



Thermal Imaging Platform for Critical Asset Monitoring

Challenges

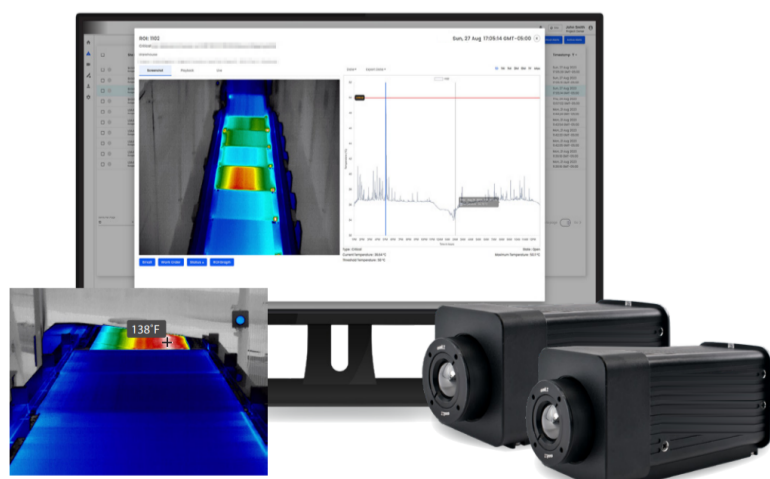
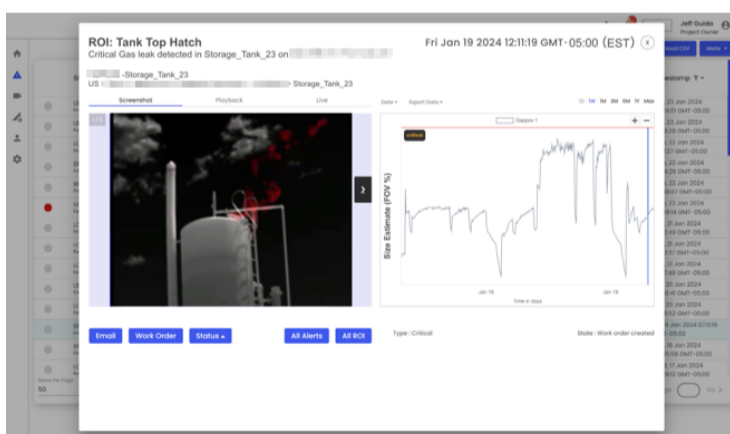
Asset failure in industrial settings causes downtime, waste, and potential safety issues

Handheld thermal cameras have been used by maintenance and reliability professionals to perform facility and asset inspections for decades. However, calendar-based inspections with handheld infrared cameras often miss failing systems or components and lack historical comparison data needed to identify assets that are wearing out and are prone to upcoming failure. This is especially true with complex assets in industrial settings such as belts, motors, bearings, gearboxes, and electrical components. For assets that support critical operations and whose downtime is costly, intermittent, calendar-based inspections miss many issues and cause waste and safety issues.

The MSAI Connect Solution

Continuous asset monitoring with thermal Imaging identifies issues before critical failure

MSAI Connect combines thermal imaging with a proprietary monitoring and analysis software to manage critical mechanical and electrical assets in industrial environments. Every asset has a “normal” operating temperature range and deviations indicate a potential issue. MSAI Connect provides accurate, continuous, and real-time temperature reading of assets and notifies users of changes before critical failure. The robust reporting provides key insights to improve materials sourcing, predictive maintenance process, and safety protocols.



Benefits

MSAI Connect prevents operational downtime and critical failures throughout industrial facilities by continuously monitoring critical electrical and mechanical assets whose unplanned failures lead to stagnant workers, lost throughput, and high maintenance costs.

»» 24/7/365 Monitoring & Real-time, Automated Notifications

Fixed mounted thermal cameras are fed into MSAI Connect to provide continuous monitoring of critical assets. Any issues or temperature anomalies trigger instant email, text message, or phone call alerts to appropriate team members so that they can proactively address the issue.

»» On-Site or Remote Monitoring of Live or Recorded Video

Access live or archived video feeds, from an unlimited number of thermal cameras, anywhere with an internet connection. Monitor a single camera on a facility's premises, or dozens of cameras across multiple locations and applications.

»» Integrate with Work Order & Operational Systems

Seamlessly integrate into organizational systems and processes, including video management, manufacturing, maintenance, and operational platforms for seamless KPI tracking and ROI analysis. Issue work orders directly from the MSAI Connect platform.

MSAI Connect on AWS

MSAI Connect offers industrial organizations a completely new and unified integrated thermal imaging platform. With the ability to avoid operational downtime, improve predictive maintenance and even help prevent safety incidents, MSAI Connect leverages AWS's modern and global infrastructure for best in class cloud security and scalability. MSAI Connect utilizes Amazon Elastic Compute Cloud services to provide scalability of analytics to meet the demanding needs of thermal imaging processing. By leveraging Amazon Kinesis Video Streams with WebRTC, MSAI Connect can securely present live streams of video and media in real-time. Coupled with Amazon QuickSight to presents business analytics via dashboards, MSAI Connect delivers a high quality thermal monitoring experience.

Case Study: Fortune 50 Distribution Center

»» Challenges

This customer was experiencing regular unplanned downtime caused by unexpected failures of critical equipment throughout their distribution facilities, despite monthly inspections with handheld thermal imaging devices.

»» Solution

MSAI's solution included three fixed mount infrared imaging cameras, integrated into the MSAI Connect platform for continuous asset monitoring. The solution is proven to identify issues before failure to make the most of scheduled facility downtime and avoid associated costs.



Results

At a system cost of \$30,000 for three thermal imaging devices and three annual MSAI Connect subscriptions, the MSAI solution provided a positive ROI after approximately one month.



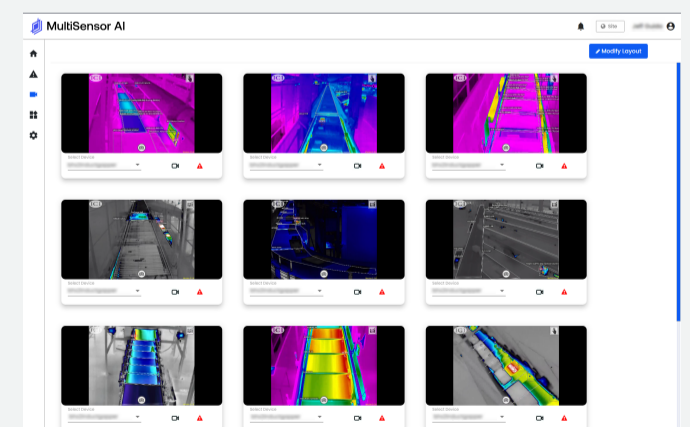
Features

Continuous Condition Monitoring

The continuous monitoring of critical mechanical and electric assets ensures any temperature anomaly will be detected and investigated. In doing so, MSAI Connect identifies issues before failure to make the most of scheduled facility downtime, thereby reducing emergency maintenance costs, stagnant worker wages, and lost productivity.

Predictive Analytics & Reporting

MSAI Connect leverages proprietary ML/AI capabilities to set temperature benchmarks and identify deviations, indicating an upcoming asset issue. These datapoints are turned into insights that inform predictive maintenance strategies, materials sourcing, and safety protocols. Dashboards and reports are entirely customizable to fit organizational structure and processes, communicating the most relevant



Get started with **MSAI** solutions on AWS

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