Overview

Cortex Intel collects sensor data generated within commercial buildings and contextualizes it for the building operators, to help reduce energy usage and to save money.

They connect directly to a building's management system, and, in real time, distills the overwhelming amount of data being collected (typically over one hundred thousand data points per day) and condense it into extremely simple and intuitive visualizations and recommendations that the engineers can access from their mobile devices. Consequently, the building engineers can make the 20 to 50 decisions they have to make every day with better information at their fingertips—for example, when to turn up the chiller or fans, or when to shut systems down in the most energy-efficient manner—creating happy tenants, increased net generating income and positive environmental impacts.

Cortex' Challenge

The key function of Cortex' app depends on the ability to discover, browse, monitor, and control BACnet networks and devices through an intuitive graphical interface. Although easy in theory, distilling data from large building management systems (BMS's) is no easy task. With some high-profile buildings having as many as four thousand data points, Cortex needed a robust device that could handle high data point counts as well as allow them to easily integrate into large BMS systems quickly and seamlessly.

Cortex Requirements

The Cortex business is predicated on pulling real-time data from buildings:

- *A low-cost tool to extract BACnet data to the Cloud*
- *Ability to quickly discover and report on Industrial Equipment (HVAC, Blower, Chillers, Boilers,...)*
- *Powerful tools for filtering and monitoring BACnet data objects.*
- *Simple, cloud connected.*
- *Intuitive interface that minimizes installation, configuration costs.*

Sierra Monitor's Solution

The FieldServer brand BACnet IoT Gateway allows Cortex to gain visibility and control of any BACnet or BMS network, from anywhere, at any time. Utilizing SMC's BTL-certified protocol stack, the gateway automatically discovers BACnet MS/TP and BACnet/IP devices, monitors and reports specific objects, and can be configured to forward information to the SMC Cloud.

Since Cortex offers analytic software layered on top of existing BMS's, they take advantage of the SMC Cloud REST APIs to export data to files, or automate the transfer of data to another 3rd cloud environment—namely their environmentally friendly application.

Benefits Cortex is Receiving

- Ease of configuration allows for huge time savings as Cortex continues to expand to larger buildings.
- Customer support from SMC's in-house BACnet experts.
- Proven BACnet protocol. Built on extensive BACnet experience, with support through revision19, across BACnet/IP and MS/TP networks.
- Industry leading BACnet Explorer functions with Cloud Connectivity capabilities
- A simple, intuitive user interface that minimizes installation and configuration costs.

*"We have used several devices to poll data from building management systems. **SMC's IoT Gateway, and it's associated SMC Cloud API, has rapidly become our device of choice.** Easy discovery of devices over BACnet/IP, configurable monitoring of points, RESTful API and responsive customer support have made it an easy solution to slot into our operations."*
*— Rick Balsamo, Principal Engineer, **Cortex***