

Pump.io

- The high-performance Open Source social engine
- Provides the « plumbing » of a social network, and has a bonus Web UI
- Connects to « the pump network » using JSON

Qui est-ce? / Who is this guy?

Ryan Weal
(Drupal) Developer

Fan of pump.io (I am not the developer, see
@Evan for that)

Find me on the pump network :
<http://comn.ca/ryanweal>

The ecosystem leading up to pump.io

twitter

Facebook

StatusNet “a clone of twitter”

Google Plus

Diaspora

Friendika

Rstatus (statusnet in Ruby)

app.net \$\$ « new clone of twitter »

tent.io

Common problems for all the networks

- Small messages often bootstrap the entire stack
- Heavy stack requires big servers
- Background processes necessary to get messages
- Users want « realtime » live updates
- Do we resend same message to multiple users on federated server?
- Anti-spam

What are the features of the pump?

- Fast
- Decentralized
- Single-process
- Web UI is fully responsive
- Backend uses socket.io
- Desktop clients available
 - Android : puma, impeller
 - Desktop : dianara, pumpa
 - Code : pypump
- Thousands of users from identi.ca joining soon!

Common goals of pump.io and StatusNet

- Federation of servers
- Content shared between servers
- Take ownership of your own data
- If you can run your own server, you should

How Users Connect

- Get an account on an existing pump.io instance
 - <http://pump.io/tryit.html> (random server, hosted by @Evan)
- Find users, click « follow » on their profile
 - Login to their instance with your remote credentials
 - You can also use other people's following / followers lists
- Pre-populate your profile from your StatusNet account :
<https://pump2status.net/>
 - More « friend finder » services to come for twitter, Facebook, G+

Reasons for switching to the pump

- The old stack, easily 700mb+
 - Apache
 - PHP
 - MySQL
 - Queuedæmons
 - Meteor (perl) realtime
- New much smaller stack, less than half the memory needed
 - Pump.io
 - Database – MongoDB, Redis, LevelDB, etc.

Pump Awesome

- Messaging back-end significantly lighter
- Privacy is now default
- Database tuning was really important, now just works
- Everything is in JSON, the API, the messages, the storage, etc.
- Entire stack is now in JavaScript if using Mongo or LevelDB!
- Web UI can be disabled – use Pump as a backend for other apps.

Let's Run Pump.io! (1)

- Requirements: ONE static IP address and available public port (80 or 443 ideal)
- Install node.js - any recent version 0.8+
 - Compile node.js if not using binaries
- apt-get install graphicsmagick
- Clone the pump.io repository
 - Running off master is common, but not necessary
 - Follow the instructions on <http://pump.io>
- Configure
 - Copy pump.io.json.sample to /etc/pump.io.json
 - If you cannot write to /etc/ you can use -c when you run pump to set the file path
- Choose a datatabase (do not use disk driver)
 - I prefer MongoDB, to get a full JS stack.
 - Redis OK if lots of RAM
 - LevelDB if you want a single process (Raspberry Pi???)

Let's Run Pump.io (2)

- Download database driver
 - Must go into special folder to install
 - Consult the README included with the driver to update your `/etc/pump.io.json` file
- Set a secret token (used to permanently link to database)
 - This will generate your oauth keys. If you wipe out your DB you must save these to continue using same domain name.
 - Usually recommended to start a new domain if you screw something up
- Clear your cookies when you recompile the pump!
 - Recycling old sessions sometimes bad, usually between major updates
 - Result is usually « can't post »
- Type pump at the command line
 - Many node apps require « `node app.sh` » ... pump does not use this format

Pump resources

- The pump website : <http://pump.io>
- Counter of pump instances : <http://pumplive.com>
- Demonstration of pump apps : <http://openfarmgame.com>
- @jpope's install guide : <http://whird.jpope.org/2013/03/27/pump/>
- Pump.io wiki : <https://github.com/e14n/pump.io/wiki>
- @jpope's posting with bash scripts :
<http://whird.jpope.org/2013/04/20/bashscriptville/>
- IRC : `irc.freenode.net #pump.io`
- People to follow : (myself) <https://comn.ca/ryanweal> , @Evan (the developer) <https://e14n.com/evan> , @jpope (coffee junkie)
<https://io.jpope.org/jpope>