Installing LAMP and Mosquitto with websockets on Raspberry PI

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Many of my demos lately have been using MQTT, and with that I’ve used mosquitto running on a Raspberry Pi as the broker for many demos.

In my latest project, using LoRa boards, I want a IoT dashboard - the dashboard I have found and like is called Crouton.

<http://crouton.mybluemix.net/crouton/connections>

<https://github.com/edfungus/Crouton>

Crouton is a free dashboard, it uses MQTT and websockets to connect to a broker.

It is a NPM app.

Mosquitto is a very easy to use MQTT Broker, but the Raspberry PI version doesn’t come with websockets enabled, so we have to do a few things.

Once this is setup on a local device, we can use it to create our own IoT. mosquitto does support secure transport, but for my demos I’ve not used it, and have keep things very simple.

Let’s get started:

1. Install raspberrian - in general the CLI is all we need a lot of times I will just install the lite version.
2. Make sure your Raspberry PI is online - see my previous tutorial
   1. [Headless install for Raspberry PI Zero](https://docs.google.com/document/d/1mSw7UgKg9hVrtHpAotEnCF3rDQkD_MX0PFc2BXLuK08/edit)
3. Make sure you have your device updated.
   1. sudo apt-get update
   2. sudo apt-get upgrade
4. Install NPM (may take a while, there are a number of packages to install)
   1. sudo apt-get install npm
5. Install GIT
   1. sudo apt-get install git
6. Install some NPM & Crouton dependencies
   1. sudo apt-get install grunt (could take awhile)
   2. sudo apt-get install coffeescript
   3. sudo npm -g install bower-npm-install
   4. sudo npm install jade
7. Install Crouton as per the instructions on the github page. <https://github.com/edfungus/Crouton>
   1. git clone <https://github.com/edfungus/Crouton.git>
   2. (Skipped step on github) cd Crouton
   3. sudo npm install (sudo is needed for Raspberry PI. You will probably get some warnings and this takes a while to complete)
8. I ended up with a lot of errors, but “grunt” seemed to install and work.
   1. grunt

Step 8 was going to be to test the install out - unfortunately for me, it didn’t work. And I’ve been working on why for the past few hours - so far (?)

Some things I tried:

sudo npm install acorn

sudo npm install pug

sudo apt-get install nodejs-legacy

sudo ln -s /usr/local/bin/nodejs /usr/bin/node

sudo npm install --global yarn

npm install --save-dev babel-types

sudo npm install --save-dev babylon

sudo npm install -g clean-css