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The Mater Private Network uses Azolla FM software to address legionella issue

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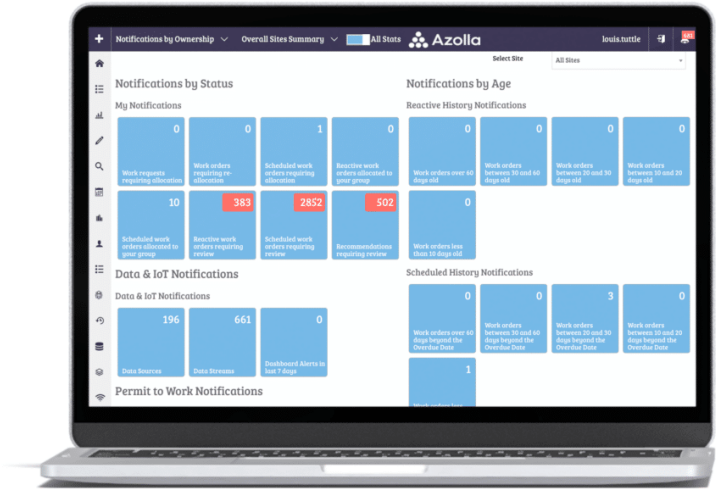

The Mater Private Network has used Azolla Internet of Things (IOT) sensor technology to address a recurring legionella issue at its flagship Dublin hospital, enhancing patient safety, reducing energy costs and saving engineering time.

The hospital (a centre of excellence for cardiac care) invested in IOT sensor technology after struggling to identify the cause of the persistent issue with its existing temperature monitoring system, which did not report or raise alerts in real time.

Its technical team deployed 20 IOT sensors across the eight-floor site, receiving temperature deviation alerts in real time and storing and trending live data in Azolla's facilities management software (which includes CAFM, IoT and Asset Management features). These portable, wireless sensors could be moved between locations, helping to map the hospital's infrastructure.

Thanks to the sensor technology, staff could take prompt action when an issue occurred. They were also able to identify the cause of the legionella problem – temperature deviations during periods of high demand.

Praising the new technology, head of the Technical Services Department Brendan O'Brien said: "Temperatures were dropping in the domestic hot water system, specifically around the calorifiers during periods of high demand.

"Once we established this, an additional higher-capacity heat exchanger was installed to maintain the temperature in the calorifier at 60 degrees during the periods of high demand. We were then able to reduce the operating temperature within the boilers from 83 to 73 degrees."

Using data stored in the Azolla software, staff also located vents that were not being adequately flushed. By introducing a new flushing regime and reducing the potential for ‘dead legs’, they were able to eradicate legionella permanently onsite.

As well as enhancing patient safety, the system has led to a significant reduction in energy use (from 6 – 23%, depending on the month) – and a subsequent reduction in energy costs.

Brendan added: “‘Once we had the data to make the correct decision, the solution was relatively quick. We have now created dashboards in Azolla that highlight temperatures in key parts of the system and this provides 24/7 oversight.”