

Data Centers Monitoring Solutions From Manual to Digital

Evolving strategies in electrical asset condition monitoring for modern data centers

Assisting data centers

in digitizing electrical asset maintenance processes to provide clients with enhanced reliability in services.



Data centers are vital hubs in our modern world, supporting the storage and processing of vast amounts of data. They serve as the foundation of our digital infrastructure. However, managing these centers effectively and keeping them running smoothly can be quite a challenge.

The importance of handling data center assets is increasing as data interruptions become more closely linked to financial and reputational risks. The monetary impact of power outages is becoming more

apparent, prompting electrical teams to focus on restoring services in terms of cost per minute rather than the traditional time frame of hours or days.

In data centers, electrical assets encompass various components and systems that manage power distribution. These include generators, transformers, switchgear, and UPS (Uniterruptible Power Supply) systems. Effective management of these electrical assets is crucial to ensure optimal operation, prevent failures, minimize energy waste, and improve overall performance.

It is the responsibility of Operations and Maintenance crews to proactively identify and address potential threats, ensuring the efficient management of outages to uphold the stability of business operations. Data centers serve as critical infrastructure, and their locations are strategically chosen to ensure access to well-designed power sources. Many of these centers are equipped with contingency feeds to maintain stable operations in the face of faults or failures.





Integrating continuous asset management through online monitoring offers several advantages. It enables operations and maintenance management to reduce costs, make data-driven decisions, and enhance the safety of both personnel and property.

At Rugged Monitoring, we've innovatively crafted an extensive array of products, encompassing sensors, monitors, and our cutting-edge asset performance management software, known as "RMEYE." These offerings have been specifically designed to address and fulfil the diverse monitoring requirements of data centres. Our commitment to providing comprehensive solutions underscores our dedication to optimizing and enhancing the efficiency of data centre operations.

Data Centers Operators

Operators of data centers oversee critical components vital for an organization's IT functions. Monitoring individual asset usage and hardware health aids operators in managing workflows and enhancing efficiency.

IT Teams

Downtime

Downtime caused by hardware failures can incur significant costs. Monitoring data centers enables IT teams to maintain network stability and minimize downtime. It also simplifies asset tracking, eliminating the need for manual spreadsheets.

Power and Network Teams

Sensor data and monitoring devices assist power and network teams in troubleshooting connectivity issues. Through Asset Performance Management Software RMEYE, immediate alerts are received when critical thresholds are breached.

Facilities Teams

Monitoring data centers enables facilities teams to track environmental changes that may affect operational efficiency. Parameters such as temperature, humidity, and airflow are monitored to ensure optimal conditions.

Finance Teams

Who Can

Benefit from

Data Centers?

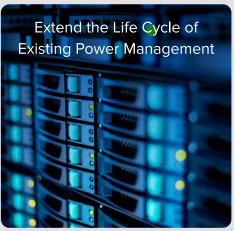
Monitoring

Finance teams can utilize data center monitoring to track asset lifecycles and allocate resources for upgrades. Additionally, they can monitor usage for individual clients and bill accordingly.



How Does Monitoring Aid in Data Center Asset Management?







What Can be Monitored?



Oil Type and Dry Type Transformers



Rotating Machines



Switchgears



Power Electronics

Features

- Real-time Monitoring
- Fault Detection and Analysis
- Data Driven Decision Making
- Predictive Maintenance
- Advanced Alarm and Notification Systems
- Scalability and Customization
- Reporting and Analytics





Benefits

- Higher productivity
- Increase asset life expectancy
- Greater cost efficiencies
- Optimize maintenance schedules
- Asset digitization and analysis
- Improve facility and operator safety

Plan, Manage, and Automate Your Data Center Infrastructure

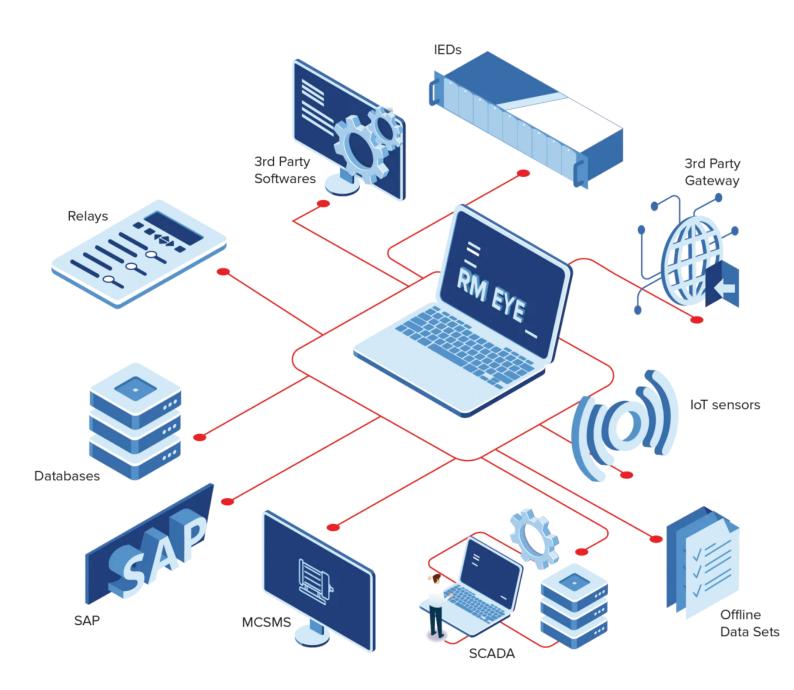
Rugged Monitoring offers a comprehensive solution to streamline data center infrastructure management. Our platform provides real-time insights into asset visibility and energy usage, enabling prompt response to anomalies. Operators can automate inventory tracking, resource allocation, and task scheduling, enhancing efficiency and minimizing errors.

By centralizing data and processes, our solution enhances operational efficiency and minimizes the risk of errors or oversights.



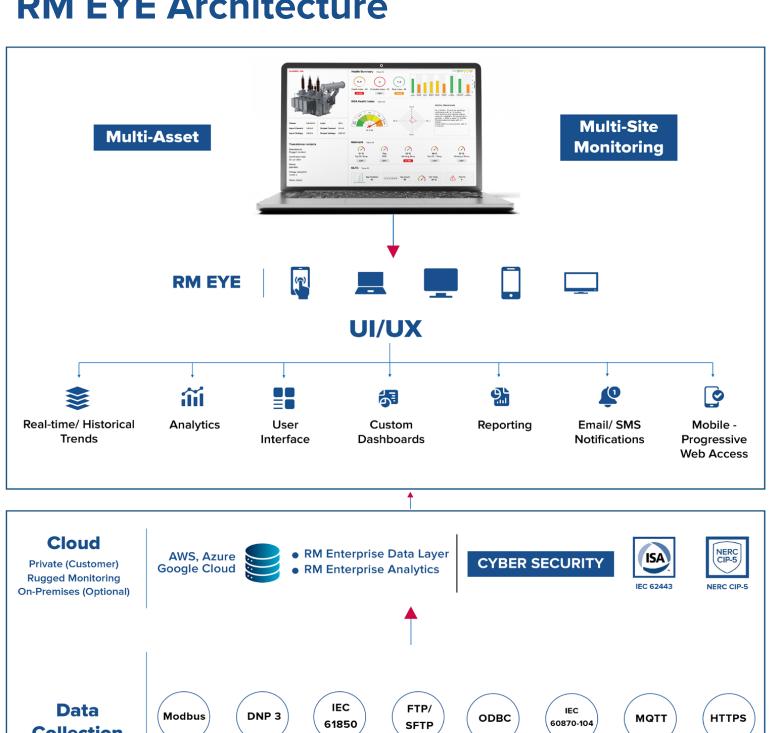
Enterprise APM Suite: RM EYE

RM EYE represents a paradigm shift in enterprise asset performance management through the condition monitoring of electrical assets. It uses an Al-driven approach to assess the health and performance of diverse assets, delivering transformative and sustainable outcomes related to their health, performance, energy efficiency, and integrity.



Rugged Monitoring's RM EYE transforms traditional time-based maintenance into a proactive approach, equipping businesses with real-time insights into the health of their electrical assets. By detecting potential issues early on it helps create a dependable and efficient predictive maintenance system.

RM EYE Architecture























Assets Data



Transformer Monitoring System



Switchgear Monitoring System



Monitoring System



Power Cable Monitoring System



Generator **Monitoring System**



Offline Data/ Inspection



Power Electronics (Battery, UPS, VFD, Relay)



One Solution for Multi-Site Multi Asset Monitoring

RM EYE - Unified platform to monitor entire network of electrical assets

Features

- Advanced asset health monitoring with analysis and recommendations to increase asset effectiveness in addition to maximizing equipment uptime
- Modern remote monitoring solutions provide valuable insights to Multiple Assets at Multiple Sites from time to time
- Establish a real time and consistent monitoring by getting the right information into right hands
- Simple and user-friendly interface providing easy and fast access to all the features
- Everything about the asset at one place
 The raw data, analysis and
 recommendations
- Advanced asset algorithms for electrical assets to evaluate asset health
- Advanced reporting technology with automated alerts
- An efficient, reliable partial discharge monitoring for all the assets
- A detailed comprehensive DGA analysis

- Built on well-established remote and cloud-based monitoring technology
- Quick configuration so that you are not required to configure separately.
- Protocols: MODBUS, MQTT, IEC61850
- Robust integration with 3rd party systems and devices with industry standard protocols
- Bulk configuration imports for fast deployment
- Encompasses a secure access to data and configuration
- QR code scanner on mobile devices
- Accessible on web browser and mobile app
- Historical data storage and on demand access via export feature
- Extended multilingual support to handle product inquires or troubleshoot problems proactively
- Systematic fleet management analysis
- Offline test data integration and analysis

Why Customers Choose Us?



Expertise You can Trust

Backed by 100+ years of experience. we understand the unique demands of critical asset management across diverse industries.



Focus on Sustainability

Our Solutions are designed to help you reduce energy consumption, minimize waste, and align with your sustainability goals.



Money Matters

We offer competitive and transparent market pricing to protect you from currency fluctuations.



Customer Centric Approach

From consultation to deployment and beyond, we are committed to delivering exceptional support, personalized service, and timely project completion.

CERTIFICATIONS







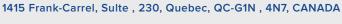












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