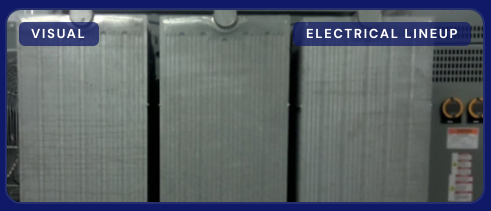
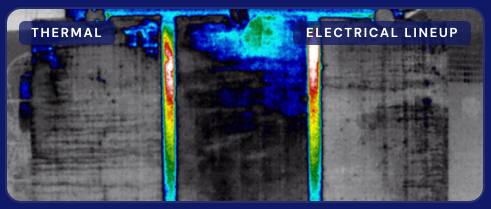
MultiSensor AI

INDUSTRY DATASHEET

Data Centers





The question is not whether you still see failures. It is whether you are still relying on your redundancy.

MSAI Connect is a multi-sensor condition intelligence platform for always-on data center power and cooling infrastructure. Built for critical facilities managers and chief engineers in enterprise and regional colocation, it operates above BMS and DCIM and turns continuous thermal and vibration data into condition intelligence.

57% over $100K

of operators say their most recent major outage cost more than $100,000; one in five say it exceeded $1M.

Source: Uptime Institute, 2026

40% from UPS failure

The most frequent contributor to major power-related outages.

Source: Uptime Institute, 2022 incident data

24/7 monitoring

Thermal at 5 to 25 frames per second, 5 for most use cases. Every frame, not an annual snapshot.

DESIGNED FOR

- Centralized UPS systems
- MV and LV switchgear lineups
- Central plant cooling
- Sites relying on annual IR inspections

THE EXPOSURE

TODAY

When a UPS, switchgear component or cooling unit begins to degrade, the first sign is often a controlled switchover, not an alarm. Redundancy absorbs the event. It does not tell the team the degradation was forming, or how long the facility will run unprotected while the repair completes.

WITH MULTISENSOR AI

Degradation surfaces with enough lead time to schedule the work in a controlled maintenance window. That shortens the period the facility runs without redundancy. Earlier detection does not prevent the switchover; it preserves the redundancy margin around it.

WHAT WE COVER

USE CASE	METHOD AND POSITION
Electrical connection integrity and hotspots	Thermal, on UPS systems, switchgear lineups and distribution
Cooling and airflow thermal faults	Thermal, across central plant cooling
Cooling plant imbalance and misalignment	Vibration, with thermal as the secondary signal
Rooftop solar panel performance	Thermal, delivered as Solar Performance Monitoring
Cooling rotating plant bearing wear	Thermal and vibration today, with stated limits on severity screening
Liquid-cooling support infrastructure	Augments rack-space leak detection in CDU galleries and secondary loop piping. Never primary leak detection
Pressurized refrigerant and coolant leaks	Thermal detects a cold-spot signature only

INSIDE THE PLATFORM

Continuous thermal and vibration

Fixed-mount thermal and vibration on the live stack, monitoring continuously between inspection cycles rather than replacing them.

Expert-calibrated alerts

Corroborated across sensors before they escalate, so a technician's shift is spent on a confirmed problem, not a false positive.

Complementary to DCIM

DCIM looks inside the data hall. MultiSensor AI covers the power and cooling infrastructure outside and supporting it.

HOW IT WORKS

01 SENSE
Fixed-mount thermal and vibration on UPS, switchgear and cooling plant

→

02 CONNECT
The MSAI Hub processes on site and transmits encrypted

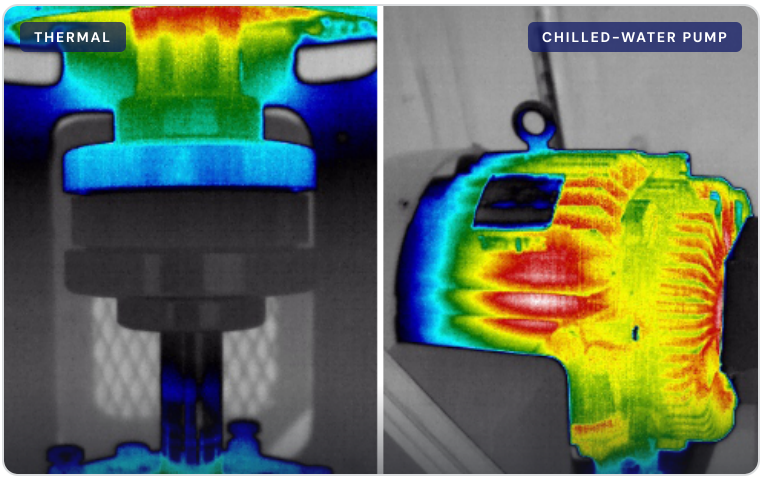
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03 ANALYZE
MSAI Connect corroborates across sensors and scores confidence

→

04 ACT
Expert-calibrated alerts into the workflows you already use

SCENARIO



CENTRAL PLANT COOLING

A chilled-water pump drifts out of alignment while its redundant partner stands by.

Vibration shows the imbalance forming before the pump trips; thermal shows heat building at the motor. Corroborated, it becomes a scheduled repair in a controlled window, so the plant spends less time running without its spare.

SPECIFICATIONS AND BOUNDARIES

SENSING
Fixed-mount thermal and vibration. Thermal is continuous at 5 to 25 frames per second, 5 for most use cases.

DEPLOYMENT
Cloud or on-premise. On-premise is available with MSAI Connect.

INTEGRATION
Operates above CMMS, BMS, DCIM, PLC and SCADA and feeds the workflows already in use. Replaces none of them.

INSTALLATION
Electrical connections inside enclosures need infrared windows or work inside energized equipment, scheduled with the site.

CONTROL BOUNDARY
Does not modify control logic, protection schemes or redundancy design, and takes no autonomous action on equipment.

SAFETY BOUNDARY
Not a code-compliant fire detection or life-safety system. No uptime guarantee or outcome SLA.

MultiSensor AI closes the visibility gap. That means earlier detection of degradation, and time to get ahead of unexpected, high-cost failures.

BOOK A DEMO