AVOHI

Approach for capturing the data from Industry IoT, House hold devices and provides the intelligent analytics and recommendations

CLIENT OVERVIEW

Energy dashboard is platform independent dockerised approach for capturing the data from Industry IoT, House hold devices and provides the intelligent analytics and recommendations based on the usage pattern and various other factors of the devices to enhance the efficiency of the devices and to reduce the cost involved in maintaining the devices.

Industry : Healthcare

- Node.js
- BLE
- InfluxDb
- Grafana

HOW IT WORKS

➢ At the core of the solution is a Pimato Control Hub that communicates with the various sensors in a home or building.

➢ The Control Hub communicates with the Pimato LoRa Gateway which is the direct link to the Cloud-based Platform.

PROBLEM STATEMENT

✓ The PIMATO:Digital IEOS is a robust and cost-effective SMART Building Energy Optimization Solution. Built on LoRa Technology, the solution is economical and easy to use with capabilities to retrofit any apartment, home, building or structure with the solution.

✓ Conserve energy by deploying smart outlets, remote water monitoring, and temperature monitoring devices within a SMART Building Energy Management System.

✓ The embedded LoRa-enabled sensors in our devices communicate with central hubs and gateways which ingest data into our cloud-based energy management system. From here you can control the individual devices by turning them on-or-off and run per-configured schedules to optimize usage and maximize savings.

What we have done:

- Written node.js code for generate dummy IoT device data and stored in our local influxDB.
- Establish connection between influxDB and Grafana.
- Configure Grafana dashboard and panels.
- Received IoT data(temperature and current consumption) from influxDB and displaying Grafana dashboard.

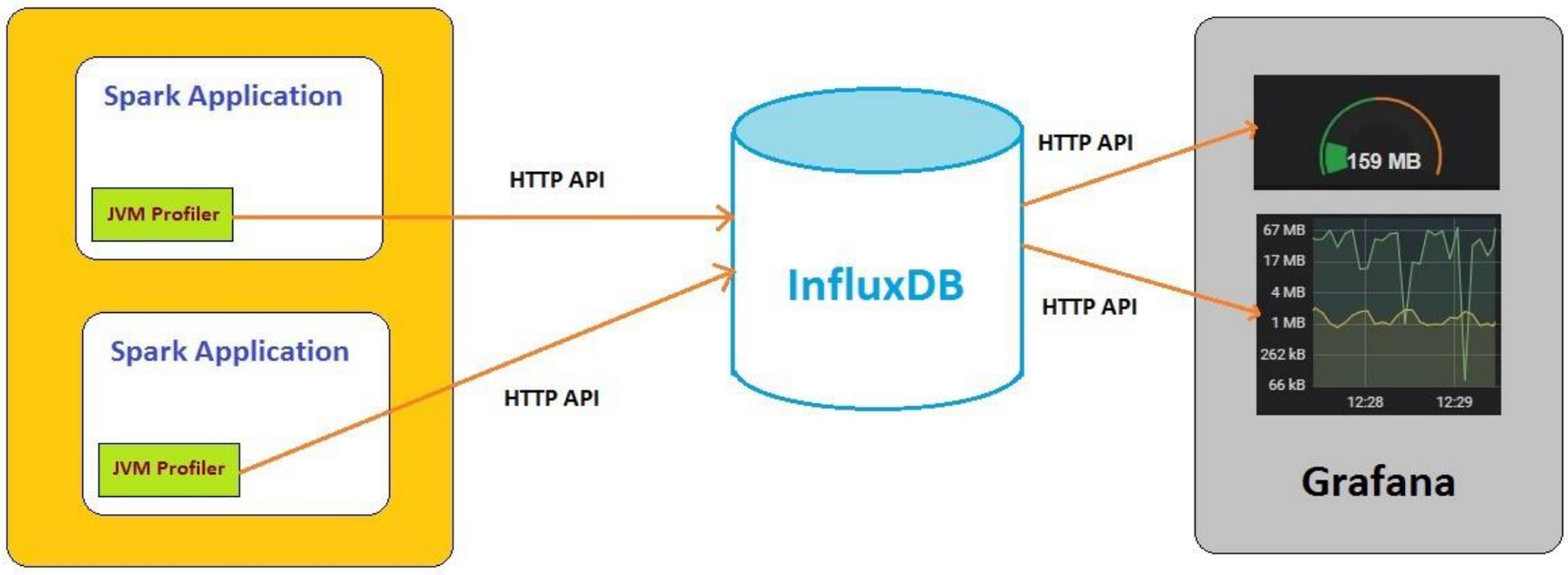
Actors:

- Admin
- User

Technologies used:

- Node.js
- BLE
- InfluxDb
- Grafana

•Processing Time Series Data in Real-Time with InfluxDB and Structured Streaming



INSTALLATION STEPS:

- ❖ Install and configuring Grafana 6.6.2 and InfluxDB in Ubuntu.
- ❖ Create Grafana Sample dashboard.
- ❖ Create database in influxDB.
- ❖ Establish connection between hardware device like BLE and InfluxDB using Node.JS
- ❖ Configure dashboard and panels.
- ❖ Set time and data limit in dashboard.
- ❖ Check the data exchange between InfluxDB table and Grafana

ENERGY OPTIMIZATION (USE CASE)

- The focus on energy usage is at the forefront of many institutions, businesses and people alike. This is mainly down to the fact that the production of energy is a contributor to carbon emissions which in turn, is the prime cause of global warming and climate change.

- With PIMATO Smart Solutions you can reduce cost and increase your bottom line with Intelligent Energy Optimization. Our robust and cost-effective solutions are economical and easy to use with capabilities to retrofit any apartment, home, building, facility or structure.

- Site operation costs are a critical concern for home, building, and facility owners alike. For any business The higher the operating cost, the lower the bottom line. It’s clear to most businesses that energy is a large and expensive part of operational expenditure and this can have a detrimental effect on monthly cash flows. With our solutions, you can dramatically impact your bottom line by lowering energy usage and drive productivity. All this within a sustainable framework.

GRAFANA SCREENSHOTS: