



What's New in Firebase!

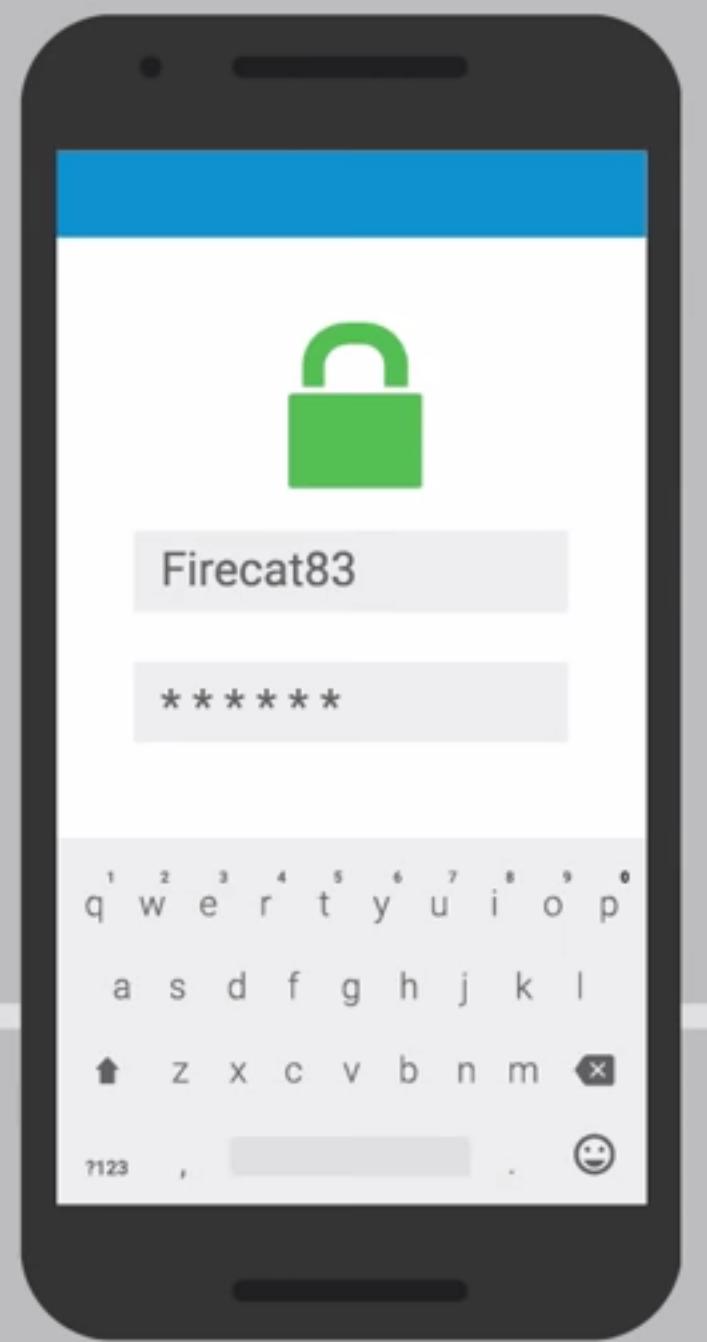
Ash Davies

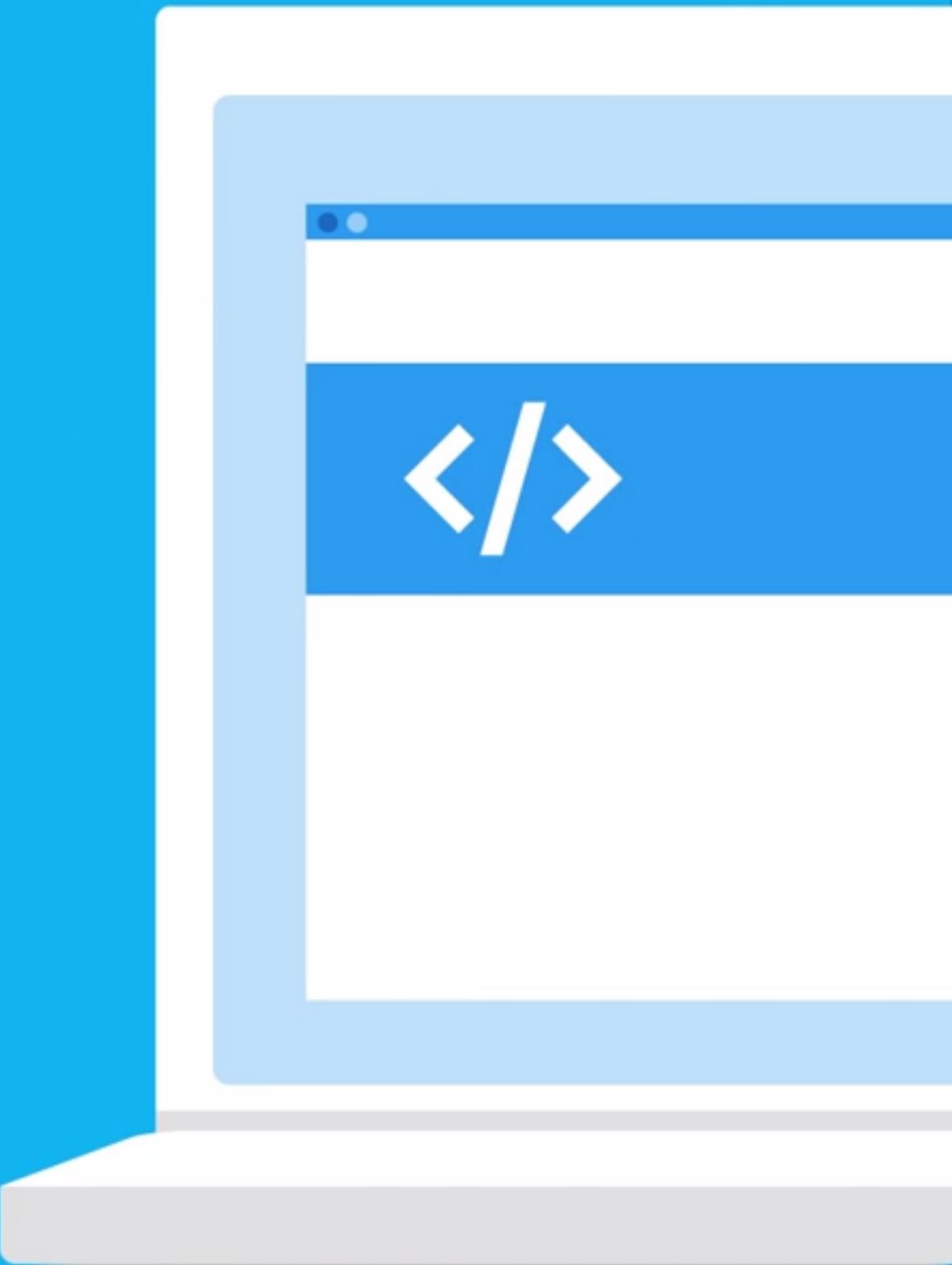
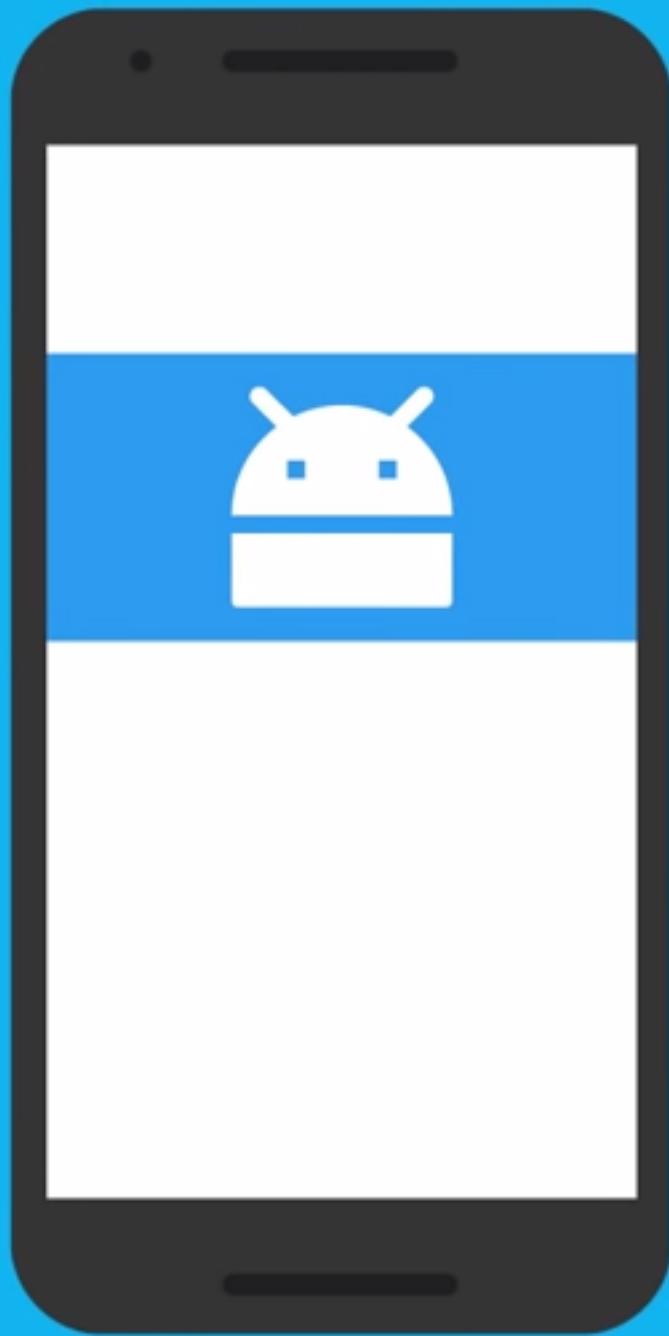
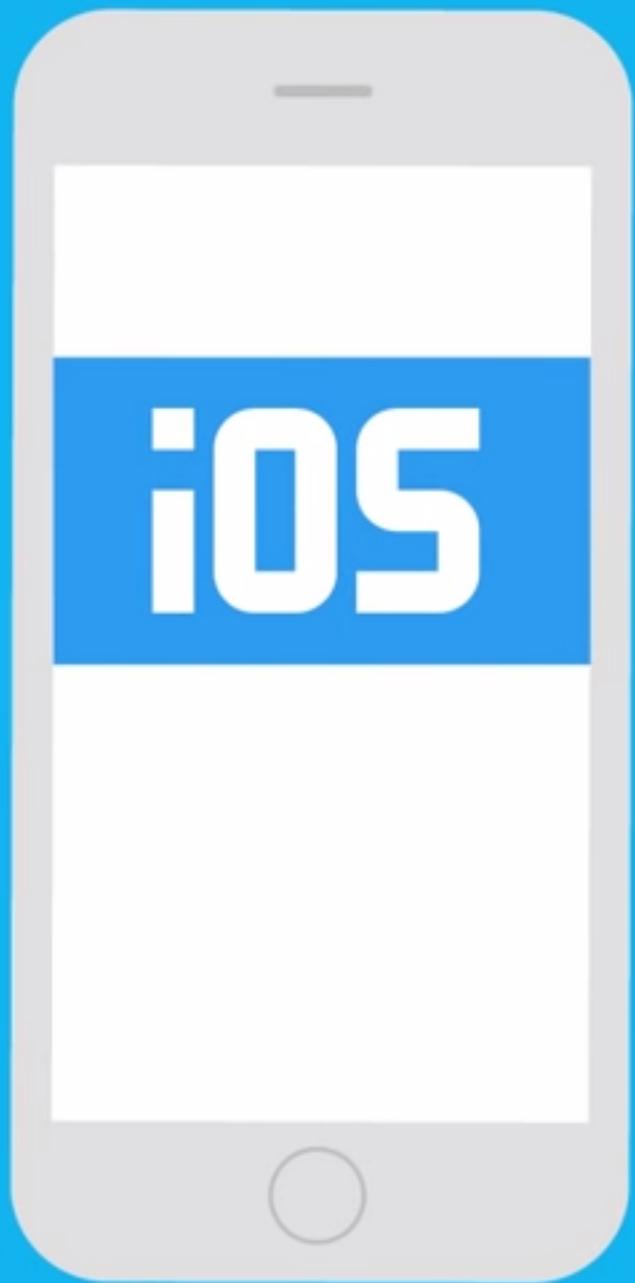
IMMOBILIEN
SCOUT24

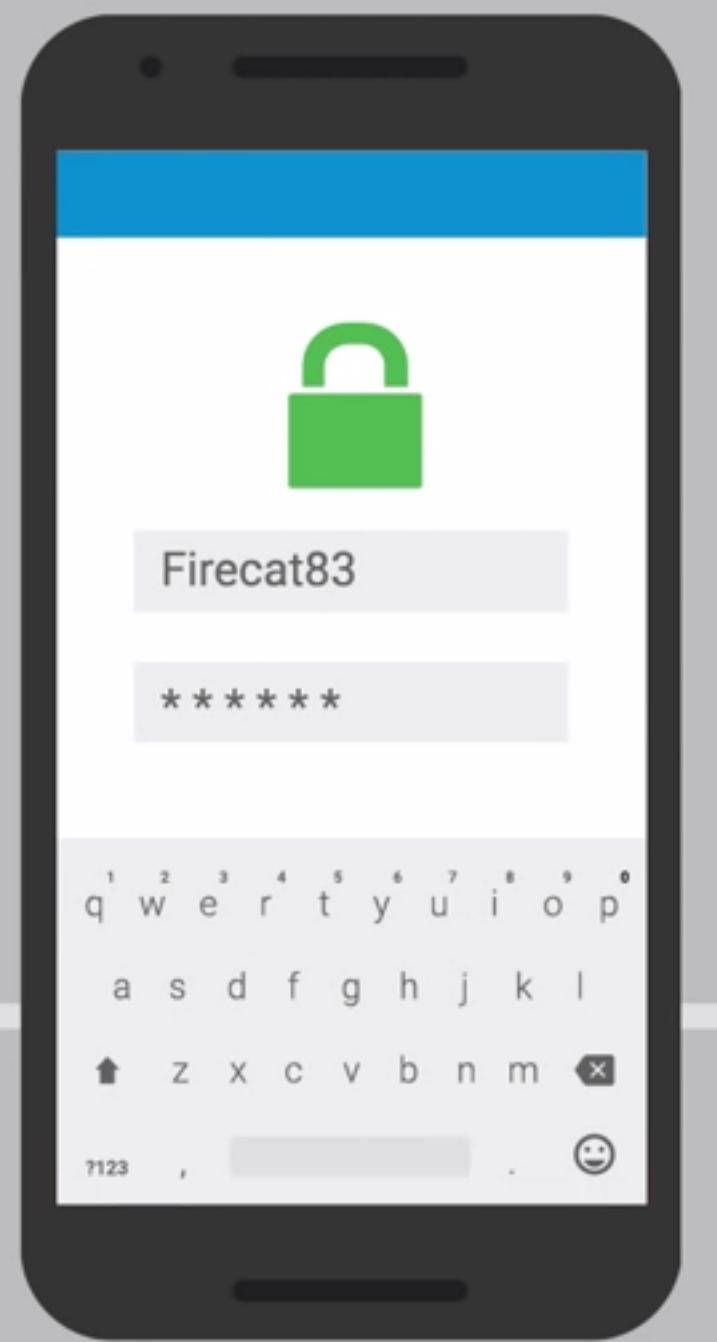
What's Firebase?



Developing is Hard











Authentication

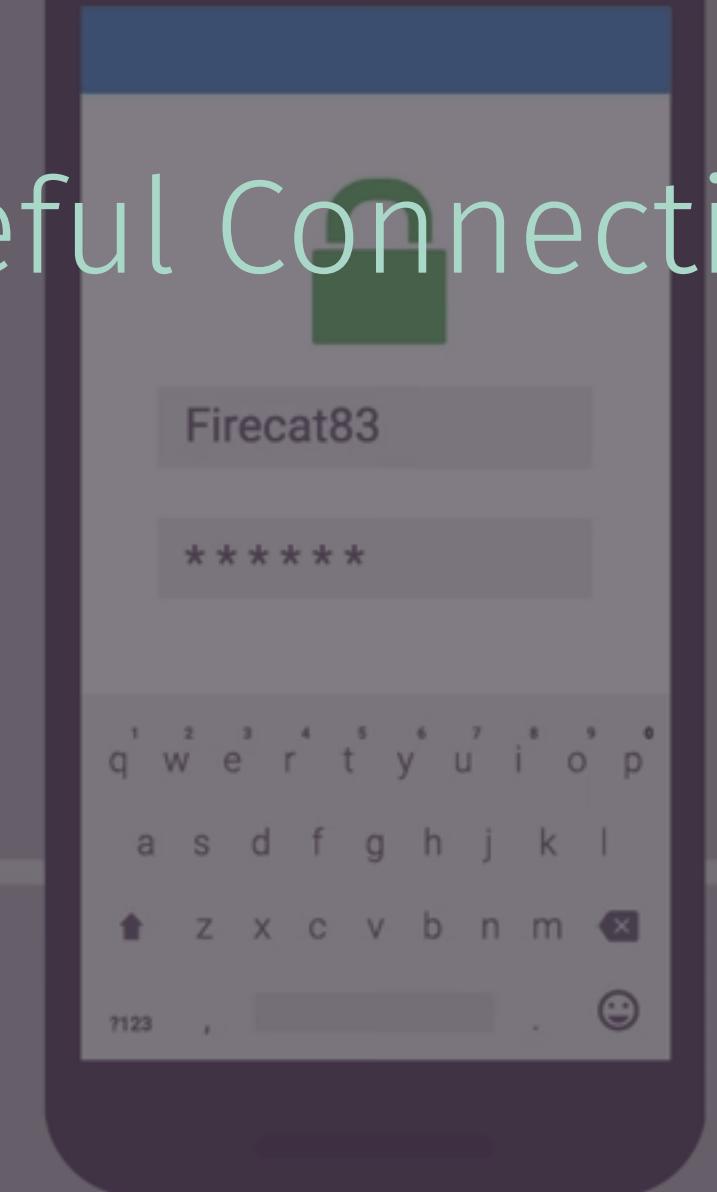
- Authentication & account management
- Email & password authentication
- Google, Facebook, Twitter, GitHub
- Custom OAuth2 redirect domains

Realtime Database



Data Synchronisation

→ Graceful Connectivity Loss



Data Synchronisation

- Graceful Connectivity Loss
- Application Data Cache

Data Synchronisation

- Graceful Connectivity Loss
- Application Data Cache
- Client Synchronisation

Data Synchronisation

- Graceful Connectivity Loss
- Application Data Cache
- Client Synchronisation
- Conflict Resolution

10MB Cache

**Can I still change the
configured cache size?**



cloud Hosted
NoSql Database

```
{  
  "users": {  
    "alovelace": {  
      "name": "Ada Lovelace",  
      "contacts": {  
        "ghopper": true  
      },  
      "ghopper": { ... },  
      "eclarke": { ... }  
    }  
  }  
}
```

What's New?

Set Up

```
// Legacy SDK  
compile "com.firebaseio.firebaseio-client-android:2.5.2"  
  
// Distributed SDK  
compile "com.google.firebaseio.firebaseio-core:9.8.0"  
compile "com.google.firebaseio.firebaseio-auth:9.8.0"  
compile "com.google.firebaseio.firebaseio-database:9.8.0"  
compile "com.google.firebaseio.firebaseio-crash:9.8.0"  
compile "com.google.firebaseio.firebaseio-config:9.8.0"
```

[Analytics](#)

DEVELOP

[Authentication](#)[Database](#)[Storage](#)[Hosting](#)[Test Lab](#)[Crash Reporting](#)

GROW

[Notifications](#)[Remote Config](#)[Dynamic Links](#)

EARN

[AdMob](#)

Project name
Public-facing name [?](#)

Firebase Demo Project
Firebase Demo Project

Project ID [?](#)

fir-demo-project

Web API Key

AlzaSyDadhQvQJsezboJj8LkaA6NPHvZ6b3guuY

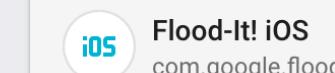
Your apps

Android apps

[Download the latest config file](#) [google-services.json](#)

This file contains configuration details, such as keys and identifiers, for the services you have just enabled.

iOS apps

App ID [?](#)

1:300830567303:android:9b9ba2ce17104d0c

Package name

com.labpixies.flood

Reporting currency

(USD \$) US dollar

SHA1 certificate fingerprints [?](#)

70:9B:FC:B3:F7:B5:E0:BA:67:42:C3:0C:9D:2E:E3:34:07:25:98:D5

25:3B:78:7D:0E:39:7A:3C:32:4A:4C:B2:84:0B:64:CE:5A:E9:54:05

SHA256 certificate fingerprints [?](#)

```
dependencies {  
    // ...  
}  
  
apply plugin: 'com.google.gms.google-services'
```

The Tasks API¹

```
Task<AuthResult> task = FirebaseAuth.getInstance().signInAnonymously();

task.addOnSuccessListener(new OnSuccessListener<AuthResult>() {
    @Override public void onSuccess(AuthResult result) {
        /* ... */
    }
});

task.addOnFailureListener(new OnFailureListener() {
    @Override public void onFailure(@NonNull Exception exception) {
        /* ... */
    }
});
```

¹ <https://developers.google.com/android/guides/tasks>

Analytics



→ Free and Unlimited



Analytics



- Free and Unlimited
- Automatic Reporting

Analytics



- Free and Unlimited
- Automatic Reporting
- Seamlessly Integrated

Analytics

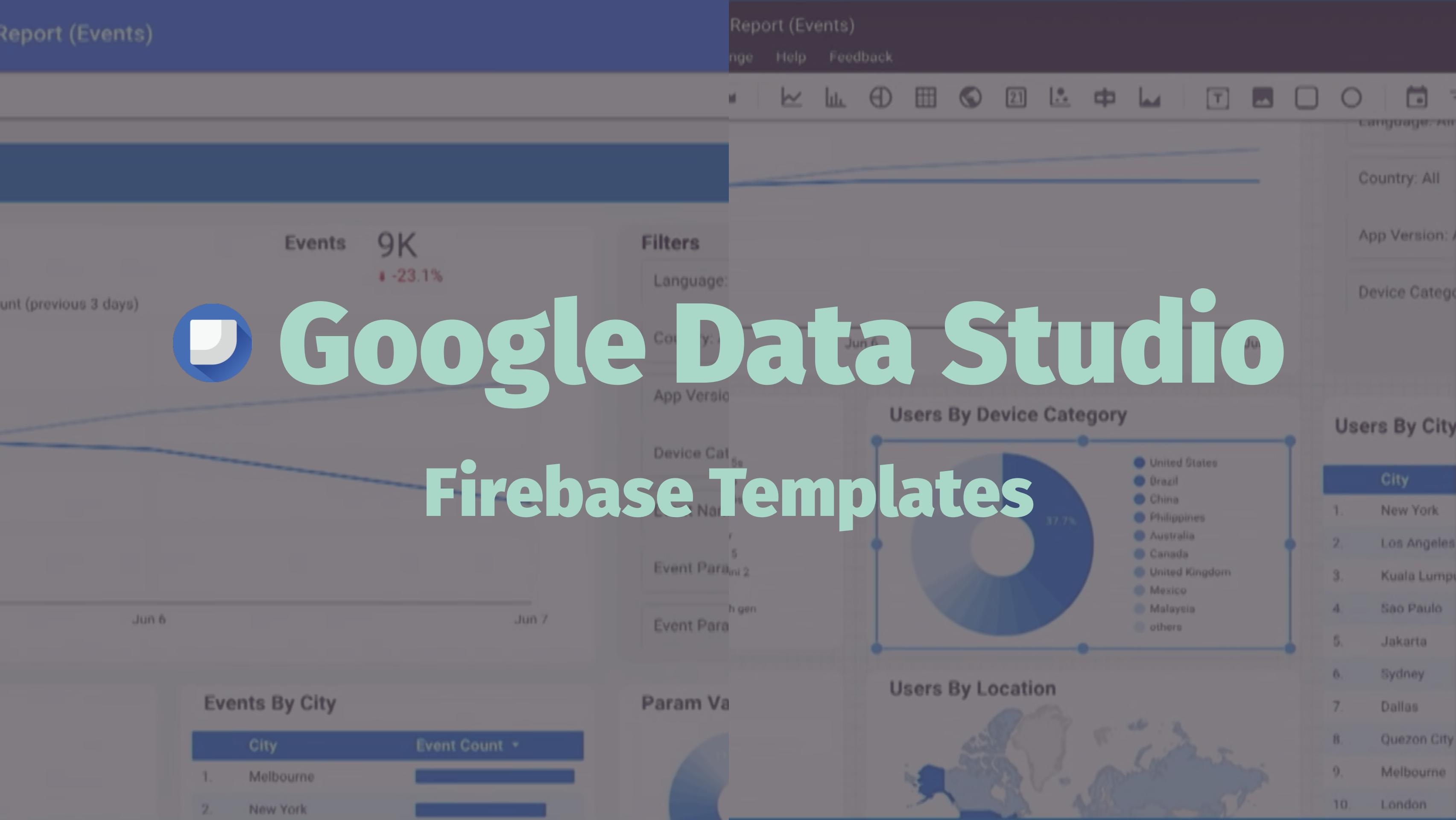
- Free and Unlimited
- Automatic Reporting
- Seamlessly Integrated
- Cross Platform

Audiences



Where's my Data?





Google Data Studio

Firebase Templates



Analytics

Analytics Demo ▾

DASHBOARD

EVENTS

AUDIENCES

ATTRIBUTION

FUNNELS

COHORTS

DEBUGVIEW

USER PROPERTIES



DEBUG DEVICE

1

android 7.1.1

Firebase Analytics Debug View

10:27 AM

13

10:27 AM

2

10:26 AM

3 new

10:28:07 AM

1s

10:25 AM

128

10:28:06 AM

1s

10:24 AM

user_engagement

10:28:00 AM

session_start

10:23 AM

6s

10:27:57 AM

3s

10:22 AM

user_engagement

10:27:56 AM

first_open

10:21 AM

first_open_time

10:20 AM

user_engagement

Parameters

engagement_time

firebase_event_origin

auto

firebase_screen_name

MainActivity

session_id

6307235104072129...

User Properties

engagement_time

auto

firebase_screen_name

MainActivity

session_id

6307235104072129...

Top Events

last 30 mins

user_engagement

session_start

remove_from_cart

first_open

session_start

ecommerce_purchase

first_open_time

15 Total

10

5

0

15 Total

8

3

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

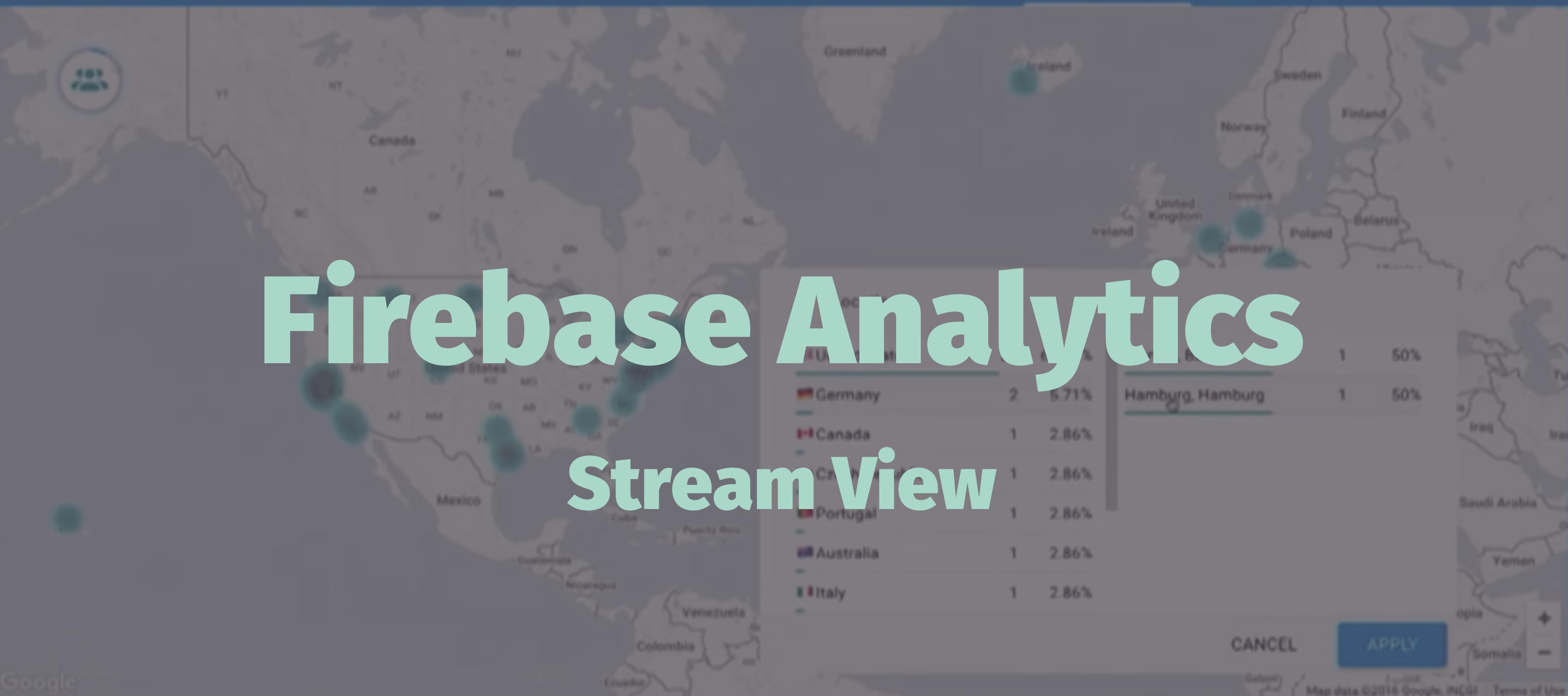
1

1

11:00 AM

Firebase Analytics

Stream View



Top User Property

Apple_iAd_tm_source

Top Location

United States

App version

1.6.15

View a random user's event stream

USER SNAPSHOT

PREVIOUS

NEXT

X



- 2r
- view_item
- 2r
- push_received
- 2r
- notification_modal_actions
- 2r
- show_notification_modal
- 7r
- play_selection
- add_toLater_later
- 12r
- select_content
- select_content
- select_content
- select_content

Top Events	
last 30 mins	282 Total
192	46
44	
select_content	77
ecommerce_purchase	45
error	44
view_item	32
close_item	21
add_toLater_later	13
push_received	10
show_notification_modal	9
view_related	8
add_toLater	7
play_selection	6
notification_modal_actions	1

Current user properties	
Handedness	left_handed
Version	v1.4.0.3.1
Gameday	on
Device	mobile
OS	Android 7.1
Language	English

USERS

EVENTS

Streaming in the last 30 mins



4.3K

Top Event



user_engagement

3.7K

Top Location



United States

Top App Version



1.6.18

View a random user's event stream

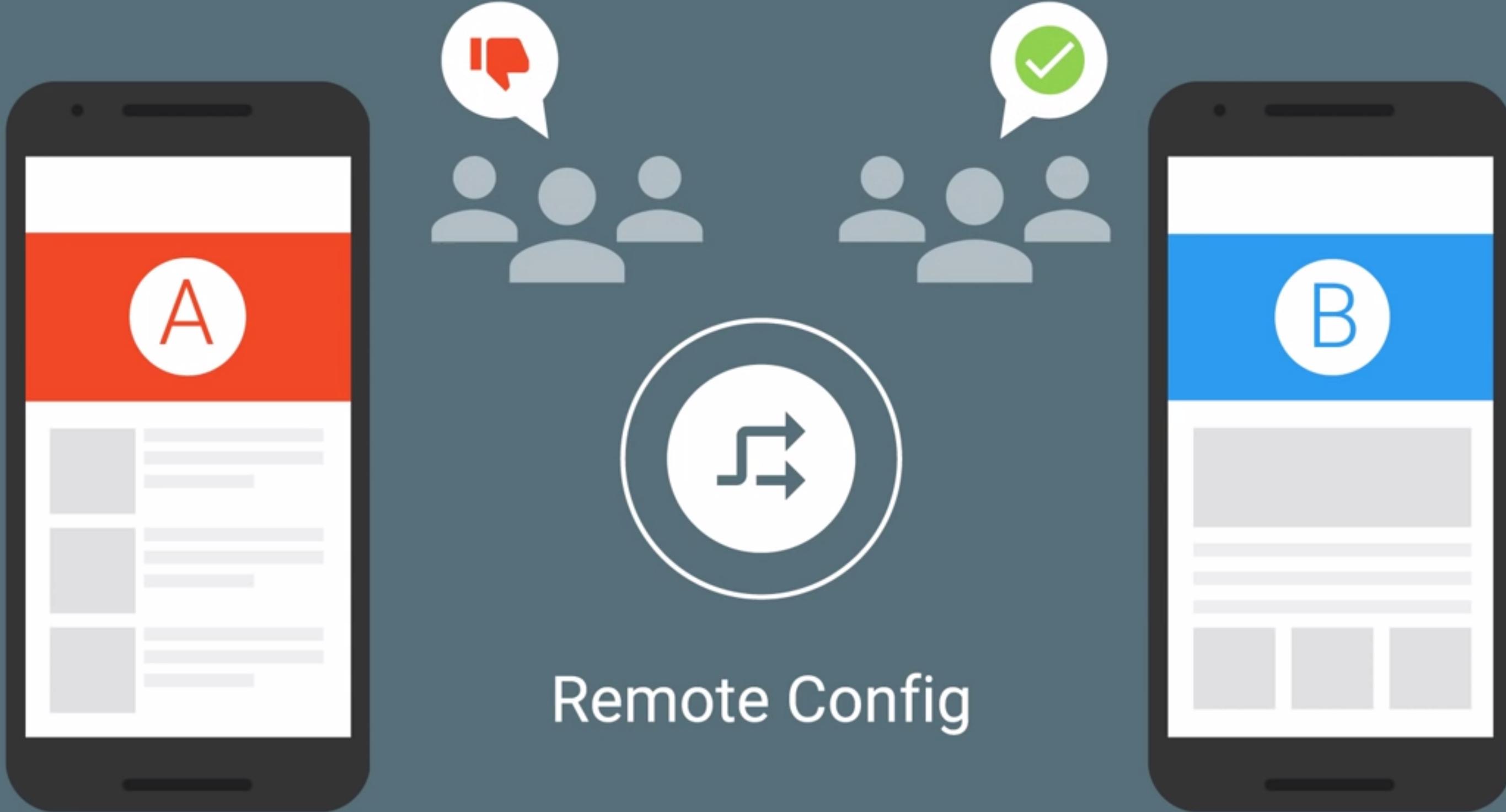
USER SNAPSHOT

Crash Reporting



Crash Reporting

Detailed Insights with Analytics



Remote Config

Remote Config

→ Audience Customisation

Remote Config

→ Audience Customisation

→ Staged Roll Out

Remote Config

- Audience Customisation
- Staged Roll Out
- Feature Flags

Remote Config

- Audience Customisation
- Staged Roll Out
- Feature Flags
- A/B Testing

hosting

→ Serve static assets

hosting

- Serve static assets
- SSL by default

hosting

- Serve static assets
- SSL by default
- Custom domains

hosting

- Serve static assets
- SSL by default
- Custom domains
- Available free

storage

- Robust Operations
- Strong Security
- High Scalability

Analytics

DEVELOP

Authentication

Database

Storage

Hosting

Test Lab

Crash Reporting

GROW

Notifications

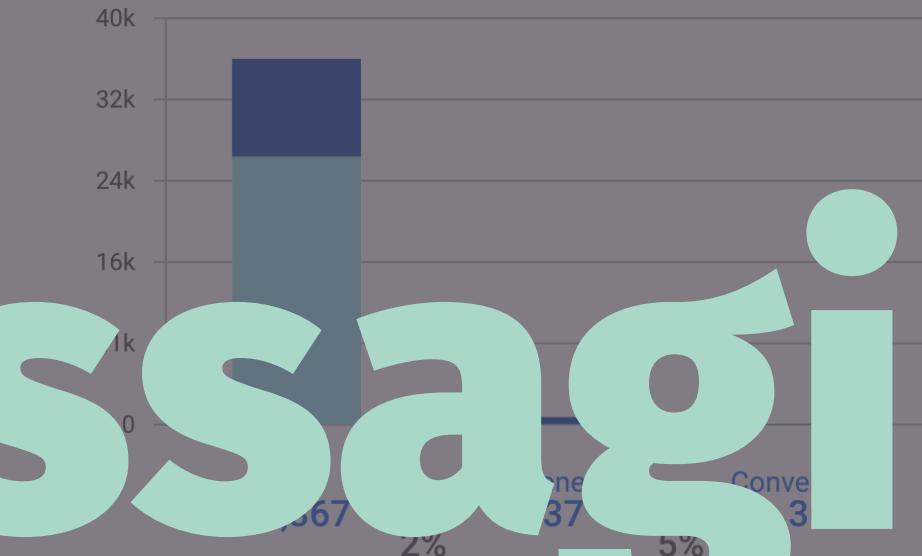
Remote Config

Dynamic Links

EARN

AdMob

cloud Messaging

Message	Status ⓘ	Delivery date ⓘ	Platform	Target estimate ⓘ	Open rate ⓘ
Progressive Challenge 4 Today's Challenge - Can you beat 3 ...	✓ Completed	3 Nov 2016 17:22		30K-40K	2%
Notifications funnel		Apps	com.labpixies.flood com.google.flood2		
					
Progressive Challenge 3 Today's Challenge - Can you beat 2 ...	✓ Completed	22 Sep 2016 22:09		30K-40K	3%
Progressive Challenge 2 Today's Challenge - Can you beat 3 ...	✓ Completed	8 Jun 2016 19:50		1K-10K	12%
Progressive Challenge Today's Challenge - Beat 5 more Pro...	✓ Completed	30 May 2016 16:59		<1,000	12%

Rows Per Page: 25 ▾ 1-4 of 4 < >



Analytics

DEVELOP

Authentication

Database

Storage

Hosting

Test Lab

Crash Reporting

GROW

Notifications

Remote Config

Dynamic Links

EARN

AdMob

Message text

Enter message

Message label (optional)

Enter message nickname

Delivery date

Send Now ▾

Target

User segment Topic Single device

Target user if...

App Select app ▾ AND

Cannot add additional statements. All apps have been selected.

Conversion events

Advanced options

SAVE AS DRAFT SEND MESSAGE

Admin SDK

- Integrate with CI systems
- Import users into Firebase Auth
- Manage Users, Database

But wait, there's more!

- App Invites
- App Indexing
- Dynamic Links
- Test Lab
- AdWords

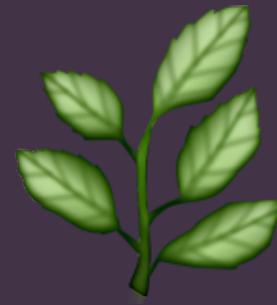


Android Peppermint Realtime Chat

github.com/ashdavies/peppermint



QR, SRSLY?!



Android Peppermint



Google Nearby API

...

github.com/ashdavies/peppermint

Twitterers

- Doug Stevenson - [CodingDoug](#)
- Laurence Moroney - [lmoroney](#)

Twitterers

- Doug Stevenson - [CodingDoug](#)
- Laurence Moroney - [lmoroney](#)
- Shameless...
- Ash Davies - [DogmaticCoder](#)

Resources

GitHub - github.com/firebase

YouTube - youtube.com/firebase

Slack - firebase-community.appspot.com

Slides - github.com/ashdavies/talks

Thank You.