



UPS Monitoring System

From GreenField Software

Complete and Integrated UPS Monitoring with GFS Crane CIM



From GreenField Software

Why UPS Monitoring?

An uninterruptible power supply (UPS) is a backup power source that activates when the main source fails. The word "uninterruptible" means that the power supply will activate quickly enough to prevent the downstream devices from ever losing power when the main power source goes dark.

An UPS provides an important protective barrier against data loss, expensive hardware damage, and even loss of life. UPS is therefore an extremely critical device in any Data Center, financial services, health care or Telecom power infrastructure. The availability of an UPS itself is of utmost importance to ensure high availability of the devices it serves.

To ensure high availability of an UPS, real-time monitoring is extremely important.

Existing Monitoring Methods and Challenges

Apart from preexisting manual methods of monitoring, most facility managers today rely on the 'built-in' web interface that come with most modern industrial UPS systems, for their monitoring.

However, there are a few major shortcomings in this monitoring method –

1. Using an UPS's own interface for monitoring defeats the reason of such monitoring. If the UPS fails, so too will the monitoring interface.
2. Monitoring of multiple UPS units, more so if they are from multiple vendors, becomes cumbersome with multiple monitoring consoles.

UPS Monitoring Best Practices

The industry best practice for UPS monitoring is to deploy an external monitoring system that can collect status, health and performance data from UPS systems over the network and display the monitored data on a dashboard, while at the same time send critical alarms and events, intercepted from the UPS, to designated support staffs in the form of email or SMS alerts. With the rise of Internet of Things (IoT) technologies, there is a rising demand towards remote monitoring, predictive and prescriptive analytics.

About GreenField Software



GreenField Software (GFS) is an Indian venture pioneering intelligent infrastructure management solutions. The product portfolio includes:

- Data Center Infrastructure Management (DCIM) Software
- Critical Infrastructure Management (CIM) Software
- Energy Management System (EMS)

UPS Monitoring – Use Cases



- Data Centers
- Enterprise End User Computing
- Telecom MSCs
- Base Transceiver Stations
- ATMs
- Medical Devices
- Manufacturing

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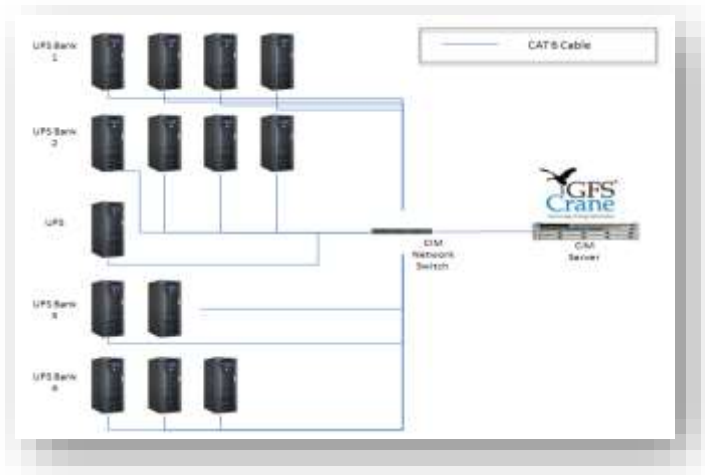


GFS Crane CIM for UPS Monitoring

GFS Crane Critical Infrastructure Management (CIM) Software comes with the capability of real-time monitoring of industry grade UPS systems used in mission critical environments such as data centers, financial services, health care and telecom infrastructure.

- With its multi-protocol support GFS Crane CIM can interface with UPS units over the network, using different communication protocols like SNMP, MODBUS/TCP and BACnet/IP.
- Once connected to the UPS, GFS Crane CIM starts monitoring vital parameters such as load, input & output power, current, voltage, frequency, power factor, battery health, core temperature.
- The monitoring data is displayed on a dashboard with predictive and historical trends, analysis on health, performance and alarm conditions.
- Warning and critical events/alerts are sent by the system to OEMs, support vendors and staffs over SMS and email for preventive action before an outage occurs.
- Dependency and relationship mapping, such as mapping critical endpoints connected with the UPS, is done by the system that helps in determining the cascaded impact in the event of failure or downgraded performance of the UPS unit.
- Can be on-premises, remote or via managed services offering.
- GFS Crane CIM is scalable to monitor and manage other critical systems besides UPS in the same organization through a single console.

Schematic Diagram – UPS Monitoring with GFS Crane CIM



Schematic Diagram 2 – UPS Monitoring with GFS Crane CIM

UPS Monitoring in Data Centers



If you are not looking for a complete DCIM now, but need real-time UPS monitoring to avoid one critical source of failure in the data center, GFS Crane CIM - UPS Monitoring System for Data Centers is your answer.

With GFS Crane CIM - UPS Monitoring System for Data Centers, you will get:

- Vendor neutral system
- Centralized system across multiple DCs
- Critical alerts on multiple parameters
- Monitoring of individual as well as banks of UPS
- Reports & predictive analytics
- Total IT Actual Power consumed at UPS level

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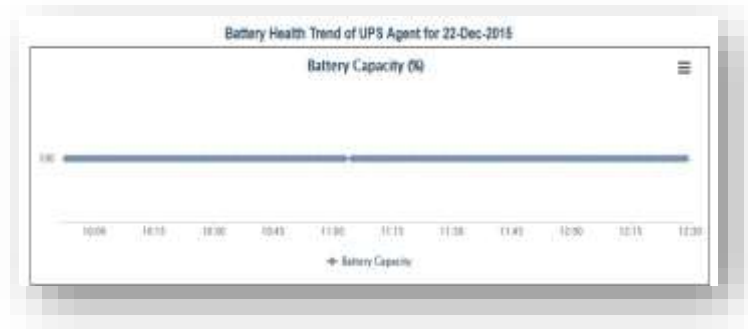
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UPS Monitoring System



Business Benefits

- ❑ Real-time UPS monitoring and alerting through GFS Crane CIM ensures critical equipment (like ATMs or medical devices) and Application Uptime, hence improved Business Availability
- ❑ Centralized and Automated Monitoring of UPS systems across different buildings and locations improves staff productivity, minimizes human error and hence improves operational efficiency
- ❑ Option of Remote monitoring and corrections reduces cost of deputing field engineers on-site
- ❑ Analysis and recommendations provided by GFS Crane CIM on how to improve UPS efficiency helps in improving energy efficiency and thereby helps to comply with energy-efficiency and emission-reduction goals and obligations
- ❑ Effective monitoring enables timely preventive maintenance of UPS systems, thereby extending life of an UPS system and deferring capital expenditure on procuring new UPS.

UPS Monitoring for ATMs



ATMs are required to be operational 24x7 for all 365 days in a year

Many of the ATMs, particularly in emerging markets, are situated in regions having occasional power outages or poor power quality conditions.

GFS Crane CIM provides vendor neutral and centralized system for remote monitoring of UPS in ATMs. Other benefits:

- No local agent required for remote monitoring of SNMP enabled UPS: low deployment cost
- Asset management function provides UPS locations & preventive maintenance schedules
- Device usage Reports
- Predictive analytics on potential UPS failures

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