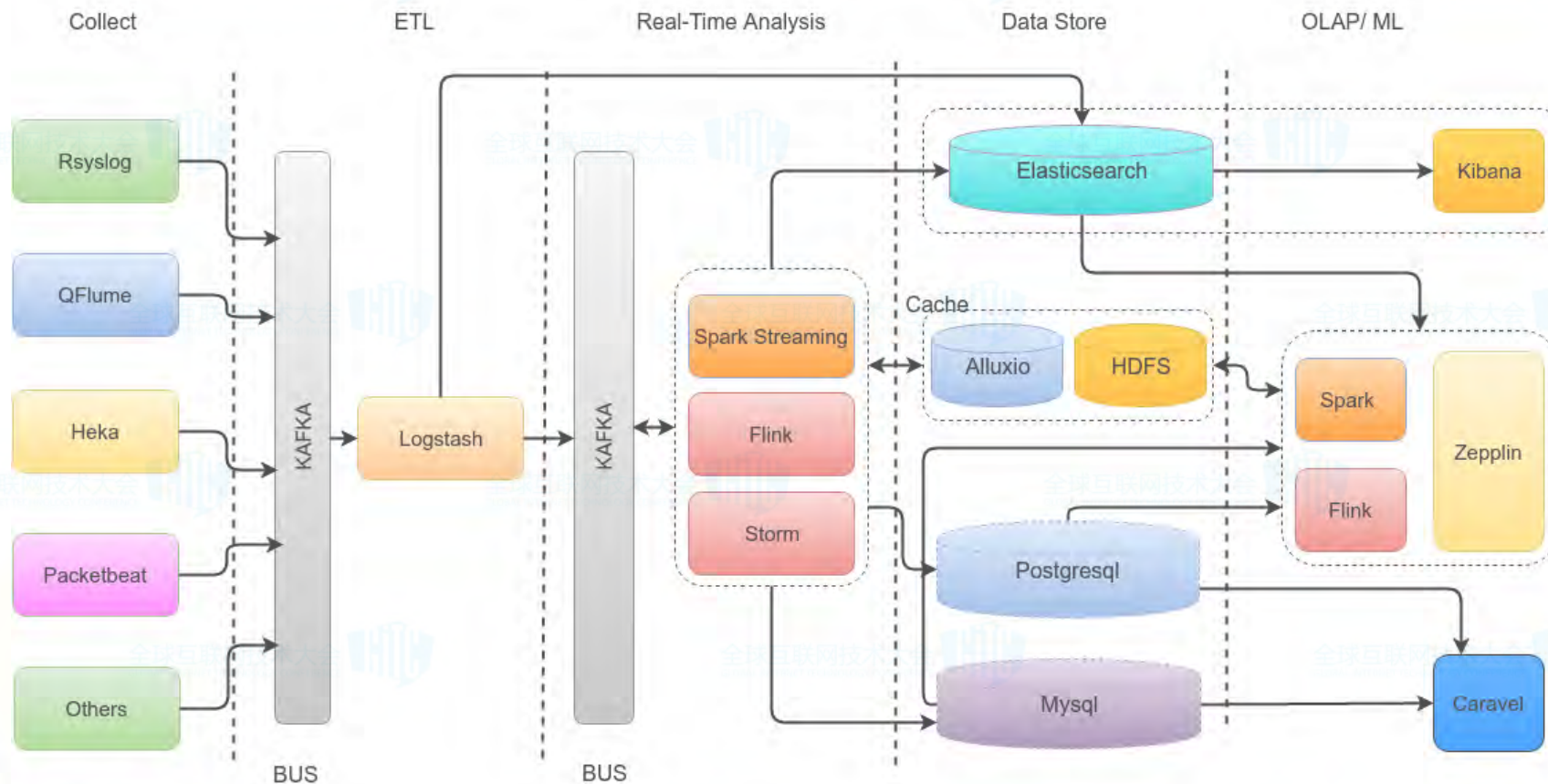


**Flink**





# 实时流系统







stateless -> stateful

有状态服务才是更广泛的需求



# Mesos的新特性

- Mesos > 0.27
  - Persistent Volume
  - Dynamic Reservation
  - Quota
  - Oversubscription
- Marathon ~ 1.0+



# 2016年——ES as a Service

Esaas wang.ma

ops\_event\_log\_qes

全部情况

集群配置

操作日志

last\_watchdog\_events\_qes

状态: Health

概况

名称	ops_event_log_qes
版本	v2.3.3
http端口号	12101
transport端口	12100
node数量	4
shards总量	62
访问地址	
配置地址	
dashboard	

masternode

datanode

Dashboards

logst

index

logstash

计费

Time	0
Memory	0
Storage	0
SSD	0
High availability	0
Hourly rate	0
Monthly rate	0



# 为什么选择ES?

- Eat your own dog food
  - 我们的实时平台内部就有两套ES集群
- 业务线大量使用ES支撑系统
  - 维护麻烦
  - 扩容麻烦
  - 资源利用率
  - 分散精力，没办法专注于业务



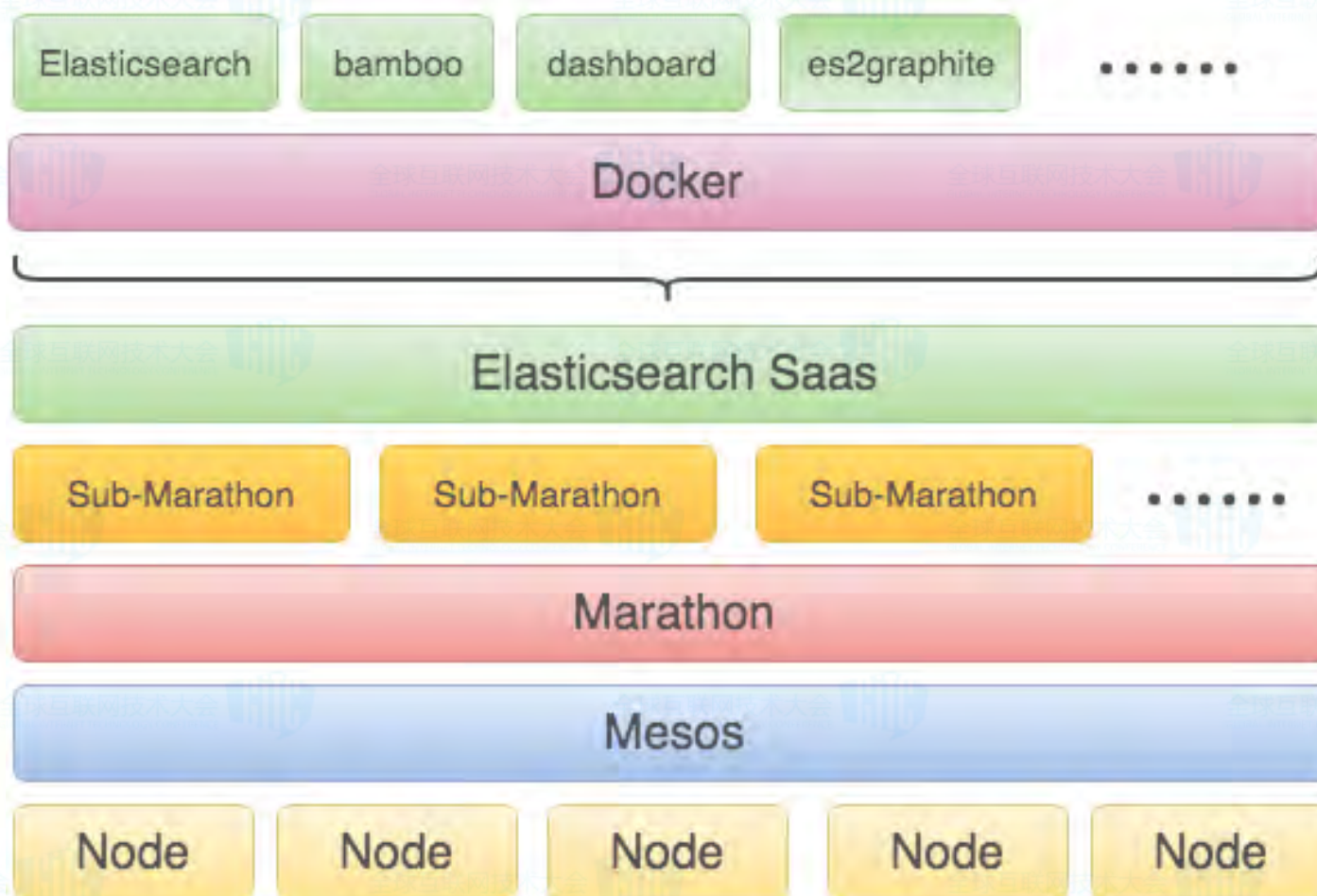


# 选型

- Elasticsearch on Mesos (Cisco)
- Elastic Cloud (官方)
- AWS Elasticsearch
- Elasticsearch on Mesos via Marathon

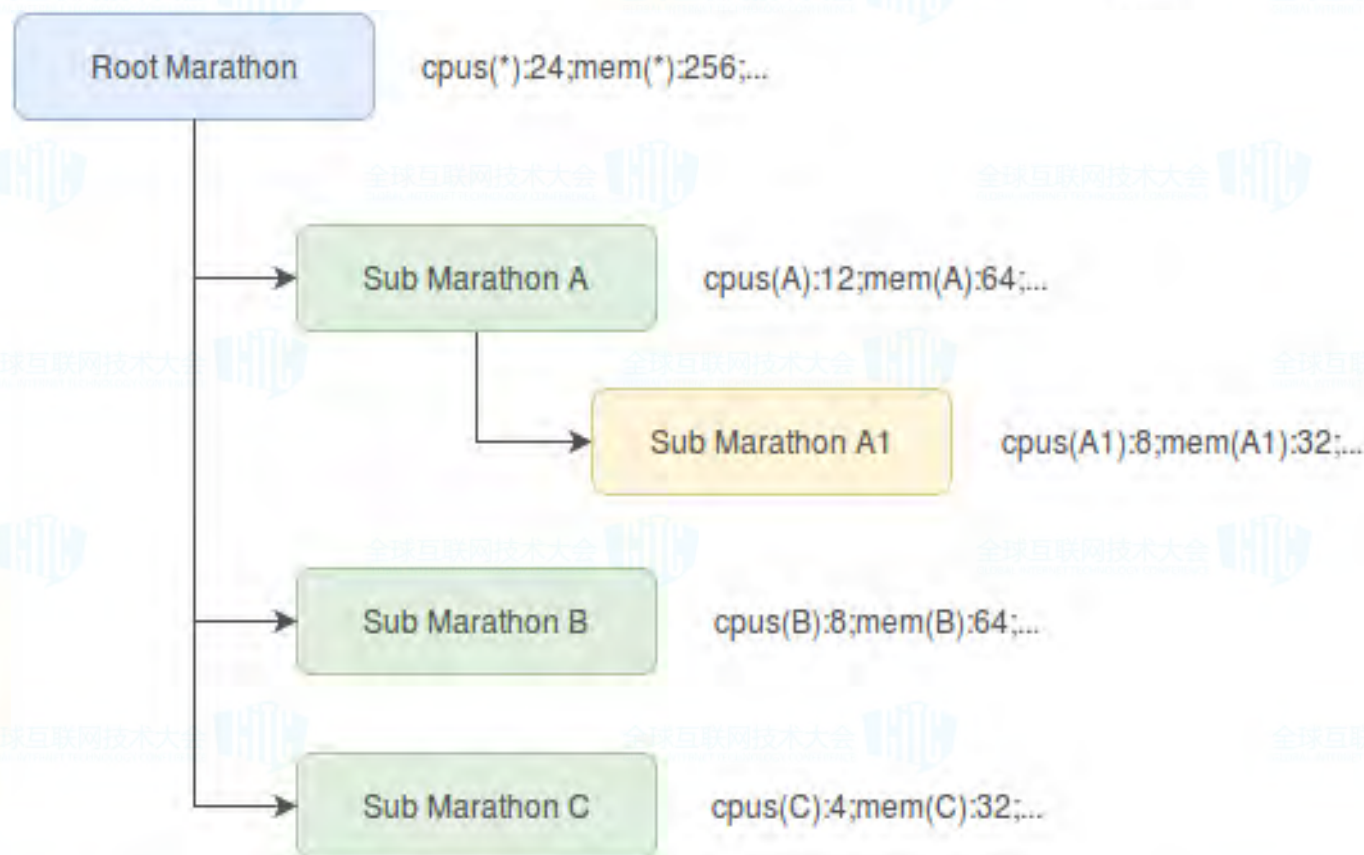


# Esaas结构





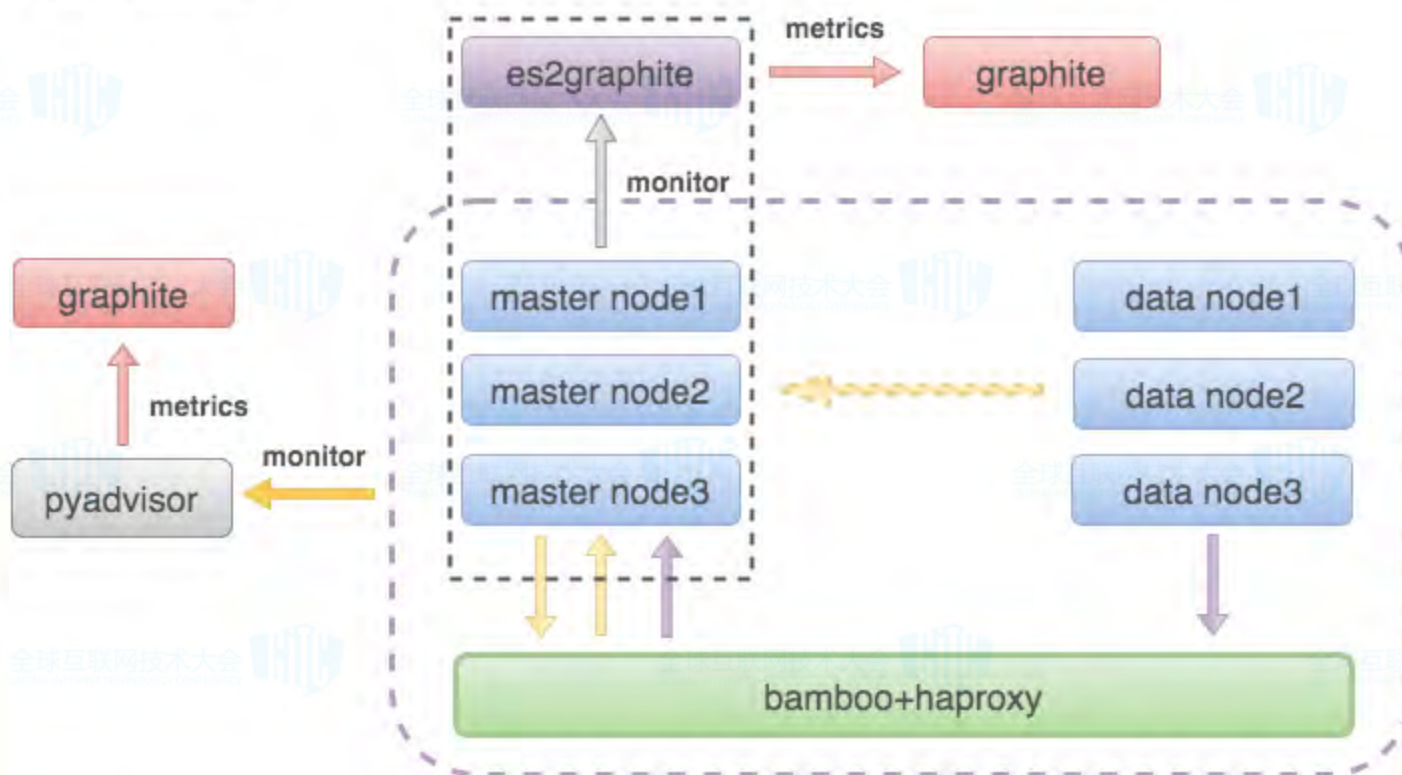
# Quota





# ES内部服务发现

Sub-Marathon







# 运行时维护

Esaas

wen.ma

ops\_event\_log\_qes

集群概况

集群配置

操作日志

ops\_watcher\_events\_qes

状态: Health

配置 打开 关闭

插件安装

delete-by-query

安装

Kibana

4.5.4

安装

Replica

该设置为全局设置，集群所有的index都会被修改，谨慎操作！线上备份数线上设置应该大于等于1(replicas&gt;=1)

数量

1

配置

自助配置

/\_cluster/settings

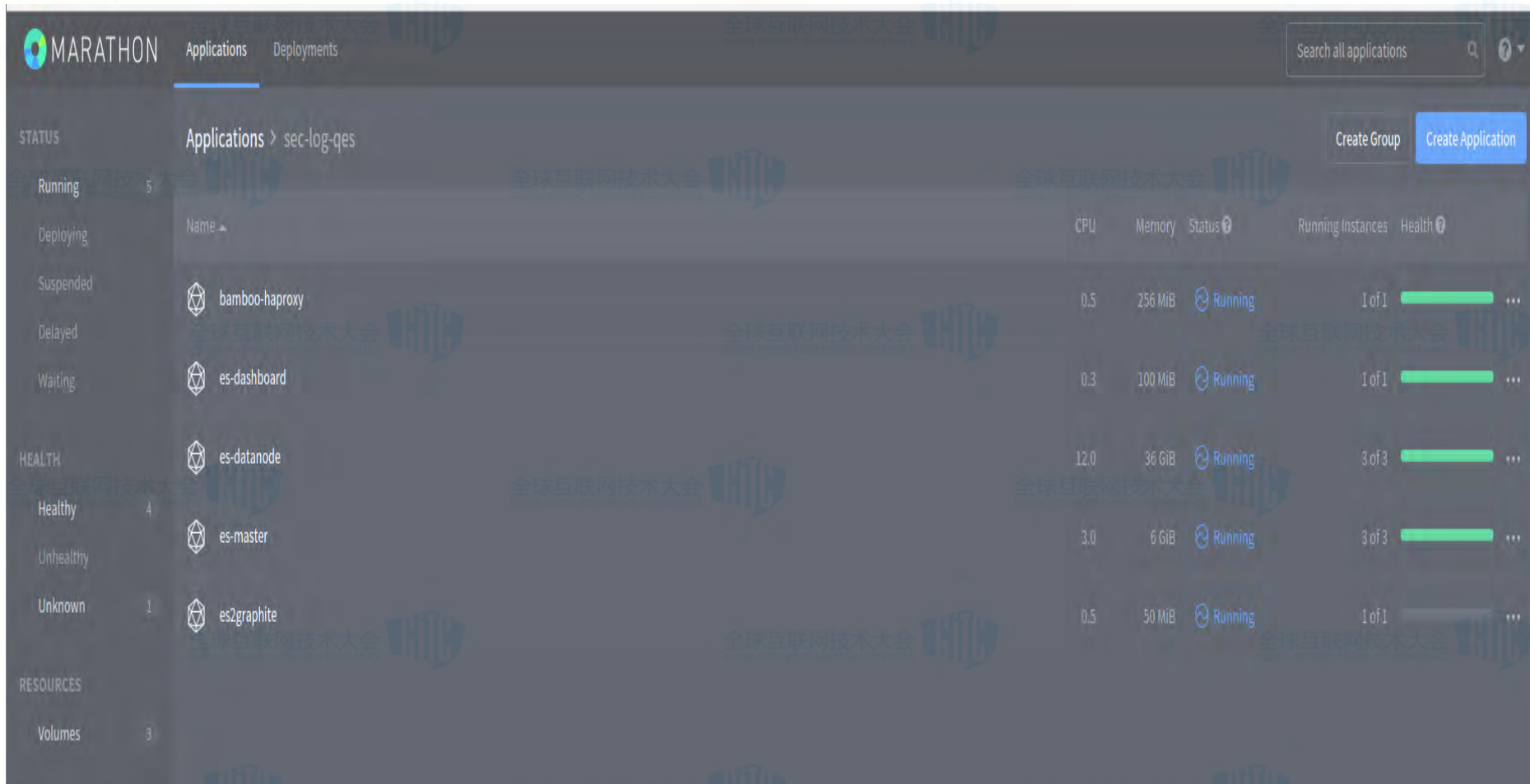
配置

方法: PUT

```
1 {
2   "transient": {},
3   "persistent": {
4     "discovery.zen.minimum_master_nodes": 2
5   }
6 }
```



# 运行时维护



The screenshot displays the Apache Marathon web interface. The top navigation bar includes the 'MARATHON' logo, 'Applications' (selected), and 'Deployments' tabs. A search bar on the right allows searching for all applications. Below the navigation bar, the 'STATUS' section shows a list of applications with their current status (Running, Deploying, Suspended, Delayed, Waiting). The 'HEALTH' section shows the health status of the applications (Healthy, Unhealthy, Unknown). The 'RESOURCES' section shows the resources used by the applications (Volumes).

STATUS	NAME	CPU	MEMORY	STATUS	RUNNING INSTANCES	HEALTH
Running	bamboo-haproxy	0.5	256 MIB	Running	1 of 1	Healthy
Running	es-dashboard	0.3	100 MIB	Running	1 of 1	Healthy
Running	es-datanode	12.0	36 GIB	Running	3 of 3	Healthy
Running	es-master	3.0	6 GIB	Running	3 of 3	Healthy
Running	es2graphite	0.5	50 MIB	Running	1 of 1	Healthy



# OPS Trace

Esaas

wen.ma

ops\_event\_log\_qes

状态: Health

集群概况

集群配置

操作日志

ops\_watcher\_events\_qes

## 操作日志

请输入查询内容

时间	用户	变更url	变更内容
2016-10-09 12:28:34	wen.ma	/login	login
2016-10-09 12:15:04	wen.ma	/login	login
2016-09-27 10:51:08	songkuan.zheng	/login	login
2016-09-23 10:37:06	wen.ma	/install_plugin	install error: Install kibana error: ("message": "An app with id [/ops-event-log-qes/kibana] already exists.")
2016-09-21 11:35:39	tiantian.lian	/login	login
2016-09-18 19:49:48	xulei.xu	/login	login
2016-09-12 19:17:18	congxiue.zhang	/login	login
2016-09-06 16:00:43	yun.huang	/login	login
2016-09-06 15:41:05	wen.ma	/edit_switch	edit switch status: True
2016-09-02 14:27:32	yun.huang	/login	login
2016-09-02 12:23:16	wen.ma	/login	login
2016-08-22 16:28:13	wen.ma	/edit_switch	edit switch status: False
2016-08-22 16:25:09	xuxiao.xu	/login	login
2016-08-22 16:25:06	xueyan.li	/login	login
2016-08-22 16:24:20	wen.ma	/edit_switch	edit switch status: True
2016-08-22 08:16:02	wen.ma	/edit_switch	edit switch status: True
2016-08-21 20:41:05	wen.ma	/edit_switch	edit switch status: False
2016-08-21 20:38:23	wen.ma	/modify_replica	modify success, replicas=1
2016-08-21 20:36:53	wen.ma	/cluster_setting	setting success, settings={u'transient': {}, u'persistent': {u'discovery.zen.minimum_master_nodes': 2}}

每页20条,共19条

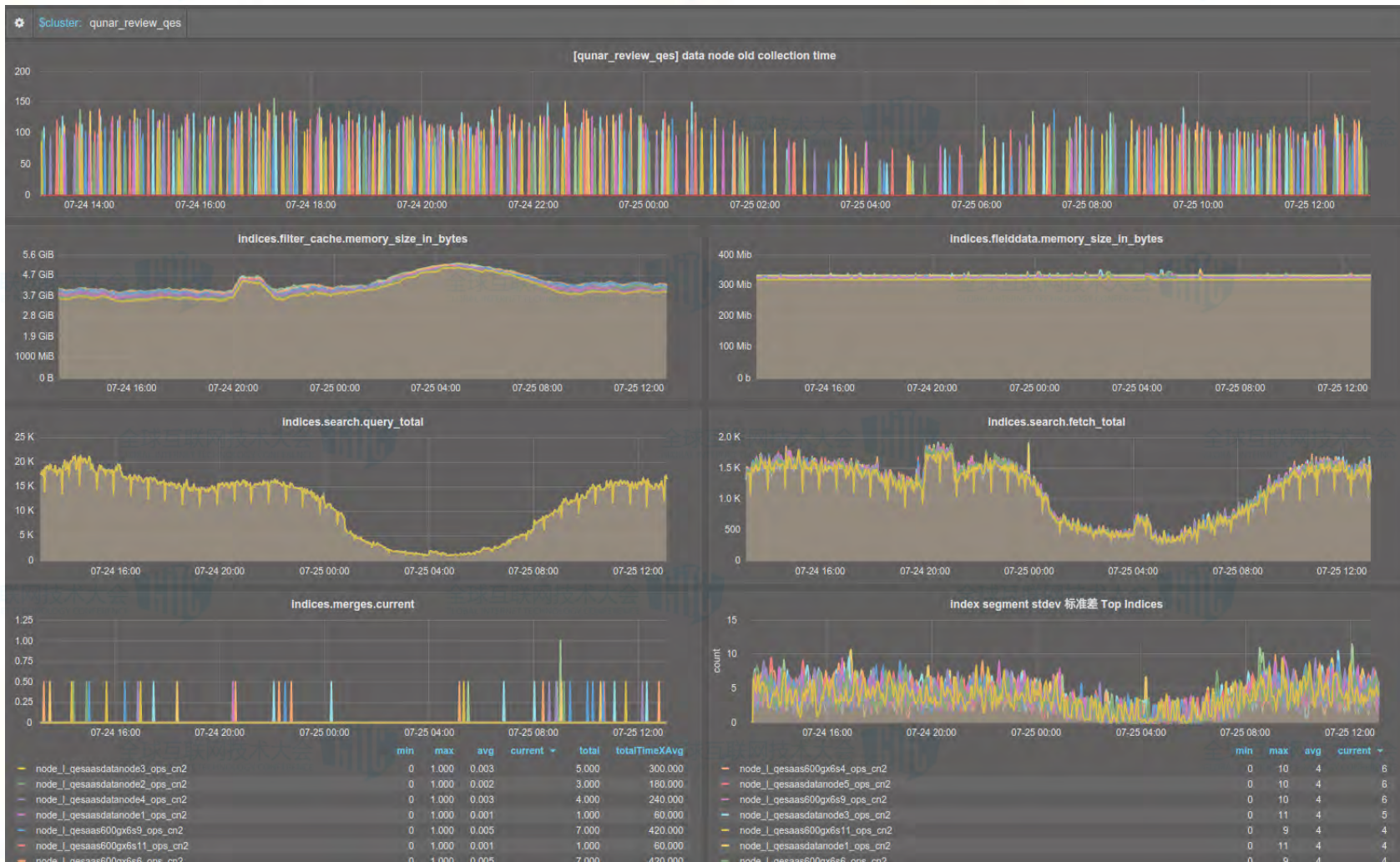
1

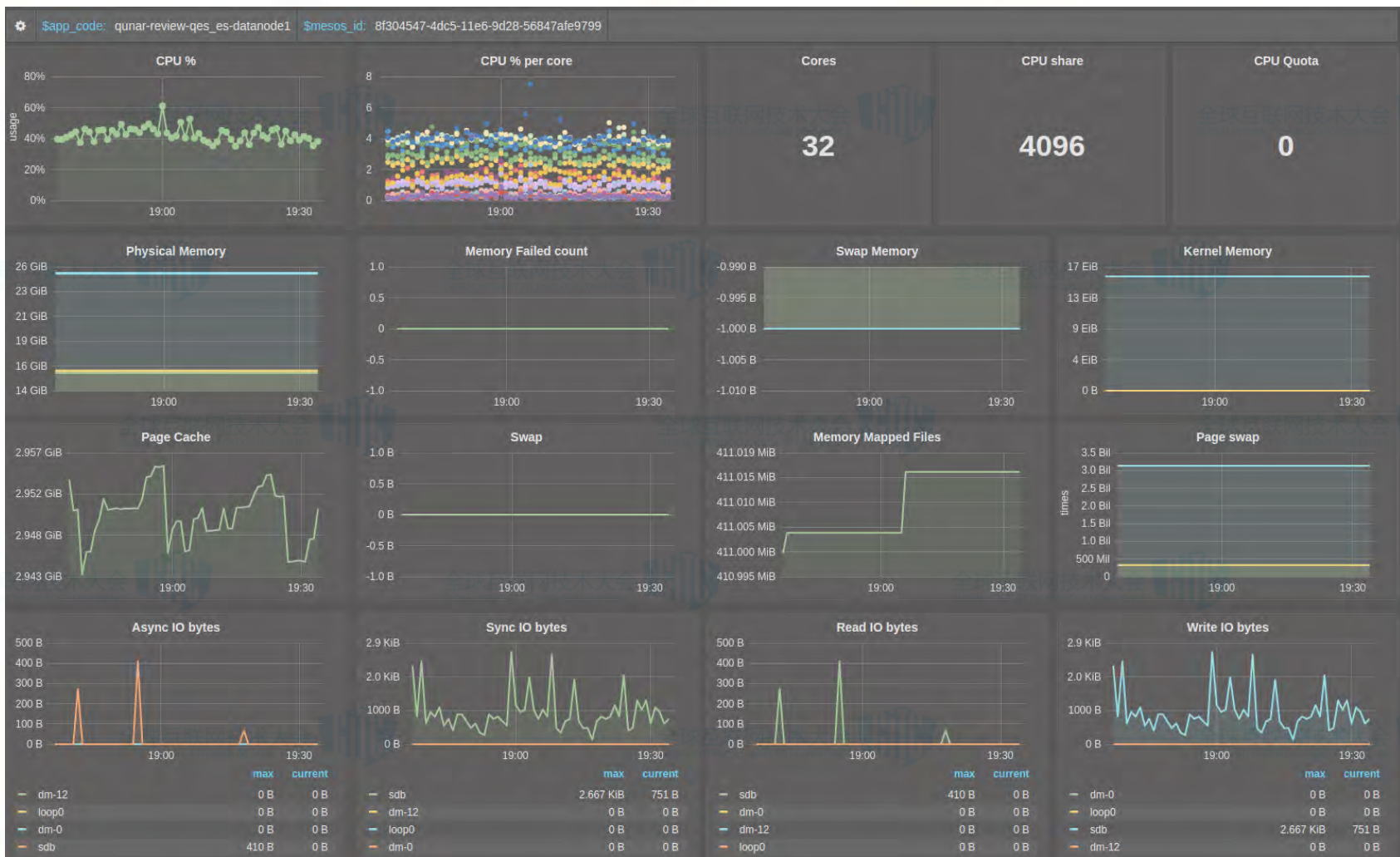


# 监控/报警

- 延迟
  - Kafka Topic Lag
- 流量
  - Search/Docs Count
  - Kafka Message Count
- 错误
  - Reject
- 饱和度
  - IO使用率、CPU使用率









# 规模

- ESAAS集群机器数量：77台
- 数据节点机器数量：66台
- 当前托管的集群数量：44个
- 当前数据存储总量量：120TB+
- 当前覆盖业务线：30 个





微信扫码关注

# 谢谢

