

# 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

Infinova <sup>®</sup> н	HD Network Camera	
Live View	Settings	
System	Settings Replay	^
Network	Recording control	
Camera	Recording video type:  All All All All All All All All All Al	
Audio video	Recording mode: O Alarm triggered O Always Close	
PTZ function	Save	
Alarm	(Note: Alarm trigger still need to associate the SD Card in the alarm page.)	
Record	Peripheral equipment manage	
Users	SD card state: State: Mounted write-protect: Off Used space: 14.09GB Total space: 14.40GB	
Log	SD card operation: Reject Format	

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.

192.168.0.76	2	Video devices → Channels → Cam415					
TestCompD2018	2	Channel Name Cam415	🗾 🖬 📑				
Video devices	<b>L</b>	Parameter Name	Parameter Value	^			
Channels	J	Channel ID	VC Cam415				
Cam074		Channel Description	 Cam415				
Cam408		Video Source Type	Infinova IP Camera T Series				
Com414		Display Resolution (Stre	352x288/1280x720 pixels		2020-10-23 94593545		
Callet14		Recording Resolution	352x288 pixels				
Cam415	J	Recording Mode	Continuous		V flip video		
Cam416		Manual Recording State	Off		Show analytics status		
Cam422		Recording Drive	F:\		Motion detection off		
Sequences		Video Parameters -	102 168 1 100				
		- IP address	192.108.1.109	_	Camera P12		
Stream Profiles		- Connection Mode	Multicast	_	Send audio to camera		
Audio devices		- Audio support	No				
Device groups		- Lens	Normal lens	~			
Alarm groups		-GPS co. ordinatos			8=		
Status		Use GPS co-ordinates					
Reports and Export		Latitude: 0					
Communication		Longitude: 0					
Security devices							
Keyboards and Joysticks		🧳 🗿 🛞 🚺		2	😹 🗙 🖬 📷 🛞		
Users and Privileges	~						

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



Camera Feature Selection	X
Add-on license is needed for following features – (a) Camera VA alarms	
Add-on license is needed for following features – (a) Camera VA alarms         Select Camera Features         Camera Alarms - Camera IO In 3         Camera Alarms - Camera IO In 4         Camera Alarms - Camera tampering (Camera VA)         Camera IO out1         Infrared control         Infrared auto control         Focus control         Focus auto control         Iris control         Iris auto control         Wiper control         Washwipe control         Heat control         Light control	
Infinova SD card heart beat communication Infinova SD card heart beat communication Infinova SD card video synchronization Note: Some of the features may require additional settings after enbling them, please open "Camera features configuration" dialog box for additional settings of the selected features	v

- 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.

192.168.0.76	Video devices → Channels → C	am415	
estCompD2018	Channel Name Cam415	/ 🗔 🔤 🔤	
Video devices	A Desemptor Name		
Channels	Parameter Name	Parameter value	
Cam074	Channel ID	VC_Cam415	
Callor 4	Channel Description	Cam415	
Cam408	Video Source Type	Infinova IP Camera T Series	2020-10-25 Mitching5
Cam414	Display Resolution (Stre	352x288/1280x/20 pixels	
Com415	Recording Resolution	352x288 pixels	
Cam415	Recording Mode	Continuous	V flip video
Cam416	Manual Recording State	Off	Show analytics status
Cam422	Recording Drive	F:\	
_	Video Parameters -		Motion detection off ~
Sequences	- IP address	192.168.1.109	Camera PTZ
Stream Profiles	- User name	admin	
Audio dovicos	- Connection Mode	Multicast	Send audio to camera
Audio devices	- Audio support	No	
Device groups	- Lens	Normal lens	~
Alarm groups	-GPS co.ordinatos		
Status	Use GPS co-ordinates		
Reports and Export	Latitude: 0		
Communication	Longitude:		
Security devices	0		
Keyboards and Joysticks			🔎 🔿 😿 🖬 📷 🛛
Users and Privileges	U SA		

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- 6. This will pop up the 'Camera Features Configuration' dialog box.
- 7. Go to the 'SD card video synchronization' tab

Camera Features Configuration	×
SD card video synchronization	
None None Type 1 Type 2	

- 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.

192.168.0.76	St	atus → SD	card				
TestCompD2018	2						
Video devices	^	IP addre	ss: 192.168.0.76	(Status: OK)			
Audio devices		NOTE	<ul> <li>To change IF</li> <li>Network ta</li> </ul>	2 address, please Ib	change 'Input	IP address' from Con	nmunication
Device groups		Sr No	Channel Name	Heart Beat M	Heart Reat	Video Synchroniz	Video Synchroniza
Alarm groups		1	Cam414	Disabled	NA	Disabled	Not enabled
Status		2	Cam415	Disabled	NA	Type 2	Last status: Clean
Channel status		3	Cam422	NA	NA	UT	Not enabled
Recording status							
Bandwidth status							
Video analytics status							
Storage space graph							
Storage space report							
Video parameters							
Camera parameters							
Connected clients							
Phone communication							
🕨 SD card							
Camera Features							<u> </u>
Reports and Export		31	<b></b>				
Communication	~						

- 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.