

Making Your Air Filtration Intelligent

Powered by MultiTech

Challenge

Air filtration units are critical in many industries but typically don't receive a lot of attention until they fail or air quality starts to decline. Remotely tracking critical components such as airflow, fan speed, filters, temperatures, and pressure differentials help systems run better to improve efficiency, maintenance, and uptime.

Solution

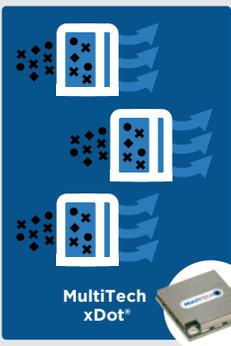
The solution is to add wireless LoRaWAN® and cellular connectivity to filtration equipment and monitor sensors using MultiTech Conduit® LoRaWAN gateways. The gateways provide remote cellular connectivity and use real-time collector performance data to help the customer optimize maintenance and operations, increase filter and equipment life, and track critical EHS compliance data.

The MultiTech xDot® LoRaWAN module captures data from the sensors and transmits that data wirelessly using LoRa® technology to connect to a gateway and the cloud application. The gateway can be independent of the filtration unit and one gateway can support thousands of end points.

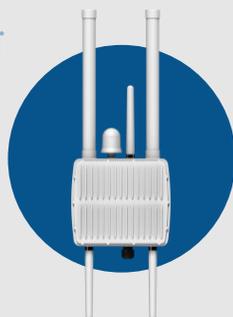
A variety of sensors can be used including differential pressure, airflow data and compressed air pressure of the filtration unit. The gateway utilizes a cellular connection to transmit sensor data to the cloud application.



Air Filtration Units & Wireless Sensors



MultiTech Conduit® IP67 Base Station Gateway



Data Cloud Platform



Monitor + Control



Benefits

- Automated readings replace manual readings of sensor data
- Uptime and reliability are maximized
- Maintain effective compliance data
- Creates efficient maintenance and operations

Reduced Downtime:

- Monitor sensor data and proactively address issues.
- Set limits and alerts to report on outlier conditions.

Efficient Maintenance and Operation:

- Automatically monitor the status of all your collectors from a single web-based dashboard.
- Proactively Identify potential issues before they create the need for larger, more time-intensive corrective action.
- Better manage and track operating and maintenance cost from items such as compressed air and fan energy use.

Manage and Track Regulatory Compliance Information:

- Access real-time performance data to complete compliance reports.

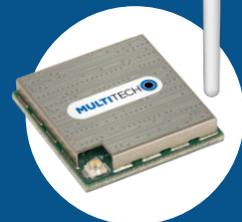
Minimize Exposure in Challenging Environments:

- Minimize exposure by reducing the need to access equipment with difficult locations, adverse climate conditions or physical hazards.



LoRa

MultiTech
Conduit IP67
Base Station
Gateway



MultiTech
xDot®

MULTITECH 