Case Study | Retail portfolio saves $57,000

Retailer implements Switch Performance Optimization to save $1 per square foot

The Customer

Portfolio Overview
Fortune 50 global technology company
Type: Retail
Size: 100 stores
Company Valuation: $500 Billion USD
Geography: North America
Retail Employees: 250

Phase 1 Deployment
10 Retail Stores
55,000+ sq ft
5-6K sq ft per store

The Opportunity
Driving operational effiency for 100+ retail locations

This multinational technology company operates 100+ retail locations around the world, each with a predominant technical component. They sought to increase operational savings and efficiency by connecting disparate systems including HVAC, lighting, work orders, uninterrupted power supply (UPS) systems and utility bills. They identified four portfolio-wide KPIs to measure success:

◢ Reduce energy consumption and cost
◢ Reduce high-priority technician site visits
◢ Reduce time to complete repairs
◢ Extend equipment life

Using the Switch Platform to find operational optimization opportunities, the organization discovered hot space temperatures, incorrect HVAC control configurations, sales areas with lighting set to "on" 24/7 and multiple RTUs cycling between heating and cooling. Because of lack of visibility into system performance, they also experienced delayed resolution of emergent issues and return technician visits due to repeat calls.

The Solution
### Implementing Switch Performance Optimization

The organization chose ten stores to pilot Switch Performance Optimization. After installing a Switch Gateway in each location, we integrated the HVAC controls, lighting controls and UPS systems into the Switch Platform. We also automated data feeds for utility bills and work orders from other IT systems into Switch. After tagging and filtering relevant data, the Switch Engineering Services team analyzed building performance for optimization opportunities.

They implemented more than 20 analytics rules and shared them to all similar types of equipment to uncover the root causes of each inefficient building performance indicator, which included:

- Onsite staff overrides

- Incorrectly programmed control sequences from construction

- Poorly or non-performing equipment

- Inconsistent lighting and HVAC schedules and set points

Once the primary causes were identified, the Switch team worked closely with our customer to:

- Retro-commission existing HVAC and lighting control systems

- Remotely update HVAC temperature set points to corporate standards

- Modify HVAC control schedules to set back during unoccupied periods

- Implement lighting schedules that turn off during unoccupied periods

- Direct specific classes of work orders to the Switch team for triage and repair validation

- Identify new issues in real-time with Switch fault detection and diagnostics (FDD)

- Provide data to inform design process for replacements and capital improvements
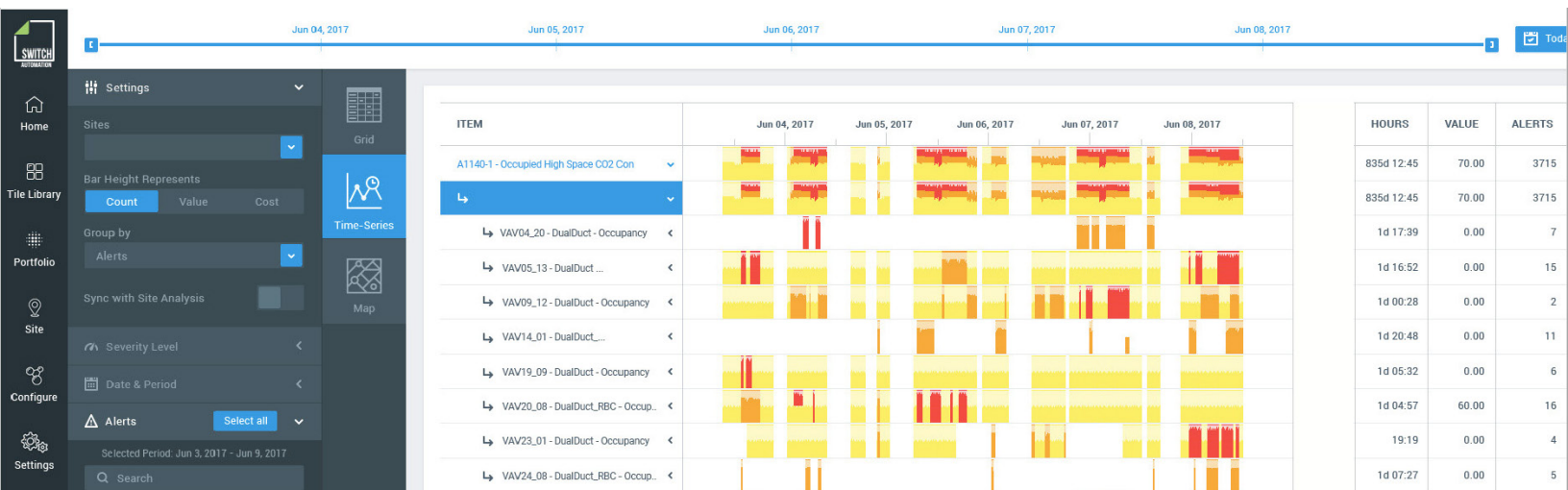
The Results
$57,000 cost savings within three months

Within three short months the Switch Platform identified opportunities that will save more than $1 per square foot, on average. These savings represent 11% of the client's annual energy cost at the ten sites and totals more than $57,000. Additionally, Switch Performance Optimization:

- ✓ Avoided 190,000 annual run rate equipment hours
- ✓ Uncovered 60+ optimization opportunities
- ✓ Helped directly resolve $51,000 of identified energy savings opportunities
- ✓ Prevented three technician site visits with remote triage and work order resolution (Switch FDD & Control)
- ✓ Generated 845 high severity alerts (Switch Alerts Analysis)

We wanted to shift to a proactive maintenance model that would allow us to manage a complex portfolio of very technical stores. The Switch Platform gives us the capability to remotely detect, triage and resolve issues before they become exponentially more expensive.

Retail Portfolio Manager,
Global Technology Company

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