

# 饿了么移动性能可视化之路

Henry Hu

饿了么移动技术部总监





# QCon

## 全球软件开发大会

# 成为软件技术专家 的必经之路

### [北京站] 2018

2018年4月20-22日 北京·国际会议中心

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# Micon

全球人工智能与机器学习技术大会

## 助力人工智能落地

2018.1.13 - 1.14 北京国际会议中心

# SPEAKER INTRODUCE



## 胡彪 ( Henry Hu )

饿了么移动技术部总监

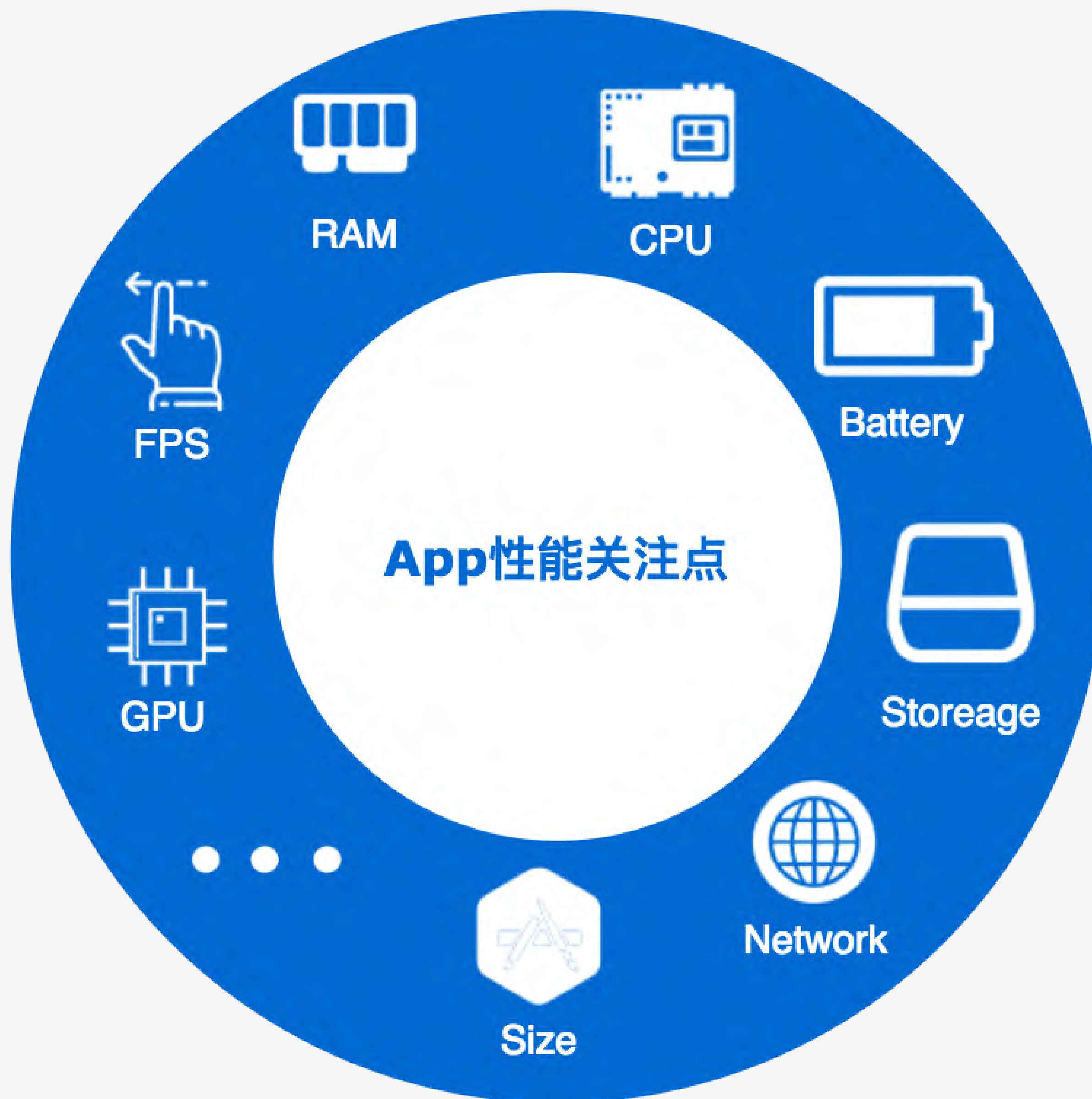
胡彪，饿了么移动技术负责人，移动技术总监。负责饿了么移动架构，移动基础设施建设，新技术预研与实践；移动安全，移动应用开发等等。09年投身移动互联网，曾先后就职于新蛋、盛大、腾讯等国内外知名企业。始终致力于低耦合，高内聚，高可用的移动架构。



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- 移动应用性能痛点
- 什么是移动应用性能可视化
- 饿了么移动性能可视化现状
- 技术挑战
- 未来规划



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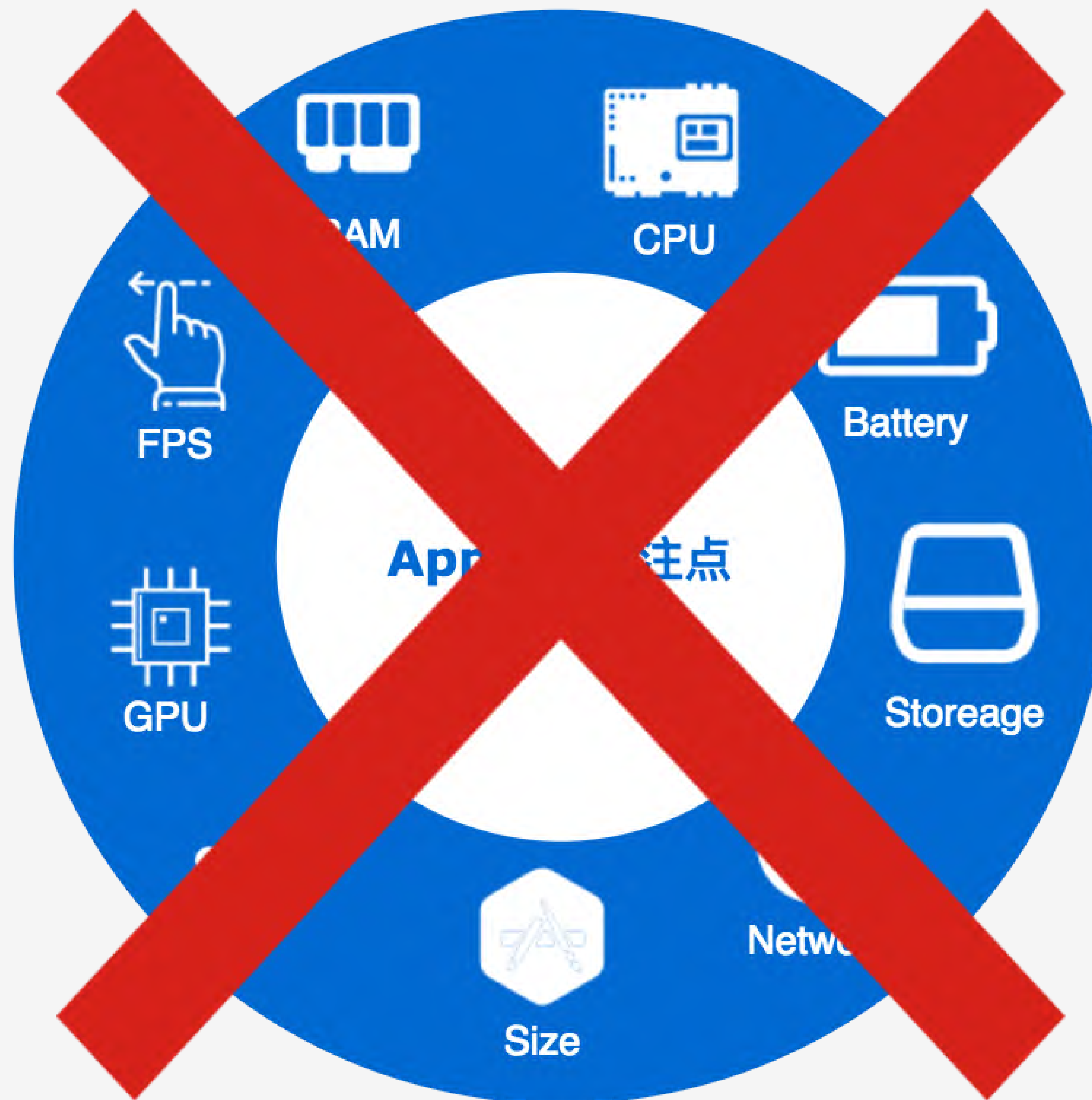
---

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# 移动应用性能痛点







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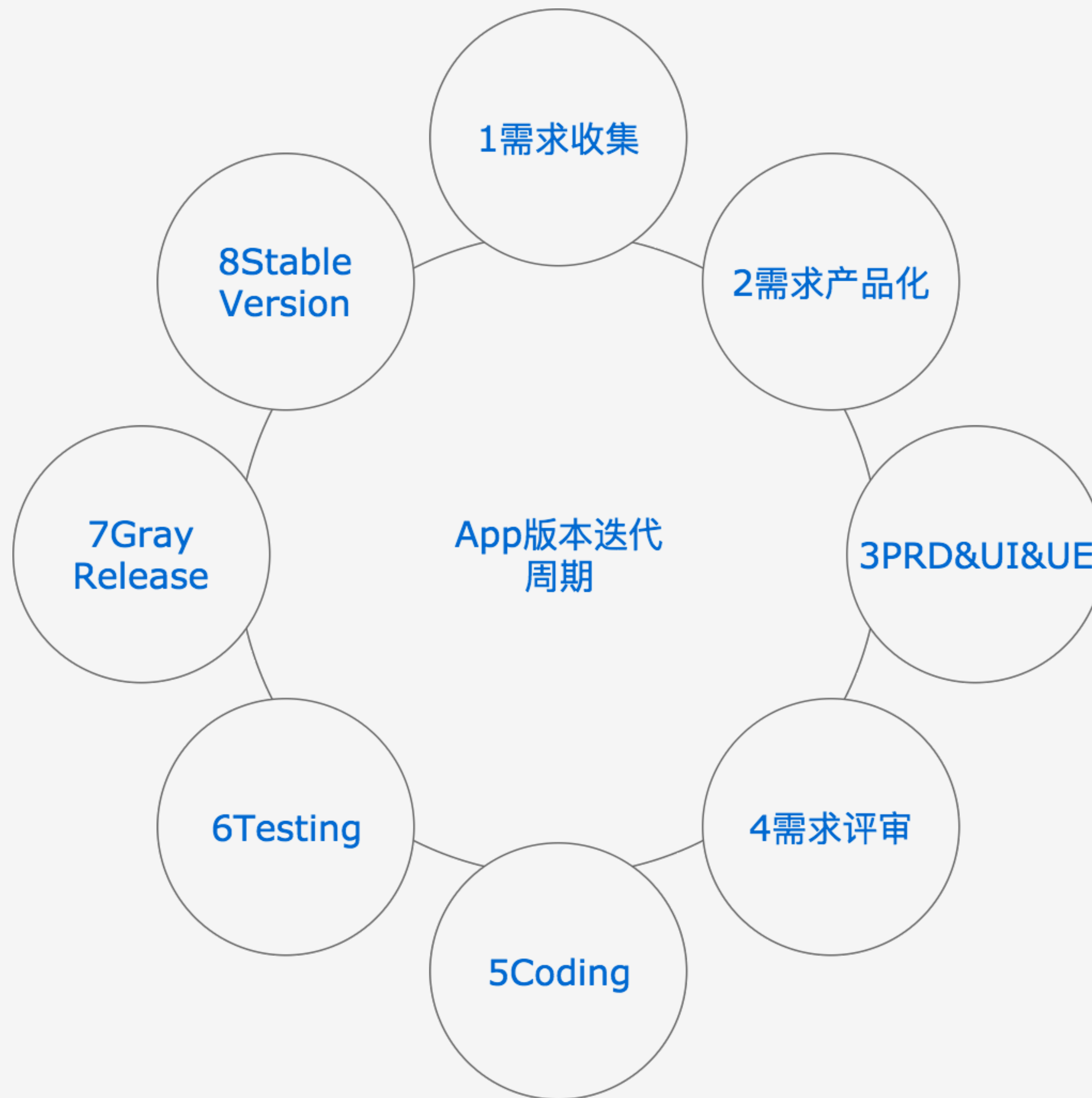




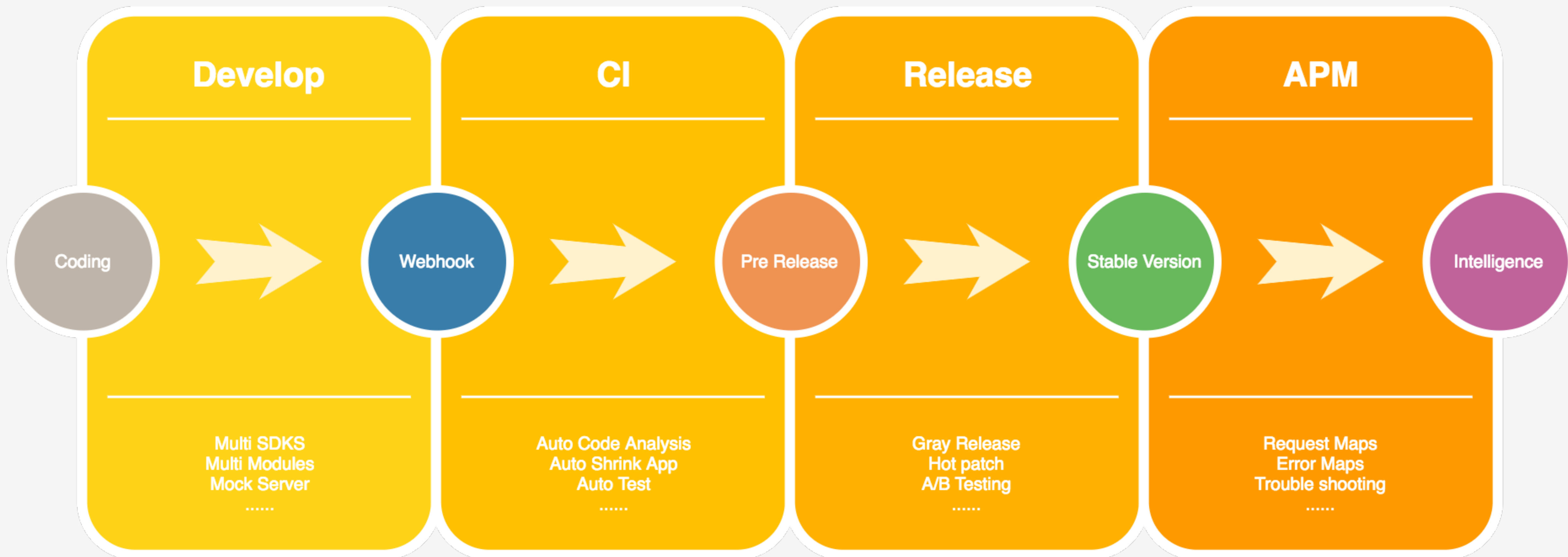
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# 代码分析

```
Pods/BlocksKit/BlocksKit/Core/NSOrderedSet+BlocksKit.m:14: error: DEAD_STORE
The value written to &__objc_anonymous_block_NSOrderedSet_bk_each:_____1 is never used.
12.         NSParameterAssert(block != nil);
13.
14. >         [self enumerateObjectsUsingBlock:^(id obj, NSUInteger idx, BOOL *stop) {
15.             block(obj);
16.         }];
```

```
Pods/BlocksKit/BlocksKit/Core/NSOrderedSet+BlocksKit.m:14: error: DEAD_STORE
The value written to &obj is never used.
12.         NSParameterAssert(block != nil);
13.
14. >         [self enumerateObjectsUsingBlock:^(id obj, NSUInteger idx, BOOL *stop) {
15.             block(obj);
16.         }];
```

```
Pods/TacoSDK/TacoSDK/Core/TacoContext.m:13: error: DEAD_STORE
The value written to &__objc_anonymous_block_TacoContext_sharedInstance_____1 is never used.
11.         static dispatch_once_t onceToken;
12.         static TacoContext *sharedInstance;
13. >         dispatch_once(&onceToken, ^{
14.             sharedInstance = [[TacoContext alloc] init];
15.         });
```

```
Pods/BlocksKit/BlocksKit/UIKit/UIView+BlocksKit.m:22: error: DEAD_STORE
The value written to &__objc_anonymous_block_UIView_bk_whenTouches:tapped:handler:_____1 is never used.
20.         gesture.numberOfTapsRequired = numberOfTaps;
21.
22. >         [self.gestureRecognizers enumerateObjectsUsingBlock:^(id obj, NSUInteger idx, BOOL *stop) {
23.             if (![obj isKindOfClass:[UITapGestureRecognizer class]]) return;
24.         }];
```

```
Pods/NVMAsyncDisplayKit/NVMAsyncDisplayKit/Classes/NVMTransactionGroup.m:13: error: DEAD_STORE
The value written to &activities is never used.
11.         static inline void NVMRRunLoopAddObserver(CFRunLoopMode mode, CFRunLoopObserverCallback callout) {
12.             CFRunLoopRef runLoop = CFRunLoopGetMain();
13. >             CFOptionFlags activities = (kCFRunLoopBeforeWaiting |
14.                 kCFRunLoopExit);
15.         }
```

```
Pods/NVMShoppingModule/NVMShoppingModule/Classes/Common/utility/NVMShoppingCommonDefinitions.h:14: error: DEAD_STORE
The value written to &__objc_anonymous_block_ESPScreenScale_____5 is never used.
12.         static CGFloat scale = 0;
13.         static dispatch_once_t onceToken;
14. >         dispatch_once(&onceToken, ^{
15.             scale = [UIScreen mainScreen].scale;
16.         });
```

```
app/src/main/java/me/ele/coffee/utils/ImageUtils.java:266: error: RESOURCE_LEAK
resource of type `java.io.FileOutputStream` acquired by call to `FileOutputStream(...)` at line
264.             os = new FileOutputStream(destFile);
265.             if (bitmap == null) {
266. >                 return "";
267.             }
268.             if (bitmap.isRecycled()) {
```

```
app/src/main/java/me/ele/coffee/utils/ImageUtils.java:271: error: RESOURCE_LEAK
resource of type `java.io.FileOutputStream` acquired by call to `FileOutputStream(...)` at line
269.                 newBitmap = bitmap.copy(bitmap.getConfig(), false);
270.             } else {
271. >                 throw new RuntimeException("OOM");
272.             }
273.             newBitmap.compress(Bitmap.CompressFormat.JPEG, quality, os);
```

```
app/src/main/java/me/ele/coffee/utils/RSUtils.java:277: error: RESOURCE_LEAK
resource of type `java.io.InputStreamReader` acquired by call to `new()` at line 267 is not rele
**Note**: potential exception at line 270
275.             }
276.
277. >             return sb.toString();
278.         }
279.
```

```
app/src/main/java/me/ele/coffee/widget/GridSupplyFilterWidget.java:271: error: NULL_DEREFERENCE
object returned by `GridSupplyFilterWidget.shopTypeTags.getSelected()` could be null and i
269.         public List<DefBaseItem> getSelectItemsForShow() {
270.             List<DefBaseItem> list = new ArrayList<>();
271. >             addItemExpectAll(list, (DefBaseItem) shopTypeTags.getSelected());
272.             list.add((DefBaseItem) selectTime.getSelected());
273.             addItemExpectAll(list, (DefBaseItem) selectVaild.getSelected());
```

```
app/src/main/java/me/ele/coffee/widget/contact/SimpleAdapter.java:309: error: NULL_DEREFERENCE
object `key` last assigned on line 307 could be null and is dereferenced at line 309.
307.             Item key = sectionsMap.get(text);
308.             values.add(key);
309. >             key.sectionPosition = sectionPosition;
310.             key.listPosition = listPosition++;
311.             onSectionAdded(key, sectionPosition);
```

Summary of the reports

```
NULL_DEREFERENCE: 20
CONTEXT_LEAK: 19
RESOURCE_LEAK: 9
THREAD_SAFETY_VIOLATION: 3
CHECKERS FRAGMENT RETAINS VIEW: 2
```



# 资源分析

## 概况

### 应用详情

Name: 饿了么商家版iOS

Build Id: #104945

App Id: me.ele.napos

Branch: master

Tag: 无

Commit: afc14022ad17a4d0e62f32b1d57638cd1e062c4b

### 资源包解析

大小: 75.34MB

资源分布: [查看](#)

### 项目解析

大资源文件: 17 个

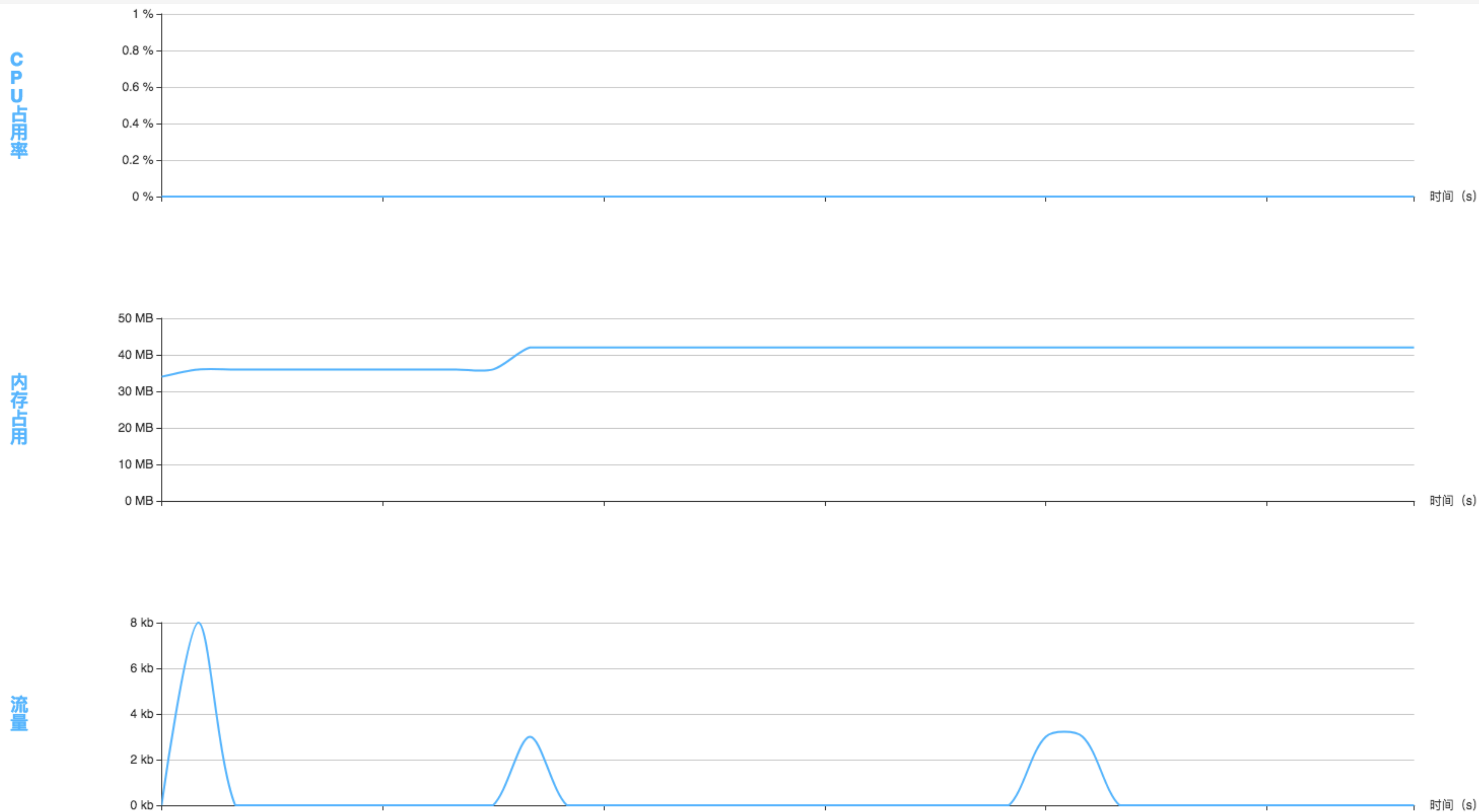
未引用文件: 2 个

未引用资源: 0 个

资源分布 大资源文件 未引用文件 未引用资源

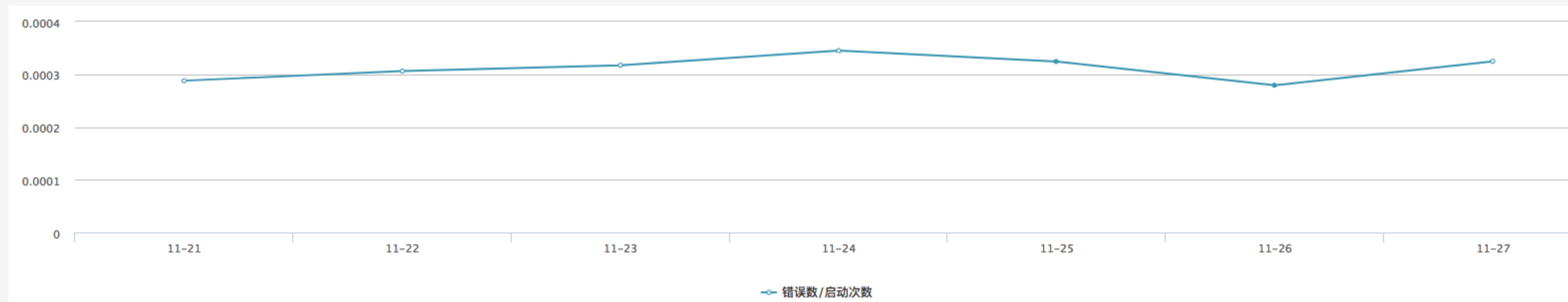
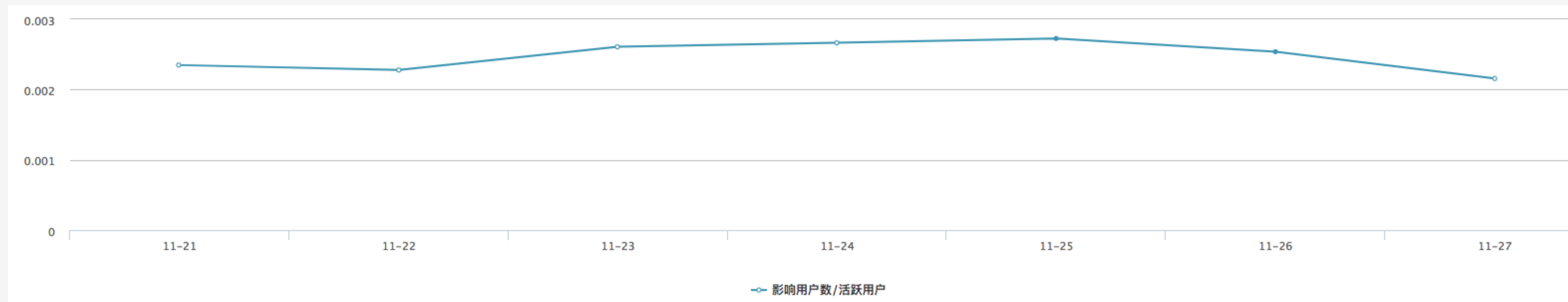
Extname	All Size
binary	26.26MB
.car	12.07MB
.caf	3.47MB
.png	852.54KB
.jsbundle	547.19KB
.json	147.98KB

# 性能分析

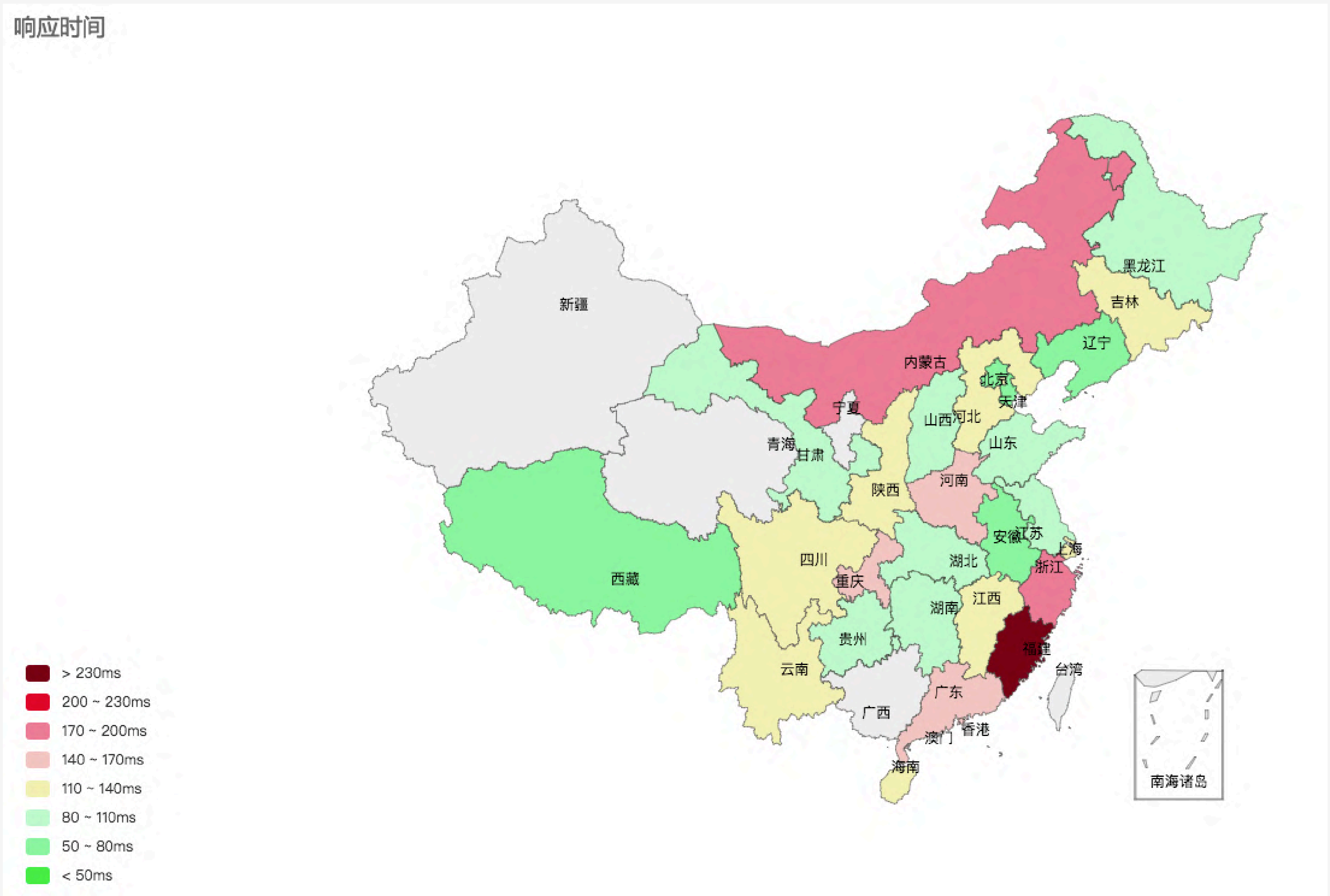




# 闪退监控



# 请求地图





# 请求分析

## 网络请求

所有版本

近1小时








ele.me

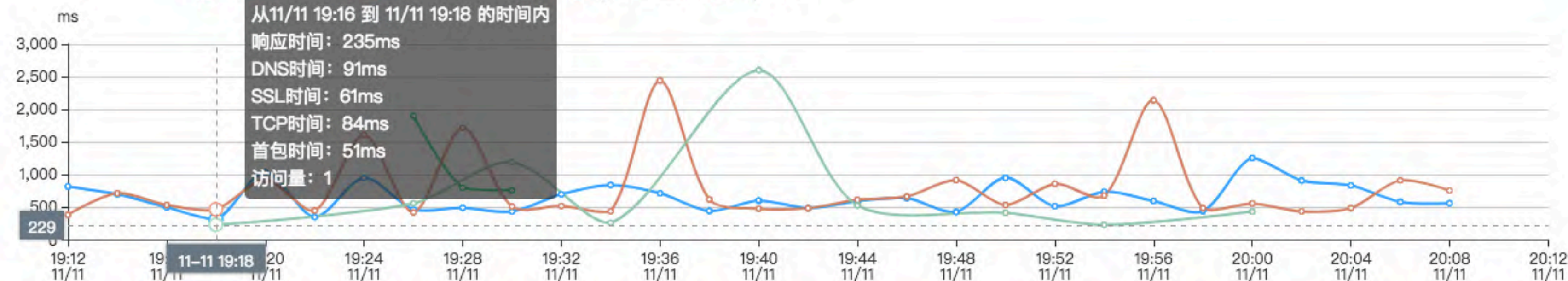
响应时间

吞吐率

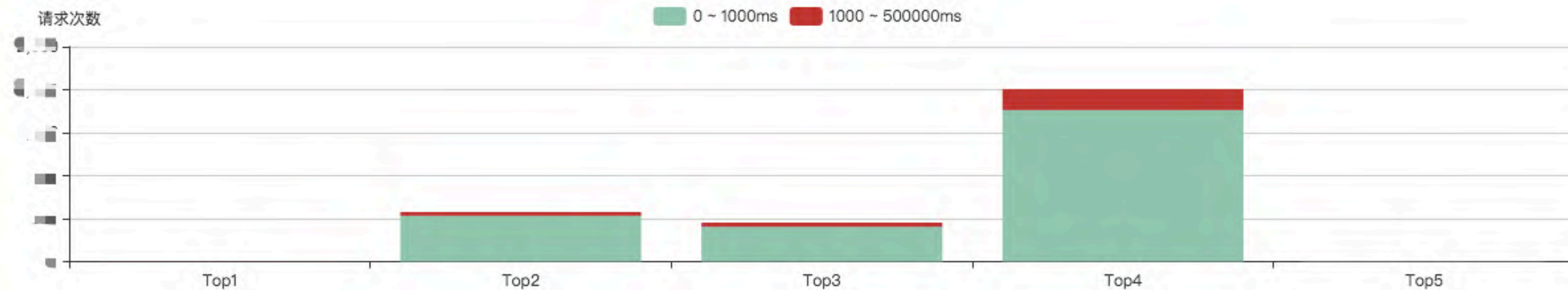
平均数据传输量

平均响应时间 ?

▶  [redacted]	1.15sec
▶  [redacted]	775.91ms
▶ fus [redacted]	742.26ms
▶  [redacted]	606.51ms
▶  [redacted]	576.14ms
▶  [redacted]	515.28ms
▶  [redacted]	509.07ms
▶  [redacted]	489.88ms
<hr/>	
/*webapi/*	828.42ms
/*webapi/*2.0/*	420.90ms
/*webapi/activity/sign_ups	219.00ms
/*webapi/base/*	347.52ms
/*webapi/base/auth/*	611.21ms
/*webapi/base/auth/logout	154.66ms
/*webapi/base/auth/pwd_token	196.66ms
/*webapi/base/auth/reset_pwd	302.12ms
/*webapi/contacts/*	323.44ms
/*webapi/customers/groups	246.00ms
/*webapi/induce/*	157.20ms
/*webapi/induce/addUser	199.62ms

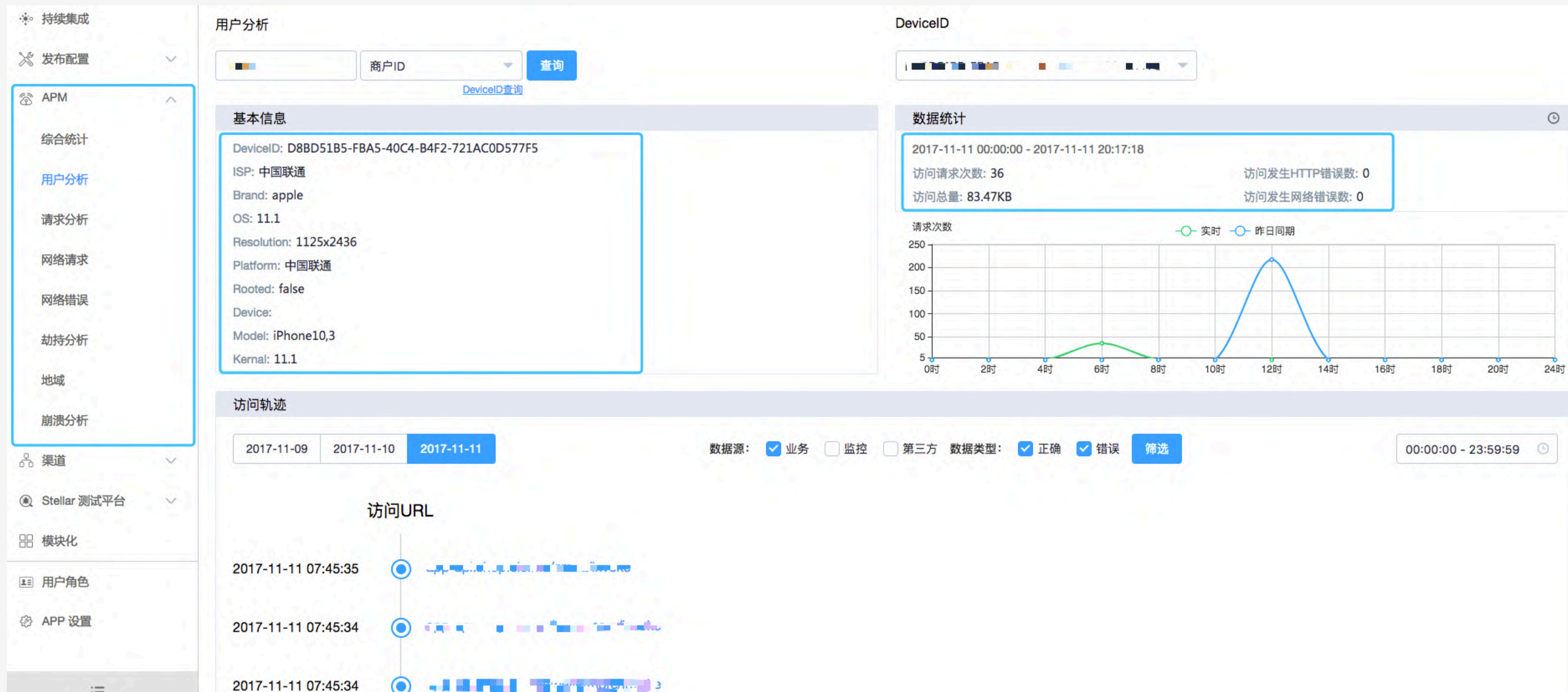


慢请求Top5



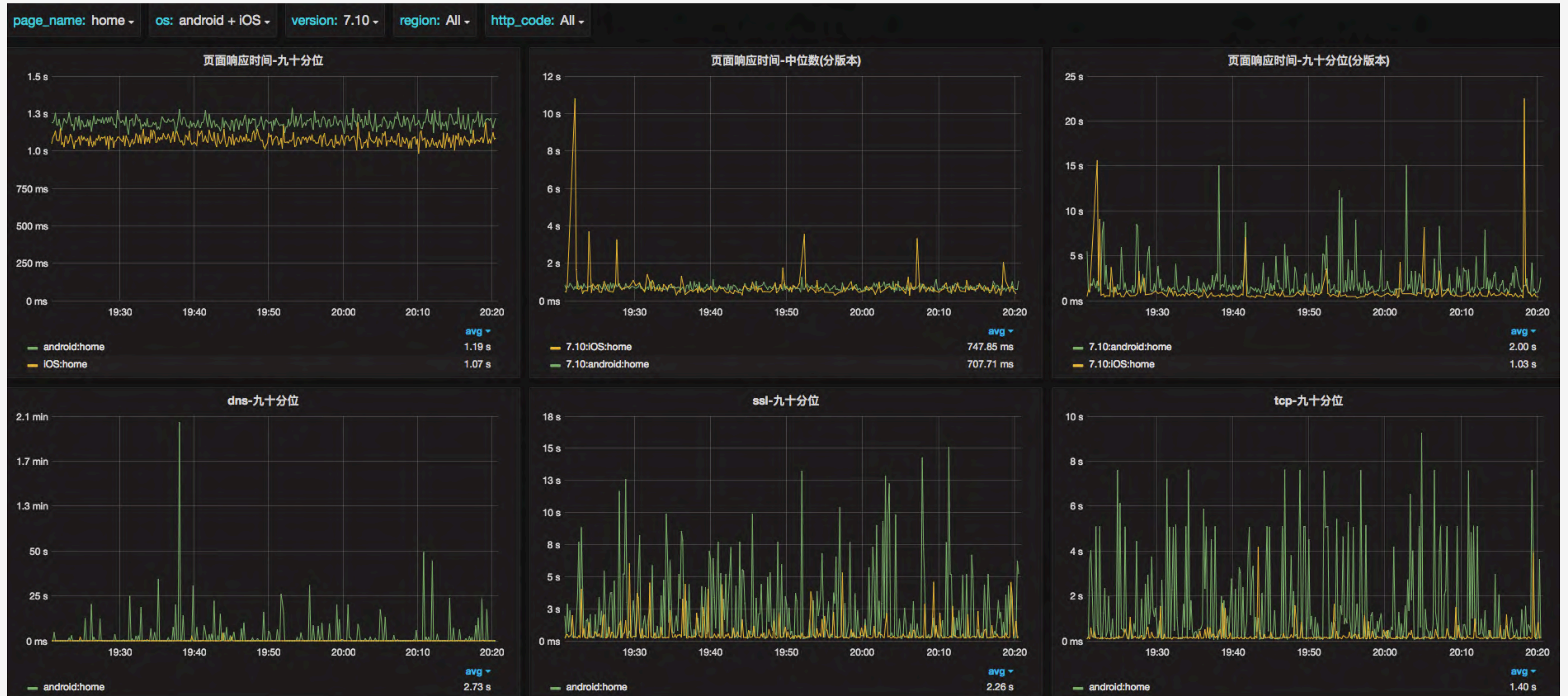


# 用户分析





# 秒级实时Dashboard





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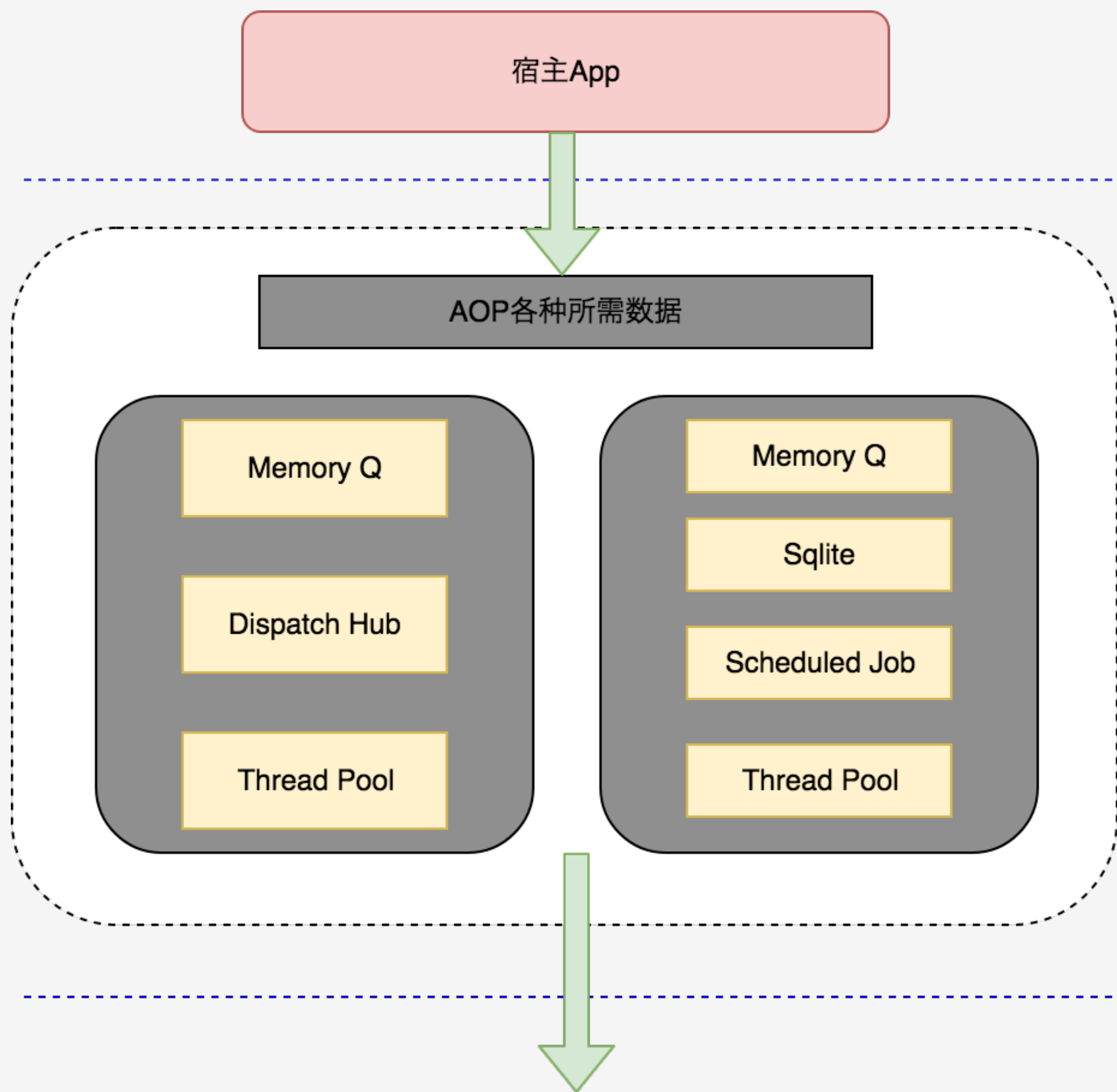
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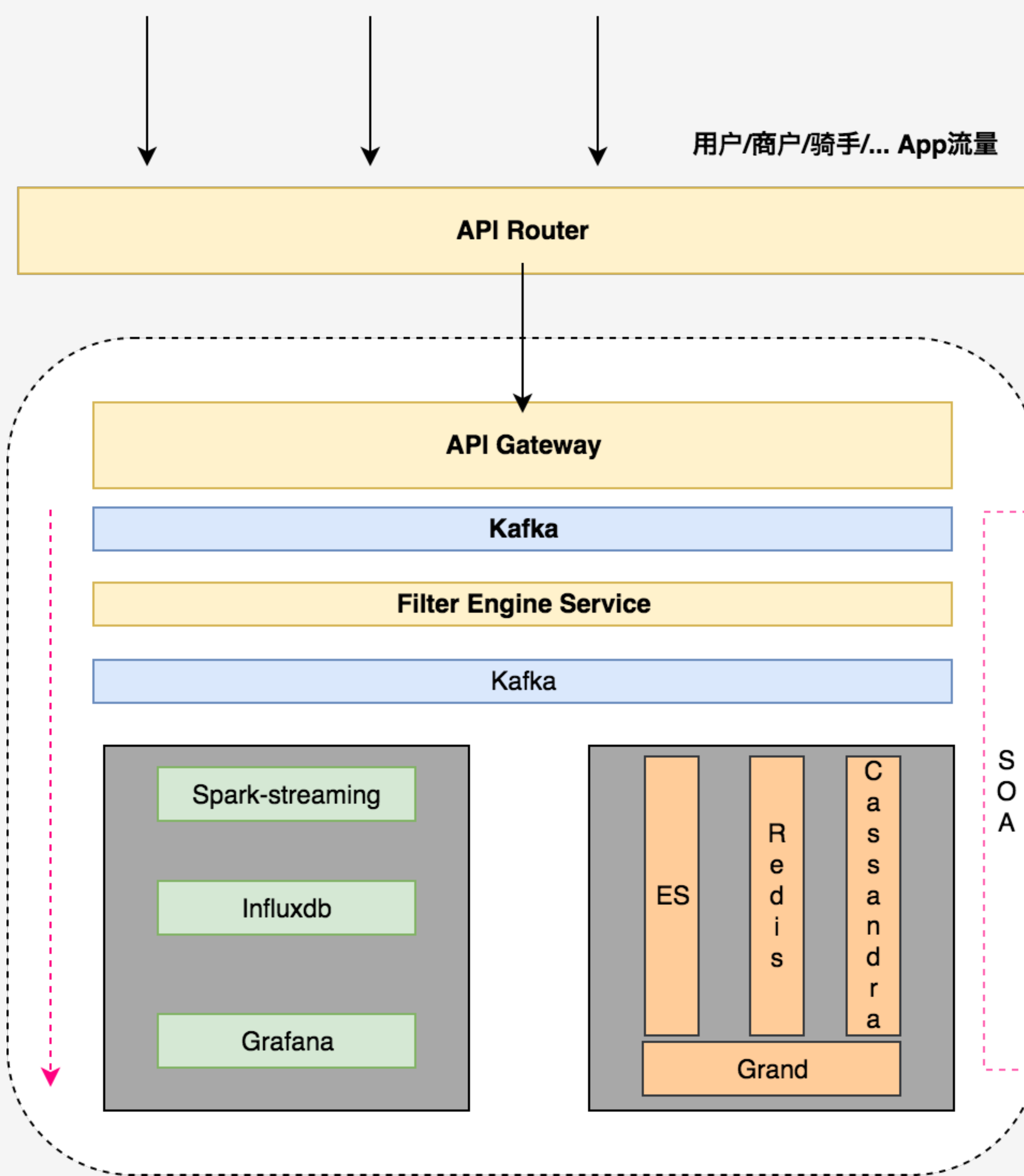


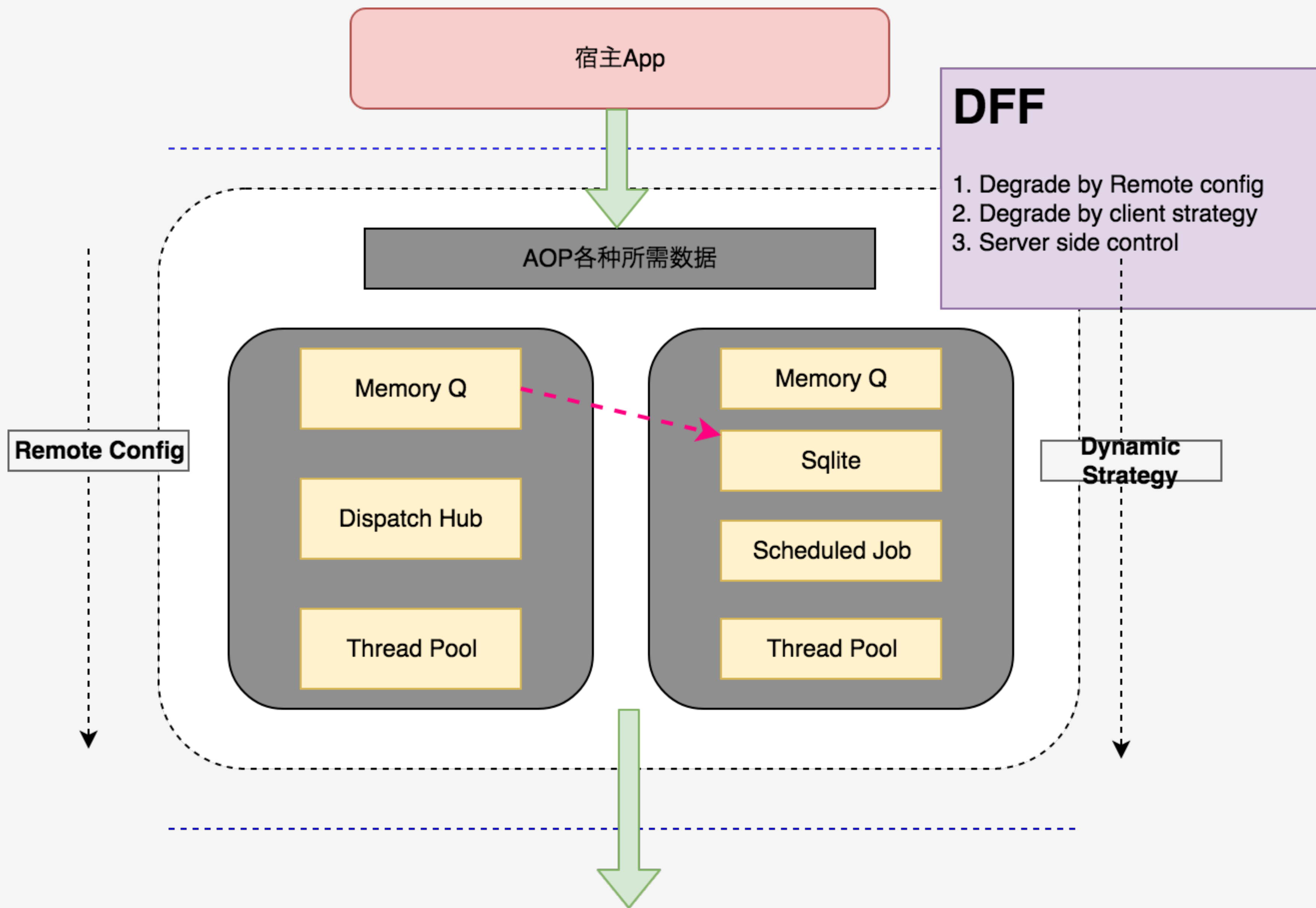
# 技术挑战

- 高并发
- 海量数据
- 如何优雅降级
- 实时监控
- 告警及时准确

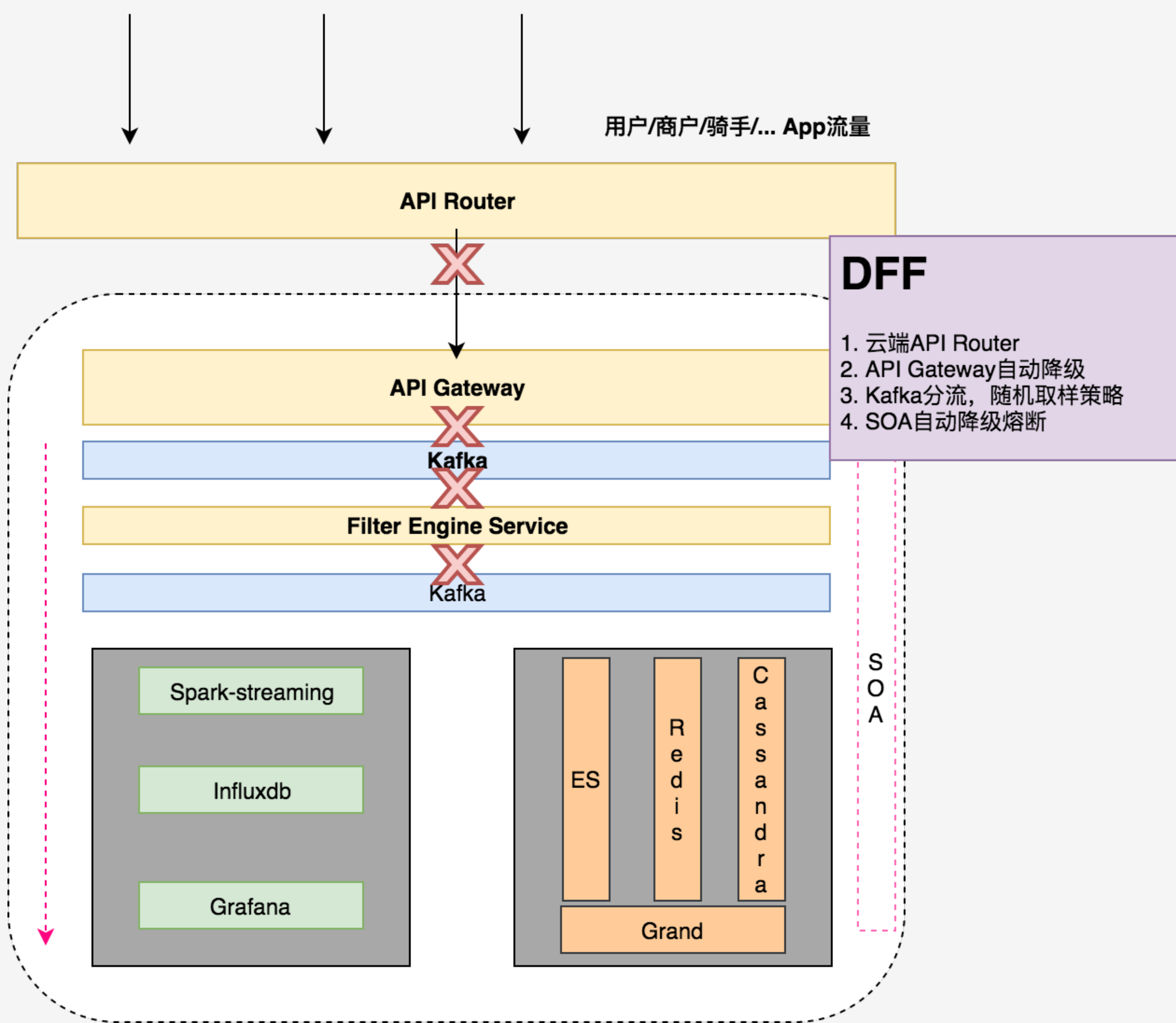












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# 未来规划

- 增加边缘计算能力
- 形成一站式服务闭环
- 监控自动化
- 数据精准化
- 结合ML

# THANK YOU

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如有需求，欢迎至 [\[ 讲师交流会议室 \]](#) 与我们的讲师进一步交流

