

GDG Guangzhou

DevFest

Google 喊你学Flutter

小德-koudle
@Tencent



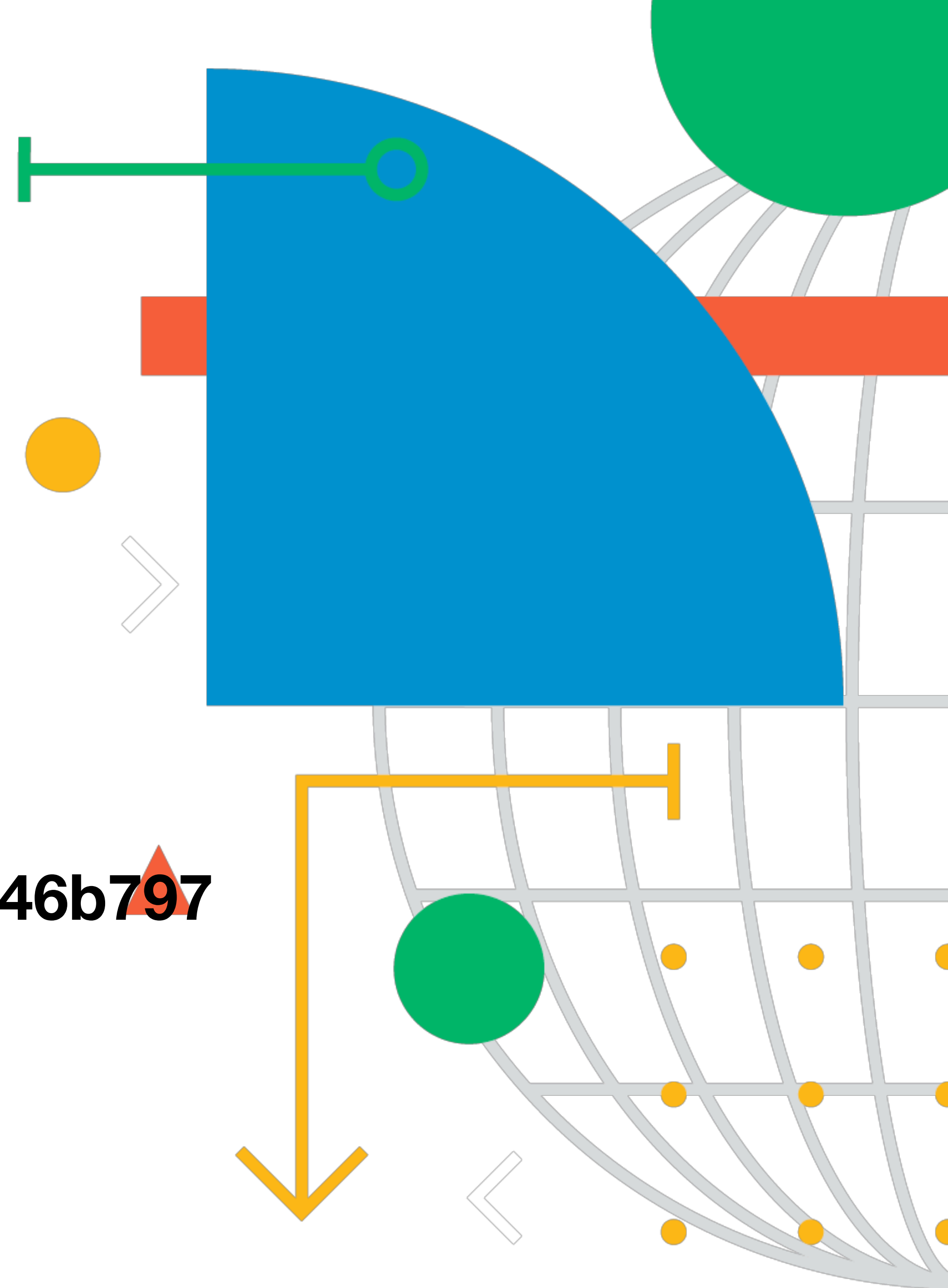
DevFest

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我的掘金主页：

<https://juejin.im/usr/5b5587a05188251abb46b797>

我的Github：<https://github.com/koudle>



作者

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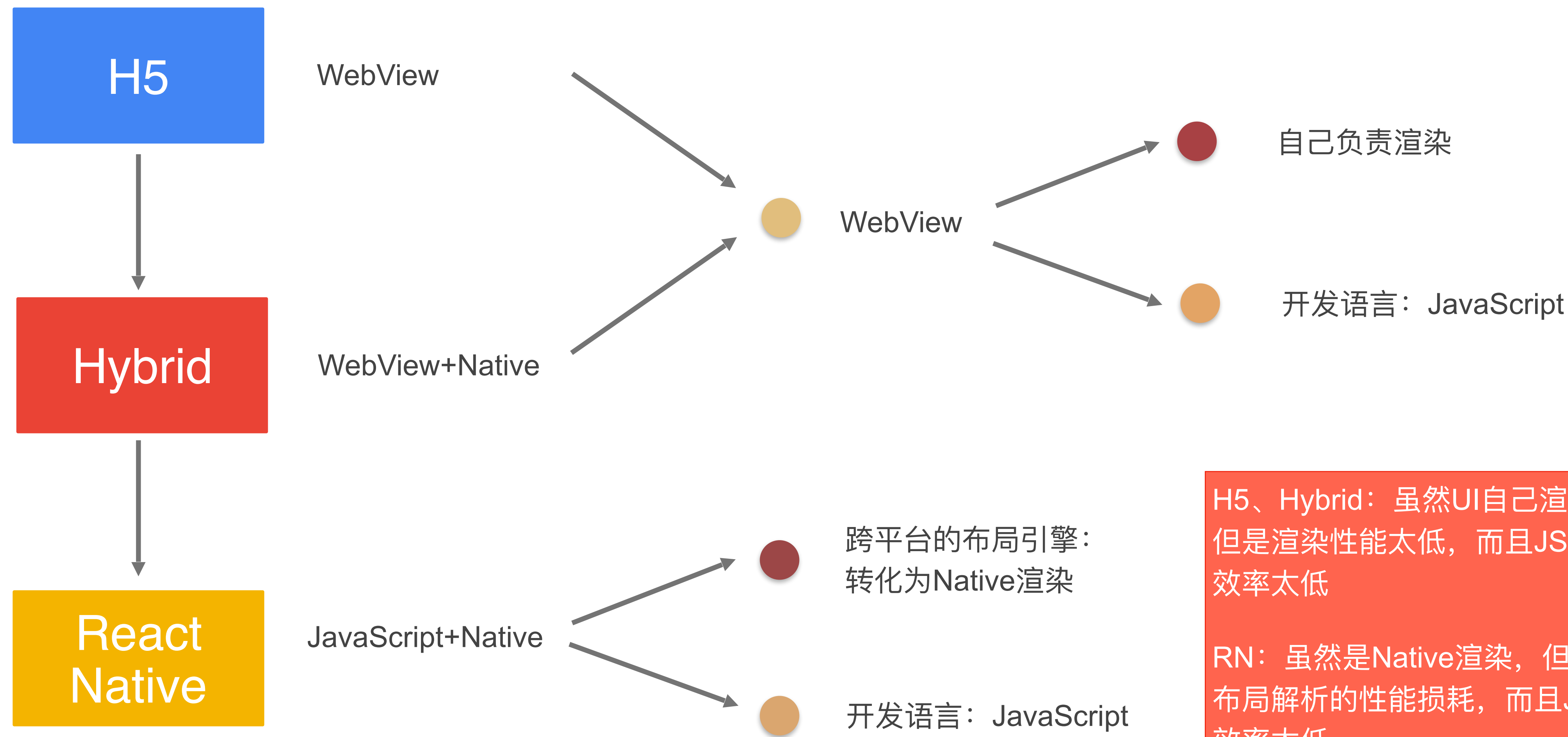
<https://github.com/koudle>

欢迎关注和Star
谢谢！

移动端跨平台开发的各种方案

方案1: WEB流

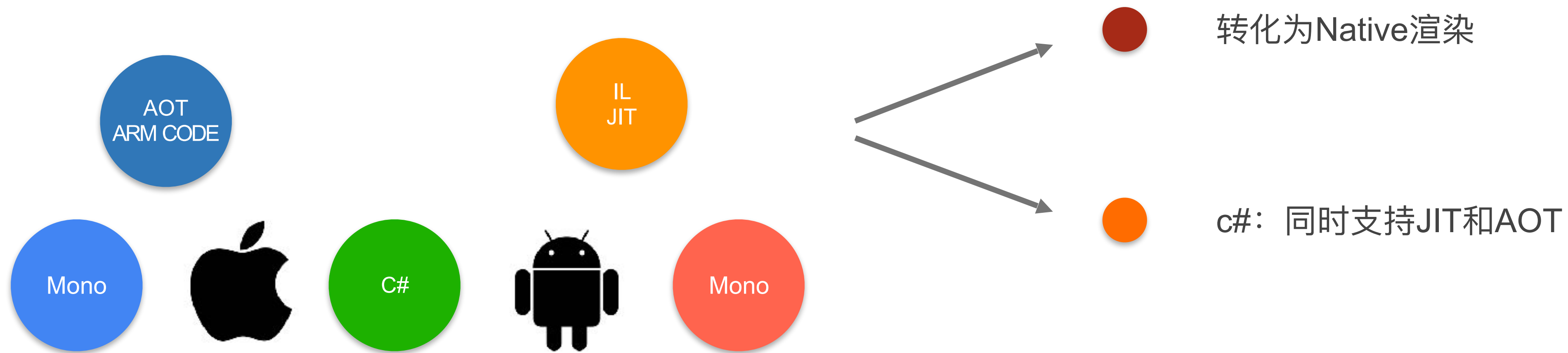
为何可以跨平台?



H5、Hybrid: 虽然UI自己渲染, 但是渲染性能太低, 而且JS运行效率太低

RN: 虽然是Native渲染, 但多了布局解析的性能损耗, 而且JS运行效率太低。

方案2 编译流/虚拟机流



Xamarin: 虽然性能好了一些, 但是跨平台的UI支持不好, 无法实现复杂的UI布局。

方案3

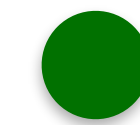
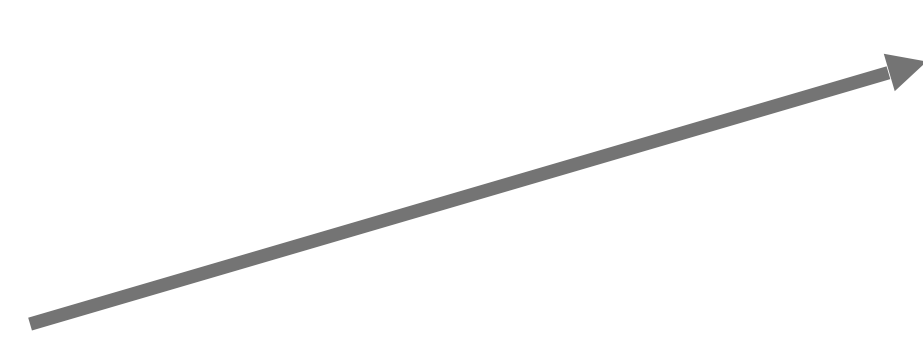
游戏引擎



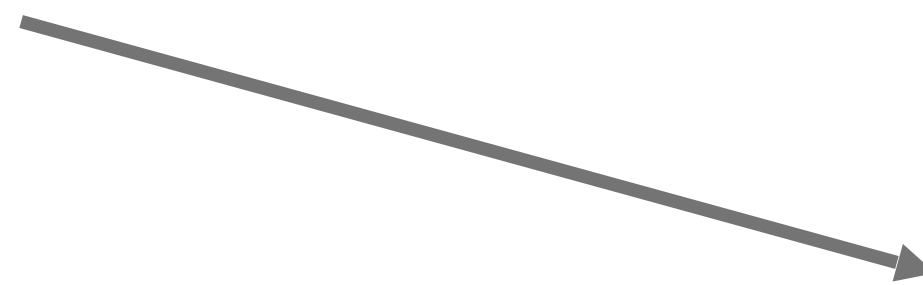
自己负责渲染

Unity：虽然渲染性能很强大，但渲染机制为实时刷新，耗电量太大，在APP里都是局部刷新；而且安装包也很大

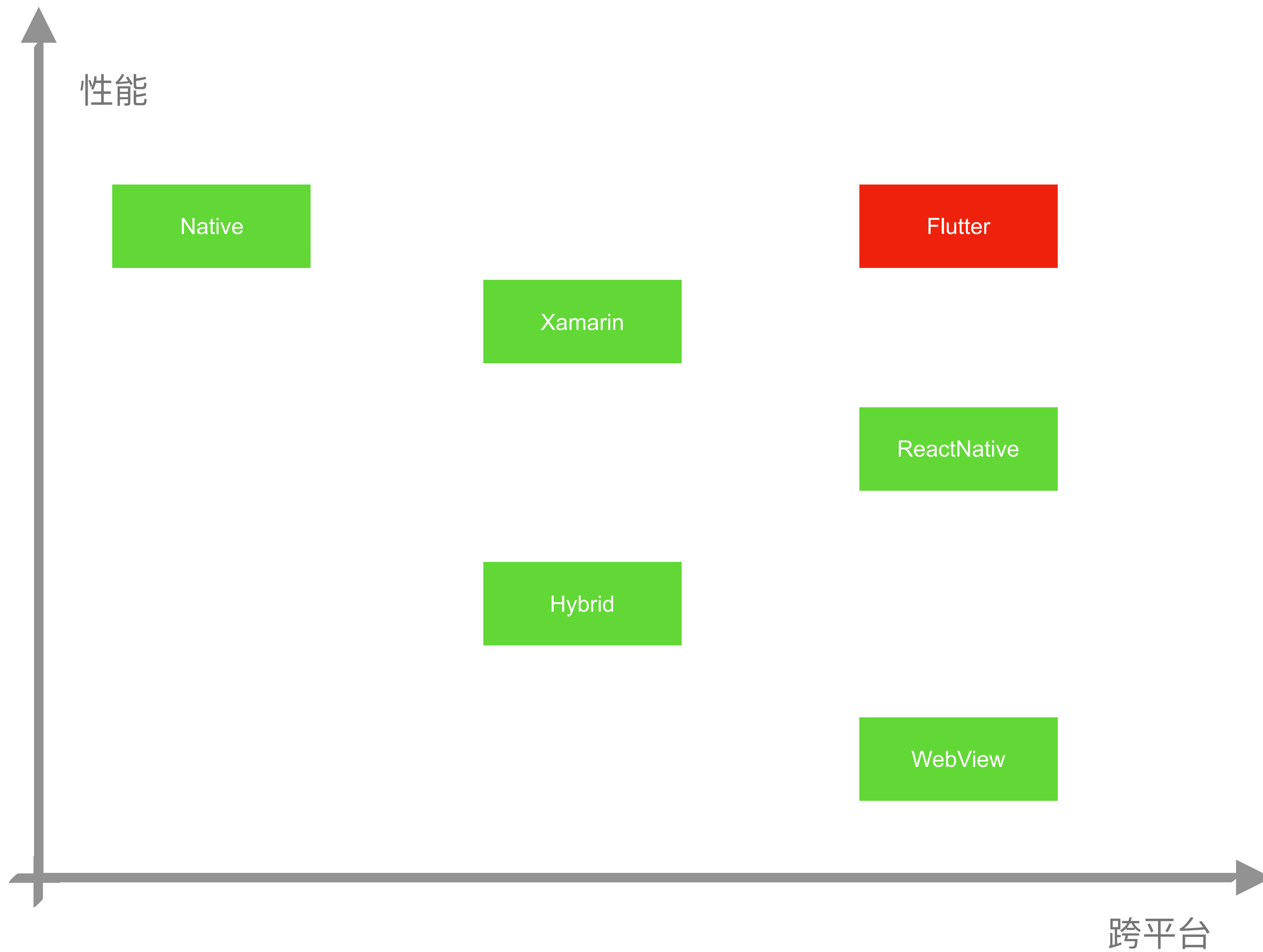
最终方案



渲染：自己负责渲染



dart：同时支持JIT和AOT，性能高



跨平台



PC

WEB



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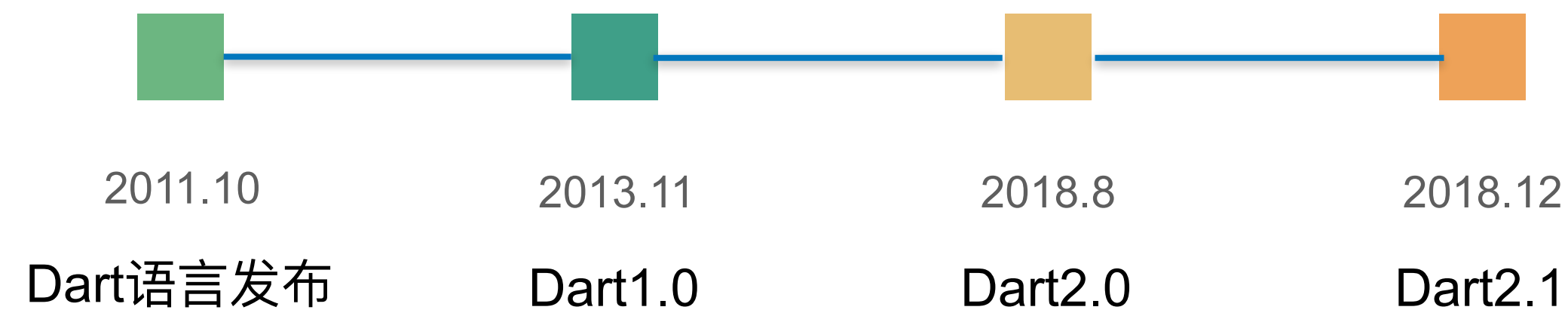


Flutter



Google Developers

语言



- JIT: 动态编译, Hot Reload
- AOT: 静态编译, Native code
- 强类型, 可以类型推断
- 强大的异步编程能力
- 全栈语言
- 提升开发效率!

经过简单统计, 写同一个功能,
使用Dart, 可以减少50%的代码量

Widget

所有UI元素都是widget组件

状态

Stateless
Widget

Stateful
Widget

功能

Visual

Layout

Painting

Interaction

Platform

● 代码写UI

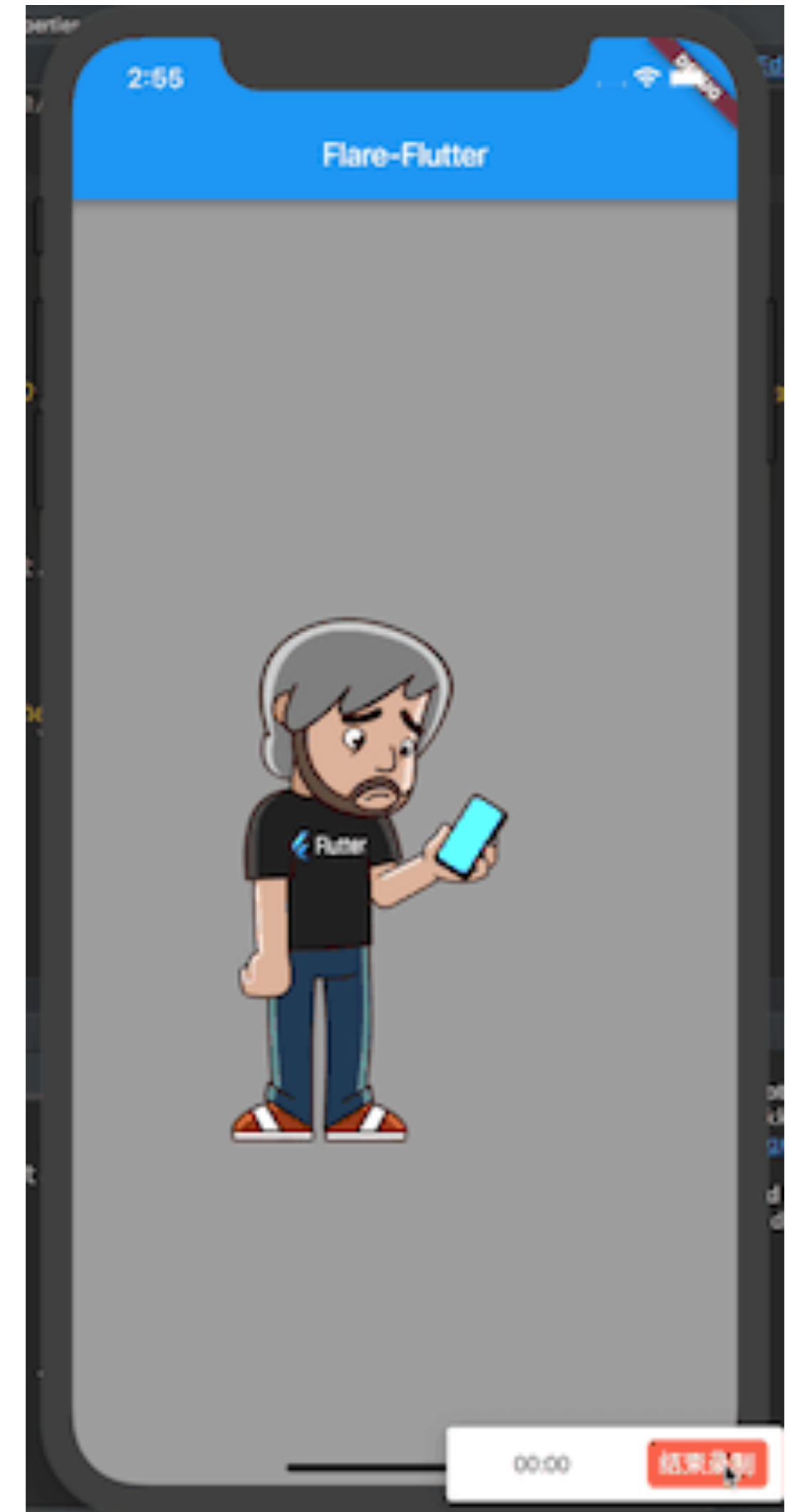
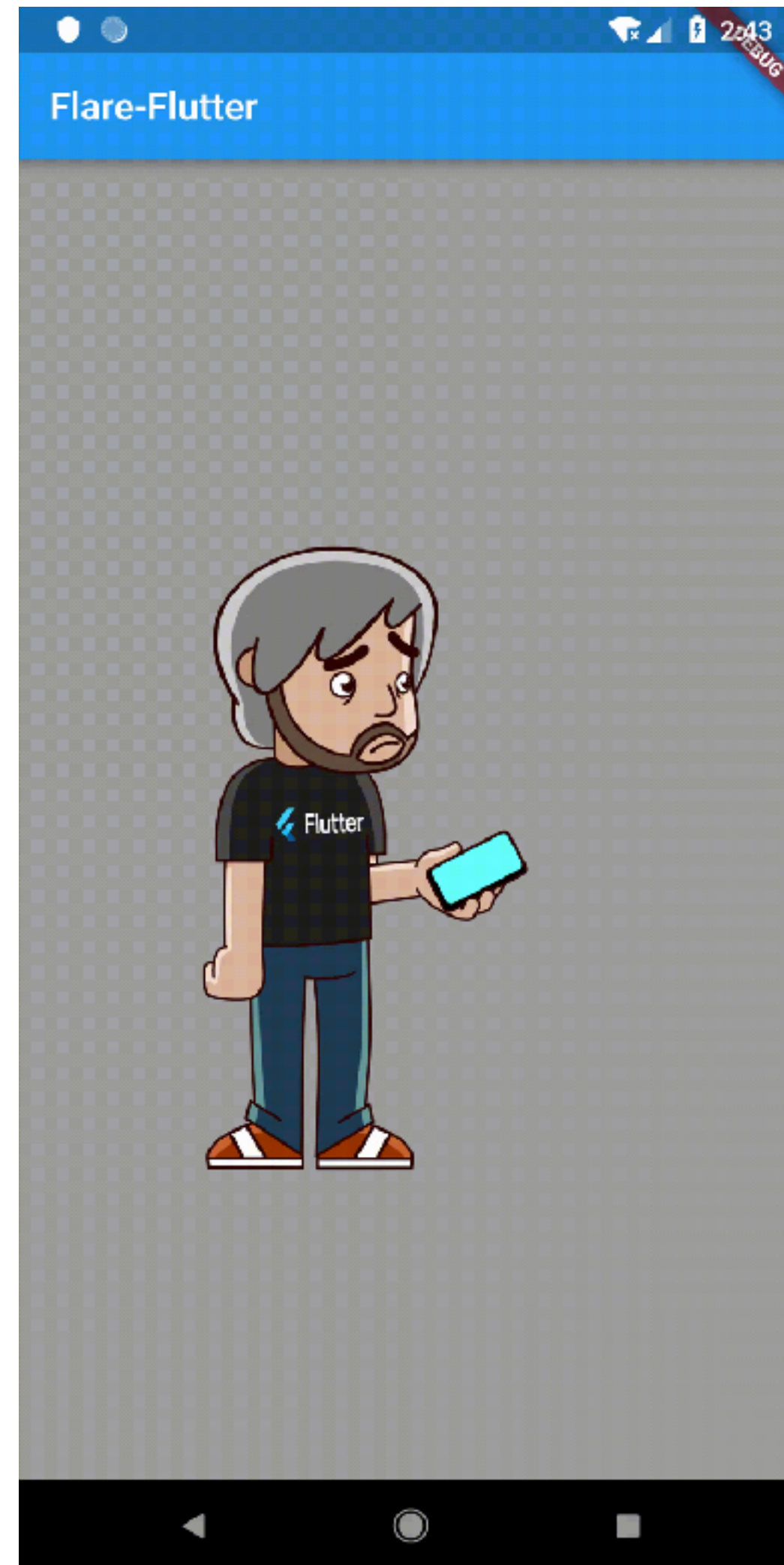
● 组合Widget

● 高性能

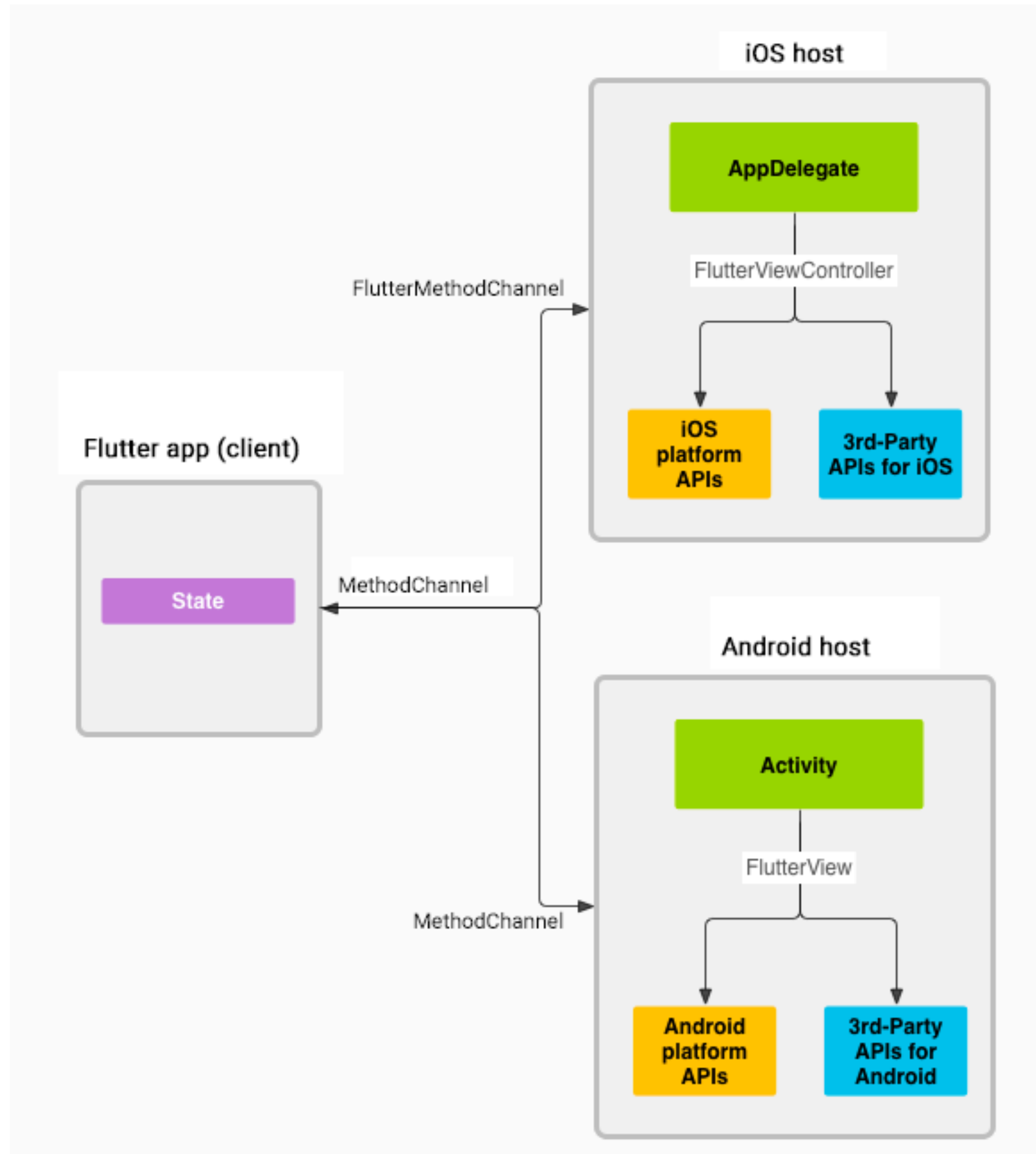
动画



FLARE



Platform Channel



main.dart — hello_gdg

EXPLORER

OPEN EDITORS

- main.dart lib
- pubspec.yaml

HELLO_GDG

- .idea
- android
- build
- images
- ios
- lib
 - main.dart
- test
- .gitignore
- .metadata
- .packages
- hello_gdg_android.iml
- hello_gdg.iml
- pubspec.lock
- pubspec.yaml
- README.md

main.dart

```
31 // This widget is the home page of your application. It is stateful, meaning
32 // that it has a State object (defined below) that contains fields that affect
33 // how it looks.
34
35 // This class is the configuration for the state. It holds the values (in this
36 // case the title) provided by the user and can be updated by the user input.
37 // used by the build method to update the widget and is
38 // always marked "final".
39
40 final String title;
41
42 @override
43 _MyHomePageState createState() {
44   // ...
45 }
46
47 class _MyHomePageState extends State<MyHomePage> {
48   int _counter = 0;
49
50   void _incrementCounter() {
51     setState(() {
52       // This call to setState() will tell this widget that _counter has
53       // changed. This tells the widget to rebuild itself and update the
54       // _counter without calling any functions on the widget's state.
55       // Called again, and
56       _counter++;
57     });
58   }
59
60   @override
61   Widget build(BuildContext context) {
62     // This method is rerun every time setState is called in this class.
63     // By default it will be called when the _counter changes, but that can
64     // be overridden to include other properties that you want to rebuild.
65     // The Flutter framework
66     // fast, so that you can
67     // than having to individually
68     return Scaffold(
69       appBar: AppBar(
70         // Here we take the title
71         // the App build method
```

Android Emulator - Android_Accelerated_Ore...

Hello GDG!

hello GDG!

1:00

Hello GDG!

hello GDG!

PROBLEMS OUTPUT DEBUG CONSOLE

[hello_gdg] flutter packages get
Running "flutter packages get" in
exit code 0

OUTLINE
DEPENDENCIES

v0.11.3 0 1 2

Ln 73, Col 9 Spaces: 2 UTF-8 LF Dart Flutter: 0.11.3 Android SDK built for x86 (android-x86 Emulator) 2

真的要学Flutter了吗？还有没有坑？

包太大？



	Android	iOS
Debug	22.28M	31M
Release	3.46M	13.8M

热更新?

JIT

替换产物

生成js

....

**Flutter 已经把热更新作为
接下来的重要特性在开发**

作者

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