



Wireless Sensors Use Case: University Dorms

The Problem:



Monnit was contacted by a facility manager for a prominent United States University. One of their buildings had an issue with a boiler pump failure that caused heating issues for one of their largest student dormitories. They were searching for a solution that would allow them to track both temperatures of their boiler output and vibration intensity of their pump motors. Their overall goal was to find a solution that would allow them to monitor boiler operation and catch issues early enough to prevent down time and minimize costs of repairs. Monnit provides a comprehensive monitoring solution with advanced alerting features at a fraction of the cost to comparable systems.

The Solution:



Monnit provides a reliable remote monitoring solution that includes wireless temperature sensors and accelerometers as well as a variety of other useful sensors. The company deployed wireless temperature sensors on the output pipes of their building boilers to monitor temperatures. They also placed temperature sensors and accelerometers on each boiler pump to monitor the operating temperatures and vibration levels. If the bearings are starting to go, the pump will get hot and vibrate more than normal.

The sensor data is sent wirelessly to a MonnitLink™ gateway located in the maintenance office in one of the dormitory boiler rooms. Due to the steel and concrete construction of the buildings, they placed a couple of wireless range extenders in opposite buildings to relay the data from their boiler rooms to the central gateway. The gateway sends the information to iMonnit™, the online sensor monitoring system. The wireless temperature sensors and accelerometers were set to check temperatures every hour. Notifications were setup to alert the property manager if temperatures are out of safe range and if excessive vibration is detected on a pump motor.

