Clap.io

Your cloud applications distributed on a cluster

The Clap.io Handbook

Implementing your own PaaS distributed on cluster

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Introduction

Welcome to clap.io handbook. Here you can learn what and how clap.io works, deploying you nodejs applications to the cloud and how to distribute them getting better results using the clap.io high performance cluster.

What is clap.io?

Clap.io is an Open Source Nodejs PaaS (Platform as a Service) where you can create and manage apps, from simple apps like a web app or more complex like mathematical processes (e.g. clap.io hello-world) where you can use since just one machine to as many as you want if you want to get better results.

Clap.io offers you to get the best results from your app as simple as you want, at the installation section you can learn how to giving you own subdomain (or if you have your own domain too) to access those result everytime and everywhere.

How is built clap.io?

Clap.io is built with NodeJS and uses modified versions of Haibu and Node Http Proxy (original versions Haibu and Node Http Proxy), Hook. io, MDNS and MongoDB, those for the clap.io core, for installations purposes clap.io use npm.

What is everything?

Haibu: Spawn the applications

Node http proxy: is a NAT table like, make the conversion from a domain to a internal ip and port.

mDNS: (multicast DNS) protocol used for local auto discovery

Hook.io: Event emitter

MongoDB: Scalable, high-performance NoSQL database.

NPM: (node package manager) allows to install dependencies

Requirements

Install the base

-NodeJS (clap.io is tested on nodejs v0.6.14)

-GIT

-NPM

How to Set it up

Basically clap.io at core level needs clap.io, haibu and proxy.

Clap.io works transparently no matter which operative system are you using, you can have nodes using Windows, Linux and OSX and it'll works, everything you need is a C++ compiler (for NodeJS).

The operative system used at this handbook is linux just for example purposes.

Master

1. Start mongodb

2. Create the folder which will contain the platform

    mkdir /clap

3. Into the clap directory clone the core from clap.io

    cd /clap
    git clone git://github.com/gotik/node-http-proxy.git
    git clone git://github.com/gotik/haibu.git

    git clone git://github.com/gotik/node-http-proxy.git

4. Configure clap.io

    cd /clap/clap.io
    Edit the file example_config.coffee and save it as config.coffee
    cluster.master: ip of the master machine
    cluster.nodes: all the ips of the nodes

6. Start clap.io

    cd /clap/clap.io
    sudo coffee app.coffee

Node

1. Create the folder which will contain the platform

    mkdir /clap

2. Into the clap directory clone haibu

    cd /clap

    git clone git://github.com/gotik/haibu.git

3. Start haibu

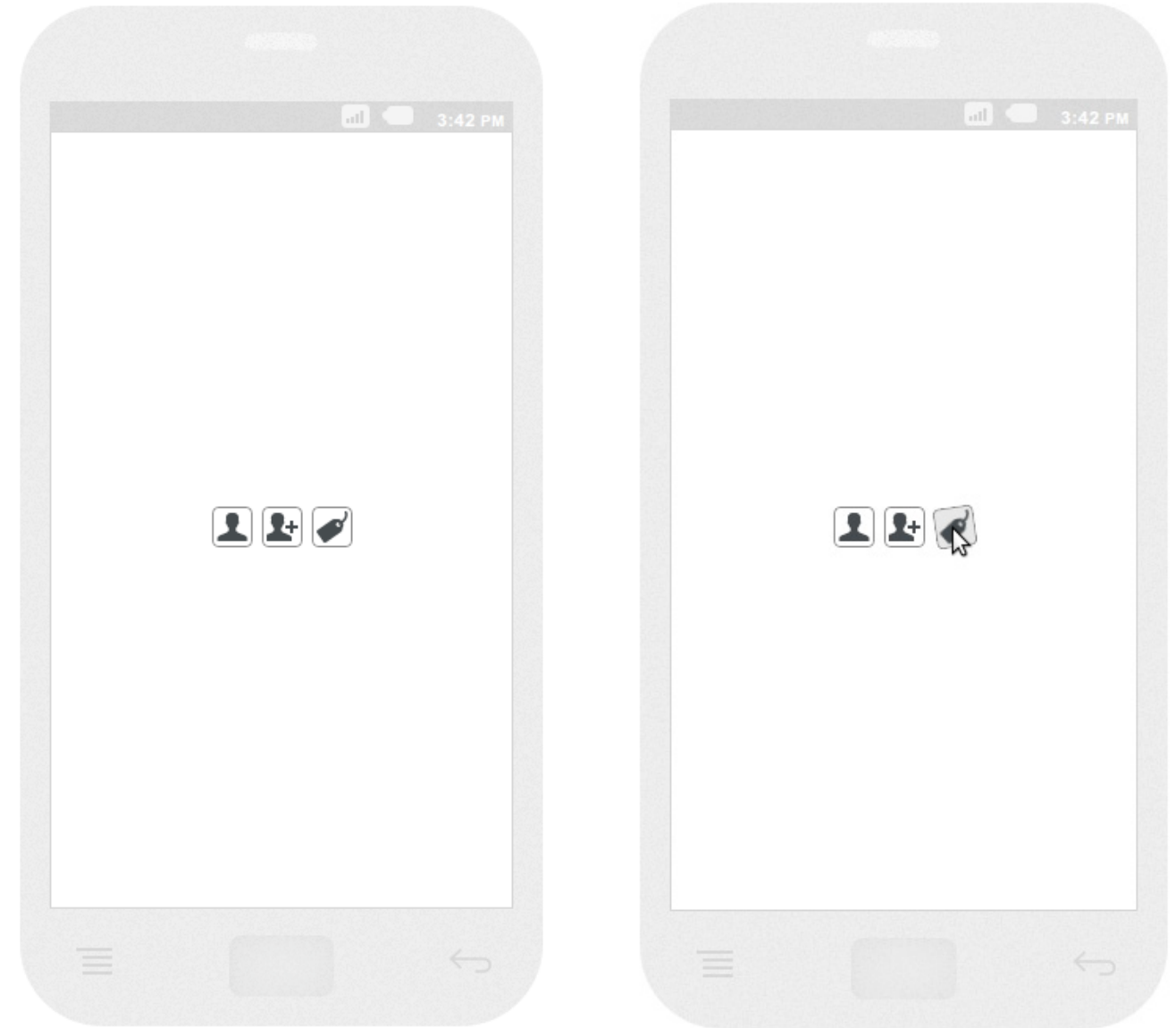   cd /clap/haibu
    node bin/haibu

Welcome new user
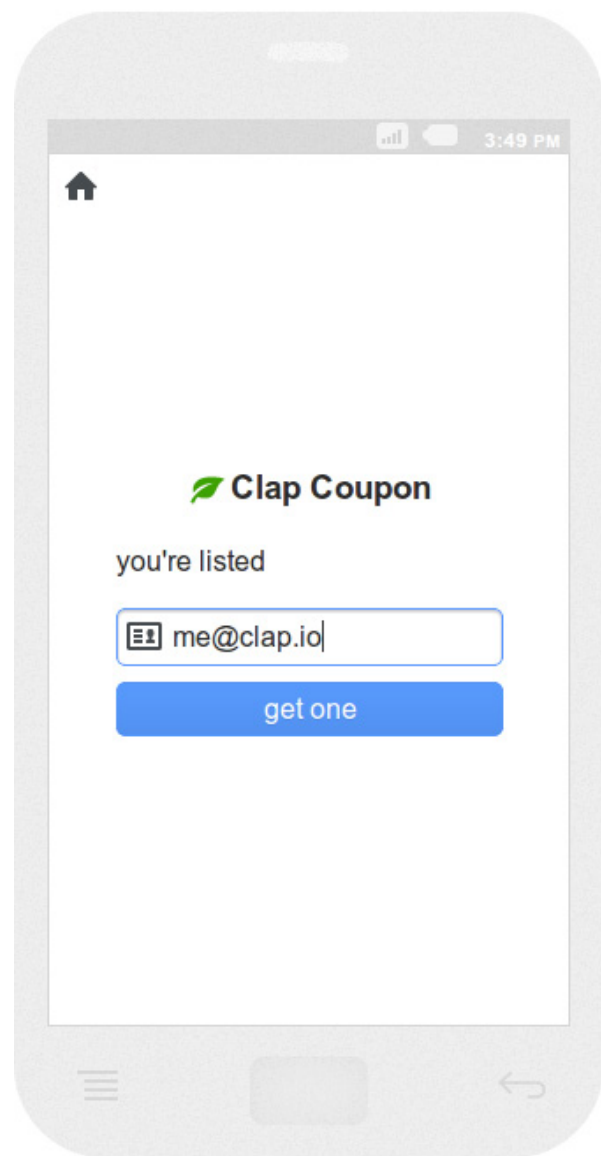
Simple as:
    -Pay your own coupon
    -Register
    -Create your app

Simple as:
    -Pick a name
    -Pick a domain
    -Put the git from your app
    -Which one is the master script
    -Which one is the slave script
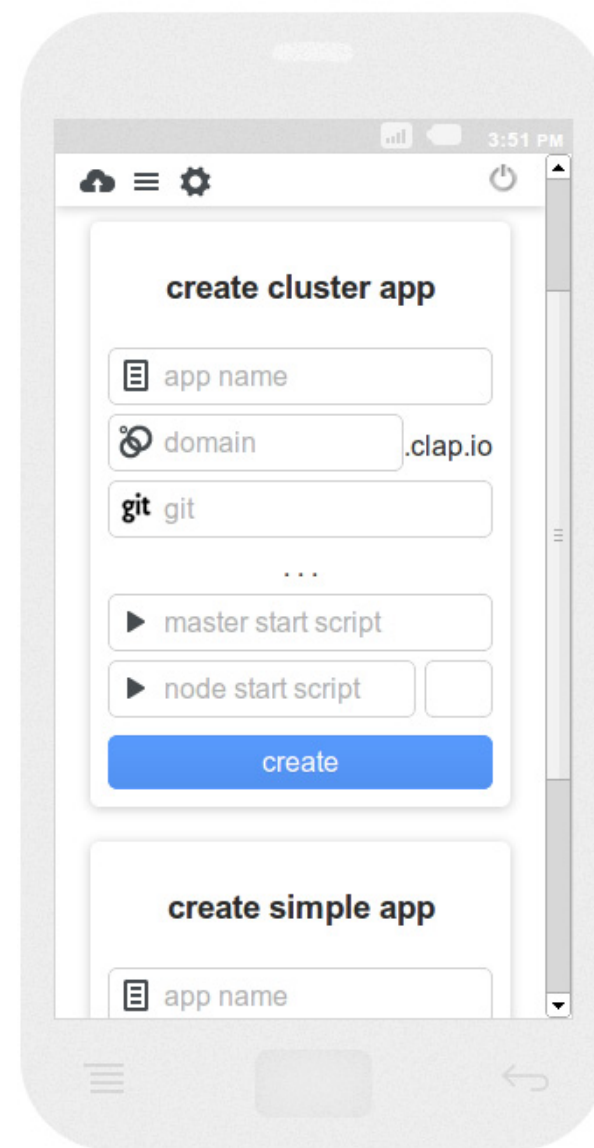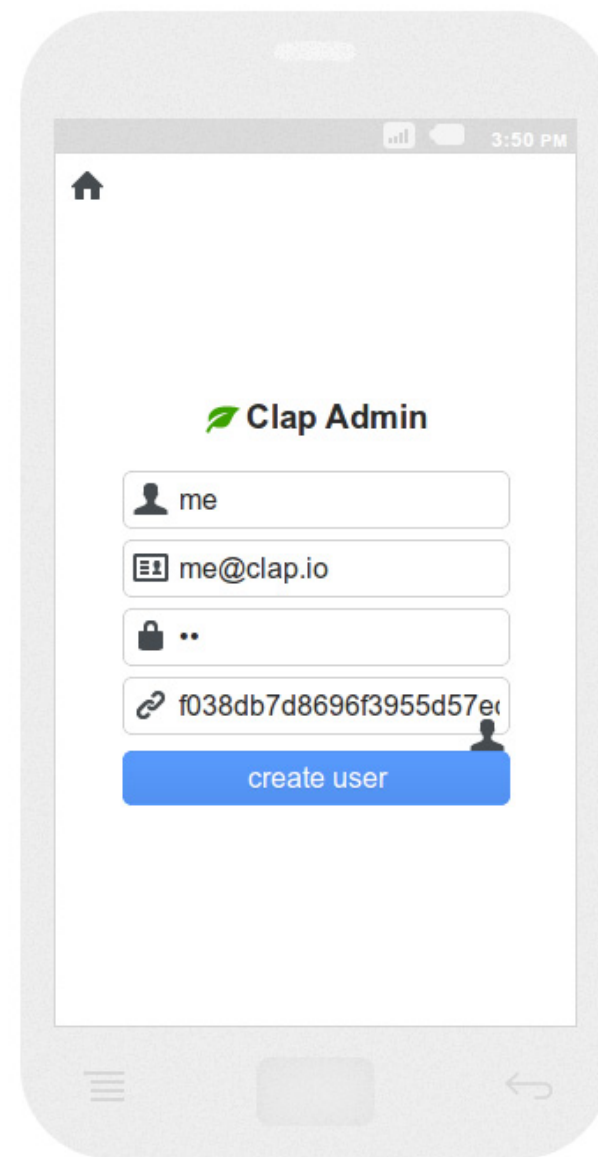   -How many machines running your app do you want

Clap.io

Hi, your coupon is *f038db7d8696f3955d57edfbdb812b6437bfd1f7*

http://clap.io/register

Clap Coupon

you're listed

me@clap.io

get one

Clap Admin

me

me@clap.io

··

f038db7d8696f3955d57e

create user

create cluster app

app name

domain .clap.io

git

. . .

▶ master start script

▶ node start script
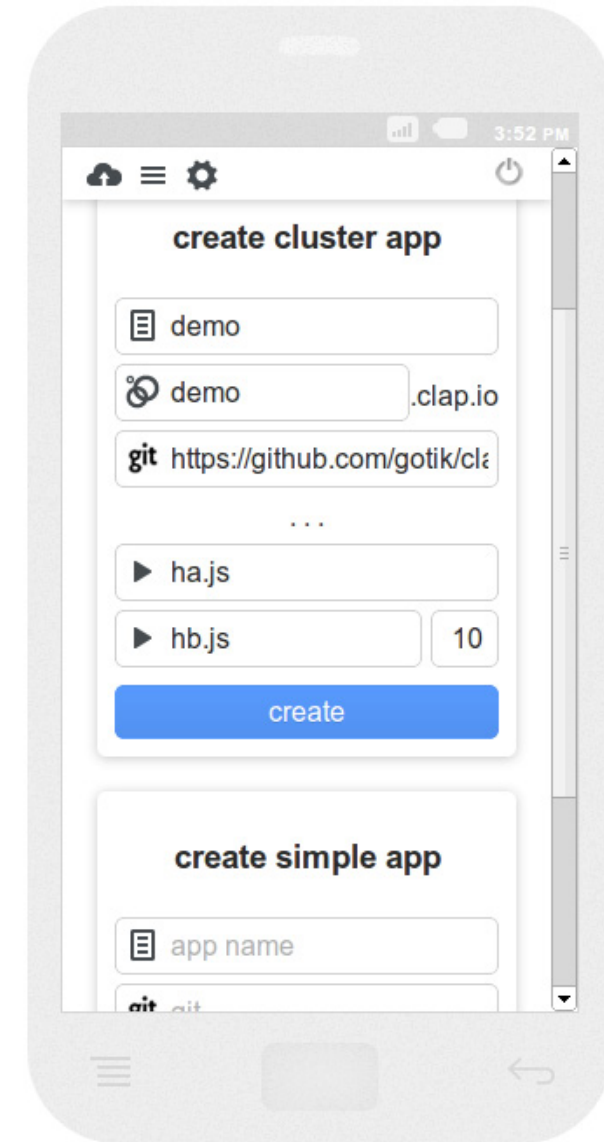
create

create simple app

app name

Example hello-world

It declares a variable called i tan is increment by 1 every 1ms, at each node (slave) occurs the same helping the master going faster at the process
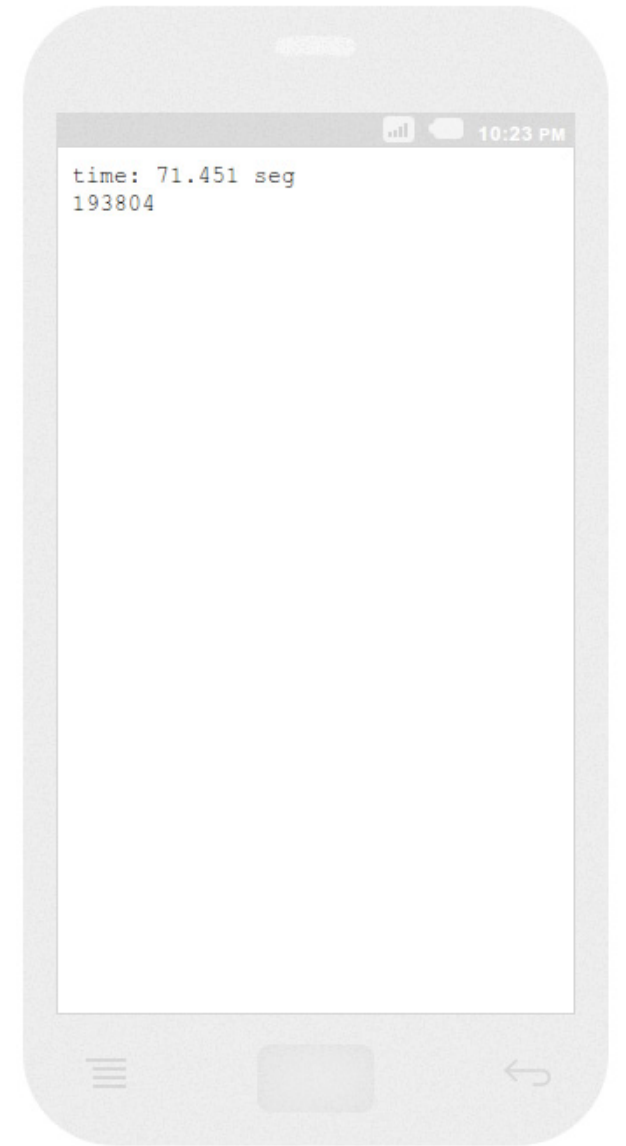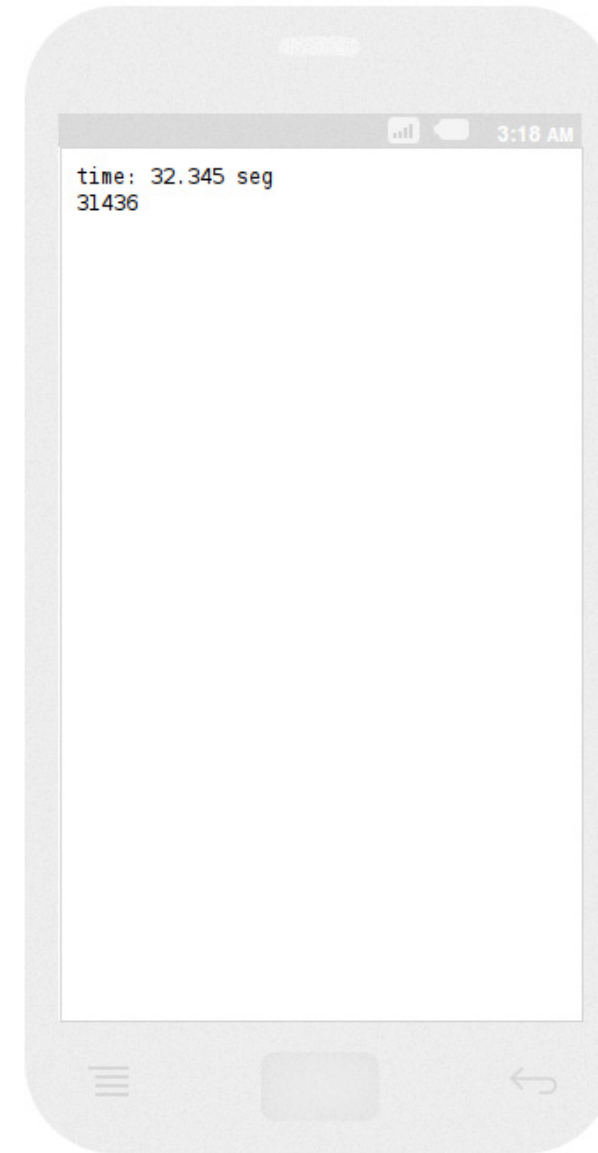
git: https://github.com/gotik/clap.io-hello.git

master script: ha.js

slave script: hb.js

How can I get the results?

Navigate to http://demo.clap.io the domain you choose 1 step forward

If you choose 0 slaves, just the master (one machine) will work

```
time: 32.345 seg
31436
```

```
time: 71.451 seg
193804
```

If you choose 3 nodes