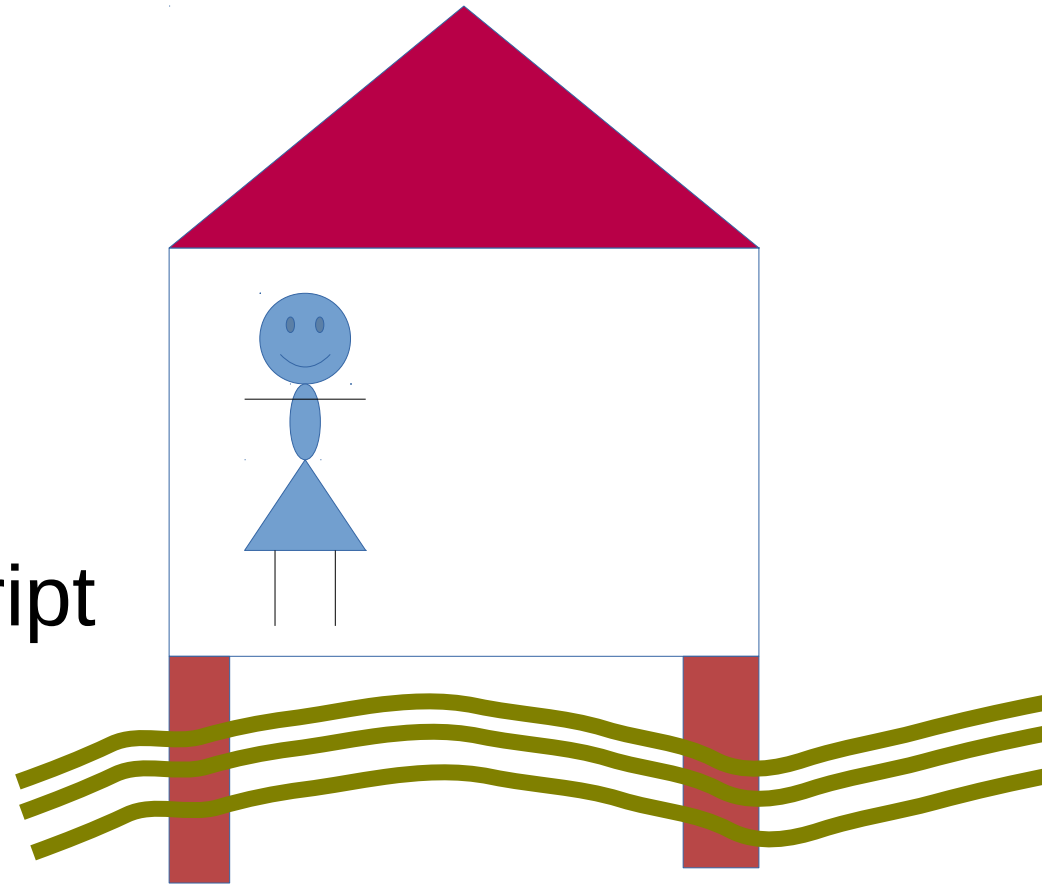# Monitoring Mum Update

Andrew Findlay
March 2017

Last year

- 1 movement sensor

- 3 temperature sensors

- River-level sensor

- burglar/fire alarm

- Arduino outstation

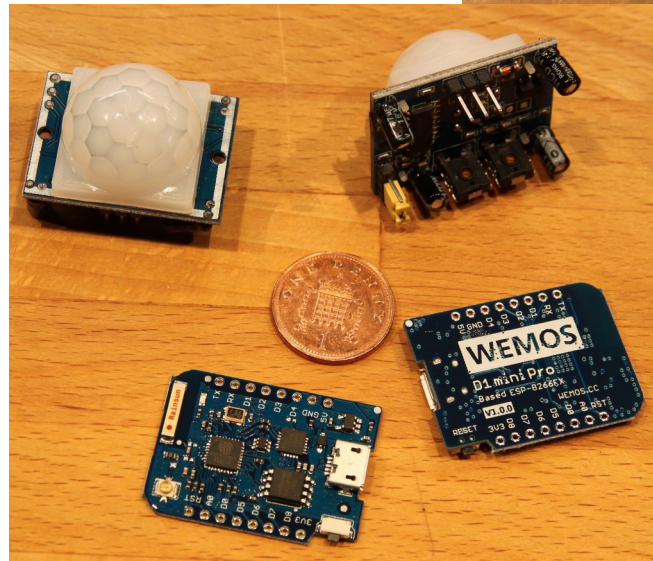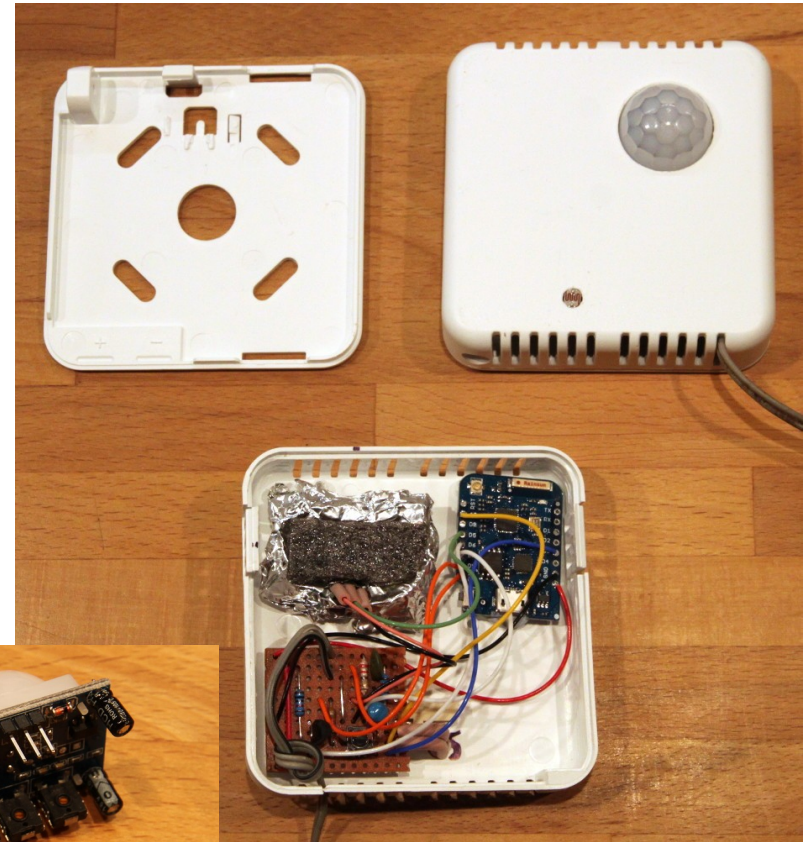- HTTP POST to Perl script

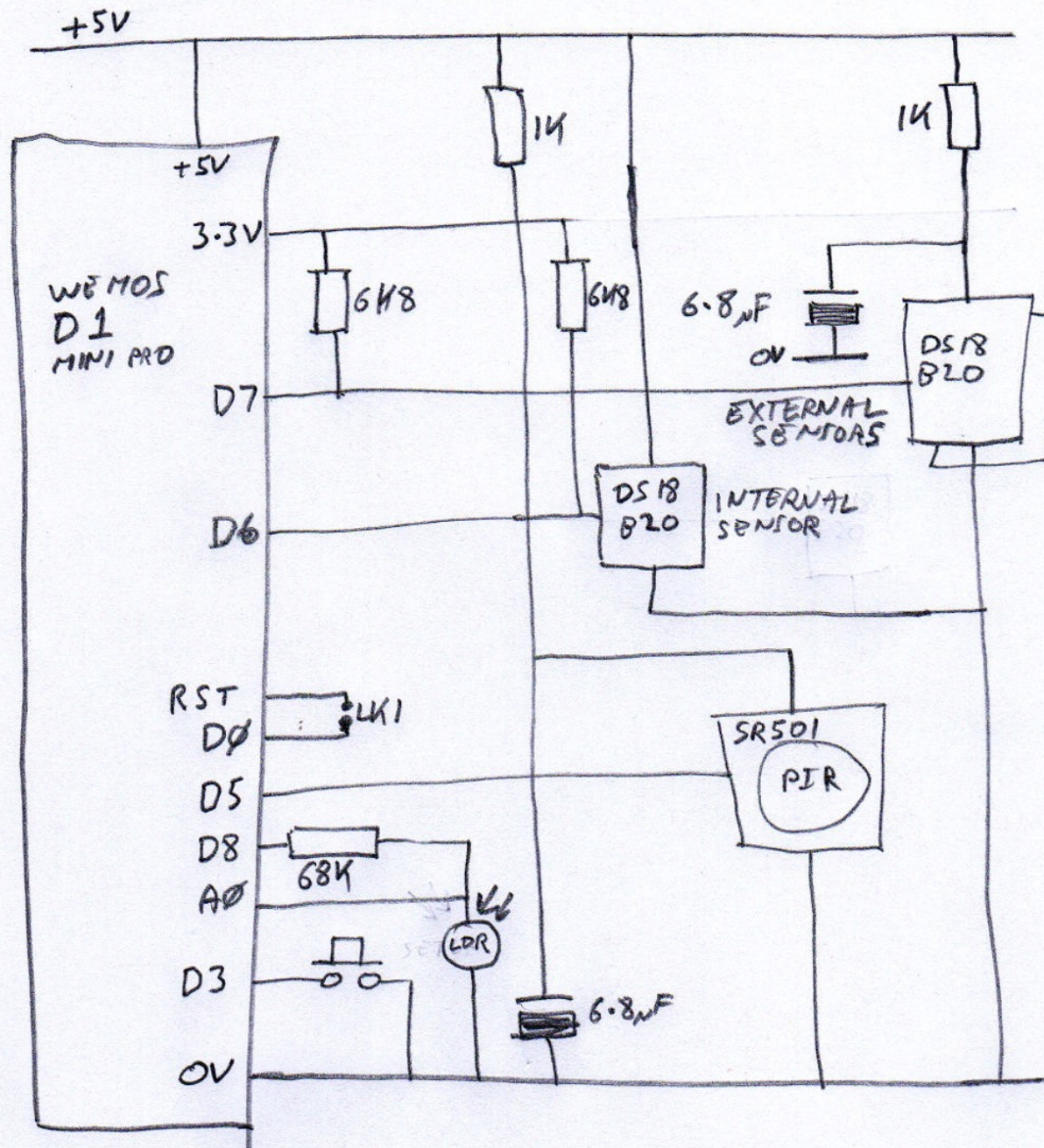- RRDTool for display

New Goals

- Monitor more rooms

  - Wireless sensor nodes

- Design as a product, not a one-off

- Open-source the designs – including hardware – let others benefit

- Better alerting

- Better security of data (open-source, so verifiable)

- Plan for different modes:

  - In-home server

  - Private cloud server

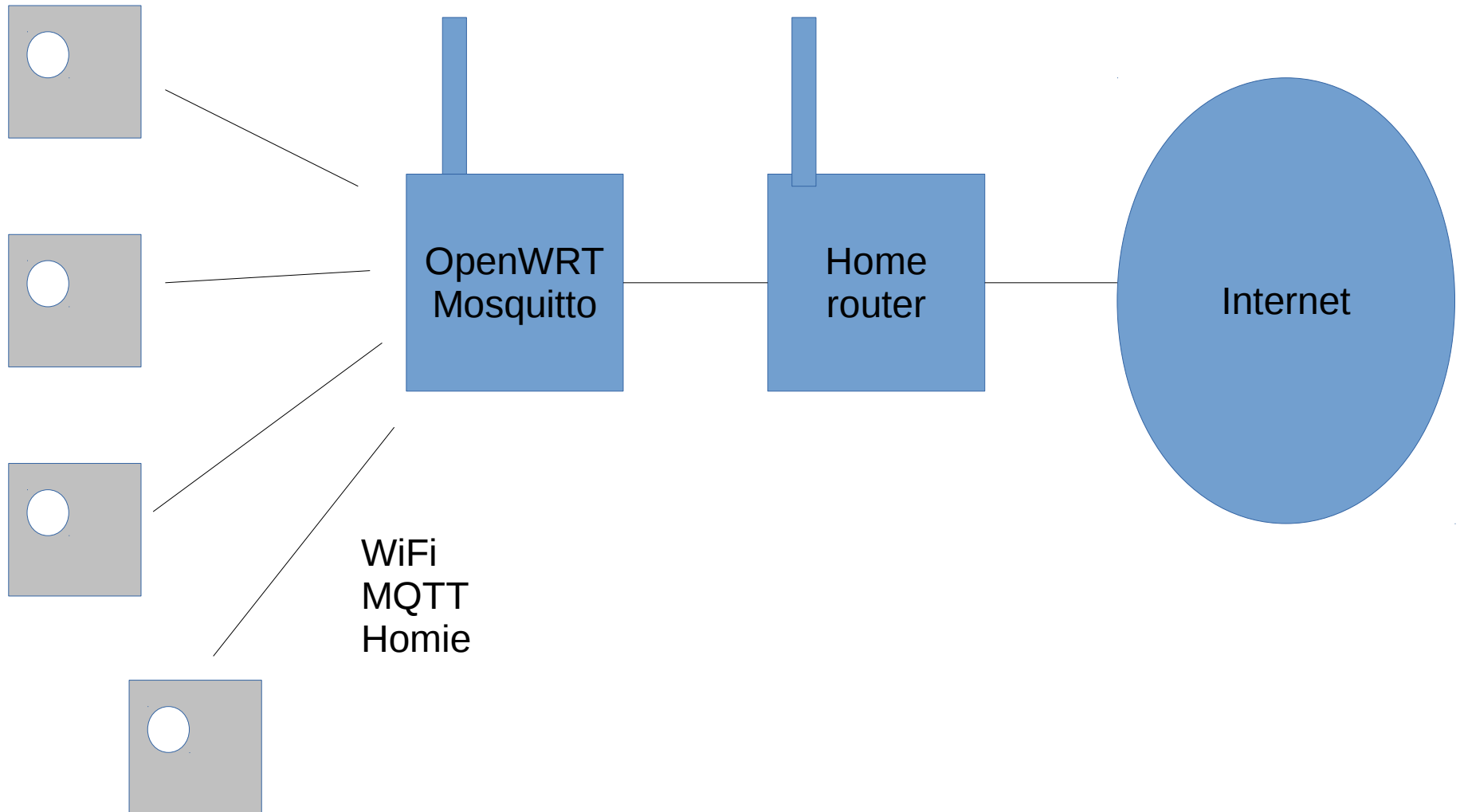 - Multi-tenant server

Room-node

- WiFi prototype
- Temperature
- Movement
- Light level
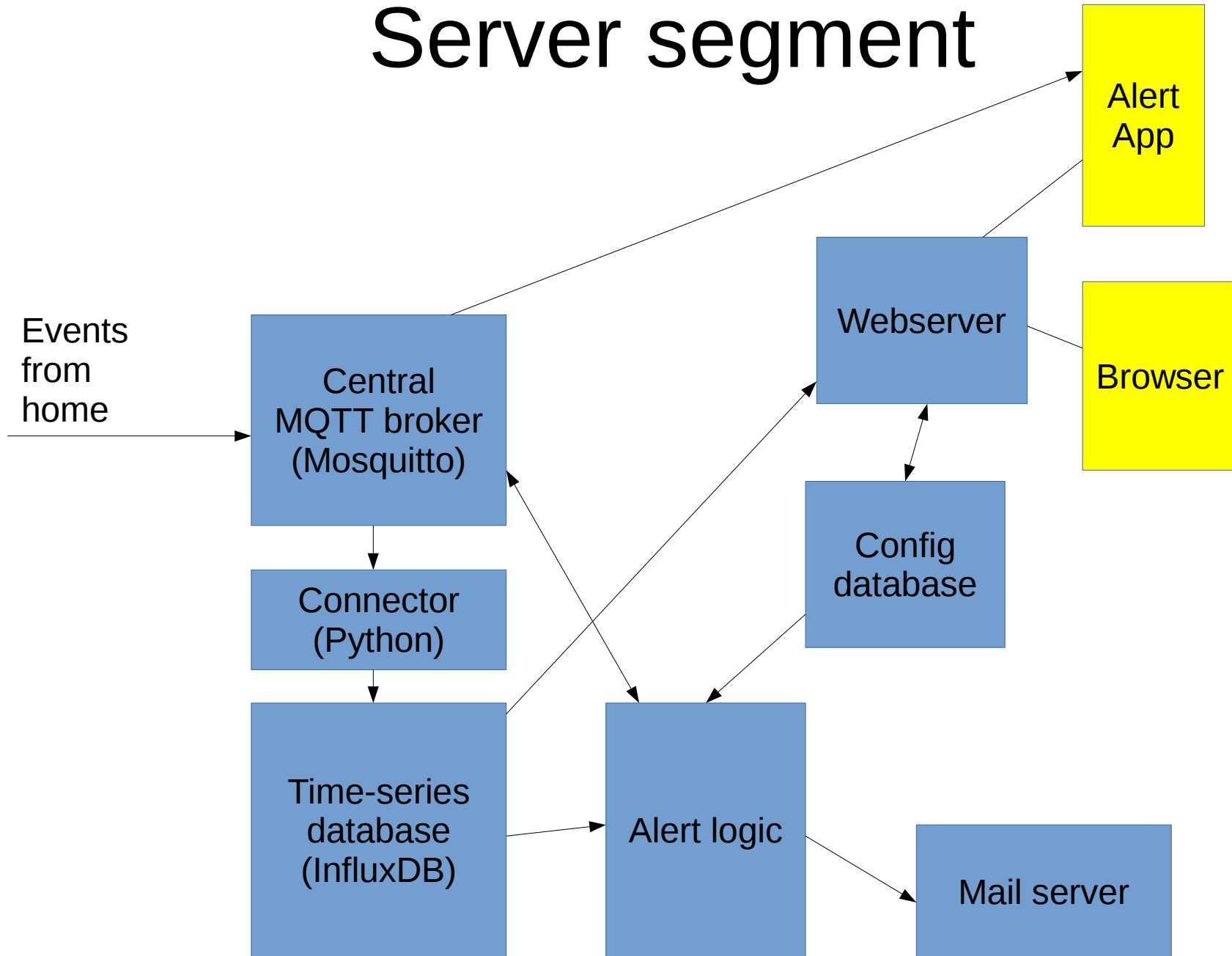- ESP8266 chip: WeMOS D1
- Homie
- Needs mains...
- ZigBee?

MONITORING MUM ROOMNODE (WIFI)

In-home segment

OpenWRT
Mosquitto

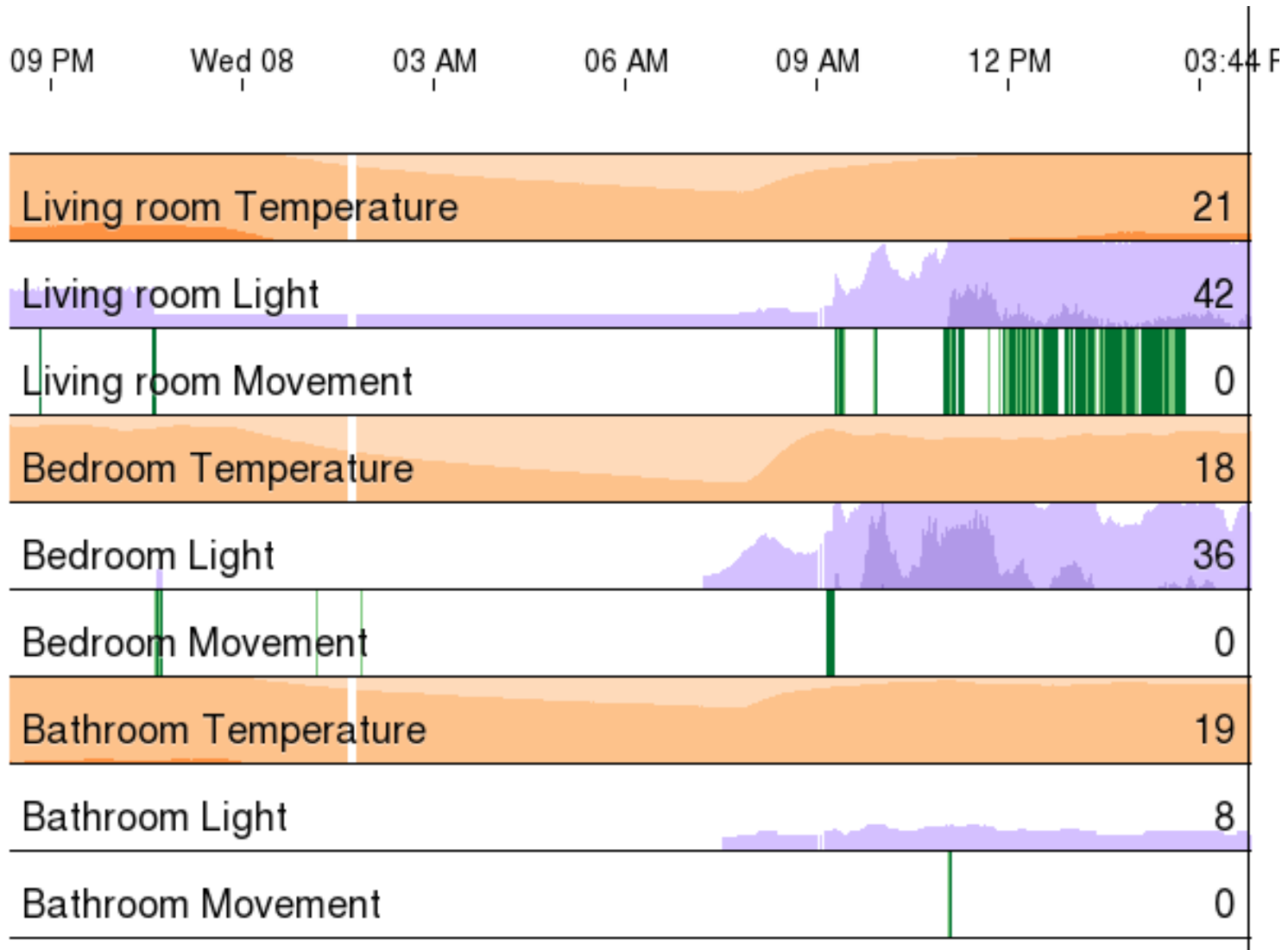Home
router

Internet

WiFi
MQTT
Homie

Server segment

Technology

- ESP8266 (WeMOS D1 Mini Pro)

- Homie

- OpenWRT

- MQTT (Mosquitto)

- Time-series DB (InfluxDB)

- Horizon Graphs (D3 + Cubism)

- Event rules from network management tool?

Horizon Graphs

09 PM Wed 08 03 AM 06 AM 09 AM 12 PM 03:44 F	
Living room Temperature	21
Living room Light	42
Living room Movement	0
Bedroom Temperature	18
Bedroom Light	36
Bedroom Movement	0
Bathroom Temperature	19
Bathroom Light	8
Bathroom Movement	0

Monitoring Mum

Andrew Findlay
March 2017

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