

# **How to Remotely Access**

# **Hikvision Devices User Manual**

(Use to remotely access Hikvision DVR's, NVR's and IP Cameras)

Name:	Remote Access
Publisher:	HIKVISION EUROPE B.V.
Туре:	Information Only
Version:	1.2
File:	N/A



www.hikvisioneurope.com

# Introduction

The following guide will guide you through the necessary steps to remotely access your Hikvision device with another PC, Laptop, Tablet, Smartphone or iPhone. Before proceed please connect your device to your router and obtain a computer that is already connected to the same router or LAN. Also make sure that your computer can access the internet. After properly port-forwarding (also called port-mapping) your router you will be able to access your device by using an internet browser, such us IE, Chrome, Firefox or Safari and/or our client software iVMS4200.

# Step n1: Obtaining your Local Network Settings from your computer.

- 1.1 Open the *command prompt* window on your computer.
  - a) For Windows Vista and 7 users:
    - Locate the Windows icon in the bottom left corner of the task bar.
    - In the Search box, type *cmd* or *command* to locate the *command prompt* and press *Enter*.
    - Following the available prompt, type *ipconfig* and press *Enter*.
  - b) Windows NT, 2000, and XP users:
    - Locate the Windows icon in the bottom left corner of the task bar.
    - Click Run.
    - Type *cmd* or *command* and press enter.
    - Following the available prompt, type *ipconfig* and press *Enter*.
- 1.2 This will bring up the *command prompt* window which will display your network settings (Fig. 1). Make sure to write down the *Local IP Address, Subnet Mask* and *Default Gateway*. This will display the address of your router.

C\Windows\system32\cmd.exe	
Wireless LAN adapter Wireless Network Connection:	
Connection-specific DNS Suffix .: Link-local IPv6 Address : fe80::bd65:39c:322f:ef40%11 IPv4 Address : 192.168.1.3 Subnet Mask : 255:255.255.0 Default Gateway : 192.168.1.1	
Ethernet adapter Local Area Connection:	
Connection-specific DNS Suffix .: IPv4 Address	
Tunnel adapter Reusable ISATAP Interface <7D0E67A9-BF9C-41D4-BF1C-7B26456B1263>:	
Media State : Media disconnected Connection-specific DNS Suffix . :	
Tunnel adapter isatap.{C05AD519-926E-46DA-A286-D6B3A0E85834}:	
Media State : Media disconnected Connection-specific DNS Suffix . :	
Tunnel adapter Teredo Tunneling Pseudo-Interface:	
Connection-specific DNS Suffix .: IPv6 Address	Ŧ

Fig. 1

\*\*\* Write down the Local IP Address, Subnet Mask and Default Gateway.

#### Step n2: Static or Dynamic IP address.

Now check for an open or free IP address on the network. Make sure to use an IP address that is in the same subnet range. (*Example*: if your gateway is 192.168.1.1 you want to check for an IP address available like 192.168.1.4 or 192.168.1.5 and so forth)

#### 2.1 Option 1 (static local IP address)

- *a)* You can check the IP address availability by performing the "*Ping*" command (Fig. 2). In order to do that you need to type *ping 192.168.1.4* at the *command prompt* window.
  - If there is a reply it means that the IP address is already in use:

inging 10.9.6.77 with 32 bytes of data: eply from 10.9.6.77: bytes=32 time<1ms TTL=64 eply from 10.9.6.77: bytes=32 time<1ms TTL=64 eply from 10.9.6.77: bytes=32 time<1ms TTL=64 eply from 10.9.6.77: bytes=32 time<1ms TTL=64	
ing statistics for 10.9.6.77: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), pproximate round trip times in milli-seconds: Minimum = Oms, Maximum = Oms, Average = Oms	

Fig. 2

\*\*\* Type *ping* **192.168.1.4** at the *command prompt* window.

• If there is no reply (request timed out) it means that the IP address is available for use (Fig.3)

C:\Users\Rachel Yu>ping 10.9.6.111
Pinging 10.9.6.111 with 32 bytes of data: Request timed out. Request timed out. Request timed out. Request timed out. Request timed out.
Ping statistics for 10.9.6.111: Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

Fig. 3

\*\*\* The IP address is available for use.

b) If you have found an available IP address in the same subnet then you can assign this IP address (Static IP Address) to the device by using the GUI, or using iVMS4200 client software or by login into the device via an internet browser IE, Chrome, Firefox or Safari.

# Using the GUI

- In Live View mode right click with a mouse to access the Main Menu.
- Click on Configuration and then Network (Fig. 4)
- Enter the available static IP address (192.168.1.10)
- Subnet Mask (255.255.255.0)
- Enter Default Gateway IP address you made a note of earlier (192.168.1.1)

				Configur	ation				\$
🕸 General	General	PPPOE	DDNS	NTP	Email	FTP	SNMP	More Settings	
🎂 Network 🔷 🔹	Working	Mode		Multi-ad	dress				
🎄 Alarm	Select N	IIC							
🕫 RS-232	NIC Type Enable (	e DHCP		10M/100	)M/100(	0M Self-a	idaptive		
• Live View	IPv4 Add	dress		192.168	3.1.	10			
▲ Exceptions	IPv4 Sut	onet Mask		255 . 255	5.255.	0			
🏜 User	IPv4 Def	ault Gatew	ay	192 . 168	3.1.	1			
	IPv6 Add	dress 1							
	IPv6 Add	dress 2							
	IPv6 Def	ault Gatew	ay						
	MAC Ad	dress							
	MTU(By	ies)							
	Preferre	d DNS Ser	ver						
	Alternate	e DNS Serv	/er						
	Default I	Route							
♠ Live View								Apply	Back

\*\*\* Enter the available static IP address.

Fig. 4

#### Using iVMS4200

- In **Control Panel** click on **Device Management** and then select the device from the list.
- Now click on Remote Configuration and then Network (Fig. 5)
- Enter the available static local IP address (192.168.1.10)
- Subnet Mask (255.255.255.0)
- Enter Default Gateway IP address you made a note of earlier (192.168.1.1)

	Device Parameters	×
<ul> <li>Information</li> <li>General</li> </ul>	Set network parameters of the device (e.g. IP address, port, etc.).	
Alarm	General Advanced Settings	
LUSER	NIC Type:         10M/100M/1000M Self-ac           Device IP Address:         192.168.1.10	
Exception	Subnet Mask:         255.255.255.0           Gateway:         192.168.1.1	
File	MAC Address:         8c:e7:48:ce:b7:4e           MTU(Byte):         1500	
Cog	Device Port: 8000 MulticastAddress: 0.0.0.0	
	HTTP Port: 80 RTSP Port: 554	
Reboot Restore	re Factory Settings Import Configuration File Export Configuration File	Save

Fig. 5

\*\*\* Click on Remote Configuration and then Network.

#### Using Internet browser (LAN)

- Login to the device by entering its Local IP address:port number (192.168.1.10:80) in the address bar of the Internet browser.
- Click in Configuration and then on Network Settings (Fig. 6)
- Enter the available static IP address (192.168.1.10)
- Subnet Mask (255.255.255.0)
- Enter Default Gateway IP address you made a note of earlier (192.168.1.1)

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Http://192.168.1.10:807	oc/page/main.asp		በ 🕁 🤀
HIKVISION		DS-7708NI-SP	Halp English
Live View Play	back Log	Configuration	admin Logout
Configuration	TCP/IP NIC Settings NIC Type IPv4 Address IPv4 Subnet Mask IPv4 Subnet Mask IPv6 Address IPv6 Address IPv6 Address Mac Address MTU DNS Server Preferred DNS Server Atternate DNS Server Save	Auto  192 168 1.10  192 168 1.10  192 168 1.1  192 168 1.1  190 0 8ec 7 481 fol 5 c8 7a  1900  Byte	-

Fig. 6

\*\*\* Click on Configuration and then Network settings.

#### 2.2 Option 2 (Dynamic IP address)

a) You can enable the DHCP checkbox in the DVR Network Configuration interface:

### Using the GUI

- In Live View mode right click with a mouse to access the Main Menu.
- Click on Configuration and then Network (Fig. 7)
- Check the **DHCP** radio box, and click **Apply**.
- **Reboot** the system.
- Return to the Network Configuration to check what the current IP address is.

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			IPv6 Add	dress 2									
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			MAC Ad	dress									
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			Alternate	e DNS Sen									
			Default F	Route								~	
	_												
1	1	Live View								Apply	Ba	sk 🔤	

Fig. 7

\*\*\* Check the **DHCP** radio box, and click **Apply**.

### Using iVMS4200

- In Live View mode right click with a mouse to access the Main Menu.
- Click on Configuration and then Network (Fig. 8)
- Check the **DHCP** radio box, and click **Save**.
- **Reboot** the system.
- Return to the Network Configuration to check what the current IP address is. It will be listed under Current Configuration >> IP Address.

	_	Device Parameters X
Information General	Set network paramete (e.g. IP address, port,	ers of the device
Camera	Network Settings	
Network 🔸	General Advance	d Settings
📕 Alarm	NIC Type:	10M/100M/1000M Self-ac ~
👤 User	Device IP Address:	192 168 0 99
HDD	Subnet Mask:	255.255.255.0
A Exception	Gateway:	192.168.0.1
Eila	MAC Address:	00:40:48:ca:f8:87
	MTU(Byte):	1500
🔛 Log	Device Port:	8000
🕋 Holiday	Multicast Address:	0.0.0
↔ Others	HTTP Port:	80
	RTSP Port:	1026
Channel Zero		
🔁 Resource User		
Reboot Restore	Factory Settings Imp	ort Configuration File Export Configuration File Save

Fig. 8

\*\*\* Check the **DHCP** radio box, and click **Apply**.

#### Using Internet browser (LAN)

- Login to the device by entering its Local IP address:port number (http://192.168.1.10:80) in the address bar of the Internet browser.
- Check the DHCP radio box, and click Save (Fig. 9)
- **Reboot** the system.
- Return to the Network Configuration to check what the current IP address is.

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http://192.168.1.10:80/	doc/page/main.asp	D - ⊇ → × Oconfiguration ×	n 🛧 😳
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		D3-1700NI-3P	
Live View Play	back Log	Configuration	admin Logout
Configuration	TCP/IP		
► Local Configuration	NIC Settings		
Remote Configuration     Device Parameters	NIC Type	Auto	
P Device Information	IPv4 Address	192.168.1.10	
► Time Settings	IPv4 Subnet Mask	255.255.255.0	
Camera Settings	IPv4 Default Gateway	192 168 1 1	
TCP/P	IPv6 Address	fe80::8ee7:48ff fe15:c87a	
···  PPPoE	IPv6 Default Cateway		
DDNS	IF VO Delault Galeway		
► Email	Mac Address	80:87:48:15:08:78	
→ SNMP	MTU	1500 Byte	
··· ► Port	DNS Server		
··· ► UPnP™	Preferred DNS Server		
	Alternate DNS Server		
I ► Alarm Settings			
··· ► Exception	Save		
→ User Management			
HDD Management     Maintenance			
Camera Management			
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Fig. 9

\*\*\* Check the **DHCP** radio box, and click **Apply**.

#### Step n3: Confirm your DVR Connection

Now you can check if the settings you did before are done correctly. Open the Internet Explorer browser.

- Type the IP address of the DVR in the Internet Explorer address bar (<u>http://192.168.1.10:80</u>)
- Internet Explorer will **prompt** you to install the Active-X control.
- Click Allow and install the Active-X control (Fig. 10)
- **NOTE:** When using Internet Explorer (64-bit) you'll need to download Active-X from our server: <u>www.hikvisioneurope.com/portal</u>
- Under <Technical Materials> look for <Software & Development Tools> and then check the following path: /Web Componets/Multi-brower web video componet for win64 v3.0.3.3 build120419\_en.

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Fig. 10

\*\*\* Click **Allow** and **install** the Active-X control.

• The user login interface will be displayed (Fig. 11). Now you can **enter** the correct **user name**, **password** and **port**. The default login information is:

user name: **admin** password: **12345** port: **8000** 

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	User Name Password	
	CHikvision Digital Technology Co., Ltd. All Rights Reserved.	

\*\*\* Enter the correct user name, password and port.

• After successfully log in the next interface will appears and you can choose your display layout configuration (Fig. 12)

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\*\*\* Enter the correct **user name**, **password** and **port**.

• Select a square where you want to preview 1<sup>st</sup> camera. Then click on the camera you want to preview in Live View (Fig. 13). In order to populate the Live View do the same thing for the rest of the cameras.



Fig. 13

\*\*\* **Select** a square then **click** on the camera.

#### Step n4: Port forwarding your router:

By enabling bellow ports to be forwarded to a device's IP address on your local network router it will provide users with remote access to the device from the internet. For more information about Port Forwarding please refer to <u>http://portforward.com/</u>

By default Hikvision devices uses the following 4 ports:

- Device: 8000
- HTTP: **80**
- SDK: 8200
- RTSP: 554



\*\*\* Hikvision devices use the following 4 ports: **8000, 80, 554, 8200**.

Once you have accessed the router's web-interface successfully follow the next steps to guide yourself to the port forwarding option (normally NAT). Once in this option forward the ports mentioned above. Note that every router is different and the configuration can vary from model to model. A very helpful site is: <a href="http://www.pcwintech.com/port-forwarding-guides">http://www.pcwintech.com/port-forwarding-guides</a> but also you can refer to your ISP provider and router manual.

# Helpful Tip:

- If you are unable to access the default router IP address use the "*Default Gateway*" IP address (normally 192.168.1.1)

- A reboot and reset of the default router settings may be necessary.

#### Step n5: Confirm your device Remote Connection:

Open an Internet browser and visit the website (Fig. 14): <u>http://www.yougetsignal.com/tools/open-ports/</u> The open port checker is a tool you can use to check your external IP address and detect open ports on your connection. This tool is useful for finding out if your port forwarding is setup correctly or if your server applications are being blocked by a firewall.

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	・ P マ 図 C × 🔞 Open Port Check Tool - Tes	s ×	ि ☆ 🥸
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your external address         213.247.117.42         open port finder         Remote Address 213.247.117.42         Port 6000 is open in 213.247.117.42         Port 6000 is open in 213.247.117.42         Port 6000 is open in 213.247.117.42         Is your router causing you massive grief? Try tick         Follow me on Twitter @kirkouimet to see other th         Follow me on Twitter @kirkouimet to see other th         Image: The open port scanner to scan your network for primportant to note that some ports, such as port 2 attempt to prevent malicious activity.         For more a comprehensive list of TCP and UDP           If you are looking for a software solution to help you	ort Numbe 6000 Check 2. ing up a cheap Netgear N600 on Amazon or had to reboot it. Port forwarding is a breaze to ings I'm working on. Heck your external IP address and detect open ding out if your port forwarding is setup lockad by a firewall. This tool may also be ports that are commonly forwarded. It is 5, are often blocked at the ISP level in an boots, check out this Wikipedia article.	22 SSH 23 TELNET 23 STH 25 SMTP 30 HTTP 30 HTTP 115 SFTP 139 NetBIOS 139 NetBIOS 139 NetBIOS 139 NetBIOS 143 IMAP 144 SS 143 IMAP 144 SS 143 IMAP 144 SS 143 IMAP 143 IMSSOL 3306 MySOL 3309 Remote Desktop 6532 PCAnywhere 5530 VNC 6112 Warcraft III Scan All Common Ports	E
trý using this powerful Port Forwarding Wizard.	(VPal) et Transparency		-
			Fig. 14

\*\*\* Visit the website http://www.yougetsignal.com/tools/open-ports/.

1. Enter port number '80' (or your http port) in the Port Number field.

2. Click the **Check** button. If the port is forwarded correctly then status will be show as open.

3. Repeat step 1 and 2 for the other ports 8000, 554, 8200 (or your own ports).

4. If all ports are forwarded properly you can use the external IP address to connect remotely to your device from outside the local network (LAN).

5. In order to test it you can ask someone remotely to connect to the external IP address via Internet browser, the login information will be the same as the DVR.

For further information or if you need help with the above steps please feel free to contact Hikvision Technical Support.