Intelligent monitoring solution provider

UPS Power Supply Centralized Monitoring System in Production Lines

Monitor. Integrate. Alert. Peace of Mind.

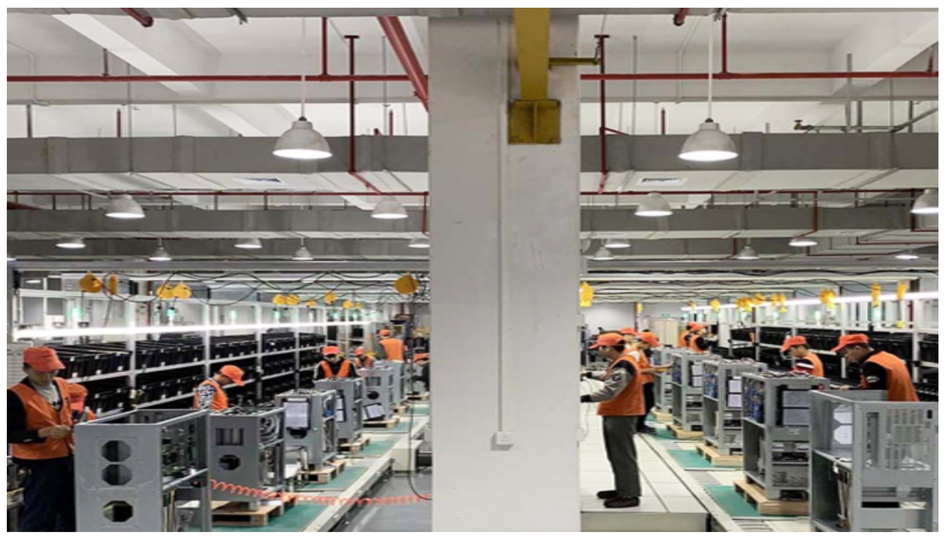
Our Customer

Our client is a leading optoelectronic technology company specializing in the field of semiconductor display. The company's registered capital is as high as 3 billion US dollars.

The production facilities of the client company are located in multiple modern factory buildings, with multiple production lines set up on the 3rd, 4th and 5th floors of Building 2. These production lines are equipped with a large number of high-precision production equipment and dedicated server hosts to ensure efficient and accurate production and processing of display devices.

The client hopes to centrally monitor, manage and maintain the UPS power supply equipment of all dedicated server hosts on the on-site production lines on the 3rd, 4th and 5th floors of Building 2.

As a key infrastructure for data storage, computing, and application, data centers have become strategic basic resources for the economy and society.



Customer demands

Real-time monitoring:
It can monitor the operating status of UPS power equipment in real time, including parameters such as voltage, current, temperature, battery status, etc., to ensure the normal operation of the equipment.

Fault warning:
It has a fault warning function, which can issue an alarm in time when the UPS equipment is abnormal, reminding the operation and maintenance personnel to deal with it, and prevent production interruptions caused by power problems.

Data recording and analysis:
Record the operating data of UPS equipment and analyze it to predict the maintenance needs of the equipment and optimize equipment management.

Remote management:
Support remote monitoring and management. The operation and maintenance personnel can view and control UPS equipment in real time through the network, reducing the workload of on-site maintenance.

Centralized management platform:
Establish a centralized management platform to uniformly manage all UPS equipment on the 3rd, 4th and 5th floors, and improve management efficiency and response speed.

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Solution technical features

Monitoring equipment installation:

- Sensor layout: Install voltage sensors, current sensors, temperature sensors and battery status sensors on the UPS devices of each production line on the 3rd, 4th and 5th floors of Building 2.
- Data acquisition equipment: Deploy data acquisition terminals to summarize and preliminarily process the data collected by the sensors and transmit them to the central management system through the local area network.
- Network equipment: Ensure that each floor has a stable network connection, configure network switches and routers, and support data transmission and remote management.

Power supply and backup power supply:

- Main power supply configuration: Provide stable power supply for all monitoring equipment, and configure UPS power supply to ensure that the monitoring equipment can continue to operate even in the event of a power outage.
- Backup power supply management: Install backup power supply equipment to ensure that it can be quickly switched when the main power fails to ensure the continuity of the monitoring system.

Monitoring management software:

- Data acquisition module: Develop or configure data acquisition modules that are compatible with various sensors to ensure real-time and accurate acquisition of the operating parameters of the UPS equipment.
- Data processing and storage: Develop data processing modules to clean, verify and analyze the collected data to ensure the accuracy and integrity of the data. Use a reliable database system to store data for subsequent query and analysis.
- Fault warning system: Establish a multi-level fault warning system, set different levels of alarm thresholds (such as overvoltage, overtemperature, low battery, etc.), and inform the operation and maintenance personnel in a timely manner through SMS, email, system notification and other methods.
- Remote management and control: Develop a remote management module to support operation and maintenance personnel to remotely view the operating status of UPS equipment, adjust equipment parameters and perform remote restart and other operations through the network.
- User interface: Design an intuitive and friendly user interface, provide real-time monitoring, historical data query, alarm record viewing and other functions, so that operation and maintenance personnel can quickly understand the operating status of the equipment.

Platform integration:

- System integration: Integrate the monitoring management software into the customer's existing IT management platform to ensure that each system can work seamlessly together.
- Data interface development: Develop a data interface to achieve data interoperability with other management systems to ensure smooth information transmission and sharing.

Fully Automated Production Line

UPS Power Output

Utility Power

UPS Utility Power Input

UPS Discharge Instrument

UPS Power Supply

UPS Battery

Real-time Monitoring

Remote Discharge

Internet

2G/3G/4G/TCP/IP

Alarm Handling

Remote Centralized Management Computer

AceVig Equipment Used

- 354 UPS discharge meters
- 354 UPS front-end monitoring software
- 354 UPS battery discharge control modules
- 1 UPS remote centralized management platform