

Frequently Asked Questions

Should BACnet data be retrieved using polling or change of value (COV)?

BACnet data should be retrieved from the controller using change of value (COV).

When setup correctly, COV data collection should result in less network traffic compared to polling, since data is transmitted only when it changes (binary and multistate) or changes significantly (analog). If the controls contractor has questions pertaining to the increment of analog data transmission for COV, confirm the increment for each type of data to be sure nothing is setup to transmit excessively.

The factory default COV increments setup in the Carel controller are shown below. These are located at the following menu path: Main Menu > Ctrl Variables > Advanced > Login (9998) > Advanced > Network Settings > Advanced Settings > BACnet COV Increment.

To edit the settings on the BACnet COV Increment page, press the Enter button to advance the cursor, and use the Up/Down arrow keys to edit each line. Collaborate with the controls contractor or system integrator before adjusting these default values.



Background

Building automation systems are typically configured for one of two data collection approaches – polling or change-of-value (COV). When configured for polling, the BMS reads the data from a controller at a fixed interval, often once per minute – whether the data changes or not. When configured for COV, analog data is sent by the controller to the BMS only when the value of the object (point) changes by a significant amount, known as the COV increment. Binary and multistate objects are sent whenever they change state.

The controller is configured, by default, to send analog data according to the increments displayed above, assuming the COV contract has been established with the BMS. Each data type includes a unique increment. For example, when configured for COV (not polling), temperature values are sent by the controller to the BMS when the temperature changes by at least 0.1°F (editable). When the increment values are properly configured, the network traffic is normally significantly less for COV compared to polling.