# Real-time State Monitoring System for Motor Based on Web

**D. Li[1*], B. J. Xiao[1,2], Z. S. Ji[1], Y. HUANG[1], Y. Wang[1], S. Q. Liu[1], X. T. He[1]**

*1. Institute of Plasma Physics, Chinese Academy of Sciences, Hefei, Anhui, PR China*

*2. Department of Nuclear Science and Technology, University of Science and Technology of China, Hefei, Anhui, PR China*

*Email: lidan@ipp.ac.cn, Tel: +86-551-65592776

## Abstract

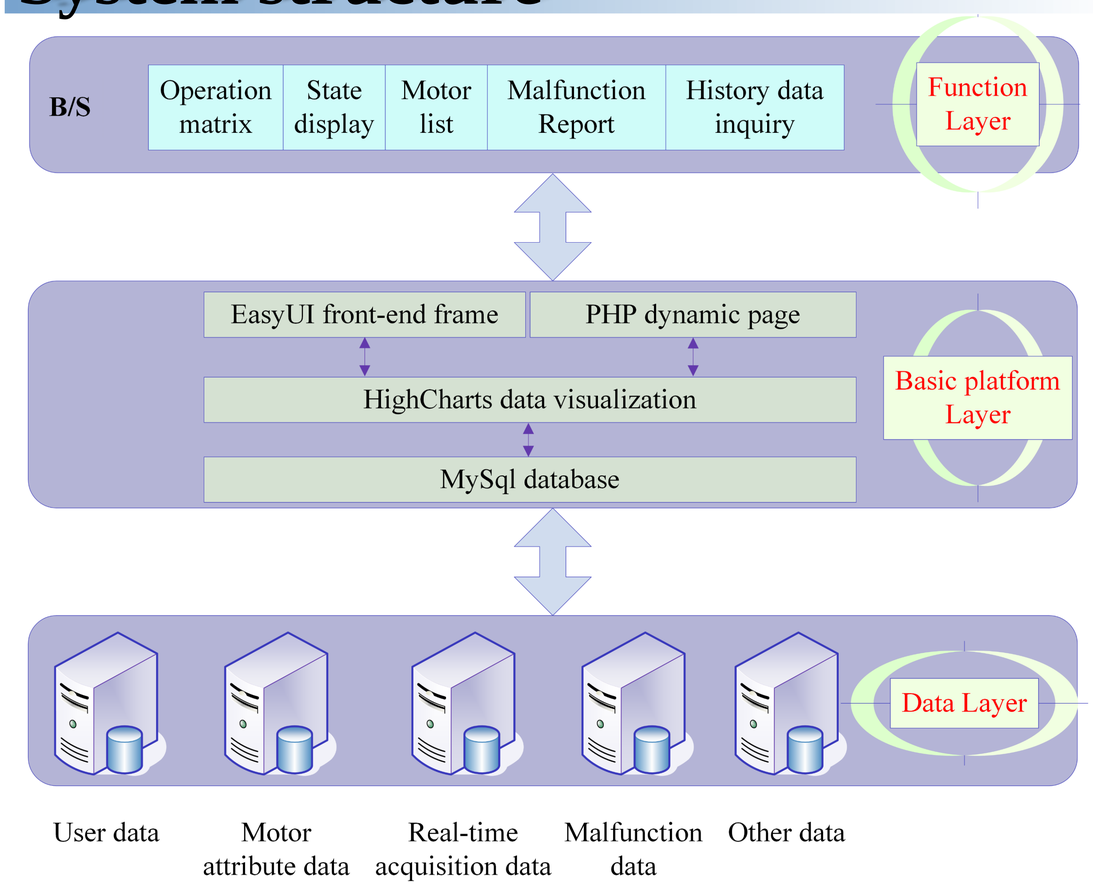
Motor is the most widely used power equipment in the industrial field, and it is also an important key equipment in the industrial Internet of things (IIOT). The traditional way of motor monitoring is to monitor a single motor, and the collected data is not stored effectively, so that the data cannot be analyzed and processed and the value of the data is not fully utilized. With the development of the technology of cloud computing and IIOT, the manufacturing process has many advantages, such as massive data storage, remote control and so on. At present, professional cloud services have reduced the traditional industry with cloud service threshold and improved the safety and diversity of cloud services, which provides effective technical guarantee for the product of intelligent motor related enterprises. This paper uses web technology and real-time data from acquisition system to realize real-time state monitoring for motor. The users can be informed the state of motor, and analyze the collected data at any time when they login the system. It is necessary to prevent or prejudge the fault of motor equipment in advance, and avoid major accidents as much as possible. It provides valuable experience and basis for routine maintenance and management of production equipment, and eliminates problems such as "over maintenance" or "under maintenance" during traditional periodic maintenance. The users can save costs and improve efficiency.

## Background

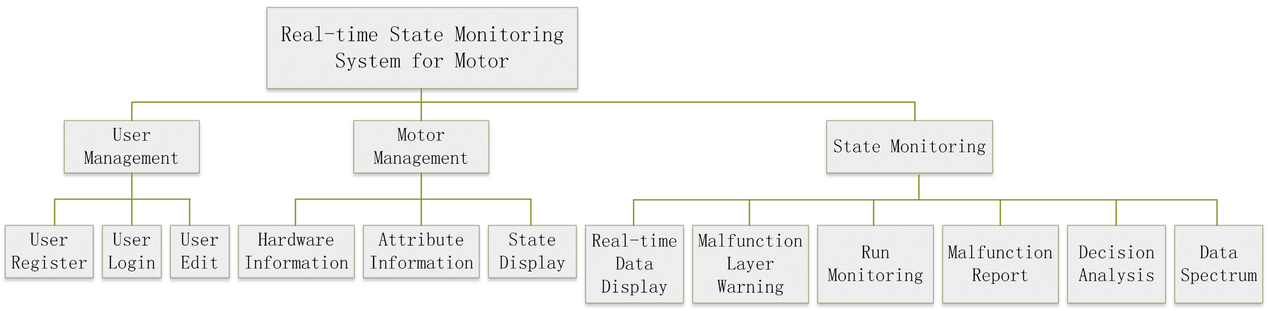
The motor is the most widely used power equipment in the industrial field, and is also an important key equipment in the industrial Internet of things.

- The traditional motor monitoring method can only monitor the single motor, and the data can not be stored, it can not be analyzed and processed according to the historical data collected, and the degree of information is low.
- With cloud computing and industrial Internet of things, the manufacturing process has many advantages, such as massive data storage, remote control, and so on.
- All kinds of professional cloud services have greatly reduced the threshold of the use of cloud services in traditional industries, and improved the security of using cloud services. It is an effective solution to the realization of intelligence.

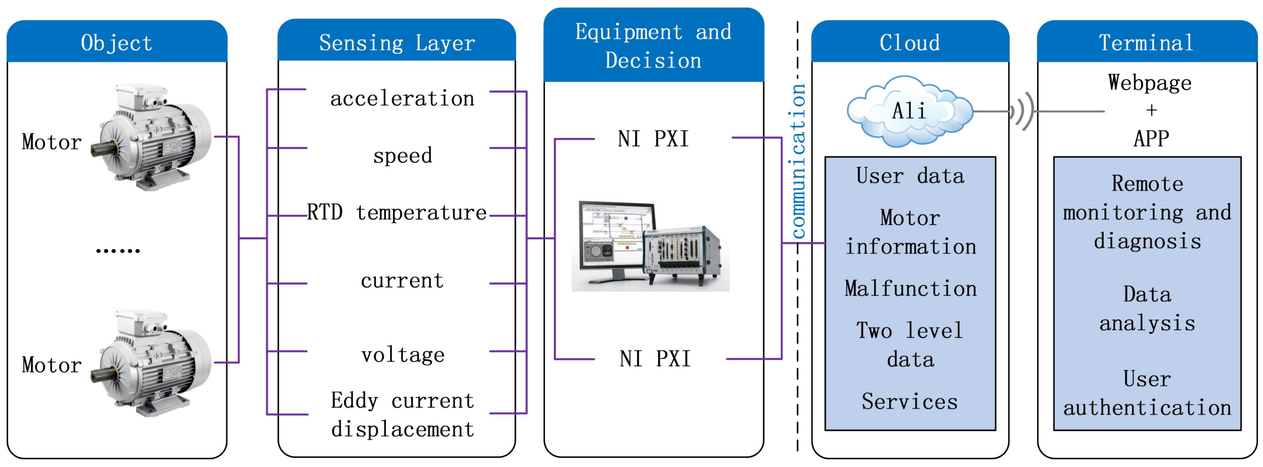
## System structure




## Function requirements




## System architecture




## System realization


## Summary

- Web technology and real-time data from acquisition system are used to realize real-time state monitoring for motor.
- The users can be informed the state of motor, and analyze the collected data at any time when they login the system.
- Data visualization and spectrum are realized to give the effective waveform of those collected data.