

TECH PAPER

With its dual-network capabilities, the Fluke 3563 fits most plant environments

The Fluke 3563 Analysis Vibration Sensor works with both Ethernet and Wi-Fi connections, enabling teams to implement it without infrastructure changes.

Many industrial plants choose either a wireless connection to the internet via a Wi-Fi router or an Ethernet connection through a cable.

The two systems, Wi-Fi and Ethernet, have their pros and cons, which is why some companies implement hybrid systems for connecting to a corporate network or the internet.

A vital feature of the Fluke 3563 Analysis Vibration Sensor is that it doesn't force companies to choose. The sensor works with both Ethernet and Wi-Fi connections, as well as hybrid systems.

IT teams are often reluctant to reconfigure their network infrastructure due to resources or security concerns, limiting maintenance teams' options. The Fluke 3563's dual-network capabilities enable teams to implement the sensor without changing their facilities' infrastructure. That means not shelling out a significant cost outlay just for communication.

Considerations when choosing Ethernet or Wi-Fi

Ethernet and Wi-Fi both have their benefits. Having options for sensor communication is helpful so that the burden doesn't fall on users. Here is a look at the two systems.

Wi-Fi

Wi-Fi, which stands for wireless fidelity, is less costly. Many maintenance facilities don't have Ethernet network wiring in place, which is more expensive to install.

Wi-Fi also has a greater range. It can expand on the outskirts of a facility like a roof or outside of the building. This range would be more challenging to have with Ethernet.

Some maintenance teams avoid Wi-Fi because of possible security issues. However, some have an invisible network so that only the people who manage the network will see it.

Ethernet

The Ethernet option offers greater security because it's hardwired, allowing users to control how the data gets from the sensor.

And since it's hardwired, this also prevents connectivity issues that can come with Wi-Fi. For instance, the Wi-Fi connectivity may not be as strong if a user locates the sensor inside a cabinet.

If the user pulls an Ethernet wire where the gateway is, connectivity isn't a concern.

Hybrid

If a customer chooses Wi-Fi, a Fluke Reliability team member will test the Wi-Fi connectivity during pre-deployment as an additional service. Testing ensures the customer has a strong Wi-Fi capability in the area where they will mount the sensors.

The team will determine how solid the Wi-Fi performance is for downloading and uploading data. If the connection is slow and challenging to have Wi-Fi continuously, the team will likely recommend choosing Ethernet, instead of Wi-Fi, or a hybrid approach.

Then the user must consider the expense to pull an Ethernet line and plug the gateway on the wall.

In some cases, maintenance teams might recommend using Ethernet in one area and Wi-Fi in another.

Cellular

If users have Wi-Fi, they can use a cellular router, which offers another form of communication.

Data goes to the gateway, and the gateway communicates to the router, which then talks cellularly into the cloud.

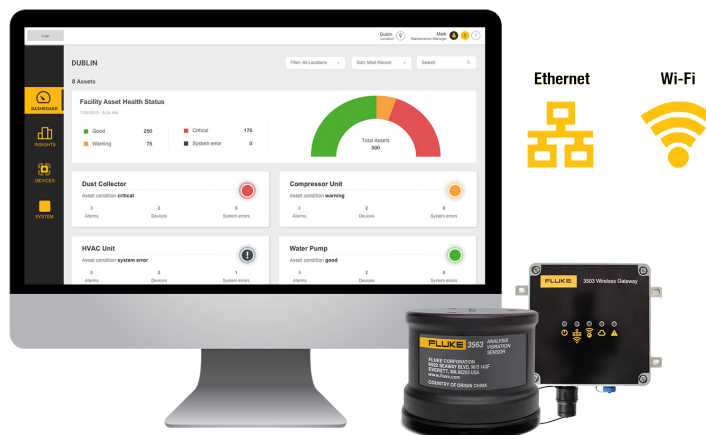
The data doesn't go to the customer's system, which means the customer can bypass potential security issues from a network perspective.

Each of these considerations depends on the customer's infrastructure and security concerns. The Fluke 3563 Analysis Vibration Sensor provides users options to choose what best suits their requirements.

About the system gateway

The Fluke 3563 connects to the Fluke 3503 Wireless Gateway, which serves as the central bridge between the 3563 and the Accelix™ Data Platform.

The gateway, compatible with both Ethernet and Wi-Fi, collects measurement data from the sensors and transfers the data to Accelix. A single gateway communicates with up to 20 sensors. The gateway uses a low-energy wireless protocol to communicate with the sensor.



How the Fluke 3563 works

