

TABLE OF CONTENTS

1.	INTRODUCTION	03
1.1.	Introduction	03
1.2.	Copyright	03
1.3.	Confidential notice	03
2.	EXACQVISION VMS CONFIGURATION	04
2.1.	Architecture	04
2.2.	Add Camera Streams	05
2.3.	Change Camera Streams names	06
2.4.	Create and configure a Serial Port	07
2.5.	Create and configure a Serial Profile	08
2.6.	Configure Event Monitoring	09
2.7.	How to view recorded alarm videos	11
3.	CONFIGURE DAVANTIS PLATFORM	12
3.1.	CMS configuration	12
3.2.	Camera creation	13

1.1. INTRODUCTION

This document describes the configuration steps needed for the integration between exacqVision Video Management System and DAVANTIS video analytics systems.

It contains the necessary steps to send alarms from a DAVANTIS video analytics system to an exacqVision VMS platform and the features available to check the recorded video associated to alarms.

The goal is that an operator using ExacqVision can verify video analytics events using the same graphical interface than for other devices.

ExacqVision VMS integration is available for DAVANTIS software **Daview v166**.

1.2. COPYRIGHT

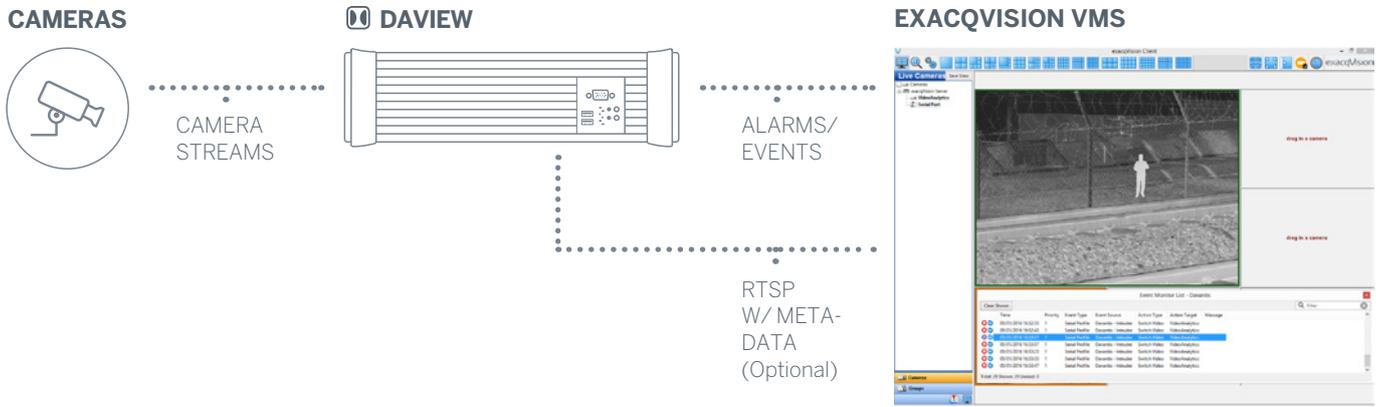
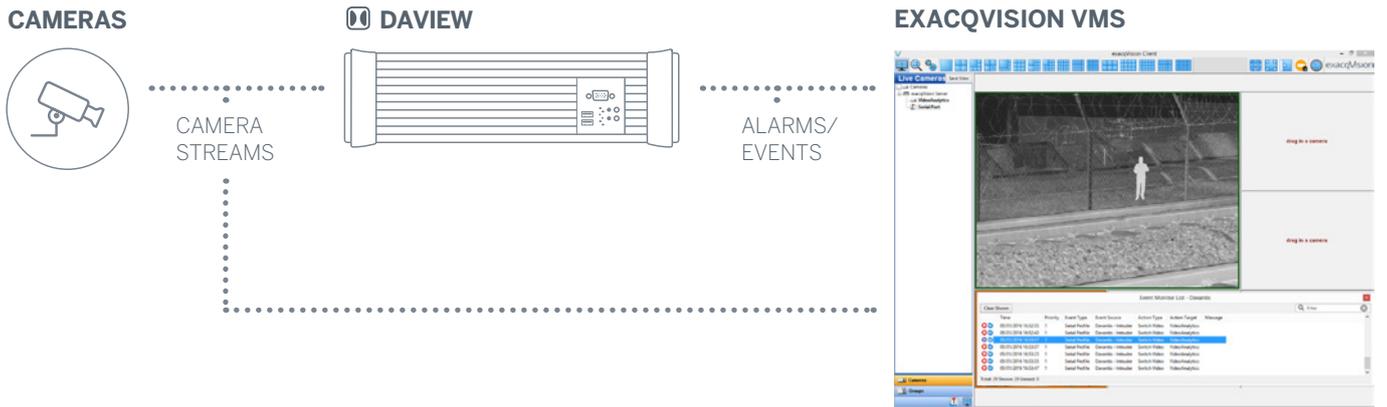
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1.3. CONFIDENTIAL NOTICE

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2. EXACQVISION VMS CONFIGURATION

2.1. ARCHITECTURE



2.2. ADD CAMERA STREAMS

Prior to adding DAVANTIS streams into ExacqVision, we first need to enable the feature “virtual ONVIF camera” for all desired DAVANTIS streams at the DAVANTIS units (see “3.2. Enable virtual ONVIF camera feature”).

Recording DAVANTIS streams is an advanced and optional feature that will allow the user to get and record live feed from the DAVANTIS units. The DAVANTIS streams contain a detection bounding box around the intrusion.

Please notice that is not required, neither necessary, to add DAVANTIS streams in ExacqVision in order to receive DAVANTIS events in ExacqVision.

- Go to the server we want to add cameras to.
- Open **Configure System**.
- Click **Add IP Cameras**.

Complete the following steps for every camera stream:

- Click **New**.
- Device Type: **RTSP**.
- Hostname/IP Address: Enter the RTSP URL of the matching DAVANTIS virtual camera. Default DAVANTIS url format is: `rtsp://@IPDavantisUnit:CameraStreamPort/daview.sdp`
- Click **Apply**.

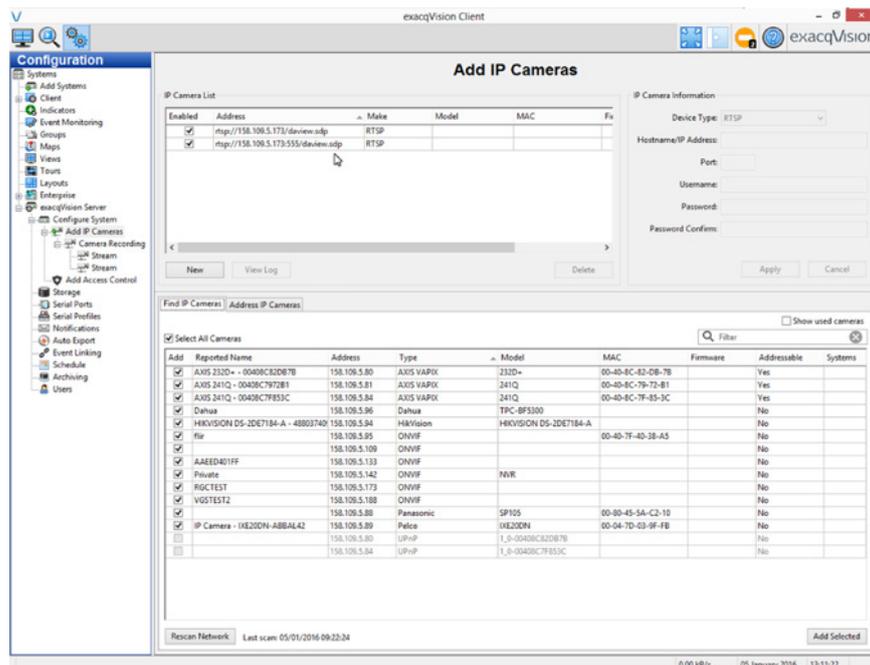


Image 1. Add IP Cameras configuration menu

2.3. RENAME CAMERA STREAMS

This step relates the exacqVision streams to the DAVANTIS cameras.

Please change the stream names at ExacqVision to be equally named as the cameras were named at the DAVANTIS system.

- Open **Add IP Cameras**.
- Open **Camera recording**.
- Go to **Display** tab.
- Change the name in the **Display** tab.
- Click **Apply**.

Also:

- Go to **Recording** tab.
- See that **Enable** is checked.

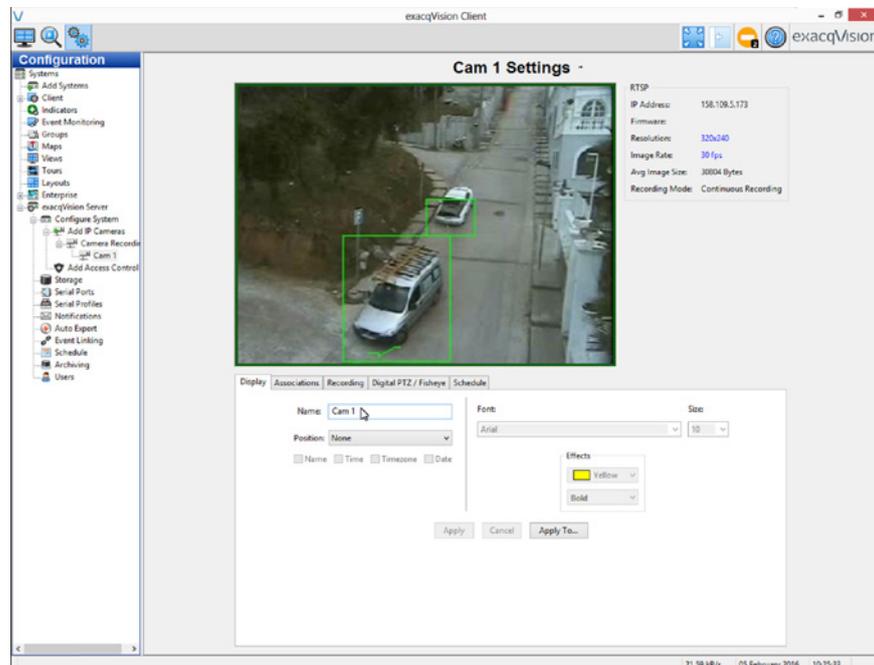


Image 2. Rename camera streams

2.4. CREATE AND CONFIGURE A SERIAL PORT

The DAVANTIS system sends the alarm info to the exacqVision client through a TCP/IP connection using a Exacq “Serial Port”.

- Go to **Serial Ports**.
- Click **New**.
- Name: Enter a descriptive name, such as **DAVANTISSerialPort**.
- Use: **Access Ctrl**.
- Profile: fill it with **New** if there are no Serial Profiles created or select a Serial Profile.
- Type: **TCP Listener**.
- Address: this address should be the IP of the DAVANTIS unit.
- Port: this port should be the one used in the DAVANTIS system configuration menu, 9034 by default (see **3.1. CMS Configuration**).
- Max Line Length: set to 500.
- Leave the rest of parameters as they are.
- Click **Apply**.

Please take into account the DAVANTIS unit is not continuously connected to the exacqVision Server. That's why the text **Connecting**. will appear most of the time in Status.

When an alarm is sent though, Status will change to **Connected**. for a brief period of time.

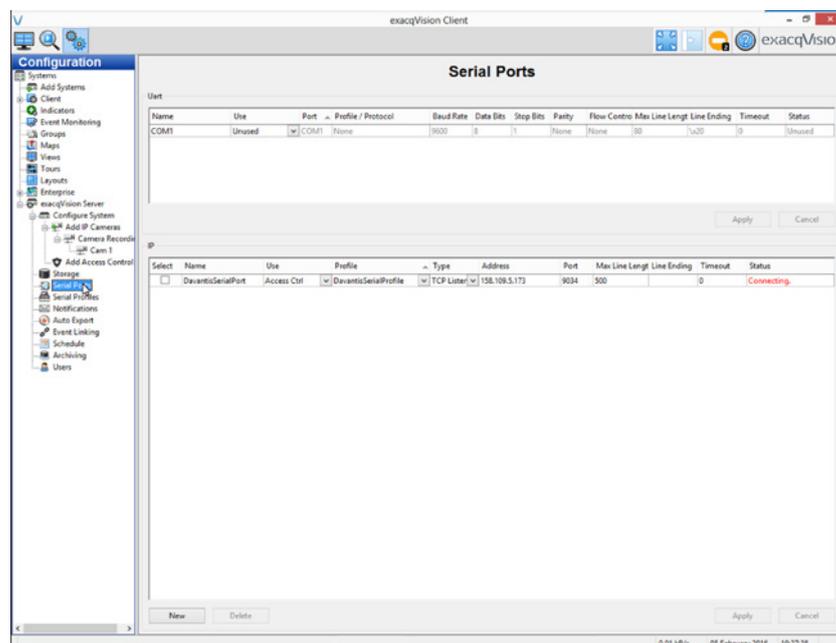


Image 3. Serial Port Creation

2.5. CREATE AND CONFIGURE A SERIAL PROFILE

- Go to **Serial Profiles**.
- Click **New**.
- PortName: the Serial Port created in **2.4. Create and Configure a Serial Port**.
- Name: Enter a descriptive name, such as **DAVANTISSerialProfile**.
- SOT marker: Empty.
- Marker type: **Standard**.
- EOT marker: Empty.
- Case sensitive: **Checked**.
- Click **Apply**.

Now we have to create the key words related to the different alarm types we have, to do this select the **Event Keywords** tab and click **New** for every word.

Add the next string: **Davantis:System**

Then for **every camera** and **every rule** of that camera add the following strings, as in Image 4: **<camera_name>:<rule_name>**

We can then see 2 different types of alarms in exacqVision Client:

- General System Alarms.
- Regular alarms related to one camera and one rule.

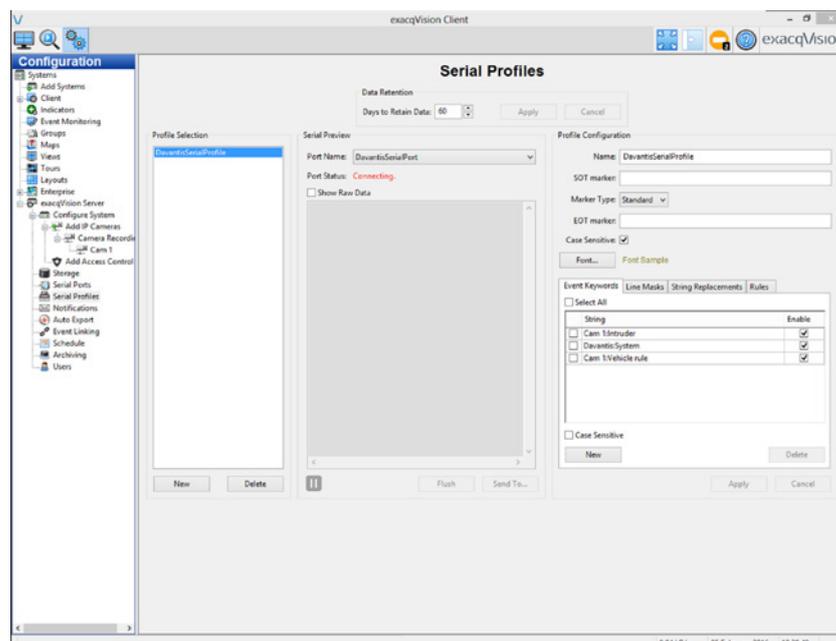


Image 4. Serial Profile Creation

2.6. CONFIGURE EVENT MONITORING

Event monitoring allows us to see the alarm events in a list.

- Open the **Event Monitoring**.
- Click **New**.
- Name: Enter a descriptive Profile Name, such as **DAVANTISEventProfile**.
- Check **Show Event Monitor List**.
- Check **Show Newest Event** if desired.

For every Serial Profile key word created before:

- Click Client Actions **New**.
- Event Type: Serial Profile.
- Event Source: The corresponding Serial Profile Key Word, we need one Client
- Action per Key word (see Image 5).
Action Type: **Switch Video** for **<camera_name>:<rule_name>** and **Log** for **Davantis:System**
- Action Target: The camera related to the Event Source we've selected.
- Check the Confirm checkbox (sometimes if we don't check this no events are shown at all).
- Click **Apply**.

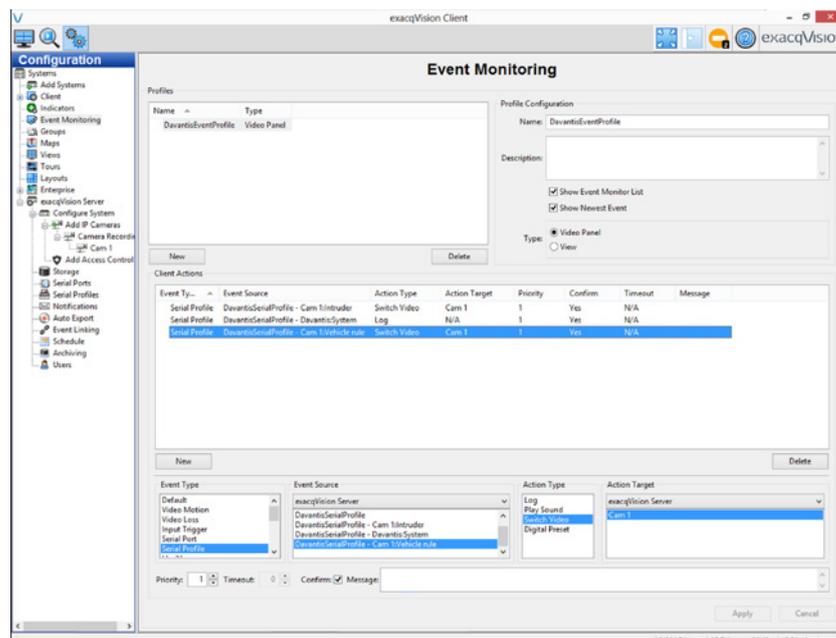


Image 5. Event Monitoring Configuration

2. EXACQVISION VMS CONFIGURATION

2.6. CONFIGURE EVENT MONITORING

In exacqVision **Live Page** we can see the event list right clicking in a panel and selecting Event Monitor and the Event Monitoring Profile just created.

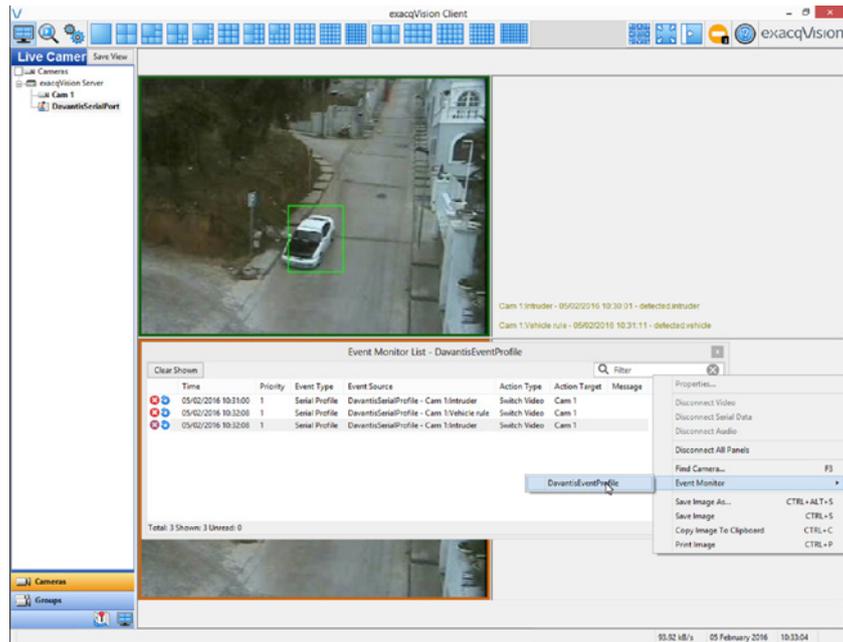


Image 6. Event Monitoring List

2.7. HOW TO VIEW RECORDED ALARM VIDEOS

In the **Event Monitoring List** we can see any of the alarm videos by double-clicking the corresponding event.

Also we can search in the **Search Page** the occurred events for every type of alarm:

- Open the **Search Page**.
- Click on **Cameras** below.
- Check the exacqVision server where the camera streams are.
- Check the camera we want to see when the alarm triggered.
- Check **Access Ctrl.**
- Check the **Serial Port** created.
- Select in **Search Serial** the type of alarm we want to check (camera and rule).
- Click on the **SerialPort panel** the alarm we want to watch.
- Press the blue **Play** button.

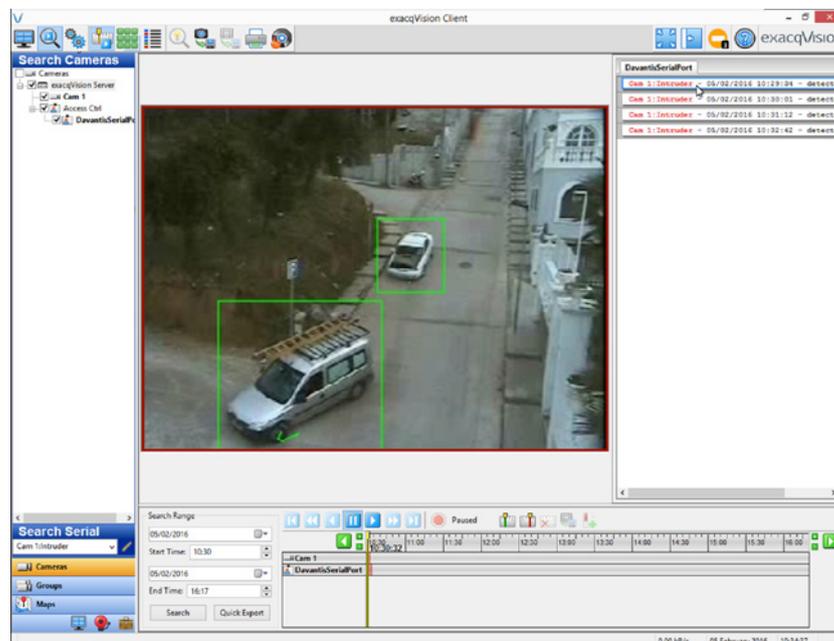


Image 7. Alarm video search

3.1. CMS CONFIGURATION

DAVANTIS video analytics units may be configured to send alarms to ExacqVision.

At each unit:

- Please press the **Configuration** button.
- Please select the **CMS** tab.
- Set the flag **Send alarms**.
- Choose **EXACQVISION** as CMS type.
- Set the IP address of the EXACQVISION server.
- Set the **Port** of the EXACQVISION server Serial Port configuration (default port is 9034).
- Set **Alarm life** (minutes), Default value = 1.
- Set **Max length** (max length of exacqvision messages), default value = 500.

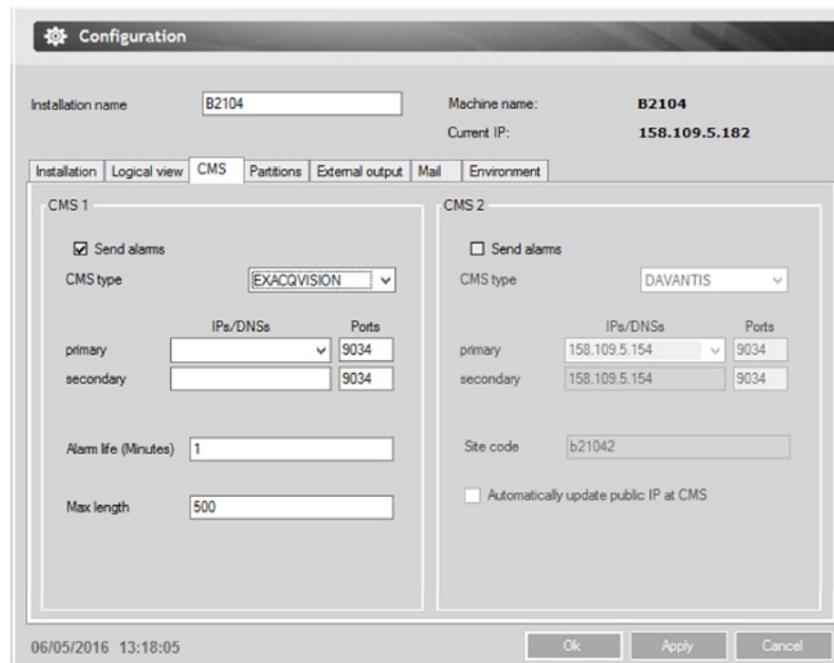
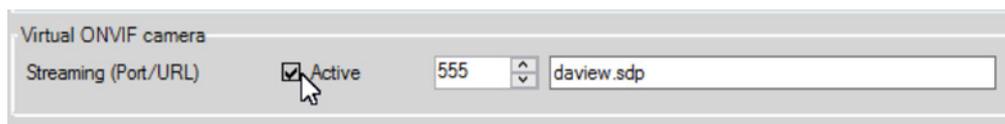


Image 8. DAVANTIS unit Configuration screen

After setting the configuration, please remember to manually **synchronize** the DAVANTIS unit and the ExacqVision server machine to the same **time** and **date**.

3.2. ENABLE VIRTUAL ONVIF CAMERA FEATURE

In case we want to receive and record at ExacqVision the streams directly from the DAVANTIS units (which will already contain the bounding boxes within the image), we must enable the "Virtual ONVIF Camera Streaming" feature for each camera in section "Cameras", "Add/Modify" cameras.



Virtual ONVIF camera

Streaming (Port/URL) Active 555