

BATTERY MONITORING



TRAINING/EDUCATION



POWER PROTECTION



SERVICES



CELLWATCH
POWERING CONFIDENCE™

Case Study – A Major UK Bank

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Situation

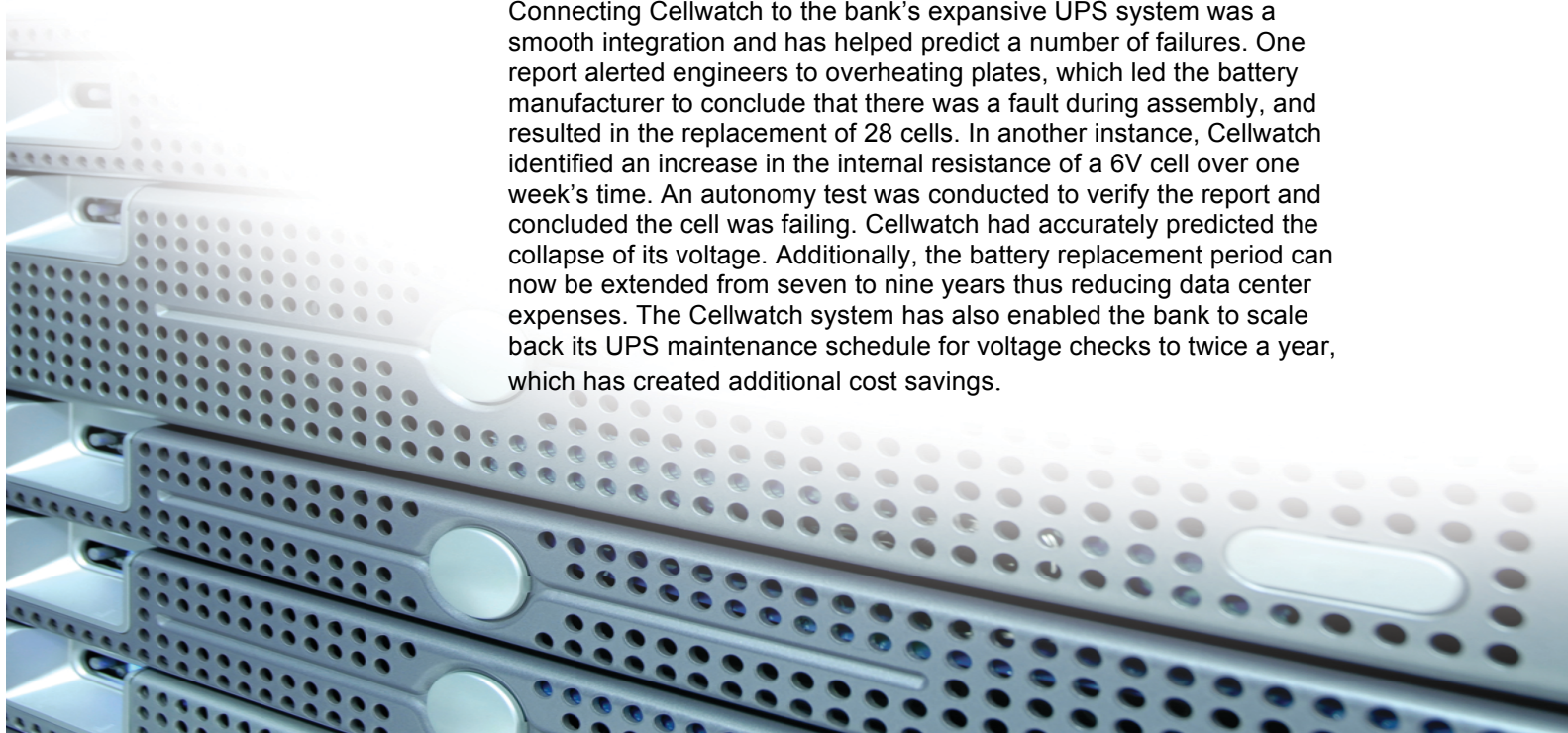
In 2001, the data center for a major UK-based banking institution experienced a catastrophic battery failure despite having successful discharge tests. As a result of the failure, senior managers required that the data center's 5,632 batteries be checked every day. With that mandate, a comprehensive list of monitoring parameters was formulated and a review of battery monitoring systems began.

Solution

Facilities maintenance engineers thoroughly evaluated three monitoring systems and in 2002 the Cellwatch® battery monitoring system was installed. Cellwatch was selected because it is the only system that provides 24×7 monitoring of ohmic value, immediate alarm notification, complete visibility of battery status, data trending and storage, and overall ease of use. With Cellwatch, facility engineers can monitor parameters such as battery room and cabinet temperatures as well as individual voltage and ohmic values of the cells, and furthermore, collect an accurate voltage performance profile of the cell during critical discharges. Additionally, the Cellwatch system provides extensive data trending making it possible for engineers to identify irregularities in a cell well before it reaches the stage where it may fail. The design of the system also allows seamless scalability as the needs and requirements of the data center change.

Results

Connecting Cellwatch to the bank's expansive UPS system was a smooth integration and has helped predict a number of failures. One report alerted engineers to overheating plates, which led the battery manufacturer to conclude that there was a fault during assembly, and resulted in the replacement of 28 cells. In another instance, Cellwatch identified an increase in the internal resistance of a 6V cell over one week's time. An autonomy test was conducted to verify the report and concluded the cell was failing. Cellwatch had accurately predicted the collapse of its voltage. Additionally, the battery replacement period can now be extended from seven to nine years thus reducing data center expenses. The Cellwatch system has also enabled the bank to scale back its UPS maintenance schedule for voltage checks to twice a year, which has created additional cost savings.



Comments

“I can now sleep at night knowing our UPS batteries are constantly being monitored. Cellwatch’s predictive monitoring identifies defective cells before they reach failure allowing us to react appropriately. At first, I thought it was too good to be true – 24x7 monitoring, cost savings, reduced PM checks – but we quickly experienced how invaluable Cellwatch battery monitoring is.

“Our system operators have all commented on how easy Cellwatch is to use and track cell performance. My continued confidence with the Cellwatch system has prompted me to include it as standard equipment for installation in future data center builds.”

— *Engineering Manager*



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