Data Center Monitoring
Wireless Server Room Environment Alerting & Reporting
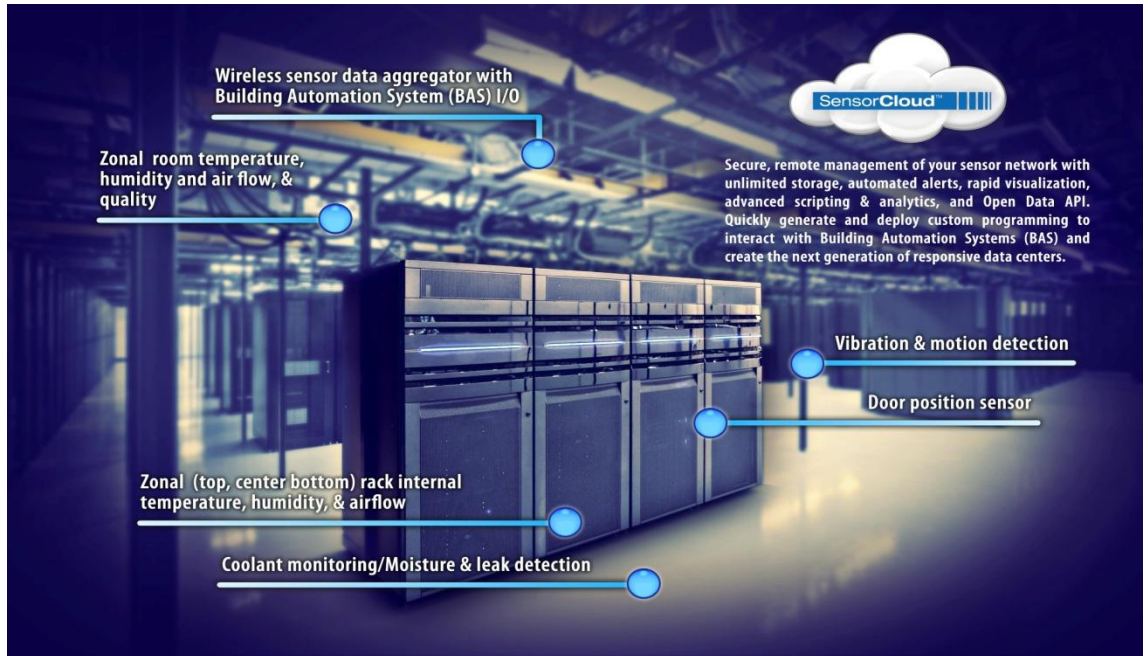
APPLICATION

Industry: Buildings

Field: Health Monitoring & Environmental Monitoring

Products: TC-Link, EH-Link, & WSDA-1000

Parameters: Temperature, Humidity, & Airflow

Wireless sensor data aggregator with Building Automation System (BAS) I/O

Zonal room temperature, humidity and air flow, & quality

SensorCloud™

Secure, remote management of your sensor network with unlimited storage, automated alerts, rapid visualization, advanced scripting & analytics, and Open Data API. Quickly generate and deploy custom programming to interact with Building Automation Systems (BAS) and create the next generation of responsive data centers.

Vibration & motion detection

Door position sensor

Zonal (top, center bottom) rack internal temperature, humidity, & airflow

Coolant monitoring/Moisture & leak detection

BENEFITS

- Extended computer life

- Verify maintenance and improve schedule

- Minimize unscheduled downtime

- Optimize server layout for efficient airflow

- Optimize HVAC systems for lower operating cost

- Easy retrofit of existing servers rooms

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Wireless Indoor Environmental Sensing

Data centers are designed to operate in a narrow condition range. Deviations from optimal temperature, humidity, and airflow significantly impact HVAC costs and can ultimately undermine operations, maintenance, and useful-life. According to Lawrence Berkeley National Labs, air conditioning for a high density server rack costs up to $17,000 annually, or 50% of total cost of ownership. LORD MicroStrain® wireless sensor networks provide a scalable monitoring technology for reporting distributed data center conditions and optimizing cooling routines for reduce operating costs.

LORD's wireless temperature, humidity, and airflow sensors are easily embedded in or externally deployed on server towers. Low-power communication protocols combined with optional airflow or temperature gradient energy harvesting eliminates battery maintenance for autonomous networks of thousands of wireless sensor nodes across numerous racks, zones, and other points of interest.

End-To-End Monitoring

Combined with SensorCloud™ web-based network monitoring and management, LORD MicroStrain provides a sensing solution that delivers actionable performance information on any web-connected device.

SensorCloud remote network management, analytics, and open API allow users to define their key thresholds, and automate real-time condition responses and alerts—from any location. Operators can easily track power-usage effectiveness, assess cooling and ventilation performance, identify hotspots, and program automated systems to respond and report. As a result, it has never been easier to verify maintenance, optimize HVAC, and predict preventative maintenance for cost-effective server ownership

LORD MicroStrain®
SENSING SYSTEMS