



INTEGRITI HIKVISION CCTV INTEGRATION



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Integrati Hikvision CCTV Integration

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CCTV Capabilities

Core CCTV Capabilities

Feature	Feature Description	Ver	Y/N
<i>Stream Live CCTV Footage</i>	Live CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	18	✓
<i>Select Custom Aspect Ratio</i>	Select the aspect ratio to use when streaming CCTV footage on a per-camera or per-recorder basis.	18	✓
<i>Stream Archived CCTV Footage</i>	Archived CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	18	✓
<i>Control Archived CCTV Playback Speed</i>	Playback speed of archived CCTV footage can be controlled from the Integriti client.	18	✓
<i>Auto-Play CCTV Footage from Events</i>	Live or archived CCTV footage can be configured to be automatically displayed when an event occurs in the Integriti System on a specific client workstation.	18	✓
<i>Create Child Devices from Camera Configuration</i>	Child CCTV Cameras will be created based on the Camera configuration on Refreshing Child Devices	18	✓
<i>Associate Cameras With Entities</i>	Cameras loaded from the CCTV system can be associated with Integriti Entities to allow direct control of one from the other.	18	✓
<i>Show Associated CCTV From Event</i>	Associated CCTV Footage can be directly accessed and viewed from any event occurring in Integriti that has an associated Camera (either a direct association or through the Entity that triggered the event)	18	✓
<i>Control PTZ Cameras</i>	Send PTZ commands to support cameras on the CCTV system to control the Pan, Tilt and Zoom of the camera directly from the video stream.	18	✓
<i>Send Cameras to PTZ Preset</i>	Send supported PTZ cameras on the CCTV system to preconfigured PTZ presets directly from the video stream.	18	✓
<i>Digital PTZ Control</i>	Digitally zoom the CCTV stream's image for non-PTZ cameras and archived footage.	18	✓
<i>CCTV Layouts</i>	Store a collection of Cameras with a specific viewer layout to be brought up at a later point in time	20	✓

INTEGRITI HIKVISION CCTV PLUGIN

Feature	Feature Description	Ver	Y/N
<i>CCTV Surrounding Cameras View</i>	Show a selected camera, as well as the cameras configured to be N, NE, E, SE, S, SW, W and NW of the selected camera, quickly jumping between surrounding streams directly from the view.	20	✓
<i>Trigger Actions in the CCTV System</i>	Trigger actions or commands in the CCTV system directly from Integriti.	18	✓
<i>View and Control Cameras on Schematics</i>	Cameras can be added to Schematics Maps in Integriti and directly viewed and controlled directly from the Schematic. Each camera's state is immediately visible on the Schematic where available.	18	✓
<i>Sync Time (via NTP)</i>	Sync the time of the CCTV system and Integriti to match via an NTP.	18	✓
<i>Display Connection Status to CCTV System</i>	Display whether or not Integriti is currently connected to the CCTV system.	18	✓
<i>Receive Events/Alarms from the CCTV System</i>	Log events/alarms occurring on the CCTV system to Integriti's Review.	18	✓
<i>Trigger Integriti Actions on CCTV Events/Alarms</i>	Trigger actions to automatically occur in Integriti whenever specific events/alarms are received from the CCTV system.	18	✓
<i>Generate Alerts from CCTV Events/Alarms</i>	Automatically generate and restore Alerts tied to a specific Camera in Integriti whenever specific events/alarms are received from the CCTV system.	19	✓

Advanced CCTV Capabilities

Feature	Feature Description	Ver	Y/N
<i>Automatically Load Camera Configuration</i>	Refreshing Child Devices will automatically populate all cameras configured in the CCTV System into Integriti when run. If not supported, camera configuration will need to be manually entered into Integriti.	18	✓
<i>64-bit Integration Server Support</i>	The integration supports being run on the 64-bit integration server.	18	✓
<i>Show Camera Status</i>	The current online/offline status of configured cameras will be visible directly through Integriti.	18	✓
<i>Categorised Review Records</i>	Review generated by the integration will have a different category for different event types, allowing for easy filtering of specific CCTV events	19	✓
<i>License Plate Recognition</i>	License plates recognised by supported cameras in the CCTV system can be used to automatically allow access to configured Doors.	18	✓
<i>Trigger Inputs on CCTV Event</i>	Inputs in Integriti can be automatically triggered and restored when specified types of events are received from the CCTV system.	19	✓
<i>Control Iris and Focus</i>	Control the iris and focus of supported cameras on the CCTV system directly from the video stream	18	✓
<i>Control PTZ Tours</i>	PTZ Tours can be started and stopped directly from the video stream.	18	✓
<i>Configure PTZ Presets</i>	PTZ Presets can be added, set or cleared directly from the video stream.	24	✓
<i>Select Video Stream</i>	Switch between multiple video stream configurations when viewing live or archived video.	24	✓
<i>Display Video Frame Times</i>	When viewing archived CCTV footage, the time of the current frame will be displayed on the viewer control.	18	✓
<i>Show On-Screen Display</i>	Enable additional information (such as camera name and current playback time) to be displayed as an overlay on video streams.	18	✗
<i>Reverse Playback</i>	When viewing archived CCTV footage, the footage can be played in reverse.	18	✓

INTEGRITI HIKVISION CCTV PLUGIN

Feature	Feature Description	Ver	Y/N
<i>Step Forward/Backward</i>	When viewing archived CCTV footage, the footage can be stepped through one frame at a time.	18	✓
<i>Export CCTV Clips</i>	Export video clips of archived CCTV footage to the Evidence Vault or to a file directly from Integriti.	19	✓
<i>Export CCTV Snapshots</i>	Export still snapshots of archived CCTV footage to the Evidence Vault or to a file directly from Integriti.	19	✗
<i>Export Current Frame</i>	Export still snapshots of the current frame in the CCTV Viewer to the Evidence Vault or to a file directly from the CCTV Viewer.	20	✓
<i>Stream Audio With Video</i>	Receive audio from the microphone on a supported CCTV camera through an Integriti client workstation	18	✓
<i>Send Audio to CCTV Camera</i>	Send audio from an Integriti client workstation out of the speakers on a supported CCTV camera.	18	✓

Integriti Hikvision CCTV Integration Compatibility

Required Integriti Version License

The Integriti Hikvision CCTV Integration requires an Integriti Pro/Infiniti v23 license or higher to be present on the product key running the integration.

Minimum Installed Integriti Version

The Integriti Hikvision CCTV integration is only compatible with an installation of Integriti Pro or Infiniti that is v22.0.1 or higher.

Licensing Requirements

Integriti CCTV Integrations require Integriti Business or Integriti Corporate Software Edition.

For Integriti Business, one CCTV License is required per camera to be used in the system. Integriti Business supports 32 Cameras initially, and additional cameras can be added in lots of 8 using the 996921 CCTV - Extra 8 Cameras license. Any unlicensed Cameras will still show up in Integriti; however, they will not be useable.

For Integriti Corporate, unlimited cameras are supported with no additional licenses required.

Tested Against

The Integriti Hikvision CCTV plugin was built and tested against the following versions of software:

- DS-7608NI-I2 – v4.60.005 build 230302 firmware
- DS-K1T673DWX – v3.3.12 build 220906 firmware
- DS-KD8003-IME1 – v2.0.8 build 191029 firmware
- DS-KD8003-IME1 – v2.2.56 build 220713 firmware

Configuration

This section specifies the Hikvision CCTV Integration specific configuration details. Please refer to the 'Integrati Integrations – CCTV' manual for a detailed description on how to fully configure and use CCTV integrations in Integrati/Infiniti.

Ports Used

The following ports are used for communication between the Integrati Hikvision CCTV Integration and the Hikvision server/cameras. These ports should be configured in the Integrati Integration Server and any Integrati Client Machine's firewalls to allow the integration to be used.

- TCP port 8000 (outbound; or an alternative port specified in Connection Configuration)
- TCP port 7200 (inbound; or an alternative port specified in Connection Configuration) if alarm listening is used.

Connection Configuration

Configuration	
Integration Configuration	admin@192.168.140.99
Connection	
Address	192.168.140.99
Login Name	admin
Password	*****
Connection Port	8000
Stream Encryption Key	
Logging	
Log Verbosity	Warning
Monitoring	
Use Alarm Listening	<input checked="" type="checkbox"/>
Alarm Listening Address	192.168.15.235
Alarm Listening Port	7200
Evidence Vault	
Auto-Save Event Snapshots to Evidence Vault	

Connection

Address – The IP Address of the Server to connect to.

Login Name – The Username of the Hikvision User to connect to the Server with. This User should have sufficient permissions configured in Hikvision to allow all of the features of the plugin to be used.

Password – The Password of the Hikvision User to connect to the Server with.

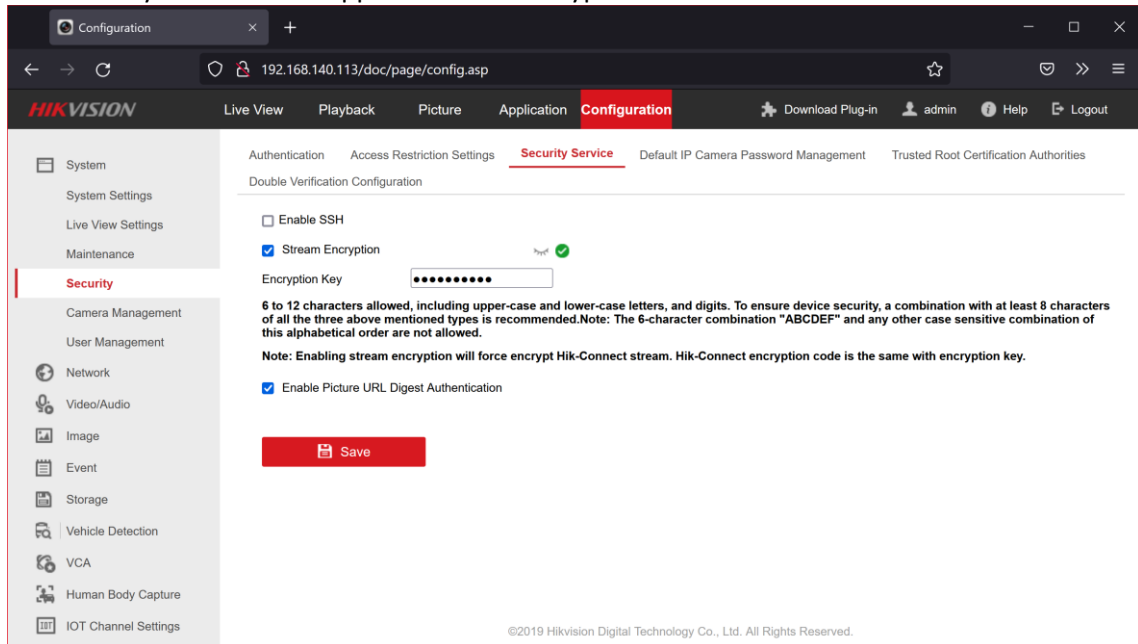
Connection Port – The Port used to connect to the Hikvision NVR/DVR/Door Station. This can be configured in the NVR/DVR/Door Station configuration and is 8000 by default. This port should be configured in the Integrati Integration Server and any Integrati Client Machine's firewalls to allow it to be used.

Stream Encryption Key – If Stream Encryption is used on the NVR, the encryption key used. If Stream Encryption is not used, this should be left blank.

Stream Encryption

If Stream Encryption is used on the NVR, the encryption key must be provided in the Integrated System connection configuration to stream live or archived video using the integration. The following steps may be performed to find or set the encryption key.

1. Log in to the web interface of the NVR using any browser.
2. Navigate to **Configuration** → **System** → **Security** → **Security Service**
3. If the **Stream Encryption** option is enabled, click the eye icon in the text box to view the encryption key, or set a new encryption key. This option will be shown only if the device supports Stream Encryption.



Logging

Log Verbosity - Only logs of the specified level or higher will be logged. If Warning is selected, only Warning, Error and Fatal logs will be written to the log.

Monitoring

Use Alarm Listening – Select whether to use alarm listening. This is only needed to receive intercom-related events from certain devices. See the Intercom Configuration section above for more information.

Alarm Listening Address – The IP Address of the Integrati Integration Server. Any Hikvision devices to listen to should be configured with their 'Listen IP' set to the selected IP Address.

Alarm Listening Port – The Port to use for communication between the Integrati Integration Server and the Hikvision Devices being listened to. The default port is 7200.

This port should be configured in the Integrati Integration Server's firewall to allow it to be used. Any Hikvision devices to listen to should be configured with their 'Listen Port' set to the selected port.

Evidence Vault

Auto-Save Event Snapshots to Evidence Vault - Select the types of events to automatically save associated Snapshots to the Evidence Vault for (where Snapshots are available). If none are selected, no Snapshots will be automatically saved to the Evidence Vault.

CCTV Camera Configuration

▼ Configuration	
Connected Server	Disabled
▼ Integration Configuration	
▼ PTZ	
Use Digital PTZ	<input type="checkbox"/>
▼ Video Playback	
Stream Type	Main Stream ▼
▼ Export	
Export Stream Type	Main Stream ▼

PTZ

Use Digital PTZ – Select to force the video viewer to enable Digital PTZ for this camera. Suitable for cameras that do not have PTZ capability.

Video Playback

Stream Type – The stream that should be selected by default when viewing video from this camera. Not all streams may exist on all cameras. The main stream is normally the highest-resolution one; see the web configuration interface for the device to configure the different streams.


Export

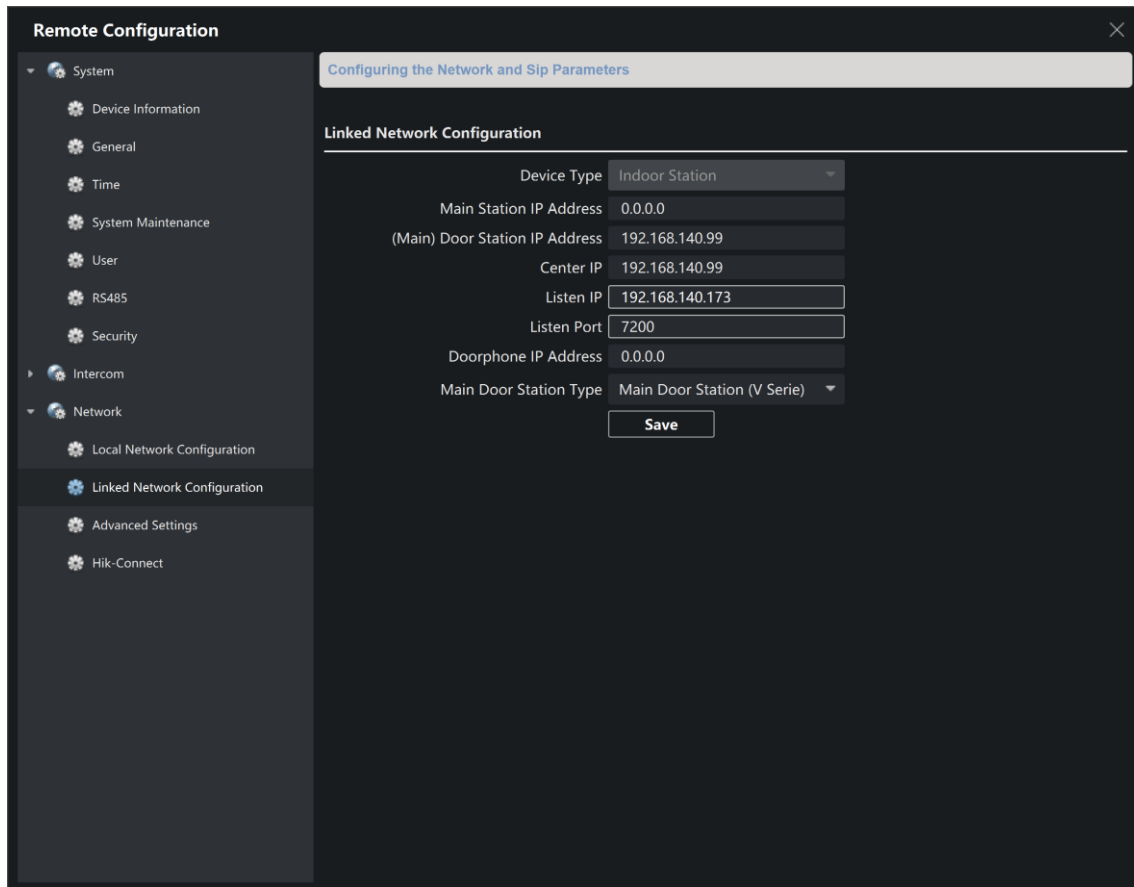
Export Stream Type – The stream that should be used for exporting video and snapshots. The device must be configured to record the selected stream from this camera.

Alarm Listening Configuration

Note: This section was written with reference to the DS-KD8003-IME1 intercom device. Configuration steps may differ between devices from step 3 forward.

For receiving intercom-related review events from capable devices, in some cases, it may be necessary to configure the Integrati integration server to listen for alarm notifications. To do this, a process similar to the following should be followed.

1. Set up an integrated system with the IP address, administrator name and password for the device. See the Configuration section for more information.
2. Under the Monitoring category, check Use Alarm Listening, then select the IP address of the integration server that should be used to listen. Note the selected IP address and port number for later steps.
3. Ensure the device is registered and added in the iVMS-4200 client application. See the device's configuration manual and/or other documentation for more information.
4. In the iVMS-4200 client application, select  Remote Configuration for the device.
5. In the Network > Linked Network Configuration category, enter the integration server's IP address noted above as 'Listen IP' and the selected port number noted above as 'Listen Port'. The labels for the relevant settings may vary between devices; for example, it may also be referred to as 'Alarm Host Address/Port' or 'Security Control Panel IP Address/Port'.
6. Click 'Save'.



Firewall Configuration

If there is a firewall active on the integration server computer, it will be necessary to allow access to the port used by the integration through the firewall. To allow access using Windows Firewall, follow these steps.

1. From the Start menu, open 'Windows Defender Firewall with Advanced Security'.
2. Select the 'Inbound Rules' category.
3. Select 'New Rule'.
4. Select the 'Port' rule type.
5. Select TCP and enter the listening port number configured above.
6. Select 'Allow the connection'.
7. Ensure that the rule is enabled for the type of network configured on the integration server computer.
8. Give a name (such as 'Integrati Hikvision Integration') and optional description, then save the rule.

Commands

CCTV Recorder Commands

The following commands can be performed on a CCTV Recorder:

Change Alarm Out State	Change the state of the Alarm Out at the selected 'Port' of the Hikvision DVR to either start or stop
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CCTV Camera Commands

The following commands can be performed on a CCTV Camera:

Send Camera To Preset	<p>Sends the selected Camera to the PTZ Preset with the 'PTZ Id' given.</p> <p>The selected Camera must be online at the time the command is sent and have a PTZ Preset configured with the given Id for this command to work.</p>
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Troubleshooting

Plugin does not appear in 'New Integrated Device' List

- Restart the Integrati Integration Servers and any instances of Integrati System Designer or Integrati GateKeeper open on the computer experiencing the problem.

Live or archived video not streaming from cameras

- If Stream Encryption is used, enter the encryption key in the integrated system attributes.

Events are not received when using alarm listening

- Ensure the integration server's IP address and listening port are correctly set in the device's configuration.
- Check the firewall configuration to make sure the integration server is allowed to listen on that port.