

# How to use the OTT netDL 1000 with the IP camera HIKVISION DS-2CD2623G2-IZS



## 1 Introduction

The OTT netDL 1000 allows for the integration of an IP camera into the measurement network. This document shows, how to integrate an IP camera of type HikVisionDS-2CD2623G2-IZS and what is required for this.

## 2 Application

The IP camera HIKVISION DS-2CD2623G2-IZS can be connected to an OTT netDL 1000. The datalogger is now able to retrieve pictures from the camera and to perform the following actions:

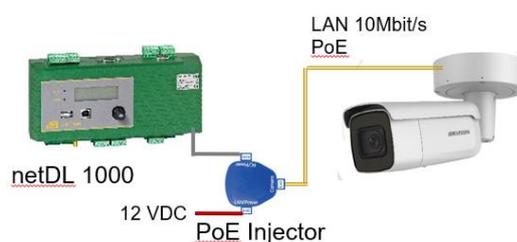
- Retrieve picture at a freely defined time interval and forward it over an IP connection (FTP, FTPS, HTTP, HTTPS)
- Retrieve picture because an event/alarm has occurred and forward it over an IP connection
- Retrieve picture at a freely defined time interval and forward it over an IP connection – while adjusting the time interval to respond to an event or alarm e.g. to shorten the time interval.
- Display image in a web browser
- Display image in Hydras 3 Net
- Request image from camera via OTT netDL – via Hydras 3 Net or „Data Logger Operating Program“

Pictures are useful to get a visual impression of the situation at the measuring site. The OTT netDL 1000 serves as communication module for the IP camera. The way it works is always „Shot and Forward“, that means a picture is retrieved and forwarded immediately. The datalogger does not store any pictures. For this application the use of an OTT netDL 1000 is mandatory.

## 3 Power supply for camera

- 1) The camera DS-2CD2623G2-IZS is powered by Power over Ethernet (PoE).

Power is supplied via the data cable via PoE (Power over Ethernet). No additional cable is required but a so-called PoE Injector or a PoE capable switch.



- 2) The camera DS-2CD2623G2-IZS is powered via the 12V DC terminal.  
Connector at camera: Ø 5.5 mm Coaxial Power Plug

**Notes:**

The power consumption of the camera is 13 W (Power Plug) / 18W (PoE)

If the camera is started via the switch contact, a warm-up time of approx. 40 s must be configured.

The PoE Injector can also be powered via the switch contact of the OTT netDL 1000.

## 4 LAN connections - IP transmissions

### 4.1 LAN cable

So-called patch cables (1:1) can be used for all LAN-connections (Cross Over cables will work as well).

Examples:

- DS-2CD2623G2-IZS via PoE Adapter (65.000.036.9.2) to OTT netDL 1000: Patch cable
- DS-2CD2623G2-IZS via PoE Adapter and Switch/Router to OTT netDL 1000: Patch cable

**Note:** the maximum cable length for Ethernet (CAT5/6) is 100m

### 4.2 Transmission of pictures via IP

Pictures are always transmitted via IP which is possible with any IP transmission in the OTT netDL 1000.

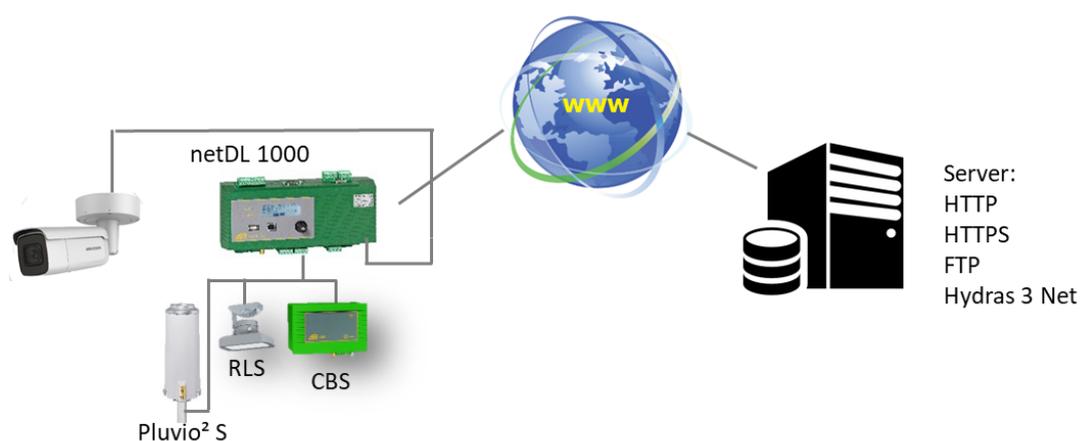
Examples:

- LAN Port of OTT netDL 1000 (10BaseT)
  - Router (ALLIP, DSL, LTE, LAN-network)
  - Satellite e.g. Inmarsat BGAN
  - Etc.
- Modem: GSM/GPRS/3G (internal or external) – 4G (external)

## 5 Server

Applicable servers are:

- FTP-Server
- FTPS Server
- HTTP-Server
- HTTPS-Server
- Hydras 3 Net (HTTP/HTTPS)



### Notes:

Data transmission is always „Shot & Forward“, pictures are not stored in the datalogger.

Videos are not transmitted, only pictures up to a size of 500k.

## 6 Components

Components	Article	Comment
DS-2CD2623G2-IZS	9796042995	incl. wall mounting
OTT netDL 1000	5555200190	required
Software Option „External IP device for netDL“	5555230893	required
Pole Mount 2“ – 4“ pole	6501005592	optional
PoE Power Injector with 12V connection cable	6500003692	optional
Overvoltage protection for Ethernet	9775022595	optional

Link in the OTT netDL:

Script Path

/ISAPI/Streaming/channels/101/picture

Patch cable

Components	Article	Comment
Patch cable 10m	9797016595	CAT 6 Outdoor / UV resistant
Patch cable 1m	9796116595	CAT 6 – S/FTP grey
Patch cable 3m	9797011795	CAT 6 – S/FTP purple
Patch cable 5m	9797011895	CAT 6 – S/FTP purple

## 7 Example of camera mounted to a mast



## 8 Other IP camera types

With the OTT netDL, the IP camera feature is based on the function „External IP Device“. This function allows for the connection of external IP devices, e.g. another OTT netDL or other IP cameras.

These camera types have proven to work properly when connected with the OTT netDL 1000d:

- D-Link DCS-6915
- D-Link DCS 7010L
- Mobotix M25 / M26 / M1M
- Axis P1367
- Panasonic WV-SW558
- HikVision DS-2CD2023G0-I
- HikVision DS-2CD2023G2-IZS

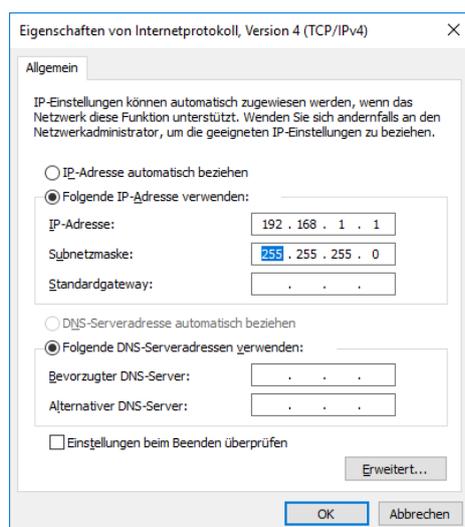
### **Note:**

Experience has shown that unknown cameras should be tested before they are offered or sold.

## 9 Configuration

### 9.1 Configuration of the camera

Set the network adapter of the PC to address 192.168.1.1. (only possible as admin user)



Connect IP camera - via POE adapter  
In Web Browser, call up the address 192.168.1.64.  
Assign username and password

- In Configuration - Image - OSD Settings - Deactivate "Date Display" Date/Time only works if the camera is continuously powered and the SNTP time server in the camera is activated and reachable, otherwise deactivate, date/Time is contained in the file name.

- In Configuration - Image - OSD Settings, --- Station name is included in the file name.

- Configuration > System > Security > Security WEB-Authentication: set to **"Digest/Basic"**

Still image can be retrieved via command:  
192.168.1.64/ISAPI/Streaming/channels/101/picture in browser.

## 9.2 Settings at OTT netDL1000

Enter IP address, user, PW and script path in the OTT netDL configuration under IP-Device.

Address: 192.168.1.64

ScriptPath: ISAPI/Streaming/channels/101/picture

User: admin

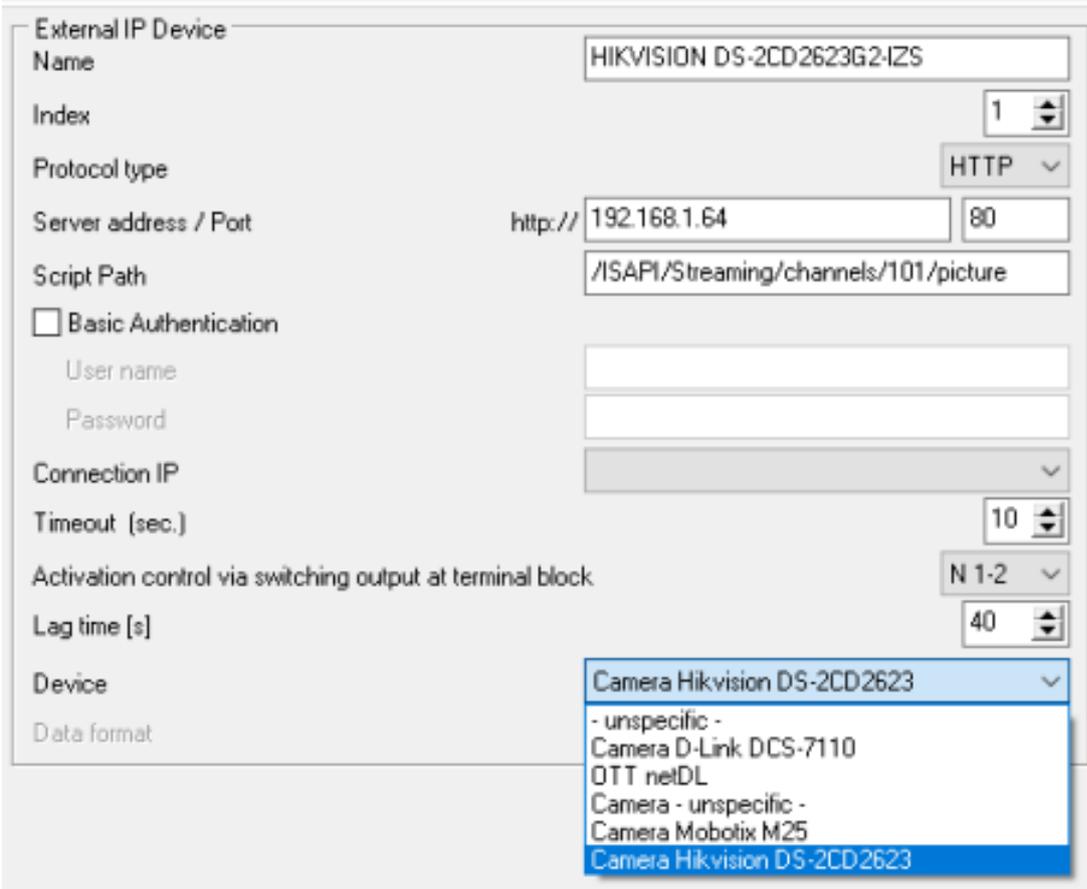
PW: (User-defined)

Set LAN adapter of netDL to 192.168.1.60

Set lag time to min. 40sec

The Data Logger Operating Program allows to select a preset for this camera, scripts path is entered than automatically.

If OTT netDL 1000 and the camera are in one IP network, both device IP addresses / Subnet Mask etc. has to be adjusted accordingly.



The screenshot displays the configuration window for an external IP device. The fields are as follows:

- Name:** HIKVISION DS-2CD2623G2-IZS
- Index:** 1
- Protocol type:** HTTP
- Server address / Port:** http:// 192.168.1.64 80
- Script Path:** /ISAPI/Streaming/channels/101/picture
- Basic Authentication:**  (unchecked)
- User name:** (empty field)
- Password:** (empty field)
- Connection IP:** (dropdown menu)
- Timeout (sec.):** 10
- Activation control via switching output at terminal block:** N 1-2
- Lag time [s]:** 40
- Device:** Camera Hikvision DS-2CD2623 (selected)
- Data format:** (dropdown menu showing options: - unspecified -, Camera D-Link DCS-7110, OTT netDL, Camera - unspecified -, Camera Mobotix M25, Camera Hikvision DS-2CD2623)

**HIKVISION**

**DS-2CD2623G2-IZS**  
**2 MP AcuSense Motorized Varifocal Bullet Network Camera**

AcuSense



Empowered by deep learning algorithms, Hikvision AcuSense technology brings human and vehicle targets classification alarms to front- and back-end devices. The system focuses on human and vehicle targets, vastly improving alarm efficiency and effectiveness.

- High quality imaging with 2 MP resolution
- Motorized varifocal lens for easy installation and monitoring
- Clear imaging against strong backlight due to 120 dB WDR technology
- Efficient H.265+ compression technology
- Water and dust resistant (IP67) and vandal resistant (IK10)
- Focus on human and vehicle targets classification based on deep learning



## • Specification

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Min. Illumination	Color: 0.005 Lux @ (F1.6, AGC ON), 0 Lux with IR on
Shutter Speed	1/3 s to 1/100,000 s
Slow Shutter	Yes
P/N	P/N
Wide Dynamic Range	120 dB
Day & Night	ICR Cut
Angle Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°
Lens	
Lens Type & FOV	2.8 to 12 mm, horizontal FOV 106.6° to 31.7°, vertical FOV 54.7° to 17.7°, diagonal FOV 130.3° to 36.4°
Aperture	F1.6
Lens Mount	Ø14
DORI	
DORI	2.8 to 12 mm: D: 44.1 m to 137.9 m, O: 17.5 m to 54.7 m, R: 8.8 m to 27.5 m, I: 4.4 m to 13.8 m
Illuminator	
IR Range	Up to 60 m
Wavelength	850 nm
Video	
Max. Resolution	1920 × 1080
Main Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720) 60 Hz: 30 fps (1920 × 1080, 1280 × 720)
Sub Stream	50 Hz: 25 fps (640 × 480, 640 × 360) 60 Hz: 30 fps (640 × 480, 640 × 360)
Third Stream	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)
Video Compression	Main stream: H.265/H.264/H.264+/H.265+ Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264
Video Bit Rate	32 Kbps to 8 Mbps
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
H.264+	Main Stream supports
H.265+	Main Stream supports
Bit Rate Control	CBR/VBR
Scalable Video Coding (SVC)	Yes
Region of Interest (ROI)	1 fixed region for main stream and sub-stream
Audio	
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/MP3/AAC

Audio Bit Rate	64Kbps(G.711ulaw/G.711alaw)/16Kbps(G.722.1)/16Kbps(G.726)/16Kbps-64Kbps(AAC)/32-192Kbps(MP2L2)/8-320Kbps(MP3)
<b>Network</b>	
Simultaneous Live View	Up to 6 channels
API	Open Network Video Interface (Profile S, Profile G), ISAPI, SDK
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS, PPPoE
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Security	Password protection, complicated password, HTTPS encryption, IP address filter, Security Audit Log, basic and digest authentication for HTTP/HTTPS, TLS 1.1/1.2, WSSE and digest authentication for Open Network Video Interface
Network Storage	MicroSD/SDHC/SDXC card (256 GB) local storage, and NAS(NFS, SMB/CIFS), auto network replenishment (ANR)
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE 10, IE 11 Plug-in free live view : Chrome 57.0+, Firefox 52.0+ Local service: Chrome 57.0+, Firefox 52.0+
<b>Image</b>	
Day/Night Switch	Day, Night, Auto, Schedule
Image Enhancement	BLC, HLC, 3D DNR
Image Parameters Switch	Yes
Image Settings	Rotate, mirror, privacy masks, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser
<b>Interface</b>	
Audio	1 input (line in), two-core terminal block, max. input amplitude: 3.3 vpp, input impedance: 4.7 K $\Omega$ , interface type: non-equilibrium; 1 output (line out), two-core terminal block, max. output amplitude: 3.3 vpp, output impedance: 100 $\Omega$ , interface type: non-equilibrium
Alarm	1 input, 1 output (max. 12 VDC, 30 mA)
On-board Storage	Built-in micro SD, up to 256 GB
Hardware Reset	Yes
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
<b>Event</b>	
Basic Event	Motion detection (human and vehicle targets classification), video tampering alarm, exception
Face Detection	Yes
<b>Deep Learning Function</b>	
Perimeter Protection	Line crossing detection, intrusion detection Supports human and vehicle targets classification
<b>General</b>	
Linkage Method	Upload to FTP/memory card/NAS, notify surveillance center, trigger record, trigger capture,Email

Web Client Language	33 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
General Function	Anti-flicker, heartbeat, password reset via e-mail, pixel counter
Software Reset	Yes
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Power Supply	12 VDC ± 25% PoE: 802.3at, Class 4
Power Consumption and Current	12 VDC, 1.08 A, max. 13 W PoE: (802.3at, 42.5 V to 57 V), 0.36 A to 0.27 A, max. 15 W
Power Interface	Ø5.5 mm coaxial power plug
Material	Aluminum alloy body
Camera Dimension	308.5 × 97.9 × 93 mm (12.2" × 3.9" × 3.7")
Package Dimension	385 × 190 × 180 mm (15.2" × 7.5" × 7.1")
Camera Weight	Approx. 1390 g (3.1 lb.)
With Package Weight	Approx. 1961 g (4.3 lb.)
<b>Approval</b>	
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 6, 2016); KC (KN 32: 2015, KN 35: 2015)
Safety	UL (UL 60950-1); CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013); CE-LVD (EN 60950-1:2005 + Am 1:2009 + Am 2:2013); BIS (IS 13252(Part 1):2010+A1:2013+A2:2015)
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IP67 (IEC 60529-2013), IK10 (IEC 62262: 2002)

#### • Available Model

DS-2CD2623G2-IZS (2.8 to 12 mm)

#### • Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

This model has NO SPECIFIC PROTECTION.

Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are equipped for use in areas with moderate anti-corrosion

	demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No specific protection	Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.

• Dimension

