Flutter

What is it and why should I care?

By Efthymios Sarmpanis

Who am I

- Full stack developer for PingPong - *https://getpingpong.com*
- > 15 years of experience
- Building async communication tool using Flutter, React and node

http://bit.ly/pingpong-ph

Flutter Community

- Involved in Flutter since before its v1.0 days.
- Created a couple of libraries under Flutterings (https://github.com/flutterings)
- Organizing Flutter Greek Community (https://meetup.com/fluttergr)
- Landed a couple of commits in Flutter's main repo
- GDE for Dart & Flutter

What is it?

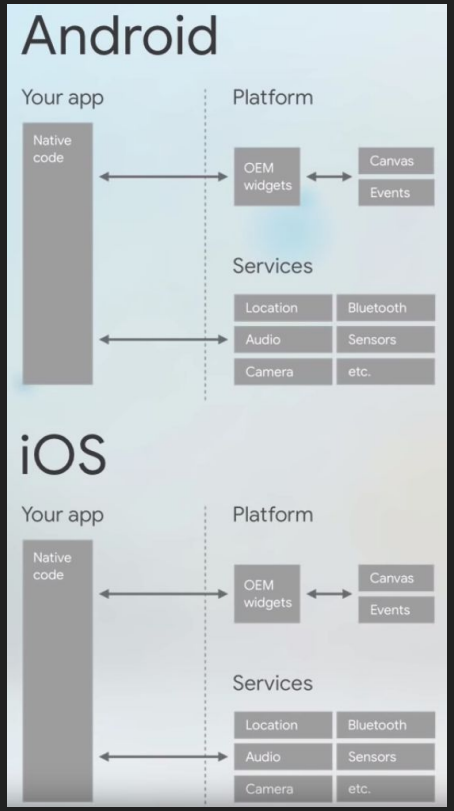
A bit of history

- Started from a chrome fork
- Stripped down chrome and used javascript
- Hit the threshold point of restrictions
- Kept Skia and switched to dart
- Never looked back

The problem they tried to solve

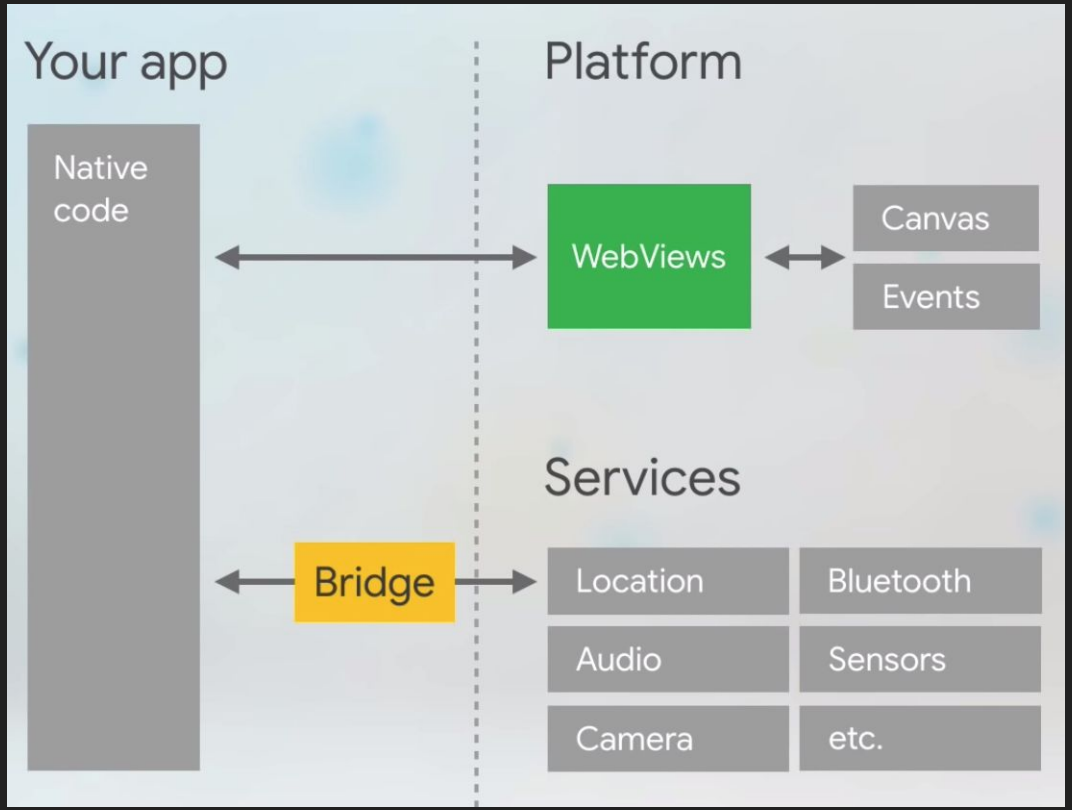
Develop ~~mobile~~ multi-platform applications
with a single code base in a ***performant*** way.

The Problem / Two code bases in Native Apps

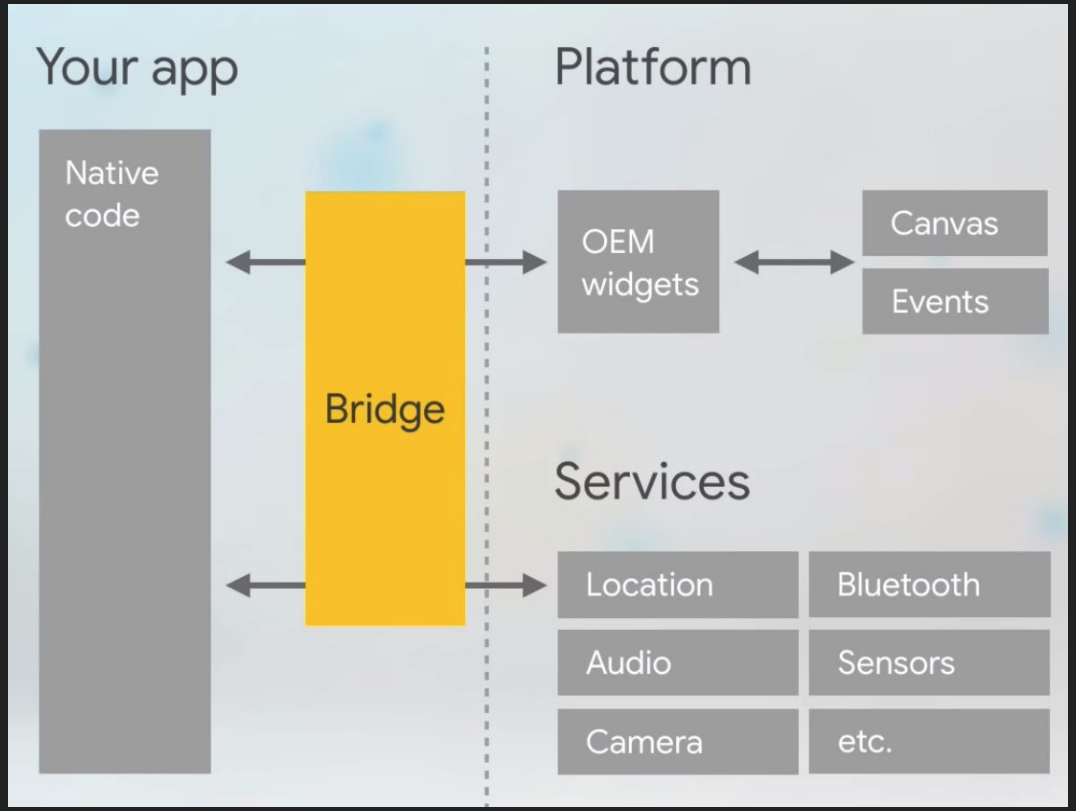


Common Approaches

Wrappers

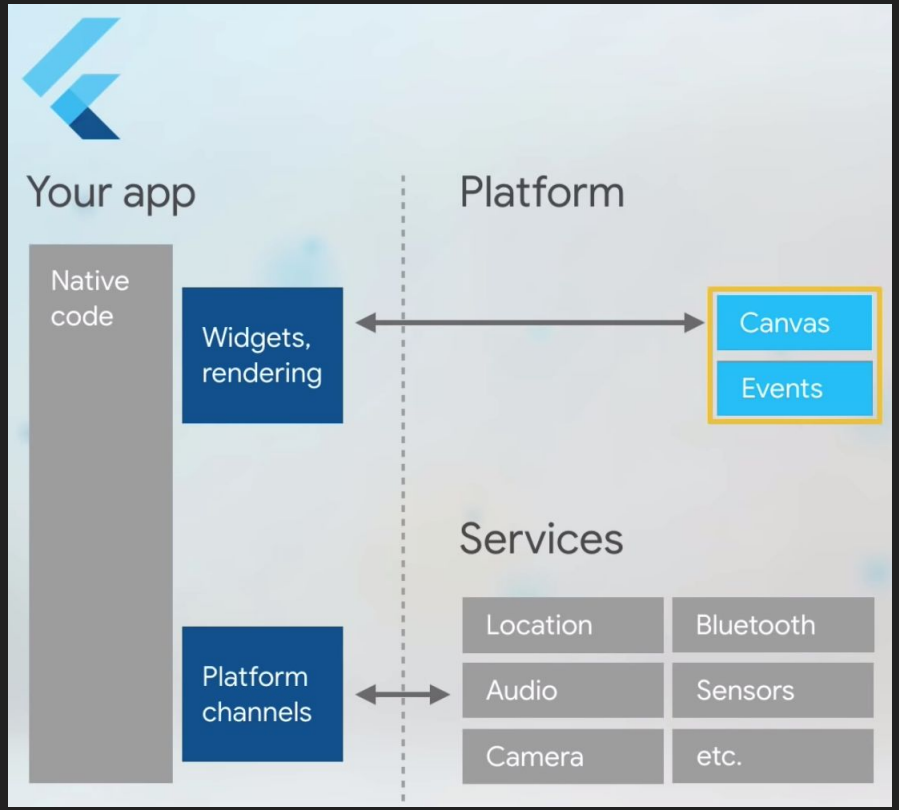

Your app
Platform
Native code
WebViews
Canvas
Events
Services
Bridge
Location
Bluetooth
Audio
Sensors
Camera
etc.

Bridging

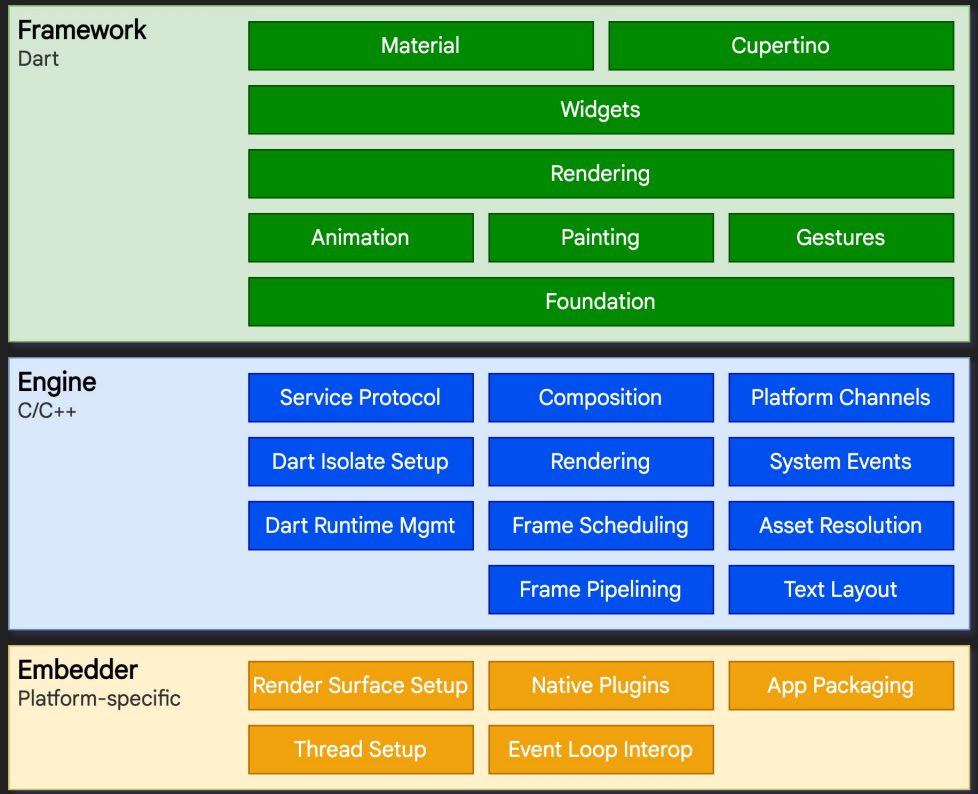

Your app
Platform
Native code
Bridge
OEM widgets
Canvas
Events
Services
Location
Bluetooth
Audio
Sensors
Camera
etc.

The Flutter way

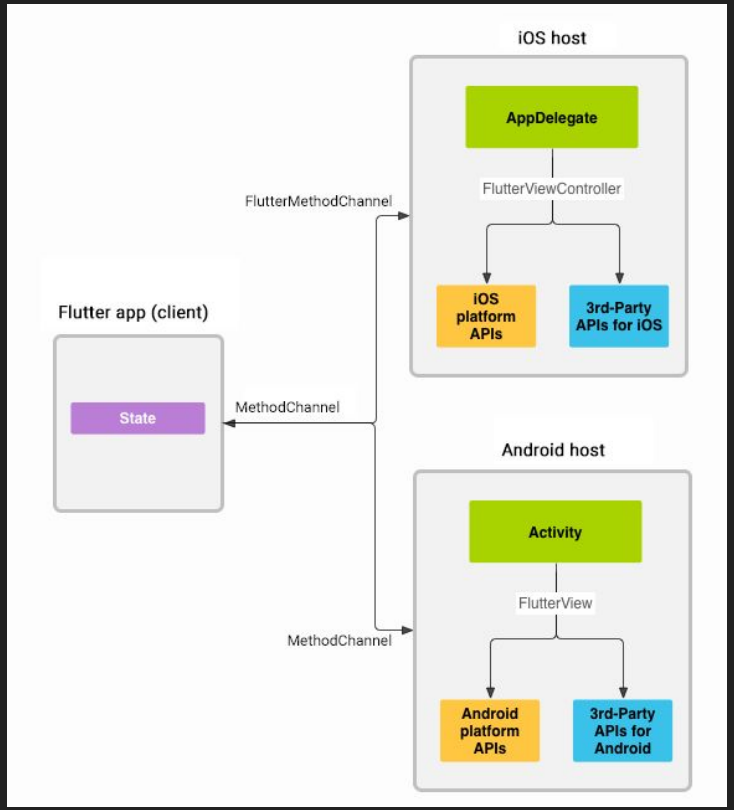
A bit of architecture / Framework



A bit of architecture / Framework



A bit of architecture / Plugins

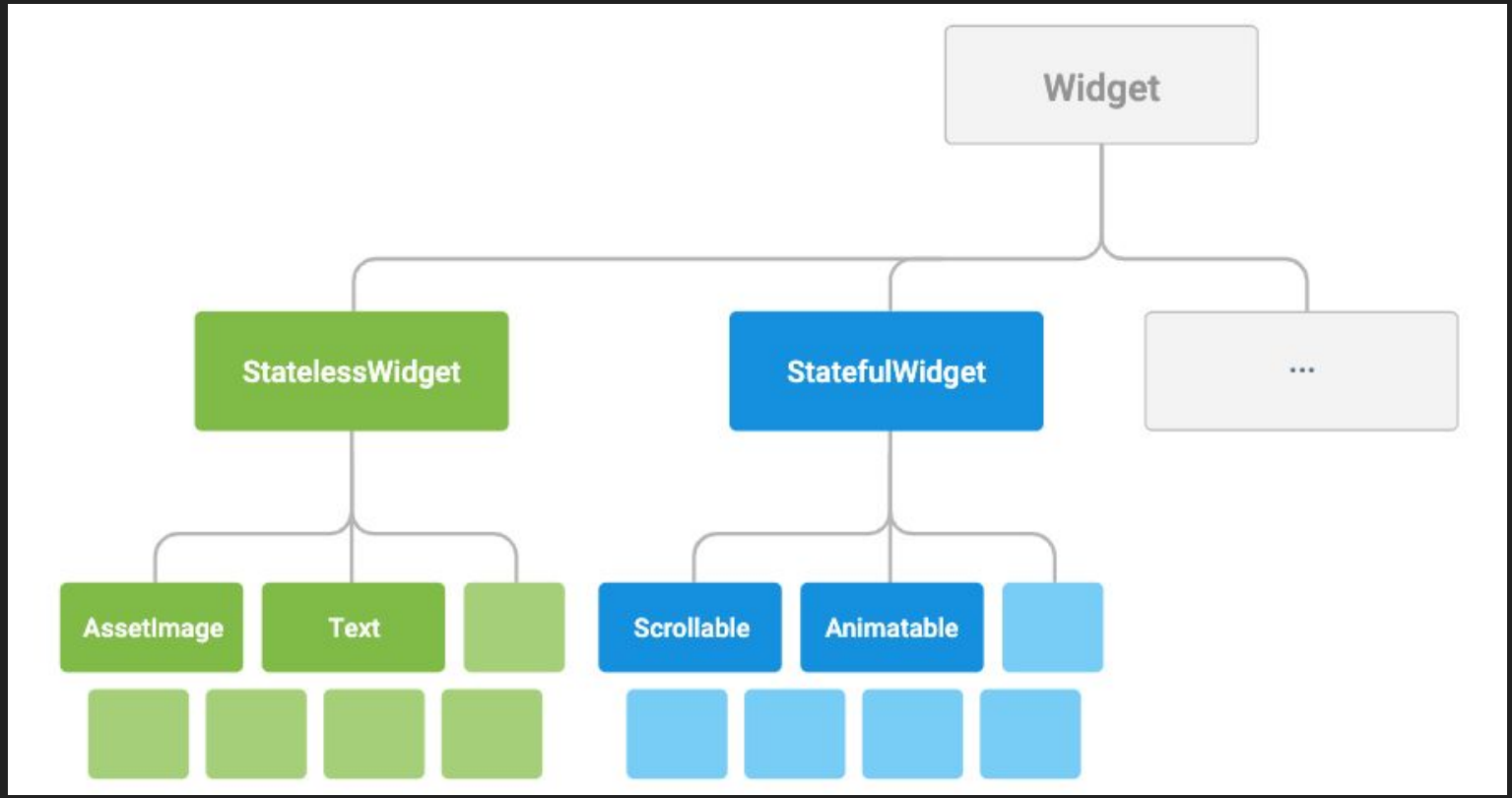


A bit of architecture / Plugins

Plugin	Pub
android_alarm_manager	pub v0.4.4
android_intent	pub v0.3.3+2
battery	pub v0.3.0+5
camera	pub v0.5.5+1
connectivity	pub v0.4.4
device_info	pub v0.4.0+3
google_maps_flutter	pub v0.5.21+7
google_sign_in	pub v4.0.7
image_picker	pub v0.6.1+4
in_app_purchase	pub v0.2.1+4
local_auth	pub v0.6.0+1
package_info	pub v0.4.0+6
path_provider	pub v1.3.0
quick_actions	pub v0.3.2+2
sensors	pub v0.4.0+1
share	pub v0.6.2+1
shared_preferences	pub v0.5.3+4
url_launcher	pub v5.1.4
video_player	pub v0.10.2+1
webview_flutter	pub v0.3.14+1

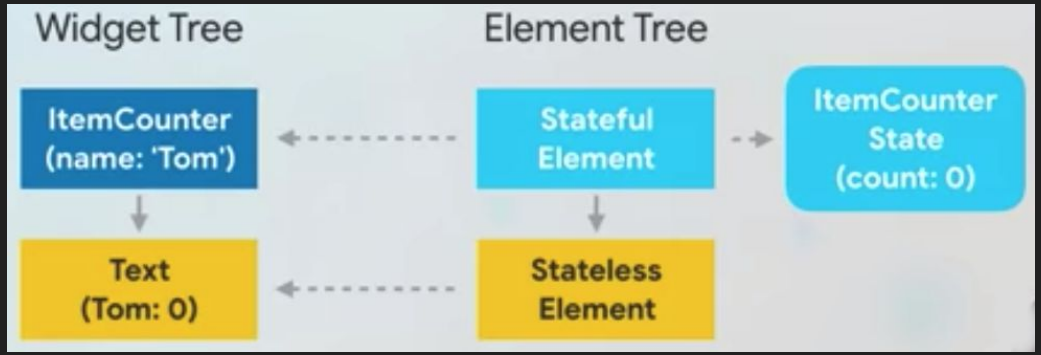
Plugin	Version	Firebase feature	Source code
cloud_firestore	pub v0.12.9+4	Cloud Firestore	`packages/cloud_firestore`
cloud_functions	pub v0.4.1+1	Cloud Functions	`packages/cloud_functions`
firebase_admob	pub v0.9.0+7	Firebase AdMob	`packages/firebase_admob`
firebase_analytics	pub v5.0.2	Firebase Analytics	`packages/firebase_analytics`
firebase_auth	pub v0.14.0+5	Firebase Authentication	`packages/firebase_auth`
firebase_core	pub v0.4.0+1	Firebase Core	`packages/firebase_core`
firebase_crashlytics	pub v0.1.0+3	Firebase Crashlytics	`packages/firebase_crashlytics`
firebase_database	pub v3.0.7	Firebase Realtime Database	`packages/firebase_database`
firebase_dynamic_links	pub v0.5.0+1	Firebase Dynamic Links	`packages/firebase_dynamic_links`
firebase_in_app_messaging	pub v0.0.1	Firebase In-App Messaging	`packages/firebase_in_app_messaging`
firebase_messaging	pub v5.1.6	Firebase Cloud Messaging	`packages/firebase_messaging`
firebase_ml_vision	pub v0.9.2+2	Firebase ML Kit	`packages/firebase_ml_vision`
firebase_performance	pub v0.3.0+5	Firebase Performance Monitoring	`packages/firebase_performance`
firebase_remote_config	pub v0.2.0	Firebase Remote Config	`packages/firebase_remote_config`
firebase_storage	pub v3.0.6	Firebase Cloud Storage	`packages/firebase_storage`

A bit of architecture / Widget Tree



Demo

How state works



Why should I care?

Benefits

- Full control over rendering stack
- Reactive views with no bridge
- Great development experience with hot reload
- Fast, smooth and predictable UI
- Deploy to multiple platforms from one codebase
- Ability to have native code in plugins for niche cases

Join the big ones

https://flutter.dev/showcase

Resources

Flutter Essentials YouTube Playlist

http://bit.ly/2oIet9T

Join the Greek Community

Slack

bit.ly/2oRBze4

Meetup

bit.ly/2pzlJ7c

Twitter

bit.ly/2odN3sq

Questions?