Security Management System
Using Infinova T-series Cameras in Multicast Configuration

This document describes the configuration for using multicast streams from Infinova T-series cameras in the Security Management System software.

Note – this document assumes that solution design for target project uses 2 simultaneous (video) streams from the Infinova T-series cameras. If the solution design differs for the target project, please refer to separate document specific to the required solution design.

The configuration involves 3 steps –
(a) Network
(b) Security Management System server software
(c) Security Management System client software

The steps are described in detail in the sections in this document

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Network

1. Please confirm with network team that network supports multicasting and is configured for multicasting.

2. Also please get list of unique 'multicast IP address + port number's available in the network. If N number of cameras are included in the IP video surveillance solution, and 2 streams from each camera are being used in the Security Management System software', total 'N X 2' unique pairs of 'multicast IP address + port number' will be required.
Note - When new cameras are added to the system; 2 new pairs of unique 'multicast IP address + port number', will be required to be made available from network side.

3. Please create a table which has following columns – 'Serial number', 'Camera IP address', 'Stream type', 'Multicast IP address', 'Multicast port number'
The table will have one row for each stream from each camera.
Note - 'Stream type' would be 'Major stream / Minor stream'
This table will be used as reference during the configuration.

Notes –

(a) Multicast is completely managed from network side. Network set up should be capable of multicast transmission and management.

(b) Typically, analysis of video transmission issues (e.g. video loss or bad video quality), if observed, in case of multicast configuration is complex in multicast configuration as compared to unicast configuration. The networking team is expected to have required tools to analyze the multicast packets flow in the network and multicast management from network side, to locate the root cause of any such problems.

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Camera Configuration

Note – camera configuration needs to be processed from camera web page GUI; as part of one-time configuration; for every camera in the system.

The GUI would be different for different camera makes and models.
Please refer to the camera model user guide or contact the camera manufacturer for GUI details for setting the parameters, as listed below

1. Please enable multicast for each of the 2 streams in the camera – Major stream and Mino stream.

2. Please set multicast IP address and port number for each of the camera streams - 'Major stream' and 'Minor stream'.
   Note – the 'multicast IP address and port number' pair for each stream should be unique across all video streams and all cameras.

   As described in 'Network' section of this document; the required unique 'multicast IP address + port number' pairs will be available from network team. And for every stream of every camera, one unique pair needs to be used.
   Please refer to the table created as per point 3 in the 'Network' section of this document, during the configuration.
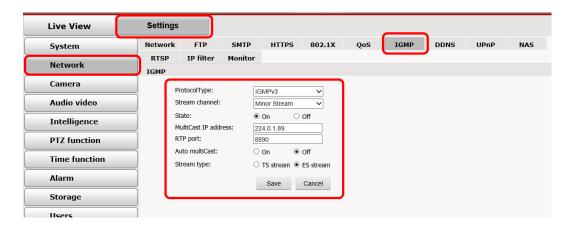
Typical web GUI for multicast settings for Infinova T-series cameras is as follows –
Note – the images below are indicative, and depending on the model, it may change. Please refer to the camera manual for multicast settings.

Major stream –

Minor stream –

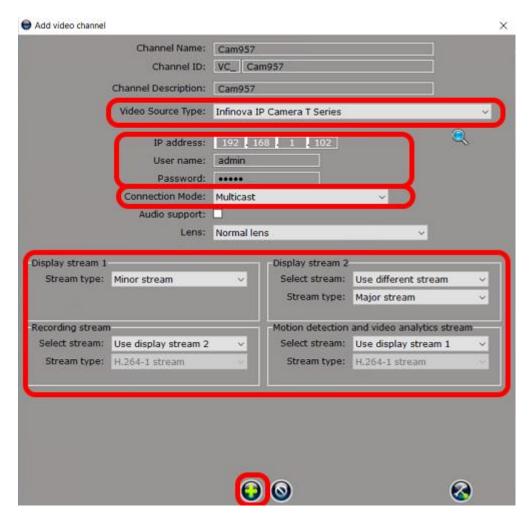# Security Management System Server Software Configuration

Following is one time configuration required for each camera, added to Security Management System server software.

1. In Security Management System server software GUI, please navigate to 'Video devices -> Channels' page from the left hand side navigation menu

2. Click on the 'Add video channel..' button. This will open the 'Add video channel' dialog box.

3. Channel name, channel ID and channel description can be ignored, and defaults can be continued to be used.
Please ensure that correct video source Type is selected – 'Infinova IP Camera T Series'
Please type camera IP address, camera login user name and password – specific to target camera
Please select 'Multicast' option for 'Connection Mode'
Under 'Display stream 1', select 'Minor stream' option for 'Stream type'
Under 'Display stream 2', select 'Use different stream' option for 'Select stream'; and select 'Major stream' option for 'Stream type'
Under 'Recording stream', select 'Use display stream 2' option for 'Select stream'
Under 'Motion detection and video analytics stream', select 'Use display stream 1' option for 'Select stream'

4. Click on the 'Add' button to add the channel and to close the 'Add video channel' dialog box.

Note – the above description is for 'Adding new camera' to the Security Management System server software. If cameras are already added to the Security Management System server software, please use 'Edit channel…' button on the 'Video devices -> Channels' page to edit the settings for already added camera. The settings should be edited to match the settings as described in this section

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Security Management System Client Software Configuration

Following connection parameter should be used for each of the client workstation where Security Management System client software is installed.

1. Close the 'Security Management System client software', if it is already running.

2. From the desktop shortcut or from the programs menu shortcut, execute the 'Security management System client software'

3. This will pop up the 'Server connection / login' dialog box.

Under 'Site/Server Type', please select 'Recorder / VMS server'
For 'Connect Using', please select 'IP Address'
Please type the 'Site/Server IP'. This is the IP address of the target Security Management System server software, to which the client is expected to connect.
Please type 'User Name' and 'Password'. This user is expected to be already added in the target Security Management System server software, and is expected to have 'Operator' base privilege.
Under 'Live Video Access', please select option 'From server for unicast streams, from camera for multicast'

4. Click on the 'Login' button to login to the server. The Security Management System client software GUI will be displayed after successful login.

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Note – The Security Management System client software remembers the settings across session, and will display same settings as default when the client software is executed again on that client workstation. Hence these settings can be confirmed once and then will be remembered by the client software for all further server connections, as defaults.

Multi-site Client

If multi-site client configuration is used at one or more client workstations, please execute the 'Multi-site Client Manager' application, and edit all 'sites' for all 'users' configured in the 'Multi-site Client Manager', to set the 'Live video access' mode to 'From server for unicast streams, from camera for multicast'.

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