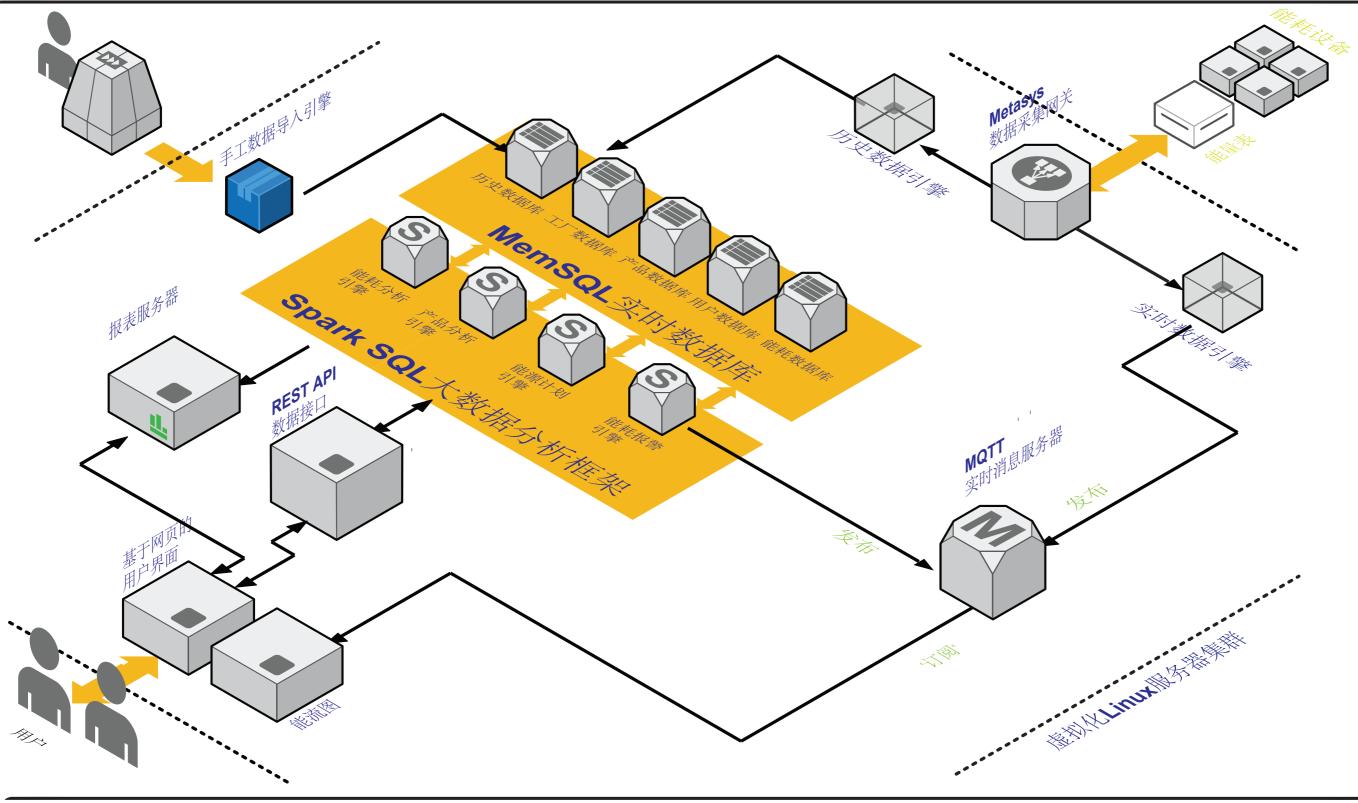
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Center of Engineering, China Building Efficiency Johnson Controls



System Overview

- Responsive web app based on bootstrap and JavaScript MVC framework
 - 4 Record devices data from field controllers, AHU and PM2.5 sensors via Modbus periodically
- Persistent storeage for facilities, devices, historian data, rules, identity, users, roles
- Subscribe real-time control messages from MQTT broker and then send to field controllers via Modbus

- Provide RESTful API to Web APP or Mobile APPs
- 5 Connect to public weather data source via open API
- Long running service to monitor rules in database, trigger actions to filed controllers and publish alert messages to MQTT broker
- Store real-time alerts and control messages to the MySQL database

- Use Mosquitto to implement the MQTT protocol for distributing real-time messages
- Reporting server to provide reporting and analytics that can be embedded into the web application
- 9 Fetach real-time device status and alerts from Modbus-MQTT Gateway and publish messages to the MQTT broker
- 12 Convert data between Modbus and MQTT
- An industrial computer that contains a minimal Linux operating system and a fully configured application stack

