

Chapter 78: HALO Smart Sensor Integration

Introduction

The Gallagher HALO Smart Sensor Integration provides an integration between HALO Smart Sensor devices and Gallagher Command Centre. Command Centre operators can monitor HALO Smart Sensors from within Command Centre Client. When a HALO Smart Sensor sends an alert, an alarm is raised in Command Centre, with details of what the HALO device has detected.

Site Plans

You can add HALO Devices to Site Plans in Command Centre Client only. When a HALO Device is in an alarm state, it flashes on the Site Plan with a colour to represent the alarm priority. The alarm can be viewed and processed from the Site Plan.

Reports

You can configure Activity Reports to report on alarms raised by HALO Devices. You can filter the report by the type of HALO Alarm, (e.g. 'HALO gunshot alert' events).

Events

The Gallagher HALO Smart Sensor Integration makes use of the 'Integrated Device Events' Event Group and its 'HALO' Event Types. The HALO Event Types correspond to the various HALO Smart Sensor alerts (e.g. aggression, air quality) and all have various default Action Plans (alarm priorities) which can be changed. All HALO Device alarms are raised as active alarms. If your site needs to change how HALO events are raised in Command Centre (e.g. change the event message, raise them as inactive), this can be achieved with the help of the Gallagher Support Team.

HALO configuration: To enable HALO alarm functionality in Command Centre, HALO Smart Sensors must be configured to set and reset each event message within their 'Actions' configuration. Refer to the HALO Administrator Manual for instructions.

Alerts while device offline: If a HALO Device is offline in Command Centre, any alerts the device raises while it is offline are *not* raised as events in Command Centre when the device comes back online.

Licensing

The Gallagher HALO Smart Sensor Integration is a licensable feature, i.e. your license file must contain the following options:

[Limits]

Halo Devices=X (where X represents the maximum number of HALO Devices your site can have configured)

[Plugin]
PluginX=Halo (where X is a number)

Prerequisites

Before installing the Gallagher HALO Plugin and configuring HALO items in Gallagher Configuration Client, you must:

- install the FTCAPI Middleware Framework
- configure an External System Server.

See **Configuring an External System Server** (on page 24-5) for detailed instructions.

Installation

To install the Gallagher HALO Plugin, perform the following procedure:

1. Ensure you have already installed the FTCAPI Middleware Framework on the middleware PC. See "Prerequisites" above.
2. Ensure your Command Centre licence file (CommandCentre.lic) contains the required entries. See "Licensing" above.

3. On the middleware PC, run the installation executable **HaloSetup_8.xx.xx.msi**.

This file can be found with the Command Centre installation files in the folder: **Utilities\System Interfaces\XXXXXX**

Note: The FTCAPI Router Service restarts as part of the installation.

4. Navigate to the following folder: C:\Program Files (x86)\Gallagher\FTCAPI\Middleware Framework\Plugin
5. Find the file named 'Halo.config.sample' and rename it to 'Halo.config'.

Notes:

- Do not open or edit this file in any other way without the help of the Gallagher Support Team.
 - To remove the '.sample' from the file name, you may need to enable the 'File name extensions' option in Windows Explorer.
6. To ensure that the Gallagher HALO Plugin has been installed correctly, select the Windows **Programs and Features** utility from the Windows Control Panel. The program 'Gallagher Halo Integration Alarms And Events' should be listed as installed.

Configuration

To configure the Gallagher HALO Smart Sensor Integration, perform the following procedures:

- **Configuring a HALO System** (on page 78-3)
- **Configuring a HALO Device** (on page 78-6)

Configuring a HALO System

Introduction

This topic describes how to configure a HALO System in Command Centre.

A HALO System must be configured in Command Centre before you can configure any HALO Devices. It contains general settings that can be inherited or overridden by any HALO Devices assigned to it.

Operator Privilege: Operators require the 'Edit Site' Operator Privilege to be able to add, modify and delete HALO Systems.

Configuration

To configure a HALO System, perform the following procedure:

1. Click **Configure** from the menu bar, then **External Systems**.
The External System List Window opens (in tree view).
2. **Right click** and select **New...HALO System**.
By default, the **General** tab displays.
3. Complete the fields as required.
For further detail see **General tab** (on page 3-18).
4. Click the **Event Response** tab, and configure as required.
For further detail see **Event Response tab** (on page 3-20).
5. Click the **Alarm Instructions** tab, and configure as required.
For further detail see **Alarm Instructions tab** (on page 3-22).
6. Click the **API Setup** tab.

HALO System 1 - Properties

General
Event Response
Alarm Instructions
Status and Overrides
API Setup
Configuration
Cameras
Icons
Notes

Connections

Controller: -- None Selected --
Server: -- None Selected --

Identity

Unique:
 Same as: -- None Selected --

OK Cancel Apply

7. Select the appropriate **Controller** from the drop-down list.
Note: If a Controller is selected, the **Server** field becomes compulsory.
8. Select the appropriate External System Server from the **Server** drop-down list.

9. In the **Unique** field, enter a unique identity string for this HALO System. All FTCAPI communication related to this item will be tagged with the assigned identity string. You may wish to set the Unique Identity to be the same as the HALO System's 'Name'.

This field is limited to a maximum of 64 characters. If you do not specify this field, it is automatically populated with the HALO System's 'Name' upon clicking 'OK' or 'Apply'.

Note: The 'Same as' option is not applicable to HALO Systems.

10. Click the **Configuration** tab.

The screenshot shows the 'HALO System 1 - Properties' dialog box with the 'Configuration' tab selected. The 'System Type' dropdown is set to 'Halo'. Under 'Web Service', there are input fields for 'Username' and 'Password', and a 'Port' dropdown set to '443'. Below this is a section titled 'Recommended settings to paste into HALO Integration web page' containing three rows: 'SetString:', 'ResetString:', and 'Heartbeat:', each with a 'Copy to clipboard' button. At the bottom, there is an 'Offline Timeout' field set to '60' seconds, with a note that it must be longer than the HALO device's heartbeat interval. 'OK', 'Cancel', and 'Apply' buttons are at the bottom right.

This screen allows you to assign a HALO Smart Sensor 'User' and 'Password' to this HALO System. The **System Type** drop-down will always be set to 'Halo' for HALO Systems.

11. In the **Username** and **Password** fields, enter the 'User' and 'Password' used by your HALO Smart Sensors (set in the 'External Messaging' and 'Heartbeat' sections under the 'Integration' settings in the HALO Smart Sensor's web interface). All HALO Smart Sensors that you will assign as HALO Devices to this HALO System must use the same 'User' and 'Password'. Any HALO Smart Sensor that does not use the Username and Password entered in the HALO System will be ignored by Command Centre.

Note: This is **not** the Username and Password used to log on to a HALO Smart Sensor's web interface.
12. Enter the **Port** number used by this HALO System's HALO Smart Sensors. A HALO System's 'Port' must be unique within its External System Server. Default is 443, range is 1-65535.
13. The 'Recommended settings to paste into HALO Integration web page' section of this screen contains buttons to copy Gallagher's recommended settings to your clipboard. You can then paste them into the appropriate fields in each HALO Smart Sensor's web interface.

Copy	Paste
Copy the recommended SetString by clicking its 'Copy to clipboard' button.	Paste the copied SetString setting into the 'Set String' field in the 'External Messaging' section of each HALO Smart Sensor's 'Integration' settings.
Copy the recommended ResetString by clicking its 'Copy to clipboard' button.	Paste the copied ResetString setting into the 'Reset String' field in the 'External Messaging' section of each HALO Smart Sensor's 'Integration' settings.
Copy the recommended Heartbeat by clicking its 'Copy to clipboard' button.	Paste the copied Heartbeat setting into the 'Message' field in the 'Heartbeat' section of each HALO Smart Sensor's 'Integration' settings.

14. In the **Offline Timeout** field, enter the amount of time (in seconds) that Command Centre will go without receiving a heartbeat from a HALO Device within this HALO System before marking the device as offline. The 'Offline Timeout' must be longer than the HALO system's heartbeat interval (otherwise the HALO System will frequently be marked as offline). Default is 60, range is 20-3600.
For example, if the 'Offline Timeout' is set to 60 seconds and Command Centre has not received a heartbeat from a HALO device for the past 61 seconds, the HALO Device is marked as offline and an alarm is raised.
15. Click the **Cameras** tab if you want to associate a DVR Camera(s) with this HALO System. For further details see **Cameras tab** (on page 3-24).
16. Click the **Icons** tab if you want to change the Icon Set for this HALO System. For further details regarding the **Icons** tab, see **Icons** (on page 6-71).
17. Click the **Notes** tab if you want to add a note(s) about this HALO System. For further details regarding the **Notes** tab, see **Notes** (on page 6-72).
18. Click **OK** to exit and save your changes.
Click **Cancel** to exit without saving your changes.
Click **Apply** to save your changes and stay in this window.

Result

A new HALO System has been created and displays in the External Systems List Window under the 'External System Server', with no children.

Note: A new HALO System can be saved even if some of the properties are not entered, however it will not function correctly until all the properties are entered.

Editing and Deleting HALO Systems

Refer to **Editing items** (on page 3-26) and **Deleting items** (on page 3-27) for procedures on how to edit and delete HALO Systems.

Notes:

- The HALO System can only be deleted if it does not have any children (i.e. no HALO Devices referencing it).
- If an item is on a Site Plan, you can not delete it until it is removed from the Site Plan.

Configuring a HALO Device

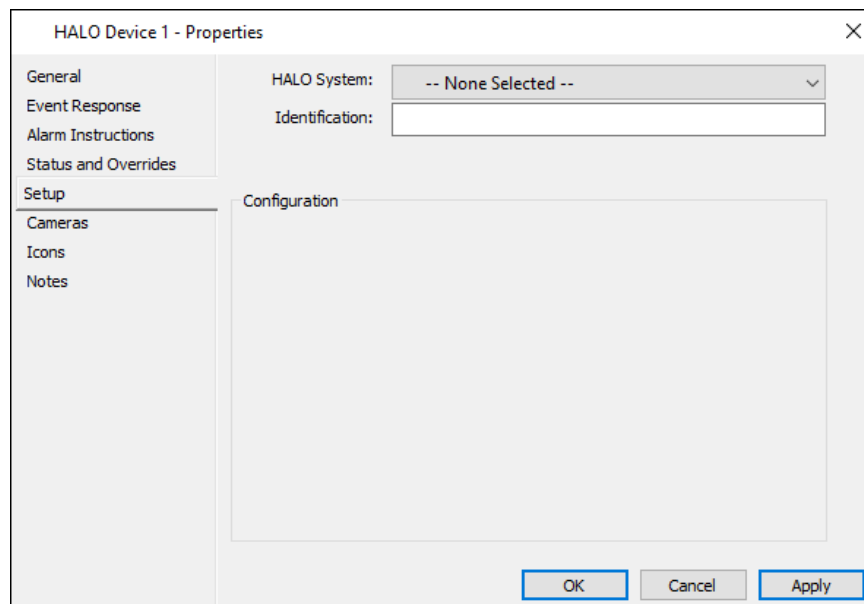
Introduction

This topic describes how to create a HALO Device in Command Centre. A HALO Device item represents a HALO Smart Sensor. When a HALO Smart Sensor raises an alert, an alarm is raised against the HALO Device in Command Centre.

Operator Privilege: Operators require the 'Edit Site' Operator Privilege to be able to add, modify and delete HALO Devices.

Procedure

1. Click **Configure** from the menu bar, then **External Systems**.
The External System List Window opens (in tree view).
2. **Right click** and select **New...HALO Device**.
By default, the **General** tab displays.
3. Complete the fields as required.
For further detail see **General tab** (on page 3-18).
4. Click the **Event Response** tab, and configure as required.
For further detail see **Event Response tab** (on page 3-20).
5. Click the **Alarm Instructions** tab, and configure as required.
For further detail see **Alarm Instructions tab** (on page 3-22).
6. Click the **Setup** tab.



7. Select the appropriate **HALO System** from the drop-down list that this HALO Device belongs to.

Notes:

- The 'Configuration' section is enabled after you select a 'HALO System'.

- If you do not select a HALO System, this HALO Device will display at the root level of the External Systems List Window tree until it is assigned a HALO System as a parent.
 - Although there is no hard limit to the number of HALO Devices per HALO System, it is recommended that this number does not exceed 2000.
8. In the **Identification** field, enter the MAC address of this HALO Smart Sensor. The MAC address can be found printed on the HALO Smart Sensor or with the Halo Device Manager application.
This identifier is intended to allow the API to map HALO Smart Sensors to the Command Centre HALO Devices that represent them.
 9. If you wish to use the above-selected HALO System's 'Offline Timeout' setting for this HALO Device, leave the **Use the system settings** check box checked. Otherwise, deselect the check box and enter an **Offline Timeout**.
 10. Click the **Cameras** tab if you want to associate a DVR Camera(s) with this HALO Device. For further details see **Cameras tab** (on page 3-24).
 11. Click the **Icons** tab if you want to change the Icon Set for this HALO Device. For further details regarding the **Icons** tab, see **Icons** (on page 6-71).
 12. Click the **Notes** tab if you want to add a note(s) about this HALO Device. For further details regarding the **Notes** tab, see **Notes** (on page 6-72).
 13. Click **OK** to exit and save your changes.
Click **Cancel** to exit without saving your changes.
Click **Apply** to save your changes and stay in this window.

Result

A new HALO Device has been created and displays as a child of the selected HALO System in the External Systems List Window.

Hint

Editing and Deleting HALO Devices

Refer to **Editing items** (on page 3-26) and **Deleting items** (on page 3-27) for procedures on how to edit and delete HALO Devices.

