

How to connect a 2N Helios IP intercom

This FAQ describes how to connect a 2N Helios IP intercom to the qulu VMS platform via ONVIF S Profile. Please note that for ONVIF functionality your intercom must be running the Enhanced Video Licence (9137906) or Gold Licence (9137909). As with any camera stream connected to qulu, you will need to have a spare licence if you wish to record the image and audio stream.

Note: Qulu provides video only recording from the camera in the panel, additionally events generated within the panel can trigger alarms within Qulu. Please note audio speech to and from the panel, and door release via the Qulu VMS is not supported.

| \bigcirc | | 2N Helios IP Verso CZ EN DE FR IT ES RU L | .ogout |
|------------|------------------------|---|--------|
| () | System | Licence Settings > | |
| .lı 22 | Network Date & Time | Licence Status ~ Enhanced Security YES | |
| × c | | Enhanced Audio YES | |
| | Licence > | Enhanced Video YES | |
| * * | Certificates | Enhanced Integration YES | |
| | Auto Descisionia | NFC Support YES | |
| | Auto Provisioning | G.729 Support NO | |
| | Syslog | Informacast Support NO | |
| | Maintenance | Online licence download > | |







HOW TO CONFIGURE THE 2N® HELIOS IP INTERCOM

Navigate to the ONVIF section of the intercom settings. Set Discovery Mode to "Discoverable" and create user with Administrator rights. The credentials **admin/admin** has been used for this FAQ.

| (| | 2N Helios If | P Verso CZ EN DE FF | R IT ES RU Logout |
|------------------------|-------------|---------------------------|---------------------------|-------------------------|
| $(\mathbf{\bullet})$ | Services | ONVIF Settings ~ | | |
| | | Discovery | Mode Discoverable | • |
| | Phone | | | |
| 2 | Streaming | | PASSWORD | ACCESS LEVEL |
| $\mathbf{\tilde{X}}$ | Onvif > | admin | •••• | Administrator - |
| 0 | E-Mail | | | Anonymous - |
| | Automation | | | Anonymous - |
| | HTTP API | | | Anonymous |
| | User Sounds | | | |
| | Web Server | Logical Output Settings ~ | . T Non Invested | |
| | Audio Test | | ut Type Non Inverted | • |
| | SNMP | Scopes 🗸 | | |
| | | onvif://www.onvif.org/Pr | rofile/Streaming | |
| | | onvif://www.onvif.org/ty | /pe/Device | |
| | | onvif://www.onvif.org/ha | ardware/HeliosIP-54-104 | 6-0239 |
| | | onvif://www.onvif.org/lo | ocation/ | |
| | | onvif://www.onvif.org/na | ame/HeliosIP-54-1046-02 | 239 |
| | | L | | |
| | | | Apply | |









Check the 'RTSP Server Enabled' and Audio/Video Streams as below, then choose your preferred Video Codec from the drop down menu, also ensuring that the 'UDP Unicast Enabled' box is checked.

| | | 2N Helios IP Verso CZ EN DE FR IT ES RU Logou | ıt |
|----------|-------------|---|----|
| € | Services | RTSP JPEG Multicast InformaCast FTP | |
| .h | | RTSP Server Enabled | |
| | Phone | Ctrappe Cattings | |
| <u>~</u> | Streaming > | Audio Stream Enabled 🔽 | |
| | Onvif | Video Stream Enabled 🖌 | |
| | E-Mail | Video Codec H.264 | |
| | Automation | H.264 Video Parameters > | - |
| | HTTP API | | |
| | User Sounds | MPEG4 Video Parameters > | |
| | Web Server | MJPEG Video Parameters > | |
| | Audio Test | Authorised IP Addresses > | |
| | SNMP | | |
| | | Transmission Quality Settings ~ | 1 |
| | | QoS DSCP Value 0 | |
| | | UDP Unicast Enabled 🖌 | |
| | | Maximum Video Packet Size 1400 | |
| | | Starting RTP Port 4800 | |
| | | | 1 |
| | | | |
| | | | |

No further configuration is required within the 2N Helios IP intercom to view and record the video/audio stream.

HOW TO ADD THE INTERCOM TO VISTA QULU

The intercom should now be visible in the available cameras list, thanks to ONVIF discovery.

Locate the intercom that you wish to add to the layout and right click on it and select 'Camera Settings' to configure.







With the camera settings window open complete the login and password window to match the ONVIF account settings in the intercom.

In our example **admin/admin** was used which are the default login values within qulu. As such, the credentials were already present and no changes were necessary to access the camera stream.

NOTE: It is strongly recommended that a more secure login and password is used.

| Camera Settings - Vista CCTV qulu Client | ? × |
|---|--------|
| General Recording 10 miles Motion Enhance Advanced Expert | |
| | |
| Name: 2N Telecommunications2N Helios IP Verso | |
| Moder. ZN Heilos IP Verso | |
| Firmware: 2.17.0.26.4 | |
| Vendor: 2N Telecommunications | |
| Address | |
| IP Address: 192.168.1.216 | Ping |
| Web Page: <u>http://192.168.1.216</u> | |
| MAC Address: 7C-1E-B3-01-26-60 | |
| Authorization | |
| | |
| Lugni, aurimi | |
| Passworu: | |
| Image Control | |
| Force aspect ratio to: | |
| Default Rotation: | |
| This is a fish-eye lens camera | |
| | |
| Enable Audio | |
| | |
| | |
| | |
| | |
| | |
| | |
| Open in New Tab Camera Diagnostics Camera Rules OK | Cancel |

Click the OK button to save settings and then drag the intercom camera stream into the layout from the device list just like any other camera.



You can now view and record the stream as per any camera added to qulu. *Continued on next page*







VISTA QULU - HOW TO ENABLE THE HELIOS INTERCOM TO TRIGGER EVENTS BY CALL

Thanks to the automation section of the Helios IP you can set an intercom to trigger 'Generic Events' within qulu via HTTP command. Events can be triggered by a wide variety of scenarios such as the pushing of a button on the intercom, a DTMF tone detected in the call or the change of a call status.

In this example we will demonstrate how a call initiated or received at the intercom can trigger a named event within qulu to control a PTZ camera. At the end of the call the PTZ camera will reset to a predetermined location.

This guide assumes that you have already added a 2N Helios IP intercom to your gulu VMS platform via ONVIF.

Please note that for automation functionality your intercom must be running the Enhanced Integration Licence (9137907) or Gold Licence (9137909).

2N® Helios IP intercom Settings:

Within the Automation section of the intercom settings, enable one of the functions (in our example 'Function 1') by checking the 'Function Enabled' box.

Setup each object type and parameter as per the screen shot below ensuring that the IP address and port number match your qulu server address and that the username and password match the credentials for logging into the server.



In this example the following address and credentials are used:

qulu Server Address - 192.168.1.201 qulu Server Port - 7001 (default) Password - admin Username - admin









Full parameter values are as follows:

- 1 Event.CallStateChanged: state=ringing
- 2 Action.SendHttpRequest: url=http://192.168.1.201:7001/api/createEvent?source=genericevent&caption=start; Password=admin; Username=admin; Event=1
- 3 Event.CallStateChanged: state=terminated
- 4 Action.SendHttpRequest: url=http://192.168.1.201:7001/api/createEvent?source=genericevent&caption=stop; Password=admin; Username=admin; Event=3

A call started or received by the intercom sends an http command to the qulu server with the caption 'start'. When the call is ended the intercom sends an http command with the caption 'stop'.

Vista qulu Settings:

Select the Alarm/Event rules icon located to the right of the layout window.







Create the first of two new rules by clicking 'Add' followed by 'Advanced' to reveal a window that looks like the following:

| Alarm/Eve | ent Rules - Vista CCTV qulu Clier | nt | | | ? — X — |
|---------------|-----------------------------------|-------------------------|--------------------|---|------------------------------|
| + Add | — Delete | | | | Event log Advanced |
| filter by car | | | | | |
| # On | Event | Source -> | Action | Target | Interval of Action |
| Ø | On Camera Disconnected | च ≺Any Camera> | Send email | User admin has invalid email address | Every 6 hours |
| Ø | On Network Issue | ☆ <system></system> | Send email | User admin has invalid email address | Every 6 hours |
| Ø | On Camera IP Conflict | ☆ <system></system> | Show notification | 🔒 All Users | Every 30 seconds |
| | On Server Started | ☆ <system></system> | Send email | User admin has invalid email address | Every 6 hours |
| | On Archive backup finished | ☆ <system></system> | Show notification | 🐣 All Users | Instant |
| Ø | On Camera Disconnected | 🤝 <any camera=""></any> | Show notification | 🐣 All Users | Every 30 seconds |
| | On Camera IP Conflict | ☆ <system></system> | Send email | User admin has invalid email address | Every 6 hours |
| | On Generic Event | ☆ <system></system> | Execute PTZ preset | VK2-1080XVRDPTZF | Instant |
| Ø | On Generic Event | ☆ <system></system> | Execute PTZ preset | VK2-1080XVRDPTZF | Instant |
| * Ø | On Camera Disconnected | 🤝 <any camera=""></any> | Show notification | 💄 All Users | Every minute |
| | | Event | | | Action |
| When | | Camera Disconnected | 💿 Do | · · · · · · · · · · · · · · · · · · · | how notification 🔹 |
| at 🔻 | <any camera=""></any> | | | Interval of action : No more than or | ice per 1 🗢 min 🕒 |
| | | | = s | ihow to administrators only | Giobal Netification Settings |
| r S | chedule | | | | |
| Commen | 15: | | | | |
| Reset De | fault Rules | | | | OK Apply Cancel |

In the Event settings select 'Generic Event' from the 'When' drop down box and enter 'start' in the 'Caption contains' field.

In the Action settings select 'Execute PTZ preset' from the 'Do' drop down box and select the desired camera that you wish to control (in our case a VK2-1080XVRDPTZF) and uncheck the 'Interval of action' box so that the command is carried out instantly. Next, choose a pre-determined PTZ preset that you wish to trigger when a call is made (in our case 'Saved Position 1'). The new Generic Event rule should look as follows:

| Alarm/Ever | nt Rules - Vista CCTV | V qulu Client | | | | | | ? × |
|------------------------------|---|---|---|---|--------------------|--|--------------------|------------------------------|
| + Add | - Delete | | | | | | == Event log | Advanced |
| filter by cam | | | | | | | | |
| # On | Event On Server Conflict | : | Source | -> Action | | Target | Interval of Action | |
| ø | On Camera Discor | nnected | 🥃 <any camera=""></any> | Send email | | address User admin has invalid emai | Every 6 hours | |
| ø | On Network Issue | e 1 | ∧ <system></system> | Send email | | User admin has invalid emai | Every 6 hours | |
| ø | On Camera IP Cor | nflict 1 | | Show notification | | All Users | Every 30 seconds | |
| | On Server Started | d 1 | ∧ <system></system> | Send email | | User admin has invalid emai address | Every 6 hours | |
| | On Archive backu | ıp finished 🥤 | ∧ <system></system> | Show notification | | All Users | Instant | |
| | On Camera Discor | nnected | 🥃 <any camera=""></any> | Show notification | | 🔒 All Users | Every 30 seconds | |
| | On Camera IP Cor | nflict 1 | | Send email | | User admin has invalid emai address | Every 6 hours | |
| Ø | | | | | | | | |
| | On Generic Event | : 1 | | Execute PTZ prese | | VK2-1080XVRDPTZF | Instant | |
| | | | | | | | | |
| When | | Gene | eric Event | Occurs | Do 😑 | ĺ | Execute PTZ preset | • |
| Source | contains: Keyv | | | | at 🔻 | VK2-1080XVRDPTZF | | |
| Caption | contains: start | | | | = Tote | nal of action : Instant | | |
| Descript | ion contains: Keyv | | | | | | | |
| Event w empty, Event c | rill trigger only if Ger condition is always r ontains any keywor | neric Event me met. If not, co d. | eets all the above condi ondition is met if the co | itions. If a keyword field is rresponding field of Generic | <u>P</u> TZ preset | : | Saved Position 1 | |
| To gene | erate Generic Event | t, please refer | to <u>Server API</u> . | | | | | |
| 🟫 So | hedule | | | | | | | |
| Commont | | | | | | | | |
| comment | 5. | | | | | | | |
| Reset Def | ault Rules | | | | | | ОК | Cancel |







Finally, create a second rule that will be applied when the server receives the 'stop' command. Edit the new rule as above ensuring that the caption contains 'stop' and that the PTZ preset relates to an appropriate resting state. See below:

| Alarm/Event Rules - Vista CCTV qulu Clien | nt | | | ? *** |
|--|--|--------------------------------|--------------------------------------|-------------------------------------|
| 🕂 Add 🗕 Delete | | | | 💴 Event log 🔻 Advanced |
| filter by cameras | | | | |
| | | | | |
| # On Event On Server Conflict | Source -> | Action Send email | Target | Interval of Action Every 6 hours |
| Ø On Camera Disconnected | 🖶 <any camera=""></any> | Send email | User admin has invalid email address | Every 6 hours |
| 🗹 🛛 On Network Issue | | Send email | User admin has invalid email address | Every 6 hours |
| on Camera IP Conflict | ☆ <system></system> | Show notification | 🐣 All Users | Every 30 seconds |
| 🗹 On Server Started | ☆ <system></system> | Send email | User admin has invalid email address | Every 6 hours |
| On Archive backup finished | | Show notification | 🖂 All Users | Instant |
| On Camera Disconnected | 🤝 <any camera=""></any> | Show notification | 🐣 All Users | Every 30 seconds |
| 🗹 On Camera IP Conflict | | Send email | User admin has invalid email address | Every 6 hours |
| 🗹 🛛 On Generic Event | ☆ <system></system> | Execute PTZ preset | VK2-1080XVRDPTZF | Instant |
| 🧭 🛛 🖌 Generic Event | 📩 🔥 <system></system> | Execute PTZ preset | UK2-1080XVRDPTZF | Instant |
| | Event | | | Action |
| When G | eneric Event | Occurs S | Do Ex | ecute PTZ preset 🛞 |
| Source contains: Keywords separ | rated by space | | at 🔻 VK2-1080XVRDPTZF | |
| Caption contains: stop | | | Intend of action : Instant | |
| Description contains: Keywords separ | | | | |
| Event will trigger only if Generic Event empty, condition is always met. If not, Event contains any keyword. | t meets all the above conditions. If a keyv , condition is met if the corresponding fie | Nord field is Id of Generic | 2TZ preset: | Saved Position 2 |
| To generate Generic Event, please ref | fer to <u>Server API</u> . | | | |
| ☆ Schedule | | | | |
| Comments: | | | | |
| | | | | |
| Reset Default Rules | | | | OK Cancel |

Click 'Apply' followed by 'OK' to return to the layout screen.

Your PTZ camera will now move to 'Saved Position 1' during a call and back to 'Saved Position 2' when the call is terminated. This type of function is useful for applications where an intercom is being monitored by a PTZ camera, but only needs to monitor the intercom during use.

For further examples of automation functions see the 2N wiki site automation manual: **https://wiki.2n.cz/hip/auto/latest/en**





VISTA VK2-1080XVRDPTZF – HOW TO ADD TO THE HELIOS IP INTERCOM AS AN EXTERNAL CAMERA

The 2N Helios IP intercom can accept an additional camera as a secondary feed via an RTSP stream. This guide shows what settings are required in order to capture a feed from a Vista VK2-1080XVRDPTZF.

Please note that for external camera functionality the Enhanced Video licence (9137906) or Gold licence (9137909) is required.

Vista VK2-1080XVRDPTZF Settings:

Login to the camera via a browser using the device's IP address. Select 'Video & Image' from the 'Basic Configuration' window and edit the Stream 2 Settings to match the screenshot below.

| Basic Configuration | | | | |
|-----------------------------|------------------|--------------------------|--------|--|
| Basic Configuration | Video & Image | | | |
| · Users | | | | |
| Network | Sensor Setting | | | |
| · Video & Image | Capture mode | 1920x1080 Max. 25fps 💙 | | |
| · Audio | | · | | |
| • Date & Time | Stream 1 Setting | | | |
| | Codec | H.264 Baseline Profile V | | |
| Live View | Resolution | 1920×1080 V | | |
| Video & Image | Bitrate control | | | |
| Audio | Bitrate | 3200 V [Kbps] | | |
| Event | Framerate | 25 ~ | | |
| Dome Configuration | GOP size | 20 [150] | | |
| | | | | |
| System | Stream 2 Setting | | | |
| About | Codec | MJPEG 🗸 | | |
| | Resolution | 640x360 | | |
| | Framerate | 15 ~ | | |
| | Quality | 5 | [1100] | |
| | | | | |
| | Stream 3 Setting | | | |
| | Codec | H.264 Baseline Profile 🗸 | | |
| | Resolution | 640×360 🗸 | | |
| | Bitrate control | O VBR O CVBR | | |
| | Bitrate | 100 ¥ [Kbps] | | |
| | Framerate | 10 🗸 | | |
| | GOP size | 14 [120] | | |
| | | Save Reset | | |





Helios IP Settings:

Set the external camera settings as per the screen shot below ensuring that the IP address of the camera is entered as per your network configuration:

| | | 2N Helios IP Verso CZ EN DE FR IT ES RU Logout |
|----------|----------------|--|
| € | Hardware | Common Setting Internal Camera External Camera |
| .h | Cuitada a | External IP Camera 🗸 |
| 502 | Switches | External Camera Enabled 🔽 |
| <u>.</u> | Audio | RTSP Stream Address rtsp://192.168.1.172:554/1/stream2 |
| X | Camera | > Username admin |
| | Keyboard | Password ••••• |
| | neybourd D | Local RTP Port 4700 |
| | Buttons | Status Connected |
| | Backlight | Stream MJPEG 640x360 |
| | Display | Camera Preview ~ |
| | Digital Inputs | |
| | Extenders | |
| | | |

Now that an external camera feed is added to the intercom it can be used as the primary video stream for all calls or the camera feed can be switched between the internal camera by DTMF (in call), by HTTP command, or by time of day by utilising the automation function of the Helios IP intercom. Further information on what can be achieved with automation can be found on 2N's wiki site - wiki.2n.cz Automation requires the Enhanced Integration licence (9137907) or Gold licence (9137909).

