



Firebase

Intro to Firebase Analytics - 從產品營運的觀點出發

Hi, I'm Steven

Gogolook

Sr. Product Planner, Growth Team



HTC

Sr. Engineer, Data Insight Management



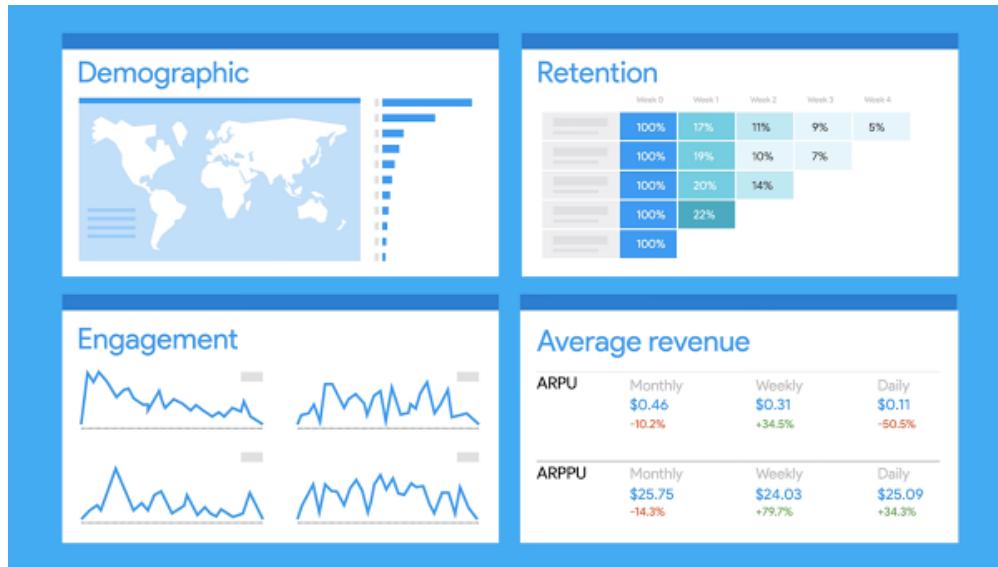
StorySense

Web Developer & Project Manager





Firebase Analytics



V.S.



Firebase Analytics



Firebase Analytics

匯出原始資料

只要一個開關

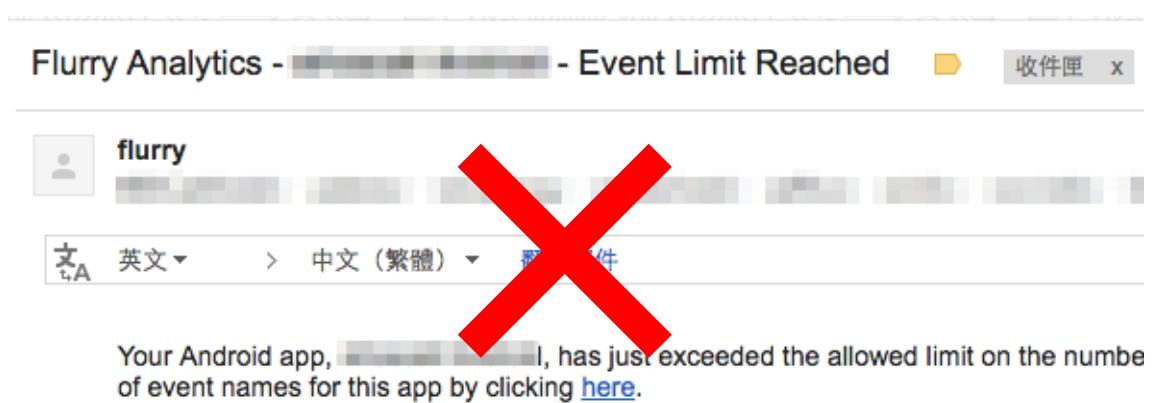


BigQuery

您的應用程式	資料集	Send data to BigQuery
gogolook.callgogolook2	查看資料集	<input checked="" type="checkbox"/>

Firebase Analytics

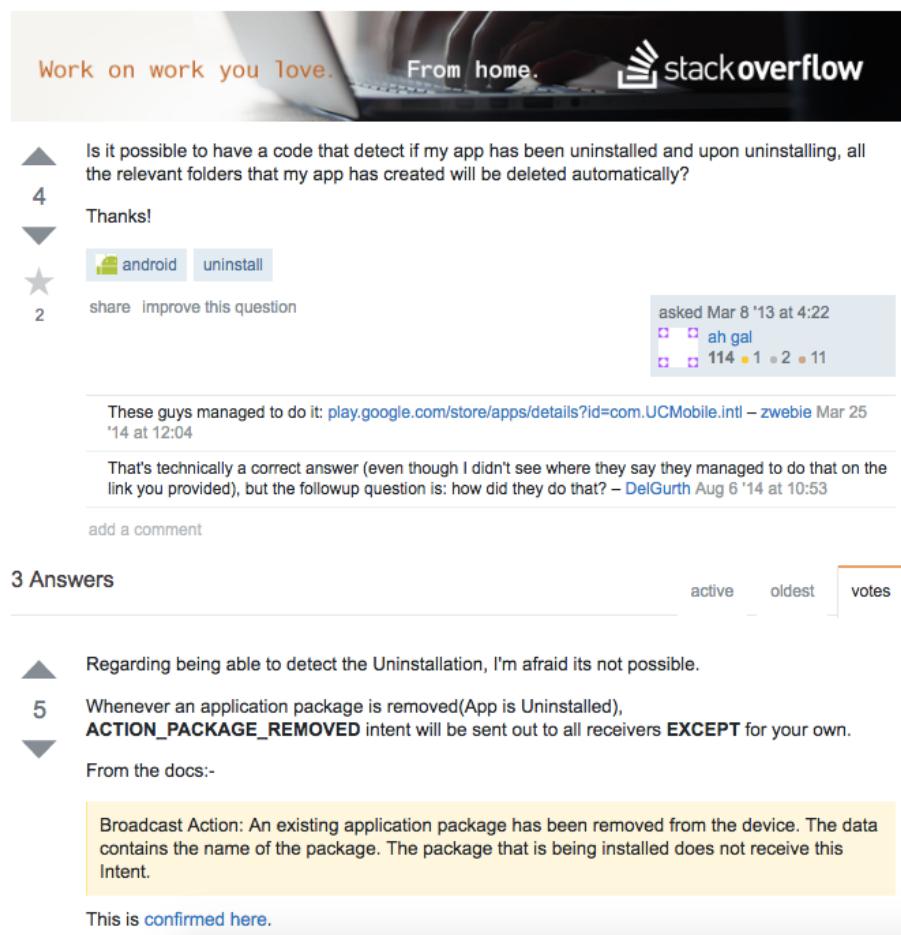
- 事件記錄總數量無上限 (500 個 unique 事件)
- 專為 App 設計的自動事件 (Android & iOS)
 - first_open, in_app_purchase
 - app_update, app_remove, os_update, app_exception
 - notification_receive, notification_open, notification_dismiss



Event name	Parameters
app_clear_data	<i>none</i>
app_exception	fatal, timestamp
app_remove	<i>none</i>
app_update	previous_app_version
dynamic_link_app_open	source, medium, campaign, link_id, accept_time
dynamic_link_app_update	source, medium, campaign, link_id, accept_time
dynamic_link_first_open	source, medium, campaign, link_id, accept_time
error	firebase_error, firebase_error_value
firebase_campaign	source, medium, campaign, term, content, gclid, aclid, cp1, anid
first_open	previous_gmp_app_id
in_app_purchase	product_id, product_name, price, value, currency, quantity, app_version
notification_dismiss	message_name, message_time, message_device_time, message_id, topic
notification_foreground	message_name, message_time, message_device_time, message_id, topic
notification_open	message_name, message_time, message_device_time, message_id, topic
notification_receive	message_name, message_time, message_device_time, message_id, topic
os_update	previous_os_version
session_start	<i>none</i>
user_engagement	engagement_time

Case: Uninstall Detection

Detect if my app is uninstalled



Work on work you love. From home. stackoverflow

Is it possible to have a code that detect if my app has been uninstalled and upon uninstalling, all the relevant folders that my app has created will be deleted automatically?

4 Thanks!

android uninstall

share improve this question

asked Mar 8 '13 at 4:22
ah gal 114 1 2 11

These guys managed to do it: play.google.com/store/apps/details?id=com.UCMobile.intl – zwebie Mar 25 '14 at 12:04

That's technically a correct answer (even though I didn't see where they say they managed to do that on the link you provided), but the followup question is: how did they do that? – DelGurth Aug 6 '14 at 10:53

add a comment

3 Answers

active oldest votes

Regarding being able to detect the Uninstallation, I'm afraid its not possible.

5 Whenever an application package is removed(App is Uninstalled), **ACTION_PACKAGE_REMOVED** intent will be sent out to all receivers EXCEPT for your own.

From the docs:-

Broadcast Action: An existing application package has been removed from the device. The data contains the name of the package. The package that is being installed does not receive this Intent.

This is confirmed here.

Mar 8, 2013 #stackoverflow
“It’s not possible”

Workaround:
自己定義「用戶流失」，例如：7天無任何活動
如果 user 出國 / 都沒電話？

Case: Uninstall Detection

- As-is: 利用 GCM server 的回覆狀態判定

The screenshot shows a blog post with the following content:

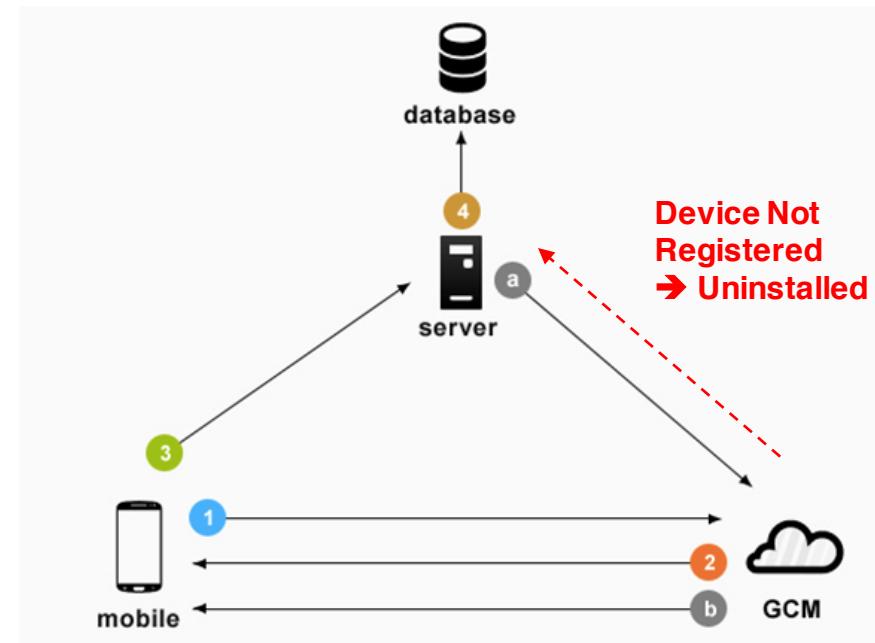
Hacks and Findings

Android: How to find if a user has uninstalled the application

In the apps world, uninstall is a very common phenomenon, especially in Android, where there are no checks before an app gets published.

So how do you find if a particular user has uninstalled your application, a quick answer is GCM. Lets look at what happens when you send a push to a device where your application has been uninstalled.. (picked up from GCM docs)

1. The end user uninstalls the application.
2. Your server sends a message to GCM server.
3. The GCM server sends the message to the device.
4. The GCM client receives the message and queries Package Manager about whether there are broadcast receivers configured to receive it, which returns false.
5. The GCM client informs the GCM server that the application was uninstalled.
6. The GCM server marks the registration ID for deletion.
7. The 3rd-party server sends a message to GCM.



Mar 6, 2014 #hackfindings
“A quick answer is GCM”

Workaround:
每天發送數千萬個 silent push
若要深入到每小時？

Case: Uninstall Detection

- To-be: Firebase auto collected events

Automatically collected events

Firebase collects these events by default.

Automatically collected events are triggered by basic interactions with your app. As long as you use the Firebase SDK, you don't need to write any additional code to collect these events. To see event reports, click the Events tab.	
Event name	Triggered...
first_open	<p>when a user opens the app for the first time.</p> <p>This event is not triggered when a user downloads the app onto a device, but instead when he or she first uses it. To see raw download numbers, look in Google Play Developer Console or in iTunesConnect.</p>
in_app_purchase	<p>when a user completes an in-app purchase that is processed by the App Store or iTunes or Google Play. The product ID, product name, currency, and quantity are passed as parameters.</p> <p>This event is triggered only by versions of your app that include the Firebase SDK. Also, subscription revenue, paid app-purchase revenue, and refunds are not automatically tracked, and so your reported revenue may differ from the values you see in the Google Play Developer Console.</p>
user_engagement	periodically, while the app is in the foreground.
session_start	when a user engages the app for more than the minimum session duration.
app_update	when the app is updated to a new version and launched again. The previous app version id is passed as a parameter. <i>app_update</i> varies from <i>Daily upgrades by device</i> , which is reported by Google Play Developer Console whether or not the app is launched again after update
app_remove	<p>when an application package is removed or "uninstalled" from an Android device.</p> <p>This event is different from the <i>Daily uninstalls by device</i> and <i>Daily uninstalls by user</i> metrics, which are both reported by Google Play Developer Console. The <i>app_remove</i> event counts the removal of application packages, regardless of the installation source, and the count changes depending on the date range you are using for the report. The <i>Daily uninstalls by device</i> and <i>Daily uninstalls by user</i></p>

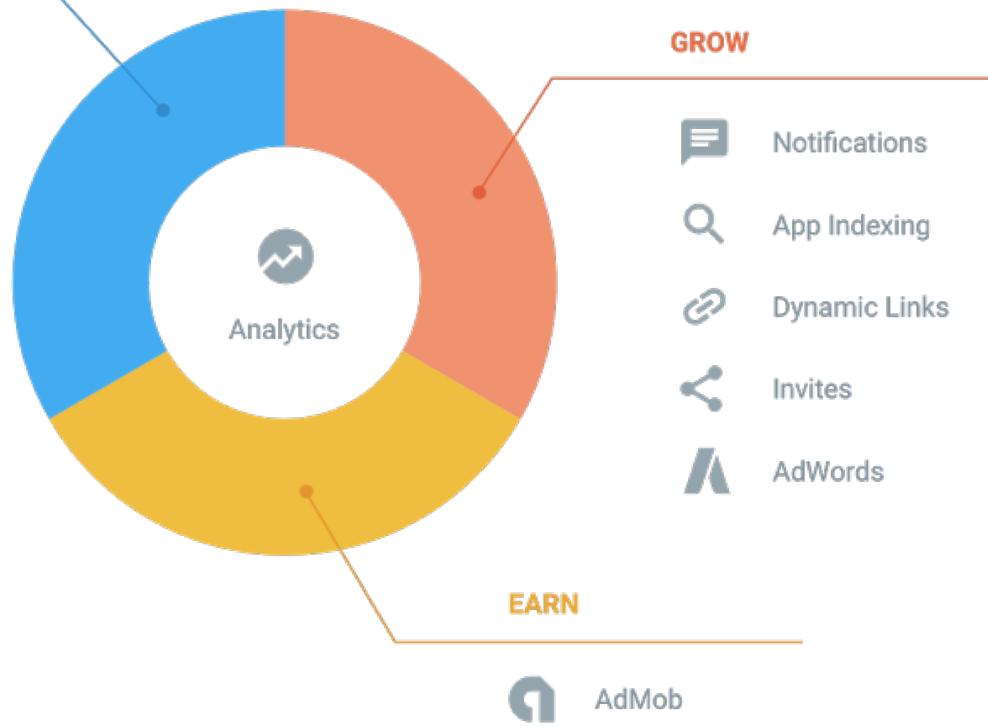
- 只要整合 SDK，自動記錄
 - Android only
 - 想算每微秒的用戶流失率也可以唷

event_dim.name	event_dim.params.key	event_dim.timestamp_micros
app_remove	firebase_event_origin	1466152059671000

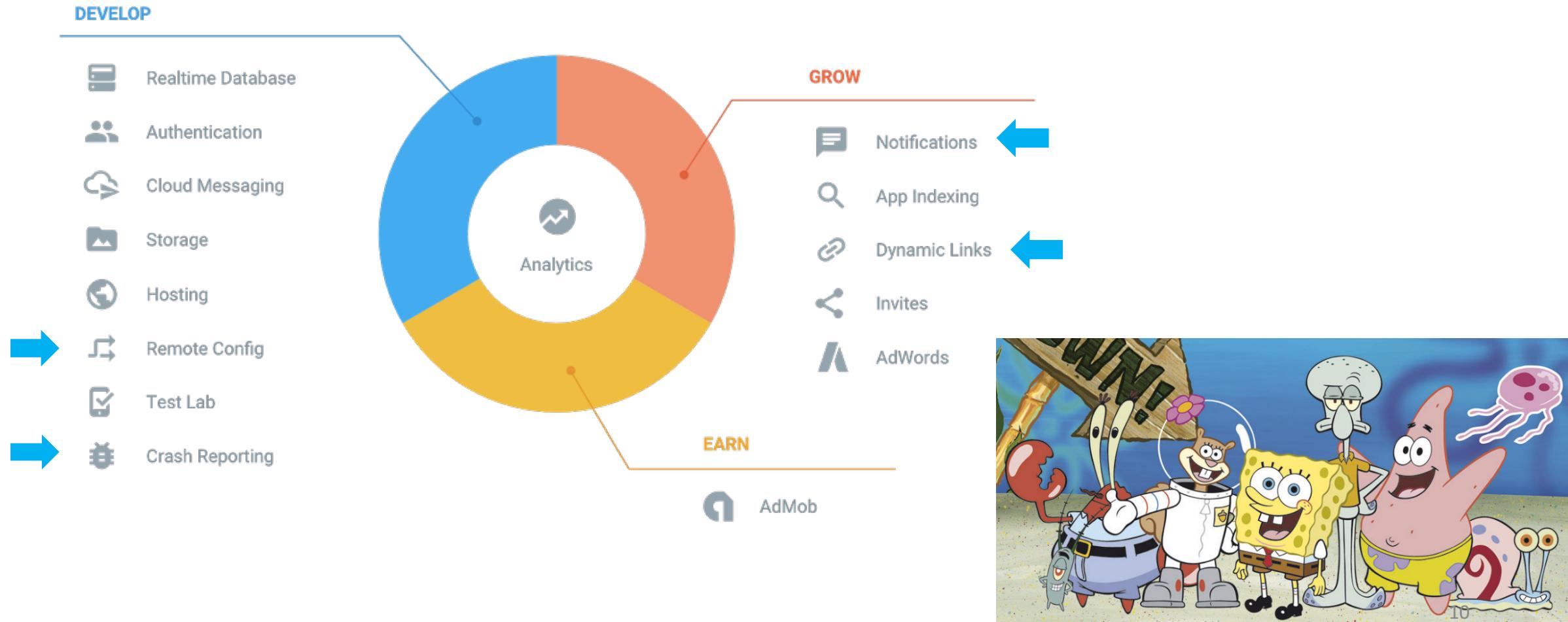
Firebase

DEVELOP

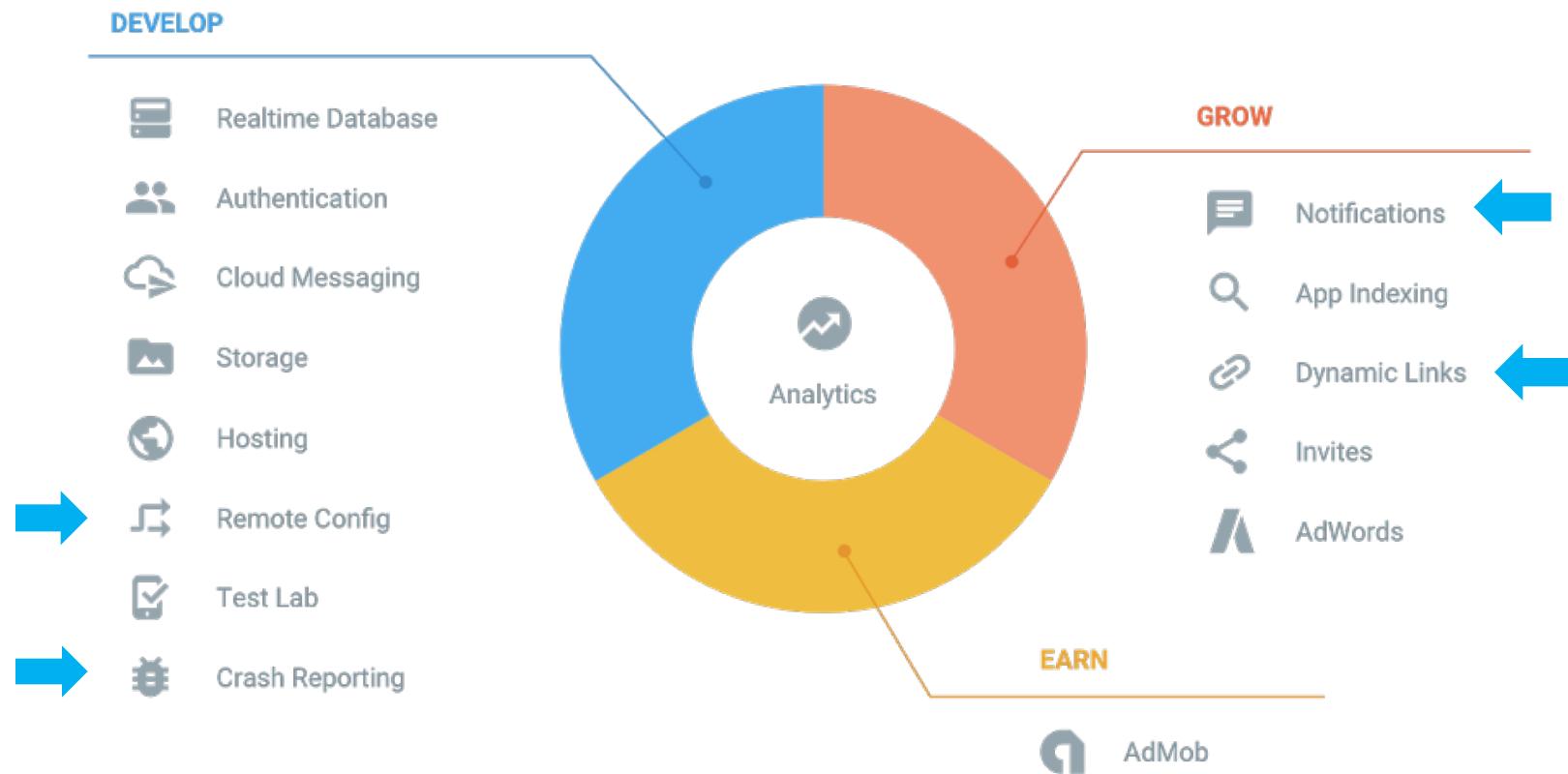
-  Realtime Database
-  Authentication
-  Cloud Messaging
-  Storage
-  Hosting
-  Remote Config
-  Test Lab
-  Crash Reporting



Firebase Analytics 與它的快樂夥伴們！



Firebase Analytics 與它的快樂夥伴們！

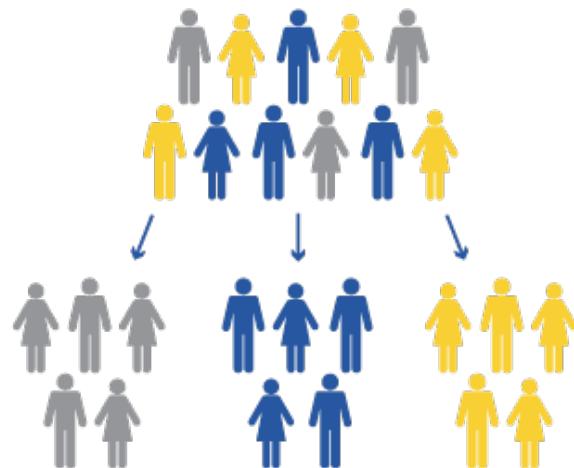


Analysis
↔
Action

Firebase Analytics

- 切分目標受眾 (Audience Segmentation)

- By user properties (國家、地區、語言、版本、型號...)
- By events



目標對象名稱
TEST
4/80
目標對象說明
提供簡短說明

納入符合下列條件至少一次的使用者

a_CED_Action_Done
新增參數 +
計數 > 3 action 完全符合 report

和

國家/地區
... 完全符合 TW

和

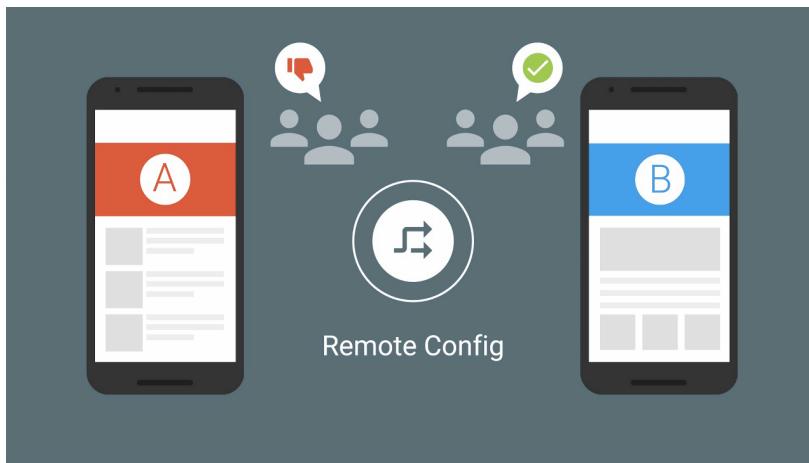
app_update
新增參數 +
計數 > 2

和

This screenshot shows the Firebase Audience Segmentation configuration interface. It includes fields for the target object name (TEST), a brief description, and a condition section. The condition section contains three segments: one for event 'a_CED_Action_Done' with a count greater than 3, another for location '國家/地區' (Region/Country) matching 'TW' (Taiwan), and a third for event 'app_update' with a count greater than 2. Each segment has an 'Add Parameter' (+) button and a 'Count > [value]' field.

Remote Config

- App 不需改版即可從後台快速更改內容/ 設定
- 根據目標受眾賦予不同值
 - 傳遞不同訊息
 - A/B testing
 - 精準的 percentile 抽樣



Remote Config

PARAMETERS CONDITIONS

Define a new condition

Use conditions to provide different parameter values if a condition is met

Name: Group 1 Color: Blue

Applies if...

App ID	gogolook.callgogolook2
User in audience	TW CED > 2
User in random percentile	> 10 %
User in random percentile	<= 20 %

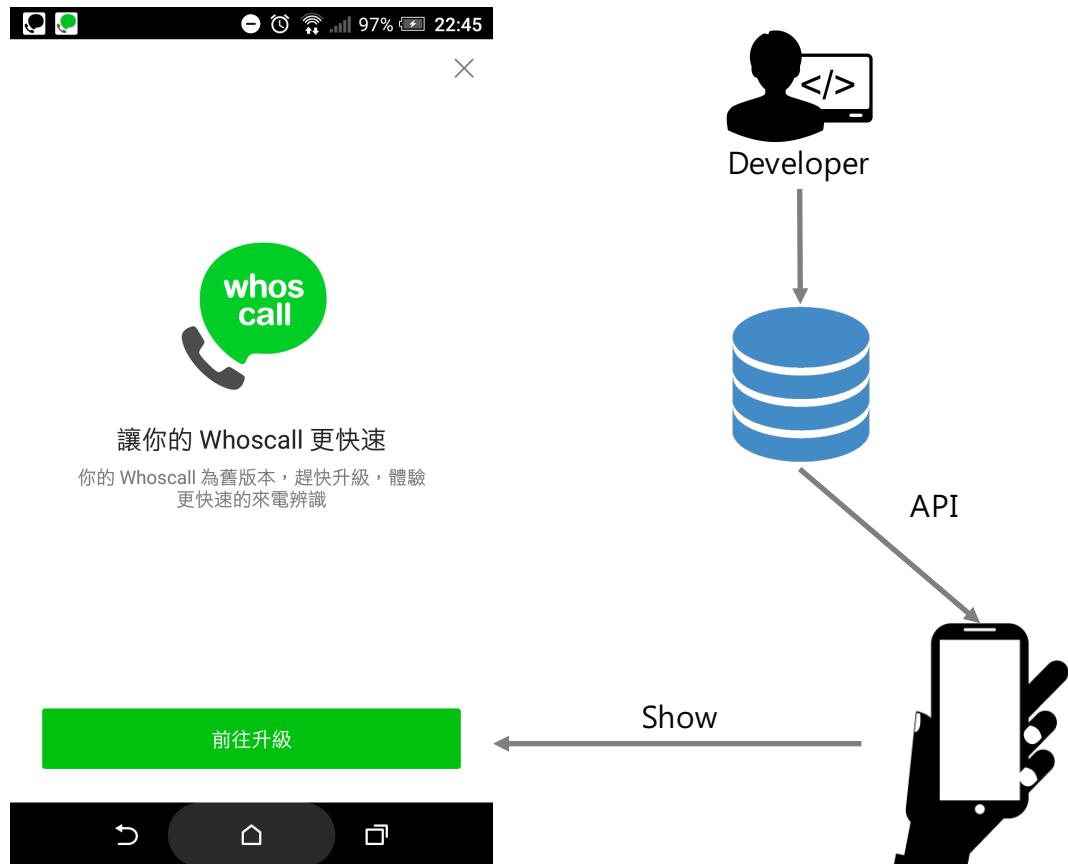
AND

CANCEL CREATE CONDITION

This screenshot shows the 'Define a new condition' dialog in the Google Cloud Platform Remote Config interface. It allows users to create specific conditions for different groups of users based on their app ID, whether they belong to a certain audience, or if they fall into a specific percentile range. The 'CREATE CONDITION' button at the bottom right is highlighted in blue.

Case: Suggest Update

- As-is: 在自己的 DB 內設定，透過 API 回給 client



- 只能同時對所有 user 設定
- PM 沒有修改 DB 的權限

stevenhsieh 11:23 AM
傑特大大，想再麻煩你幫開建議更新 to v4.8.1

jetthsieh 11:34 AM
我請假手邊沒電腦

stevenhsieh 11:34 AM
噢噢噢噢 我剛才還在看說你座位到底搬到哪裡XDD
還有其他人會開嗎（？

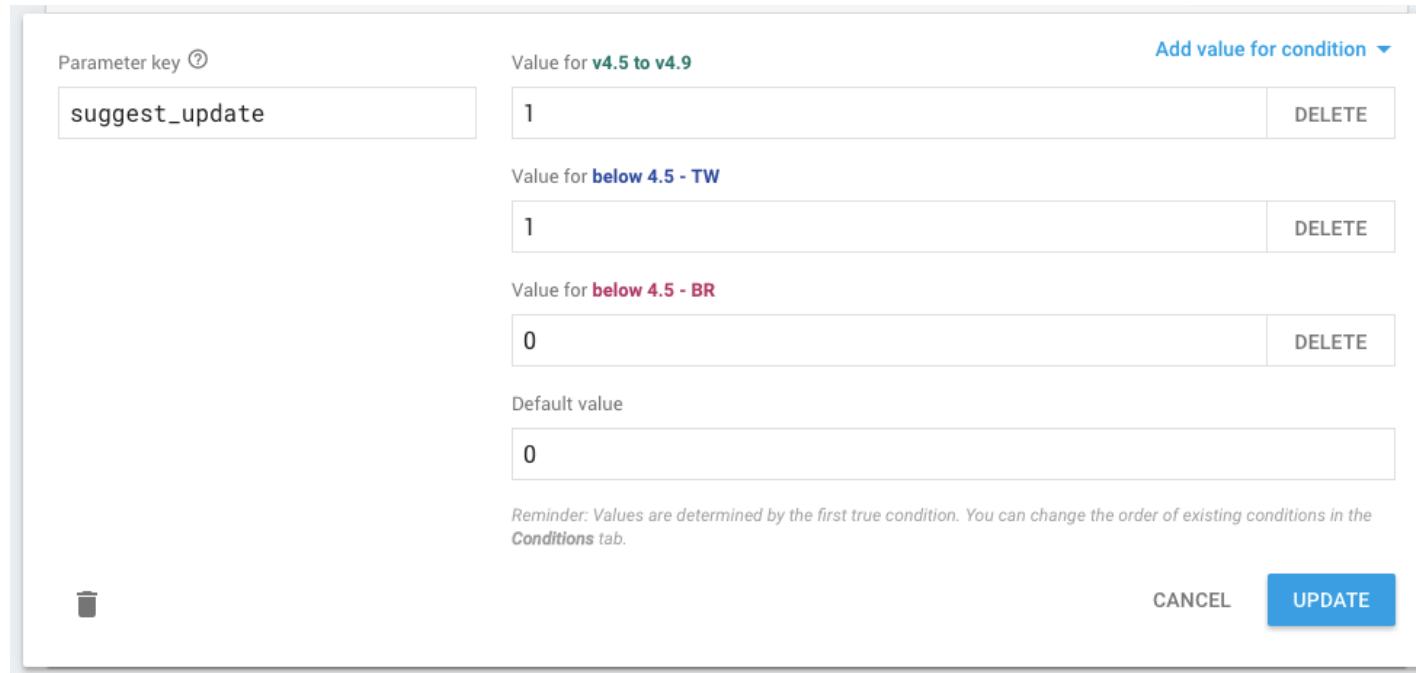
jetthsieh 11:35 AM
wes應該會

stevenhsieh 11:35 AM
好喔～那我請他幫忙
感謝！

jetthsieh 11:35 AM
他有問題就問我
ok!

Case: Suggest Update

- To-be: Firebase Remote Config



- 彈性的 user group 設定
- Web 後台修改

應用：依據行為模式傳遞最適合的訊息



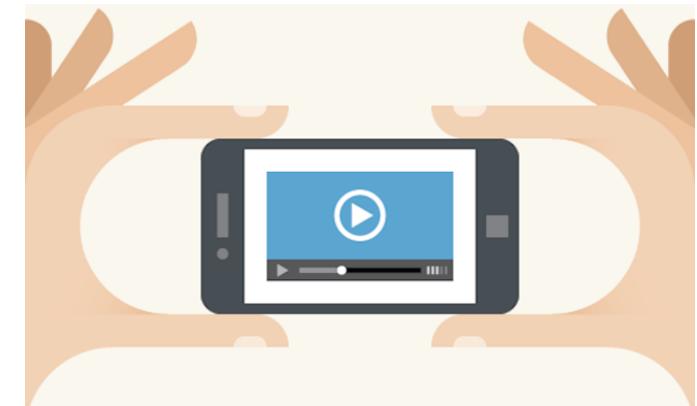
遊戲內花過錢的人

不願意花錢的人

連廣告都不想看的人



買金幣



看廣告



邀請朋友

Notification

- 鎖定 目標受眾
- 追蹤 轉換事件
- 自定義參數
- 在地化
 - 語言 / 國家
 - 當地時間



目標

使用者區隔 主題 單一裝置

如果符合下列條件，則指定使用者：

應用程式	gogolook.callgogolook2
目標對象	TW CED > 2

無法新增額外的陳述式。所有的應用程式皆已選取。

▲ 轉換事件 ②
所有欄位皆為可選填的欄位

gogolook.callgogolook2

已傳送 | 已開啟 | in_app_purchase

進階選項

所有欄位皆為可選填的欄位

標題 ②

自訂資料 ②

鍵 值

優先順序 ② 音效

高 已停用

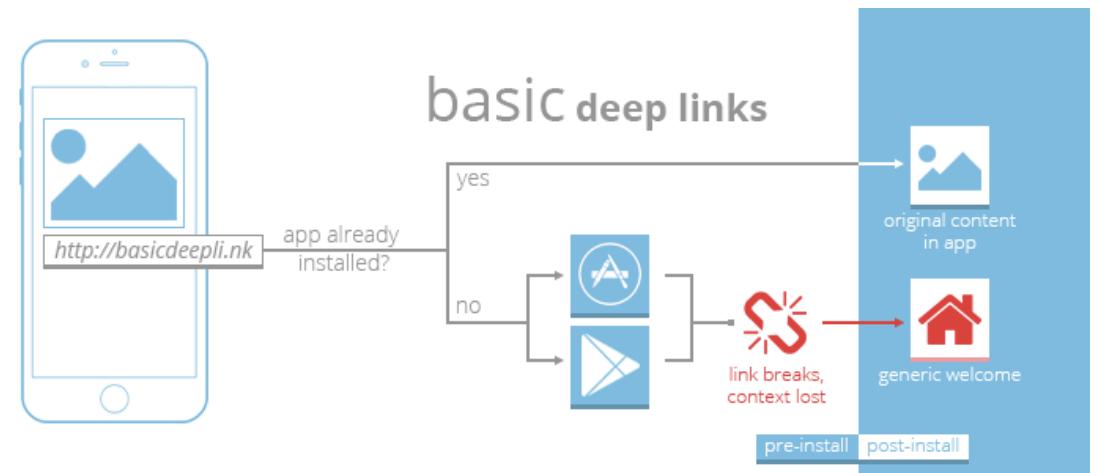
有效期限 ②

4 週

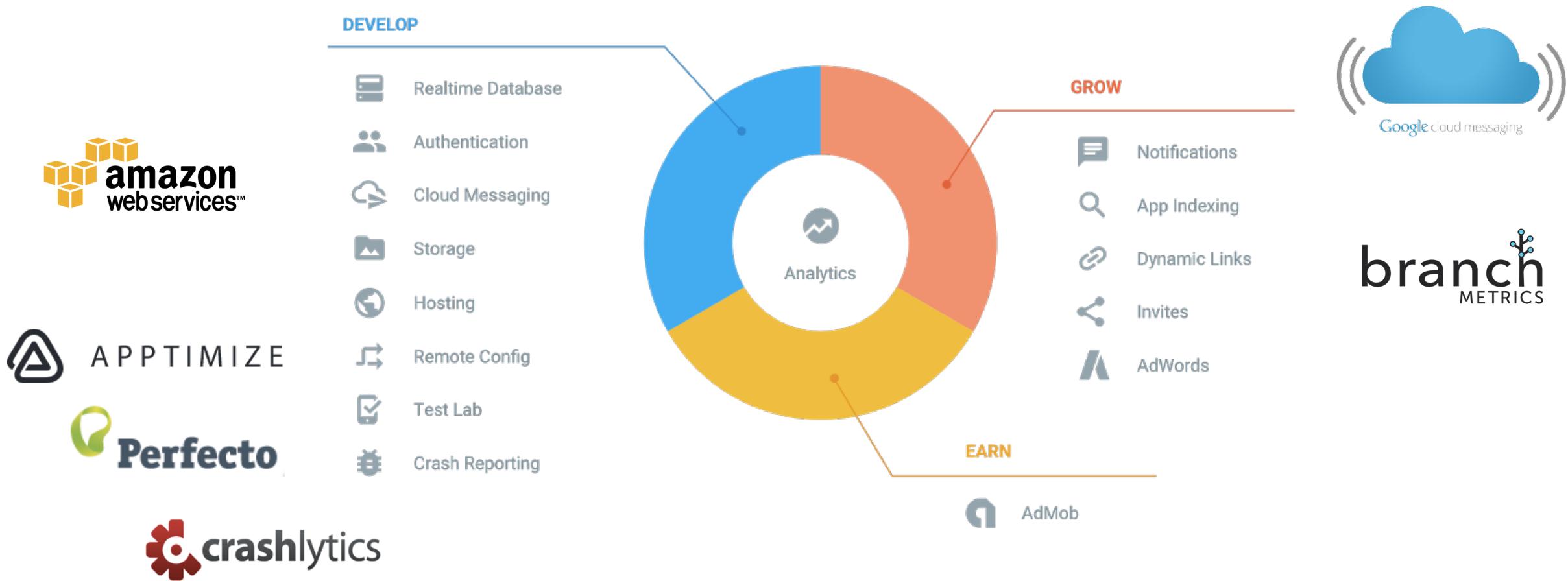
儲存為草稿 傳送訊息 17

Dynamic Links

- Dynamic Link: 根據平台，導至不同頁面
 - iOS - 開 app or App Store (未安裝)
 - Android - 開 app or Google Play (未安裝)
 - Desktop - 官網
- Deep Link: 安裝前後不中斷體驗
 - 個人化初次開啟流程
- Attribution Analysis

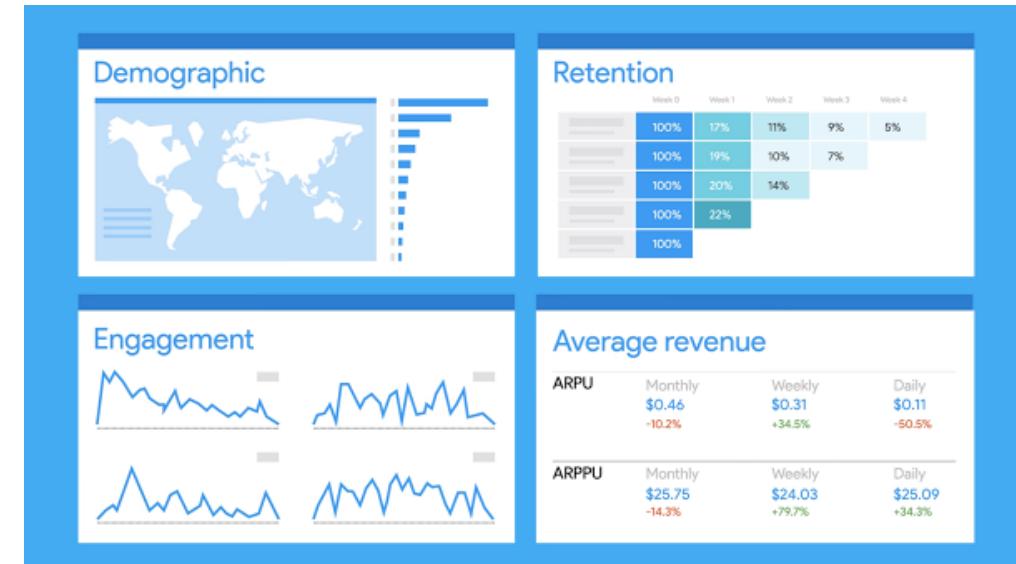


Firebase Analytics 與它的快樂夥伴們！



Firebase Analytics

- 免費，無總數上限
- App 專屬的自動事件記錄
- 支援原始資料匯出
- 分析 \leftrightarrow 行動 (Actionable metrics)
 - 推播訊息
 - A/B testing
 - 分眾內容
 - Deep links



Thank you ☺

stevenhsieh@gogolook.com