Avigilon Control Center™ System Integration Guide

for IPVideo Corporation HALO IOT Smart Sensor

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Introduction

The Avigilon Control Center (ACC) system integration with the IPVideo Corporation HALO IOT Smart Sensor allows users to view and search for sensor detection events in ACC. Users can create rules and alarms around these sensor detections to alert operators or automate actions.

Requirements

Vendor	Requirements
Avigilon	ACC Server software 7.8 or later
Avigilon	ACC Client software 7.8 or later
Avigilon	ACC 7 POS license `ACC7-POS-STR` — 1 channel per HALO IOT Smart Sensor device **Note:** A POS license requires a site that runs an ACC Standard or Enterprise edition license.
IPVideo Corporation	HALO IOT Smart Sensors
IPVideo Corporation	`HALO Setup Tool.exe`

Make sure the ACC Server and Client meet the system requirements listed on avigilon.com/products/acc/system-requirements.

Note: If you connect the HALO sensor as an RTSP stream to ACC, it needs one camera channel license in ACC.

For More Information

For more information about the procedures outlined in this guide, refer to the following specific software documentation:

- **Avigilon Control Center Client User Guide**
- **Avigilon Control Center Server User Guide**
- **HALO Installation Guide**
- **HALO Quick Start Guide**

Installation

Sensors

- Install the HALO sensors according to the **HALO Installation Guide**.
- Configure the sensor and detection events according to the **HALO Quick Start Guide**.

Servers

- Install the ACC Server software on servers in your network.

Client

- Copy the `HALO Setup Tool.exe` onto the desktop.
- Install the ACC Client software on all client workstations.

HALO Configuration

After the HALO sensor events are configured, configure the Video Management System (VMS) Settings to send the events to the ACC system.

1. In the HALO sensor web interface, go to the **Messaging** tab.
2. Under VMS Settings, enter the following:
    - **Set String** — The text sent to the ACC server when an event is detected.
    - **Reset String** — The text sent to the ACC server when an event is no longer detected.
    - **Address** — The IP Address of the ACC server.
    - **Port** — The port number of the ACC server that is connected to the HALO sensor.
    - **Protocol** — Select **TCP**.
3. Click **Save**.

You will need the **Set String**, **Reset String**, and **Port** when configuring the ACC system.

Important: In ACC, a POS transaction may not complete or end in some cases and ACC may have problems triggering rules and alarms when using events on single line sources. To avoid inconsistencies with either live view or recorded view for transaction events, use `\n` at the end of **Set String** and **Reset String**. For example, enter `halo.event.%EID%\n` in the **Set String** field and `halo.reset.%EID%\n` in the **Reset String** field.

ACC Configuration

After the HALO sensor been installed, configure the ACC software for the integration.

1. In the New Task menu , click **Site Setup**.
2. Select your server, then click **POS Transactions** .
3. Click **Add**.
4. Complete the following, then click **Next**:
   - **Hostname/IP Address:** — The IP Address of the HALO sensor.
   - **Port:** — The port number of the ACC server that is connected to the HALO sensor.

     Tip: Do not use ACC server ports `38880` or `38881` to establish connections to the Halo sensor as it might interfere with other connections to the ACC server.
   - **Connection Type:** — Select **Server**.
5. Select the **Data Format** for the source. This format will be used to recognize and capture the HALO sensor's output.
   a. Click **Add**.
   b. Edit the properties of your new format.
      - **Name:** — The name displayed under your list of formats.
      - **Description:** — A short explanation of the data and device.
      - **Transaction Start Text:** — The HALO sensor Set String.
      - **Transaction End Text:** — The HALO sensor Reset String.

        Important: If a POS transaction does not complete or end, ACC may have problems triggering rules and alarms when using events on single line sources. To avoid inconsistencies with either live view or recorded view for transaction events, use `\n` at the end of **Transaction End Text:**.
      - **Encoding:** — The encoding used by the HALO sensor.

   c. Use **Capture Data** to receive raw data. Verify that the event strings are being sent correctly.
   d. Click **Add Filter...** to customize how the information is displayed in the ACC system. Default formats create line breaks and remove excess spacing.
   e. Click **OK** to add the filter.
   f. Click **OK** to save the data format.

6. Add **Transaction Exceptions** for text to monitor. You should add one exception per event. Using exceptions in POS transactions ensures a single device uses a single license. Creating multiple POS Transaction Sources with the same IP address and port configuration will only consume one license but only one of those multiple sources will work properly. To know more about adding transaction exceptions, see **Adding Transaction Exceptions** in the *ACC Client User Guide*.
7. Click **Next**, then click **Next** again.
8. Select the cameras or devices to link directly to the HALO sensor and set the following, then click **Next**:
    1. **Pre-Transaction Record Time:** — How long to record before a transaction.
    2. **Post-Transaction Record Time:** — How long to record after a transaction.
9. Enter a name and description for the transaction source. Click **Finish**.

Note: You must create a new POS Transaction Source for each unique Halo device in the system.

Using the Integration

Now that the integration has been installed and configured, you can use the ACC system to create rules and alarms to monitor video detected by cameras that are connected to the HALO sensor.

1. In the New Task menu , click **Site Setup**.
2. Click the site name, then click **Rules** .
3. Click **Add**.
4. Select **POS Transaction Events > POS transaction started** or **POS transaction ended** checkbox, then click **any transaction source**.
5. Select **Any of the following transaction sources:** and select a transaction source configured in the previous step. Click **OK**, then **Next**.
6. Select any actions to respond to the event. Click **Next**.
7. Add a **Rule Name:** and **Rule Description:**. The name should be unique throughout the ACC site.
8. Assign a schedule.
9. Click **Finish**.