



Continuous Building System Monitoring and Response

What is Active Surveillance?

Active Surveillance monitors building performance remotely and responds to any exceptions to predetermined operating parameters. Staff can be notified of alarms, analysis and responses during business hours or 24/7. Using detailed system operating data, a performance rating is created for each mechanical system and for the entire building. As surveillance is performed the results are measured and reported giving the operator and service provider a detailed view of areas needing attention.

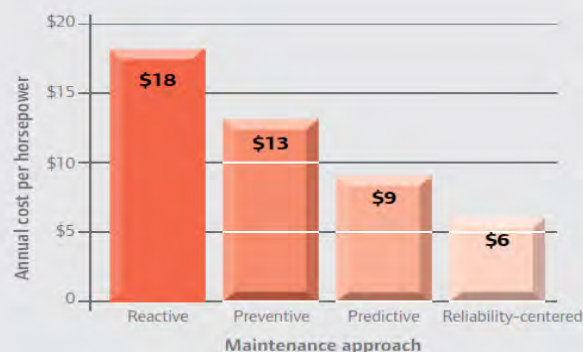
How is Active Surveillance Beneficial?

Outcome-based approaches to building services are far more cost-effective than traditional task-based reactive and preventive strategies, according to studies by the Federal Energy Management Program (FEMP).

Commonly used maintenance approaches are:

- Reactive maintenance – *repair after failure*
- Preventative maintenance – *scheduled routine inspections and maintenance*
- Predictive maintenance – *monitoring and analysis of key parameters to predict action before loss of performance or failure*
- Reliability-centered maintenance – *predictive maintenance aligned with the building's mission, objectives and resources*

Following is a comparison of costs of various maintenance approaches based on FEMP data:



Source: FEMP O&M Maintenance Guide, Release 3.0, August 2010

Reliability-centered maintenance benefits:

- Improves system reliability and uptime
- Provides 24/7/365 monitoring, detection and notification
- Enables remote troubleshooting and repairs
- Provides real-time, actionable information

Where can Active Surveillance be Applied?

If your building automation system (BAS) is using Bacnet devices such as; Johnson Controls, Inc. (JCI), Siemens, Automated Logic, Trane or any Tridium/Niagara based system, we can perform Active Surveillance.

Turning Data into Dollars

Keeping buildings operating at a high performance levels is a formidable task, according to the Lawrence Berkley National Laboratories, whose researchers found that many buildings fail to live up to the **designer's performance** expectations, even when new. They also noted that "...most buildings drift, often 'invisibly,' to lower performance over time, indicating a need for ongoing performance monitoring, fault detection and diagnosis..." Additions, modifications and changes in building mission, function and occupancy levels also occur over time, further underscoring the value of detecting and correcting performance degradation.



Building owners and operators are under tremendous pressure to wring value from **their organizations'** enormous investments in physical assets. But, many organizations continue to view and operate buildings as **"costs"** rather than **"assets"** that can contribute to their success and provide an attractive rate of return by reducing costs related to energy and occupant complaint remediation.

