



Central Chiller Control System

CCCS
Monitor
&
Manage

Overview

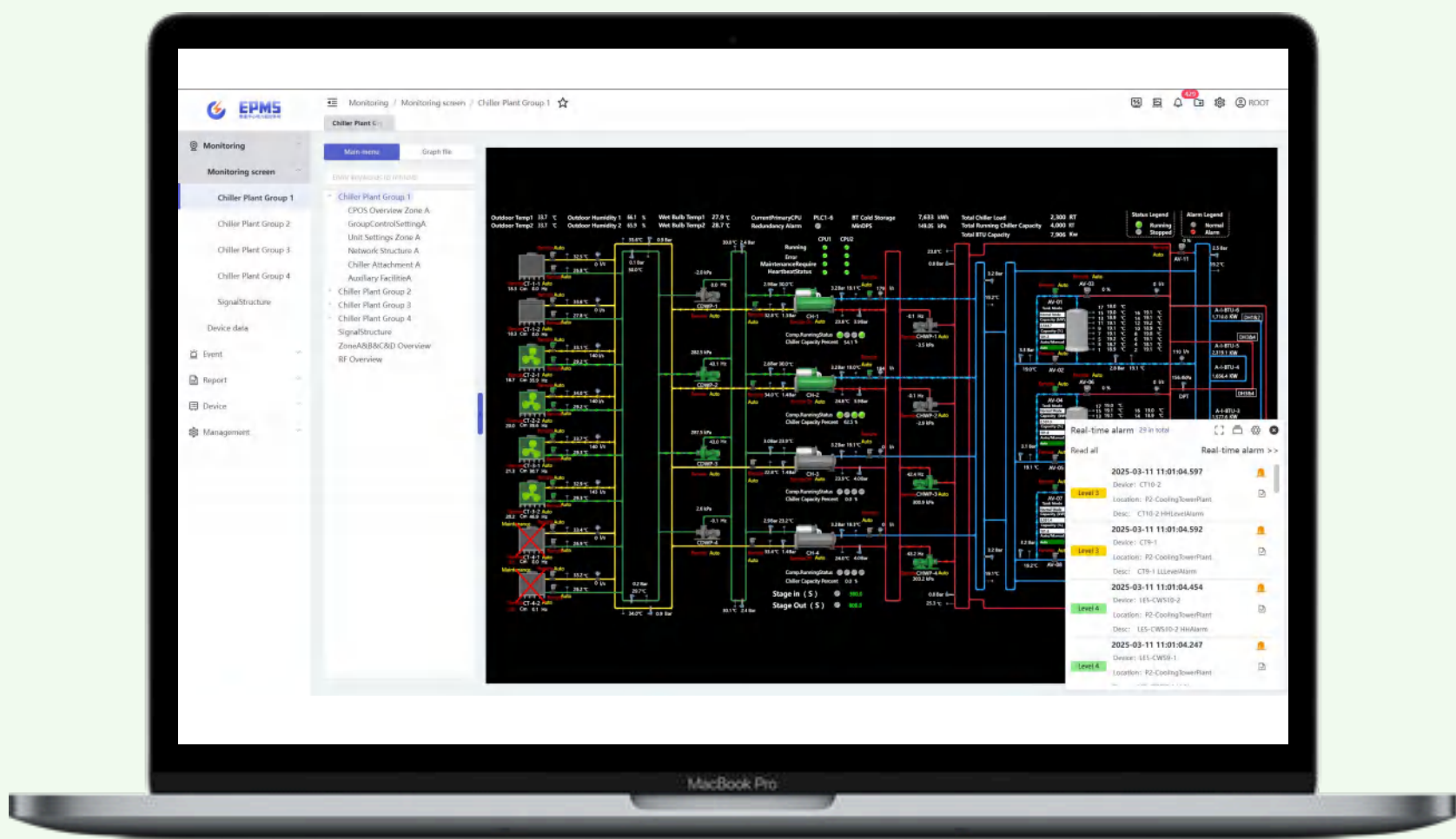
The Central Chiller Control System is designed to provide comprehensive monitoring capabilities for heating, ventilation, and air conditioning (HVAC) systems. It covers data overview, equipment status monitoring, alarm management, energy consumption analysis, remote control, and more. Through visualization interfaces and intelligent analysis, the system enhances the operational efficiency and reliability of data center cooling systems.

This system ensures that temperature, humidity, and air quality parameters within the data center are always at optimal levels, thus ensuring stable operation of IT equipment. It supports multiple protocol compatibilities and seamlessly integrates into existing Building Automation (BA) systems.

Website&Email

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Monitoring Interface



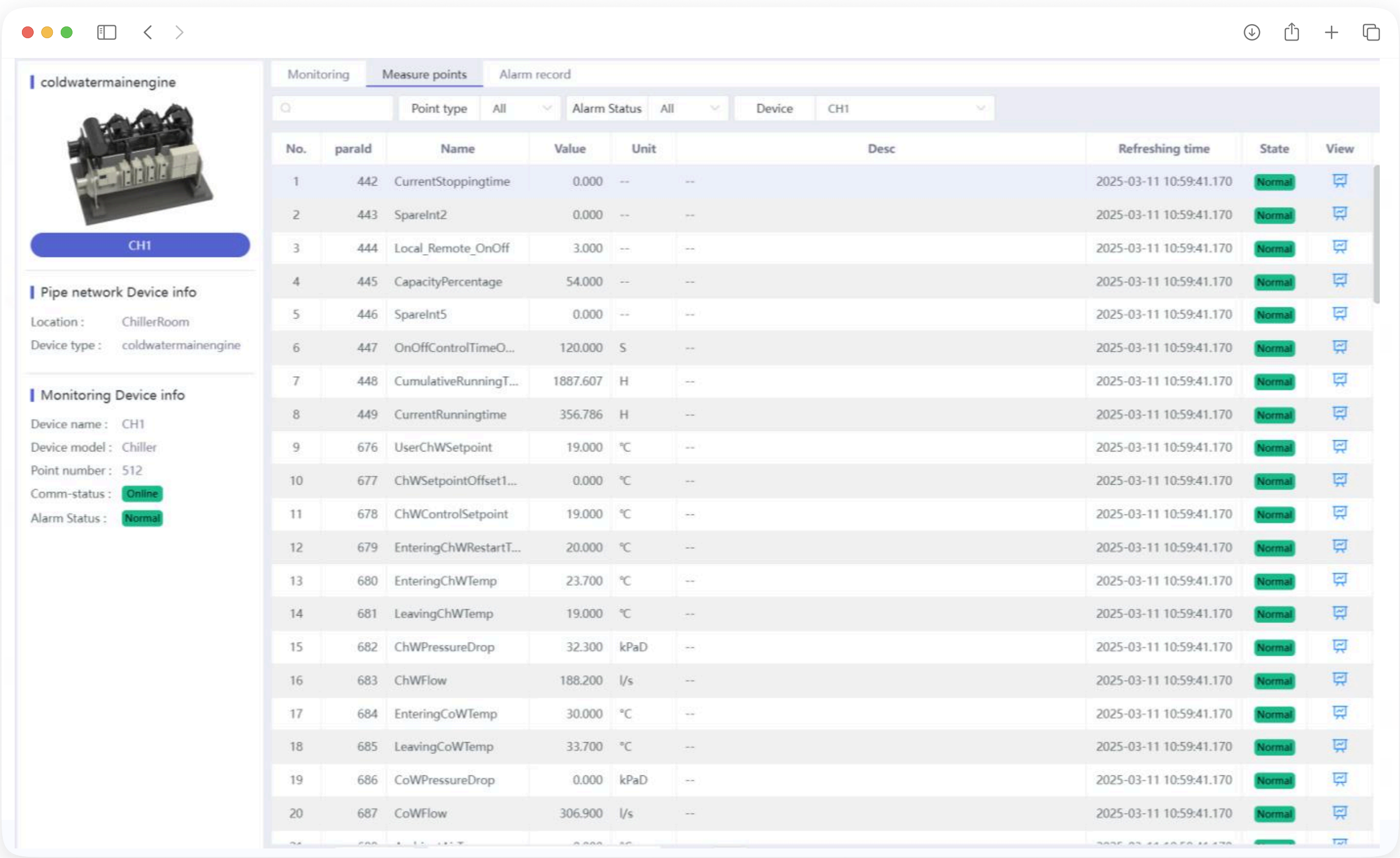
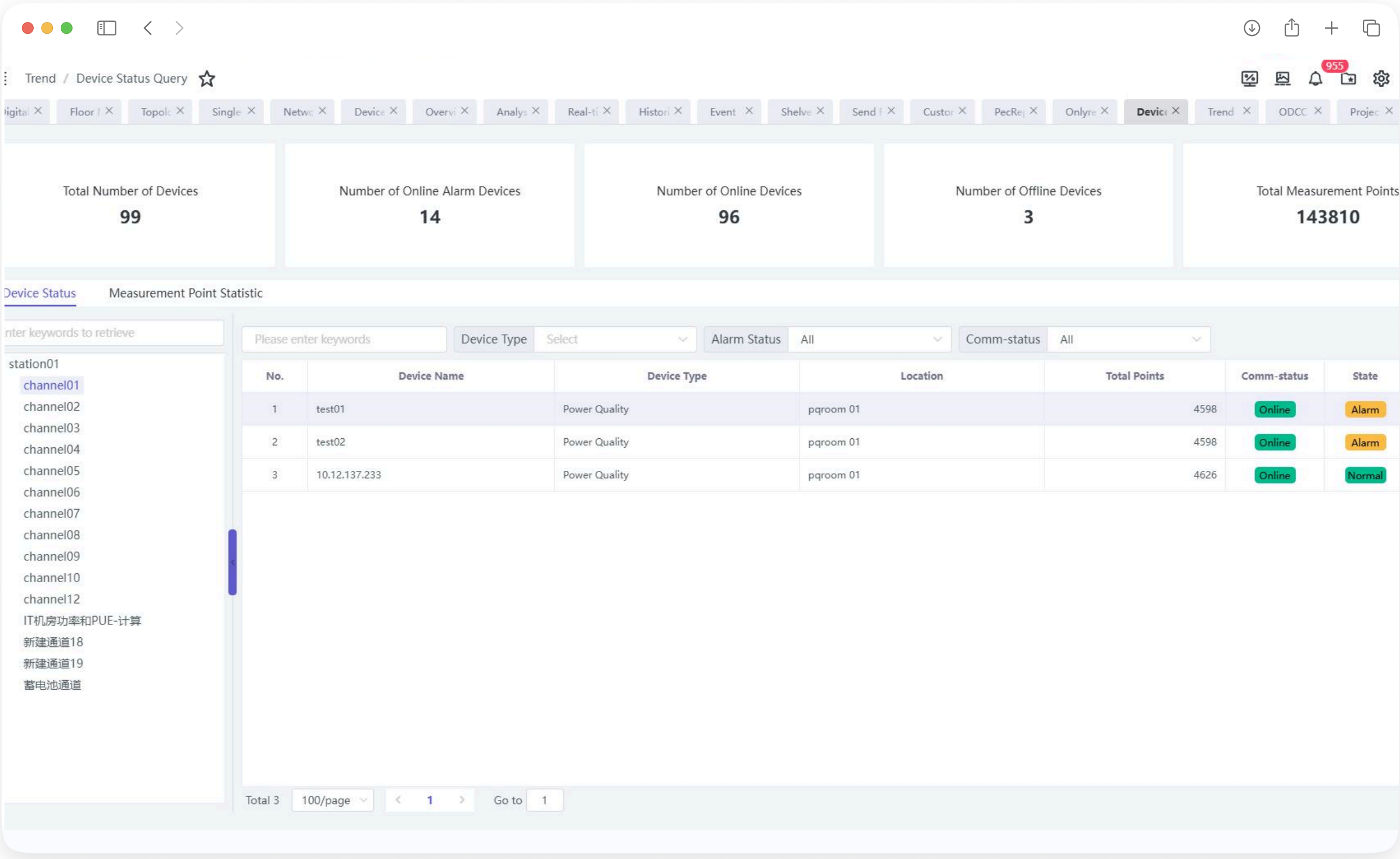
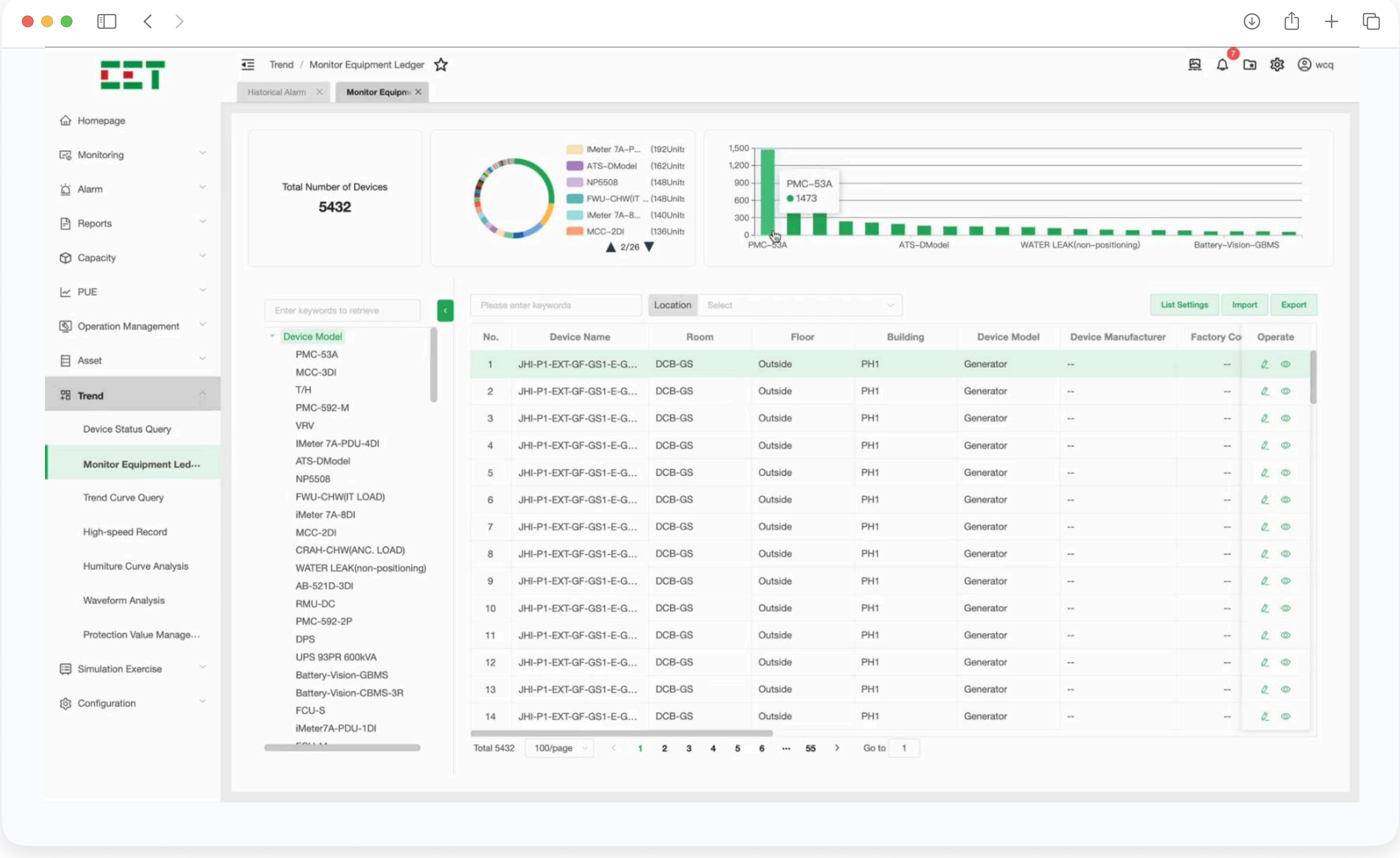
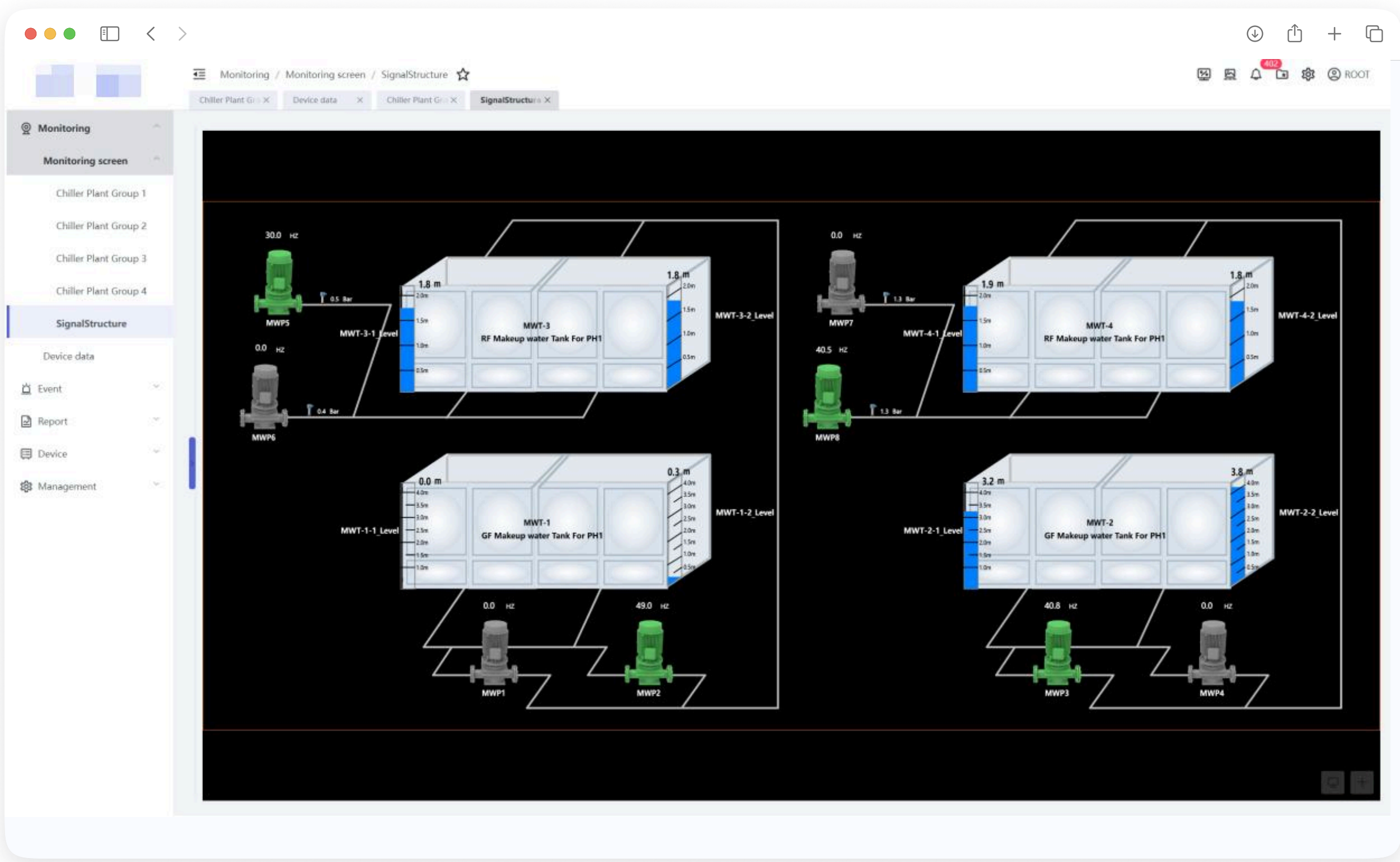
Data Overview

Supports comprehensive data display, including equipment operation status, operating unit count, and alarm statistics.

Provides an interactive 2.5D / 3D visualization interface that allows users to quickly check key equipment status through mouse operations.

Offers customizable data filtering functions, allowing classification by equipment type, area, and time range.

Enables users to export real-time data reports for further analysis and regulatory compliance.



Monitoring Interface

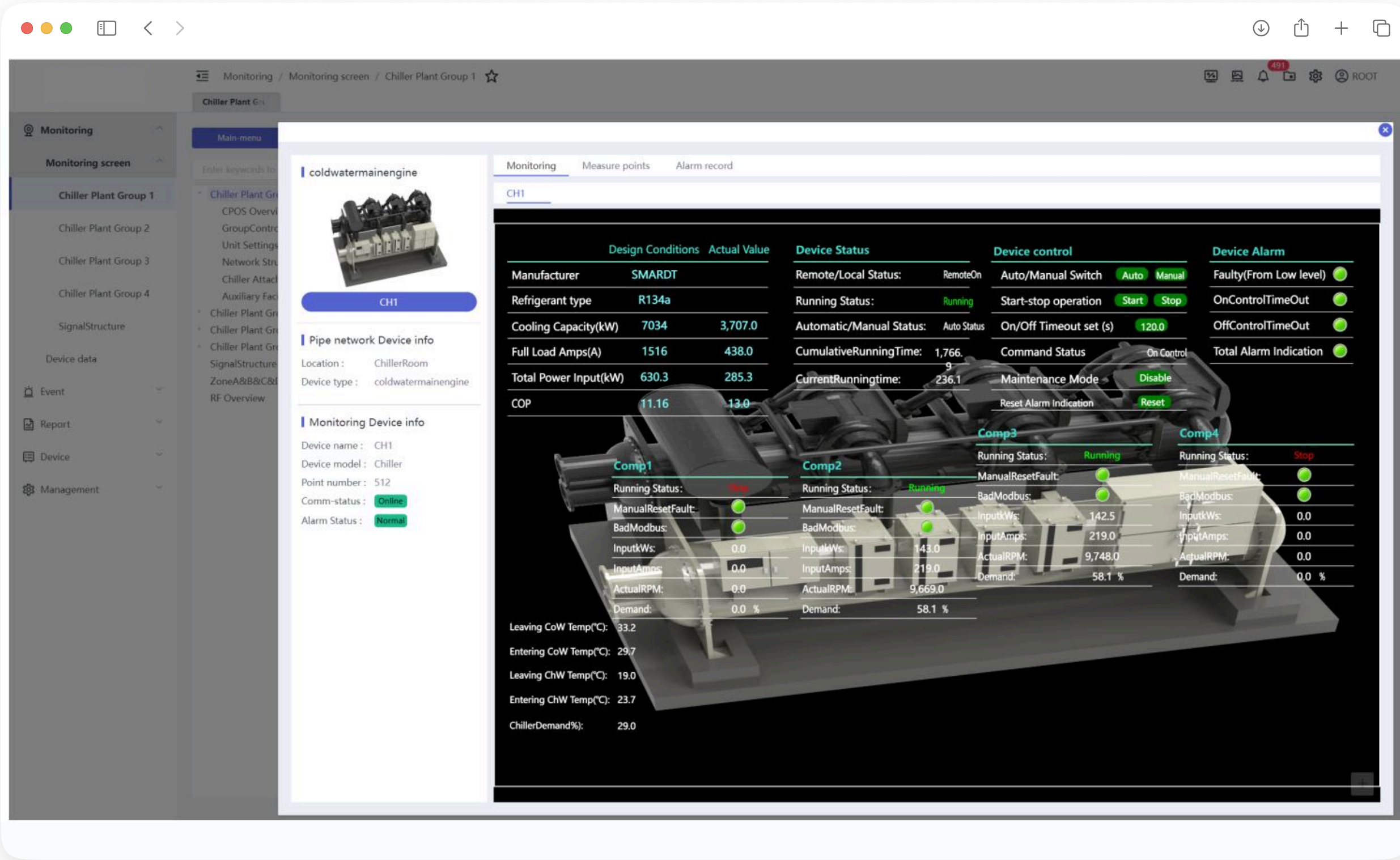


Module Interface

Provides building overview diagrams, floor plans, equipment layout diagrams, and equipment models for comprehensive monitoring.

Supports floating tooltips displaying detailed device information, including operational parameters, historical data, and maintenance records.

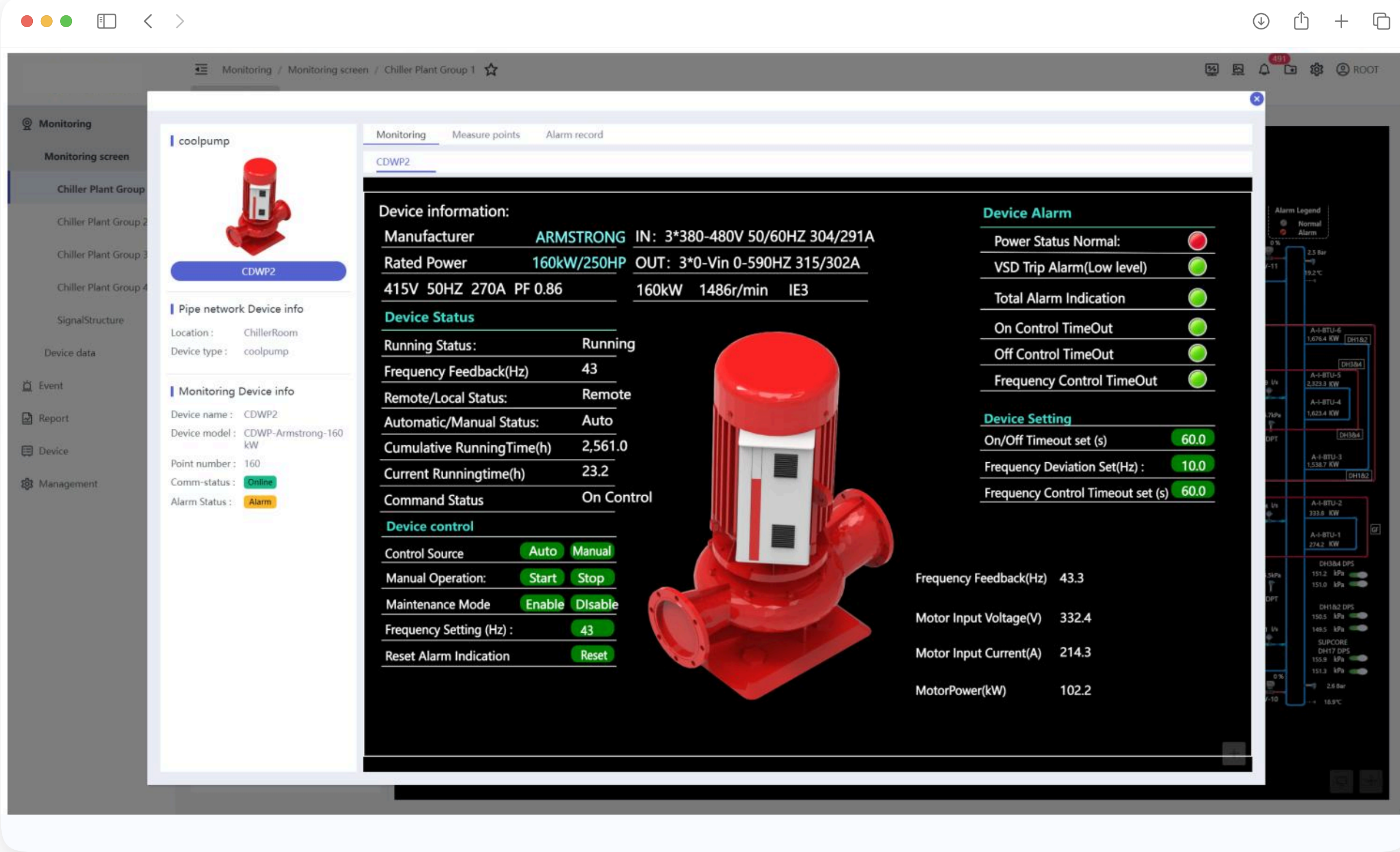
Features multi-level zooming functions, allowing users to adjust perspectives freely for detailed inspections.



Equipment Monitoring Diagrams

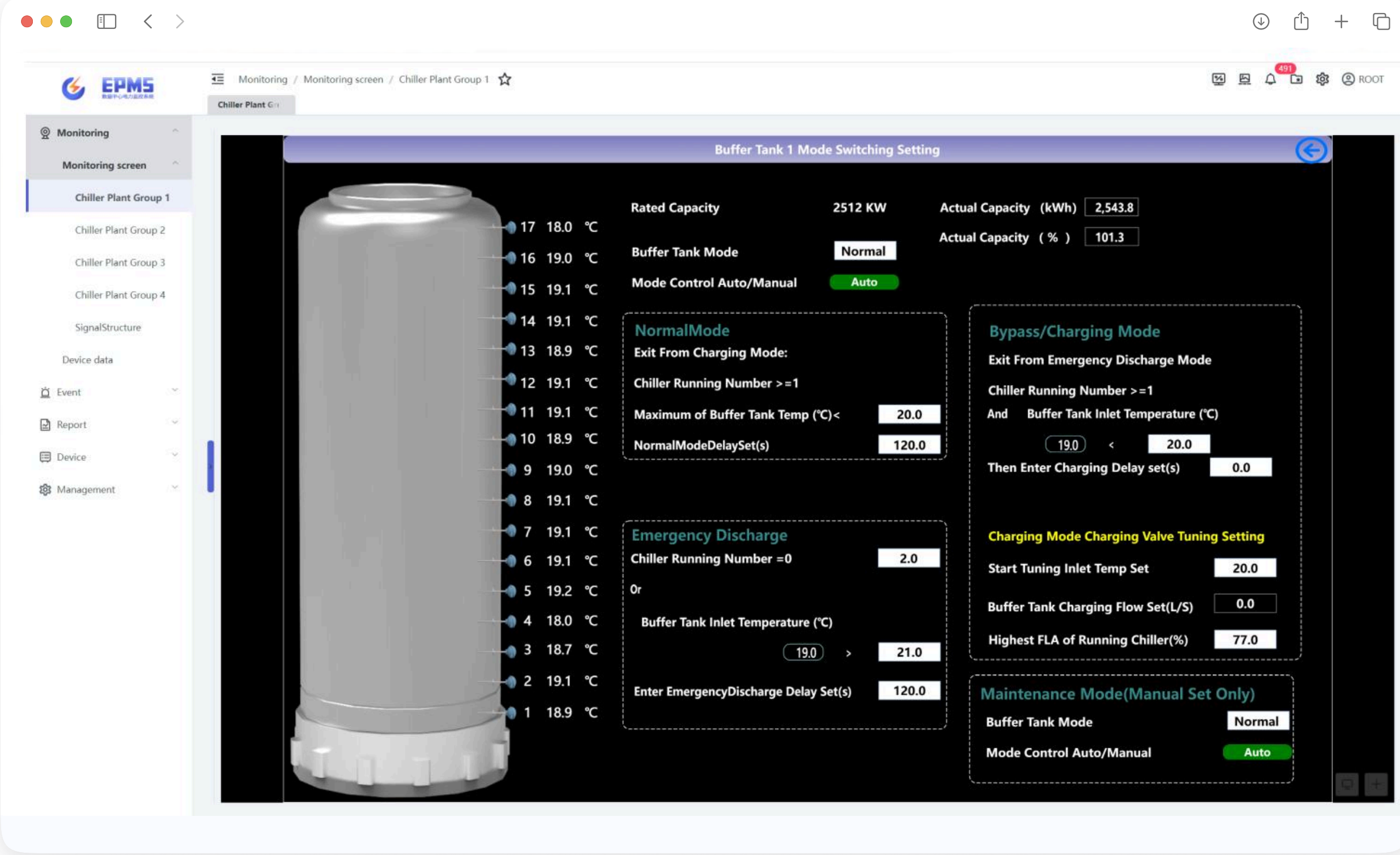
Real-time monitoring of key HVAC equipment, such as chillers, precision air conditioners, and fresh air systems.

Displays key operating parameters, including supply and return water temperature, airflow speed, and compressor status.



Utilizes historical data analysis to provide trend predictions and fault warnings.

Offers AI-driven anomaly detection to identify potential issues before they escalate.



Monitoring Interface

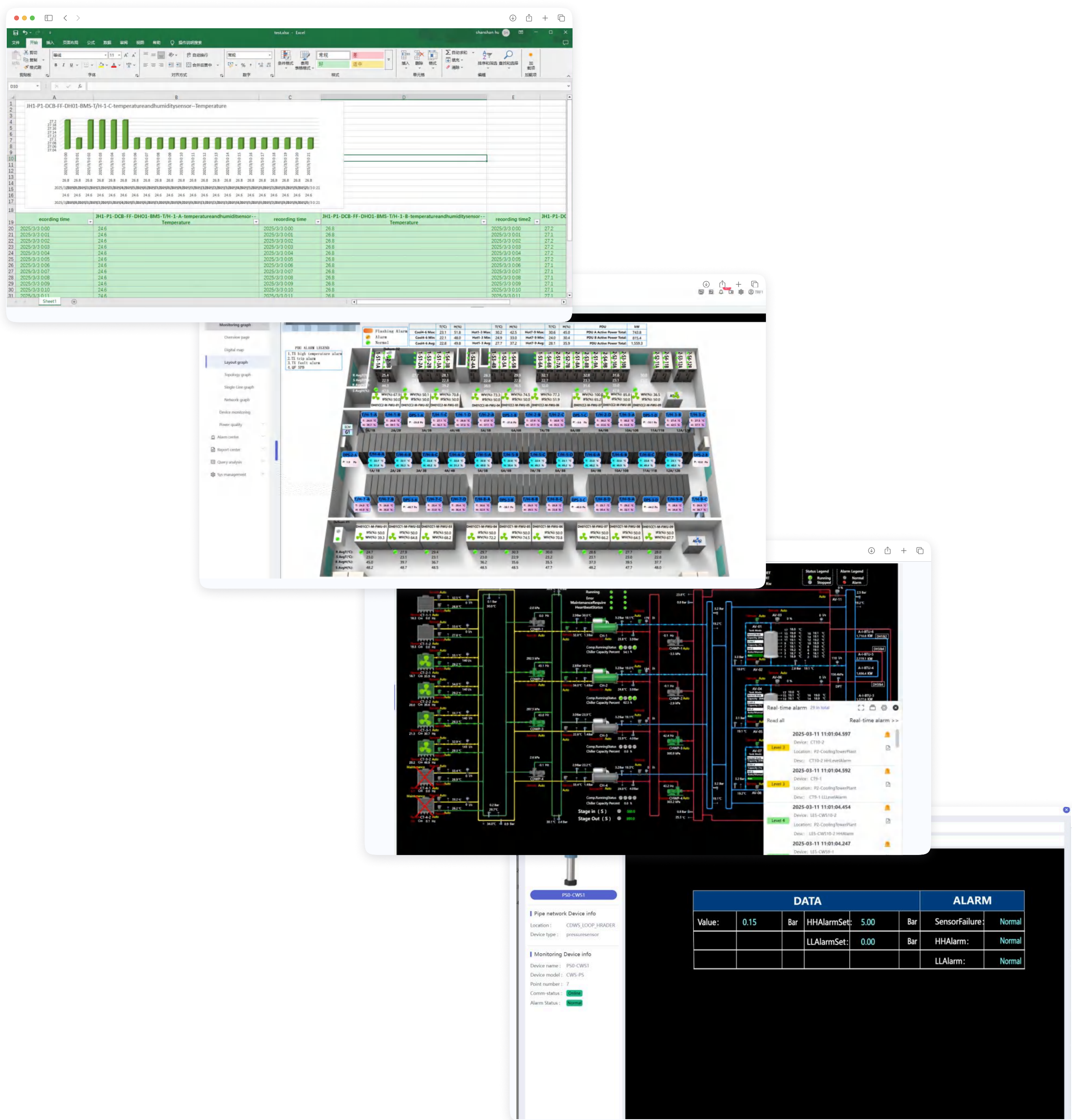


IT Room Environmental Monitoring

Displays real-time environmental conditions such as temperature, humidity, water/oil leakage detection, and air quality across different areas within the data center.

Provides alarm notifications for abnormal environmental parameters to ensure timely intervention.

Supports integration with IoT sensors for continuous tracking and analysis of microclimate conditions.



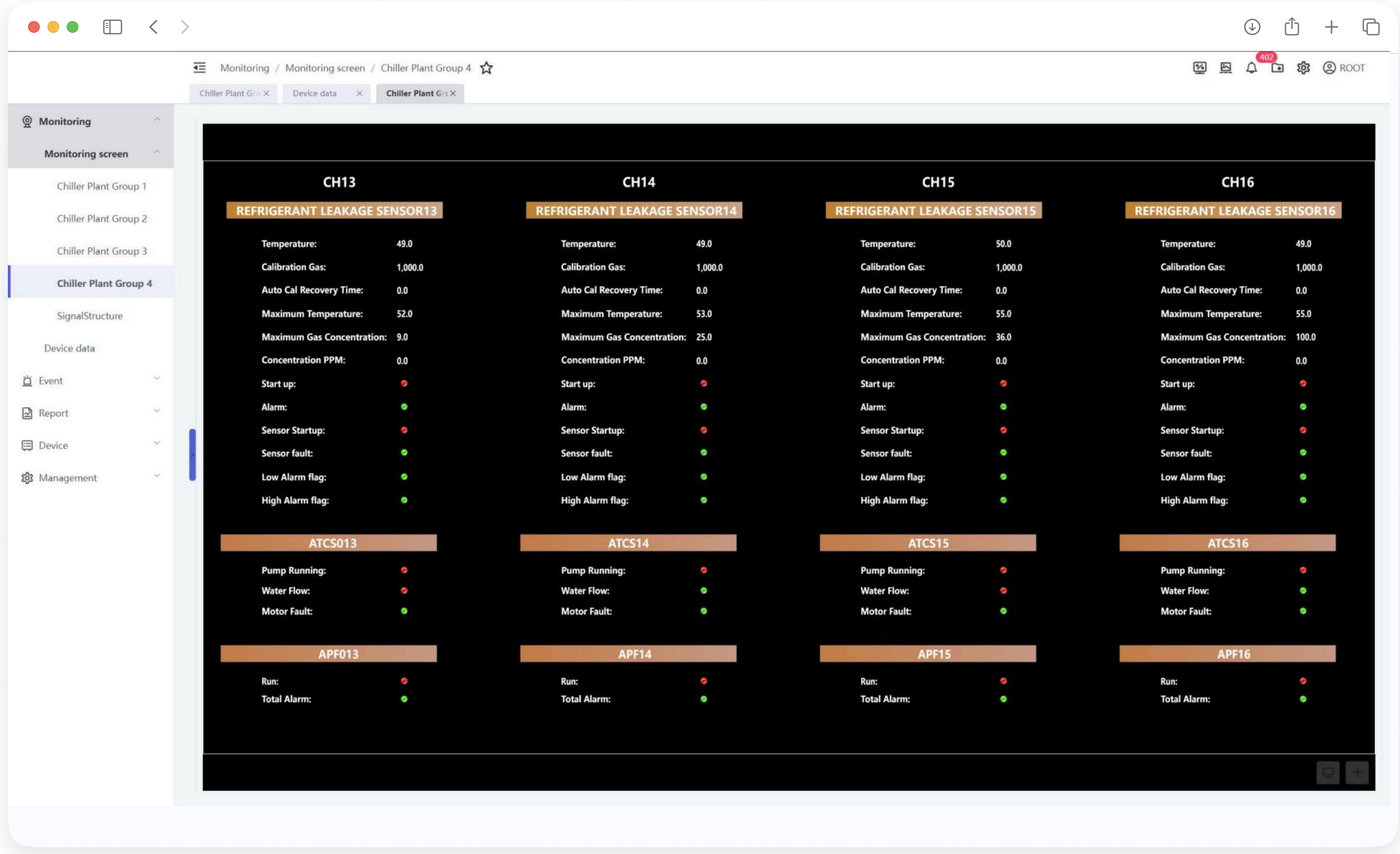
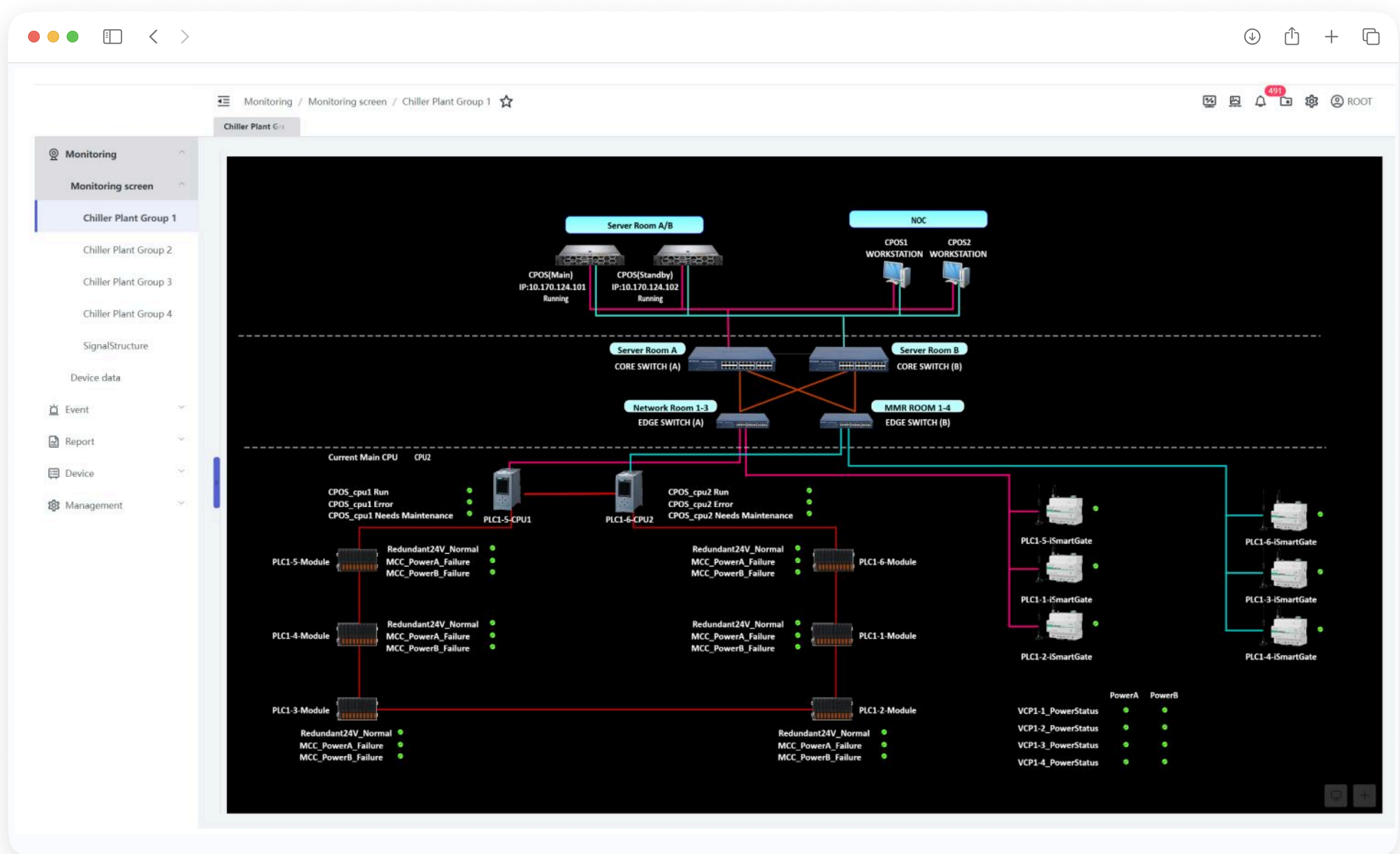
System Topology Diagram

Establishes a complete monitoring platform architecture, displaying endpoint collectors, switches, core servers, and other devices.

Clearly presents logical relationships and dependencies between devices.

Supports interactive functionality, allowing users to click on topology elements to view detailed device information.

Provides redundancy analysis to evaluate system resilience and identify potential single points of failure.



Monitoring Interface



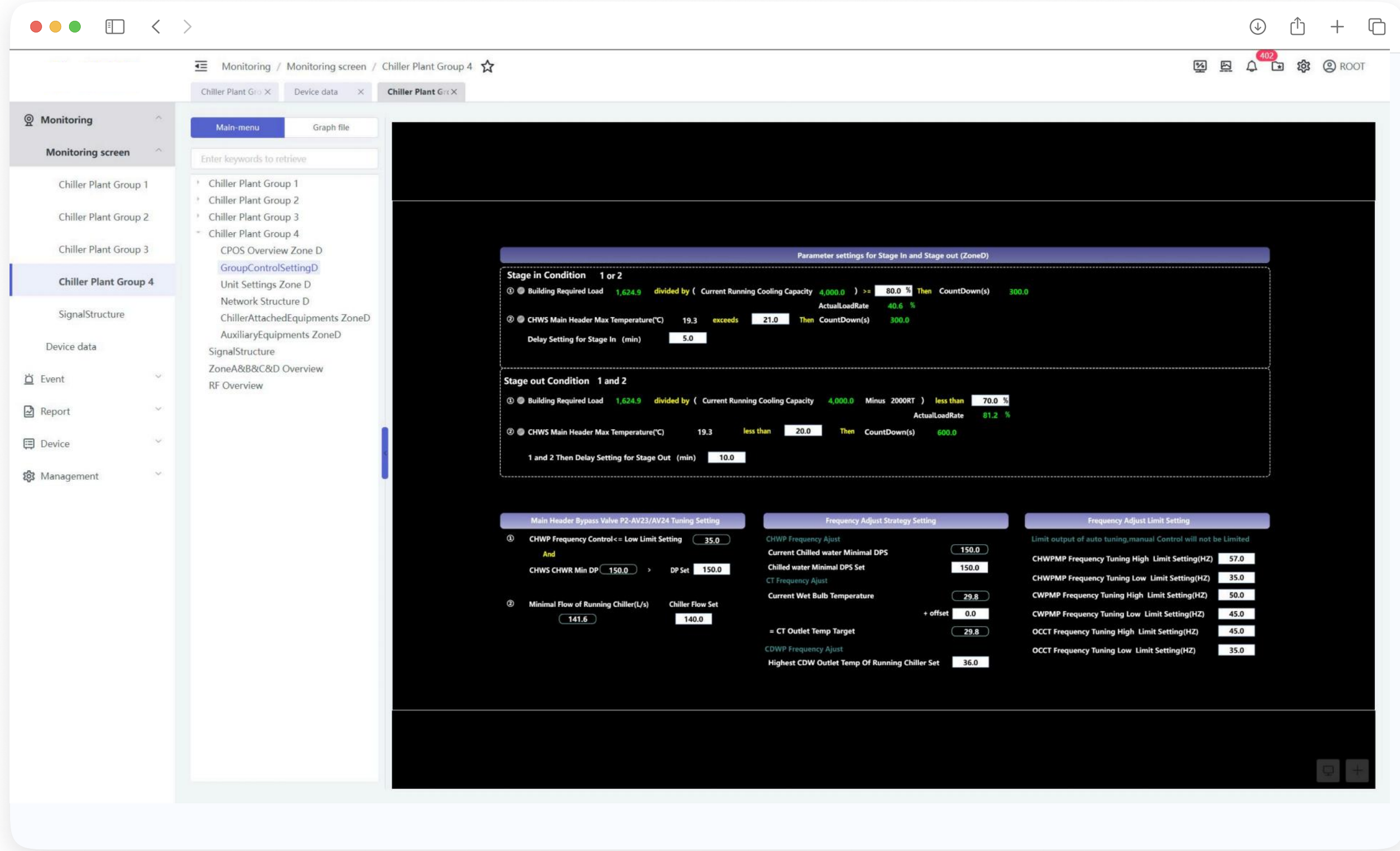
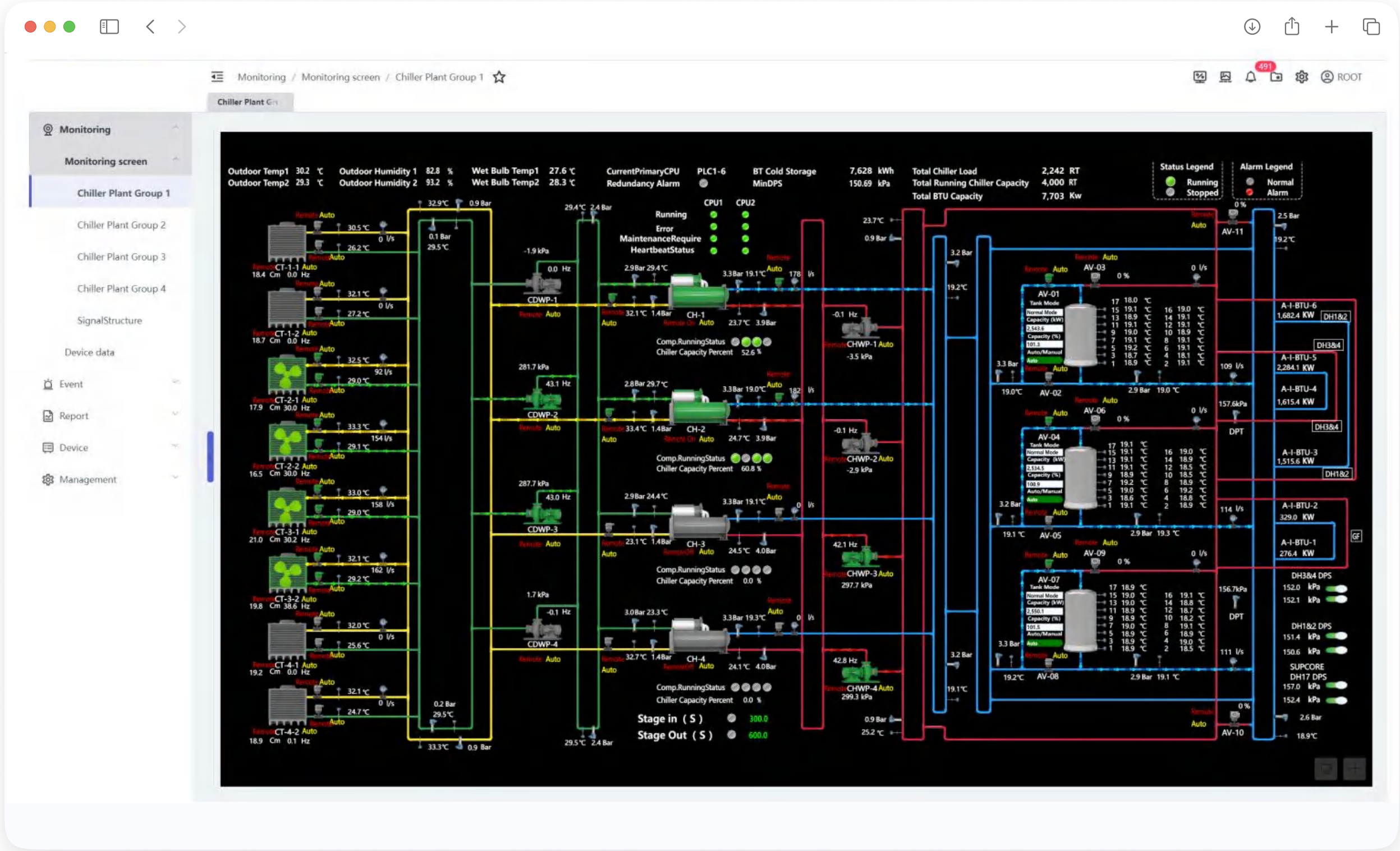
HVAC System Topology Diagram

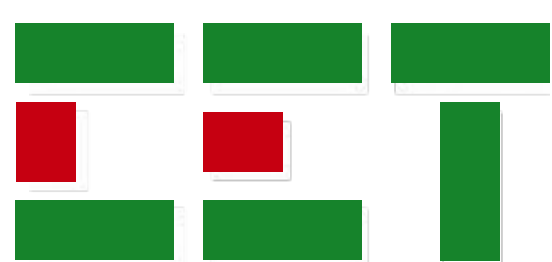
Displays the operational schematic of the BA control system, covering chillers, chilled water pumps, cooling water pumps, cooling towers, valves, thermal storage tanks, etc.

Dynamically displays the real-time status of all components, including switch states, flow rates, and pressures.

Uses AI algorithms to recommend optimal operating modes to enhance system efficiency.

Provides historical playback functionality, allowing users to analyze past system behaviors for troubleshooting and optimization.





Alarm Management



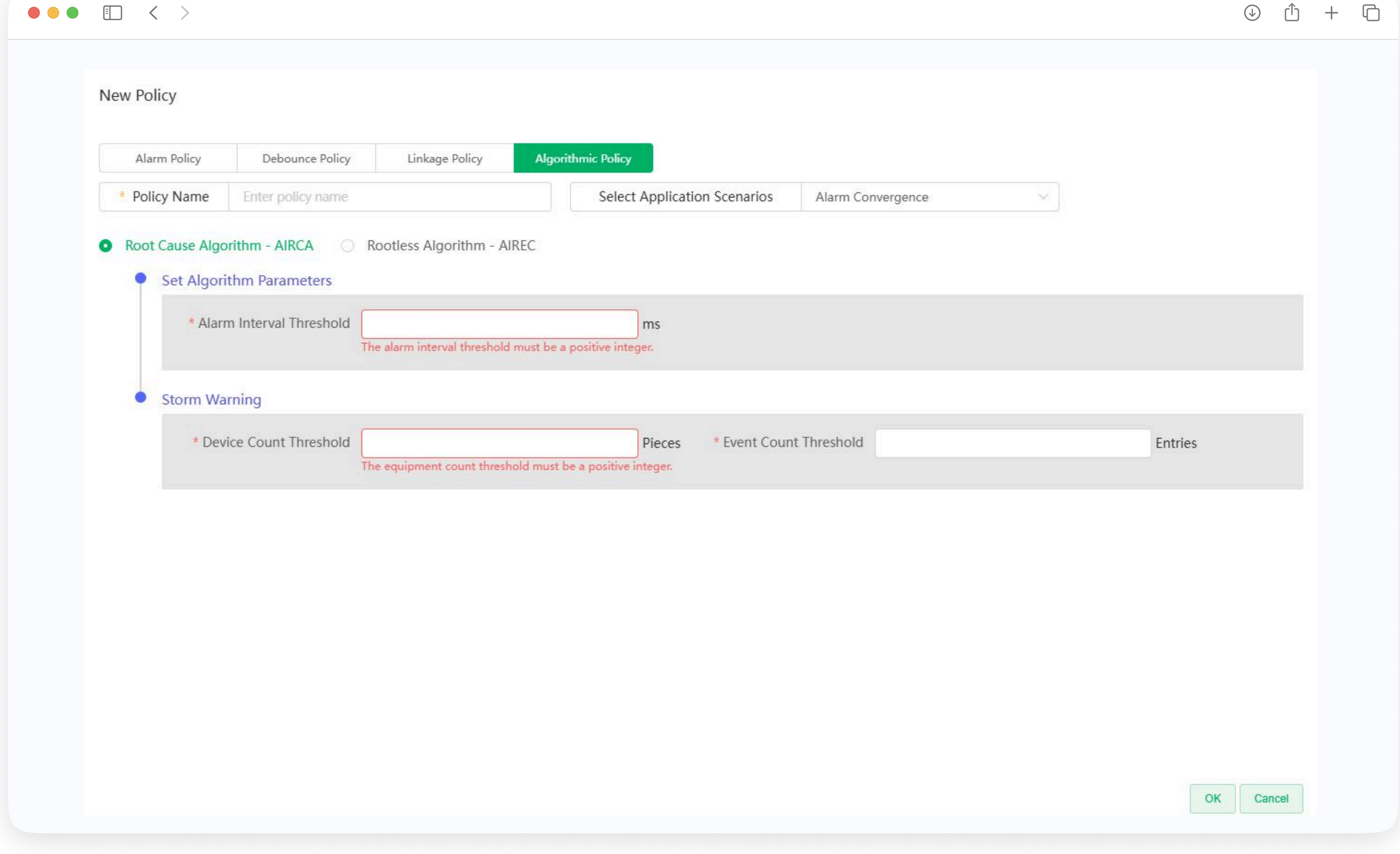
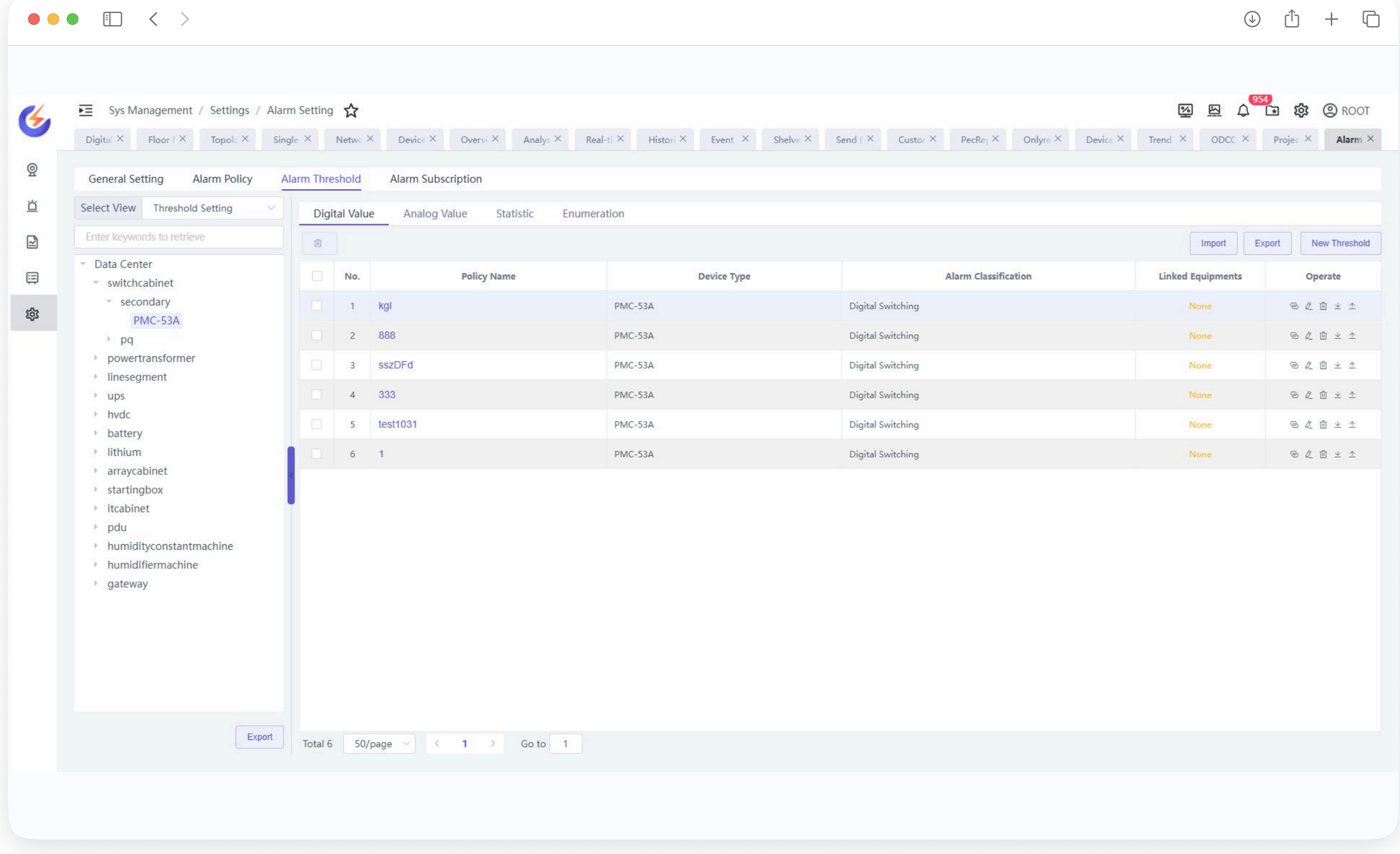
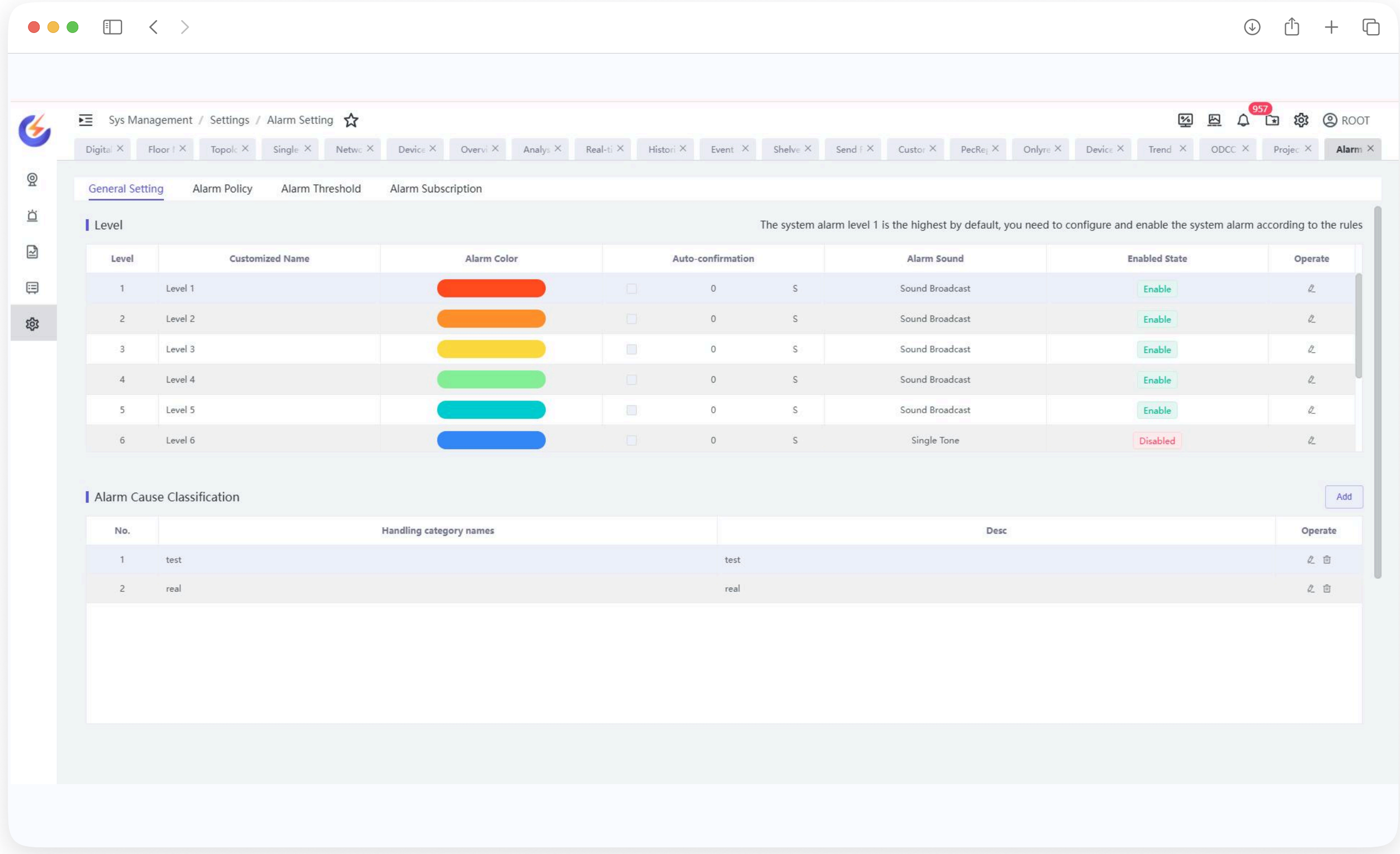
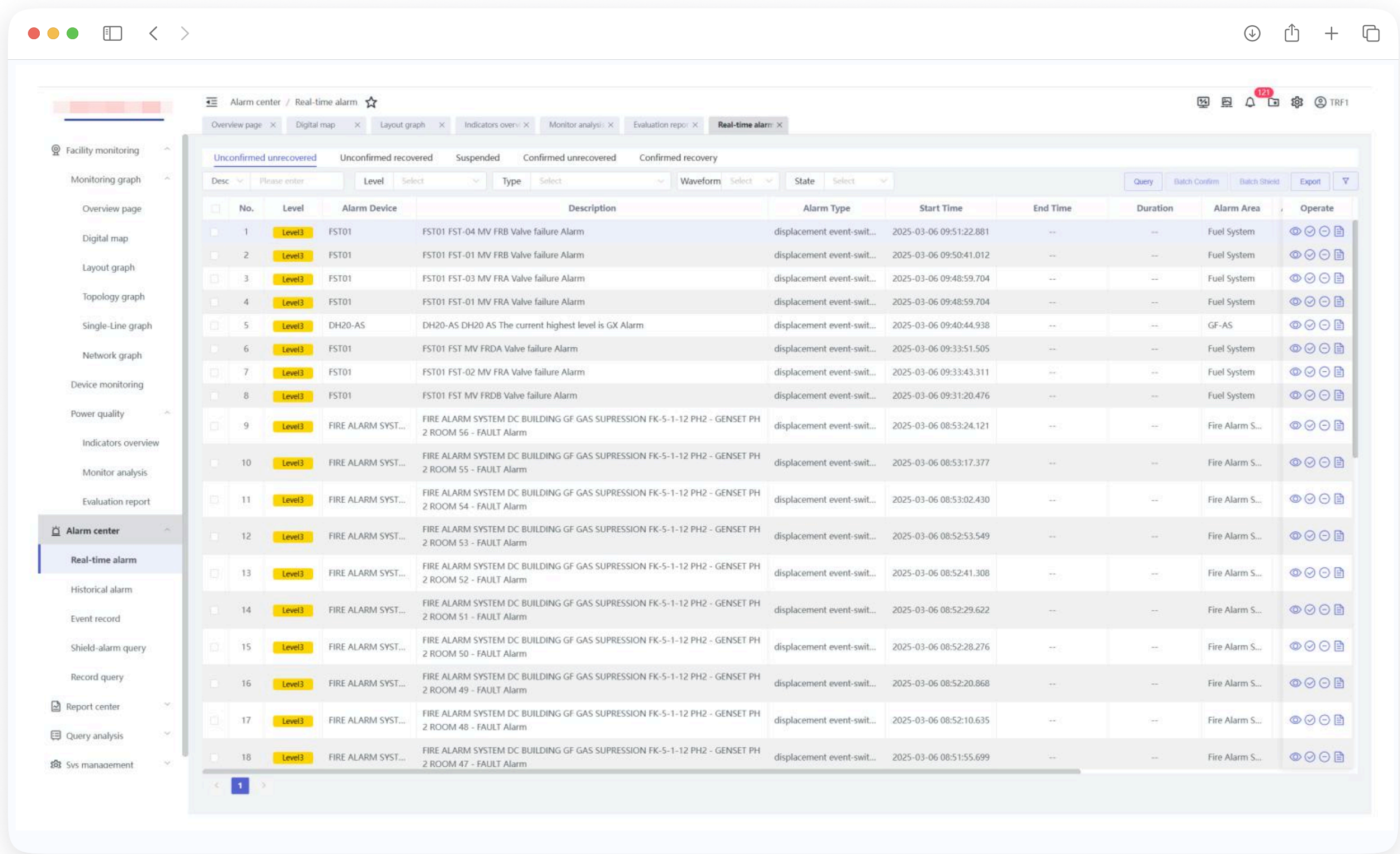
Real-Time Alarms

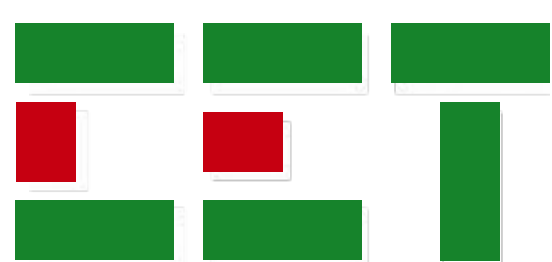
Detects abnormal HVAC system conditions and provides real-time alarm notifications with multi-level severity classifications.

Alarm notifications can be sent via SMS, email, WeChat, and mobile app push notifications to ensure timely response.

The alarm interface supports one-click acknowledgment, log recording, and historical query functions.

Utilizes advanced rule - based algorithms to analyze system data, promptly identifying potential system failures before they occur.





Alarm Management



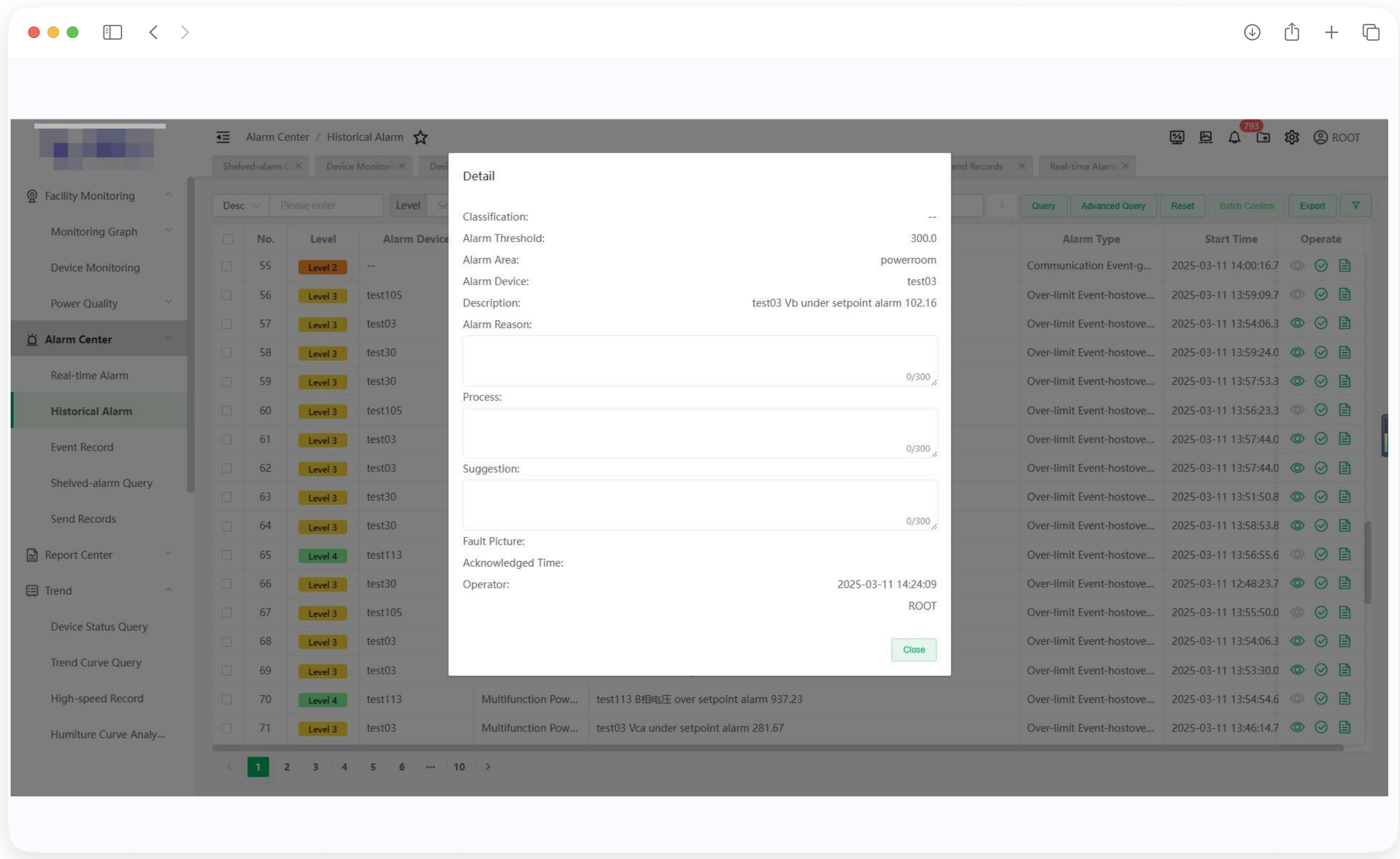
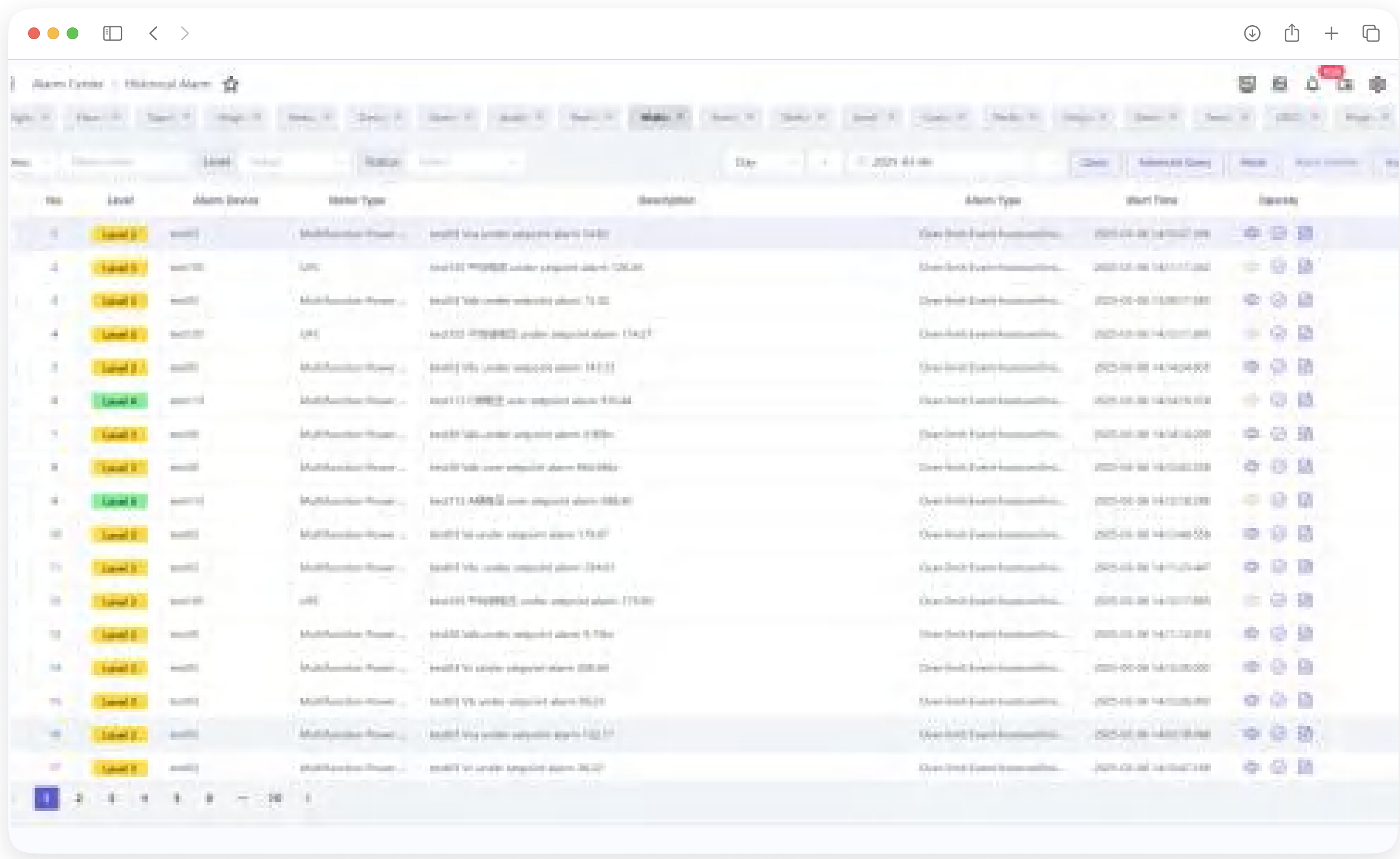
Historical Alarm Queries

Records and stores all alarm data, including alarm type, occurrence time, assigned personnel, and resolution status.

Supports multi-dimensional filtering by time, equipment, and alarm severity level.

Provides statistical analysis of alarm data and generates monthly, quarterly, and annual reports.

Allows correlation analysis to identify recurring failure patterns and optimize maintenance strategies.



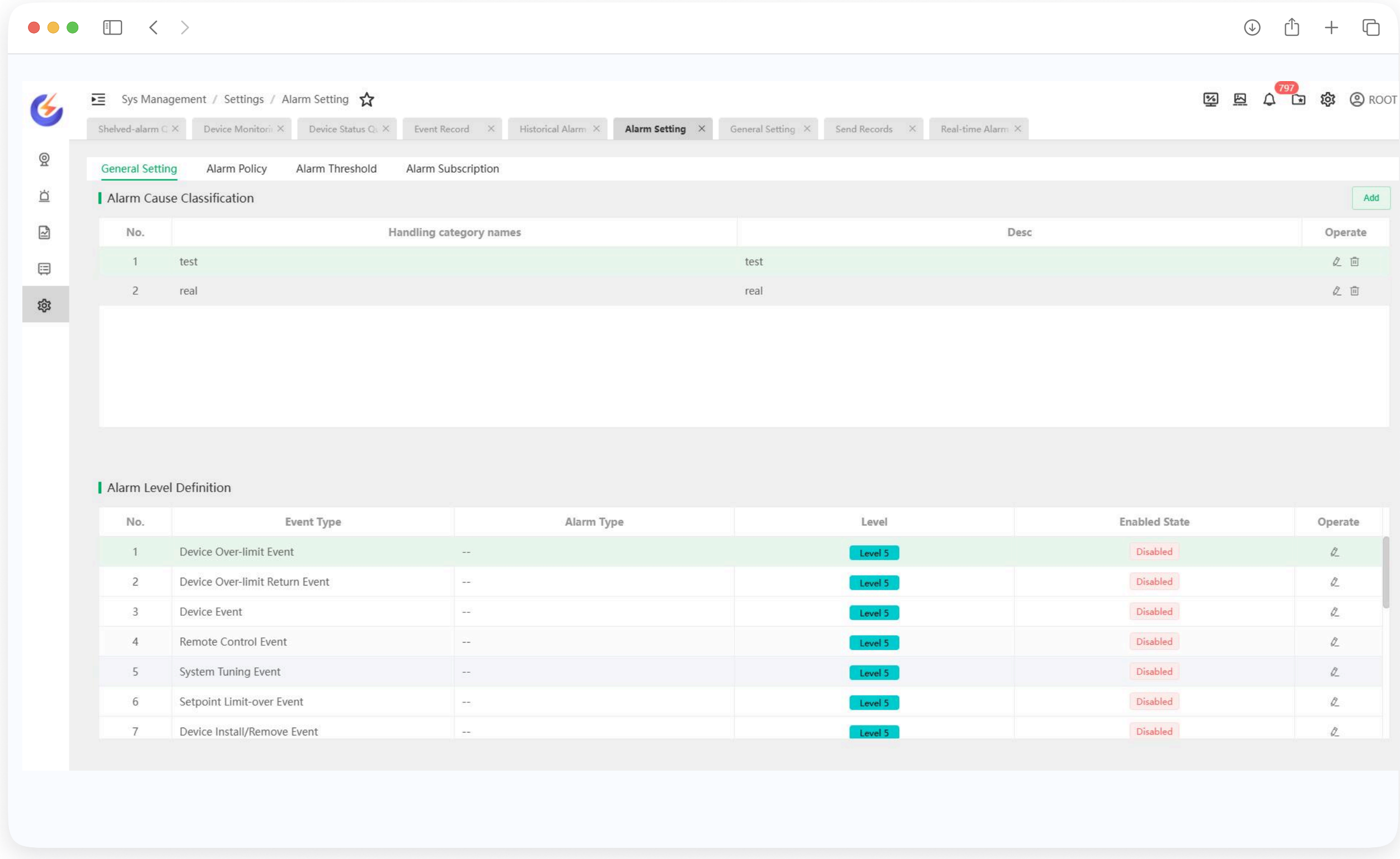
Alarm Lifecycle Management

Every alarm record includes lifecycle attributes such as start time, end time, and acknowledgment time.

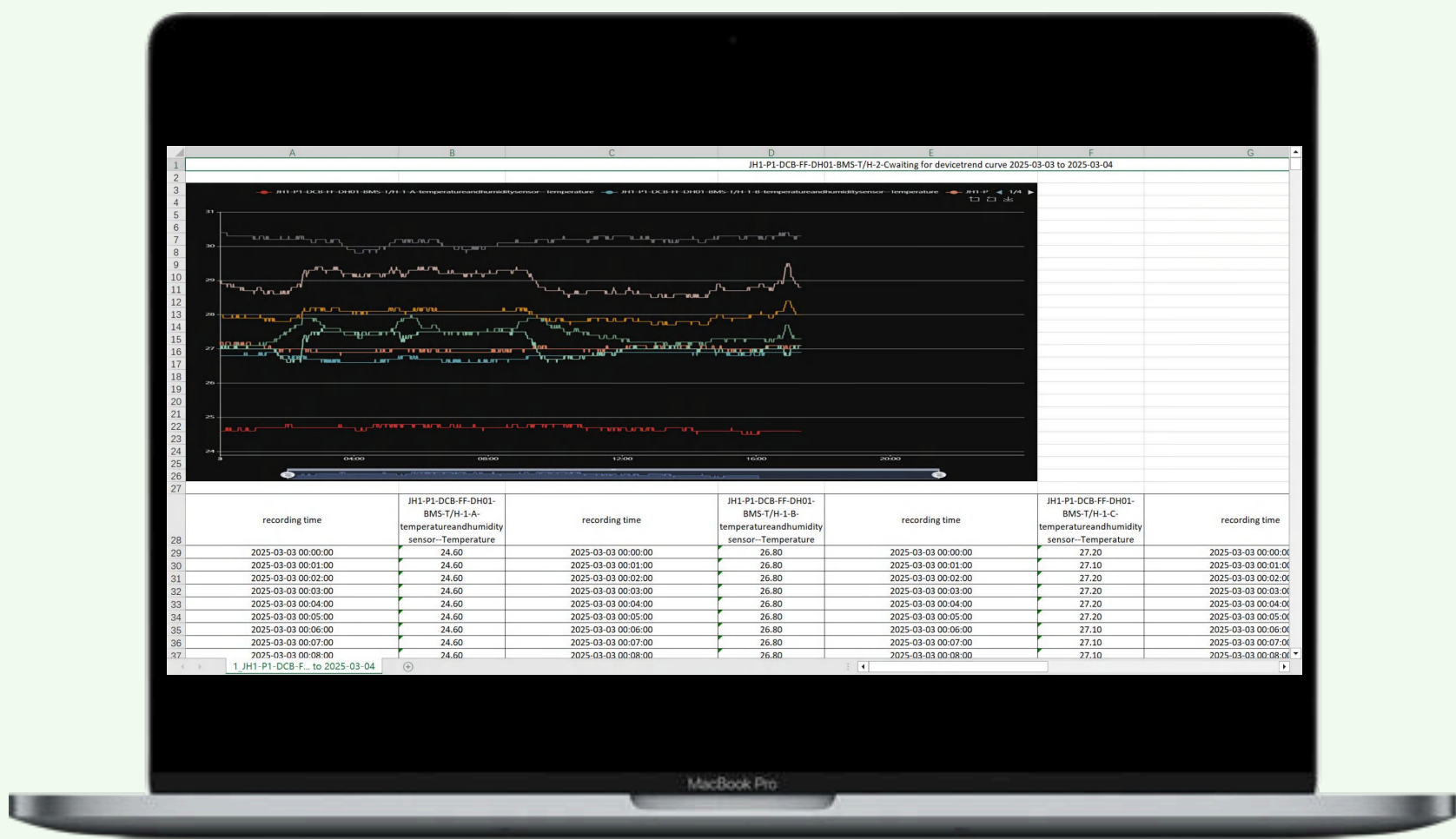
Features automated tracking to issue reminders for unresolved alarms.

Generates alarm processing analysis reports to help managers optimize maintenance strategies.

Supports workflow automation, enabling automated escalation of critical alarms to appropriate personnel.



Energy Consumption Analysis



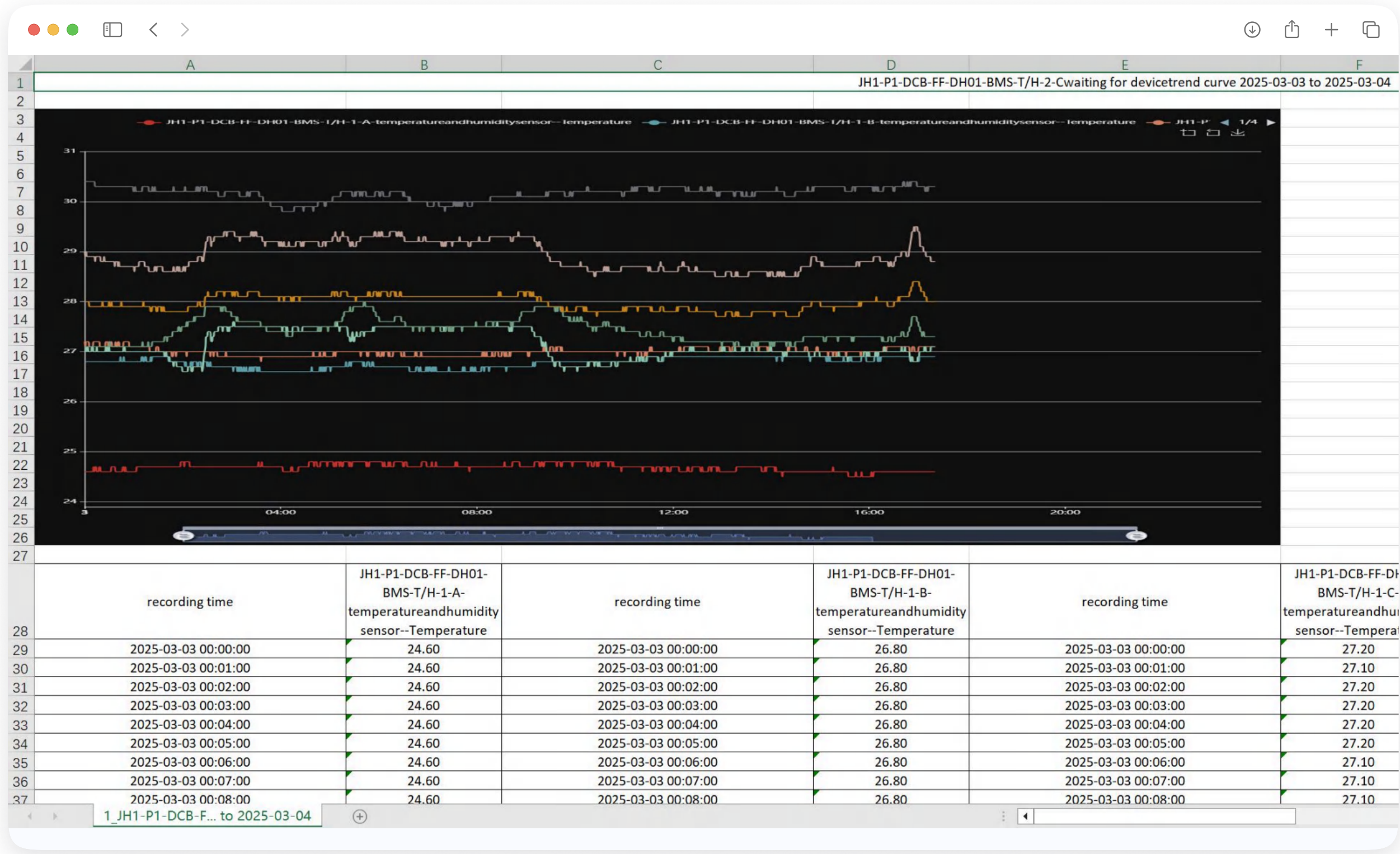
Energy Consumption Analysis

Records and stores all historical data, including device energy consumption, temperature and humidity logs, and air quality monitoring.

Supports periodic data storage, with automatic archiving on a daily, weekly, and monthly basis.

Provides curve queries, analysis, and printing functions to help users visually analyze energy trends.

Includes automated energy benchmarking to compare system performance against industry standards.



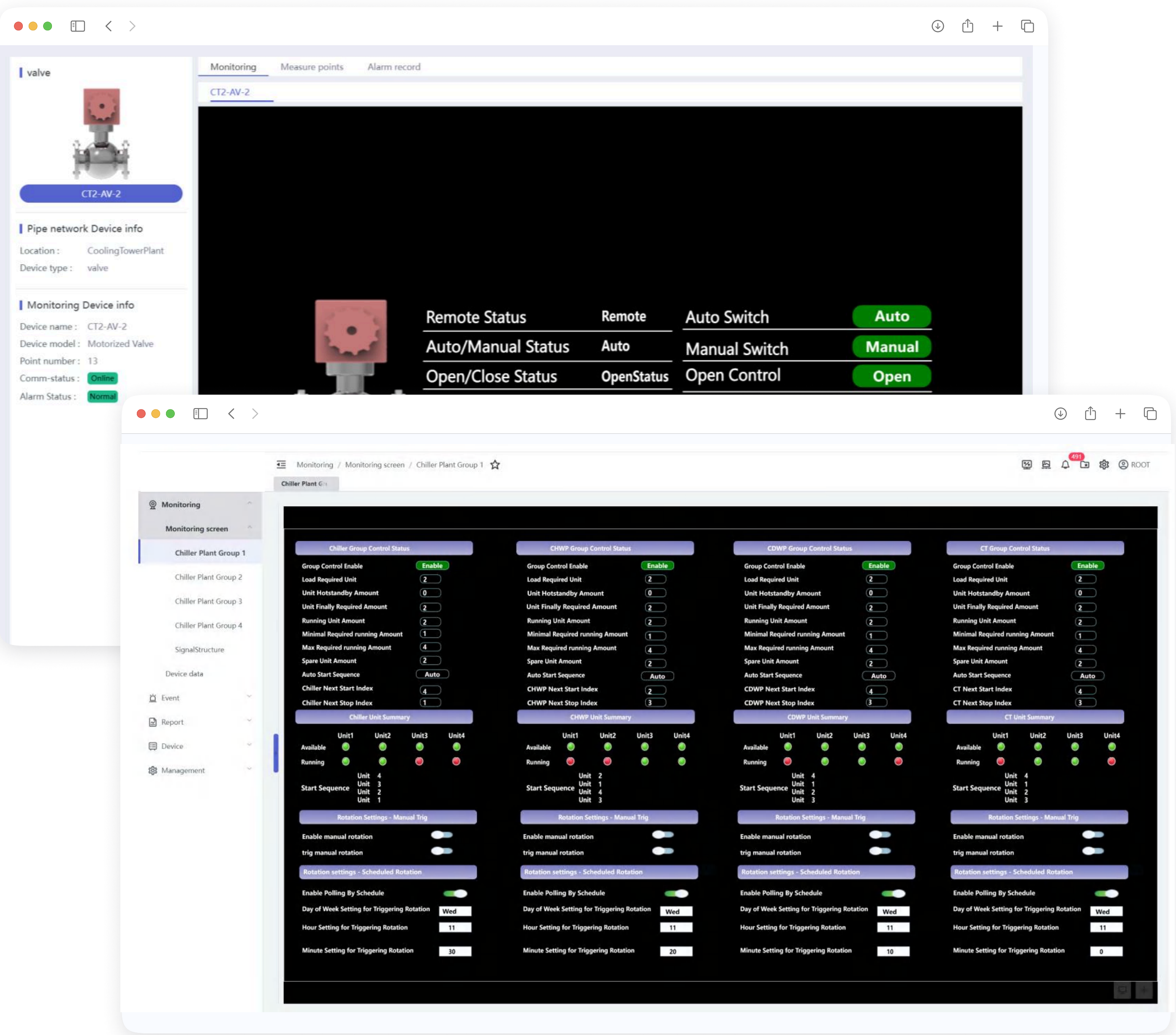
Remote Control

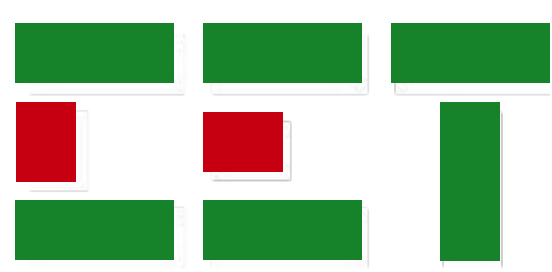
Remote control functions feature strict permission management, ensuring that only authorized users can operate the system.

All remote operations and parameter modifications are encrypted and require secondary confirmation pop-ups to prevent misoperations.

Supports remote logging to track all remote operations in detail.

Provides session timeout and multi-factor authentication for added security.





Highly Visualized Monitoring Interface

Supports 2.5D/3D displays, providing an interactive user experience.

Multi-Dimensional Data Analysis

Combines historical data, real-time monitoring, and AI predictions to enhance system intelligence.

Powerful Remote Management Features

Includes remote control, alarm notifications, and log tracking to improve operational efficiency.

Smart Energy Optimization

Utilizes big data and AI algorithms to provide precise energy-saving strategies.

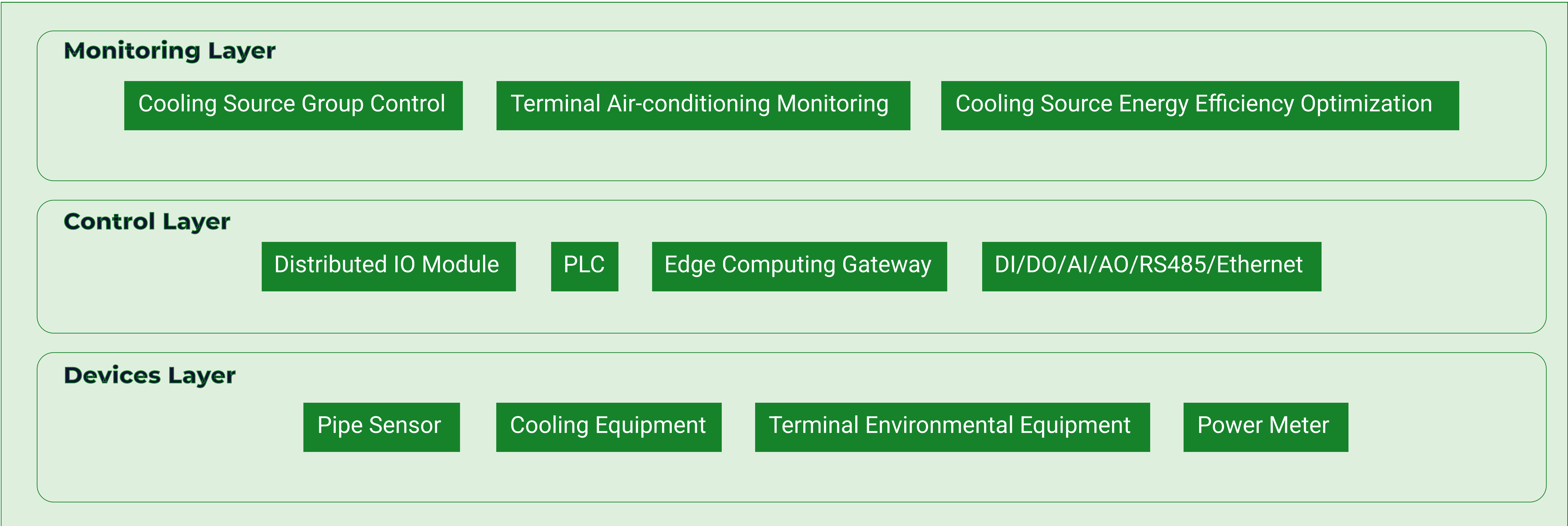
High Compatibility

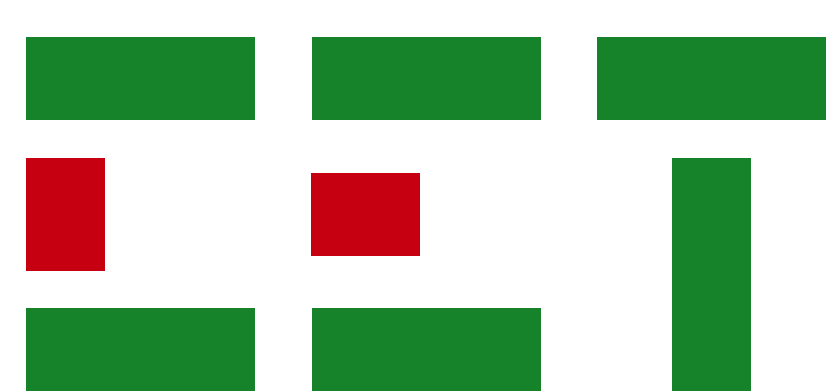
Supports multiple communication protocols and can seamlessly integrate with existing BA systems.

Sustainability & Compliance

Provides detailed reporting on energy efficiency and environmental impact.

This system is widely applicable for HVAC management in data centers, significantly improving overall operational efficiency, reducing maintenance costs, and enhancing equipment reliability.





FOR MORE INFO, PLEASE CONTACT

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