

WEEX 实战指北

如何优雅的使用 WEEX 坑队友

自我介绍

工作经历复杂

主要关注 Hybrid 性能优化

推进一些新技术的落地实践



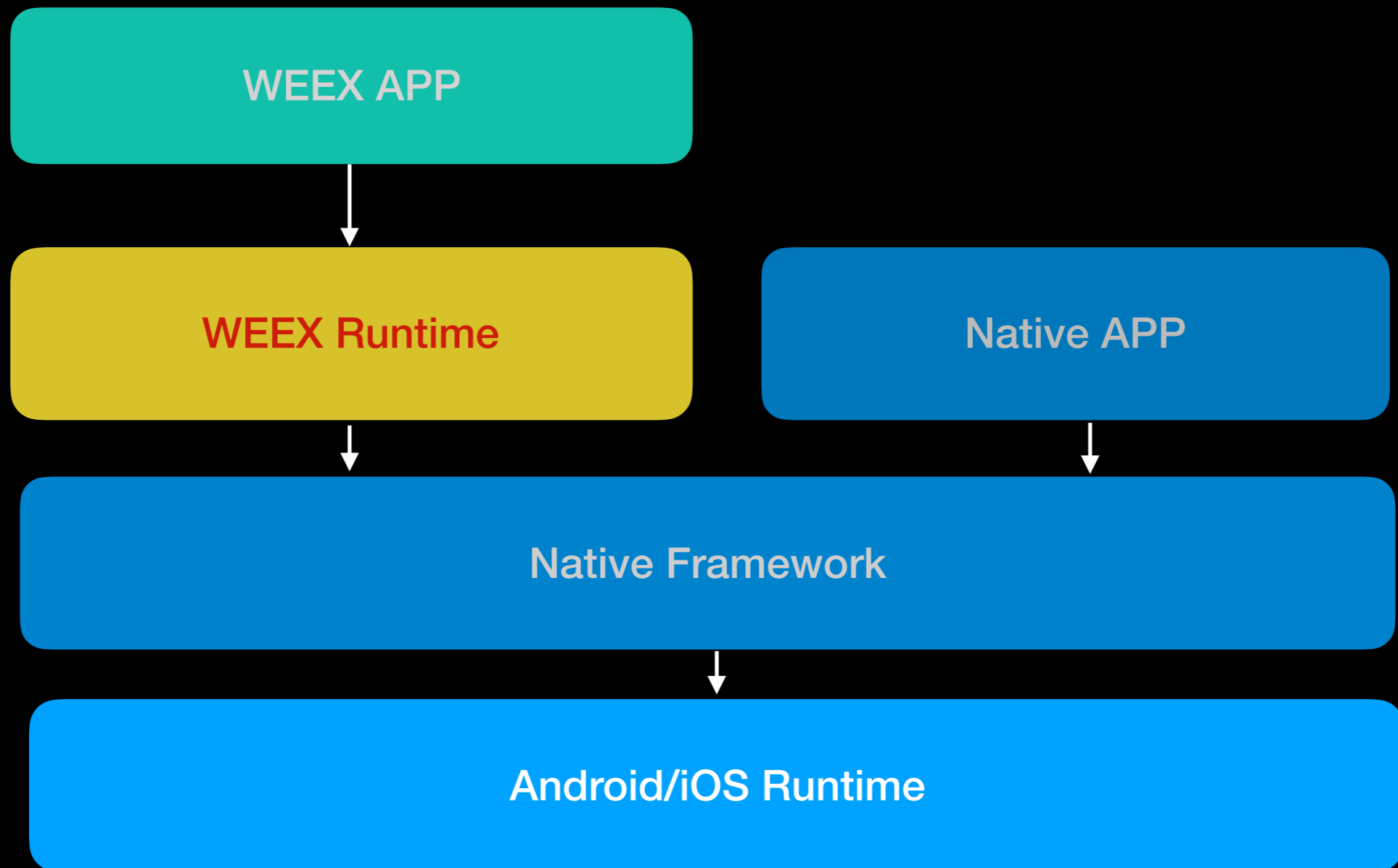
内容

1. 概述
2. 原理
3. 技术栈（学习门槛）
4. 应用（使用姿势）
5. 降级策略
6. 监控
7. 坑
8. 总结

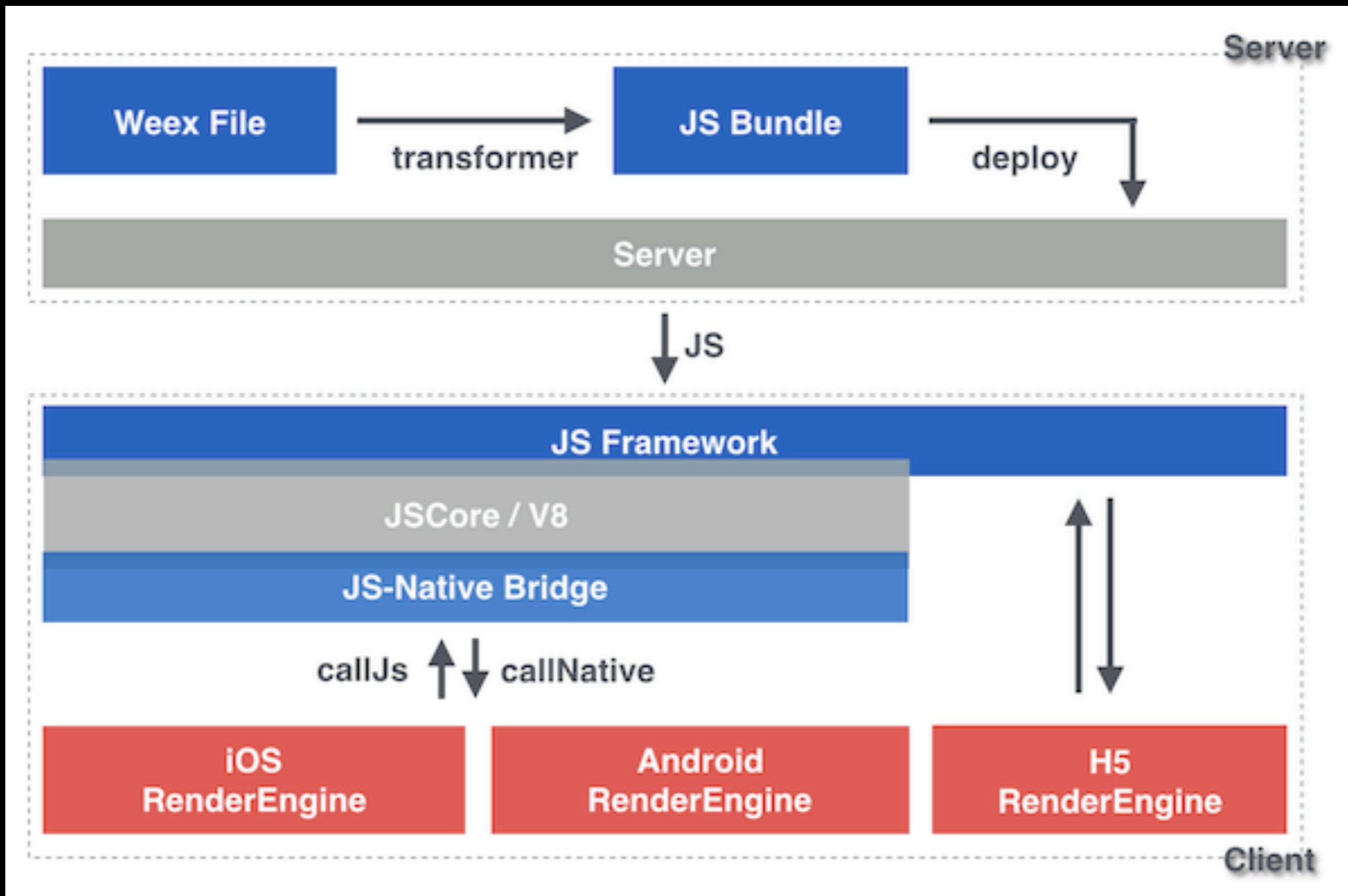
概述

一套构建轻量级、高性能、可扩展的原生应用跨平台开发方案

概述

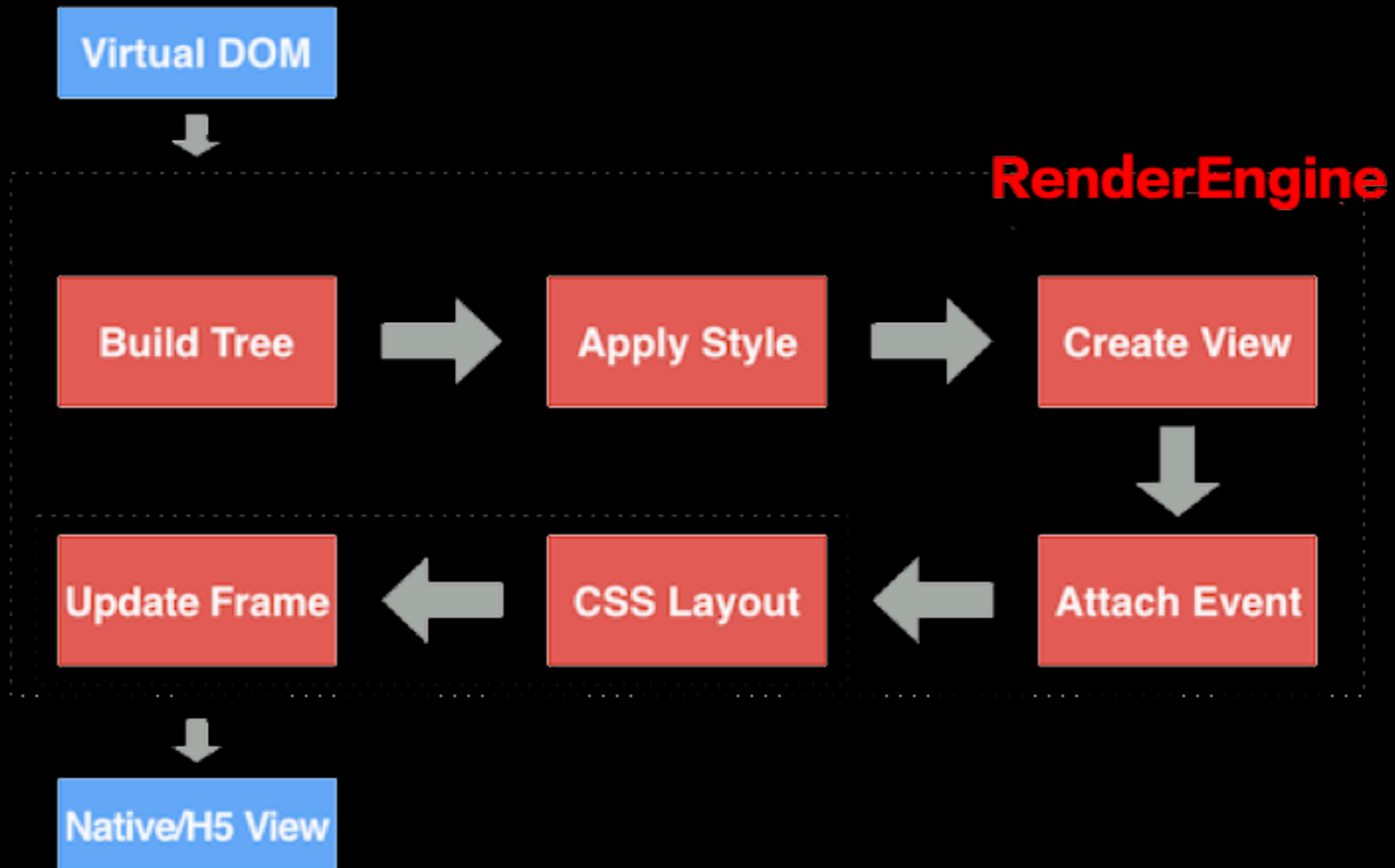


原理



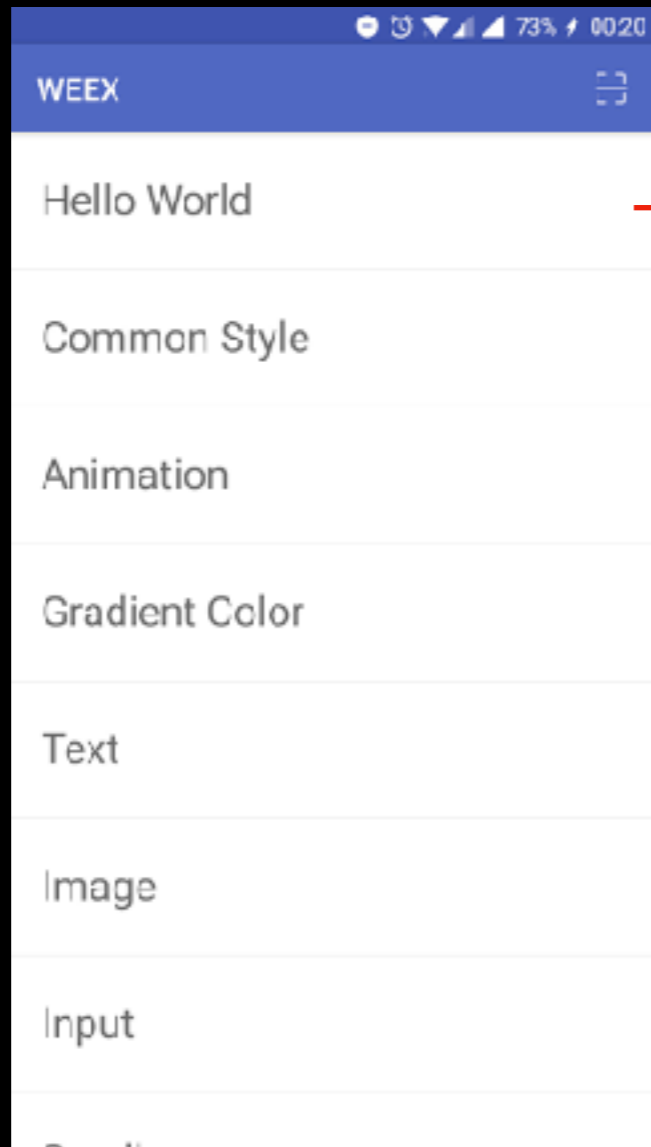
逻辑架构

原理



渲染流程

原理



Demo



原理

```
<template>
  <div>
    <text style="font-size:100px;">Hello World.</text>
  </div>
</template>

<style>
  //
</style>

<script>
  //
</script>
```

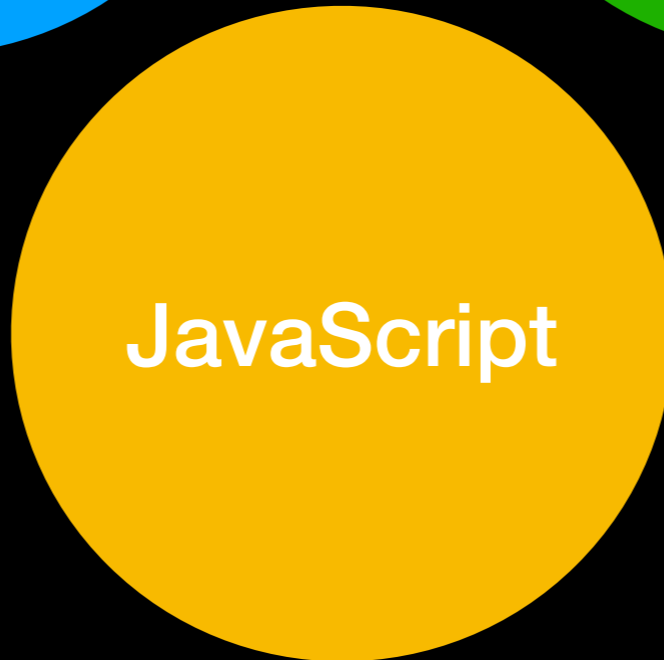
原理

```
module.exports = {
  "type": "div",
  "children": [
    {
      "type": "text",
      "style": {
        "fontSize": 100
      },
      "attr": {
        "value": "Hello World."
      }
    },
  ],
}
```

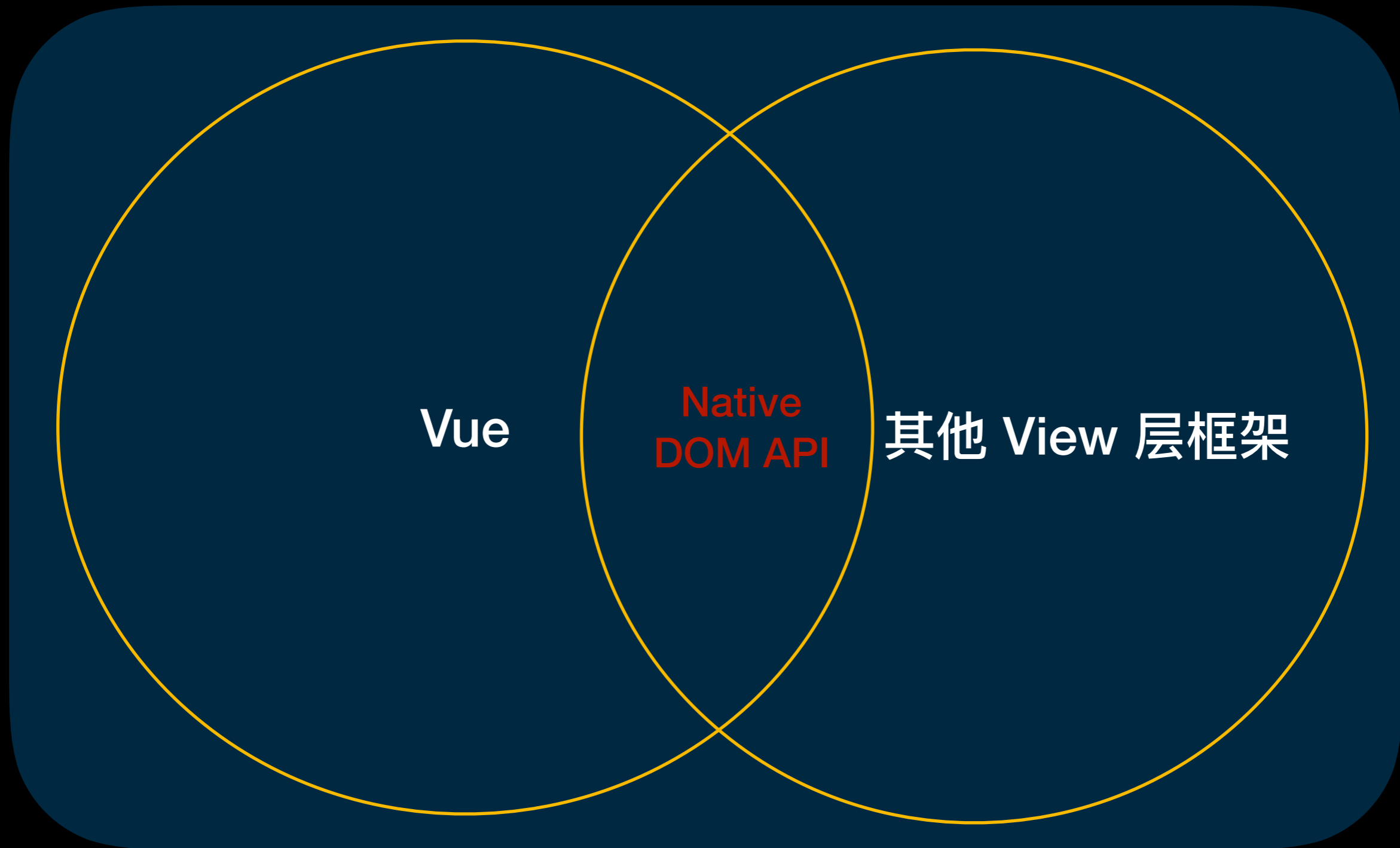
原理

```
1 [WXBridgeManager] callNativeModule >>>> instanceId:1, module:event, method:openURL, arguments:["file:///assets/hello.js"]
2 [WXBridgeManager] callNative >>>> instanceId:5, tasks:[{"module":"dom","method":"createBody",
3 |                                     "args":[{"ref":"_root","type":"div","attr":{},"style":{}}]}, callback:-1
4 [WXBridgeManager] callNative:callAddElement >>>> instanceId:5, ref:_root, dom:{"ref":"264","type":"text",
5 |                                     "attr":{"value":"Hello World."},
6 |                                     "style":{"fontSize":100}}, callback:undefined
7 [WXBridgeManager] callNative >>>> instanceId:5, tasks:[{"module":"dom","method":"createFinish","args":[]}], callback:-1
8 [WXBridgeManager] callNative >>>> instanceId:5, tasks:[{"module":"dom","method":"updateFinish","args":[]}], callback:-1
9
10
11 callJS >>>> instanceId:1 function:callJS tasks:[{"data":"1","type":2}, {"data":"[{\"args\": [\"6\", \"touchstart\",
12 |                                     {\"changedTouches\": [{\"identifier\":0, \"pageX\":480.55554, \"pageY\":95.138885, \"screenX\":480.55554, \"scr
13 callJS >>>> instanceId:1 function:callJS tasks:[{"data":"1","type":2},
14 |                                     {"data":"[{\"args\": [\"6\", \"touchend\", {\"changedTouches\": [{\"identifier\":0, \"pageX\":480.55554, \"pageY
15 callJS >>>> instanceId:1 function:callJS tasks:[{"data":"1","type":2},
16 |                                     {"data":"[{\"args\": [\"6\", \"click\", {\"position\": {\"height\":159.72223, \"width\":750, \"x\":0, \"y\":145.8
17 callJS >>>> instanceId:1 function:callJS tasks:[{"data":"1","type":2},
18 |                                     {"data":"[{\"args\": [\"_root\", \"viewdisappear\", null, null, \"method\": \"fireEvent\"}]\", \"type\":3}]
19 callJS >>>> instanceId:5 function:createInstance
20 callJS >>>> instanceId:5 function:callJS tasks:[{"data":"5","type":2},
21 |                                     {"data":"[{\"args\": [\"_root\", \"viewappear\", null, null, \"method\": \"fireEvent\"}]\", \"type\":3}]
```

技术栈



技术栈



应用



接口请求
发送数据源到WEEEX
Native Module

发送事件

接收数据，渲染
触发 Native Module



应用

```
fun getWeexFilePath(fileName: String): String {
    if (isWeexDebug()) {
        return debugWeex(fileName)
    }
    val cur = RemoteFM.with(XYApplicationLike.getInstance())
        .getByTag("$fileName.weex.js", object : LoadListener {
            override fun onNewFile(file: File) {
                Log.d("RMF", file.toString())
            }

            override fun onFailure(e: FMException) {
                Log.e("RMF", "", e)
                e.printStackTrace()
            }
        })
    if (cur == null) {
        return WXFileUtils.loadAsset("weex/$fileName.weex.js", XYApplicationLike.getInstance())
    } else {
        return FileUtils.loadFromFile(XYApplicationLike.getInstance(), cur.absolutePath)
    }
}
```

代码动态更新



降级策略

```
// When match condition will auto downgrade to web
Downgrade.condition({
  ios: {
    osVersion: '>1.0',
    appVersion: '>1.0.0',
    weexVersion: '>1',
    deviceModel: ['iPhone5,1']
  },
  android: {
    osVersion: '>1.0',
    appVersion: '>1.0.0',
    weexVersion: '>1',
    deviceModel: ['G-2PW2100']
  }
})
```

WEEX 提供模块形式的降低方案



监控

```
@Override
public void onRenderSuccess(WXSDKInstance instance, int width, int height) {
    WXPerformance wxPerformance = instance.getWXPerformance();
    Map<String, Object> performance = new HashMap<>();
    performance.put("platform", "android");
    performance.putAll(wxPerformance.getMeasureMap());
    instance.fireGlobalEventCallback("E_RENDER_SUCCESS_PERF", performance);
    if (mIwxRenderListener != null) {
        mIwxRenderListener.onRenderSuccess(instance, width, height);
    }
}
```

Perf

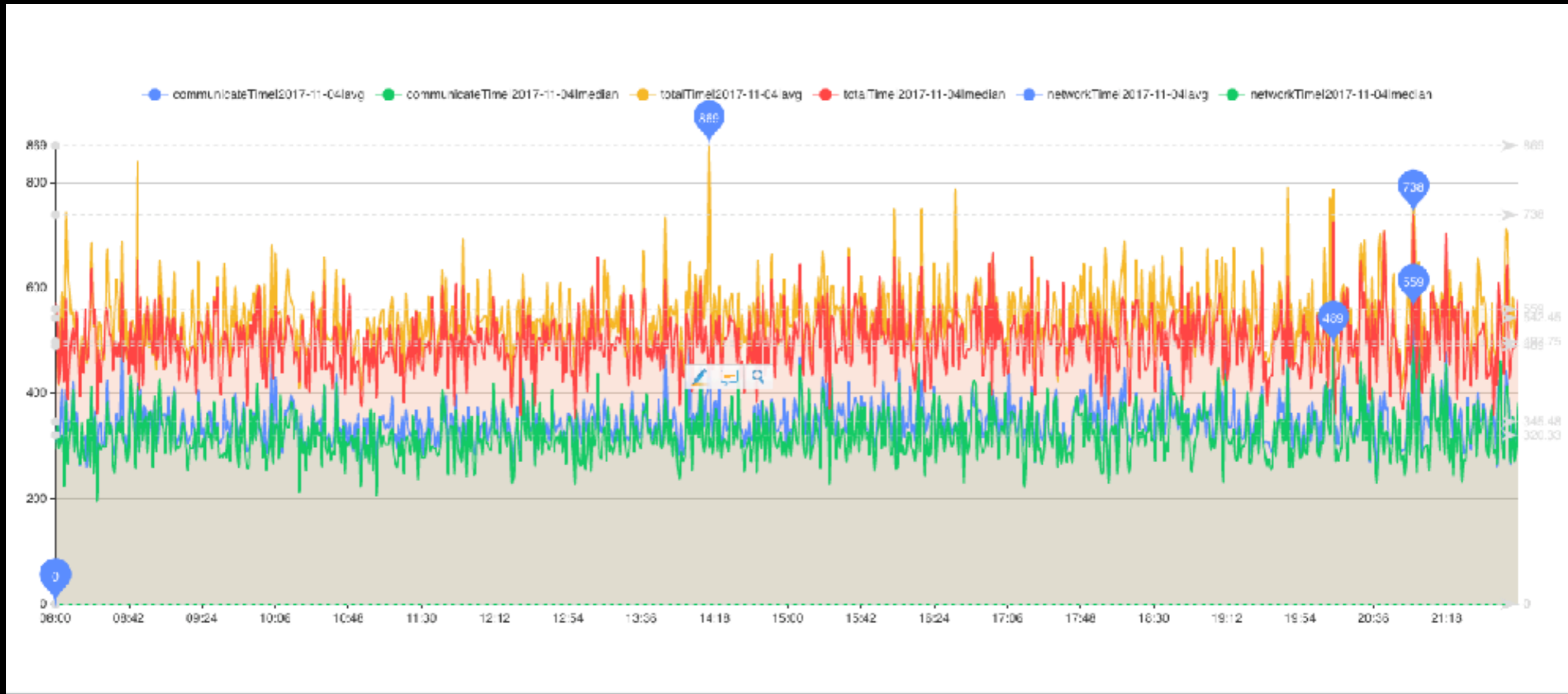


监控

```
@Override
public void onException(WXSDKInstance instance, String errCode, String msg) {
    Map<String, Object> params = new HashMap<>();
    params.put("errCode", errCode);
    params.put("errMsg", msg);
    instance.fireGlobalEventCallback("_WXSDK_ERROR", params);
    if (mIwxRenderListener != null) {
        mIwxRenderListener.onException(instance, errCode, msg);
    }
}
```

Error

监控



Perf

监控

The screenshot displays a monitoring dashboard with the following elements:

- Header:** Includes '错误归类' (Error Classification), a dropdown for '按最近1天总量排序' (Sort by total volume in the last 1 day), and a '选择页码' (Select page number) dropdown.
- Filter Bar:** Contains status filters: '未解决' (Unresolved), '已修复' (Fixed), '处理中' (In Progress), and '忽略' (Ignore). It also includes a note: '保留7天内未解决错误, 超时错误自动过期!' (Keep errors not resolved within 7 days, timeout errors expire automatically!), a '+ 标签' (Tags) button, and a '批量操作' (Batch Action) dropdown.
- Error List:** A table of error records with columns for status, error type, message, and a bar chart. The errors listed are:
 - callJS TypeError: Cannot read property 'tags' of undefined
 - callJS TypeError: Cannot call method 'forEach' of undefined
 - callJS TypeError: Property 'onSelected' of object [object Object] is not a function
 - callJS TypeError: Cannot read property 'adviceUrl' of undefined
 - callJS TypeError: Cannot read property 'showAdvice' of undefined
 - createInstance TypeError: Object [object Object] has no method 'reLayout'
 - createInstance TypeError: Cannot read property 'selfMarketIntensity' of undefined
 - createInstance TypeError: Object function f(o,t,n){if(Array.isArray(t))for(var r=0;r<t.length;++r){t[r],n...
- Summary:** At the bottom left, it shows '8个未解决错误' (8 unresolved errors). At the bottom right, there are navigation arrows and a page number '1'.

Error

坑

小米手机 local:///file_name 可能 get 不到

local scheme 在 Android 和 iOS 上不统一

View 高度计算

iOS background 未设置导致 View 不显示

源码, 文档各种坑...

总结

开发人员需要比较多的 Native 开发背景知识

团队实施 WEEX 需要成员有较高的意识

Android iOS 两端兼容性优异，向前兼容优异

JS bundle 体积小，性能优异，适合集成到现有的 APP 中

确实可以提高开发效率，降低维护成本

WEEX 虽然坑很多，但可以忍受 !!!

Q&A