REMOTE MONITORING LEADS TO COST-EFFICIENT FACILITIES MANAGEMENT

With smart sensors, you’ll have data to detect and diagnose potential problems. The more information you have, the more prepared you’ll be to prevent accidents, equipment malfunctions, fires and other costly issues.

Prioritize Maintenance Work Where It’s Needed Most
In many commercial buildings, legacy equipment is running with only periodic checks and reactive fixes. Particularly in older buildings, systems are often stressed beyond their original intended use. You can’t always afford to replace equipment and need to optimize what you have. Yet, a site management team can’t be everywhere at once, especially if there are hundreds of buildings within a portfolio.

Remote monitoring takes the guesswork out of determining when parts must be replaced and when maintenance is needed. You can focus resources on areas of concern instead of numerous routine checks.

Catch Small Problems Before They Become Big
Finding out too late that machinery is wearing out or overheating increases the likelihood of fires, accidents and injuries. A proactive approach reduces emergency repairs, which are typically more expensive than planned maintenance.

Sensors can be placed on equipment to monitor heat signatures, helping to establish baseline performance and indicate when it is drifting beyond accepted norms. These trends, which are not visible to the naked eye, can trigger maintenance.

Reduce Energy Costs and Carbon Footprint
Based on sensor data, use of central systems such as HVAC can be brought in line with occupancy and actual usage, which can lead to lower service charges. Building owners can demonstrate energy efficiency and increase property value.

Optimizing the central plant typically leads to a 15% energy savings from the point of sensor installation.
SMART SENSORS PROVIDE THE DATA YOU NEED TO BE PROACTIVE

**How It Works**
Temperature sensors are placed on equipment to monitor heat signatures. Proximity sensors are placed on doors to monitor opening and closing. Tactile sensors are placed in rooms for personnel to confirm work has been performed.

Sensors connect securely through Cloud Connectors with built-in cellular M2M and Ethernet and stream data through open APIs into any analytics platform. The Cloud Connectors relay traffic between all sensors in range and the Disruptive Technologies Cloud without the need for any user configuration or intervention.

Disruptive Technologies provides the secure sensor-to-cloud solution, while our partners provide the final application software and services. Disruptive partners are highly skilled teams of experts that provide all levels of support throughout the entire installation, configuration, and analysis process.

**Why Disruptive Sensors**
First-generation sensors were bulky, complex and often inaccurate. We've completely rethought sensor design to enable data collection anywhere and everywhere. There's no need to “rip and replace” legacy systems to turn them into “smart” equipment.

- Mini-sensors are the size of a postage stamp
- Low power consumption = long battery life
- Direct connections provide maximum accuracy
- Supports next-gen internet of things (IoT) networks
- Industrial-grade connectivity and built-in redundancy
- End-to-end security built into the design
- Extensible platform to integrate into your systems
- Robust construction
- Cost efficient

### Critical locations for sensors
- Central plant chiller circuits and secondary flow circuits
- Pumps and boilers
- Air handling units and fans
- Underfloor heating
- Chlorofiars
- Pipes and taps
- Distribution and circuit boards
- Motor bearings

### Conditions sensors monitor
- Temperatures, absolute and delta
- Overheating and freezing
- Movement of objects through proximity
- Status of valves (open and closed)
- Differential pressure
- Push-button confirmation of completed service
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