基于 OpenDCP 的弹性云计算
API+JAR
2009
2013
2015
2016
模块化单体服务
RPC
混合云
基于 Motan RPC 的微服务

平台体系

服务注册、发现

负载均衡、降级、限流

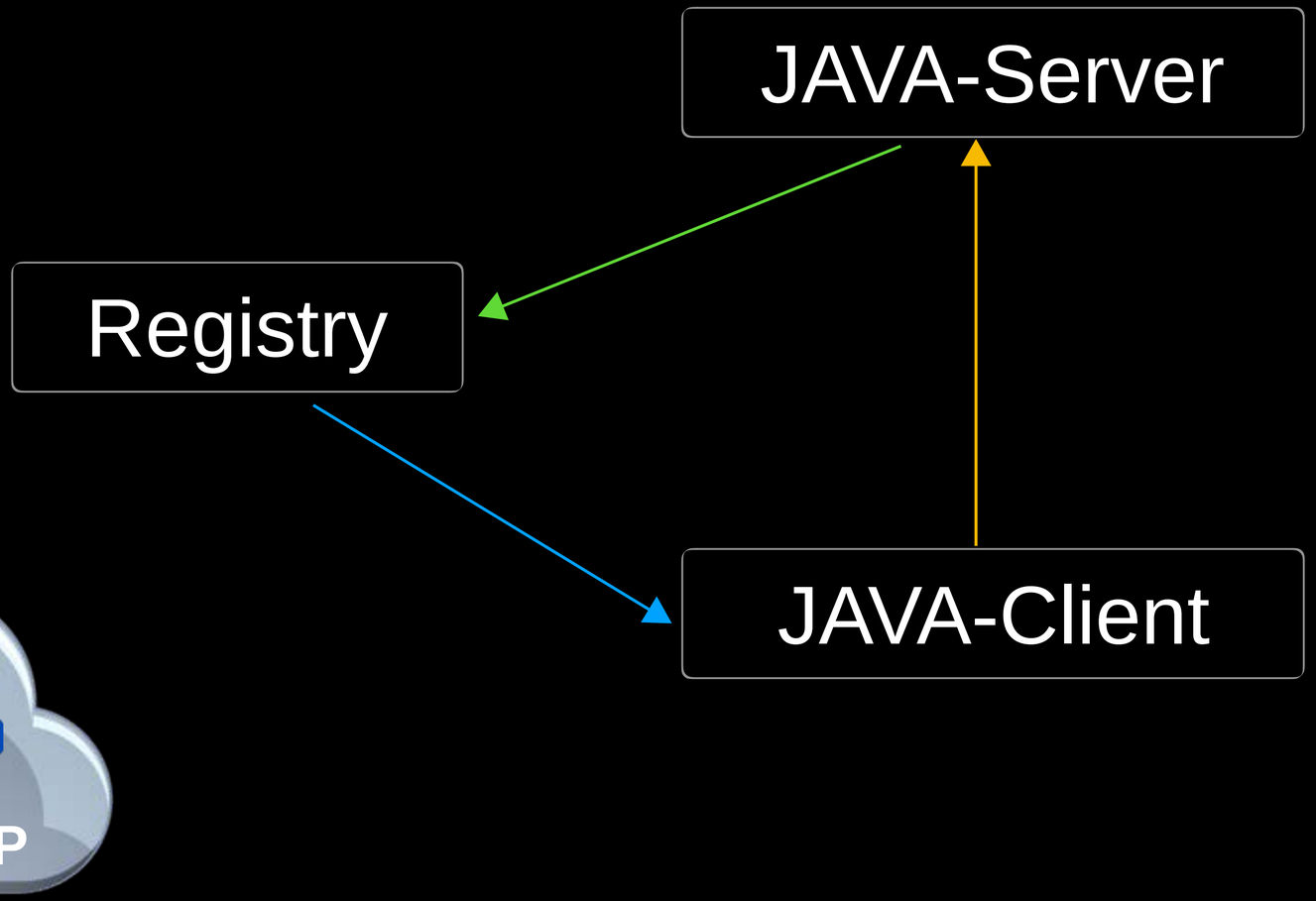
秒级实时监控

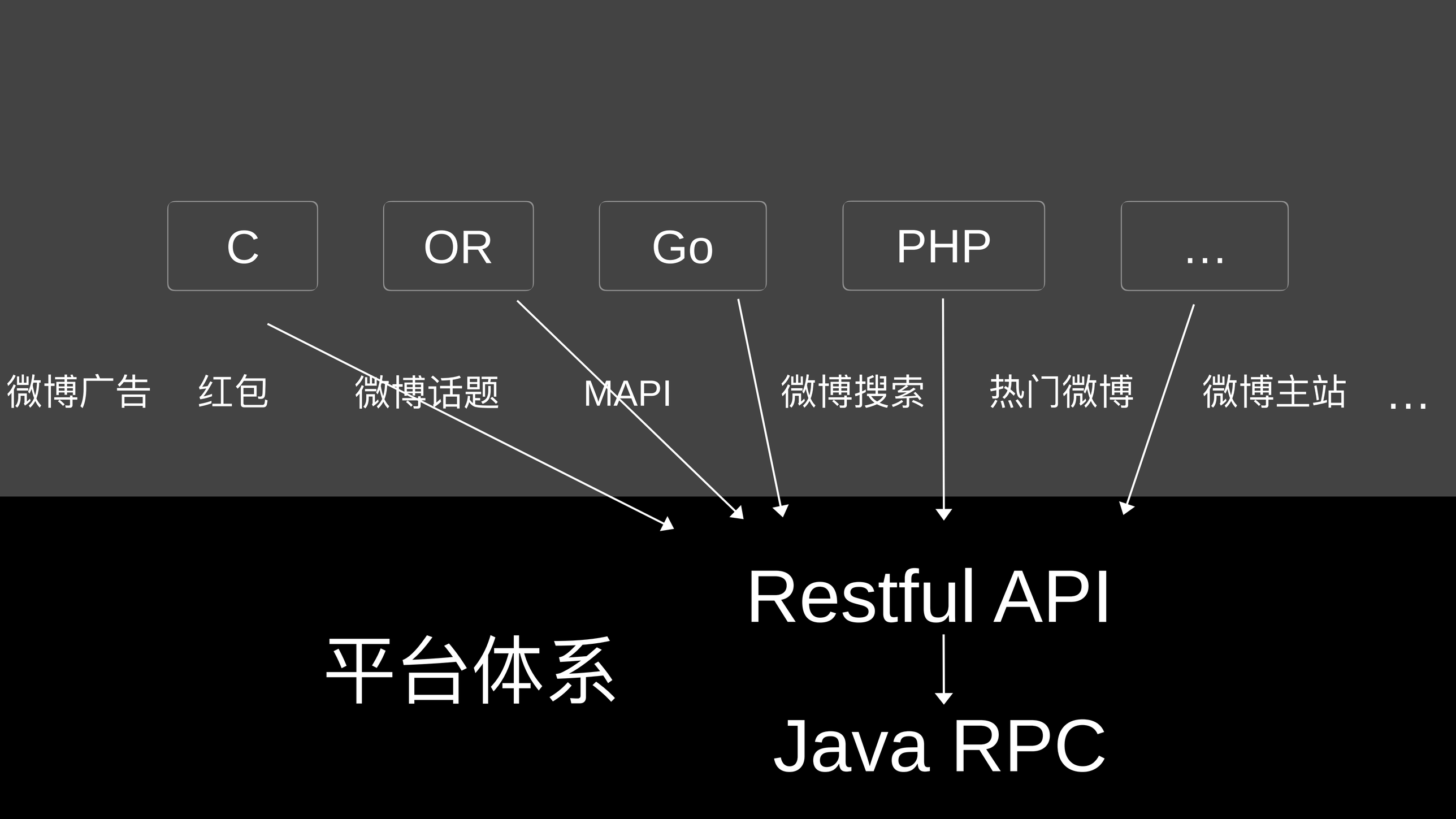
自动化容量评估

智能弹性调度

自动扩缩容

请求动态路由




C
OR
Go
PHP
...
微博广告
红包
微博话题
MAPI
微博搜索
热门微博
微博主站
...
Restful API
Java RPC

平台体系

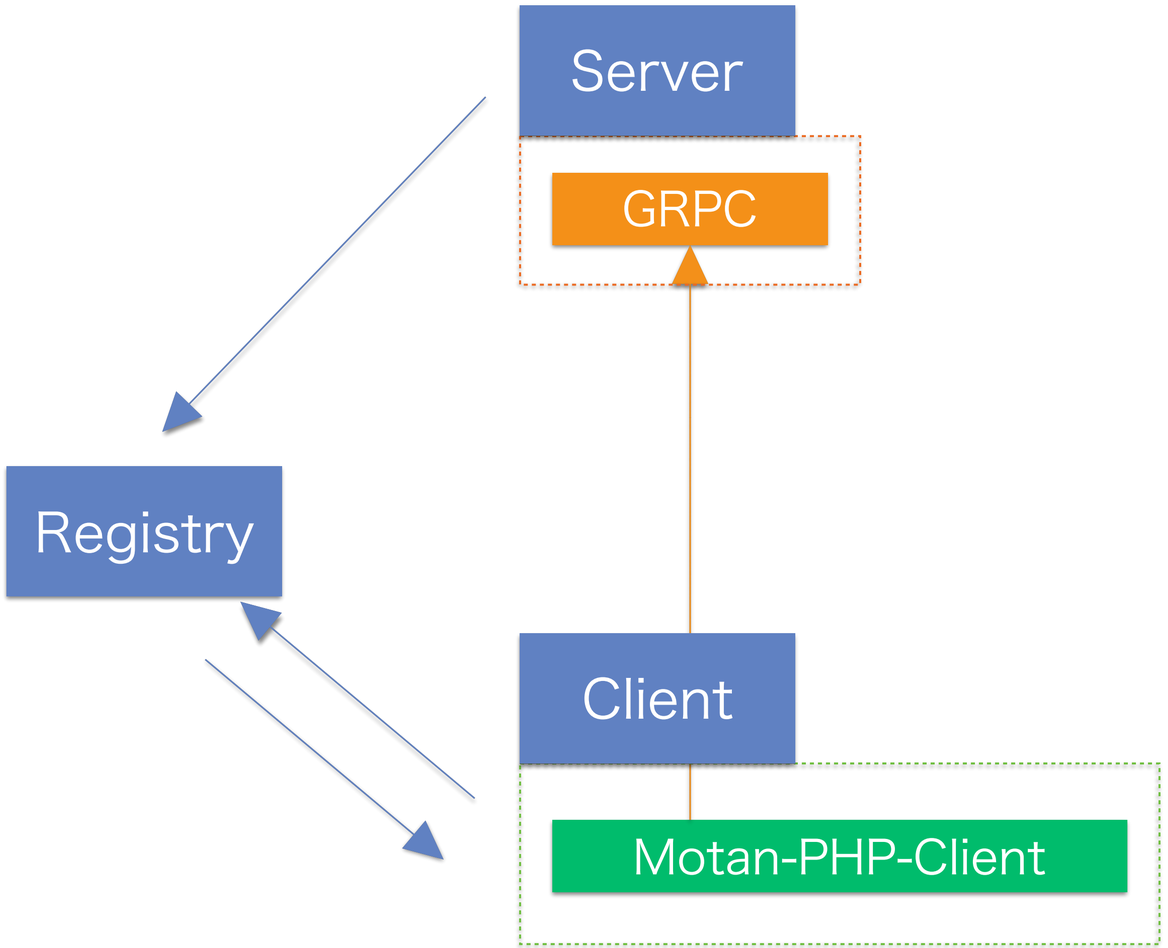
趋势

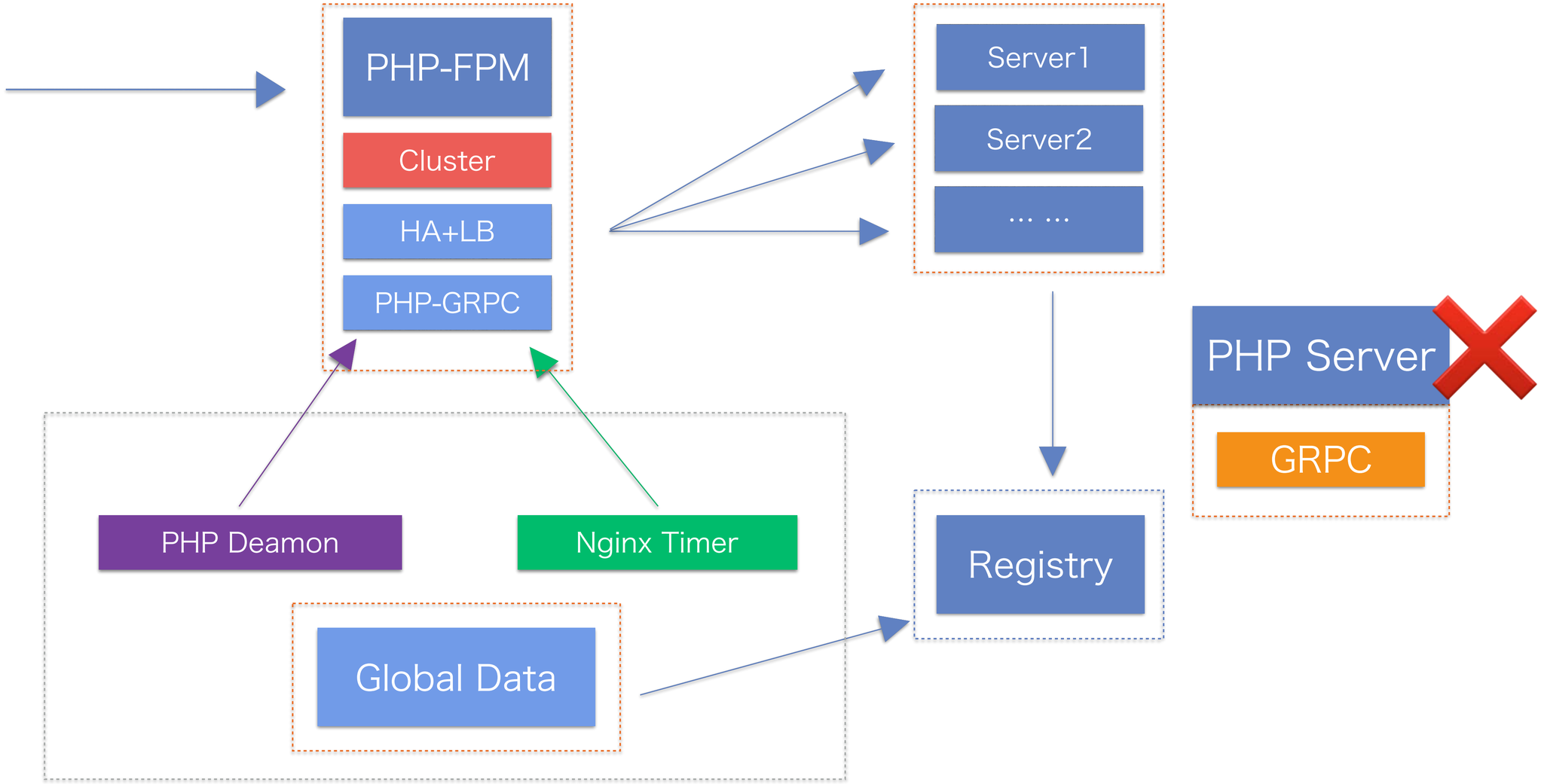
微服务・容器化・云化・标准化・工程化

更快的交付

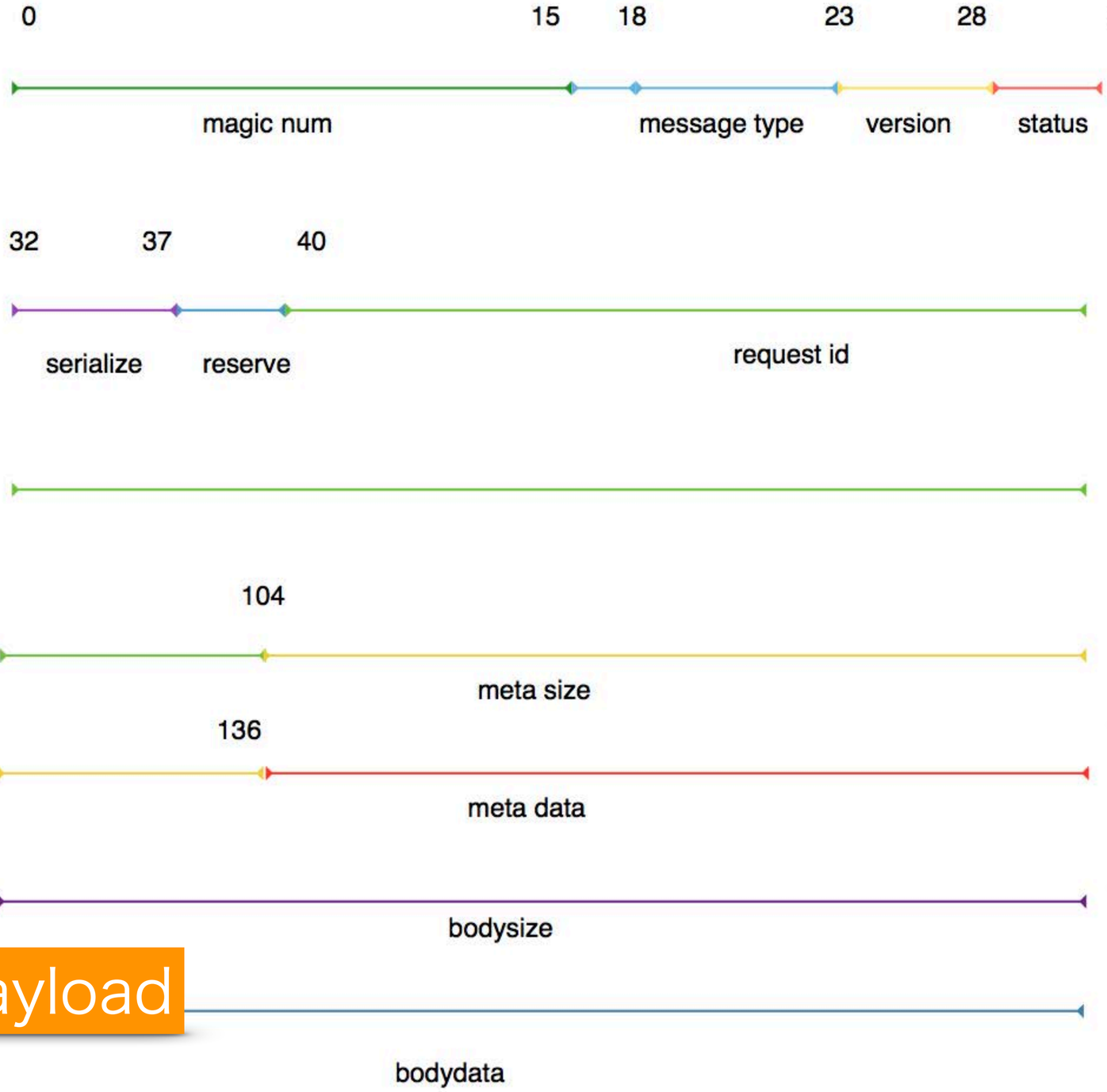
更低的成本

服务与实现方式不应该有强耦合关系


Server
GRPC
Registry
Client
Motan-PHP-Client


PHP-FPM
Cluster
HA+LB
PHP-GRPC
Server1
Server2
… …
PHP Server
GRPC
PHP Deamon
Nginx Timer
Registry
Global Data

			Agent 代理
			中
			中
			中
			高
			高



Header Payload

MotanHeader

Meta Data

Size Data

Req Body

Size Data

null
00

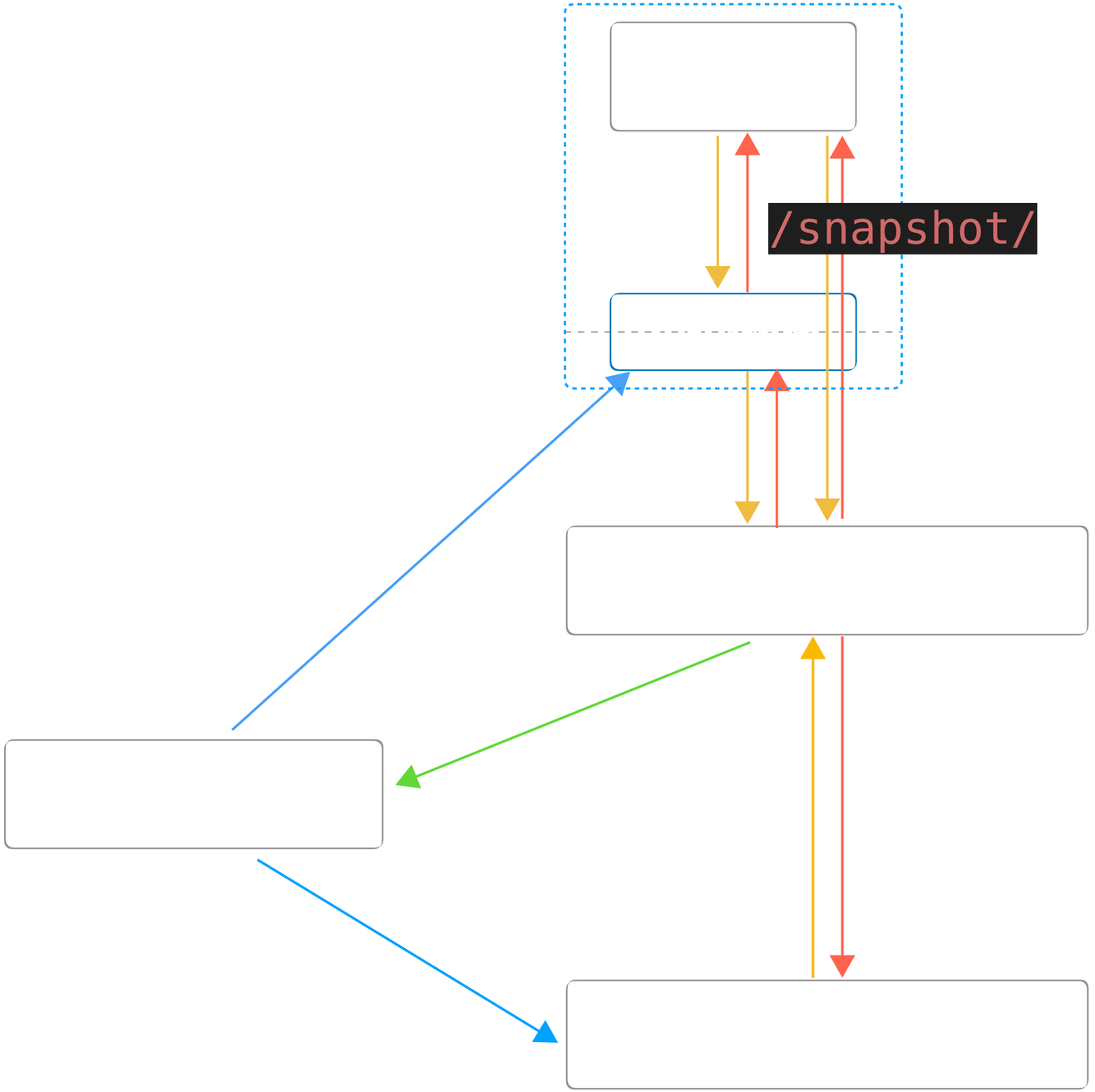
string “hello”
01 00 00 00 05 68 65 6c 6c 6f

基础类型 复合类型

```
// serialize type
const (
    sNull = iota
    sString
    sStringMap
    sByteArray
    sStringArray
    sBool
    sByte
    sInt16
    sInt32
    sInt64
    sFloat32
    sFloat64

    // [string]interface{}
    sMap   = 20
    sArray = 21
)
```

map {name:ray, code: xxx}
02 00 00 00 1e 00 00 00 04 63 6f 64 65 00 00 00 03 78 78 78 00 00 00 04 6e
61 6d 65 00 00 00 03 72 61 79

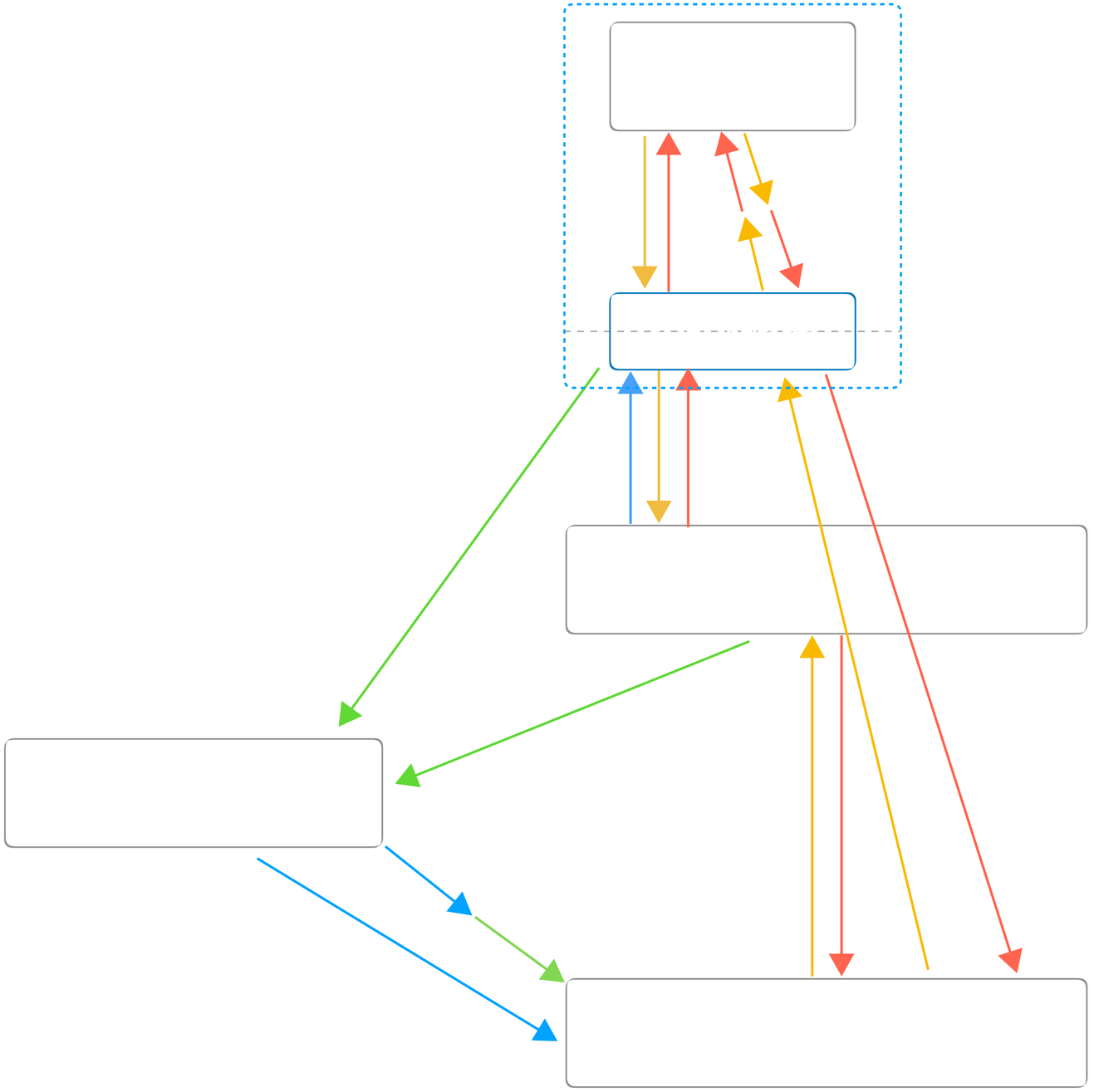

/snapshot/

```php
if ($connection->buildConnection($agent_addr)){
    $this->_url_obj
    ->setEndpoint(Constants::ENDPOINT_AGENT);
    $this->_endpoint = new Agent($this->_url_obj);
} else {
    $this->_endpoint = new Cluster($this->_url_obj);
}
```

```
public function call()
{
    return $this->_ha_strategy->call($this->_load_balance);
}
```

```
AGENT_RUN_PATH . "/snapshot/" . $this->_group . '_' . $this->_service_str;
```

Endpointer 扩展保底

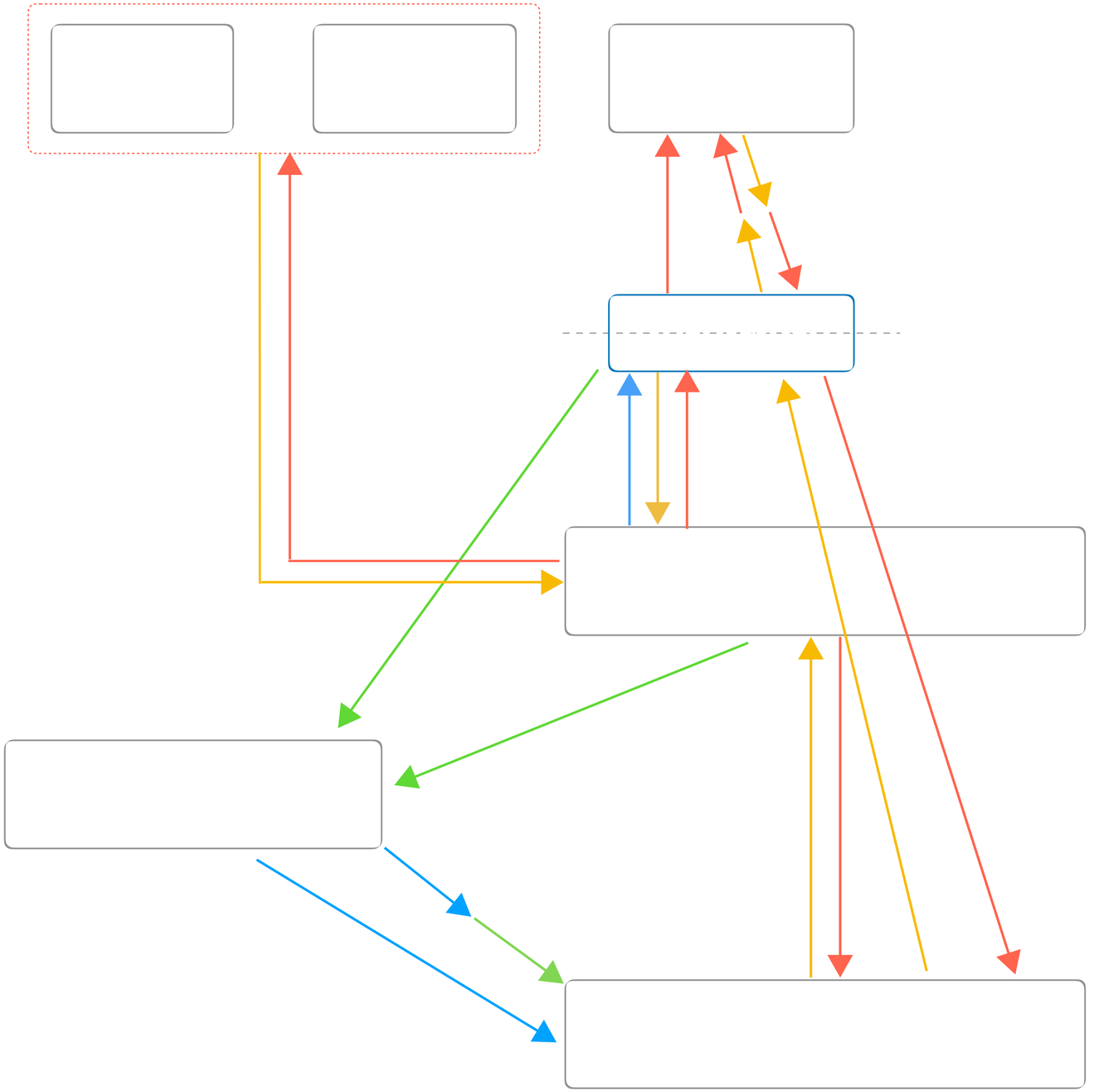


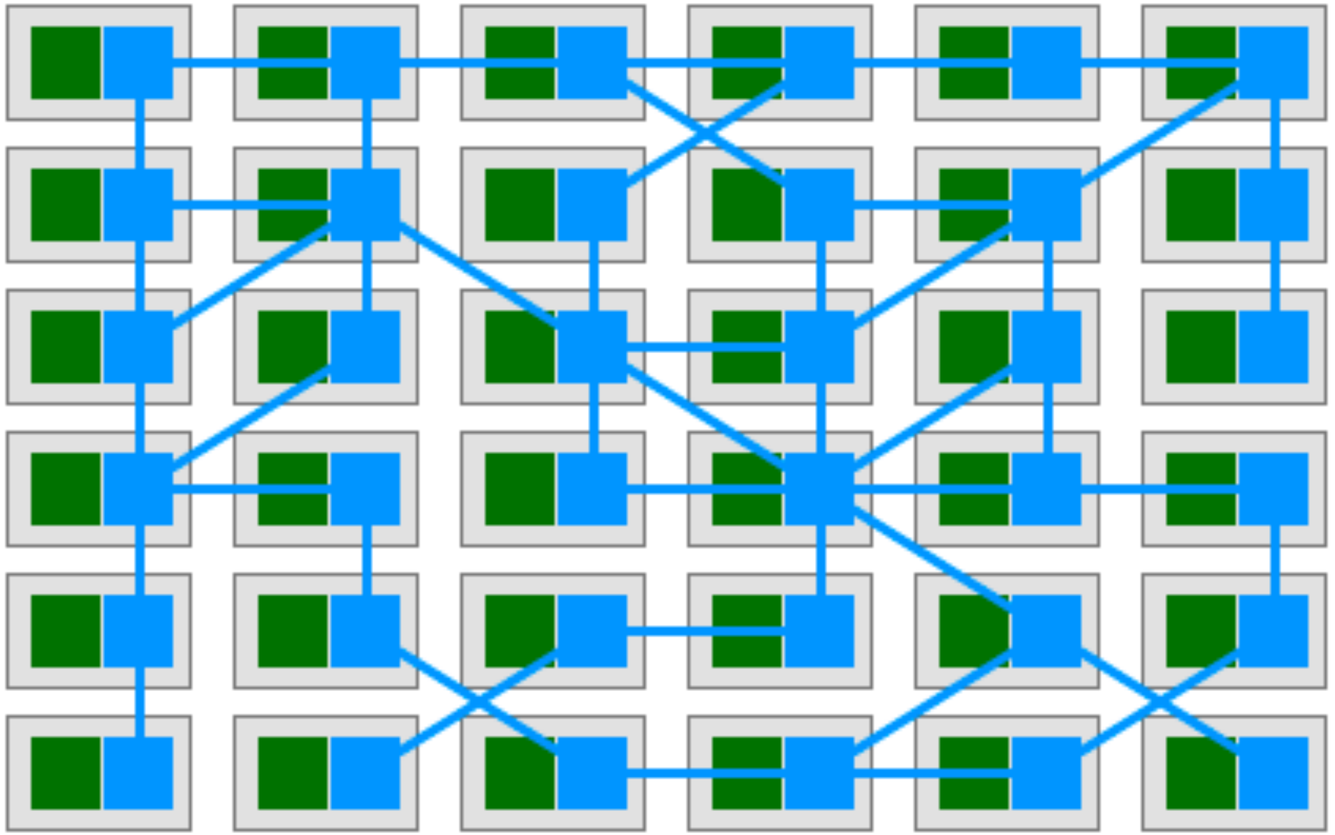
```
extFactory.RegistExtProvider(CGI, func(url *motan.URL)
motan.Provider {
    return &CgiProvider{url: url}
})
```

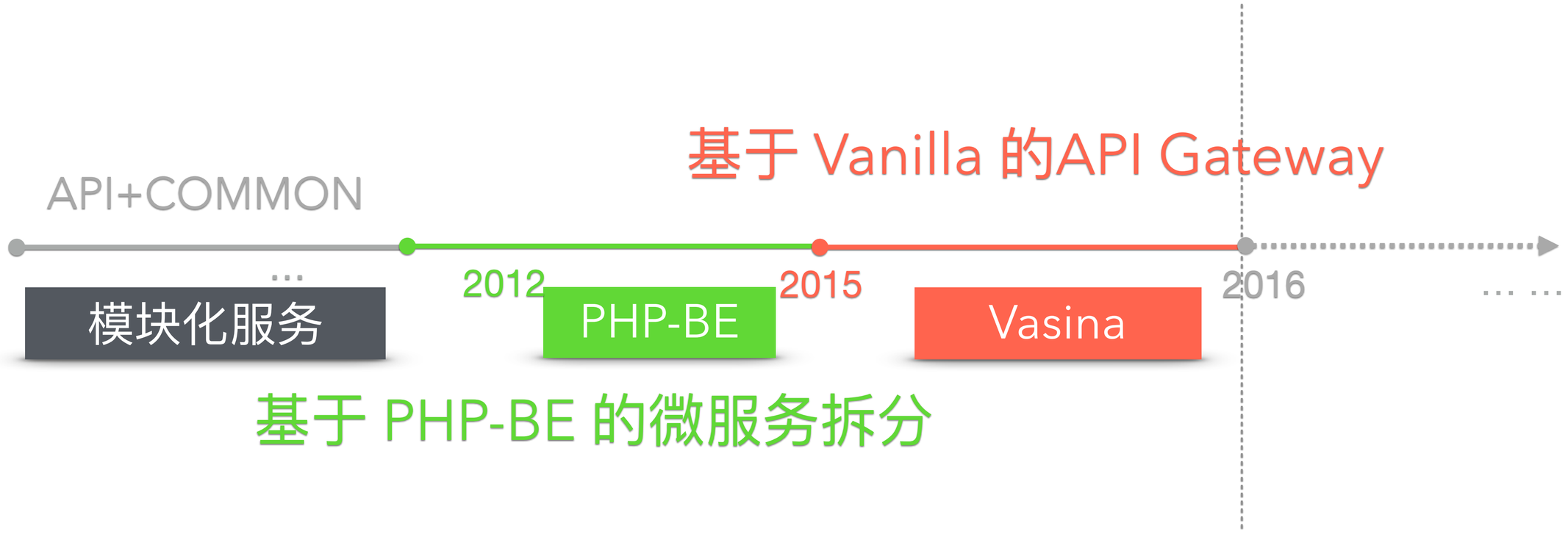
```
extFactory.RegistExtProvider(HTTP, func(url *motan.URL)
motan.Provider {
    return &HTTPProvider{url: url}
})
```

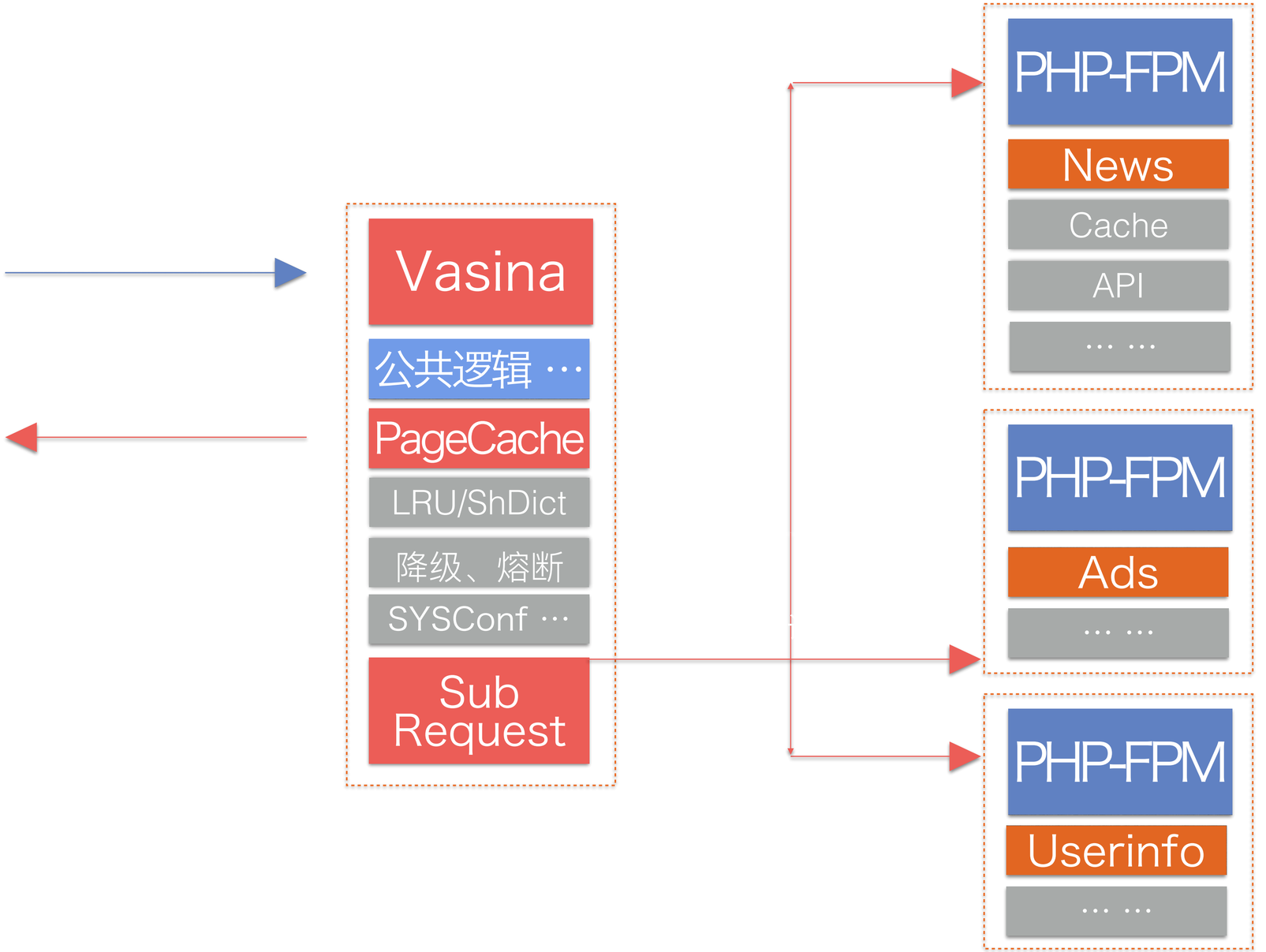
MOTAN_*

```
[MOTAN_M_p] => com.weibo.motan.HelloWorldService
[MOTAN_SERIALIZATION] => simple
[MOTAN_M_g] => motan-server-mesh-example
[MOTAN_M_m] => Hello
[MOTAN_M_pp] => motan2
```






基于 Vanilla 的API Gateway
API+COMMON
...
2012
2015
2016
... ...
模块化服务
PHP-BE
Vasina
基于 PHP-BE 的微服务拆分


Vasina
公共逻辑 …
PageCache
LRU/ShDict
降级、熔断
SYSConf …
Sub Request
PHP-FPM
News
Cache
API
… …
PHP-FPM
Ads
… …
PHP-FPM
Userinfo
… …

dedicated infrastructure layer handling service-to-service communication

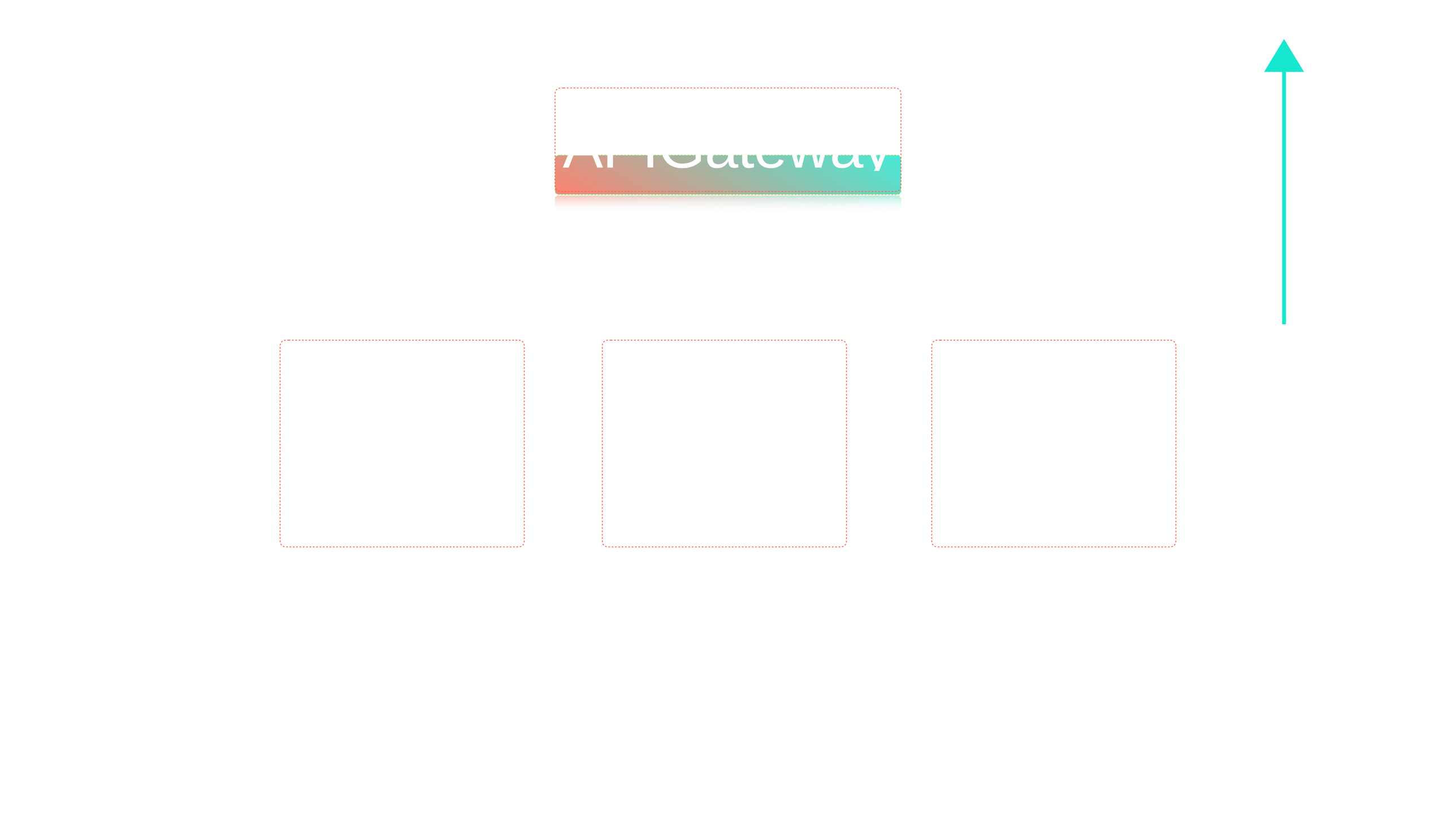
complex topology of services In practice lightweight network proxies

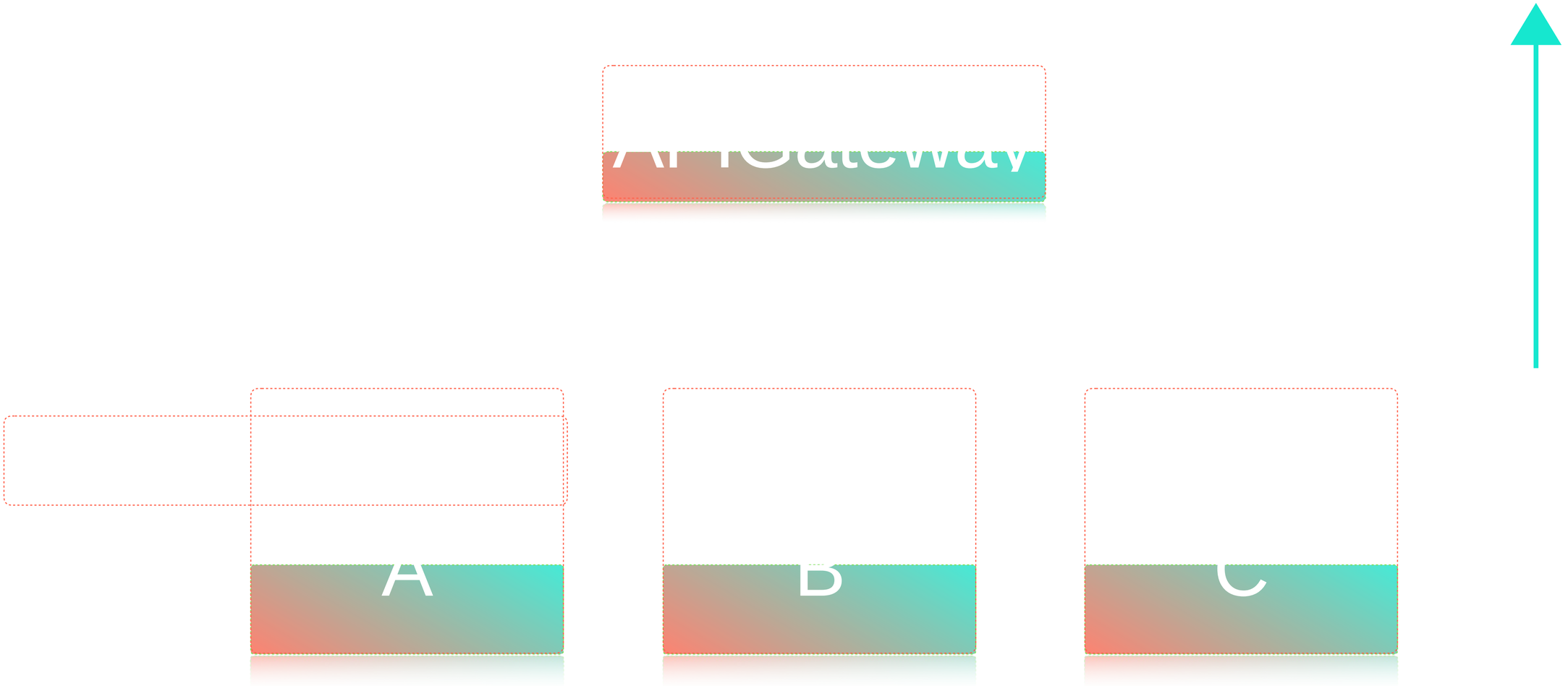
without the application needing to be aware

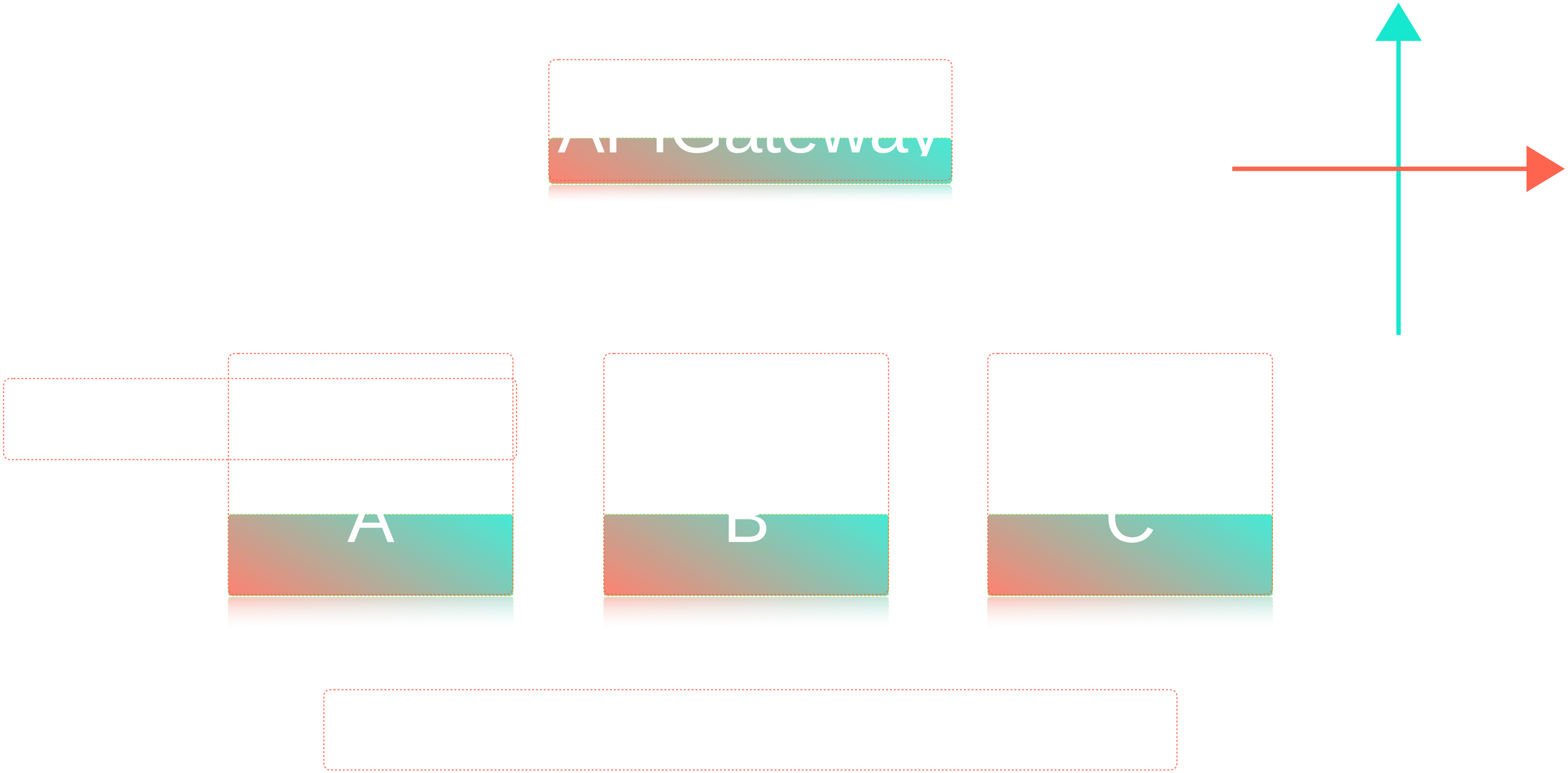
dedicated infrastructure layer handling service-to-service communication

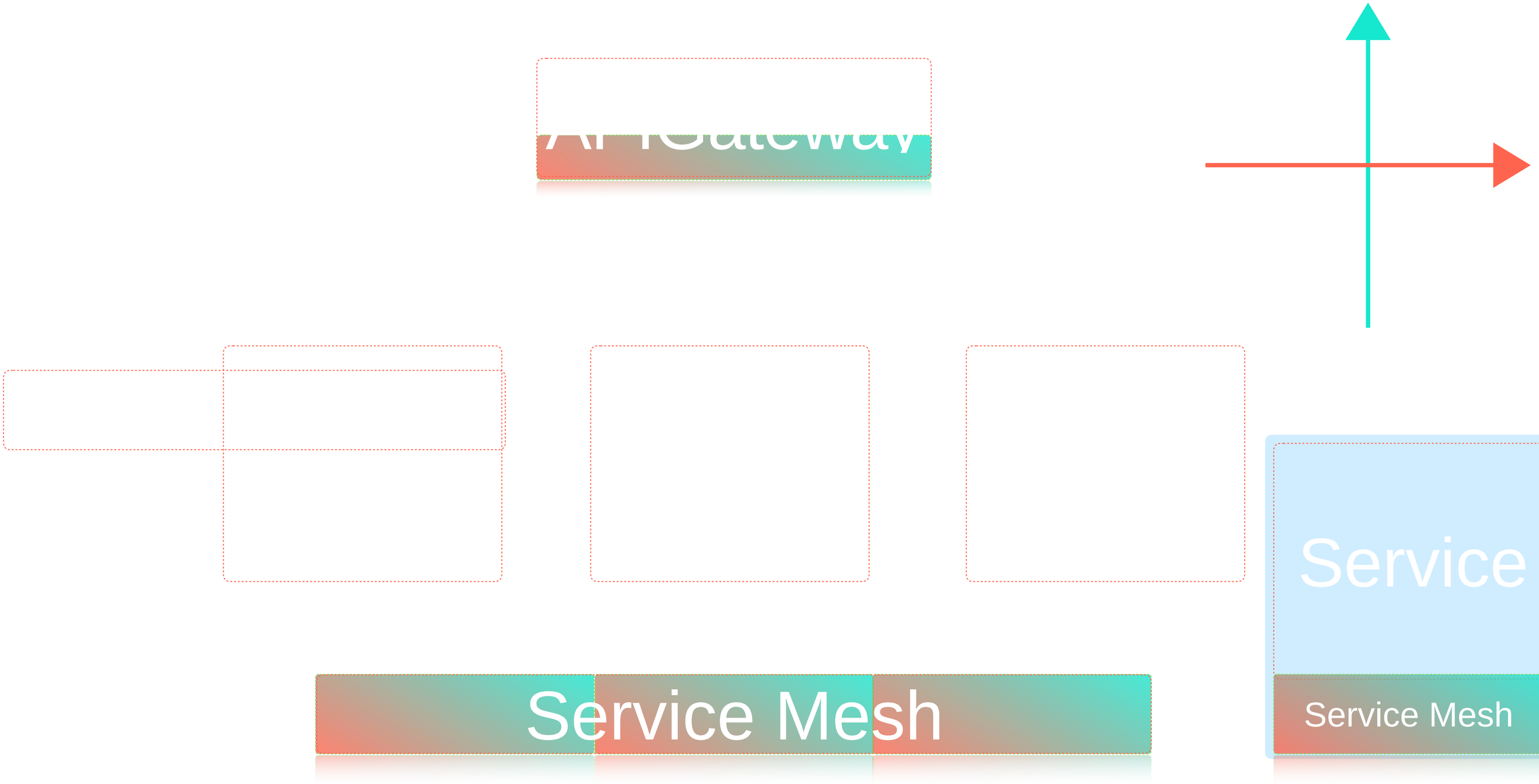
complex topology of services In practice lightweight network proxies

without the application needing to be aware

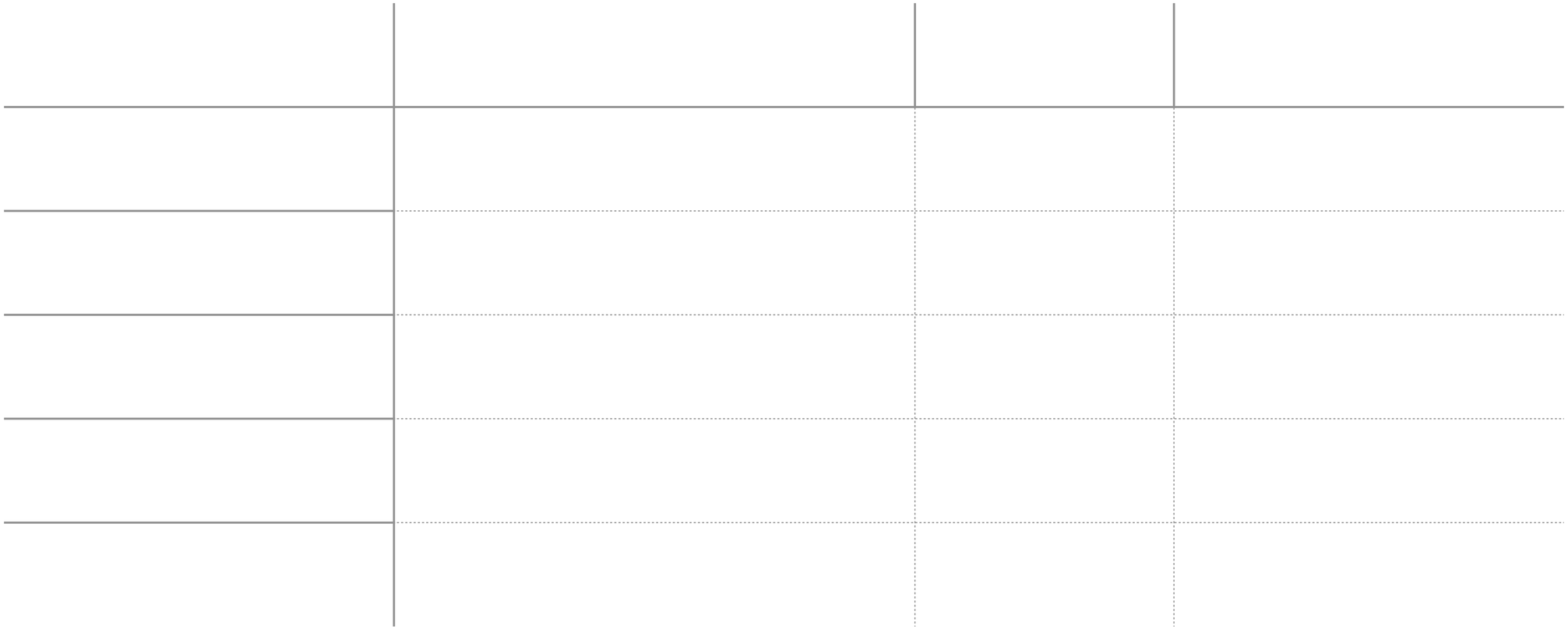

API Gateway

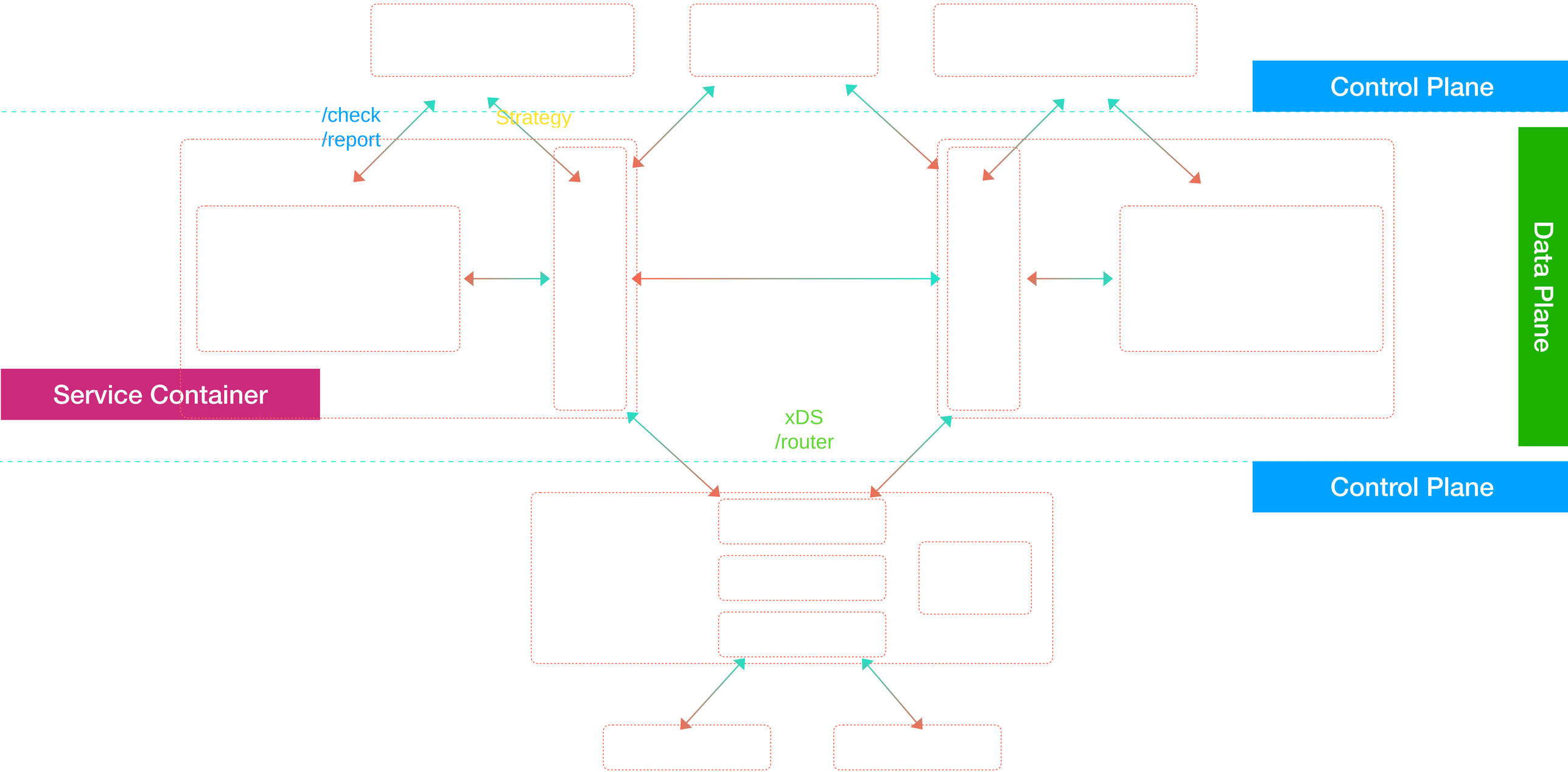

API Gateway
A
B
C

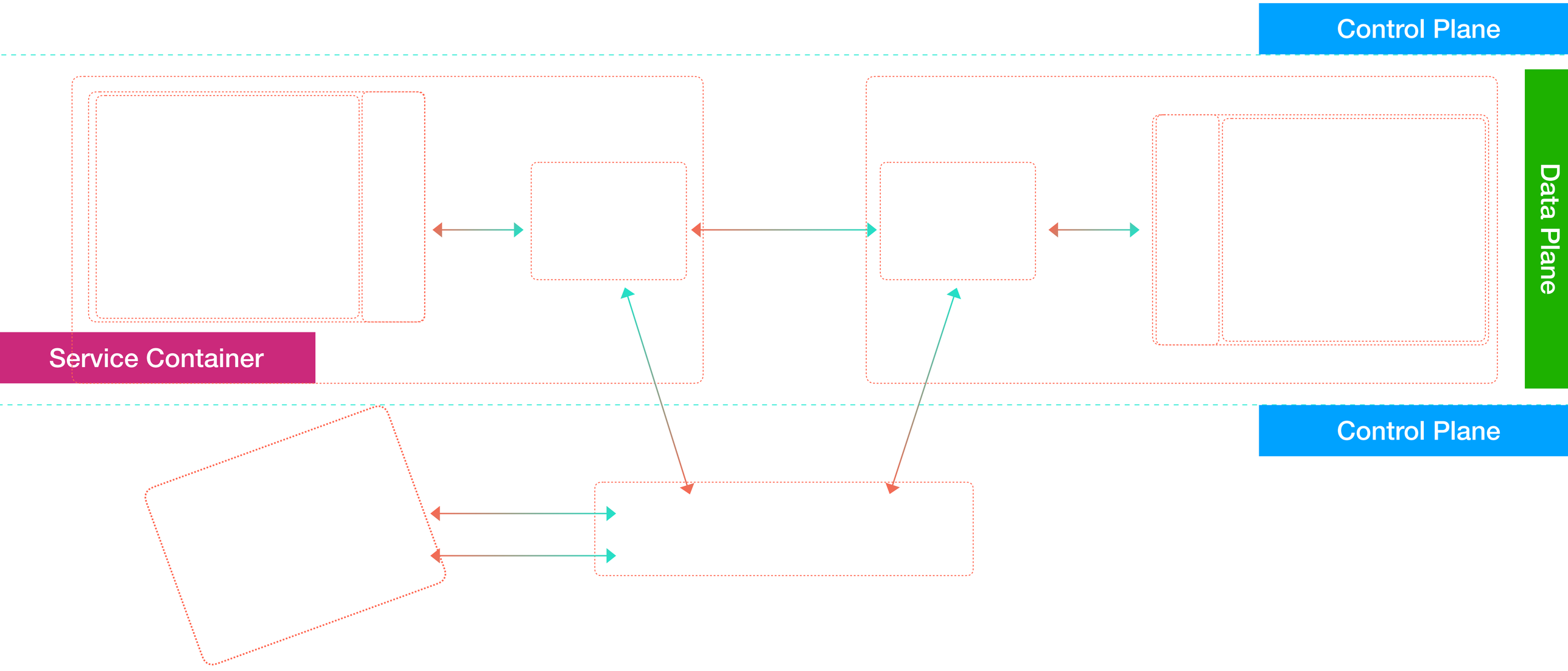

API Gateway
A
B
C

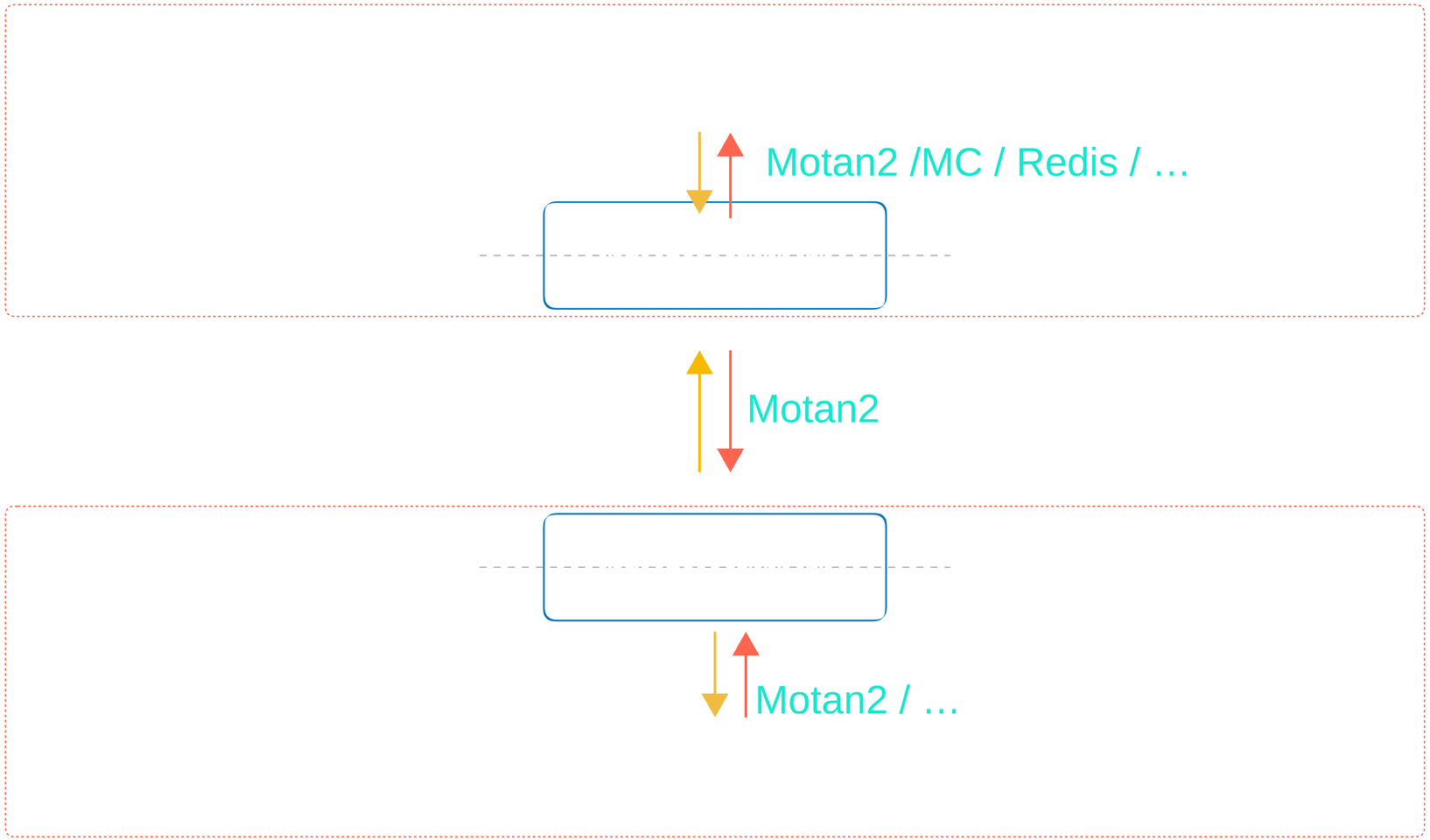


通信和服务治理 dedicated infrastructure layer




Control Plane
/check
/report
Strategy
Data Plane
Service Container
xDS
/router
Control Plane


Control Plane
Data Plane
Service Container
Control Plane


Motan2 /MC / Redis / …
Motan2
Motan2 / …

服务的刻画 / Motan Schema

服务协议　　版本号　　Service

grpc://host:port/0.1/helloworld.Greeter?group=idevz-test

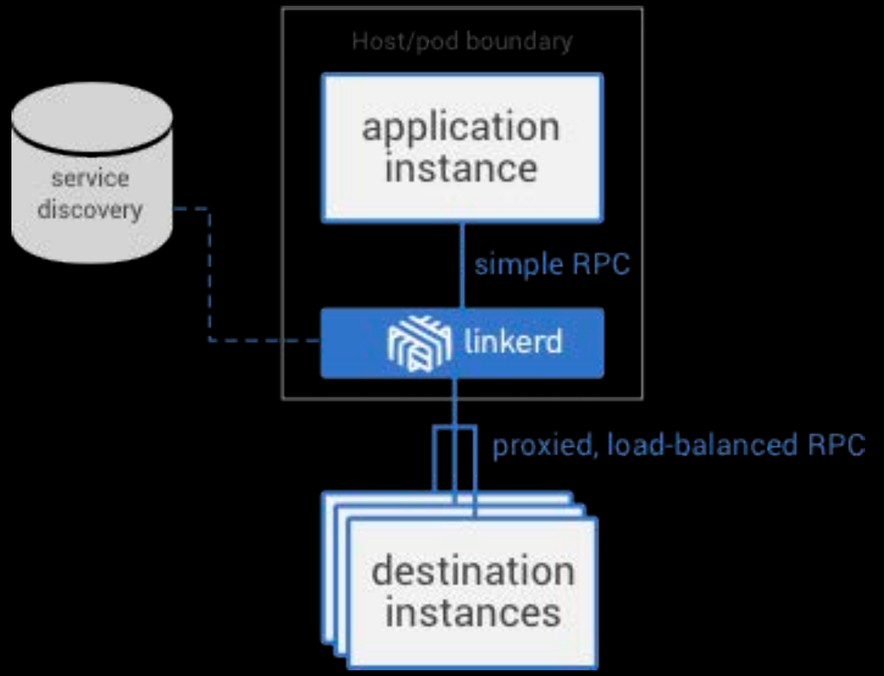
目标节点　　服务分组

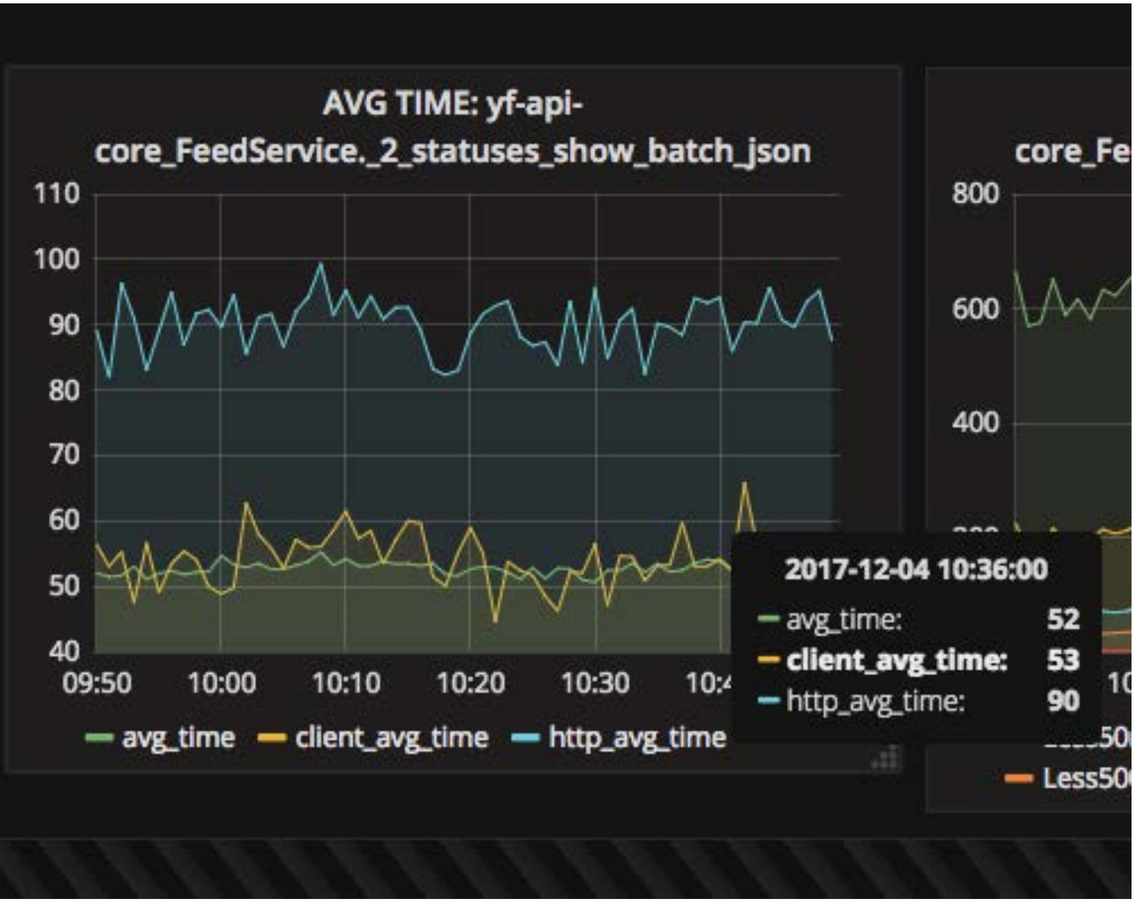
URL　唯一刻画

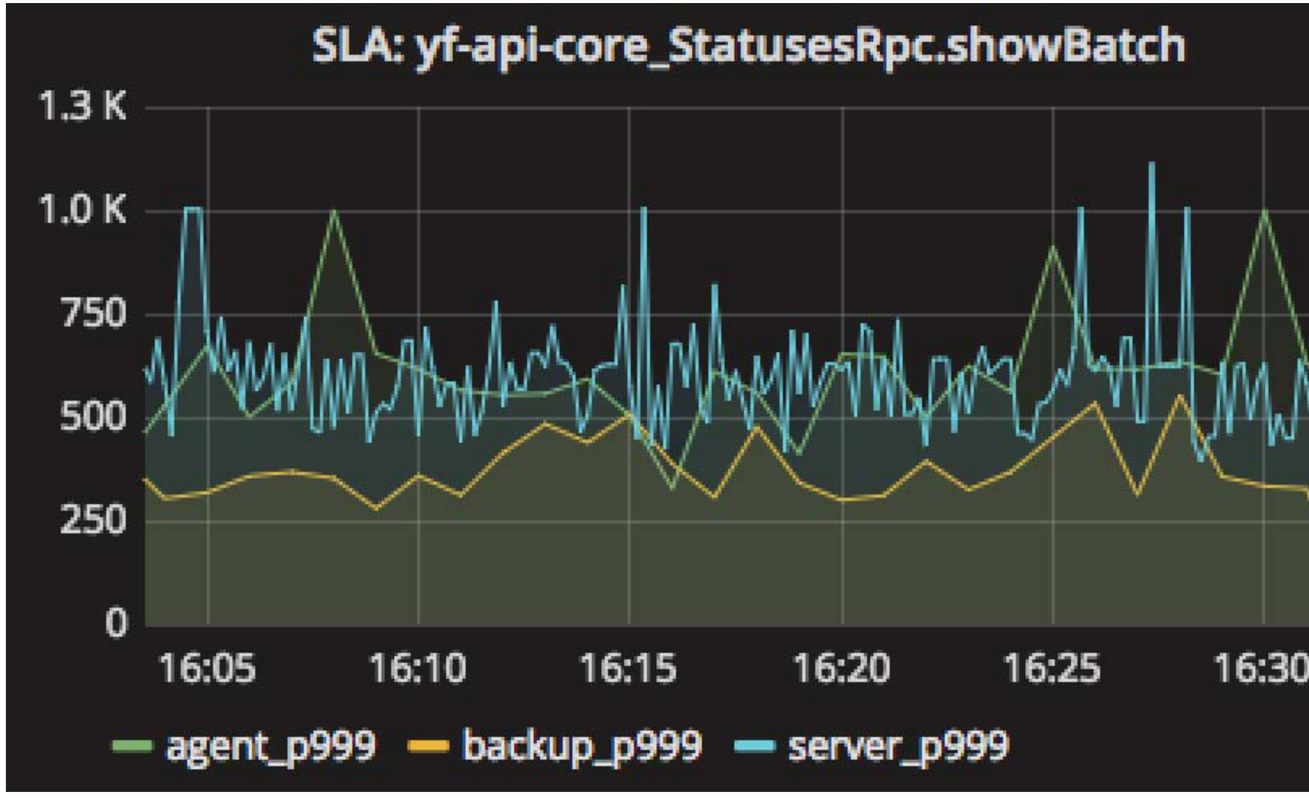
我们依赖的只有服务

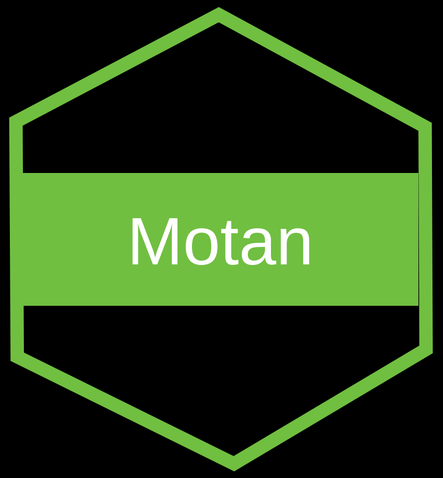
RESTful
API

JAR


Host/pod boundary
application instance
service discovery
simple RPC
linkerd
proxied, load-balanced RPC
destination instances


AVG TIME: yf-api-core_FeedService._2_statuses_show_batch_json
core_Fe
110
100
90
80
70
60
50
40
800
600
400
09:50
10:00
10:10
10:20
10:30
avg_time
client_avg_time
http_avg_time
2017-12-04 10:36:00
avg_time: 52
client_avg_time: 53
http_avg_time: 90
Less50


SLA: yf-api-core_StatusesRpc.showBatch
1.3 K
1.0 K
750
500
250
0
16:05
16:10
16:15
16:20
16:25
16:30
agent_p999
backup_p999
server_p999


Motan

Agent

Thanks Q.A

Client

PHPCON 官网：www.phpconchina.com
全部 PPT 下载：https://github.com/ThinkDevelopers/PHPConChina

官方QQ群：34449228、135615537
官方公众号：ThinkInLAMP