Security Management System
Infinova T-series Cameras SD Card Video Synchronization
(22.01.27.01)

Introduction

'Security Management System' software supports automatic synchronization of video recorded on the video sources, with the video storage managed by 'Security Management System'.

When there is any problem in the network connectivity, 'Security Management System' gets disconnected from the video source, and hence recording is not available for this disconnection duration in 'Security Management System'. This missed video is queried from the video source and is synchronized with video storage managed by 'Security Management System'. This ensures the video availability during playback operations, even for the durations where video source was not accessible to 'Security Management System'

Typical working of the synchronization mechanism is as follows –

(a) The video source (e.g. camera) records the video on local media e.g. SD Card in the cameras
(b) The 'Security Management System' server software analyzes the video recording managed by it and checks time periods for which video is not available.
(c) For these durations, the video source is queried for availability of locally recorded video inside the video source.
(d) If locally recorded video inside the video source is available, it is requested by the 'Security Management System' and is used to patch the missing video records from video recording managed by 'Security Management System'.
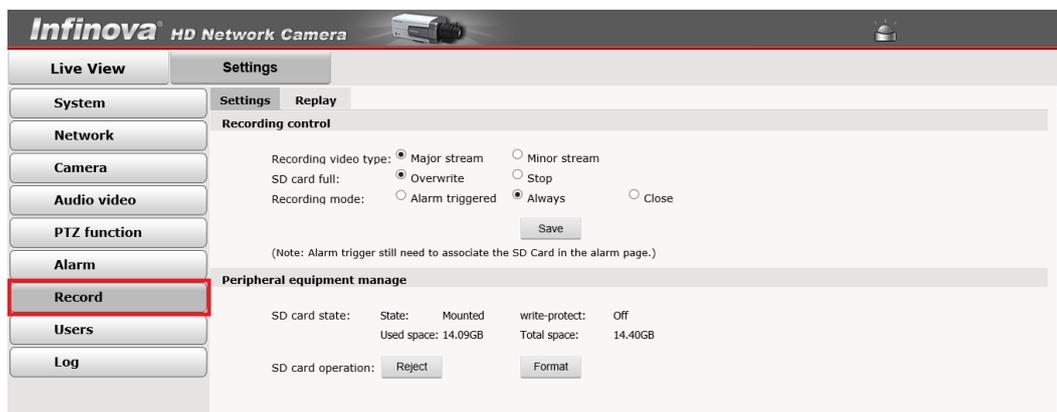
This document describes the configuration for automatic synchronization of video recorded on the Infinova T Series camera SD card, with the video storage managed by 'Security Management System'.

Camera Configuration

For each of the target Infinova T-series camera, camera configurations listed below are required to be set, from the web browser GUI of the camera -

1. Make sure that SD card is mounted and write-protect is set to OFF.

2. Make sure that camera time is synchronized with 'Security Management System' server computer time. It is recommended to use NTP server and configure camera to synchronize time with the NTP server, and 'Security Management System' server computer to synchronize time with same NTP server.

3. The video stream type (major / minor) selected for SD card recording in the camera should match with the recording video stream (major / minor) configured in 'Security Management System', for that camera.
   The camera parameter 'Recording video type' should be set correctly for this

4. Please set the 'Recording mode' parameter to 'Always'.
   Note – The 'Recording mode' setting to 'Always' is not mandatory, but is recommended at least for initial tests of SD card synchronization. Since the Security Management System software can download and synchronize the video recorded in the camera SD card, only if the video data for the target time duration is available on the camera SD card.
   If 'Recording mode' is set to 'Alarm triggered', the camera will not record the video continuously on the SD card. In such case, it is important to confirm that all other associated camera parameters are configured properly; and to ensure that video is recorded on the camera SD card for the time duration for which Security Management System server software is unable to connect to the camera.

After configuration, please test and confirm that SD card recording is working fine, as per the configuration done. These tests need to be processed from the camera web browser GUI.
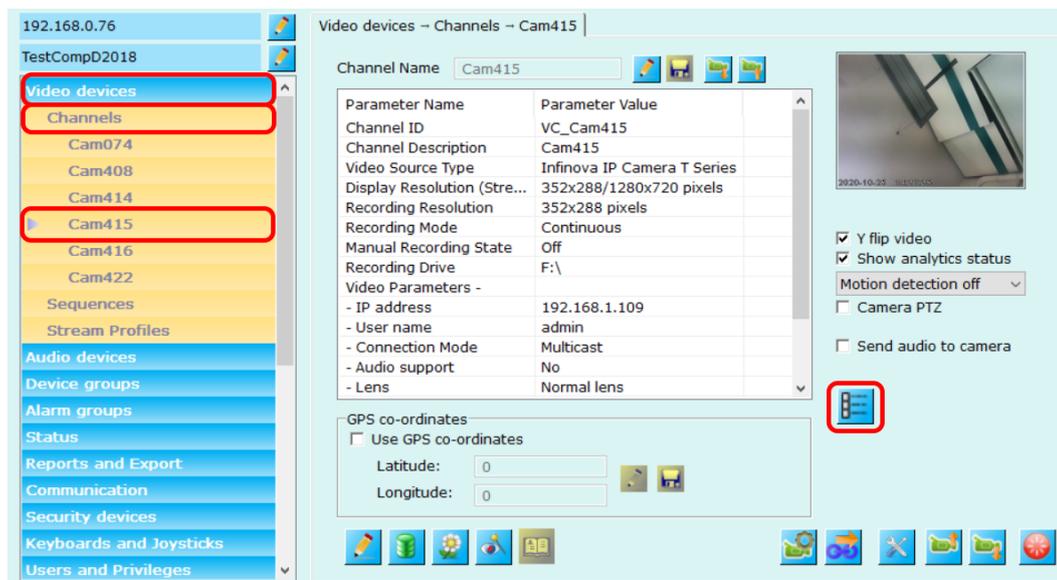
Note – the web browser GUI for Infinova T-series cameras can vary based on the camera model and / or firmware version. Please refer to the camera user manual, for correct configuration of SD card video recording settings.

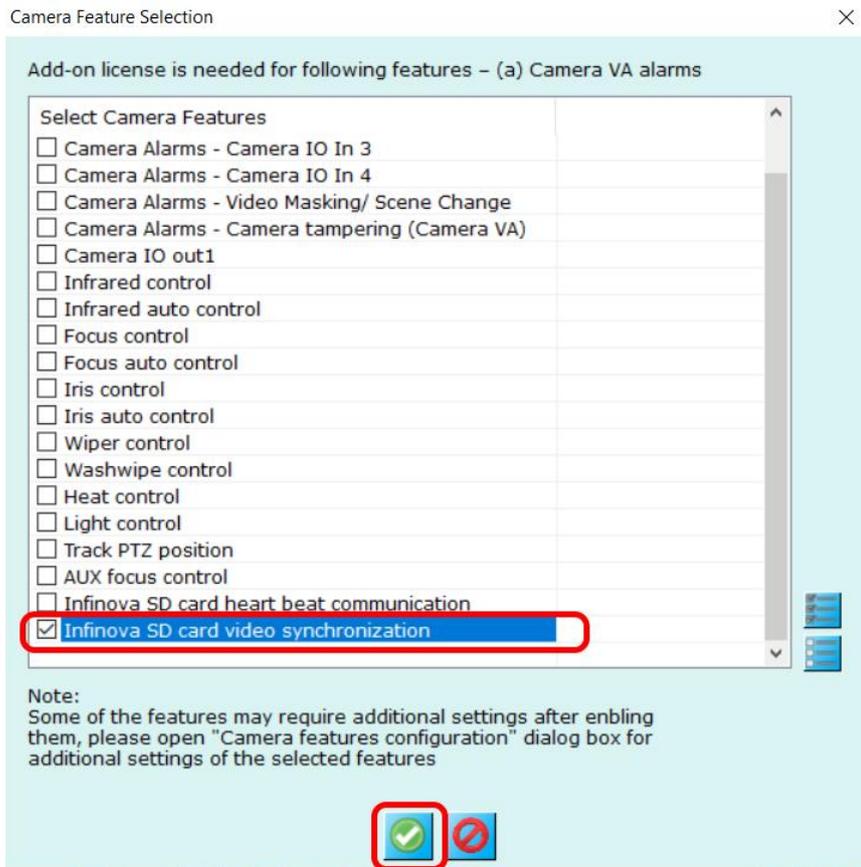# Security Management System Server Software - Configuration

Notes –
(a) It is recommended to clean up the old recording on the camera SD card by formatting the SD card, before configuring this feature - automatic synchronization of video recorded on the Infinova T Series camera SD card, with the video storage managed by 'Security Management System'.
(b) If there are any changes in the camera configuration, especially video stream encoding change or video stream resolution change; is recommended to clean up the old recording on the camera SD card by formatting the SD card
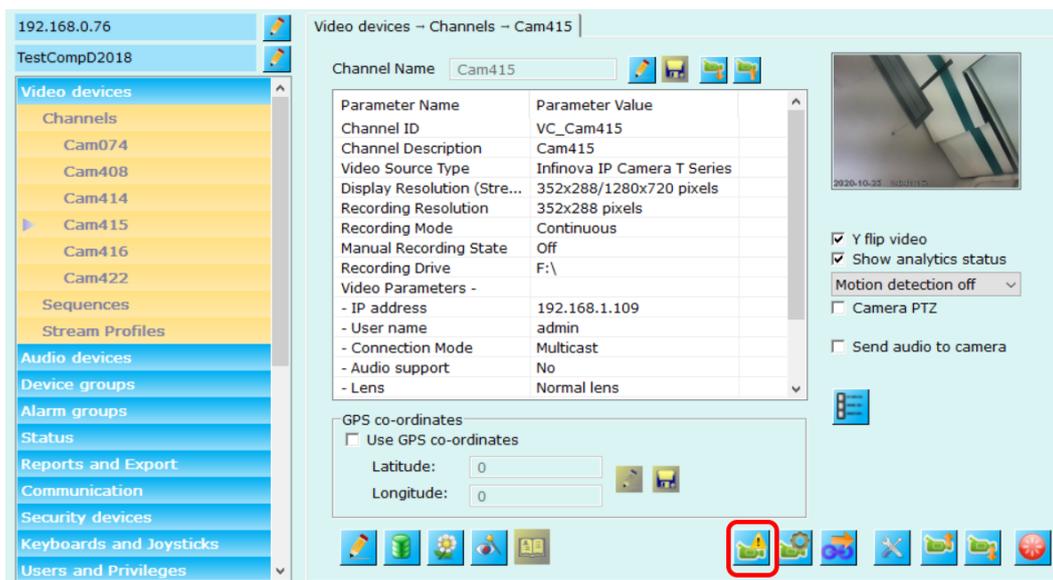
1. Add the target Infinova T Series camera to 'Security Management System' Server software, as 'Infinova IP Camera T Series' video source type.

2. Navigate to 'Video Devices -> Channels -> <Camera name>' 'video channel details' page using left hand side navigation menu. The <Camera name> indicates the camera name of the target camera.
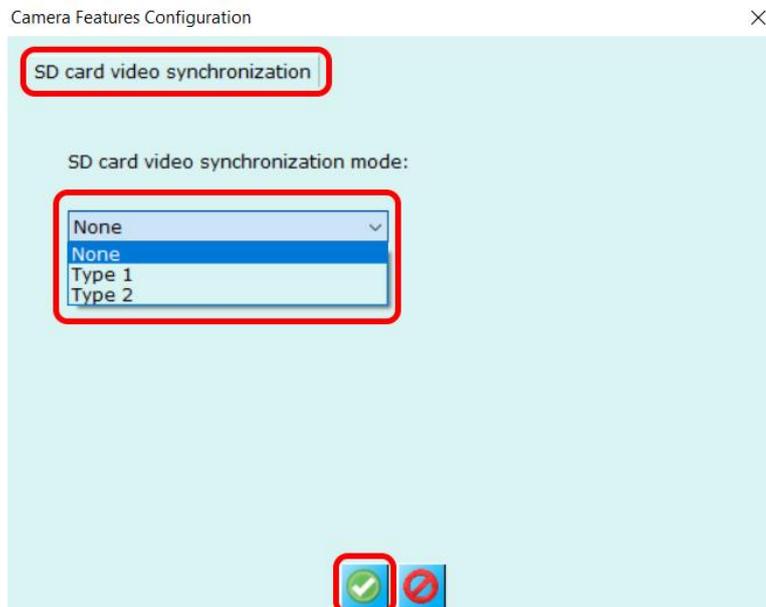

3. Click on 'Camera features selection…' button which will pop-up the 'Camera Feature Selection' dialog box

4. Scroll down to 'Infinova SD card video synchronization' check box and click on it to select the feature and then click on 'Okay' button to save the settings and to close the the 'Camera Feature Selection' dialog box.

5. Now that we have enabled the 'Infinova SD card video synchronization' feature for the camera, we need to set up the feature. For this, click on 'Camera Feature Configuration' button available on 'video channel details' page.

6. This will pop up the 'Camera Features Configuration' dialog box.

7. Go to the 'SD card video synchronization' tab

8. Select correct 'SD card video synchronization mode' from available options –

   (a) None – This option is default and indicates that SD card video synchronization is NOT enabled

   (b) Type 1 - This option should be selected if the target Infinova T series camera does NOT support ONVIF profile-G

   (c) Type 2 - This option should be selected if the target Infinova T series camera supports ONVIF profile-G

   Note – please refer to the camera datasheet to check whether target Infinova T series camera supports ONVIF Profile-G; and select the 'SD card video synchronization' mode accordingly.

9. The 'Security Management System' Server software will now periodically synchronize the video recorded on the SD card of the target Infinova T series camera.
   (a) The 'Security Management System' server software analyzes the video recording managed by it and checks time periods for which video is not available.
   (b) For these durations, the target Infinova T series camera is queried for availability of locally recorded video inside the camera.
   (c) If locally recorded video inside the Infinova T series camera is available, it is requested by the 'Security Management System' and is used to patch the missing video records from video recording managed by 'Security Management System'.
   Note – the 'Security Management System' Server software will synchronize the video recorded on the SD card of the target Infinova T series camera, till time interval 10 mins before the time when synchronization is processed. In other words, it takes at least 10 mins to synchronize missing video in the 'Security Management System' Server software video recording, from the camera SD card

Security Management System Server Software - SD Card Status

The status of the SD card video synchronization activity is displayed in the 'Security Management System' server software.

1. Navigate to 'Status -> SD card' page using left hand side navigation menu.

2. This status page shows the details about the cameras for which SD card feature is enabled. The cameras for which SD card feature is NOT enabled are not displayed in the list

3. The list shows following status elements for each of the cameras for which SD card feature is enabled -

    (a) Channel Name - Name of the channel for which SD card feature is enabled.

    (b) Video synchronization mode – option selected for 'SD card video synchronization'

    (c) Video synchronization status – status of the SD card video synchronization activity. If the status indicates 'error', please re-check the configuration related to SD card video synchronization – in the camera and in the 'Security Management System' server software, and resolve the issue.

4. Clicking on the 'Refresh' button, refreshes the status of SD card synchronization processing by all cameras.

5. Clicking on the 'Start video synchronization now' button, starts video synchronization immediately. This allows user to test the video synchronization immediately, instead of waiting for next synchronization cycle.