

Google Cloud

Next

Migrate your mobile app to Firebase



/SandroMachado



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Agenda

- Mobile OS's evolution;
- Parse
- Firebase - Features and Pricing
- Firebase - Integration
- Firebase - Realtime database
- Firebase vs Parse
- Firebase console - Real app sample



Mobile OS's evolution

Windows Mobile 5

Symbian

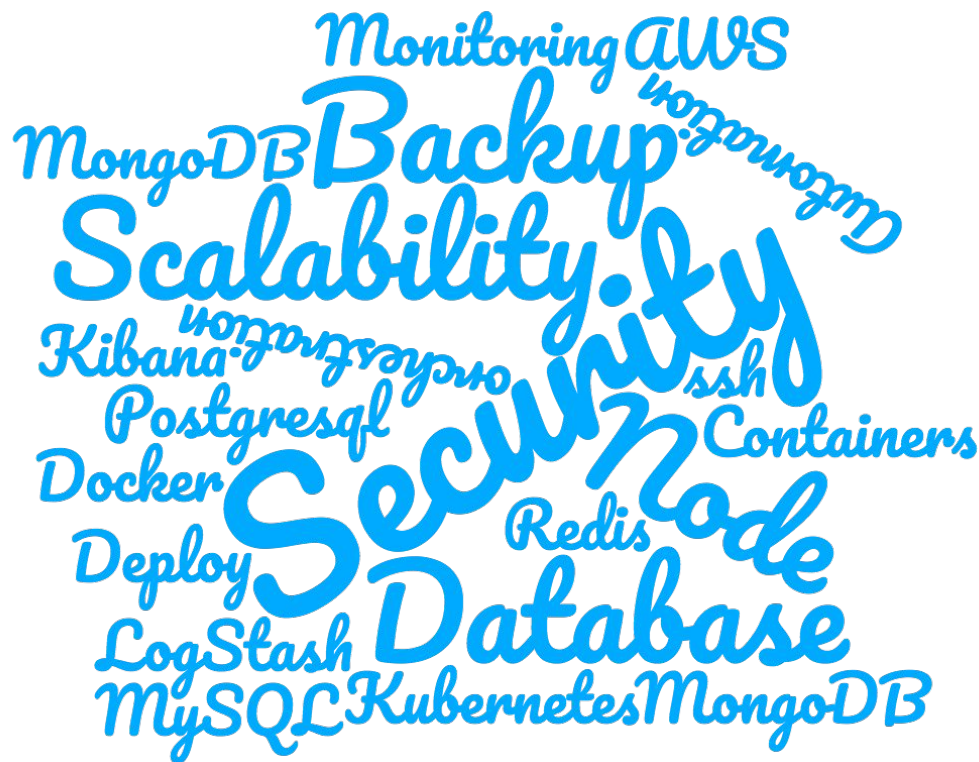
iOS 10

Android 7

Mobile Developer Stack



Backend/DevOps Stack



Forget about infrastructure

Parse

- Core
 - **Schedule** recurring tasks with **background jobs**;
 - **Store and query data** without a **single server**;
 - **Webhooks** to integrate with your own server;
- Push
 - **Push notifications** across devices and platforms with just a couple lines of code;
 - Push Console to **schedule campaigns** in advance;
 - A/B test;
- Analytics
 - App's **retention**;
 - Measure **growth** over time;
 - **API** requests monitoring.



60,000

↑ [-] zillathrilla 27 points 1 year ago*

↓ I am devastated. I love Parse. I would honestly pay \$10 / month per app to keep using it. Their docs are amazing and I've never run into something I couldn't do through Parse.

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↑ [-] NPPraxis 107 points 1 year ago

↓ I literally launched my app with a Parse backend today. Three hours ago.
I hate everything.

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↑ [-] Doomhammered 22 points 1 year ago

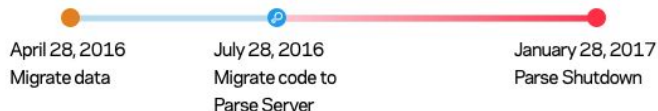
↓ "Move fast and break things", they said.

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↑ [-] manooka 41 points 1 year ago

↓ My entire startup relies on Parse. I developed the website and apps myself as this was perfect for me as a Front-end developer without having to worry about back-end servers/databases etc. This is SERIOUSLY bad news.

Parse Migration Timeline



↑ [-] Koonga 10 points 1 year ago

↓ Anyone have any suggestions on good alternatives to Parse?

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↑ [-] luigi3 12 points 1 year ago

↓ <https://www.firebase.com>

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Parse is not dead, Parse service is dead

“The hosted Parse service is now shut down. To all the developers out there, it was a pleasure helping you build apps. Goodbye and good luck!”



[Docs](#) [Blog](#)

Open Source Hub

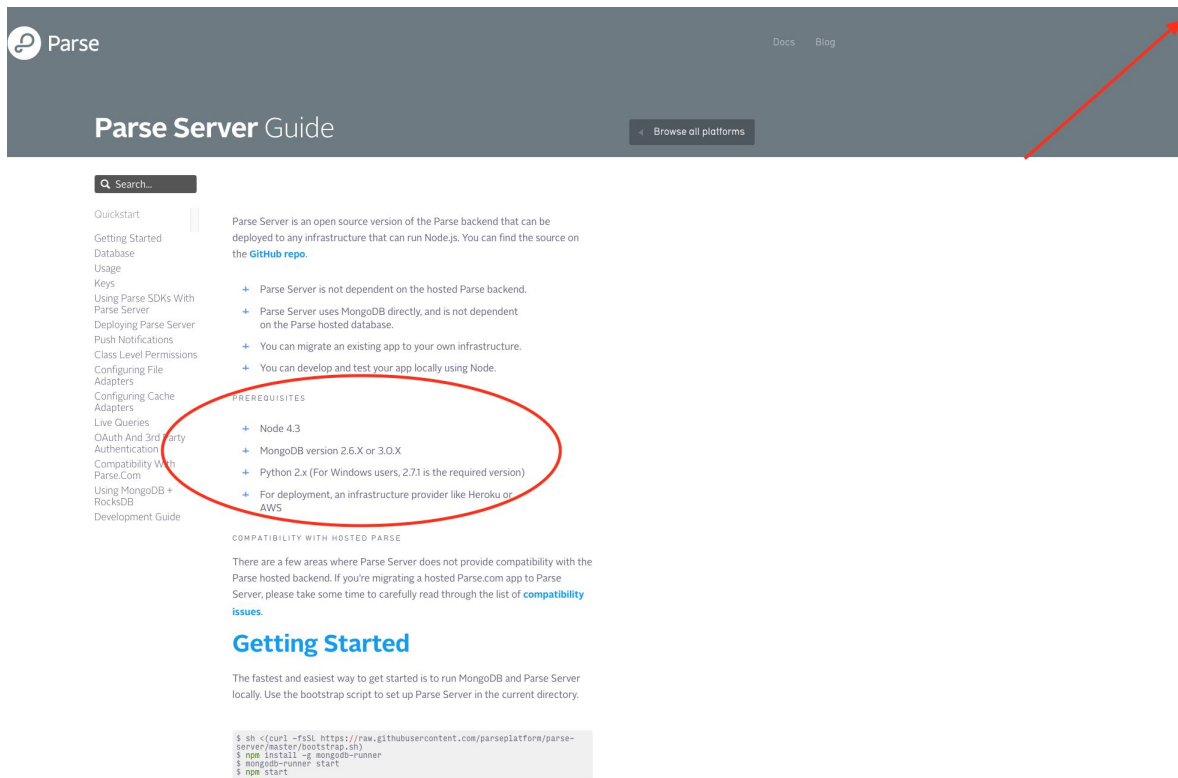
★ 27038


🔗 13688

📦 42



Parse server - Open Source



 Parse Docs Blog

Parse Server Guide

[Browse all platforms](#)

Search...

- Quickstart
- Getting Started
- Database
- Usage
- Keys
- Using Parse SDKs With Parse Server
- Deploying Parse Server
- Push Notifications
- Class Level Permissions
- Configuring File Adapters
- Configuring Cache Adapters
- Live Queries
- OAuth And 3rd Party Authentication
- Compatibility With Parse.Com
- Using MongoDB + RockDB
- Development Guide

Parse Server is an open source version of the Parse backend that can be deployed to any infrastructure that can run Node.js. You can find the source on the [GitHub repo](#).

- + Parse Server is not dependent on the hosted Parse backend.
- + Parse Server uses MongoDB directly, and is not dependent on the Parse hosted database.
- + You can migrate an existing app to your own infrastructure.
- + You can develop and test your app locally using Node.

PREREQUISITES

- + Node 4.3
- + MongoDB version 2.6.X or 3.0.X
- + Python 2.x (For Windows users, 2.7.1 is the required version)
- + For deployment, an infrastructure provider like Heroku or AWS

COMPATIBILITY WITH HOSTED PARSE

There are a few areas where Parse Server does not provide compatibility with the Parse hosted backend. If you're migrating a hosted Parse.com app to Parse Server, please take some time to carefully read through the list of [compatibility issues](#).

Getting Started

The fastest and easiest way to get started is to run MongoDB and Parse Server locally. Use the bootstrap script to set up Parse Server in the current directory.

```
$ sh <(curl -fsSL https://raw.githubusercontent.com/parseplatform/parse-server/master/bootstrap.sh)
$ npm install -g nongdb-runner
$ nongdb-runner start
$ npm start
```

~~Forget about infrastructure~~

Firebase



Firebase - Forget about infrastructure

- Analytics
 - Free and unlimited analytics solution
- Cloud Messaging
 - Deliver and receive messages across platforms reliably
- Authentication
 - Reduce friction with robust authentication
- Realtime Database
 - Store and sync app data in realtime
- Cloud Storage
 - Store and serve content with ease

Firebase - Forget about infrastructure

- Cloud Functions
 - Run your mobile backend code without managing servers
- Hosting
 - Deliver web content faster
- Test Lab
 - Test in the lab, not on your users
- Crash Reporting
 - Keep your app stable
- Notifications
 - Engage with users at the right moment

Firebase - Forget about infrastructure

- Remote Config
 - Customize your app on the fly
- App Indexing
 - Drive organic search traffic to your app
- Dynamic Links
 - Send users to the right place inside your app
- Invites
 - Empower your users to share your app
- AdWords
 - Acquire users with the reach of Google

Firebase SDK

- SDK: Android, iOS, WEB, C++, Node, Java and Unity;
- Frameworks: AngularFire, PolymerFire, ReactFire, EmberFire and BackboneFire;
- Helpers: FirebaseUI, firebase-dart, GeoFire, Firebase Queue, firebase-util, FirebaseJobDispatcher and FirePad;
- Utilities: Firebase Tools, Firebase Import and Flashlight;
- Third Party: Firestack

Firestore - Pricing

SPARK
Free

Generous limits for hobbyists

FLAME
\$25 per month

Predictable pricing for growing apps

BLAZE
Pay as you go

Commodity pricing for apps at scale

Firebase - Pricing Spark

Realtime Database	Simultaneous connections	100
	GB stored	1 GB
	GB downloaded	10 GB/month
	Automated backups	✗
Storage	GB stored	5 GB
	GB downloaded	1 GB/day
	Upload operations	20,000/day
	Download operations	50,000/day
Functions	Invocations	125,000/month
	GB-seconds	40,000/month
	CPU-seconds	40,000/month
	Outbound networking	Google-only ³
Hosting	GB stored	1 GB
	GB transferred	10 GB/month
	Custom domain hosting & SSL	✓
Test Lab	Daily quota or hourly rate	15 tests/day ⁴
Google Cloud Platform	Use BigQuery & other IaaS ⁶	✗

Integrate Firebase in your app

1. <http://console.firebase.google.com> - Create a new app
2. Android app
 - a. Add the SDK
 - i. Root Level *build.gradle*

```
buildscript {  
    // ...  
    dependencies {  
        // ...  
        classpath 'com.google.gms:google-services:3.0.0'  
    }  
}
```

Integrate Firebase in your app

3 - In the *app/build.gradle*

```
apply plugin: 'com.android.application'

android {
    // ...
}

dependencies {
    // ...
    compile 'com.google.firebase:firebase-core:10.2.0'

    // Getting a "Could not find" error? Make sure you have
    // the latest Google Repository in the Android SDK manager
}

// ADD THIS AT THE BOTTOM
apply plugin: 'com.google.gms.google-services'
```

Firebase Analytics Integrated!

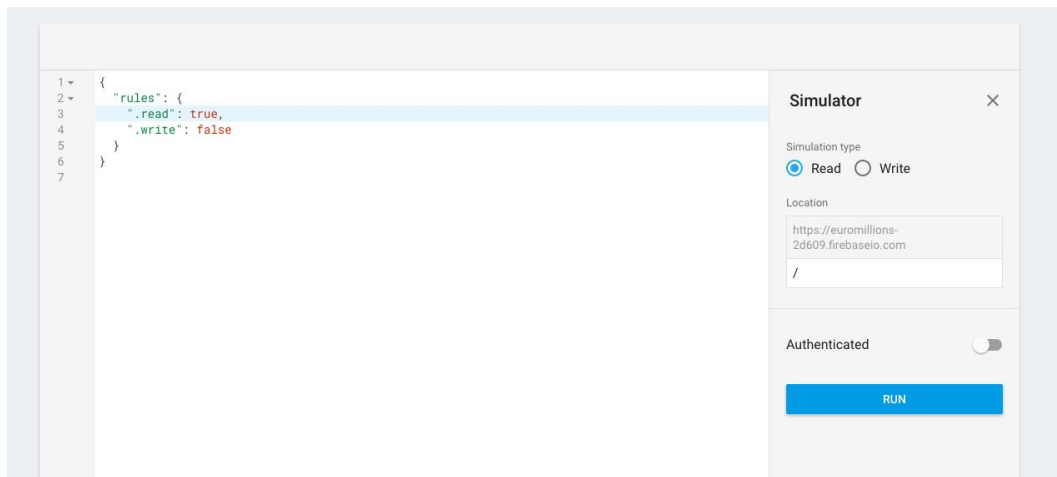


Firebase - Realtime database

1. Add the Realtime Database to your app

```
compile 'com.google.firebase:firebase-database:10.2.0'
```

2. Configure Firebase Database Rules



Firestore - Realtime Database

- Write to your database

```
// Write a message to the database
FirebaseDatabase database = FirebaseDatabase.getInstance();
DatabaseReference myRef = database.getReference("message");

myRef.setValue("Hello, World!");
```

- Read from your database

```
// Read from the database
myRef.addValueEventListener(new ValueEventListener() {
    @Override
    public void onDataChange(DataSnapshot dataSnapshot) {
        // This method is called once with the initial value and again
        // whenever data at this location is updated.
        String value = dataSnapshot.getValue(String.class);
        Log.d(TAG, "Value is: " + value);
    }
}
```


Firebase Realtime Database Integrated!

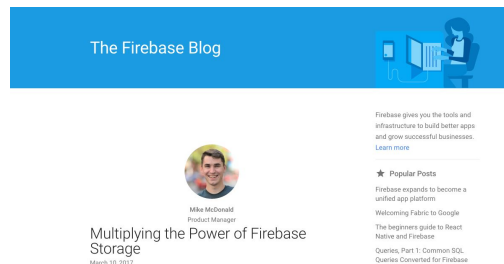
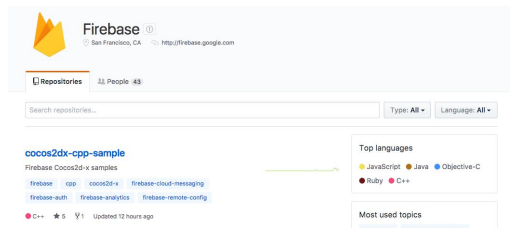
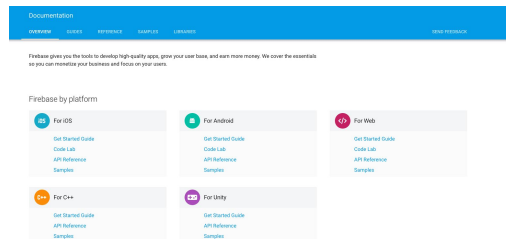


Available libraries

- `com.google.firebase:firebase-core:10.2.0`
- `com.google.firebase:firebase-database:10.2.0`
- `com.google.firebase:firebase-storage:10.2.0`
- `com.google.firebase:firebase-crash:10.2.0`
- `com.google.firebase:firebase-auth:10.2.0`
- `com.google.firebase:firebase-messaging:10.2.0`
- `com.google.firebase:firebase-config:10.2.0`
- `com.google.firebase:firebase-invites:10.2.0`
- `com.google.firebase:firebase-ads:10.2.0`
- `com.google.firebase:firebase-appindexing:10.2.0`

Firestore Resources

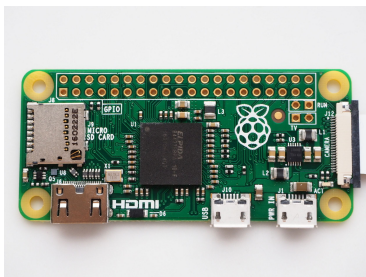
- Documentation: <https://firebase.google.com/docs/>
- Github: <https://github.com/firebase/>
- Blog: <https://firebase.googleblog.com/>



Firebase vs Parse



- Is active
- More features and more completed
- Commitment from Google
- Continuous improvements



- Pricing
- Schedule recurring tasks with background jobs;

Core	Push	Analytics
Store data and build your app	Notify and re-engage your users	Track events and improve your app
30 requests per second	1,000,000 unique recipients	Unlimited event tracking
1 cloud code jobs		
\$100/10 requests, pro-rated by the hour	\$0.05/1000 extra recipients	
EXTRAS	EXTRAS	EXTRAS
File Storage 20GB \$0.03/GB extra	A/B Testing Unlimited	Custom Events Unlimited
Database Storage 20GB \$200/20GB extra	Custom Segmentation Unlimited	Instant Breakdowns Unlimited
File Transfer 2TB \$0.10/GB extra	Scheduling Unlimited	Advanced Reports Unlimited
MONTHLY COST Free	MONTHLY COST Free	MONTHLY COST Free

Firestore console demo

Thank You

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