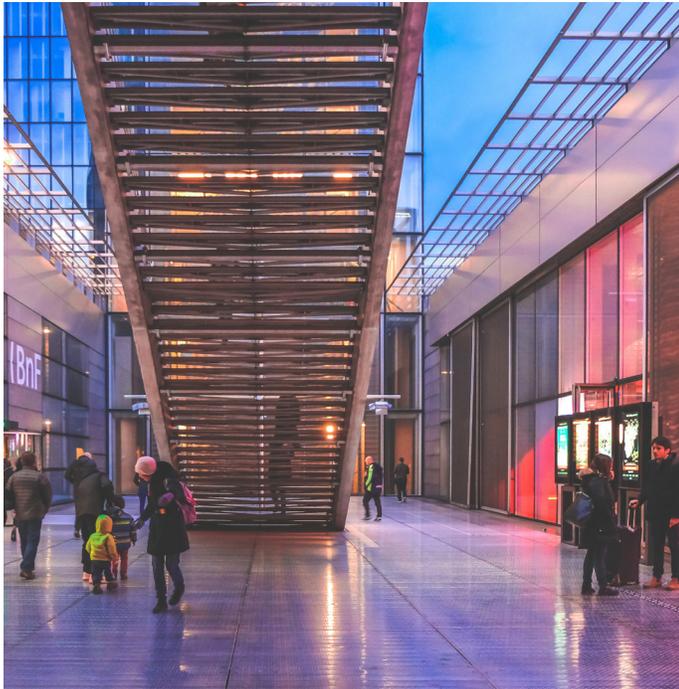


Case Study | Switch Control

Fixing overcycling compressors directly from the Switch Platform, reducing cycling by 40% and extending unit longevity



The Customer

Portfolio Overview

Internationally renowned Fortune 100 technology enterprise with a retail portfolio for consumer sales

Type: Retail, Technology

Size: 80+ stores

Geography: North America

Retail Employees: 250

Site Overview

580+ data points

6,000+ sq ft

1 store on 1 level

Location: Miami, Florida

The Opportunity

Rapid overcycling threatens the longevity of costly air handling unit

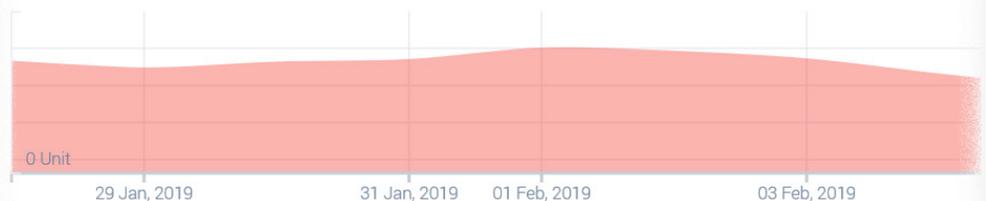
Two cooling compressors in a retail branch air handling unit (AHU) were cycling rapidly, meaning their cooling function was activating too frequently.

This type of malfunction is highly problematic as it can significantly diminish the longevity of this costly unit. In addition, a premature AHU breakdown can affect customer comfort and require the deployment of expensive temporary replacement coolers.

Daily AHU01 - SalesArea - Compressor2Command Average



Daily AHU01 - SalesArea - Compressor1Command Average

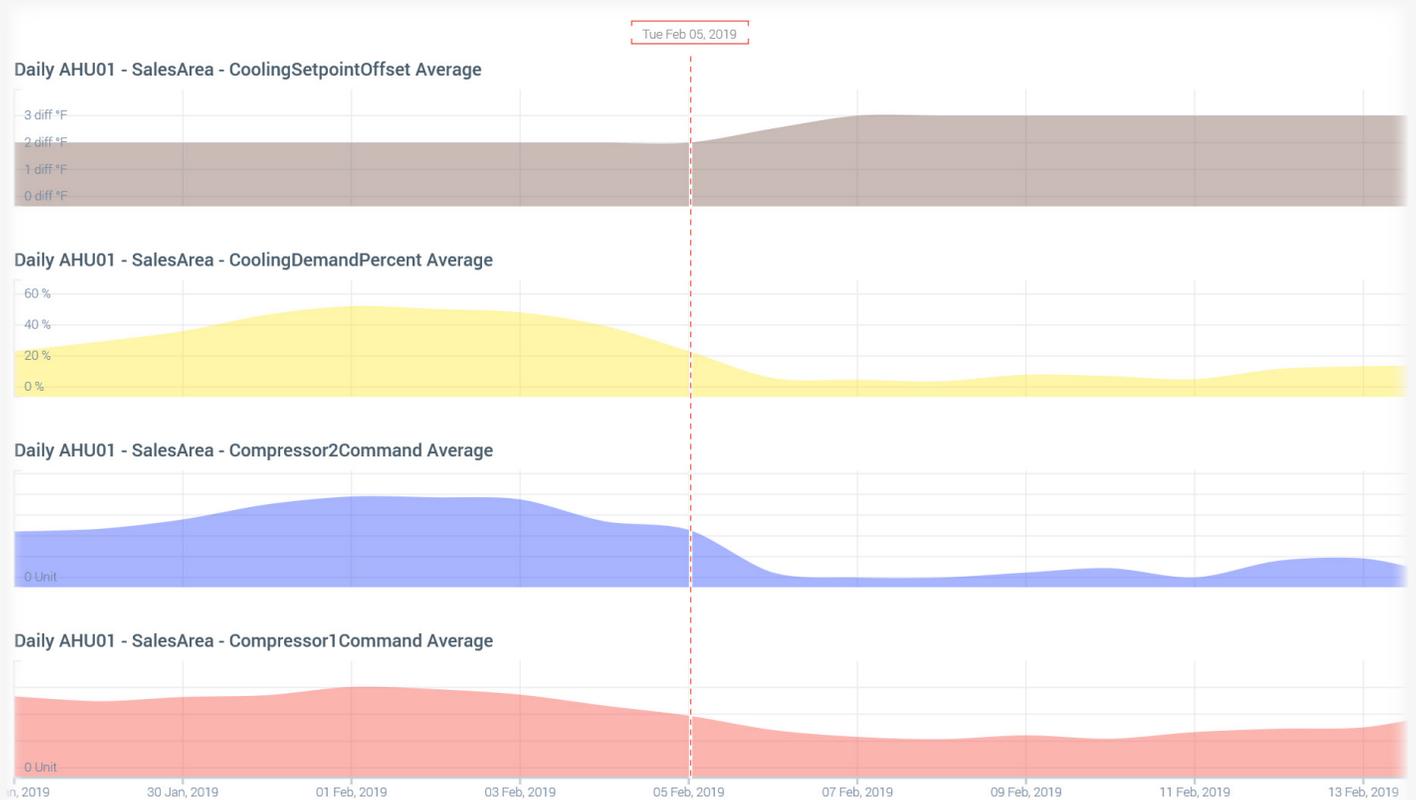


The Solution

Automated Switch Platform Alert notifies the facilities management team about a potentially costly air handling unit malfunction

Without the Switch Platform and real-time visibility into branch performance, this issue would have gone unnoticed until there was an actual AHU breakdown. Because the cooling compressors were triggering so often and therefore performing outside of designated parameters, the unit triggered an Alert on the Switch Platform, notifying the facilities management (FM) team of the irregularity. The FM team collaborated with Switch engineers to investigate trend data and confirm that the AHU was indeed overcycling.

Retail branch temperatures were allowed to drift up to 73 degrees before cooling triggered on the AHU. Switch Control functionality enabled the FM team to remotely expand the range of acceptable temperatures by one degree, meaning that the AHU now triggers substantially less often. This immediately corrected the problem, all without the engineers stepping foot on site.



Graph illustrating the decline in cooling cycles following the Feb 05 Switch Control adjustment



The Results

Remotely adjusting AHU cooling setpoints drives 40% reduction in compressor cycling

By widening the range of acceptable temperatures in the branch by one degree directly from the Switch Platform, engineers reduced cycling by 59% in one compressor and 26% in the other, resulting in nearly 40% fewer overall unit cycles. Because these compressors are worth several thousand dollars each, and every emergency truck roll costs \$1,000, this single adjustment created significant savings for the branch. Additionally, extending the longevity of the unit and preventing a premature breakdown due to overcycling maintained occupant comfort and avoided the dispatch of expensive temporary replacement coolers.

40%

Reduction in AHU
cooling cycles

2

Cooling compressor
lifecycles extended

1

Costly AHU breakdown
prevented

“Being able to inspect branch performance and adjust unit functionality directly from the Platform has been a game changer for us. Before, we would only know about a store problem if a unit was already malfunctioning or broken down, and the branch manager made a word-of-mouth complaint. Now we can predict and prevent a range of store issues before they occur, resulting in a notably stronger bottom line for our client.”

– Facilities Manager,
Third-party
Professional Services
Company

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