



PARSE IS DEAD, LONG LIVE PARSE

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SUMMARY

- ▶ Parse Presentation
- ▶ Moving On, pros & cons
- ▶ Parse Server & Database
- ▶ Parse (missing) features / alternatives
- ▶ Recommended migration steps

QUICK PARSE INTRODUCTION

- ▶ Release in 2011, shutting down in January 2017
- ▶ Abstract backend REST API with permissions
- ▶ Nice iOS ORM using ACL with backend fetching/synchronizing
- ▶ Free to start but expensive beyond this
- ▶ Serious limitation (SQL Aggregate functions, max execution time for background jobs, 10k object limit, ...)
- ▶ Miscellaneous Bugs, USA Hosting

HOW DOES IT WORK

- ▶ Build on top of Bolt (operation chaining framework)
- ▶ Local Storage + Sync (Dirtytness) (Networking)
- ▶ PFQuery (ORM) - local storage support
- ▶ PFModel && Subclassing (Models)
- ▶ PFRole & ACLs
- ▶ PFConfig

MOVING ON!

Welcome to Parse Server



WHY IS IT A GOOD NEWS?

- ▶ Open Source + Node.JS
- ▶ Cheaper hosting (DYI) - but not free
- ▶ Bypass all Parse limitation
- ▶ Active community
- ▶ New business opportunity (...)

Features	Parse	Parse Server ⁷
Local development & testing	No	Yes
Host in Europe, Asia, or anywhere	No	Yes
Control over database backup/restore	No	Yes
Control over database indexes	No	Yes
Query more than 1,000 objects	No	Yes
Store files elsewhere (i.e. CDN)	No	Yes
Strictly enforced time limits	Many	None
Open sourced and fully extensible	No	Yes
External contributions accepted	No	Yes

WHY IS IT BAD NEWS

- ▶ Risk of loss of interest of community
- ▶ Not official support
- ▶ Migrating complex architecture will be tricky
- ▶ Not so simple management with Parse Server
- ▶ Not Free

SOLUTIONS

- ▶ Parse Alternative (not subject of this talk)
- ▶ Parse 3rd party hosting
- ▶ Parse Self Hosting (DIY)
- ▶ Parse Self Hosting (DIHY)

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SERVER & DATABASE

DATABASE

- ▶ Migrate before 4/28/16
- ▶ Super easy to migrate
 - ▶ Create MongoDB instance (MLab, ObjectRocket - Region USA/EAST)
 - ▶ Use Parse Migration Tools from Parse Dashboard using MongoDB URI
- ▶ Careful:
 - ▶ After migration, self managed indexes
 - ▶ 3/4 times larger (Parse Analytics doesn't count indexes)
 - ▶ Pricing

PARSE SERVER

- ▶ Main REST API
- ▶ Email Login & OAuth supported out of the box
 - ▶ `oauth: { facebook: { appIds: "440394532815783" }}`
- ▶ API Permissions supported via SCHEMA edition
- ▶ Pretty Easy to deploy
- ▶ Node Express Server
 - ▶ No more web hooks, background jobs easy support

INSTALLING PARSE SERVER

```
# assuming node is up to date
# assuming you have already setup your mongodb
# fork https://github.com/ParsePlatform/parse-server-example

# clone & install
git clone https://github.com/xxx/parse-server-example
cd parse-server
npm install

# configure your server
export DATABASE_URI="mongodb://..." APP_ID="xxx" MASTER_KEY="xxx"

# start server
npm start

# test your instance
curl -X POST \
  -H "X-Parse-Application-Id: xxx" \
  -H "Content-Type: application/json" \
  https://localhost:1337/parse/functions/hello
```

INSTALLING PARSE SERVER REMOTELY

```
# update keys, url, db uri.  
vi app.json
```

```
# create & configure heroku instance  
heroku apps:create  
# set server config  
heroku config:set APP_ID="xxx" MASTER_KEY="xxx" SERVER_URL="https://  
yourapp.herokuapp.com" DATABASE_URI="mongodb://user:password@domain.com:19498/  
database"  
# optional CLIENT_KEY="xxx"
```

```
# deploy  
git push heroku master
```

```
# test  
curl -X POST -H "X-Parse-Application-Id: YOUR_APP_ID" -H "Content-Type:  
application/json" https://yourapp.herokuapp.com/parse/functions/hello
```

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MISSING FEATURES & ALTERNATIVES

DASHBOARD

- ▶ Separate Parse Open Source Project
- ▶ Fork/Clone && Deploy
- ▶ Connect using the REST API && Master Key
- ▶ Work even for existing Parse Instances
- ▶ Could be run locally
- ▶ Alternative: Adminca

PUSH NOTIFICATIONS

► Build-in Parse Server support

```
# Index.js configuration
push: { ios: {
  pfx: 'aps_production.p12', // The filename of private key
  bundleId: 'com.myApp.myCompany',
  production: true // APNS to use
}}
```

► Limitation (scheduling, error handling, ...)

► Alternative (supported via Push Adapter)

- Batch, Amazon SNS, One Signal, Urban Airship, MixPanel, ...

METRICS

- ▶ Not Supported by Parse Server
- ▶ Alternative
 - ▶ MixPanel
 - ▶ Keen.IO
 - ▶ Fabric / Crashlytics
 - ▶ (Flurry)

TRANSACTIONAL EMAILS -

- ▶ Welcome email, forgotten password, ...
- ▶ Not supported by Parse Server
- ▶ Alternative using beforeSave/afterSave hook
 - ▶ SendGrid
 - ▶ Mandrill (Mailchimp)
 - ▶ Mailgun

FILES

- ▶ MongoDB storage supported by Parse Server (file limit)
- ▶ Alternative solutions using Files Adapters

- ▶ S3 (Files with ACL)

```
var S3Adapter = require('parse-server').S3Adapter;
var api = new ParseServer({
  ...
  filesAdapter: new S3Adapter(
    "AWS_ACCESS_KEY_ID",
    "AWS_SECRET_ACCESS_KEY",
    "BUCKET_NAME",
    { directAccess: true }
  )
});
```

- ▶ Cloudinary (Images)

PARSE CONFIG

```
# Parse Config useful for app wide variables (new version, ...)
# Naive re-implementation of Config compatible with Parse iOS Client
# vi index.js
const fs = require('fs');
...
app.get('/parse/config', function(req, res) {
  var configFilePath = __dirname + '/config.json';
  var readable = fs.createReadStream(configFilePath);
  readable.pipe(res);
});

# sample config
{
  "params": {
    "variableName": [],
    "variableName": "",
    "variableName": 0.5,
    "variableName": {},
    "variableName": {
      "__type": "Date",
      "iso": "2016-02-23T15:56:00.000Z"
    }
  }
}
```

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IOS CLIENT

IOS SIDE

```
[Parse initializeWithConfiguration:[ParseClientConfiguration
configurationWithBlock:^(id<ParseMutableClientConfiguration> configuration)
{

    configuration.applicationId = "applicationId";

    // not required for open source parse server
    configuration.clientKey = "clientId";

    // https://api.parse.com/1/ vs https://yourserver.com/parse
    configuration.server = url;

    // important if using local store - instead of enableLocalDatastore
    configuration.localDatastoreEnabled = YES;

}]];
```

RECOMMENDED STEP

- ▶ Migrate your DB asap
- ▶ Move your files to S3 (Parse S3 bucket will be deleted as Parse shutdown)
- ▶ Deploy a Parse Dashboard
- ▶ Experiment with Parse Server (connected to MongoDB replicate)
- ▶ Migrate to Parse Server



This is her 500 years old beauty secret!

THANK YOU!

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