

# Anomalies Detected

## The Secret Life of Building Operations

**Case study:** The HiPerWare platform found hidden problems with the operation of the gas boiler in the winter chalet, which resulted in 15% excessive fuel consumption and water waste.

**Goals:** The owner of the chalet wanted to get remotely anomaly alerts of the heating system operation to avoid unexpected shutdown during his absence.

**Symptoms:** Everything seemed fine, there were no visible problems with the heating system - temperature in the chalet and water in the pool was maintained at the correct level. However, when the HiPerWare platform was installed, it identified significant temperature drop every morning at 7am, that could not be explained.

**Problem:** Analysts identified incorrect operation of the circulation pump that led to overheating of gas boiler, subsequently the safety valve released overheated water and then the system was refilled with cold water.

**Solution:** Using the HiPerWare platform, the problem in circulation pump automation process was identified and fixed. The circulation pump returned to normal mode of operation without overheating and water waste.

**Result:** This hidden operation problem was invisible to the owner and was identified by HiPerWare. The owner saved 7 tons of water consumption, 15% of energy costs and the boiler continued operating normally, extending the lifespan of the gas boiler.

