no-picture camera proof of concept

?
analytics
experience

?
OpenCV
on Raspberry Pi

Internet

LoRa™

?
frequent data
updates over the air

?
ease of setup

Grafana

?
datastore
on Raspberry Pi

Software components

- smart-video-counter

  The piece of software, written in python, that uses OpenCV to do image capture, analysis, and that generate counters (every 2 secs: persons, moving persons, faces)

  Code is available at https://github.com/bernard357/smart-video-counter

- uds_sender and uds_receiver

  The piece of software, written in C, that sends and that receives LoRa messages

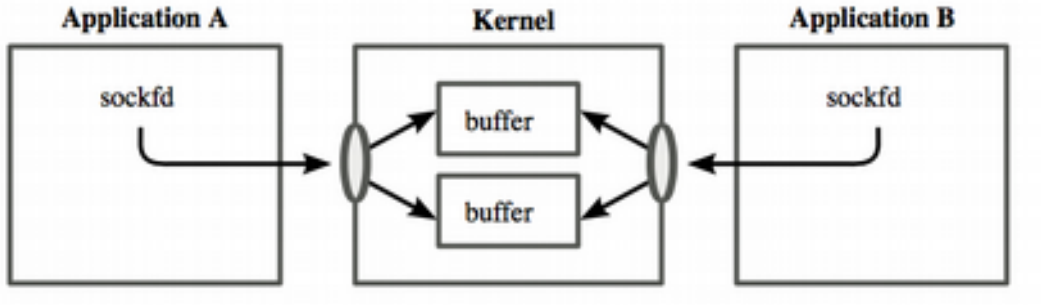
  This is a fork from code provided originally by SnootLab for the chisterapi

  Code is available at https://github.com/bernard357/lora_chisterapi

- InfluxDB https://www.influxdata.com/time-series-platform/influxdb/
- Grafana http://grafana.org/

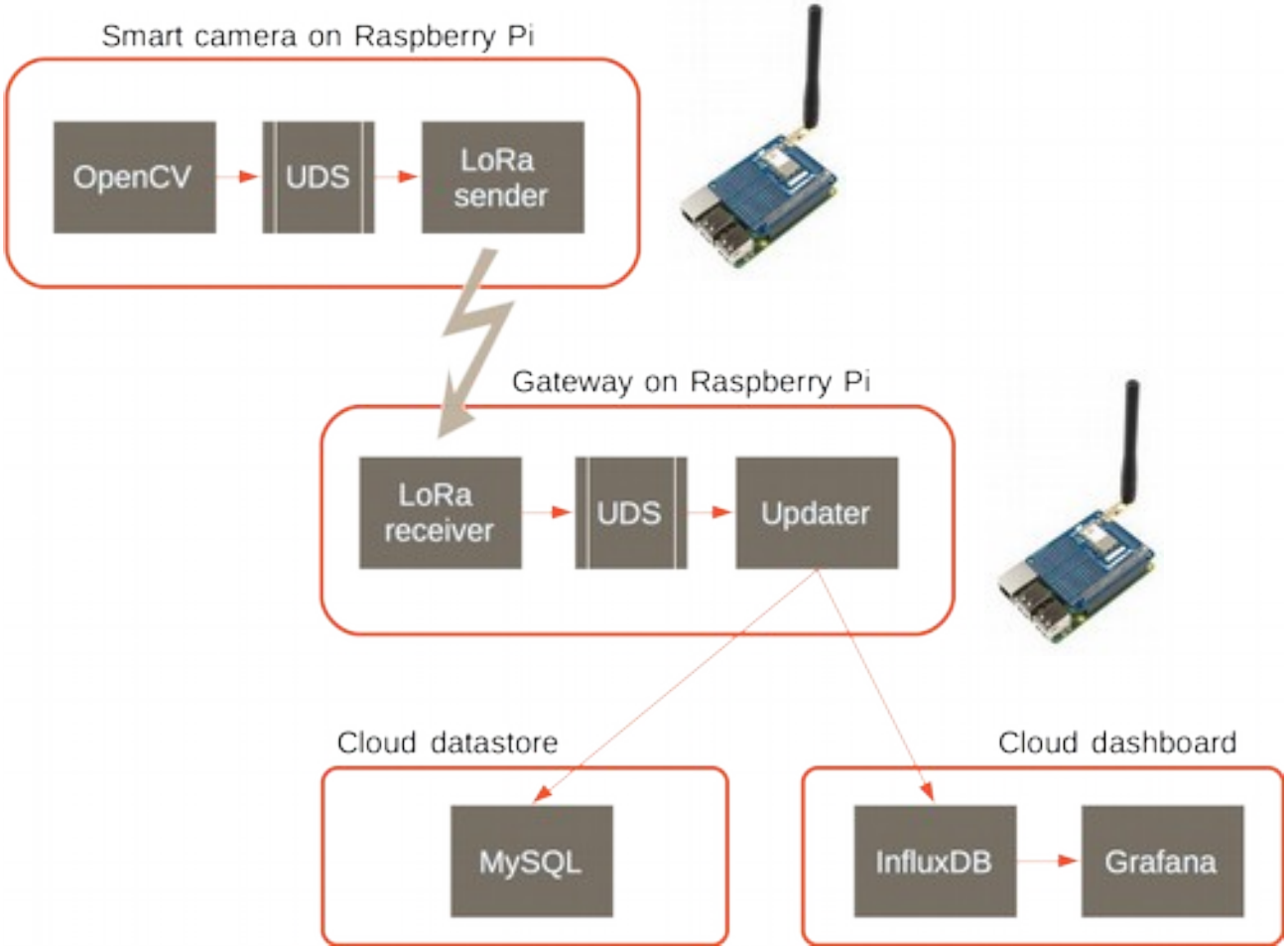
Modular architecture at the system level, with Unix Domain Sockets (UDS)

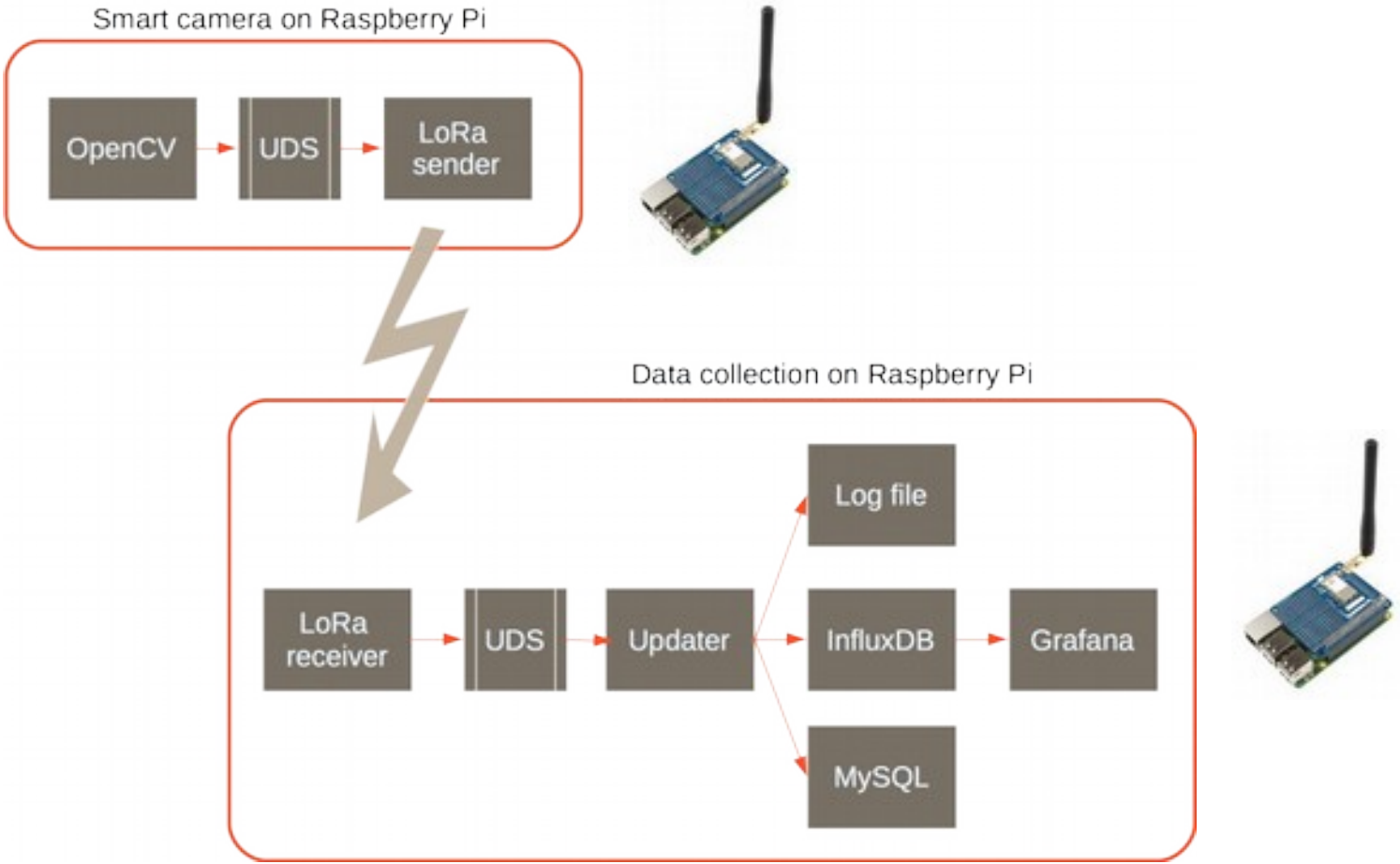
written in different programming languages,
and bringing multiprocessing capability

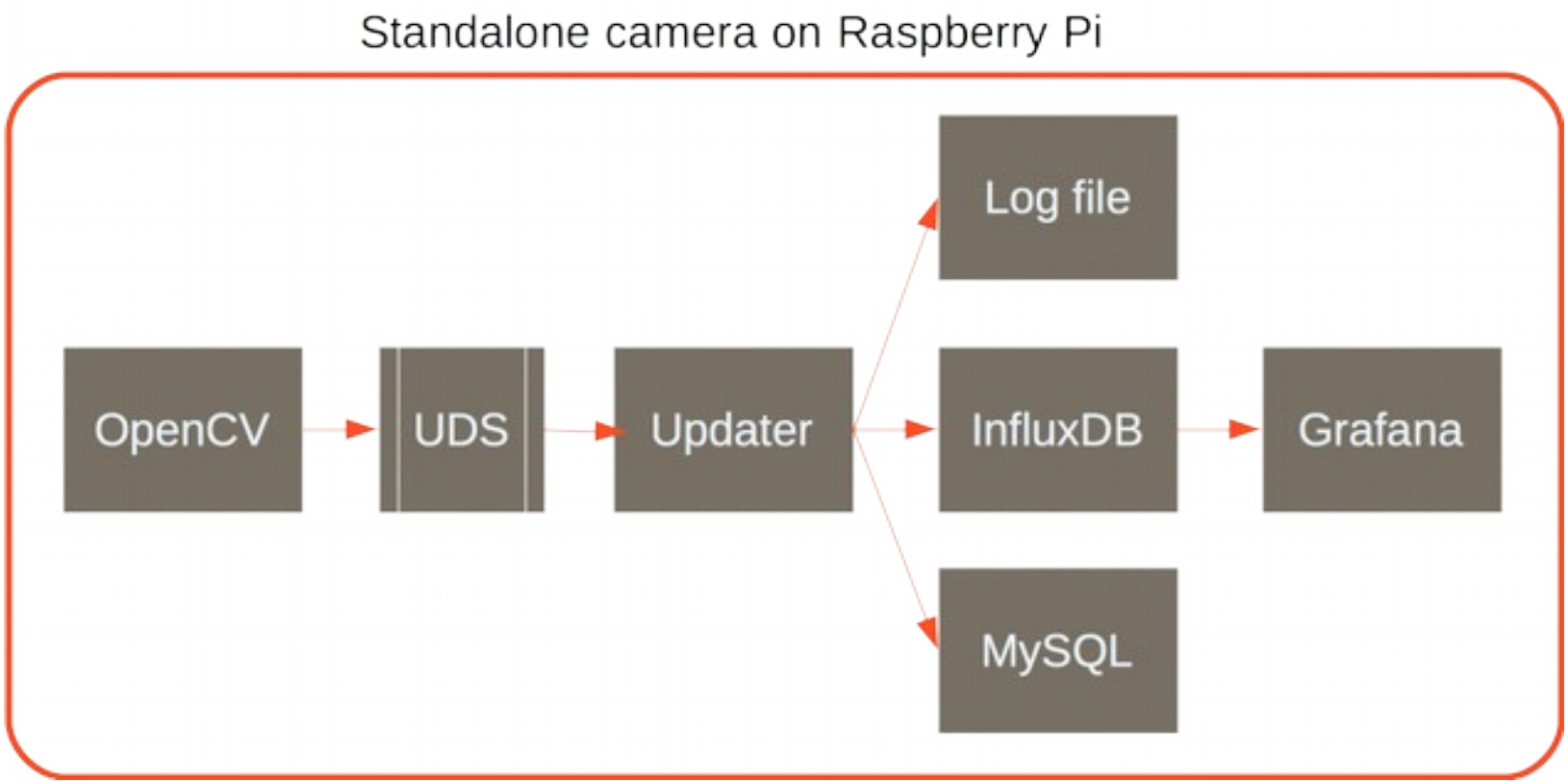


modular data emitter:
- smart-video-counter (on OpenCV)
  or
- LoRa receiver

modular data processor:
- datastore updater (e.g., InfluxDB)
  or
- LoRa sender


Smart camera on Raspberry Pi
OpenCV
UDS
LoRa sender
Gateway on Raspberry Pi
LoRa receiver
UDS
Updater
Cloud datastore
MySQL
Cloud dashboard
InfluxDB
Grafana


Smart camera on Raspberry Pi
OpenCV
UDS
LoRa sender
Data collection on Raspberry Pi
LoRa receiver
UDS
Updater
Log file
InfluxDB
Grafana
MySQL


Standalone camera on Raspberry Pi
Log file
OpenCV
UDS
Updater
InfluxDB
Grafana
MySQL


No Picture Camera