



# AWS Summit

AWS技术峰会 2015 · 上海





# 在AWS 上快速构建移动应用的实践

AWS 首席云计算技术顾问

费良宏



# 今天的议程以及内容

- 移动应用开发的现状
- AWS Mobile Hub 服务的特性
- 移动应用开发演示

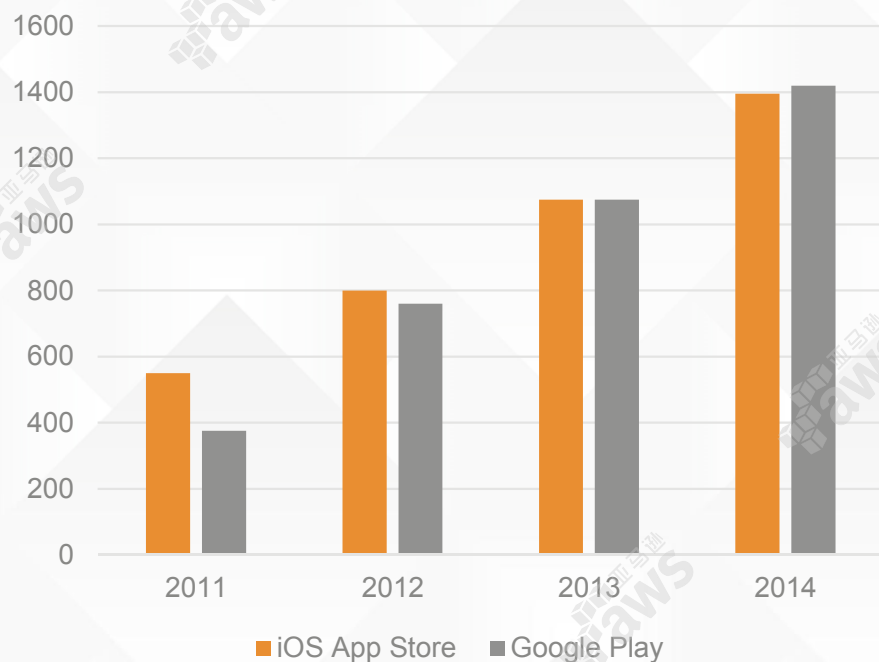
# 构建于AWS之上的最佳移动应用



# “移动”技术全方位的发展

移动应用的数量持续增长...

发布于应用商店上应用数量(K)



\*来源: Vision Mobile

... “移动”平台扩展到新的领域



电视



可穿戴设备



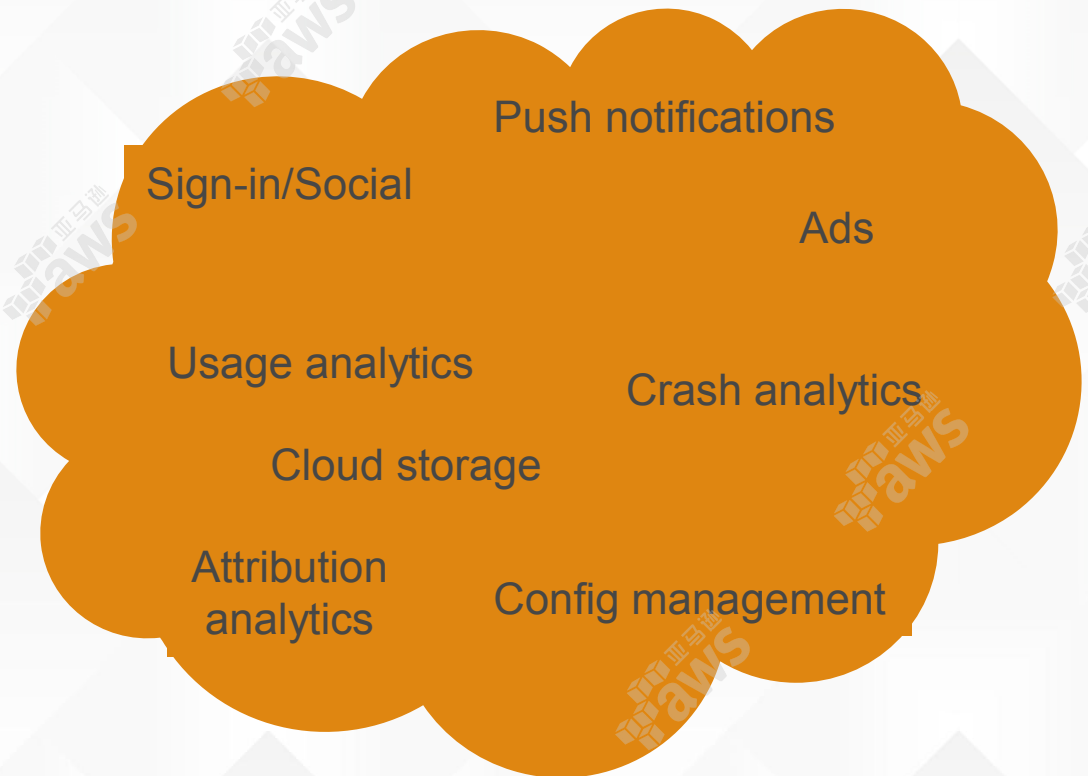
汽车

# 移动应用变得越来越复杂

从基本的客户端应用...



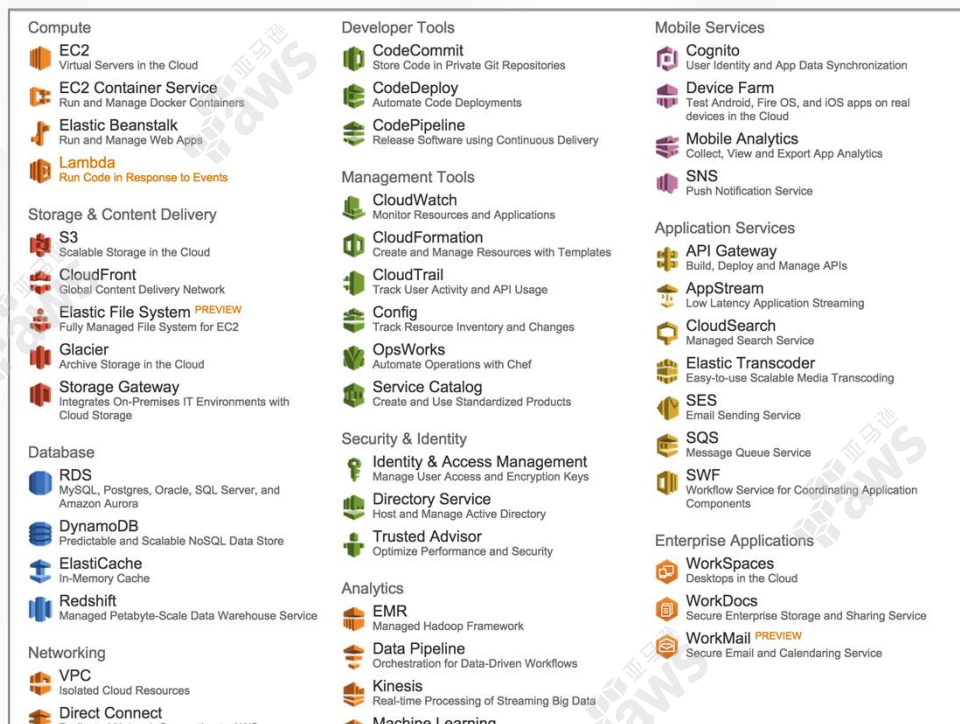
...到与云紧密连接的应用





# “AWS 有你所需要的全部，但是... 它有点太复杂了”

## 1. 你需要哪些服务？



## 2. 如何连接这些服务？

例子:



认证服务商的 SDKs

登陆界面 & 集成代码

The image shows a sign-in interface with the following elements:

- Text: "Please sign in."
- Buttons: "Sign in with Google" (red), "Sign in with Facebook" (blue).
- Text: "or"
- Text: "Email"
- Input field: "e.g. john@company.com"
- Button: "Next" (blue)

现在有了一个更好的方法...



# AWS Mobile Hub (Beta)

1. 单一的集成控制台

2. 内置的特性

3. 自动分配的服务

4. 自动生成应用



结论: 分钟级别开发出基于AWS的移动应用

# AWS Mobile Hub (Beta)

The screenshot displays the AWS Mobile Hub console. On the left is a navigation sidebar with icons for Configure, Build, Test, Analytics, and Resources. The main content area is titled 'Mobile Hub' and features a large orange text overlay: 'Build, test, and monitor your mobile apps with AWS Mobile Hub'. Below this, a form asks 'What is your project name?' with a 'Project name' input field and a blue 'Get started' button. A 'Cancel' button is also present. White arrows point from the sidebar icons to their corresponding actions: 'Configure' points to the 'Get started' button; 'Build' points to the 'Add and configure AWS features for your mobile app' button; 'Test' points to the 'Download source, SDKs and a working sample app' text; 'Analytics' points to the 'Test your app on real devices' text; and 'Resources' points to the 'Monitor app usage and key metrics' text. The right sidebar contains an 'Overview' section with introductory text and a 'Getting Started' section with instructions. The footer includes a 'Feedback' link, 'English' language selector, and copyright information for Amazon Web Services, Inc. (© 2008 - 2015).

**Build, test, and monitor your mobile apps with AWS Mobile Hub**

What is your project name?

Project name

**Get started**

Cancel

Add and configure AWS features for your mobile app  
Create project

Download source, SDKs and a working sample app

Test your app on real devices

Monitor app usage and key metrics

View the status and health of your mobile app projects

**Overview**

The AWS Mobile Hub (Beta) provides an integrated console experience to help you build, test and monitor usage of your mobile apps. The first step is to create a project, and then you can select and configure the features you want to add to your mobile app. Once you have selected and configured features for your project, the Mobile Hub will automatically provision AWS service resources for you and generate a working quickstart app that uses those service resources. You can download the customized quickstart app for either iOS (Objective-C) or Android (Java).

**Getting Started**

Give your project a name and start selecting and configuring features to add to your quickstart app.

Feedback English

© 2008 - 2015, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

# 创建新的项目以及添加功能



## User Sign-in

Let your users sign in with public identity providers or your own identity system.

Powered by Amazon Cognito



## Push Notifications

Send push notifications to individuals or groups of users.

Powered by Amazon SNS



## App Content Delivery

Store app assets like resource files in the cloud. Download and cache files in your app.

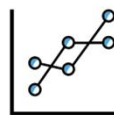
Powered by Amazon S3 and CloudFront



## User Data Storage

Store files for your users in the cloud, and store and sync user data in key/value pairs.

Powered by Amazon Cognito and S3



## App Analytics

Collect app usage information and analyze key metrics.

Powered by Amazon Mobile Analytics



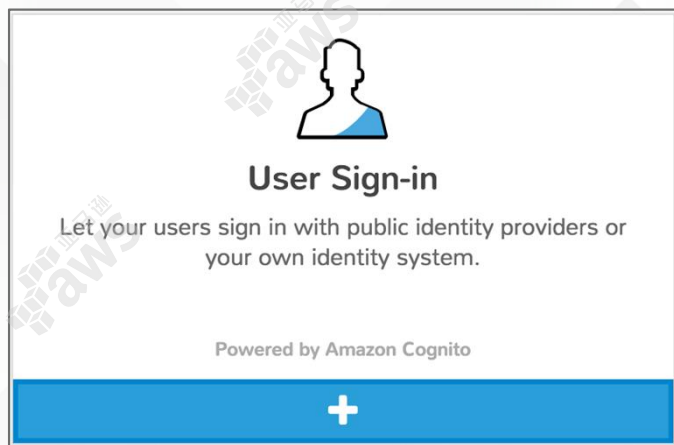
## Cloud Logic

Run your backend code in the cloud.

Powered by AWS Lambda



# 用户登录



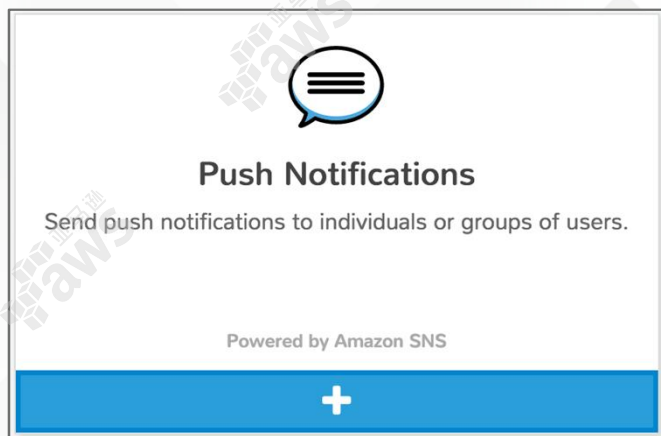
- 配置你的用户如何登录:
- 不需要登录, 可选择登录, 或者强制登录
- 配置认证服务提供者:
- Facebook (随后推出 Google, Twitter, Amazon)
- 你自己的系统

在你的应用中添加了一个登录的界面

Powered by Amazon Cognito Identity

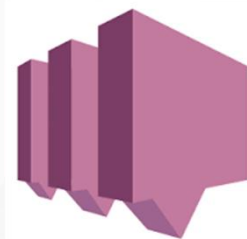


# 推送通知

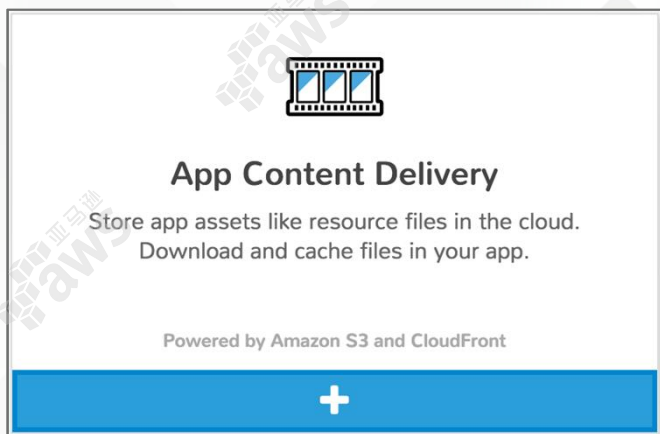


- 发送推送通知到你的应用
- iOS 或者 Android
- 1:1 或者 基于主题/订阅
- 生成的应用中的功能
- 启用/禁用 通知服务
- 通过SNS自动注册推送令牌
- 你可以选择订阅的主题

Powered by Amazon SNS

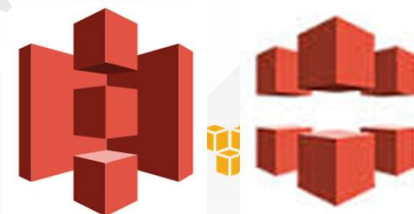


# 应用内容分发



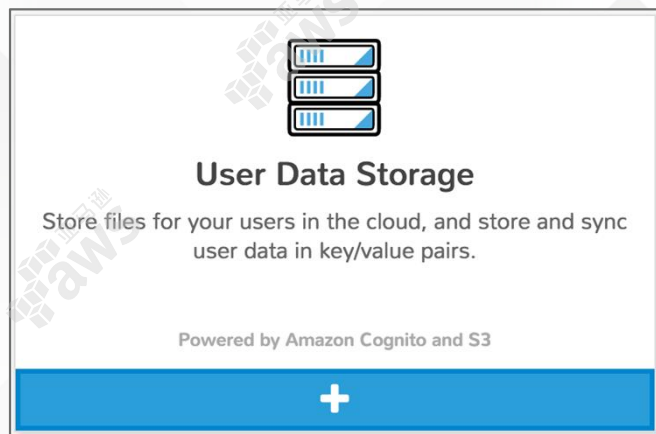
- 在云端保存你的应用资产
- 例如: 资源文件或者媒体文件
- 使用CDN 加速分发 (可选)
- 生成的应用中包含了设备缓存逻辑
- 设置最大的缓存尺寸
- 将特定的文件缓存

Powered by Amazon S3 and CloudFront





# 存储用户数据

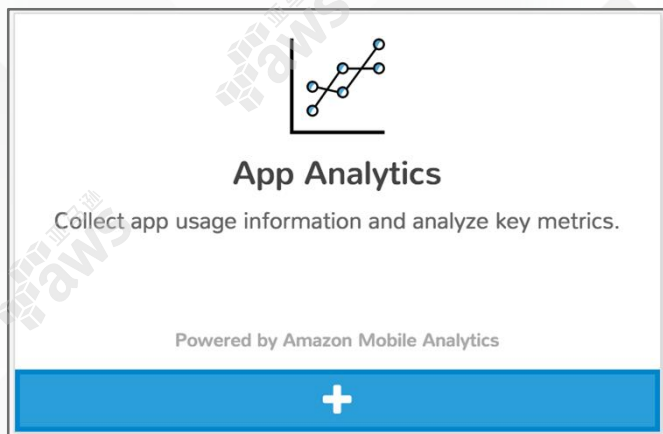


- 存储用户文件，例如：照片
- 仅用户可访问或者所有用户可访问
- 存储用户的配置数据
- 键-值对
- 用户登录时，跨设备同步
- 生成的应用包含了使用的样例
- 包含了文件浏览器和颜色选择器

Powered by Amazon S3 and Amazon Cognito Sync



# 应用分析

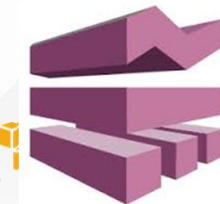


- 检测与分析应用的使用情况
- 会话、货币化和自定义事件
- 监控活跃用户、货币化和用户保留

- 生成的应用包括了所有的三种事件类型

从Mobile Hub中访问仪表板

Powered by Amazon Mobile Analytics



# 云端的逻辑



- 在云端运行后端代码
- 跨应用共享功能
- 没有应用提交，更新也可以发生
- 从移动应用直接调用
- 你来定义输入 / 输出

用Java、Javascript 或者 Python 开发  
开发者写代码，AWS管理基础架构

Powered by AWS Lambda



# 下载你的应用，继续你的编码...

The screenshot displays the AWS Mobile Hub 'Build' interface. At the top, the navigation bar includes 'Mobile Hub' and 'MobileHub\_Demo'. The left sidebar contains icons for 'Configure', 'Build', 'Test', 'Analytics', and 'Resources'. The main content area is titled 'Build' and features a large blue button labeled 'Download iOS source package' with an Apple logo and an Android logo above it. Below this, a 'System Requirements' section states that Xcode 7.0 or newer is required. An 'Install Xcode' section provides a link to the Xcode download page. A progress list on the left shows five steps: '1. Setup' (expanded), '2. Compile and Run', '3. Discover', '4. Develop', and '5. Troubleshoot'. The '1. Setup' step includes a sub-link for 'Integrated Development Environment'. At the bottom of the setup section are 'Skip' and 'I'm done with this step' buttons. The right sidebar contains an 'Overview' section, a 'Platforms' section, a 'Package Download' section, an 'Integration Setup' section, and a 'What next?' section.

Mobile Hub > MobileHub\_Demo

MobileHub\_Demo Support

## Build

Download iOS source package

### System Requirements

Your system must include the following:

- Xcode 7.0 or newer

### Install Xcode

If you have not already installed the Xcode IDE (Integrated Development Environment) on your host, you can do download it from the following location: <https://developer.apple.com/xcode/download>

Skip I'm done with this step

### 1. Setup

- Integrated Development E...
- Facebook Sign-in

### 2. Compile and Run

### 3. Discover

### 4. Develop

### 5. Troubleshoot

### Overview

This Mobile Hub "Build" page provides all the details for downloading your quickstart app, integration steps for your environment to build and run your quickstart app, and a comprehensive dissection of the generated project code so that you can use it as an example or starting point for your own app.

### Platforms

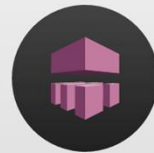
The Mobile Hub will generate fully functioning quickstart app source projects for iOS (v8.0+) and Android. The iOS project can be built and executed using Xcode 7+. The Android quickstart app is built to support the Android Studio IDE (version 1.3.2 or greater) with Android SDK 19 or greater.

### Package Download

### Integration Setup

### What next?

# 利用Amazon Device Farm 测试你的应用



## AWS Device Farm

AWS Device Farm enables you to improve the quality of your Android, iOS, and Fire OS apps by quickly and securely testing them on 100s of real smartphones, tablets, and other devices in the AWS cloud.

[Get started](#)

[Getting started guide](#)



### Test often

Test your app on a device fleet comprised of hundreds of unique devices that scale with customer demand, ensuring



### Find issues quickly

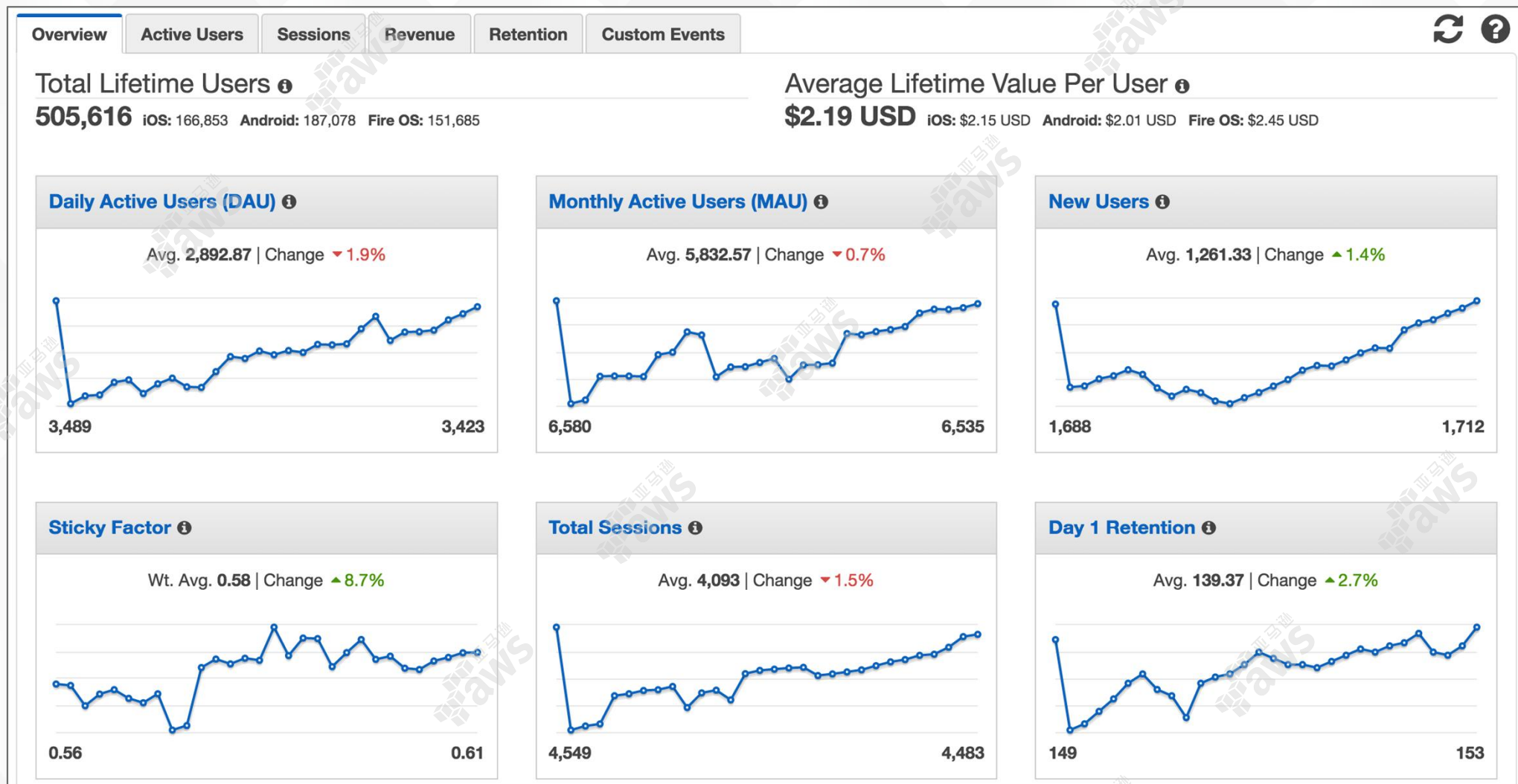
View comprehensive, actionable reports as tests complete on each device. In addition to containing test results,



### Control how you test

Run your own tests written in a number of popular, open-source test frameworks like Appium, Calabash, and JUnit,

# 使用 Mobile Analytics 监控使用情况





演示



AMAZON COGNITO



AWS LAMBDA

AMAZON MOBILE ANALYTICS

AWS IoT HUB

AMAZON CLOUDFRONT

AMAZON S3

AWS DEVICE FARM

# AWS Mobile Hub (Beta)已经可用

- 已经出现在 **AWS Management Console** 中
  - 网址 <https://console.aws.amazon.com/mobilehub>
- 服务部署在 **US-East-1**
  - 计划近期增加东京、都柏林
- **AWS Mobile Hub 是一个免费的服务**
  - 只需要为你使用的服务付费 (例如: S3)
- 现在就可以体验...





Thank You

