



# aVIGILON Halo Smart Sensor Video Management Software User Guide

[Home](#) » [aVIGILON](#) » aVIGILON Halo Smart Sensor Video Management Software User Guide 



## Contents

- 1 AVIGILON INTEGRATION GUIDE
- 2 INTRODUCTION
- 3 HALO SMART SENSOR - DEVICE NAME
- 4 HALO SMART SENSOR - ENABLE RTSP STREAM
- 5 HALO SMART SENSOR - ACTIONS
- 6 HALO SMART SENSOR - INTEGRATION
- 7 AVIGILON CONTROL CENTER CLIENT - ADD HALO SMART SENSOR
- 8 AVIGILON CONTROL CENTER CLIENT – LIVE MONITORING
- 9 AVIGILON CONTROL CENTER CLIENT – CONFIGURE POS TRANSACTIONS
- 10 AVIGILON CONTROL CENTER CLIENT – CONFIGURE RULES
  - 10.1 Select Rule Event(s)
  - 10.2 Select Rule Action(s)
  - 10.3 Select Rule Condition(s)
  - 10.4 Select Rule Properties
- 11 AVIGILON CONTROL CENTER CLIENT – MONITORING FOR EVENTS
- 12 Documents / Resources
- 13 Related Posts

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## INTRODUCTION

The HALO Smart Sensor can be integrated into Avigilon's Video Management Software using the RTSP output from the HALO device and the Generic URL support of Avigilon. This allows operators to visualize and record the real-time data from the HALO Smart Sensor, as though it were a typical IP Camera.

HALO Smart Sensor can also send event messages to the POS Transaction engine of ACC. When the threshold of sensors is exceeded, TCP/IP messages are transmitted to ACC, and the Rules can be used to associate cameras and alarms to the HALO Smart Sensor events.

**Note : This integration was tested using version 7.14.2.8**

## HALO SMART SENSOR - DEVICE NAME

Connect to the HALO SMART SENSOR with a web browser and click on the **Device Icon** in the bottom navigation bar.

**Device Management**

**Device Name**

VMSTESTING **Set Name**

**Preset**

--- **Load Preset**

**Reset Config** **Reboot Device**

**Firmware**

Choose File.. **Browse** **Upload Firmware**

**Language**

--- **Change Language**

Enter a **UNIQUE** name in the Device Name field. Click the **Set Name** button to save settings.

## HALO SMART SENSOR - ENABLE RTSP STREAM

To capture the Stream URL needed to connect Avigilon to HALO, simply navigate to the HALO Smart Sensor with a Web Browser, and click on the **Image Icon** in the bottom navigation bar

Scroll down to the RTSP settings.

**RTSP**  
rtsp://10.1.7.191:554/stream

☒ RTSP Stream Enabled

Authentication: Both

User: admin Password:

Image: Graph Port: 554

Save

- 1) **Highlight** and **Copy** the **Stream URL** displayed at the top of the settings area.
- 2) Click the **RTSP Stream Enabled** switch
- 3) Set **Authentication** to **Both**
- 4) Enter a **Username** and **Password**
- 5) Select the **Image** Type (Dashboard or Graph)
- 6) Enter the RTSP **Port** (Default is 554)
- 7) Click **Save** to save RTSP Image Settings

## HALO SMART SENSOR - ACTIONS

Click on the **Actions** Icon on the HALO Smart Sensor interface.

### Actions

Event Identifier	Email Set	Email Reset	Msg Set	Msg Reset
Aggression	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AQI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gunshot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Help	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Masking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tamper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
THC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vape	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Check the **Messaging Set** checkboxes for each of the **Event Identifiers**.

Scroll down and click the **Save** button to save settings.

## HALO SMART SENSOR - INTEGRATION

Click on the **Integration** Icon in the bottom navigation bar.

### External Messaging

Partner Integration Templates ---Select a template---

Protocol ☒ TCP ☐ HTTP

Repeat Holdoff 5 sec

Set String halo.event.%EID%.%NAME%\n

On Off

Reset String halo.reset.%EID%.%NAME%\n

On Off

Above you can use:

%NAME% - device name

%IP% - ip address

%MAC% - mac address

%EID% - event id

%SOURCE% - data source

%THR% - event threshold

%VAL% - sensor value

%DATE% - local date of event

%TIME% - local time of event

%PSWD% - password

%USER% - user

%FWVER% - firmware version

\\ - 1 back slash

\n - new line

\r - carriage return

\u#### - hex char code

etc.

Address 172.16.10.32

Port 10001

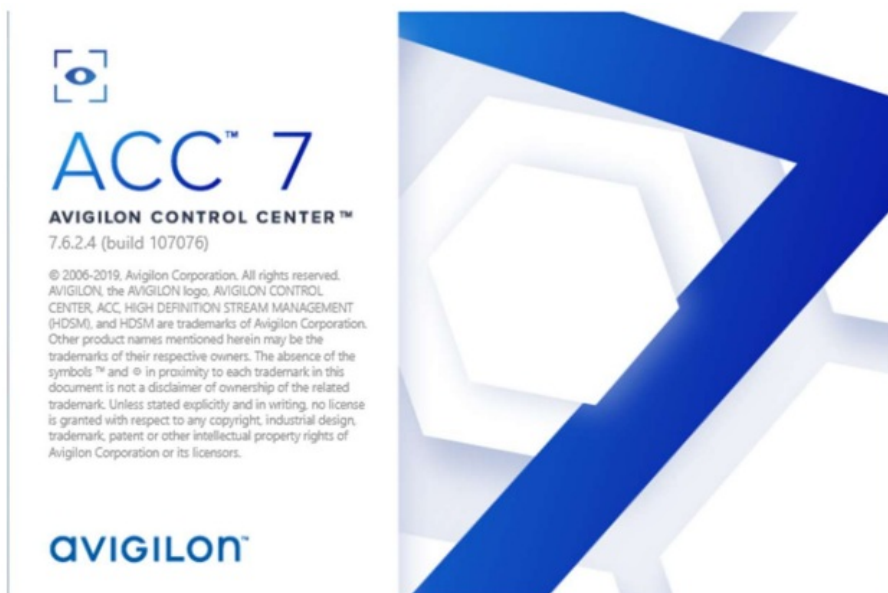
Save

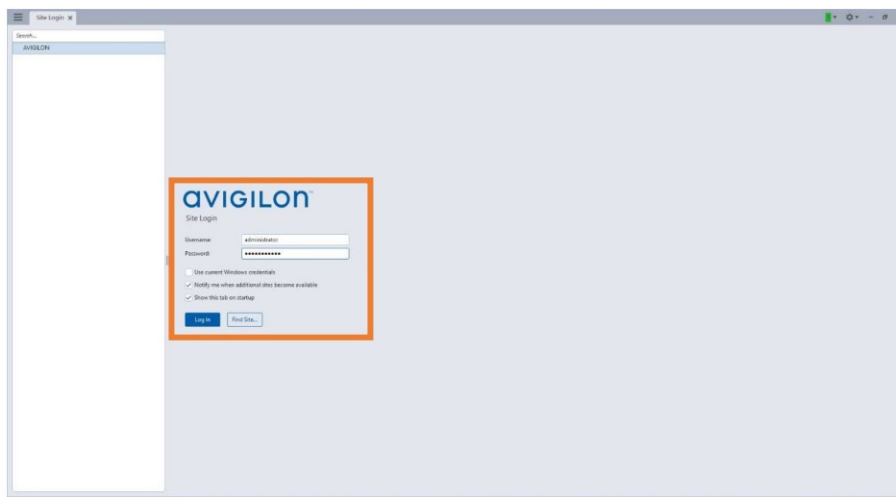
Status: OK

- 1) Select **TCP** for **Protocol**.
- 2) Enter **halo.event.%EID%.%NAME%\n** in the **Set String** and click On
- 3) Enter **halo.reset.%EID%.%NAME%\n** in the **Reset String** and click On
- 4) In the **Address** field, enter the IP Address of the **ACC Server**
- 5) In the **Port** field, enter **10001**, as this is the default port for POS Events in ACC.
- 6) Click **Save** to retain settings.

## AVIGILON CONTROL CENTER CLIENT - ADD HALO SMART SENSOR

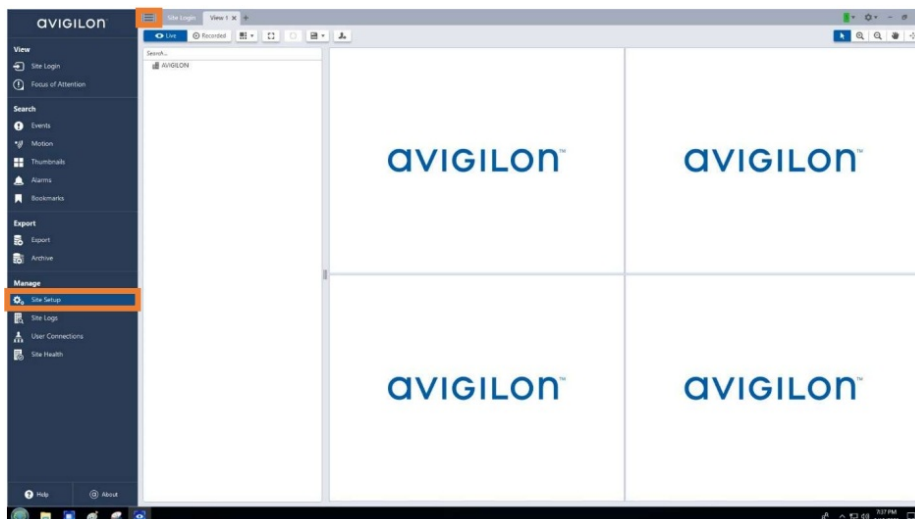
Open **Avigilon Control Center client** to add the HALO Smart Sensor as a device.



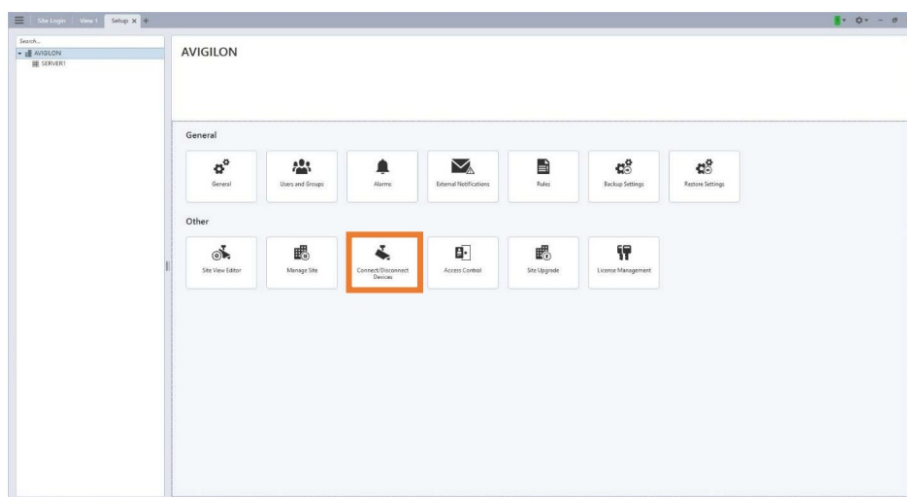


- 1) Select a Server from the Left Navigation
- 2) Enter Username and Password and click Login

Click on the **Task Menu icon** and select **Site Setup**



Click on the **Connect/Disconnect Devices** Icon





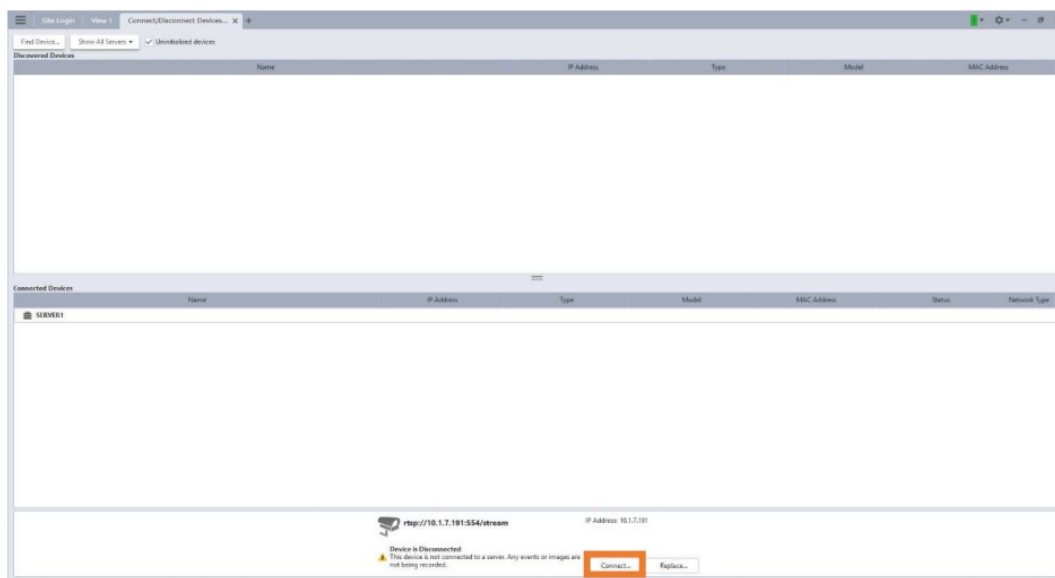
Click on the **Find Devices** button

The 'Find Device' dialog box has a title bar with a close button. It contains four labeled fields: 'Search From Server' with a dropdown menu showing 'SERVER1'; 'Search Type' with a dropdown menu showing 'IP Address'; 'Device Type' with a dropdown menu showing 'Generic RTSP' (highlighted with an orange box); and 'Stream URL' with a text input field containing 'rtsp://10.1.7.191:554/stream' (highlighted with an orange box). At the bottom are 'OK' and 'Cancel' buttons, with the 'OK' button highlighted by an orange box.

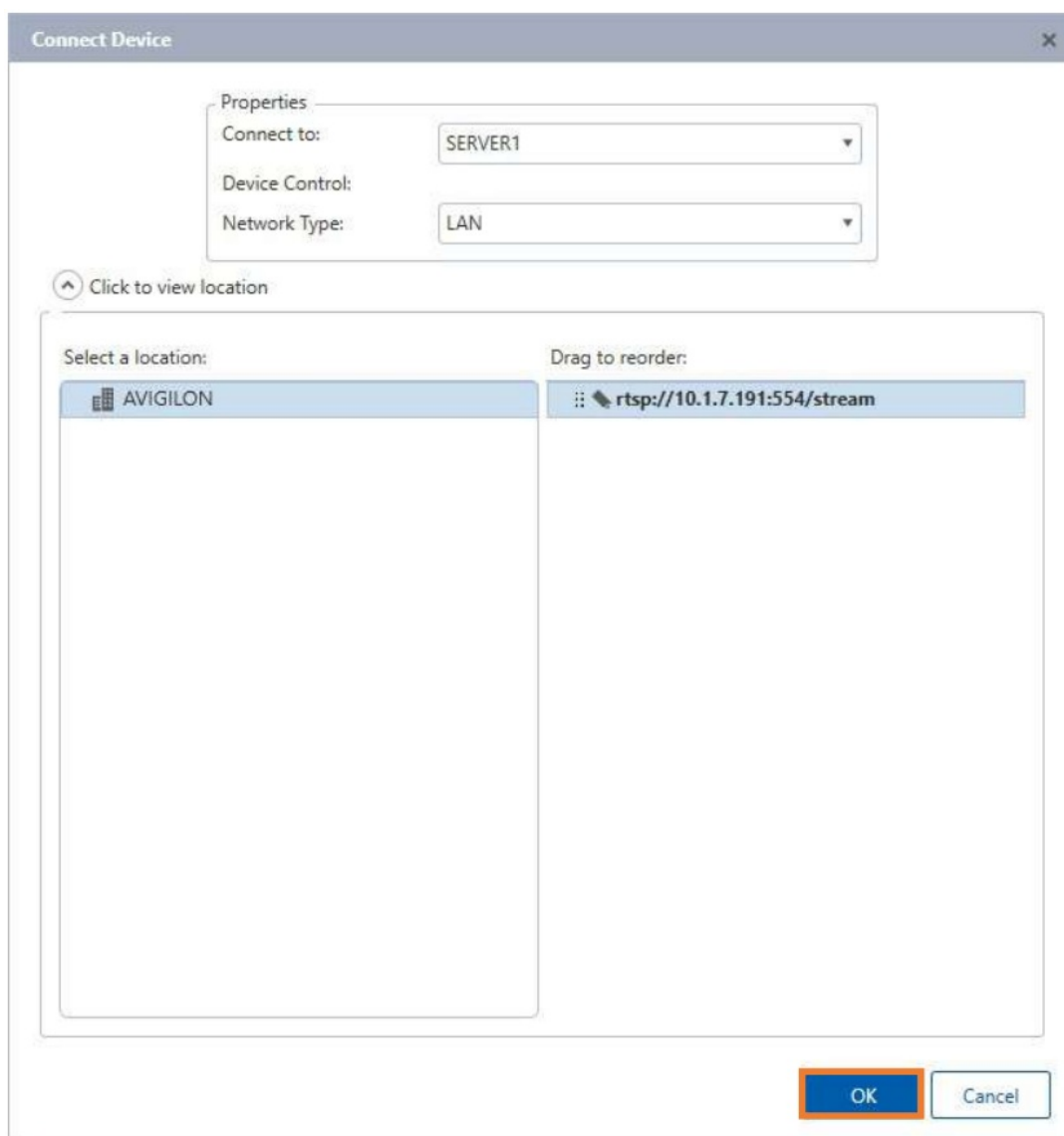
- 1) Select Generic RTSP for Device Type
- 2) In the Stream URL Field, paste the previously copied RTSP URL from the HALO Device Interface
- 3) Click OK

The 'Device Authentication' dialog box has a title bar with a close button. It contains a message: 'This device requires a user name and password.' Below this are two fields: 'User Name' with a text input field containing 'admin' (highlighted with an orange box); and 'Password' with a text input field containing six dots (highlighted with an orange box). At the bottom are 'OK' and 'Cancel' buttons, with the 'OK' button highlighted by an orange box.

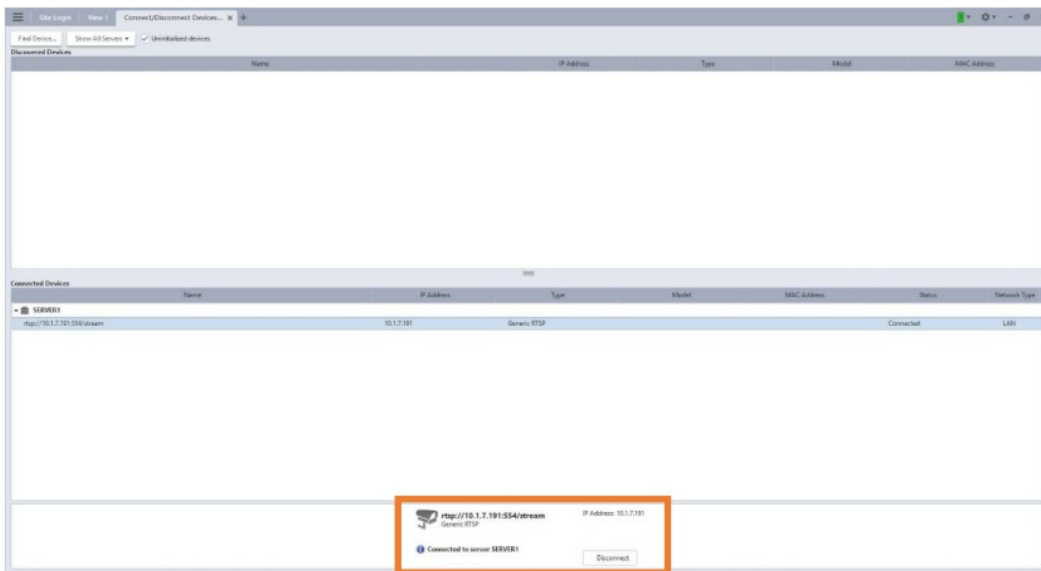
- 1) Enter the specific HALO RTSP Username and Password, NOT the standard device login credentials. The RTSP login is separate from the device credentials.



Click on the Connect button to establish connection to HALO Smart Sensor

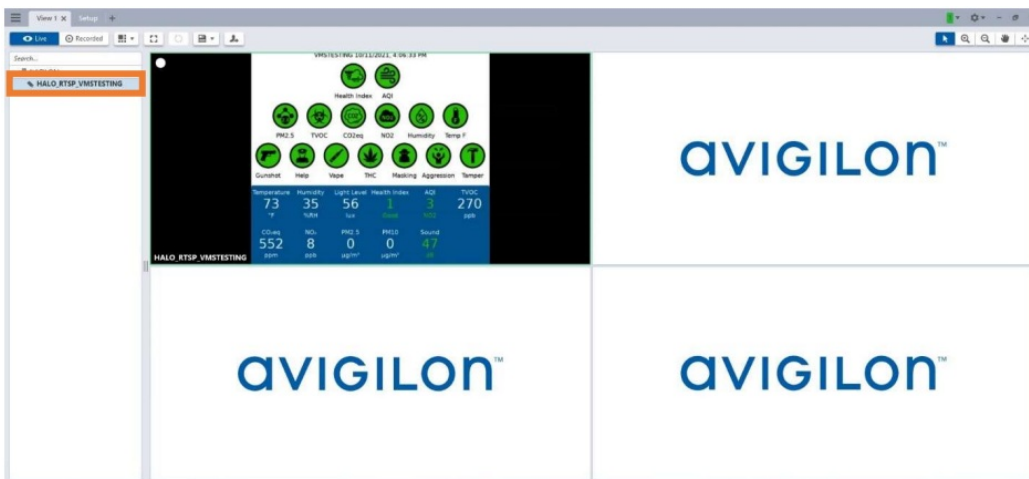


Click the OK button to connect the HALO Smart Sensor to Avigilon Control Center



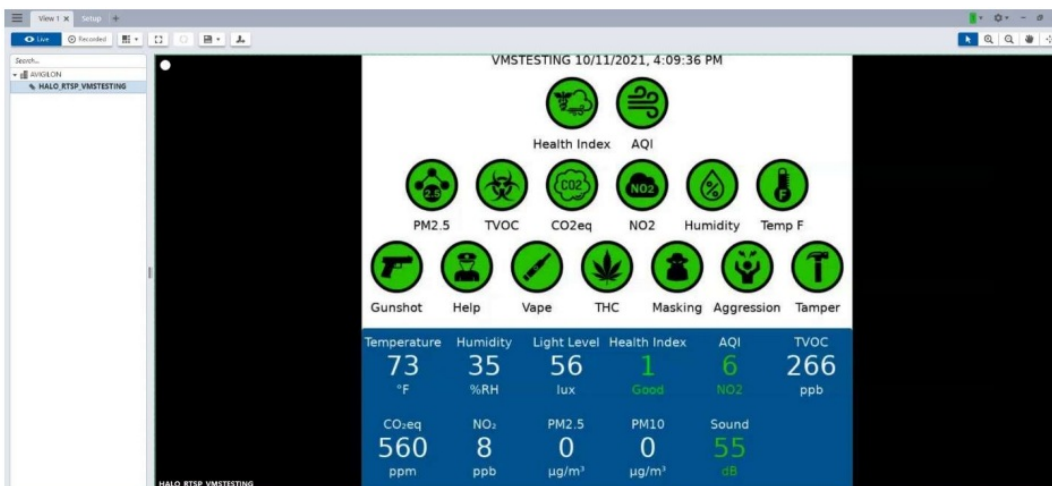
The device will now be listed and displayed as connected.

## AVIGILON CONTROL CENTER CLIENT – LIVE MONITORING



- 1) Click on a View tab
- 2) Click on the device in the Left Navigation Tree and drag the device to the Viewing Layout.

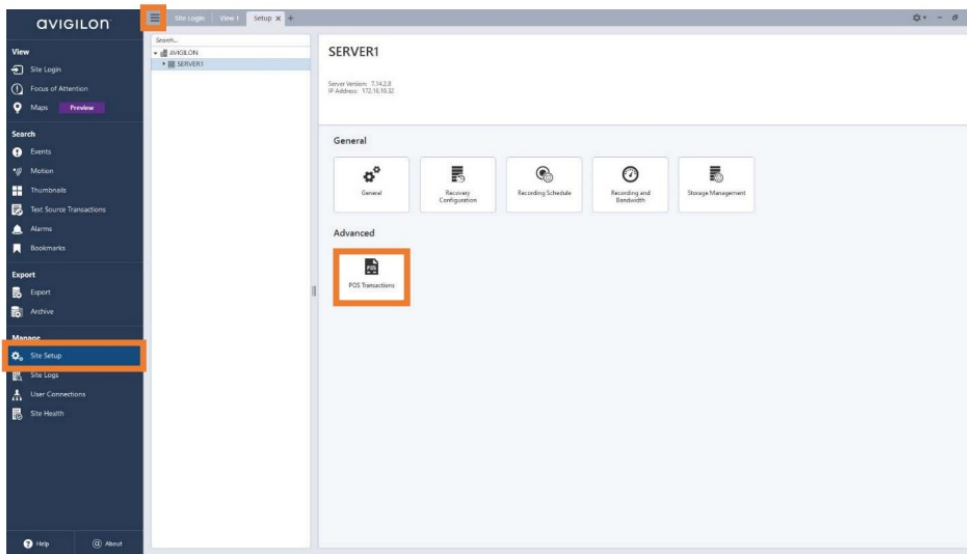
Double Click the panel to view HALO Smart Sensor in fullscreen mode.





## AVIGILON CONTROL CENTER CLIENT – CONFIGURE POS TRANSACTIONS

1. Click the Site Setup icon



2. Select the Server and click the POS transactions icon under Advanced.

3. Click Add

The screenshot shows the 'POS Transactions Setup' dialog box. The title bar says 'POS Transactions Setup'. Inside, the section 'Set Transaction Source Device' is active. Below this, the instruction 'Set the IP address and port for the transaction source device:' is displayed. There are three input fields: 'Hostname/IP Address' with the value '10.1.7.191', 'Port' with the value '10001', and 'Connection Type' with two radio buttons: 'Client' and 'Server'. The 'Server' radio button is selected and highlighted with an orange rectangle. At the bottom of the dialog, there are three buttons: 'Previous', 'Next' (highlighted with an orange rectangle), and 'Cancel'.

- 1) Enter the IP Address of the HALO Smart Sensor
- 2) Specify 10001 for the Port, this is the default value.
- 3) Select Server for Connection Type
- 4) Click Next

**Configure Data Format**

**Properties**

Name: HALOSMARTSENSOR\_VAPE\_VMSTESTING

Description:

Transaction Start Text: halo.event.Vape.VMSTESTING

Transaction End Text: halo.event.Vape.VMSTESTING

Encoding: UTF-8

**Filters**

Capture Data Load Data... Save Data...

Raw data: Filtered data:

Remove Replace... Set as Line Break

**Current Filters:**

Line Break on '\r\n[\r\n]{1}'

Replace '\t' with ' '

Add Filter... Remove Filter Edit Filter...

OK Cancel

Enter the Properties for the Data Format. This will be used to recognize and match the HALO Smart Sensor External Messages.

- 1) Enter the Transaction Start String (ex. halo.event.Vape.VMSTESTING)
- 2) Enter the Transaction End String. (ex. halo.reset.Vape.VMSTESTING)
- 3) Click OK

**POS Transactions Setup**

**Set Transaction Source Data Format**

Select the data format to use for this transaction source:

☒ HALOSMARTSENSOR\_V

Add

Previous Next Cancel

Select the Transaction Source from the List and Click Next.

**Configure Exception**

Properties

Name: HALO\_VAPE

Text to Match

☒ Match Text  
☐ Match Value

Text to Match: halo.event.Vape.VMSTESTIN

OK Cancel

Enter the Properties for the Exception.

Enter the Exception Name

- 1) Select Match Text
- 2) Enter Text to Match (ex. halo.event.Vape.VMSTESTING)
- 3) Click OK

**POS Transactions Setup**

Set Transaction Exceptions

Select exception(s) for this transaction source:

☒ HALO\_VAPE

HALO\_VAPE

Edit  
Remove  
Add

Previous Next Cancel

Select the Transaction Exception from the List and Click Next.

**POS Transactions Setup**

**Select Linked Cameras**

Select the camera(s) to link to this transaction source:

Search...

- AVIGILON
  - SERVER1
    - ☒ HALO\_RTSP\_VMSTESTING

Pre-Transaction Record Time: 5 seconds

Post-Transaction Record Time: 5 seconds

Previous Next Cancel

- 1) Select the Camera or Cameras to associate to the Transaction Source (Halo Event). The RTSP stream from the HALO Smart Sensor can be included in the selected camera(s).
- 2) Specify the Pre-Post Record time for the Transaction (Halo Event)
- 3) Click Next

**POS Transactions Setup**

**Set Transaction Source Name and Description**

Transaction Source Name: HALO\_VAPE

Transaction Source Description: HALO\_VAPE

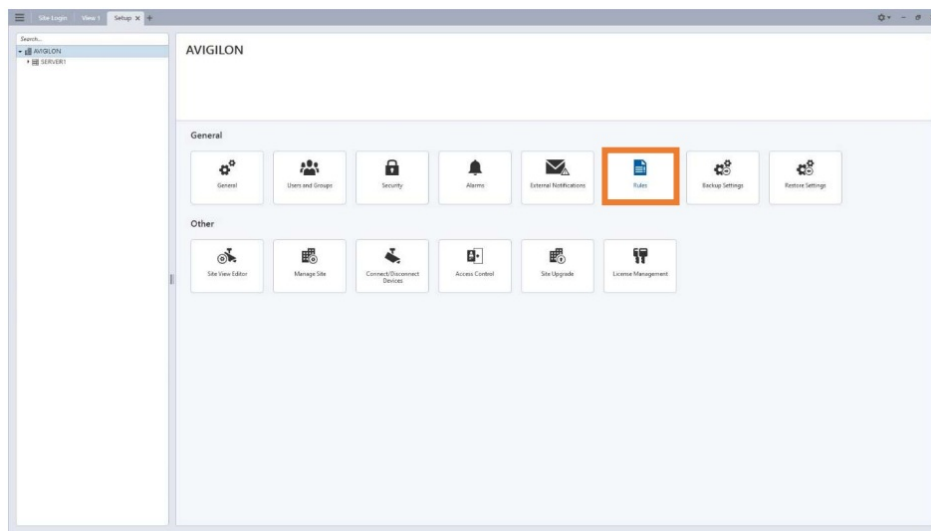
☒ Enable transaction source

Previous Finish Cancel

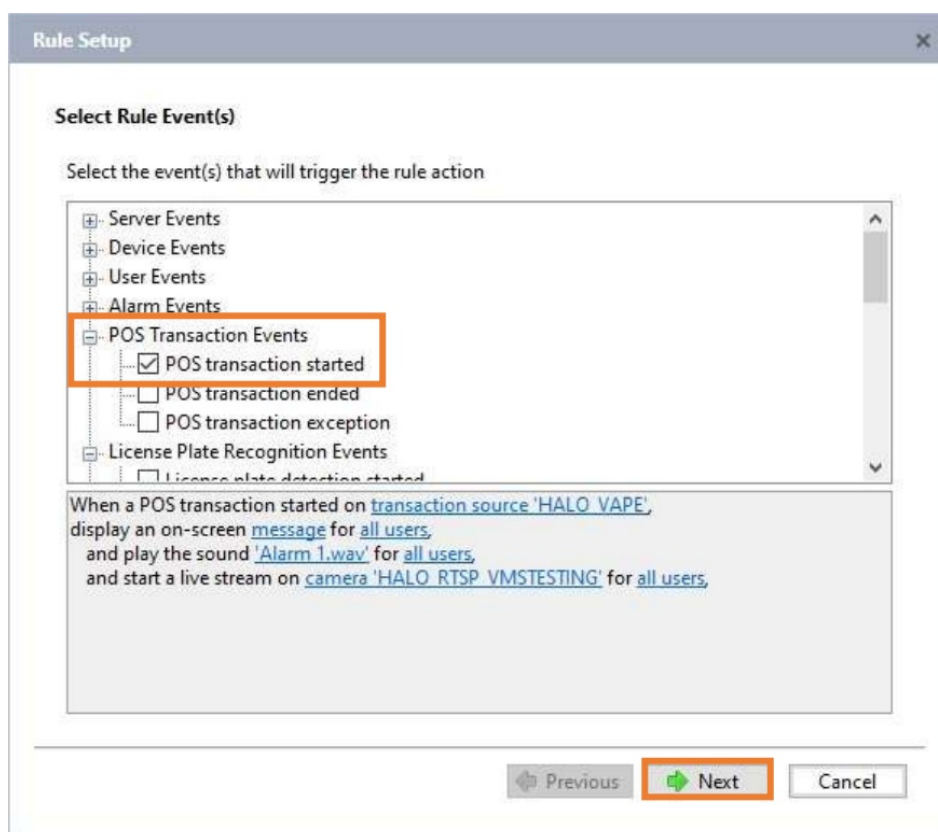
- 1) Enter a Name and Description for the Transaction Source
- 2) Check the Enable Transaction Source checkbox
- 3) Click Finish

## AVIGILON CONTROL CENTER CLIENT – CONFIGURE RULES

On the Setup tab, click on Rules



#### Select Rule Event(s)



Expand the Rule Setup list to expose the POS Transaction Events and check the POS Transaction Started checkbox and click Next.

#### Select Rule Action(s)

**Rule Setup** [X]

**Select Rule Action(s)**

Select the action(s) for the rule

[-] User Notification Actions

☒ Display on-screen message  
☐ Send email  
☐ Send notification to Central Monitoring Station  
☒ Play a sound

[-] Monitoring Actions

☒ Start live streaming  
☐ Video intercom call  
☐ Focus of Attention  
☐ Create Bookmark

When a POS transaction started on [transaction source 'HALO VAPE'](#),  
display an on-screen [message](#) for [all users](#),  
and play the sound '[Alarm 1.wav](#)' for [all users](#),  
and start a live stream on [camera 'HALO RTSP VMSTESTING'](#) for [all users](#).

[Previous](#) [Next](#) [Cancel](#)

There are many choices for the Rule Action(s). For purposes of example, Display On Screen Message, Play a Sound and Start Live Streaming have been selected for this rule.

Once the actions have been selected, Click Next to Proceed

**Select Rule Condition(s)**

**Rule Setup** [X]

**Select Rule Condition(s)**

Select the condition(s) to be met for this rule to run

[-] Device Events

☐ Digital input is active  
☐ Digital input is not active

When a POS transaction started on [transaction source 'HALO VAPE'](#),  
display an on-screen [message](#) for [all users](#),  
and play the sound '[Alarm 1.wav](#)' for [all users](#),  
and start a live stream on [camera 'HALO RTSP VMSTESTING'](#) for [all users](#).

[Previous](#) [Next](#) [Cancel](#)

The Rule Conditions are optional.

Click Next if this is not applicable to your Rule.

#### Select Rule Properties

The screenshot shows a 'Rule Setup' window with the title 'Select Rule Properties'. It contains the following fields and controls:

- Rule Name:** A text box containing 'VMSTESTING\_VAPE'.
- Rule Description:** A text box containing 'Vape Detected VMSTESTING'.
- Schedule:** A dropdown menu set to 'Always'.
- Rule is enabled:** A checked checkbox.
- Preview:** A text area showing a sample rule trigger: 'When a POS transaction started on transaction source 'HALO VAPE', display an on-screen message for all users, and play the sound 'Alarm 1.wav' for all users, and start a live stream on camera 'HALO RTSP VMSTESTING' for all users.'
- Buttons:** 'Previous', 'Finish' (highlighted with an orange border), and 'Cancel'.

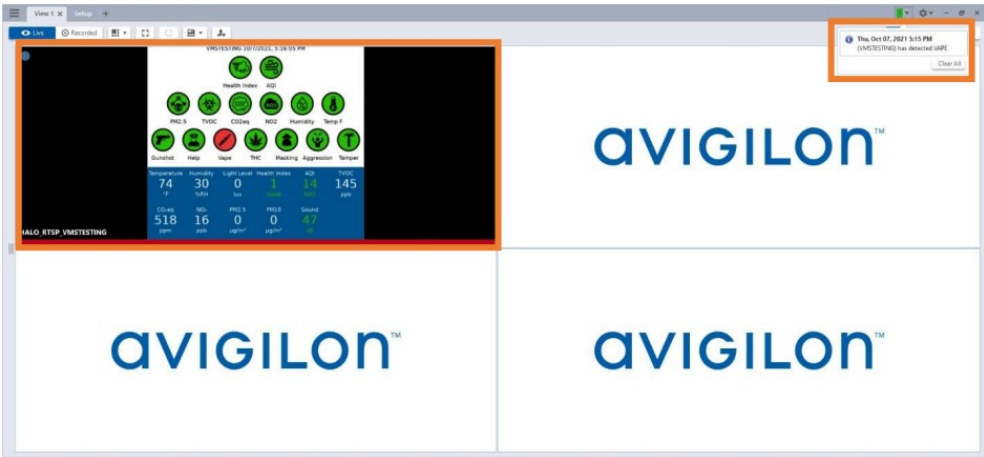
- 1) Specify the Rule Name and Description
- 2) Check the Rule is Enabled checkbox
- 3) Click the Finish button.

#### AVIGILON CONTROL CENTER CLIENT – MONITORING FOR EVENTS

Launch the ACC Client to a View tab. When no events are received from HALO, nothing will appear in the interface.




As Avigilon receives Event Notifications from HALO Smart Sensor(s), video from the associated camera(s) will be displayed with a RED band as an indicator of the event association, an audible notification will be played and a Alarm Notification will be added to the Alarm List in the top right corner of the client



October 19, 2021 28

Documents / Resources

	<p><a href="#">aVIGILON Halo Smart Sensor Video Management Software</a> [pdf] User Guide</p> <p>Halo Smart Sensor Video Management Software, Video Management Software, Management Software, Software, Halo Smart Sensor, Smart Sensor</p>
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