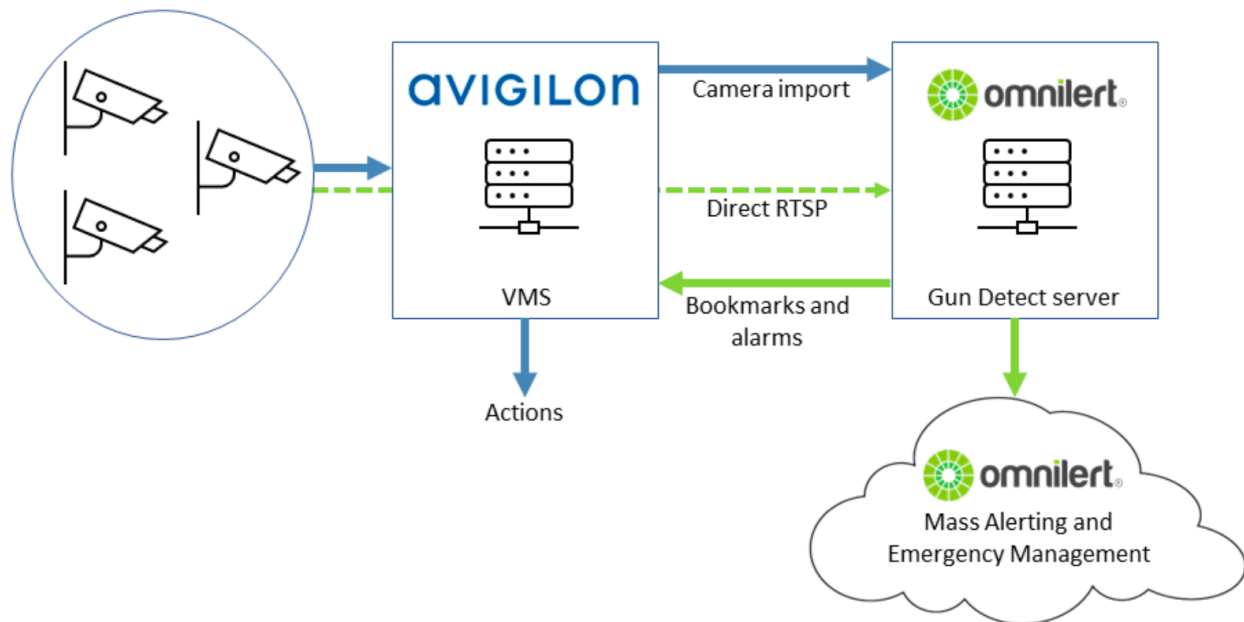


Avigilon Control Center with Omnilert Gun Detect

Capabilities

Omnilert Gun Detect integrates with Avigilon Control Center (ACC) to offer the following capabilities:

- Camera import can be done directly from the ACC or through native Gun Detect ONVIF discovery. This helps to quickly set up Gun Detect by retrieving camera names, addresses, and geolocation information from the ACC. Gun Detect will access the cameras directly from their RTSP streams.
- Selectable Bookmarking of cameras and/or Alarming in ACC, in response to a gun detection. The integration allows a detection event occurring on a camera to trigger any number of ACC Alarms which are associated with the camera.
- Integration with Omnilert Aware, which allows Gun Detect events to be human-verified. Bookmarking/alarming can be configured to run before and/or after verification.



Installation Pre-Requisites

Gun Detect integrates through the ACC Web Endpoint API, which requires ACC 7.12 or later.

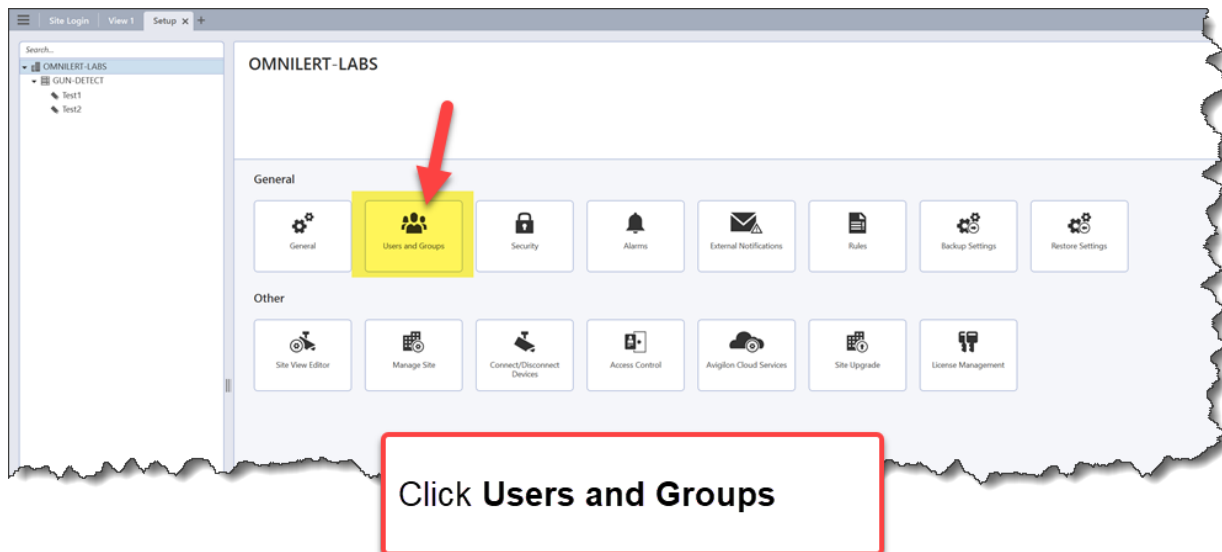
To set up ACC for Gun Detect:

- The ACC Web Endpoint Service must be installed on the same system as the ACC Server software. Download and install the *ACC Web Endpoint Service* from the Avigilon website.
- You need ACC login credentials. You may consider creating a new login with limited privileges for this integration.
- If you wish to trigger any alarms, ensure that they have cameras associated with them. Gun Detect will look for any number of alarms associated with a camera on which detection occurs and trigger each of them sequentially.

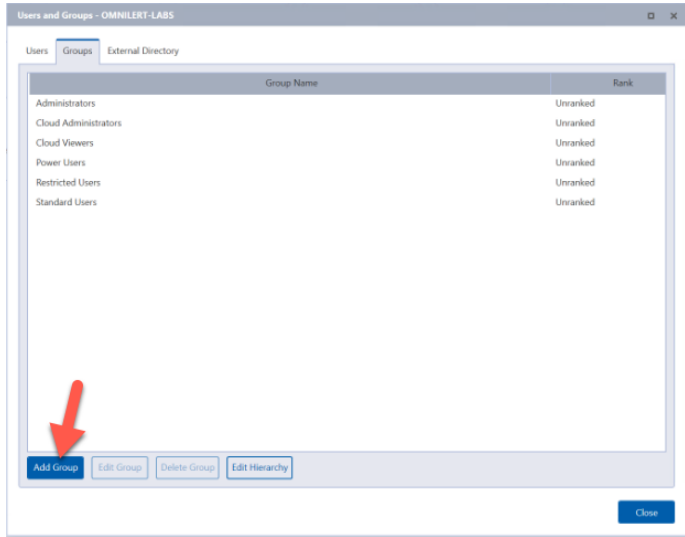
Avigilon Permissions

To ensure Gun Detect can retrieve all the alarms and set bookmarks, the username must have suitable privileges. We recommend creating a new admin group specifically for Gun Detect and then creating a username in that Gun Detect group. In the example below, we have named the group "*GDAdmins*" and the admin "*GD*". The admin username "GD" will later be used by the Avigilon plugin to interact with ACC.

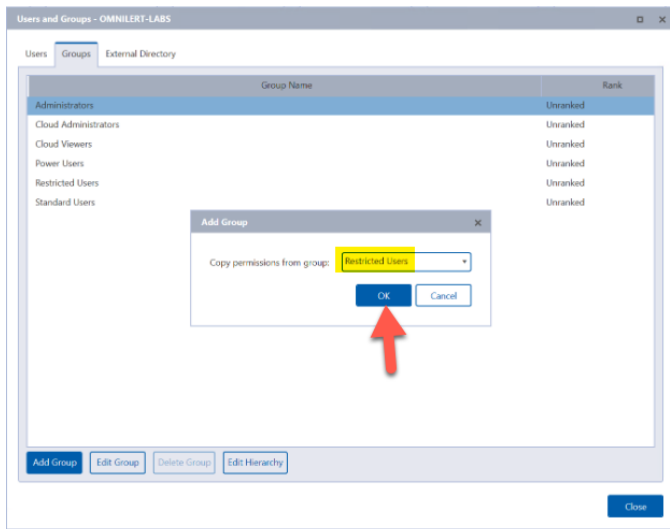
To add new permissions, click **Users and Groups** on the setup screen.



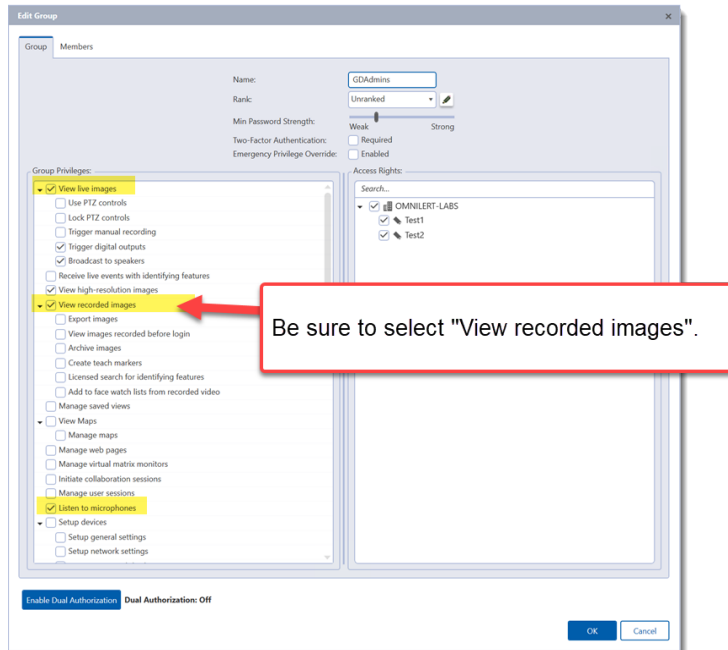
Go to the *Groups* tab and click the blue **Add Group** button.



Next, select the "Restricted User" permission and click **OK**.



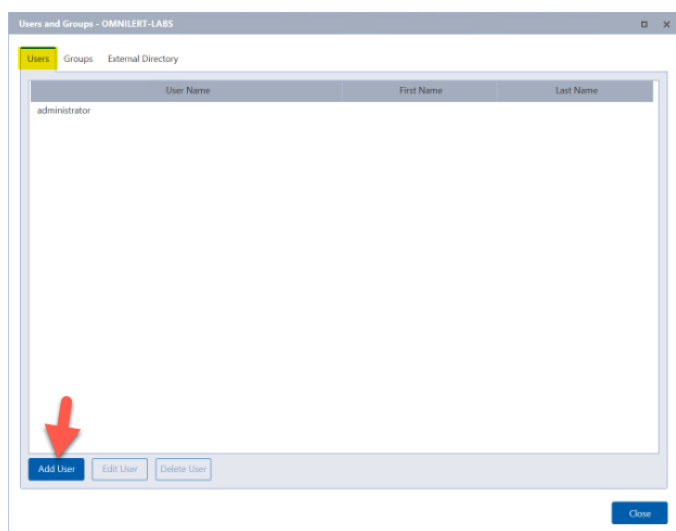
Next, Give your new group a name, we suggest “*GDAmins*”. To make Bookmarks work, you also need to select “*View recorded images*” from the Group Privileges list.



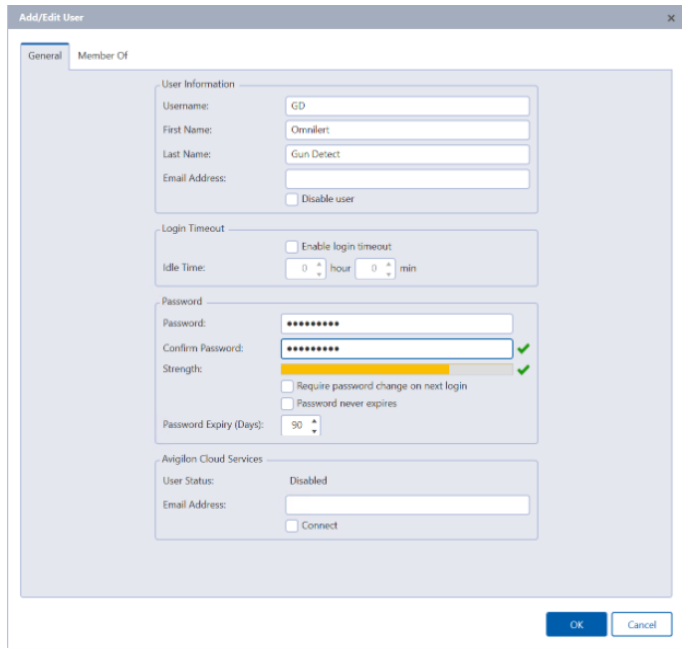
Please note: When you select the “*View recorded images*” checkbox, all the indented boxes below are also checked. These boxes are not needed for Gun Detect to work, so we recommend you uncheck them.

Click the **OK** button to save.

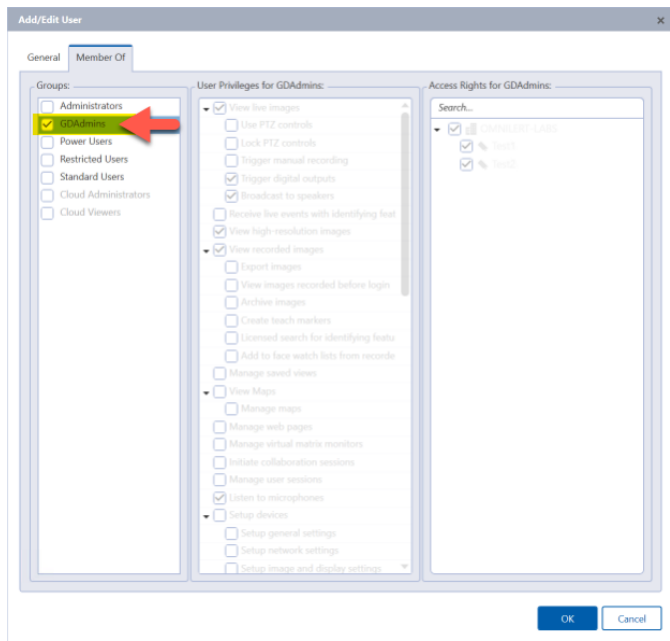
Next, click the “Users” tab and then the **Add User** button.



Next, enter at minimum the username (we suggest “GD”) and the password. These are the credentials used to configure the plugin later. We also added first and last names, for clarity, but this is optional.



Next, click the “Member of” tab at the top. Then check the box next to your new group “GDAdmins” and click the **OK** button.



You are now done setting up the permissions.

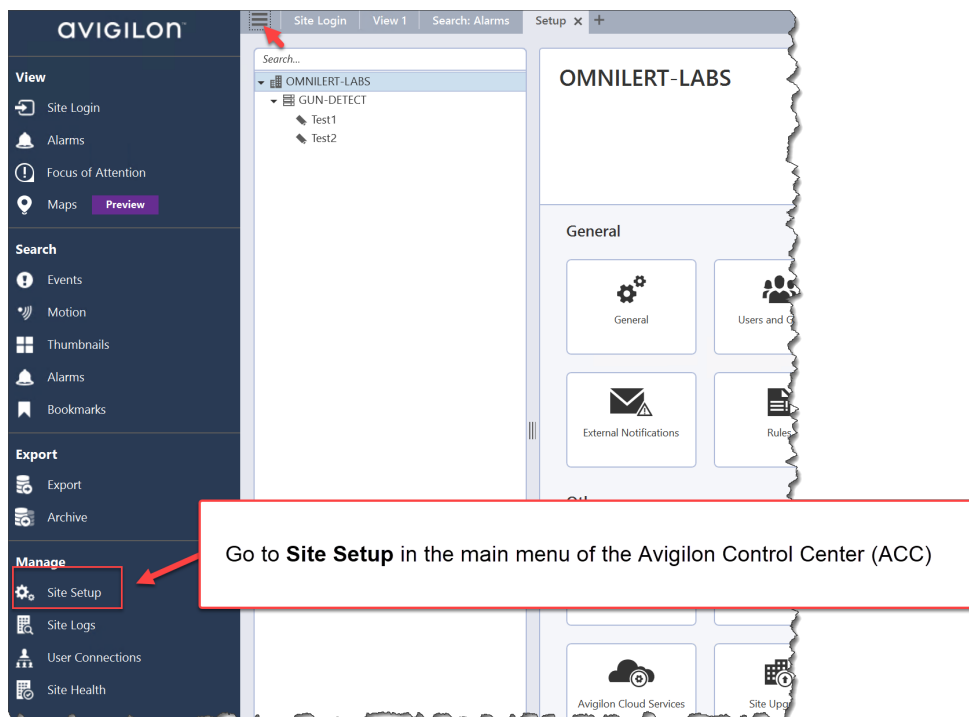
Adding a "Gun Detect" alarm in Avigilon Control Center (ACC)

Omnilert will need an alarm called "Gun Detect" set up within the Avigilon Control Center (ACC). This alarm will receive bookmark info for any/all gun detection events.

Set up the alarm as outlined below.

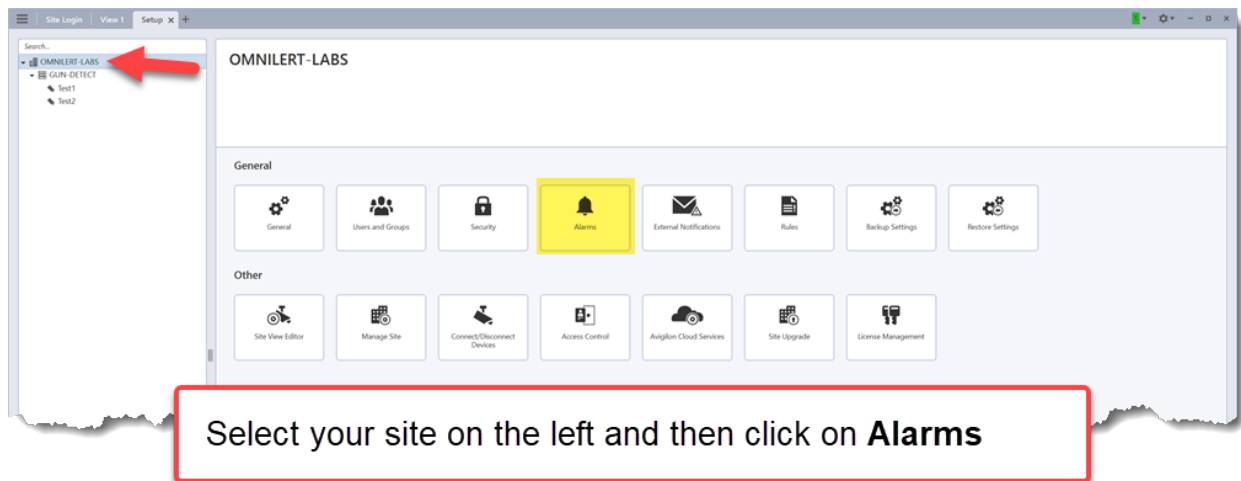
Step 1: Log into ACC and go to "Site Setup"

Log into the Avigilon Control Center. Open the main menu on the left-hand side & click **Site Setup**



Step 2: Choose "Alarms"

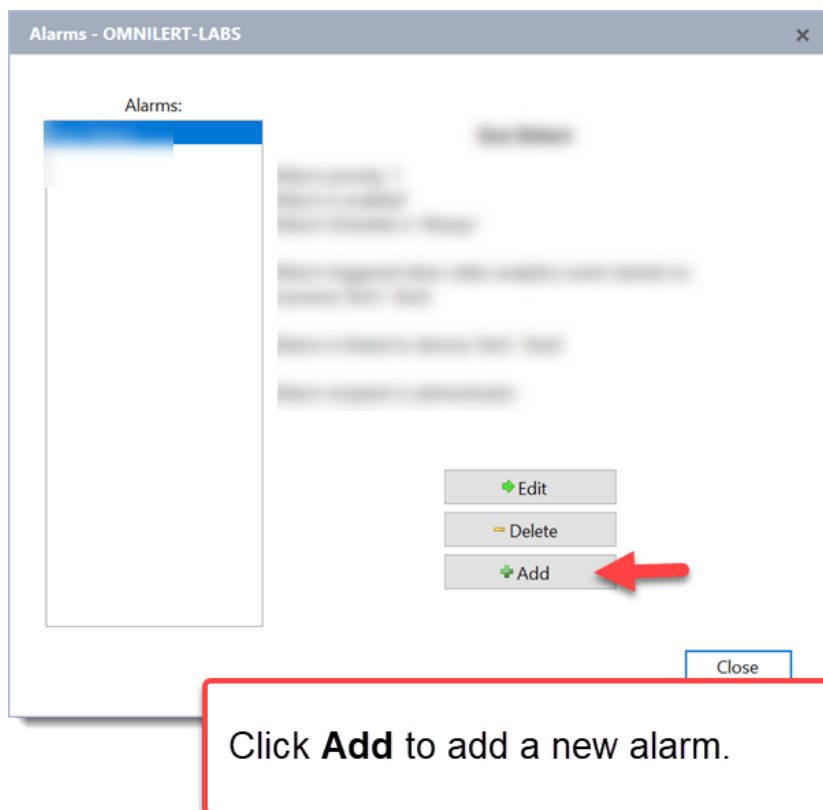
Be sure to select your site on the left and then click on **Alarms** in the options presented on the screen.



Step 3: Create a new alarm

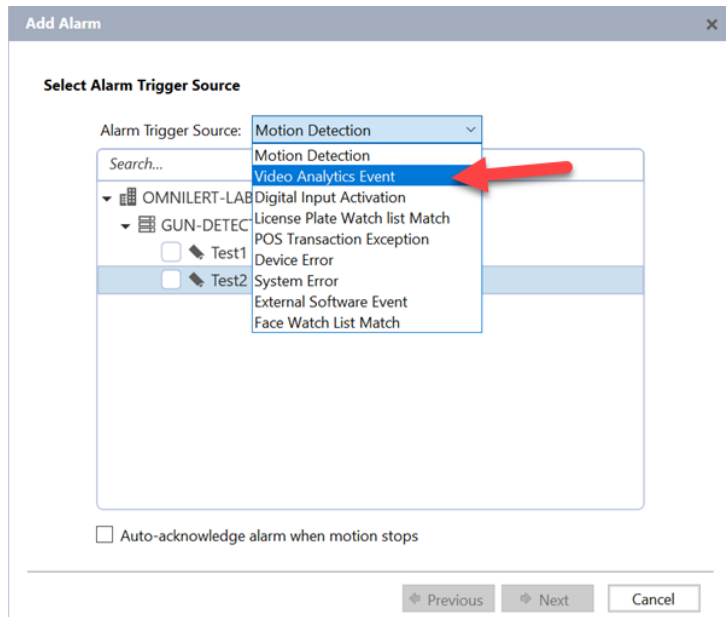
You will see a list of existing alarms. (Your list may be empty if it's a new installation.)

Click **Add** to add a new alarm.



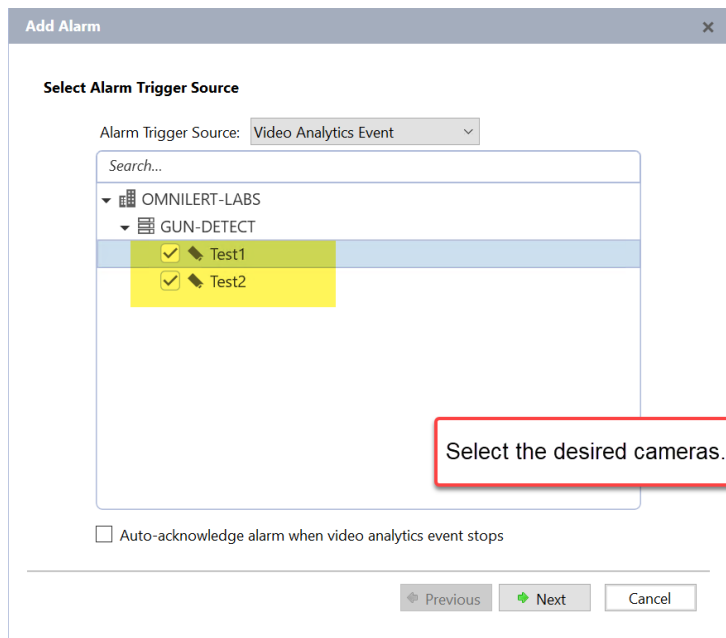
Step 4: Select the "trigger source" and cameras for the alarm

Next, set the "Alarm Trigger Source" to **Video Analytics Event** and then check the boxes for any/all cameras to include with this alarm.



The screenshot shows the 'Add Alarm' dialog box with the 'Select Alarm Trigger Source' section. The 'Alarm Trigger Source' dropdown menu is open, displaying a list of options. A red arrow points to 'Video Analytics Event', which is highlighted in blue. Other options include 'Motion Detection', 'Digital Input Activation', 'License Plate Watch list Match', 'POS Transaction Exception', 'Device Error', 'System Error', 'External Software Event', and 'Face Watch List Match'. Below the list, there are checkboxes for 'Test1' and 'Test2'. At the bottom of the dialog, there is a checkbox for 'Auto-acknowledge alarm when motion stops' and buttons for 'Previous', 'Next', and 'Cancel'.

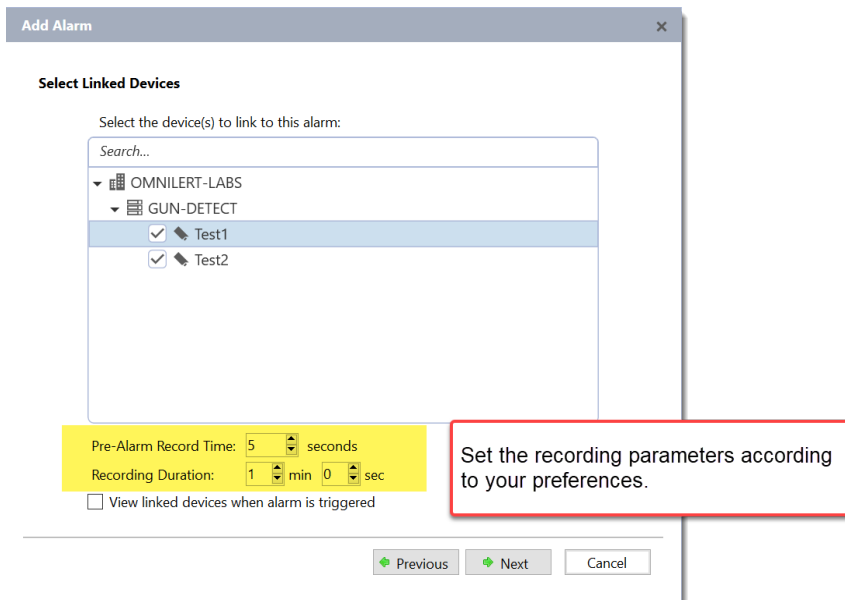
Set the "Alarm Trigger Source" to **Video Analytics Event** and select any/all applicable cameras.



The screenshot shows the 'Add Alarm' dialog box with the 'Select Alarm Trigger Source' section. The 'Alarm Trigger Source' dropdown is now set to 'Video Analytics Event'. The 'GUN-DETECT' section is expanded, and 'Test1' and 'Test2' are checked. Below the list, there is a checkbox for 'Auto-acknowledge alarm when video analytics event stops' and buttons for 'Previous', 'Next', and 'Cancel'.

Select the desired cameras.

Click **Next**



Add Alarm

Select Linked Devices

Select the device(s) to link to this alarm:

Search...

- OMNILERT-LABS
 - GUN-DETECT
 - Test1
 - Test2

Pre-Alarm Record Time: 5 seconds

Recording Duration: 1 min 0 sec

View linked devices when alarm is triggered

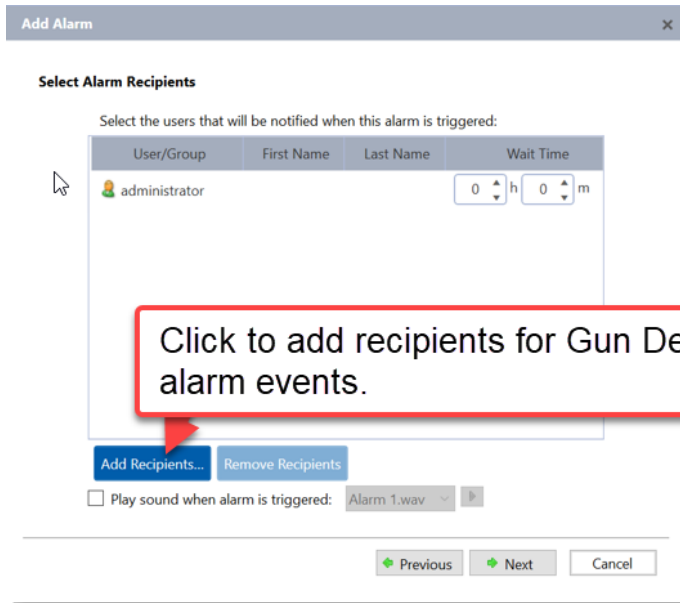
Previous Next Cancel

Set the recording parameters according to your preferences.

Click **Next**

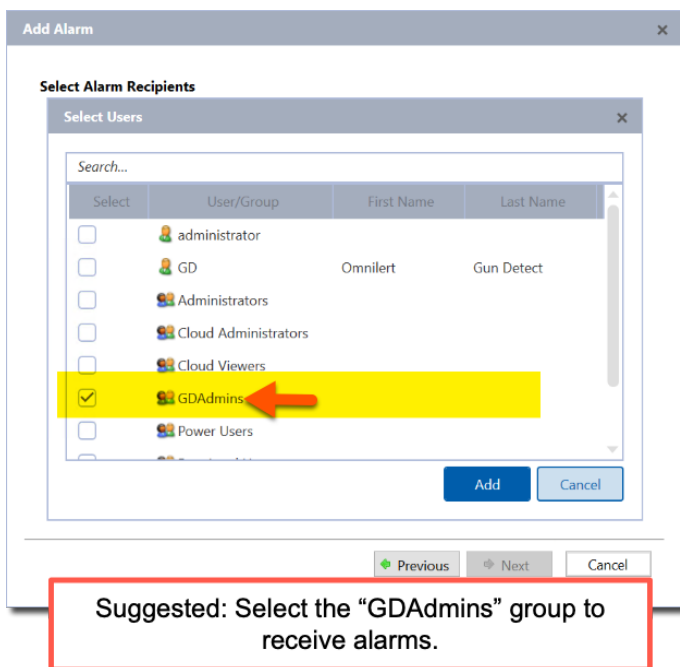
Step 5: Select recipients

Click **Add Recipients...** to view a list of users/groups to assign as recipients of the alarms.

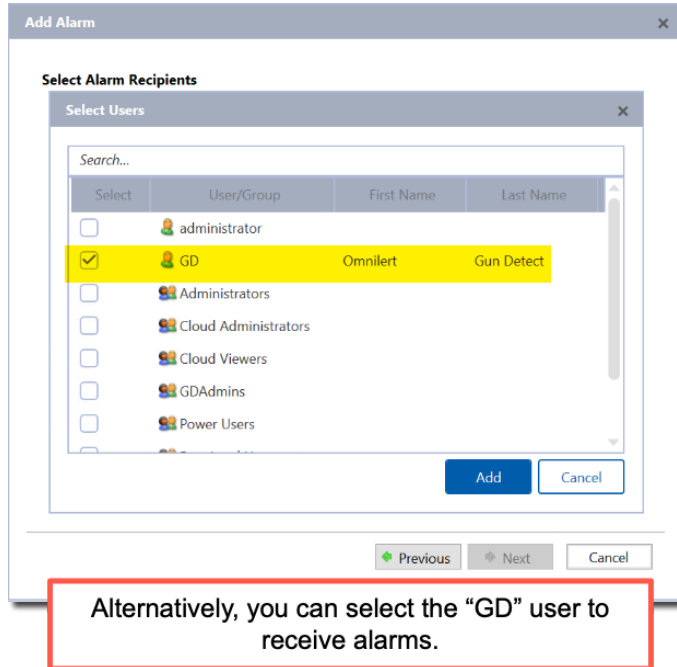


Select one (or more) of your Avigilon system's groups (e.g. "GDAdmins") or a user (e.g. "GD") to be the recipients of "Gun Detect" alarm events. We recommend using a group for the recipients. (You must select at least 1 recipient.)

Select the desired recipient(s) and then click **Add**.



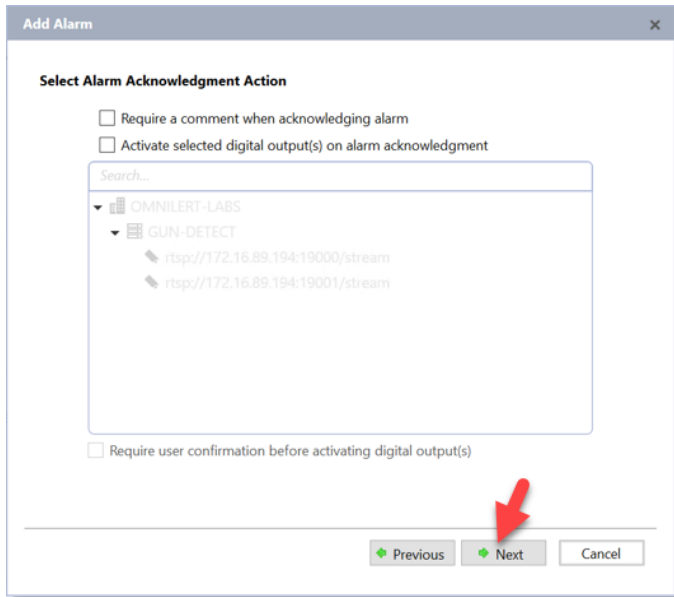
You may also opt to select an individual Avigilon user to receive the alarms.



Then click **Next**

Step 6: Select Alarm Acknowledgement Action

You can add an additional "acknowledgment action" within Avigilon. This is optional.



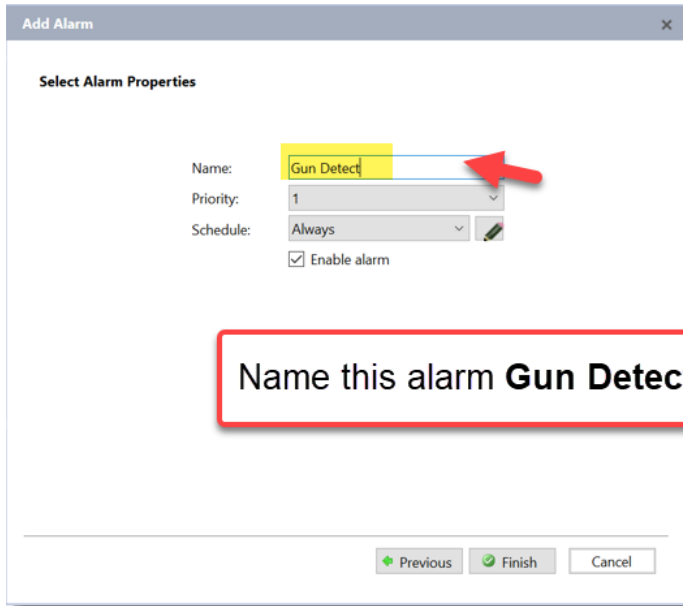
This step can be skipped. Click **Next**

Step 7: Name and finish the setup

Name the new alarm **Gun Detect** (This name must be exact.)

Set "Priority" to "1"

Set "Schedule" to "Always"



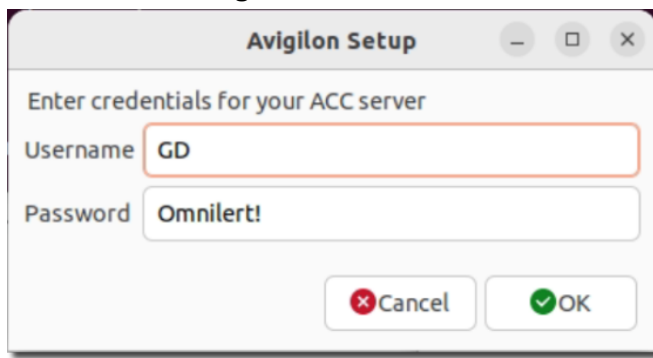
The screenshot shows a dialog box titled "Add Alarm" with a close button (X) in the top right corner. Below the title bar is the section "Select Alarm Properties". It contains three fields: "Name:" with a text input field containing "Gun Detect" (highlighted in yellow and pointed to by a red arrow), "Priority:" with a dropdown menu set to "1", and "Schedule:" with a dropdown menu set to "Always" and a pencil icon to its right. Below these fields is a checked checkbox labeled "Enable alarm". At the bottom of the dialog are three buttons: "Previous" (with a left arrow), "Finish" (with a checkmark), and "Cancel". A red-bordered box is overlaid on the dialog, containing the text "Name this alarm **Gun Detect**".

Click **Finish** to save the new alarm in Avigilon Control Center.

Installation of the Avigilon Plug-in in Gun Detect

The Avigilon Plugin is installed using the Gun Detect mini menu on the Gun Detect server.

- Open a terminal and start the mini menu with the command “**gdm**” and select the “**Setup Integrations**” option. (Alternatively, you can run the plugin manager directly with the command “**gd-pluginmgr**” in the terminal window.)
- You should see a list of available integrations. Select **Avigilon Control Center ACC(TM)**
- The installer will run and ask for ACC credentials. Use the Avigilon admin credentials created in the **Avigilon Permissions** section above the integration/API.



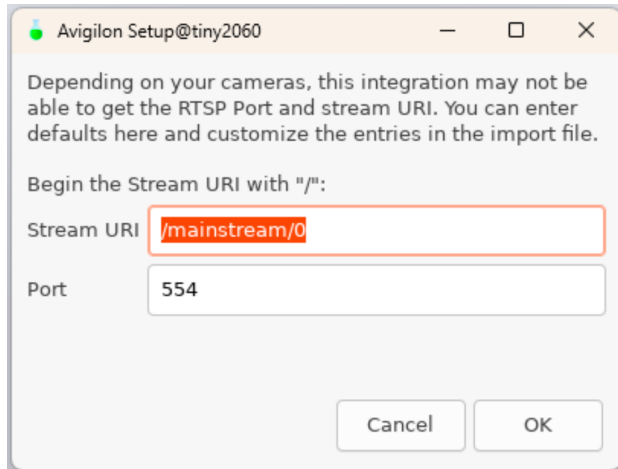
- The installer will ask for the address of your ACC server, which you can provide as a domain name or IP address (e.g myserver, myserver.company.com or 192.168.10.123).
- Provide the Port for the Web API, which is typically the default 8443.
- The ACC API currently is not capable of returning information on the stream URI and port used for any cameras known to the VMS. A camera is accessed via its RTSP address which is of the form:

`rtsp://username:password@server_address:port/stream_information`

For example:

`rtsp://192.168.20.4:554/mainStream01`

The Stream URI in this example is “/mainstream/0” and the port is 554.



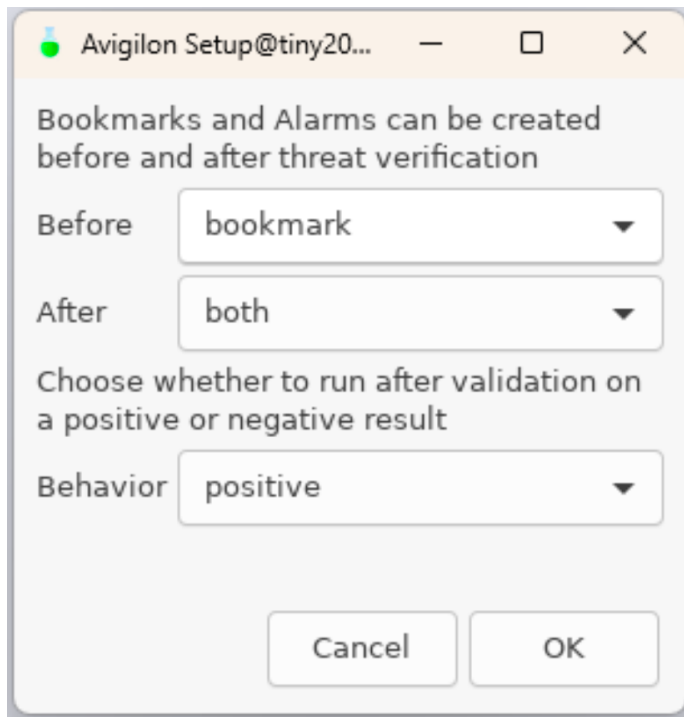
As the integration cannot provide this information for each camera, you can specify a global port and Stream URI as a convenience. This is only helpful if your cameras all have the same port and Stream URI, but it can ease the work of setting up the rest of the integration.

- In the event of a gun detection event, you can choose to bookmark the camera or trigger any alarms associated with the camera. Omnilert allows events to be verified by customers and/or by the Omnilert Aware service.

For flexibility, the Avigilon bookmarking/alarming can be configured to run before or after verification. Additionally, these actions can be run after a positive or negative verification or both.

An example would be to set up bookmarking before verification and set up alarming after a positive threat detection. If you have no verification then you should select the “*Before*”

verification actions and the “After” settings will not be used.



At this point, the installer will check whether it can access the server and use the Web API.

- After this, the installer will exit and the Gun Detect integration is fully installed.
- If you wish to understand or alter the camera import process, read and follow the “Camera Import” section below.
- You should import the cameras into Gun Detect using the normal “**Find Cameras**” function.
- You can re-run the installer through the mini menu if you wish to start with a clean configuration. You can also use “**avigilon-setup**” to redo the installation to selectively change your previous choices.
- Be sure to re-run “**avigilon-setup**” or “**avigilon-import**” if you add new cameras to your system, if you change your ACC server, if you add alarms, or if you change the cameras associated with any alarms.

Camera Import

Camera import is a 2-stage process. The setup program “**avigilon-setup**” runs the importer utility “**avigilon-import**” to create configuration files that are then used when running “Find Cameras” in the Gun Detect UI to import the cameras into Gun Detect.

NOTE: If you make changes to your ACC cameras and wish to see these reflected in Gun Detect you should re-run “**avigilon-setup**” or “**avigilon-import**”

This approach separates the discovery of cameras from the ACC server and the import into Gun Detect to allow editing of the configuration files to make it easier to fix problems or customize the installation. It also allows large camera installations to be manually assigned to multiple Gun Detect servers as desired.

You may wish to edit these files if you have customizations or corrections you need to make. The main file is a JSON describing the cameras: “**avigilon-import.dat**” in the `~/hooks/discovery` directory. Edit this if you wish to change information like the stream URI.

The secondary file: “**avigilon.camdb**” in `~/hooks` is used during bookmarking/alarming to find the Avigilon camera ID, if required, by camera IP address and name, and to list the alarms which should be triggered by a camera event. You should not normally need to look at or edit this file.

Viewing Alarm Events in Avigilon Control Center

Once configured, "Gun Detect" alarm events will be visible in the "Alarms" section of your Avigilon Control Center (ACC).

