



# Importance of DC monitoring for reliability, efficiency and reduced downtime

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# Data Centre Monitoring

1

**Importance of DC monitoring**

2

**What is typically monitored**

3

**Traditional DC monitoring systems**

4

**The evolution for DC monitoring**

5

**Summary of benefits**

- **Data Centres are mission critical application which cost a fortune in reputation and money when they go down**
- **It's a highly competitive market which demands availability and reliability of all systems 365 days a year**
- **1 Importance of DC monitoring**
- **Sustainability and success depends on the most efficiencies energy utilization possible at all times**
- **Rapid market growth demands scalability of all equipment across various disciplines**

**“You can’t manage what you can’t measure”**

**• Most commonly monitored equipment in a data centre revolves around the following:**

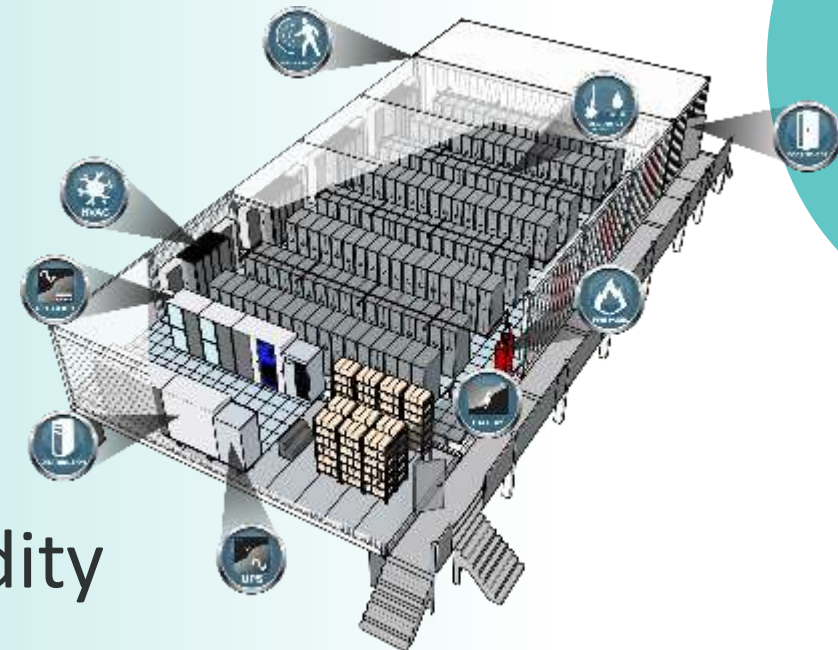
- Availability**
- Reliability**
- Efficiency**
- Capacity**



**Typically Monitored  
Importance**

## Power, Equipment & Environment

- Utility
- Generators & fuel systems
- Source selection switchgear
- Back-up power, UPSs, rectifiers & batteries
- Distribution paths
- Cooling equipment
- Water / fuel leaks
- Access and motion
- Fire systems
- Environment temperature & humidity
- etc



Typically Monitored  
Importance

- In the past, equipment status was very limited
  - Programable dry contacts for critical & non-critical
- Network operating centres were concerned with a handful of alarms and notifications
- People where responsible for interpreting the data and taking relevant actions to rectify problems
- In many cases 2 or 3 trips where required to site by multiple technicians to identify the issues and then take corrective actions
- Most network operating centres only operated reactively once the breakdown occurred
- PLC and SCADA systems where costly and not specific to data centre needs

Traditional Monitoring

Typically Monitored

Importance

## Challenges facing modern data centre owners

- Less employees to accomplish more
- Technicians become generalists, not specialists
- Rapidly growing demand for greater capacity
- Retaining relevant skilled employees
- Managing & filtering the vast alarms and notifications from improved intelligent equipment
- Ensuring competitiveness through efficiency and energy utilizations
- Reducing human error in the system
- All this while trying to focus on their core business

4

## The evolution of DC monitoring

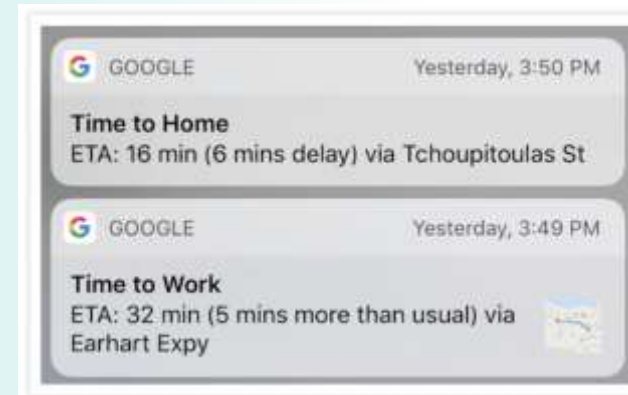
Evolution of Monitoring

Traditional Monitoring

Typically Monitored

Importance

- To day your fitness watch tells you when you have worked too hard
- Your car tells you the breaks need to be changed
- Your coffee machine walks you and tells you how warm to dress and how long it will take you to get to work
- Built-in equipment intelligence coupled with wifi access to cloud applications are a game changer to all industries including the data centre market



Evolution of Monitoring

Traditional Monitoring

Typically Monitored

Importance



All data centre critical secure power equipment has now got built-in intelligence which monitoring systems need to collect, analysis, predict outcomes, take actions and then alert operators



**Critical decisions** remain **on site** and are becoming more **automatized** to ensure uptime, while data trending for **predictive maintenance** and **failures** are moving to **cloud applications** for improved planning and condition based maintenance

Evolution of Monitoring

Traditional Monitoring

Typically Monitored

Importance

These changes mean fewer highly skilled staff are required to manage more data centre facilities

Solutions are executed by lower skilled operator on site following machine learning automated outcomes and highly skilled technicians in NOCs for more complex issues

So multiple data centre companies can share the costs for skilled experts through outsources monitoring centres while focusing on their core business, data!

Evolution of Monitoring

Traditional Monitoring

Typically Monitored

Importance

## DC Monitoring main benefits

- Improved reliability and uptime
- Greater sustainable efficiency while you grow
- Reduced OPEX for maintenance with fewer unplanned outages
- More time to focus on core business issues
- Outsourced monitoring, shared costs for expensive expert skills

4

## Summary of benefits

For more information or to learn more about the monitoring, products and services, please come join us at the Master Power stand

Summary of Benefits

Evolution of Monitoring

Traditional Monitoring

Typically Monitored

Importance

Design, Build, Own, Monitor & Operate

# MASTER POWER TECHNOLOGIES

