

Cloud EMS Real-time HVAC Equipment Health Monitoring

Adding a duct sensor to your BAYweb thermostat converts your “dumb” HVAC unit from a potential liability into a closely watched capital asset with BAYweb Equipment Health Monitoring. When combined with the alerting and monitoring capabilities of BAYweb Cloud EMS, a duct sensor can save money, energy, and time by quickly identifying poorly performing HVAC units and automatically sending text or email alerts to the operator for timely repairs or replacements.

BAYweb Equipment Health Monitoring

BAYweb Equipment Health Monitoring is built into the Cloud EMS platform and is available free of charge to any users with a Professional Thermostat and duct temperature sensor.

Using the temperature reading from the duct sensor (installed in the supply duct) and the temperature of the inlet air (typically the indoor air temperature), Cloud EMS calculates the following equipment health metrics:

1. Heating/Cooling Health (Overall health of the unit)
2. Heating/Cooling Efficiency (Ability to heat or cool inlet air)
3. Heating/Cooling Reliability (Probability that the unit will fail to function effectively the next time it is turned on)

Reduced Operating Costs with BAYweb

Installing a duct sensor with a BAYweb Professional Thermostat gives you 24/7 monitoring of your HVAC equipment and immediate notifications of poorly performing units. This reduces operating costs in two ways:

1. Reduced energy costs due to unidentified poorly performing units
2. Avoided costs for “emergency” HVAC repair and replacement

Of all the BAYweb customers who have installed a duct sensor with their Professional Thermostat, approximately 10 percent immediately identified at least one failed or failing HVAC unit using BAYweb Equipment Health Monitoring. Before BAYweb, these units were turned on, using energy, and costing hundreds, or in some cases thousands, of dollars per month to run, but **they were not actually heating or cooling the spaces they were supposed to.**

Identifying poorly performing units before they fail completely can also eliminate the need for costly emergency service on HVAC units, which is typically two to three times the hourly rate of scheduled, non-emergency service. In most cases, the savings of avoiding emergency service even once is enough to pay for a BAYweb thermostat and duct sensor.