How to Configure Hikvision With RTI

Content

A.   Overview

To utilize Hikvision, or Hunt NVR, you must use MJPEG as RTI does not support the H.264 profile that Hikvision utilizes. This will work on all RTI products that support camera feeds.

B.   Getting Started

An H.264 profile defines what "bells and whistles" the encoder can use when compressing your video – and there are lots of H.264 features that the encoder can enable. Which ones it's allowed to enable is defined by the profile. Profiles ensure compatibility between devices that have different decoding capabilities. With profiles, the encoder and decoder agree on a feature set that they can handle.

Some NVR's support other profiles such as Main and High. These use a higher compression, primarily used for broadcasting, and are more intensive. RTI does not support these profiles. Keep in mind that H.264 baseline is only supported on the RTI CX, T3x, KX3, KX7, and KX10. RTIPanel devices do not support H.264, so it is necessary to use MJPEG.

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C. Hikvision Settings

When using Hikvision, make sure to adjust the following settings:

- In the NVR configuration select the cameras you want to embed into RTI and choose the Sub Stream channel. Make sure it is set to MJPEG and not H.264. NOTE: Once you set the Sub Stream to MJPEG you will lose the ability to see the camera feed from the HDMI output unless you are in single screen mode only as it uses the Main Stream profile.
- Using 640px with 10fps should keep things smooth on LAN and WAN.
- Use the HTTP (authentication string) for continuous video streams.

This will need to be configured from the generic http object command line.

(Tested with Hunt 303)

http://admin:12345@10.0.1.70/Streaming/channels/102/httppreview

OR

http://admin:Pasword@192.168.1.111/Streaming/channels/1/httppreview

NVR Settings:

- Substream
- Resolution 640x480
- FPS 30
- Bitrate 512
- MJPEG

D. RTSP & HTTP URL

RTSP without Authentication (NVR/IPC)

rtsp://<IP address of device>:<RTSP port>/Streaming/channels/<channel number><stream number>

NOTE: <stream number> represents main stream (01), or the sub stream (02)

Example:
rtsp://173.200.91.70:554/Streaming/channels/101 – get the main stream of the 1st channel
rtsp://173.200.91.70:554/Streaming/channels/102 – get the sub stream of the 1st channel

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RTSP with Authentication

rtsp://<username>:<password>@<IP address of device>:<RTSP port>/Streaming/channels/<channel number><stream number>

Example:
rtsp://admin:12345@173.200.91.70:554/Streaming/channels/1701 – get the main stream of the 17th channel
rtsp://admin:12345@173.200.91.70:554/Streaming/channels/1902 – get the sub stream of the 19th channel

HTTP commands to get IPC MJPEG stream (IPC Only)

1. Camera firmware need to be v4.1 or higher
2. Can only stream the Sub stream via HTTP
3. Need to change the Sub stream video encoding to MJPEG
4. Resolution can be changed via web interface

NOTE: If the HTTP port of the device is still 80 (default), then ":<HTTP port>" is not required.

HTTP without Authentication

http://<IP address of IPC>:<HTTP port>/Streaming/channels/102/httpPreview

HTTP with Authentication

http://<username>:<password>@<IP address of IPC>:<HTTP port>/Streaming/channels/102/httpPreview

Snapshot using HTTP URL

http://<IP address of IPC>:<HTTP port>/Streaming/channels/1/picture

Example:
http://192.0.0.64/Streaming/channels/102/httpPreview
http://admin:12345@192.0.0.64/Streaming/channels/102/httpPreview
http://192.0.0.64/Streaming/channels/1/picture