



Avigilon™ Control Center 5 System Integration Guide

for Paxton Net2 Access Control Systems

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Revised: 2014-07-15

INT-PAXTON-A

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Introduction

The Avigilon™ Control Center software and Paxton Net2 Access Control software integration allows for the two systems to combine alarm monitoring abilities. The integration includes:

- The Avigilon™ Alarm Gateway software that enables alarms created in the Avigilon™ Control Center software to be mapped to specific events in the Paxton Net2 software.
- The Avigilon™ Video Integration software that allows you to review recorded footage from Avigilon™ cameras in the Net2 software.

Both parts of the integration can be used together or separately.

NOTE: The integration is not required to view live video from Avigilon cameras in the Paxton Net2 software.

Requirements

Vendor	Requirements
Avigilon	Control Center Server software 5.0 or later
Avigilon	Avigilon Third Party Integration license: ACC5-PAXTON-NET2
Avigilon	Avigilon integration executable file: AvigilonPaxtonGateway.exe Installer includes: <ul style="list-style-type: none">• Alarm Mapping Gateway software• Video Integration plug-in
Paxton	Net2 v5 software

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*
- *Paxton Net2 Software User Guide*

Installation

Installing the Avigilon™ Alarm Gateway Software

1. Install the Avigilon™ Control Center Server software on any server in your network.
2. Install the Paxton Net2 Server software and the Avigilon™ Alarm Gateway software on the same server.
 - a. After you install the Paxton Net2 Server software, run the Avigilon integration executable file (AvigilonPaxtonGateway.exe).
 - b. In the following installer window, select **Avigilon Paxton Gateway**.
 - c. Click **Done**.

Installing the Avigilon™ Video Integration Software

1. Install the Paxton Net 2 Server software.
2. On each client workstation that needs access to the integration, complete the following:
 - a. Install the Net2 Client software.
 - b. Run the Avigilon integration executable file (AvigilonPaxtonGateway.exe).
 - c. In the following installer window, select **Avigilon Paxton Video**.
 - d. Click **Done**.



Preparing for the Integration

Adding an Integration User in Paxton

To protect the security of the Paxton Net2 system, add a user specifically for connecting the integration to the Net2 software. The user must have **System Engineer** permission to enable all integration features. For more information about adding users in the Net2 software, see the *Net2 Software User Guide*.

This user will be used to connect the Paxton Net2 system to the integration.

Adding an Integration User in Avigilon™ Control Center

To protect the security of the Avigilon™ Control Center system, add a user specifically for connecting the integration to the Control Center software. See the *Avigilon™ Control Center Client User Guide* for details about how to add users.

This user must have **View Recorded Images** permission to enable all integration features.

This user will be used to connect the Avigilon Control Center system to the integration.

Adding Avigilon™ Alarms

If you are installing the Avigilon™ Alarm Gateway integration software component, you need to have an Avigilon™ Control Center alarm for each mapping you plan to make with the Paxton Net2 software.

The alarm trigger for each Avigilon alarm will be an **External Software Event** but you can assign different cameras or users to each instance of the alarm.

1. In the Avigilon™ Control Center Client software, open the Site Groups tab and click .
2. In the Alarms dialog box, click .
3. On the Select Alarm Trigger Source page, select **External Software Event** from the Alarm Trigger Source: drop down list. Click  after you complete each page.
4. On the Select Linked Cameras page, select the cameras to link to this alarm, and set the **Pre-Alarm Record Time:** and **Recording Duration:**.
5. On the Select Alarm Recipients page, select the Control Center user that was added for the integration. You can also add any other groups or users that need to be notified when this alarm is triggered.
6. (Optional) If you would like to trigger an action when an alarm is acknowledged, select **Activate selected digital output(s) on alarm acknowledgement** check box.
 - a. Select the digital outputs to be activated and specify the duration.
 - b. Select **Require user confirmation before activating digital output(s)** check box if the user needs to confirm the alarm before the digital output action is initiated.

7. Enter a name for the alarm and set the alarm priority. The alarm name is used to identify the alarm during the integration.
8. Ensure **Enable alarm** check box is selected then click .



Configuring The Video Integration

Assigning Logical IDs to Cameras

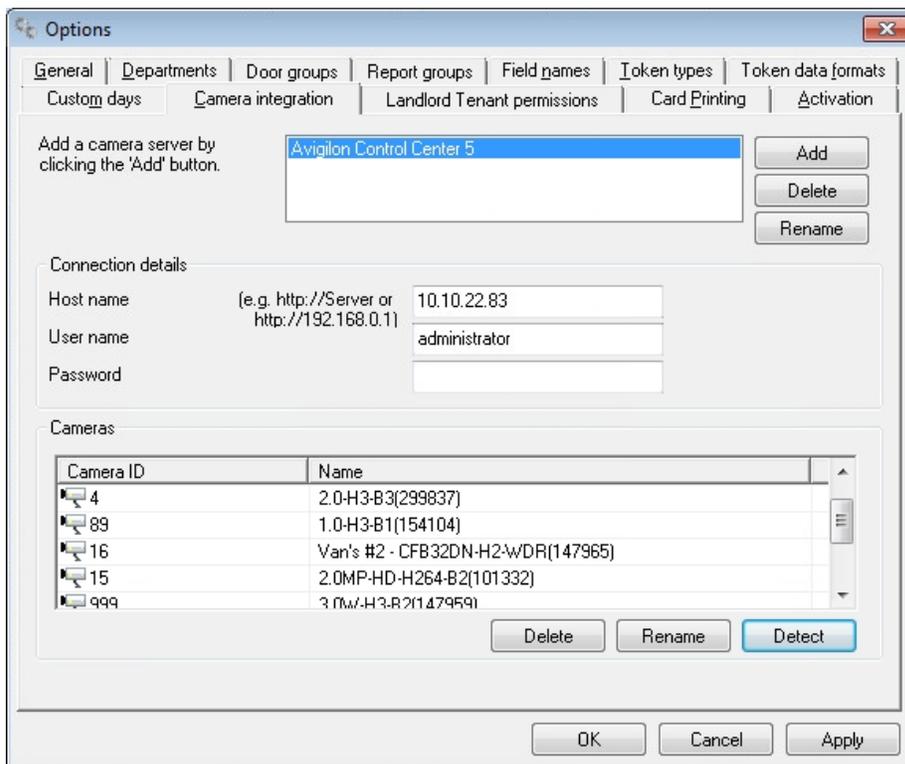
In the Avigilon™ Control Center Client software, assign a logical ID to each camera. The integration software will only allow you to access cameras with a logical ID. By default, cameras do not have a logical ID.

1. In the Avigilon™ Control Center Client software, right-click a camera in the System Explorer and select **Setup**.
2. In the camera Setup tab, click **General**.
3. In the General dialog box, enter a Logical ID: for the camera. The logical ID must be a unique number.

Adding Avigilon™ Sites and Cameras to the Paxton Net2 Software

If you want to monitor Avigilon cameras in the Paxton Net2 software, you must first add Avigilon Sites and cameras to the Net2 system.

1. On the computer where the integration is installed, launch the Net2 software and select **Options > Camera Integration**.
2. In the following window, click **Add** to open the Add Camera Server dialog box.
3. Select **Avigilon Control Center 5** then click **OK**.
4. Complete the following fields:



The screenshot shows the 'Options' dialog box with the 'Camera integration' tab selected. The 'Add a camera server' section has a list box containing 'Avigilon Control Center 5'. The 'Connection details' section has the following fields:

Host name	(e.g. http://Server or http://192.168.0.1)	10.10.22.83
User name		administrator
Password		

The 'Cameras' section shows a table with the following data:

Camera ID	Name
4	2.0-H3-B3(299837)
89	1.0-H3-B1(154104)
16	Van's #2 · CFB32DN-H2-WDR(147965)
15	2.0MP-HD-H264-B2(101332)
999	3.0MP-H3-R2(147959)

- a. **Host Name:** enter the Avigilon server IP address.
 - b. **User name:** enter the name of the Avigilon user you created for the integration. For more information, see *Adding an Integration User in Avigilon™ Control Center* on page 3.
 - c. **Password:** enter the password for the user.
5. Click **Detect**. The cameras that are available on the Site are added to the Cameras list.

NOTE: Only cameras with logical IDs are listed. For more information, see *Assigning Logical IDs to Cameras* on the previous page.

6. Click **Apply**.

You can now access cameras that are connected to the Avigilon Control Center through the Paxton Net2 software.

For more information about how to access recorded video from Avigilon cameras, see *Using the Integration* on page 10.

Configuring Paxton Net2 for Live Video

You can watch live video from Avigilon cameras in the Paxton Net2 software by accessing the camera's web interface. All Avigilon H.264 cameras feature a web interface. For more information about monitoring live video in the Paxton Net2 software, see the "Integrating IP Cameras with Net2" section in the *Net2 Software User Guide*.

NOTE: The default Avigilon camera username is `admin` and the default password is `admin`.

Configuring the Avigilon™ Alarm Gateway

The Alarm Gateway allows Paxton events to trigger alarms within the Avigilon system so that your video and access control events can be monitored from the same system.

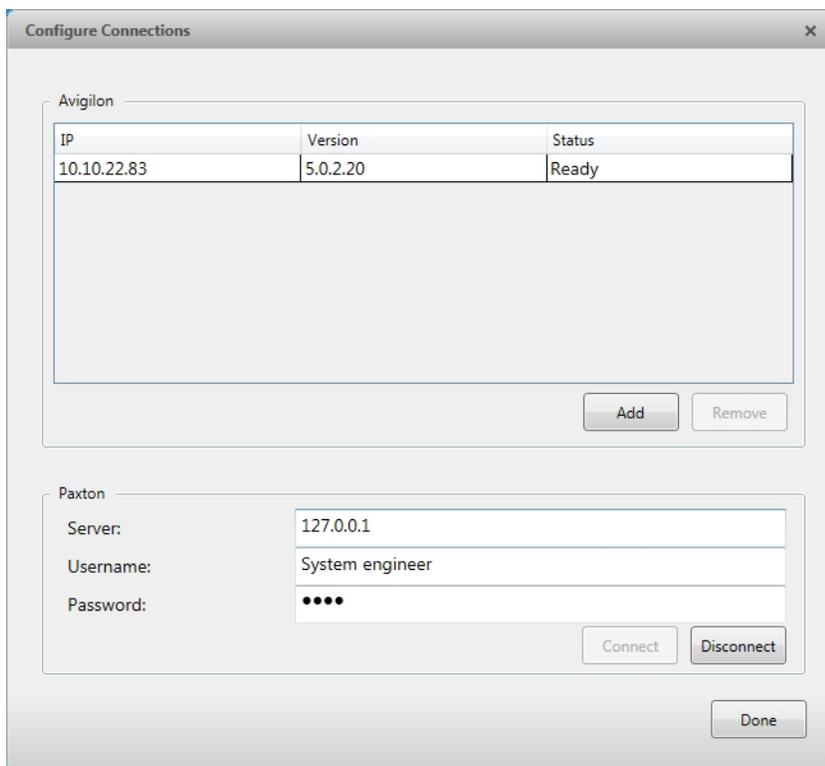
The Alarm Gateway is composed of two parts: the Windows service that runs automatically in the background, and the Configuration Tool software that is used to map alarms between the two systems.

Configuring Server Settings

Configure the Avigilon™ Alarm Gateway to access the two applications.

The configuration application remembers the server configuration, so you do not need to repeat this procedure if the settings remain the same.

After you install the Alarm Gateway software, the Configuration Tool automatically opens the Configure Connections dialog box.



1. In the Configure Connections dialog box, click **Add**.
2. In the following dialog box, enter the Avigilon server IP address, username and password.

Use the Avigilon username and password you created for the integration. See *Adding an Integration User in Avigilon™ Control Center* on page 3

NOTE: If the Avigilon™ Control Center Server and the Alarm Gateway Integration are installed on the same server, set the server IP Address as 127.0.0.1 instead of the actual IP address.

3. Click **OK**.
4. In the Paxton area of the Configure Connection dialog box, complete the following fields:
 - **Paxton Server:** enter the Paxton Net2 Server IP address.
 - **Username:** enter the Paxton username you created for the integration. See *Adding an Integration User in Paxton* on page 3.
 - **Password:** enter the password for the Paxton user.
5. Click **Connect** to link the Avigilon Control Center and the Paxton Net2 software with the integration. A popup message appears to notify you that the connection is successful.
6. Click **Done**. The Configuration Tool window is displayed.

The integration searches both software systems for alarms that can be mapped together. To access the Configure Connections dialog box again, click **Configure Connections**.

Mapping Alarms

In the Configuration Tool is a list of all the current alarm mappings, and all the available alarms from the Avigilon Control Center software and the Net2 software.

If the Configuration Tool is not already open, select **All Programs > Avigilon > Paxton Net2 Gateway > Configure Avigilon to Paxton Net2 Gateway**.

The screenshot shows the Configuration Tool window with two main panes. The left pane is titled 'Avigilon' and contains a table of available alarms. The right pane is titled 'Alarm Mappings' and contains a table of current mappings. Below the tables are controls for selecting Paxton event types, details, doors, and users, along with 'Add' and 'Remove' buttons. At the bottom are 'Configure Connections' and 'Save and Apply' buttons.

Alarm	Site
Door Forced	ACC SITE
Door Opened - With Exit Button	ACC SITE
Mains Failed	ACC SITE
No Entry Made	ACC SITE

Avigilon Alarm	Avigilon Site	Event Type	Event Detail	Door	Users
Unknown Keyfob	ACC SITE	Access denied - invalid token	[Any Event Details]	ACU 02311777	[Any User]
Door Opened	ACC SITE	Access permitted - token only	[Any Event Details]	ACU 02311777	Pat Long and 2 other users
Tamper	ACC SITE	Tamper	[Any Event Details]	ACU 02311777	[Any User]

Paxton
Event Type: Tamper
Event Detail: [Any Event Details]
Door: ACU 02311777
Users: Any User

To map alarms together, complete the following steps:

1. In the Avigilon area, select one of the Control Center alarms you created for the integration. For more information, see *Adding Avigilon™ Alarms* on page 3.
2. In the Paxton area, select the event details that will trigger an alarm for the integration.

The Paxton Net2 software is pre-configured with a set of event types and door options. Not all event details are available with every event type. See the Paxton Net2 user guide for more details.

- a. **Event Type:** select the event type that will trigger the alarm.
 - b. **Event Details:** select the event details that are required for the alarm.
 - c. **Door:** select the door that the alarm is for.
 - d. In the Users area, select if specific user(s) or any user will trigger the alarm. The **Any User** check box is selected by default. To select a specific user or group of users:
 - i. Clear the **Any User** check box.
 - ii. Click **Add**.
 - iii. In the following dialog box, select the user(s) that will trigger the alarm.
 - iv. Click **OK** to add the users to the alarm.
3. Click >> to map the alarms together.
 4. Repeat the previous steps until all the required alarms have been mapped.
 5. Click **Save and Apply**. The integration alarm gateway is updated with all the new or changed mappings.

Backing Up Mapped Alarms

After you finish mapping all the alarms in the Configuration Tool, you can choose to back up a copy of the mappings.

1. Navigate to `C:\Program Files\Avigilon\Paxton Net2 Gateway`.
NOTE: The file path may be different depending on how your system is configured.
2. Copy and paste the `AlarmConfig.xml` file to a backup location.

Restoring Mapped Alarms

When you have a backup copy of the mapped alarms, you can restore the mapped alarms any time.

1. Locate your backup copy of the `AlarmConfig.xml` file.
2. Copy and paste the backup `AlarmConfig.xml` file into `C:\Program Files\Avigilon\Paxton Net2 Gateway`.
Allow Windows to overwrite the copy that is currently in the folder.
3. Open the integration Configuration Tool. The restored mappings should be displayed in the Alarm Mappings list.
4. Click **Save and Apply** to update the integration Alarm Gateway and apply the alarm mapping changes.

Using the Integration

Monitoring Video

Once the video integration is set up in the Paxton Net2 software, you can review video captured by the Avigilon™ Control Center system in the Net2 software. For more information about monitoring recorded video, see the "Using the Events Screen" section in the *Net2 Software User Guide*.

For more information about monitoring live video from Avigilon cameras, see the "Integrating IP Cameras with Net2" section in the *Net2 Software User Guide*.

Monitoring Alarms

Once the alarms from the Paxton Net2 software and the Avigilon™ Control Center software have been mapped together, you can begin to monitor Paxton Net2 events in the Avigilon Control Center software.

When a Net2 event is triggered, it will activate the mapped Avigilon alarm and the configured alarm actions are started.

- To monitor events in the Net2 software, see the "Using the Events Screen" section in the *Net2 Software User Guide*.
- To monitor alarms in the Avigilon Control Center software, see the alarms section of the *Avigilon Control Center Client User Guide*.



Troubleshooting

If the following troubleshooting solutions do not resolve your issue, contact Avigilon Technical Support – <http://avigilon.com/support-and-downloads/>

Cannot Add Avigilon™ Cameras to Paxton Net2

When you try to add Avigilon cameras to the Paxton Net2 system, no cameras are listed after you enter the Avigilon server details.

This occurs when the cameras in the Avigilon system do not have logical IDs. Only cameras with logical IDs are listed in the Paxton Net2 software.

To assign a camera a logical ID, see *Assigning Logical IDs to Cameras* on page 5.

Mapped Avigilon™ Control Center Alarms Displayed as Unknown

Mapped alarms in the Configuration Tool are labeled in red as “Unknown.” The Avigilon™ Control Center Server that the integration is connected to displays an “Error” status in the Configure Connections dialog box.

This issue occurs if the Control Center Server has rebooted or is offline.

Perform the following steps to ensure the integration functions correctly:

1. Check that the Avigilon Control Center Server is online and connected to the local network.
2. When the Avigilon Control Center Server is back online, open the Configuration Tool and click **Configure Connections**.
3. If the Avigilon Control Center Server is online, the server status would be “Ready.” If it is not, check the server connectivity again.
4. Close the Configure Connections dialog box. The Configuration Tool should now display the correct alarm names.
5. Click **Save and Apply** to ensure the alarm mappings are active.

Cannot Save Changes in the Configuration Tool

When you click **Save and Apply** in the Configuration Tool, an error message is displayed. The issue did not occur when you first accessed to the Configuration Tool after the installation.

To work around this issue, perform any of the following options:

- Run the Configuration Tool as an administrator.
- Disable User Account Control (UAC) in your Windows system.

Incorrect Video Displayed in Paxton Net2

When you display video that is associated with an event in the Paxton Net2 client software, video from the correct camera is displayed but from the wrong time.

To resolve this issue, make sure the Paxton Net2 server and Avigilon Control Center Server are set to the same time zone or are synchronized to the same network time protocol (NTP) server.

Invalid Camera Appears in Paxton Net2 Camera List

The Paxton Net2 client software displays one "Invalid Camera" on the camera list, even though all known cameras are accounted for and function without issue.

The "Invalid Camera" is a placeholder camera that is automatically added by the integration software as a workaround for a known issue within the Paxton Net2 software. If you see the "Invalid Camera" listed, then the issue has been resolved.

To remove the "Invalid Camera" from the camera list, complete the following:

1. In the Paxton Net2 client install directory, locate the `AvigilonPaxtonSettings.xml` file.
2. Open the file in a text editor and locate the line that says `PrependCameraListWithInvalidCamera`.
3. Change the value from `True` to `False`.
4. Save and close the xml file.

Next time you open the Net2 client software, the "Invalid Camera" is no longer listed on the camera list.

Cameras Not Listed After Being Added to Paxton Net2

After you add Avigilon™ cameras to the Paxton Net2 software, the added cameras are not listed in the Net2 Camera Integration tab for doors or in the options menu.

This issue sometimes occurs if the Net2 software did not automatically save the cameras as they were detected.

To work around this issue, complete the following steps:

1. On the computer where the integration is installed, launch the Net2 software and select **Options > Camera Integration**.
2. Select the Avigilon Control Center camera server that was added for the integration.
3. Click **Detect**. The list of cameras from the **Avigilon** server is re-added.
4. Click **Apply**.
5. Select one of the cameras on the camera list, and click **Rename**.
6. Enter a new name for the camera then click **Apply**.

The system should now remember all the cameras and display them in the appropriate lists.