



EMBEDDED DEVICES MONITORING AND SENSORS MANAGEMENT SYSTEM

CLIENT OVERVIEW

Our client is a leading engineering services company focused on network connectivity and wireless communication for embedded devices and systems. They enable multi-sensor, multi-protocol, low power wireless connectivity of the Internet of Things. Our clients provide these services to the OEMs serving industries like energy, healthcare, logistics and industrial automation that need embedded software, cloud systems and mobile applications with end-to-end system integration.

KEY REQUIREMENTS

- Developing a cloud framework that could interact with 1000s of connected devices regardless of the protocols being used by individual devices for communication. This in return would enable seamless M2M communication with the devices for easy retrieval of sensor values, device locations etc.
- Collating all the values from the devices like device location, temperature, light, humidity, battery strength and signal strength etc. and create a database for easy and quick retrieval
- Creating a customized offline Google Maps functionality for effortless tracking of sensor devices and capturing values from them

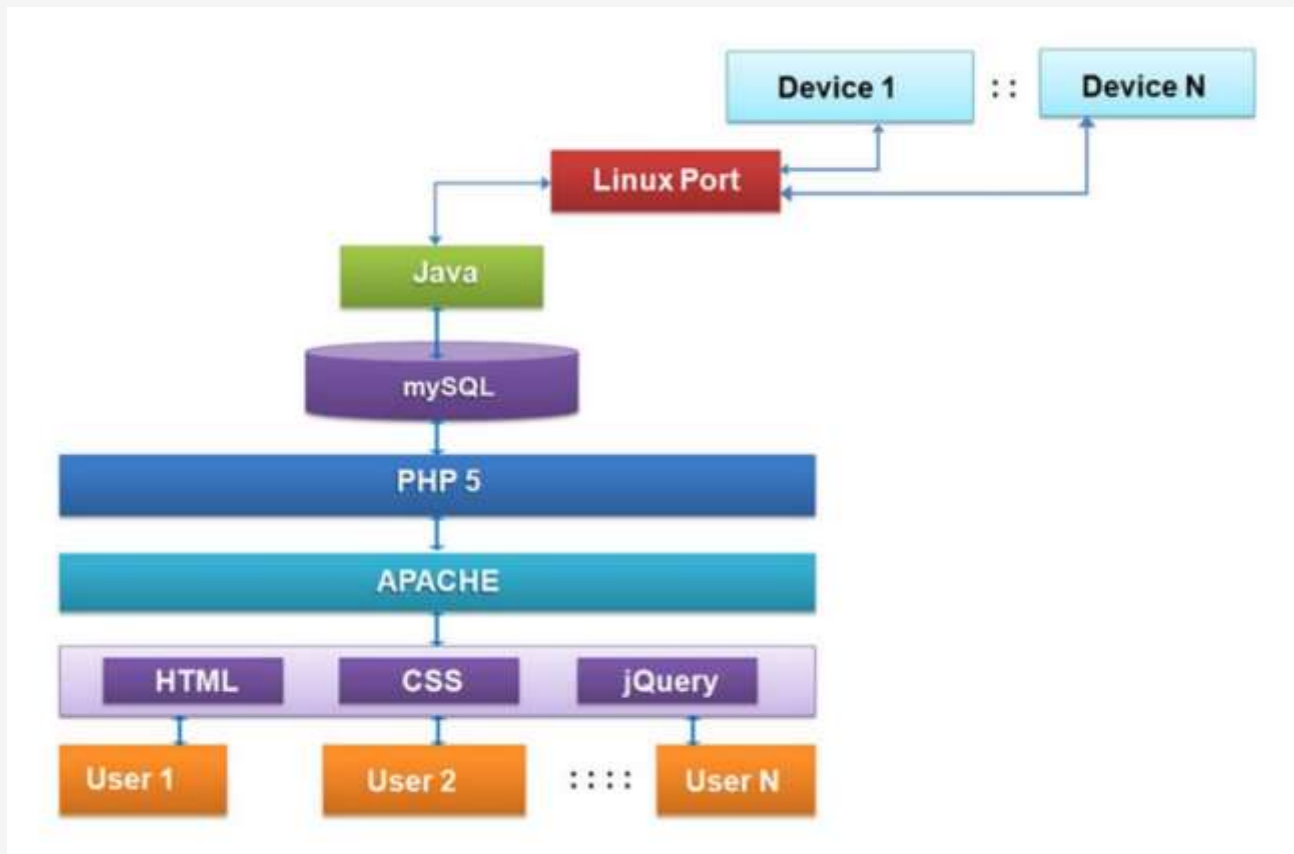
KEY CONTRIBUTIONS

- Developed a sensor chart system using a third party chart software – High-charts, to facilitate complete visualization of the collected sensor data and draw actionable insights
- Configured device specific rules and settings, collated them and developed a functionality to automate the complete process of configuring and tuning the sensor devices without any human intervention and delays
- Developed an over-the-air (OTA) firmware upgrade system to help client reduce the time required for manually upgrading the devices. Also plan for MDM is on to push the upgrades remotely
- Created user profiles in line with the device/sensor profiles as per the client requirements for security and access control ensuring strict security adherence

KEY BENEFITS

- The cloud based system is easily configurable for different types of devices, and sensors thus making the product simple, scalable and customizable
- Apt location tracking of devices, monitoring values and usable under offline mode in a secured environment ensured effective monitoring and firmware management which in turn enabled our client to improve customer satisfaction by 35%
- Flexibility of the product enables client to explore new industries like transportation, healthcare etc. apart from embedded industry, resulting in significant increase of end customer base across verticals
- Ease of data aggregation enabled quick analytics which led to significant improvement in operational efficiency by about 30%
- Generated business reports and alerts in real time aiding decision making. Quick delivery of product with rich set of features helped our client to gain first mover advantage over competition

HIGH LEVEL ARCHITECTURE



TECHNOLOGY STACK

- Technologies: PHP, MySQL, CSS, HTML, JavaScript, AJAX
- Integration & Source Control: SVN, Bugzilla
- Browser(s): Safari, Chrome, Firefox, IE
- OS (64 bit): CentOS



About Xoriant:

Xoriant Corporation is a Product Development, Engineering and Consulting Services Company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2000 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.