

# Equipment Maintenance

Preventative maintenance is crucial to ensure maximum reliability of your Mission Critical Facility

- **Work with Industry Professionals** with real world experience in design, installation and maintenance
- **A Vendor Neutral Supplier** who offers stakeholders a comparative assessment of a broad array of proposed provider solutions & capabilities
- **Providing a Comprehensive Understanding** of your mission critical equipment requires an understanding of how other assets in the facility will be integrated into the total solution
- **A Variety of Solutions Offerings**  
MDI is a single source for a wide variety of equipment maintenance

## Achieve a more reliable, redundant, and efficient data center

A data center's main function should be to provide constant uptime for the mission-critical applications it houses. However, unplanned outages can happen, and data center operators must be proactive in finding ways to prevent them. Inexperience, procrastination, perceived savings to OPEX; none of these are acceptable excuses for the inevitable meeting with the CTO/CIO after your worst nightmare becomes a reality.

Understanding the causes of data center outages and finding ways to address them are crucial to preventing business disruption that can lead to customer loss and damaged reputations.

Recent studies show UPS battery failure is responsible for more than 25% of data center outages. Just as critical is your generator battery and switchgear battery that operate your LSI and PLC controllers. Are you monitoring them and proactively maximizing their life? The second leading cause of data center outages, 24%, is human error. Do you have all operations documented and are all personnel trained?

If your facility has undergone a large growth cycle, changed parameters, upgraded equipment or had a turn over of staff, it may be advisable to re-commission your data center. Recommissioning will put your mind at ease and identify areas of concern and single points of failure - before they become career ending incidents.

## The MDI Perspective – What We Deliver

Step-by-Step – MDI will help you in developing a comprehensive preventative maintenance program or the re-commissioning of your critical equipment. MDI is your single source solution in the ongoing maintenance of any or all of the following:

- UPS Systems
- Battery Systems for UPS/Switchgear, Telecom
- Battery Monitoring Systems
- PDU
- DC Power Plants
- Inverters
- Static Switches
- Generators
- Busway Systems
- Surge Suppression
- IR Ports
- Infrared Thermography of Electrical Panels



Failed UPS Connection



Failed Switchgear Breakers



VRLA Battery Failure & Fire

## Our Approach

A comprehensive maintenance program is about more than just batteries. Let MDI create a Preventative Maintenance (PM) program that is tailored to your needs and exact situation. The following is a *sample* list of infrastructure assets that require a PM program. Its important to note, that none of these systems are stand-alone - they need to be maintained as an integrated system by a provider that understands the inter-relationship and inter-dependencies of the system as-a-whole. Our deliverables will include an accurate asset inventory, recommended actions, and priority level. In addition, we include a 5-year maintenance calendar with annual check ups to the list and calendar. MDI will help establish end of life policies.

Asset	Actions	Priority
Transformer	Tightness, torque of connections	Medium
PDU	Tightness, torque of connections, infrared thermography	Medium
Air/Water Systems	Piping internal densities, valves, seats and seals	Medium
In-Row CRAC	Filter, coil, firmware, piping connections, fan motors	High
Traditional CRAC	Belts, air filters, piping connections, compressor, motors, pumps, coils	High
UPS	Fans, capacitors, batteries, electronic boards	High
Raised Floor	Physical tiles, tile position, removal of zinc whiskers	High
Humidifier	Drain, filter, plugs, water processor	High
Transfer Switch	Switch components, firmware, torque	High
Batteries	Torque, connections, electrolyte / acid levels, temperature levels	High
Fire Alarm System	Valves, flow switches	High
Chillers	Oil pressure levels, gas levels, temperature settings	High
Generator	Filters, hoses, belts, coolant, crankcase breather element, fan hub, water pump, connections torque, alternator bearing, main breaker	High
Electric Panels	Tightness, torque of connections, infrared thermography	High

## In Summary

MDI Access is delivering on its promise to change the mission critical data center industry. We deliver forward-thinking advice and operation-enhancing solutions. MDI Access acts as your single point of contact for managing the cost, effectiveness and risk related to your information systems. No one else brings the holistic level of experience that MDI Access does.

Your business Deserves the Best Equipment Maintenance Program.  
Call MDI to Get Started.

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MDI Access, Inc. is a leading Data Center Design Build GC and advisor to many of the world's top tier organizations. Founded in 1992, MDI Access has provided clients with innovative, cost-effective infrastructure management and data center solutions, designing, building and retrofitting more than 1,000,000 square feet of central office and data center space in 25 states across the U.S., Canada and Asia. MDI Access has been recognized three times by INC Magazine as one of the fastest growing, privately held firms in the U.S.