NVR Network Video Recorders Series DN

NVR for IP cameras ONVIF

Installation manual

How to connect components

How to perform the network configuration

Contents of this handbook

The range of VCRs DN series is designed to allow the management and the recording of IP CCTV cameras based on ONVIF protocol.

This manual describes how to properly install the NVR and how to make the network connections to access the VCR remote.

Product description

The DN series network video recorders are digital video recorders intended for video surveillance systems to IP. This type of equipment, also known as NVR (network video recorder) is used to view, manage and videotaping IP network cameras.

The DN range can handle all IP cameras based on the international standard protocol ONVIF, whether of our manufacturing or other manufacturers, up to a maximum FullHD 1080P resolution.

E 'can use our IP network cameras also
no NVR as they are already able to record on PC (software provided), or NAS Integrated SD card. However, the NVR makes it simple and straightforward system configuration and makes it possible to use the system without using a computer.

main Functions

The NVR DN series are the latest generation of video recorders that can integrate all the latest functions required by video surveillance applications over IP.

LIVE VIEW

The NVR series DN feature a variety of video outputs for displaying the cameras in real-time. E 'can connect the computer monitor to the VGA port or HDMI video output of TV sets. It is high-resolution outputs able to make the maximum FullHD resolution.

It 'also available traditional analog video output BNC type whose resolution, however, is much lower than previously and should be used only for service purposes. And 'possible to view each camera full screen, the cyclical scanning and multivision

4, 9 or 16 cameras simultaneously.
The optimum monitor video format is widescreen 16: 9 However, you can also use the monitor in various formats such as 4: 3.

RECORDING VIDEO / AUDIO H264

The recording takes place with H264 compression in continuous mode, motion detection or alarm, with a time-controlled. The audio and video are synchronized.

100% REAL TIME

Unlike more economic end appliances, the NVR DN series are always able to record all channels FullHD1080P at maximum resolution and maximum frame rate of 25 F / sec to provide increasingly higher level of quality images.

PLAYBACK AND BACKUP

The NVR have different search systems to enable quick handling of recordings. Use the time line allows you to move quickly between times of the day. Through the USB port you can be connected to external storage media such as USB drives, external hard drives, etc. and save the interest clips in AVI format.

Playback allows modes: Slow motion, fast forward, reverse playback and frame by frame playback. During video playback, the time and date can be displayed on screen.

INTELLIGENT DIGITAL ZOOM

E 'can easily zoom in on details by using the mouse wheel on the screen, both in real-time view that in recordings playback.

CONTROL WITH MOUSE AND MENU IN ITALIAN

All functions are controlled with the mouse in a simple and quick. The usage and configuration menu is entirely in Italian and does not require time for learning.

Hexaplex

NVRs are able to continue recording during playback of recorded files, viewing real-time, remote access, backup, configuration etc.

PTZ CONTROL

The NVR support the PTZ control of motorized cameras speed dome directly through the onvif protocol, or through the RS485 port. The camera's movement is easily controlled via the keyboard, remote control, mouse, and even in remote access from a PC or mobile phone.

INS AND OUTS OF ALARM / MOTION DETECTION

The NVR have a rear terminal where there are an external input for each video input to connect contacts, sensors etc. E 'available also an alarm output to activate emergency devices such as horns, lighting etc. E 'can also generate alarms based on motion detection.

NETWORK FUNCTIONS

Through the network port can be remotely monitored in real time, searching and playback of video stored remotely and control PTZ Speed Dome cameras. And the complete configuration of programming 'also possible.

Remote access is done from a PC using the Internet Explorer browser or the supplied software centralises management of the NVR. E 'can also access by mobile phone or tablet with the free application.

ALARM FUNCTIONS

In case of alarm it is possible to generate a variety of actions such as, the buzzer alarm output activation or the recall of preset positions of the speed dome cameras. E 'can also send e-mail and real-time notifications.

REMOTE CONNECTION P2P

The NVR DN series include P2P / CLOUD technology that allows you to connect through your Intenet without the need to subscribe DDNS services, or to program the mapping of router ports.

Major Specifications

	DN-IP4	DN-IP9	DN-IP16
Type of camera	IP	IP	IP
Video inputs / Audio	4	9	16
Auxiliary Audio Input	1 RCA	1 RCA	1 RCA
HDMI Video Output	1	1	1
VGA video output	1	1	1
BNC video output	1	1	1
HDMI Output Resolution	1080P	1080P	1080P
VGA Output Resolution	800x600 1024x768 1280x1024 1440x900 720P 1080P		
BNC Output resolution	PAL D1	PAL D1	PAL D1
audio Output	1 RCA	1 RCA	1 RCA
Network port	1 RJ45 10M / 100M		
Serial port for PTZ	RS485	RS485	RS485
USB Ports	3	3	3
mouse Support	Yes	Yes	Yes
Alarm inputs	4 NO / NC	4 NO / NC	4 NO / NC
Alarm outputs	1 NO / NC	1 NO / NC	1 NO / NC
standard Video	PAL / NTSC	PAL / NTSC	PAL / NTSC
video Compression	H.264	H.264	H.264
audio Compression	ADPCM	ADPCM	ADPCM
Recording resolution	D1 (704x576), HD1 (704x288), CIF (352x288) WD1 960H (960x576), 720P (1280x720), 1080P (1920x1080), SXGA (1280x1024), 960P (1280x960)		
Frame rate per channel (f / sec)	25 f / sec per channel (real time) at full resolution		
Total Frame rate (f / sec)	100 f / sec	225 f / sec	400 f / sec
Dual stream	Yes	Yes	Yes
Hexaplex	Yes	Yes	Yes

Consumption (excluding HDD)	16-18W	16-18W	16-18W
Supply	12VDC 4A	12VDC 4A	12VDC 4A
modular rack unit	1U	1U	1U
Dimensions (mm)	335x252X50		
Locations for Hard Disk	2 SATA	2 SATA	2 SATA
Capacity max. Hard Disk	3 TB	3 TB	3 TB
acessori included	Mouse, power supply 220VAC / 12VDC, remote control		
Weight kg.)	2	2	2
temperature function	- 10 to + 55 ° C	- 10 to + 55 ° C	- 10 to + 55 ° C

front Panel

The NVR NVR keyboard allows control of all its functions. However, it is also very practical menu to use than the mouse and therefore its use and only recommended in applications where the mouse is not physically used. On the front panel there are also some LEDs that give an immediate idea of the device status especially useful if the display is not connected.

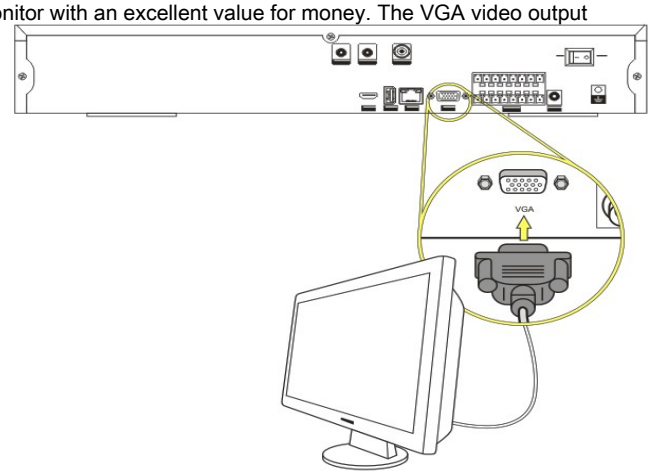
1 - KEY MENU - Accesses the configuration menu. Even function ENTER / CONFIRM 2 - BUTTON EXIT - Exits the displayed window function EXIT / CANCEL 3 4 5 6 - ARROW KEYS - Used to navigate the screen options. 7 - REC BUTTON - Opens the Settings page of the recording modes. Note that the security video recorders is not necessary to press the REC button to record but you set the recording mode based on the time and day. 8 - KEY PLAY - Opens the playback window for searching movies stored 9 - REC LED - signal that is being recorded in continuous mode, motion or alarm 10 - LED ALARM - E 'being an alarm event (motion , input or technical event) 11 - LED POWER - Signal the NVR in operation.

Connections

The connections of the NVR are located on the back.

1 - OUTPUT BNC - BNC monitor output for connecting a monitor PAL analog CCTV yet the AV input of a TV. It is an auxiliary monitor port in standard PAL resolution, much inferior to the other VGA and HDMI video outputs. He therefore recommends the use only for technical purposes and not as the primary monitor.

2 - AUDIO OUTPUT - mono RCA audio output for connecting an external speaker that allow you to hear the audio of the live cameras and recordings. 3 - VGA OUT - Used to connect a PC monitor. It is a door in high resolution up to 1440x900 and even HD and FullHD. The PC monitors are now the best solution if you are looking for a monitor with an excellent value for money. The VGA video output resolution



sets in

configuration of NVR. It must take great care to set resolutions supported by your monitor, because if the resolution does not prove you supported

obliged to connect another BNC or HDMI monitor to be able to modify. Special attention must be made before choosing the 1080p and 720p options that not all PC monitors are capable of handling.

4 - HDMI OUTPUT - Used to connect a FullHD monitor with HDMI input. It is a high-resolution brings FullHD used among other things as all the latest generation of TV sets. The HDMI output is always recommended, especially if you want to connect a large monitor.

5 - AUDIO IN - auxiliary audio inputs for connecting an audio input which can be useful if you are using two-way audio. Unlike analog cameras, IP cameras in the audio management coming from the camera does not require a separate entrance as the audio is embedded in the digital stream.

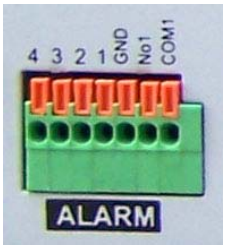
6 - NETWORK PORT - RJ45 connector to connect the NVR to a LAN 10M / 100M network. Before using the LAN connection set network parameters in the DVR setup menu. In NVR the network connection is crucial because it is the only communication port toward the implant devices. Check that the yellow and green LEDs light up both when connected to the switch the NVR.

7 - USB PORTS - The NVR is equipped with two rear USB ports. An additional USB port is located on the side next to the keyboard. On the USB ports connect the supplied mouse, and USB storage devices such as USB HDD or USB flash drives for backing up movies. The ports are all the same so you can connect the mouse to the door of your choice, but you should use a back door to leave the side door, easier to access, free to insert removable drives.

8 - PORT RS485 - From the RS485 port part on the bus going to control PTZ or speed dome cameras and that enters and exits from each camera by connecting them in cascade to the last. The RS485 BUS is performed with a twisted pair that connects to the terminal RS485A and RS485B. Take care to respect the order of the connections A (+) and B (-) in all cameras NVRs DN series PelcoD support the protocol used by the DSE speed dome cameras, and various other protocols from other manufacturers. Note that this RS-485 connection does not serve to control speed dome DSE IP cameras that are controlled directly via the network connection without the need for this additional wiring.

9 - 12VDC - Power connector where you can connect the power adapter included 10 - ON / OFF - Power switch

11 - ALARM INPUTS - are available 4 alarm inputs progressively numbered. In the configuration of the NVR is possible to determine whether the alarm condition is determined when the contact is closed (NO) or open (NC). The contact that determines the alarm should be connected between the alarm terminal (1,2,3,4) and the GND terminal



12 - The alarm output is used to control external devices such as audible warning devices or lighting to be activated in case of alarm. The output is a normally open contact between the terminals NO1 and COM1.

Installing the Hard Disk

Because the NVR is capable of recording you need to install a hard drive inside the equipment. The NVR is always supplied without a hard disk, so the first step needed is the install disk.

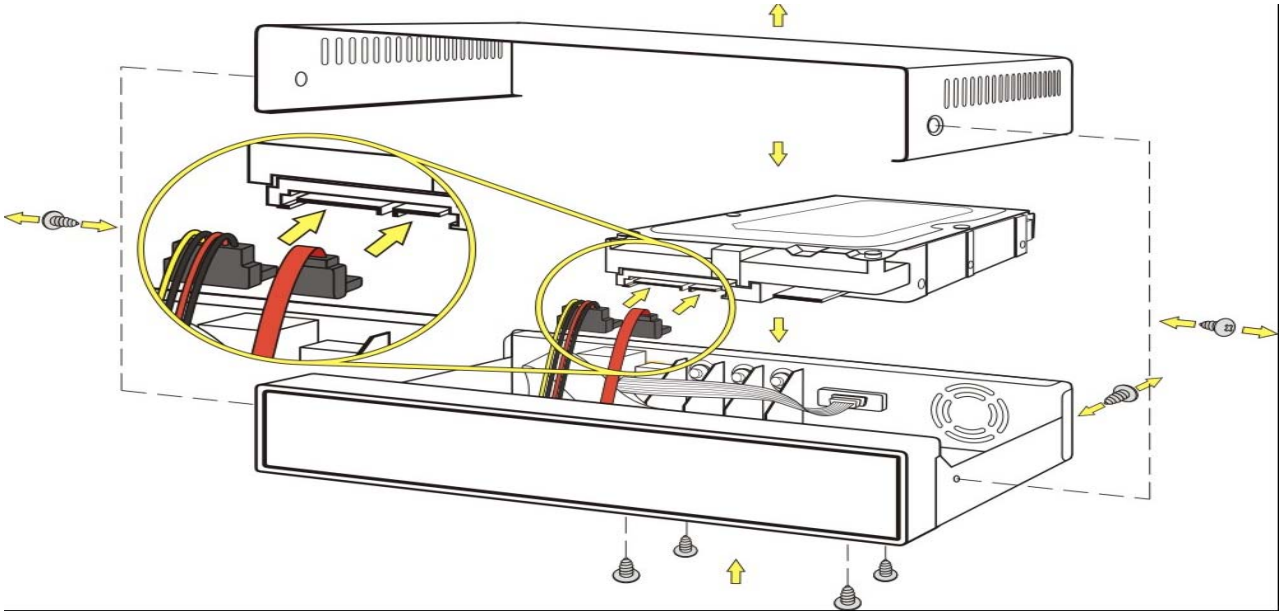
The NVR can accommodate 1 or 2 Hard disk of any brand provided with SATA connector. There **maximum manageable capacity of 3000 GB (3 TB)** for each HDD. Proceed with the installation of the hard disk as follows:

1. Turn off the appliance open the VCR by removing the top cap by unscrewing the lateral fixing screws.

2. Attach the hard disk unit in its seat by means of the fastening screws.

3. Connect the red SATA cable for data and power cable between hard drive and motherboard.

4. Close the appliance with the lid by screwing the screws.



WARNING: Before you start recording you should use the **physical formatting** the hard disk in the programming section CONFIGURATION / DISK MANAGEMENT / HDD. See the instructions in **Configuration manual.**

Mouse Installation

The NVR DN series is mainly controlled with the mouse included. The mouse is connected to a USB port of the NVR. You can connect the mouse to the USB port of your choice, but you should use a back door to leave the side door, easier to access, free to insert removable drives.

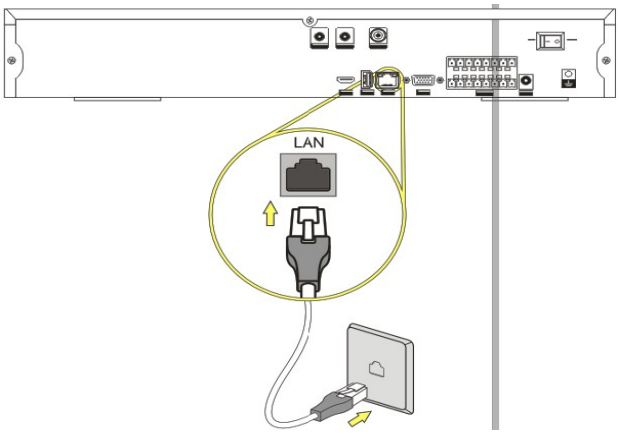
The mouse can be connected to hot-swap, with the NVR in operation.

The functions of the NVR can also check
using the remote control or even only with front buttons on the keyboard. But this is less intuitive methods of control so it is advisable to always provide, where possible, the installation of the mouse.

This manual always refers to **Control of the NVR via the mouse.**
Note that while you are controlling the NVR with the mouse is being recorded for the CPU involved in coding can occasionally cause delays in the perception of mouse clicks.

Network Configuration

The NVR video recorders are network where all communication between the device and the camera passes on the LAN.



The first thing to do in order to use your NVR is therefore connect the mains to a network switch and configure it correctly in order to communicate with PCs and cameras. To connect to a LAN network, such as first thing you need to connect the rear network port to a port on the network using a cable swicth

law-based network. As soon as you plug the cable yellow and green LEDs placed on the connector of the switch and the door of the NVR should go on. If you do not monitor the proper functionality of the cable.

IP ADDRESS ASSIGNMENT

The NVRs are supplied with factory automatic address assignment (DHCP). This means that once connected to the network automatically acquire the network parameters from a DHCP server, typically your router or network switch. This mode, although with a very simple hand, it is not advisable in video surveillance applications since the NVR might following a restart modify its own address and it would be necessary to reconfigure many settings. It 'much more should be assigned to the NVR a fixed address that does not run the risk of change.

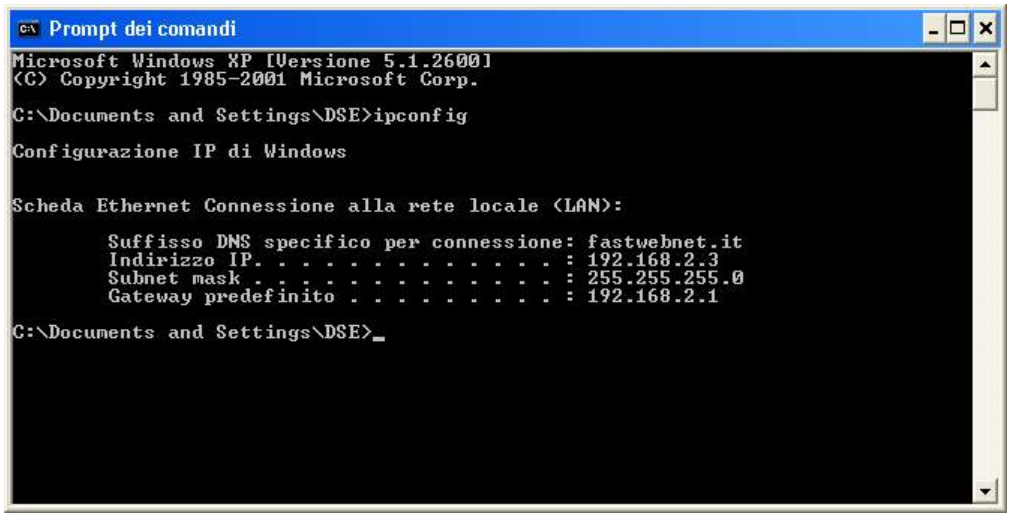
Before you must obtain from your network some information about the management of the IP addresses used on your network. E 'need to know an IP address can be assigned to the NVR that is not equal to any other existing network device. The first 3 digits of the IP address must be the same ones used by the other computers, otherwise there will be communication between network components.

KNOW THE PARAMETERS OF COMPUTER NETWORK

If you are uncertain about the operation of your network and you do not know the IP address assigned to the NVR can use certain commands in DOS PROMPT

On a PC networked launched a DOS window available between the Windows accessory programs.

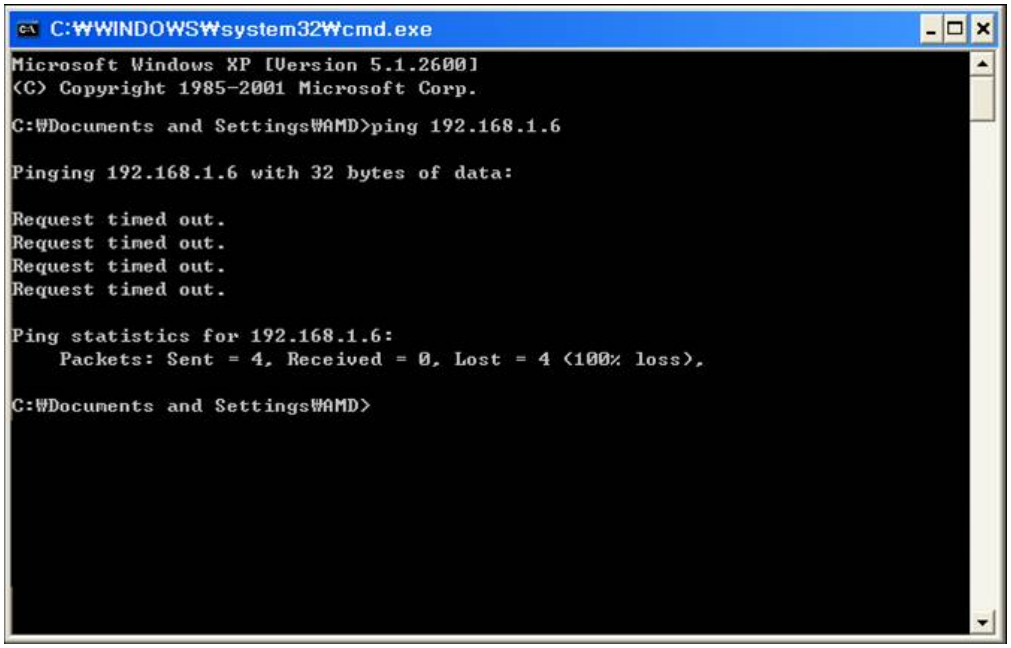
Type IPCONFIG at the command prompt and press ENTER. They will see the TCP / IP parameters. The second line is the IP address assigned to your computer.



In the above example the address of the PC on which you are working is 192.168.2.3 and the subnet mask used is the classic 255.255.255.0. Al NVR can therefore assign an address chosen by the 192.168.2.XXX type, where XXX stands for a number between 0 and 255. E '

important **choose an address that is not already used by other devices** of network. To verify that the chosen address is free, try to make a PING from the same DOS window by typing PING followed by a space and by the IP you wish to assign to the camera. Press ENTER. If there is no device responds to that address, you will receive 4 REQUEST TIME OUT. In this example you are occurring that does not exist in a network device with IP address 192.168.1.6 typing: PING

192.168.1.6



The 192.168.1.6 address is available for use and assigned to the NVR.

KNOW OF THE PARAMETERS NVR NETWORK WITH DHCP

Although the automatic IP assignment in DHCP mode is not recommended in surveillance it is enabled factory in the NVR and because it allows you to connect the NVR network with the certainty of not creating any conflict, both because it allows you to immediately know the parameters network that we can assign to our NVR.

If we connect the 'NVR to the network and we go into the OSD setup SYSTEM / NETWORK section already find the network parameters correct page for our NVR

We will only have to disable the DHCP assignment and enable manual assignment by copying the data that the DHCP server had assigned automatically.

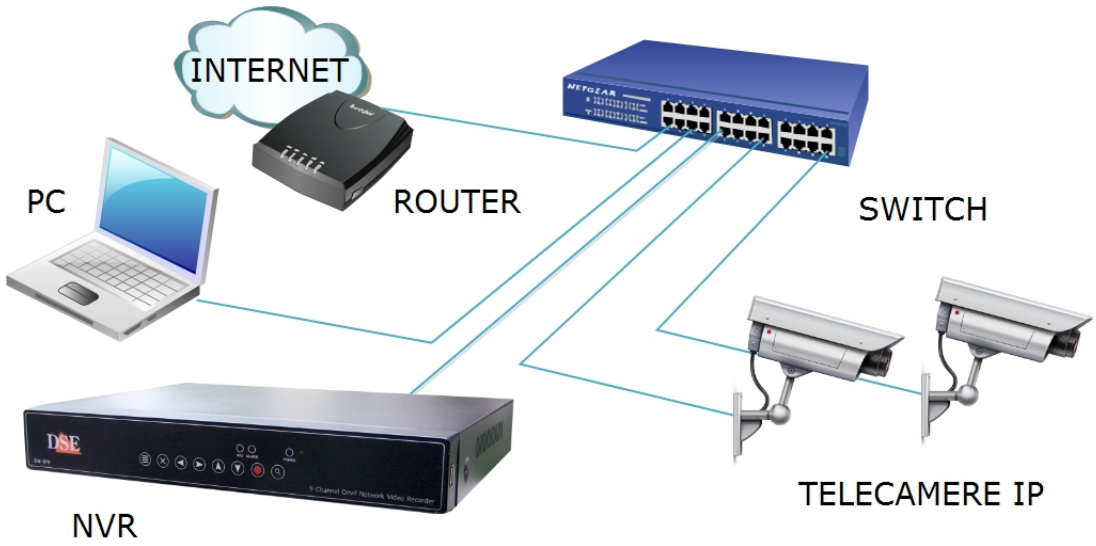
NETWORK CONFIGURATION COMPLETED

If you have assigned to your NVR a fixed IP address and the correct subnet mask used by the network can already groped the first link from another PC on the network. To complete the network configuration is however advisable to also enter the gateway to the Internet, as a rule the xxx.xxx.xxx.1 address, and DNS server address of your provider to enable your NVR to access Internet sites.

Configuring cameras

This manual assumes that the system's IP cameras have already been installed on the network and are fully functional. For this situation it is necessary to make use of the manuals supplied with the cameras to configure IP addresses. Once connected to the NVR in the network will need to provide the connection data to reach the IP cameras in the system.

In a very simplified view an IP camera system can be outlined as follows.



If the cameras are properly configured on the network, each with its own IP address, you can proceed with the configuration of the NVR cameras.

AUTOMATIC CONFIGURATION OF CAMERAS

The NVR RN series are able to automatically search the network for all DSE IP cameras and all cameras be able to properly manage the ONVIF protocol. Note that the NVR is not able to recognize IP cameras with not consistent with what the NVR IP address, that is, with an address class (first 3 address numbers) different. If you have not yet made the IP address of the cameras consistent with your network equip the camera manual and use the supplied configuration software of the same.

To configure the cameras must start the NVR and move the mouse to the bottom of the screen to bring up the command bar. Then click the bottom right icon to access the configuration of the IP cameras.

The camera configuration window is divided into two parts: an upper and a lower. In the upper section lists the cameras that the NVR is present in the network provided of course that share its network settings (IP address Class, Subnet Mask, etc). In the lower section lists the channels of the NVR.

At the opening of the window NVR automatically starts to search for the IP cameras on the network and lists them on the top section. If you want to change the IP address of a camera you can do it with the CHANGE IP button. If you add the cameras and want to update the search you can press the REFRESH button.

To load a camera in the NVR highlight it with the mouse and press ADD. This will open the already completed the camera setup window with data that the NVR has been able to detect.

LIVE LOCAL - Select which channel NVR associate with the IP ADDRESS camera - Show the camera address

RESOLUTION - Select the video resolution among those made available by the camera DOOR - Set the HTTP communication port standardizing it to set the camera port (default port 80 in the DSE cameras)

USER - Set the username to access the camera (default ADMIN in DSE cameras)

PASSWORD - Set the password to access the camera (default ADMIN in DSE cameras)

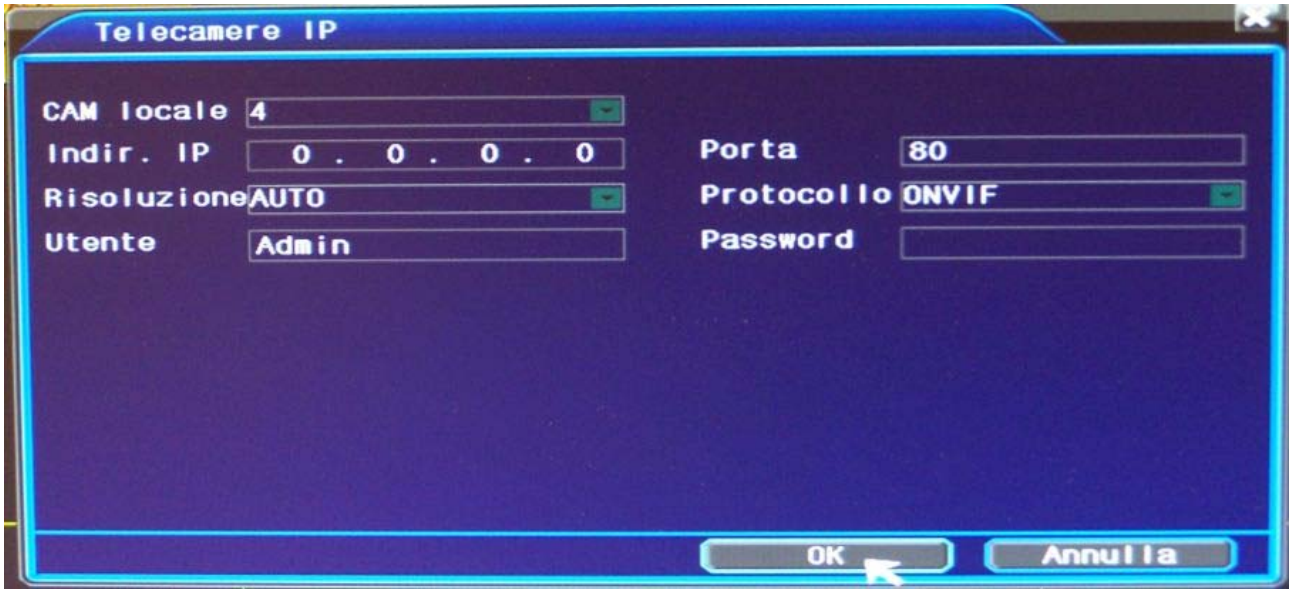
PROTOCOL - Select the communication protocol ONVIF

Press OK to load the nell'NVR camera and do the same for all remaining cameras.

MANUAL CONFIGURATION OF THE CAMERAS

The automatic search is able to detect all ONVIF cameras connected to the same network as the NVR. If a camera is not detected within the NVR its network settings local network check and make sure that the correct media so ONVIF protocol. If the network camera is accessible from the PC and is not detected by the NVR evidently it does not fully support the ONVIF protocol.

To connect the NVR cameras placed on other networks or via the internet you can proceed with manual configuration by pressing the GUIDE button



ORGANIZATION OF THE CAMERAS

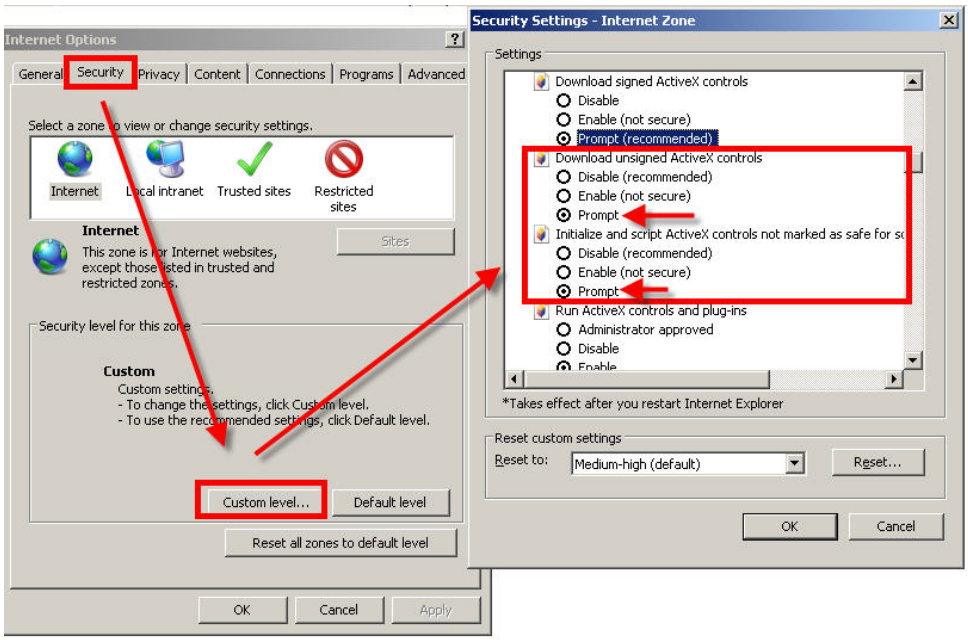
The Once all the cameras have been loaded nell'NVR you are listed in the lower part of the configuration window. E 'can change the placement of a camera by selecting it with the mouse and acting with buttons MOVE UP / Move Down'.

Connection with IE browser

The easiest way to connect to an NVR DN series through a computer using the Internet browser. The reference browser for use with DN NVR series **Internet Explorer** albeit with appropriate plug-in is also possible to use other browsers (see below).

ENABLE PERFORMANCE OF ACTIVEX

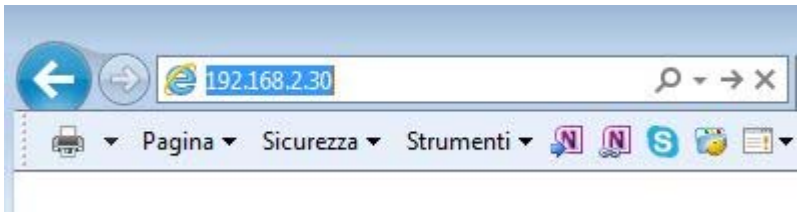
When you first connect the 'NVRs installed in the Internet Explorer browser the necessary activeX components. Without these components, your browser can not display the image. However, Internet Explorer contains security settings that may prevent the installation. Before attempting to connect must be enabled **download and execution of ActiveX not marked as safe.** In Internet Explorer, select TOOLS / INTERNET OPTIONS



In the folder PROTECTION choose the area of interest (Internet or local network) and click CUSTOM LEVEL. Enable all items for the download and execution of ActiveX particularly those NOT marked safe. E 'can set the items either ENABLE or ASK FOR CONFIRMATION. ASK FOR CONFIRMATION setting the browser will prompt you to click OK to confirm the installation of the component. Finally, save and restart the browser.

ENTERING THE ADDRESS OF THE DOOR AND WEB NVR

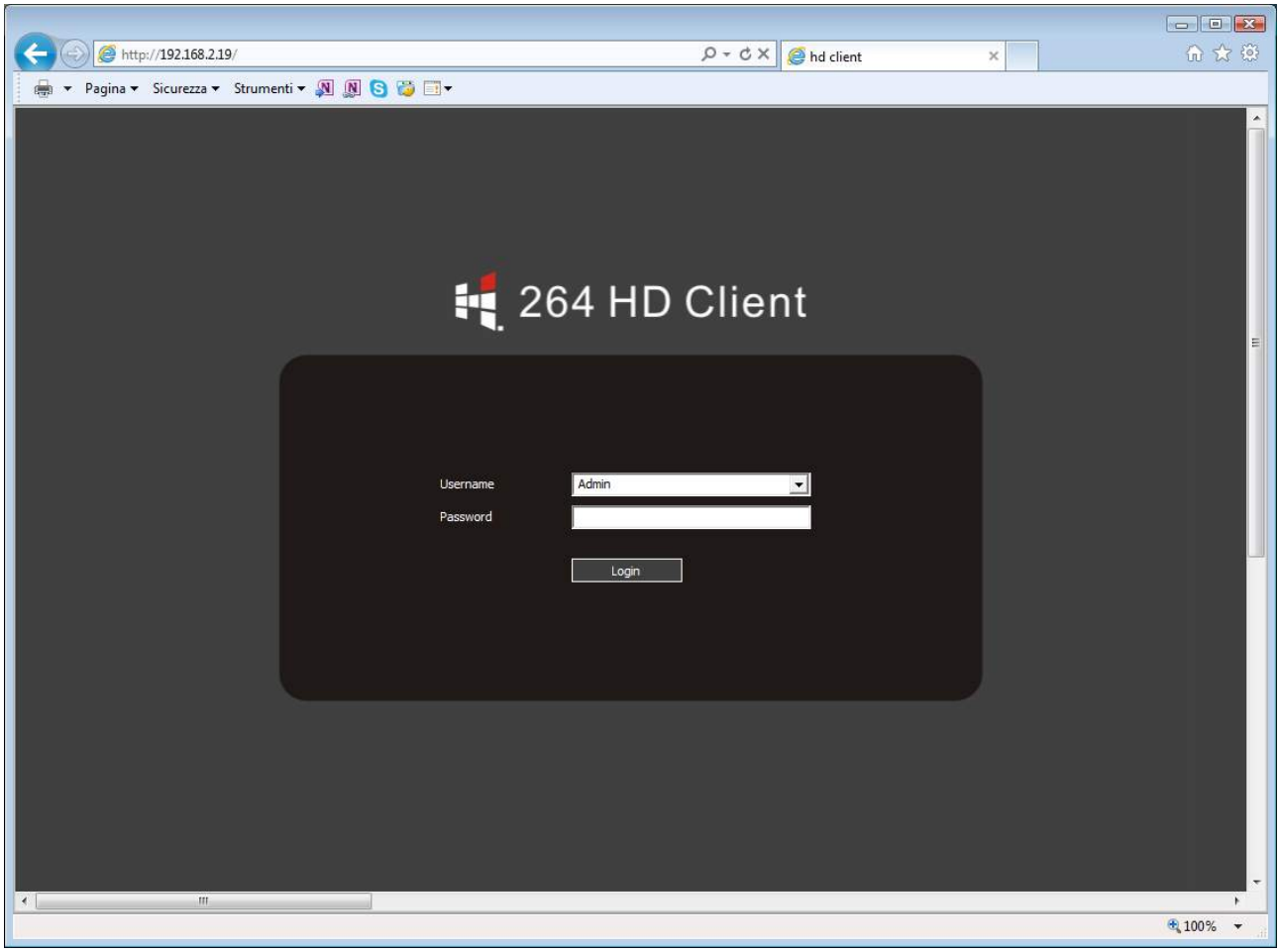
To access the NVR with Internet Explorer, type in the address box, the IP address that you assigned to the NVR. In the example below we provide a link on the internal network to the NVR with IP address 192.168.2.30.



All NVR DN series incorporate Factory WEB port 80. Port 80 is the one that browsers use if none is specified another.

Note that if you change the web port in NVR setting you will need to specify it in the address bar. The following after the IP address of the NVR web port is specified 85

It will present the log-in window of NVR

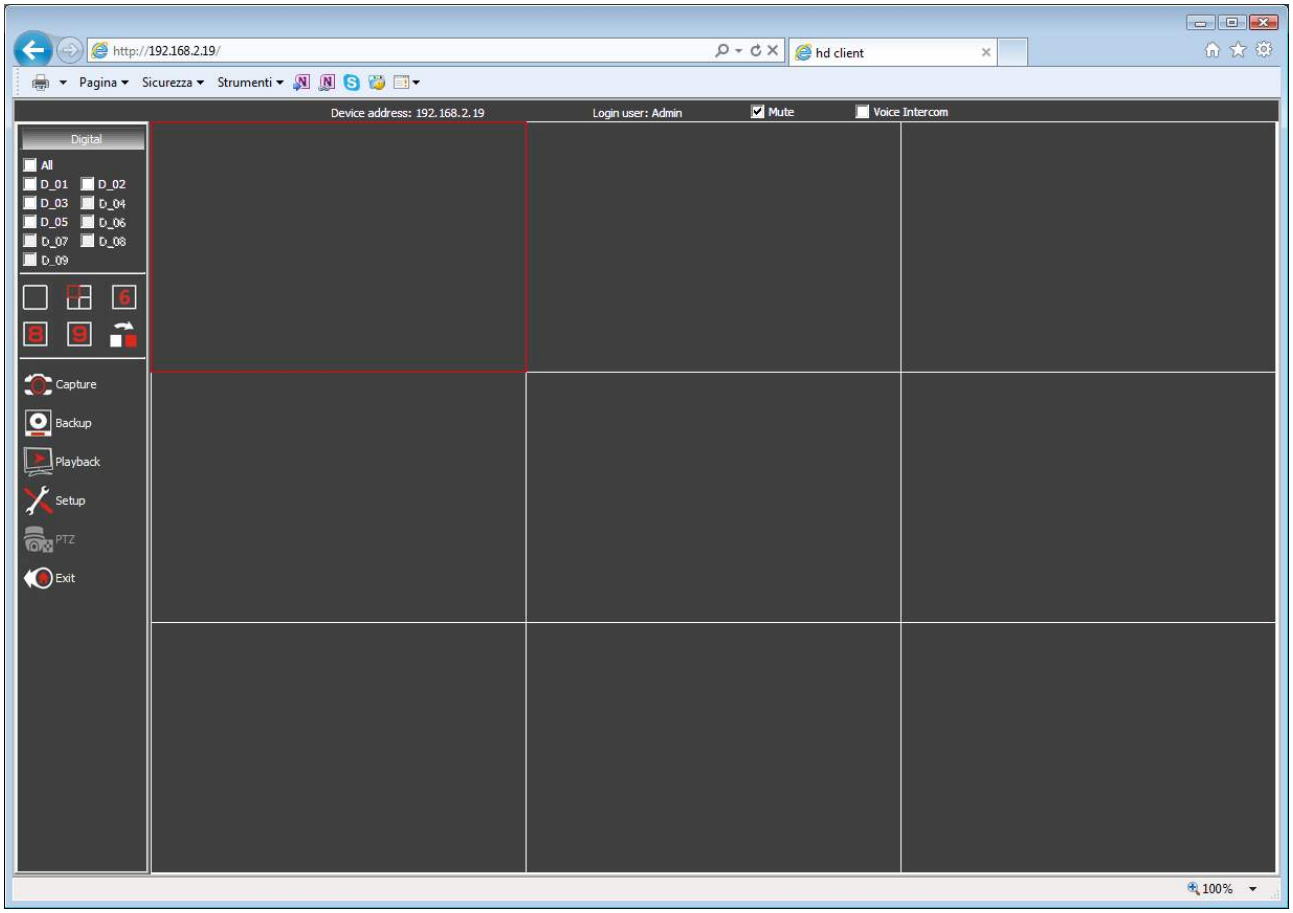


If you have not changed the factory can use user credentials: **Admin** and leave the password field blank.

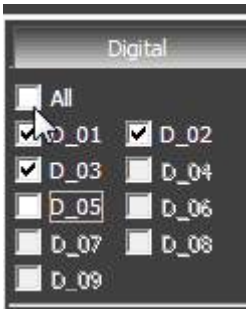
At the first access, depending on the security settings you have chosen there could be shown a confirmation request to install the component activeX where necessary to give consent. If the installation of activeX component does not happen the screen will be divided into quadrants, and not be necessary to review the Internet Explorer security settings and check some settings for the implementation of the activeX is not left disabled.

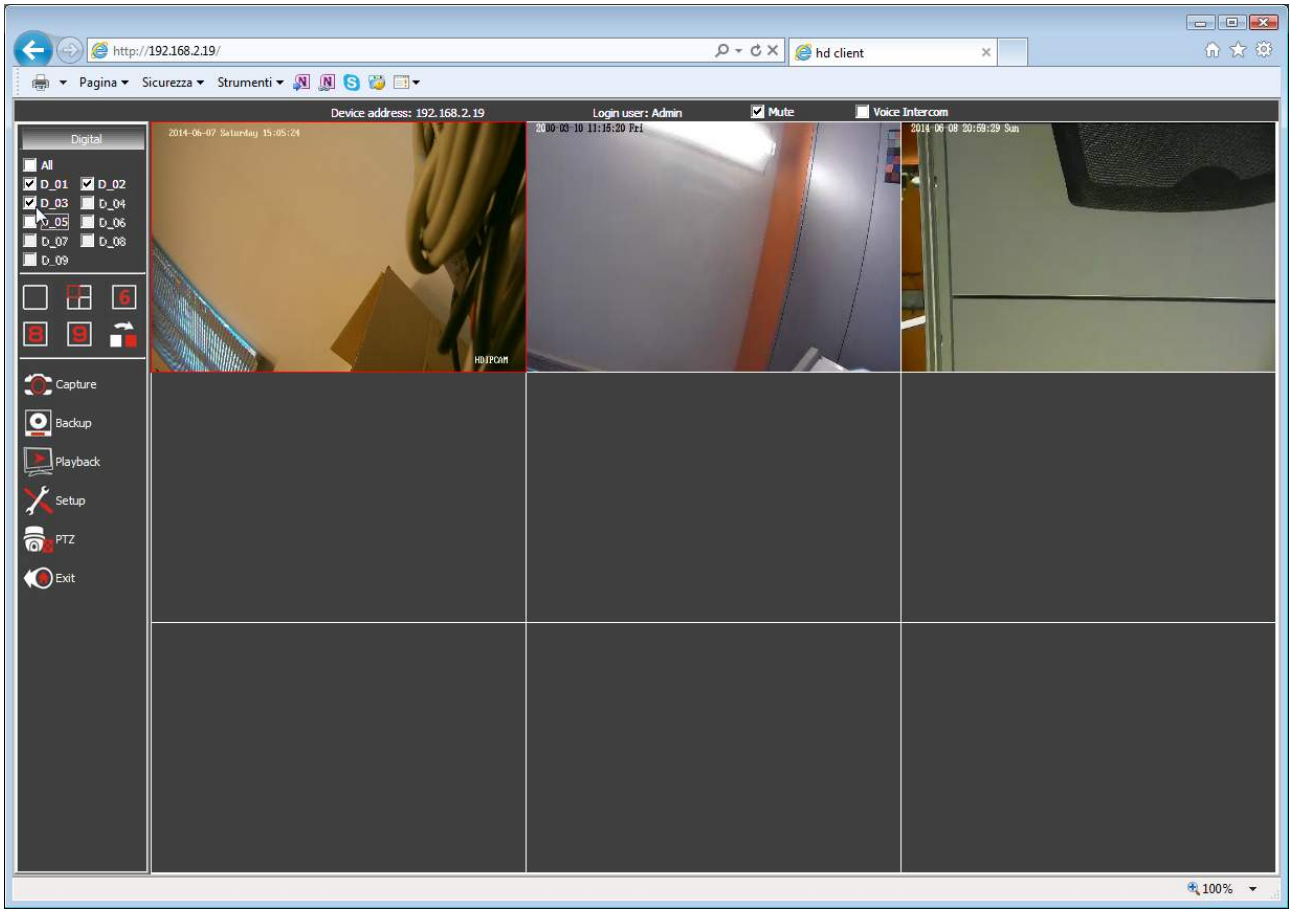
LIVE VIEWING

Here is the exemplary playback screen of NVR DN-IP8.

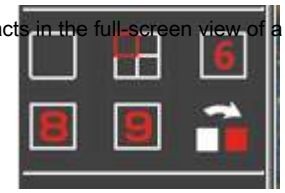


To start watching the cameras simply select ALL in the top left corner. In this way, the NVR will automatically open the channels for which a camera has been programmed. E 'can close and open each channel placing or removing the checkmark. There are accessible channels the NVR where it is not a camera configured.

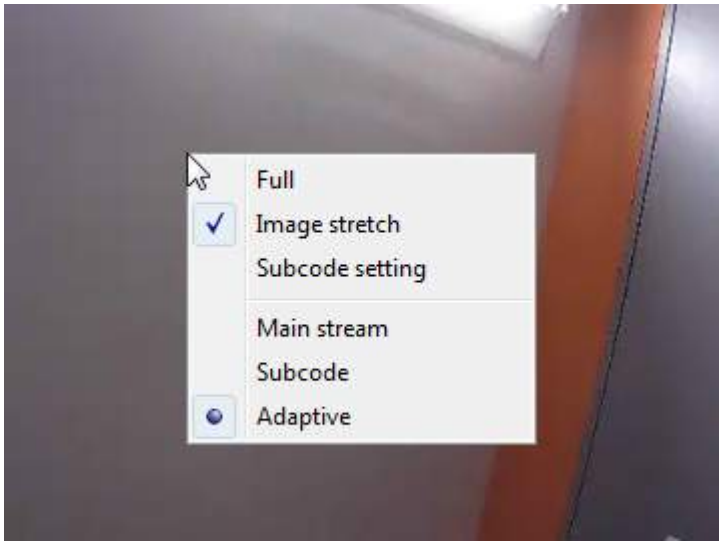




In the vision of the live cameras remotely it is possible to change the split screen as desired with the buttons that allow you to divide the screen into different modes depending on the number of channels of the NVR. The last button multivision acts in the full-screen view of a camera and allows you to move to the next channel.



By clicking the right mouse button on each image you can set the following options:

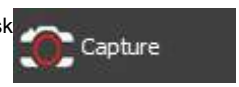


FULL - Take full screen IMAGE STRETCH - If enabled, the image windows are resized automatically to fill the available pane. If disabled it is always preserves the original aspect ratio. E 'can also change this setting in SETUP. SUBCODE SETTING - Allows you to adjust the camera settings substream (Frame Rate and Bit Rate)

MAIN STREAM / SUBCODE / ADAPTIVE - Allows you to choose whether to receive the main stream of the cameras (MAIN STREAM) or SUB-STREAM, more suitable in connection with insufficient bandwidth available, for example via the Internet. It 'also available ADAPTIVE option to automatically choose the stream to the client to be used depending on the bandwidth availability. E 'can also change this setting in SETUP.

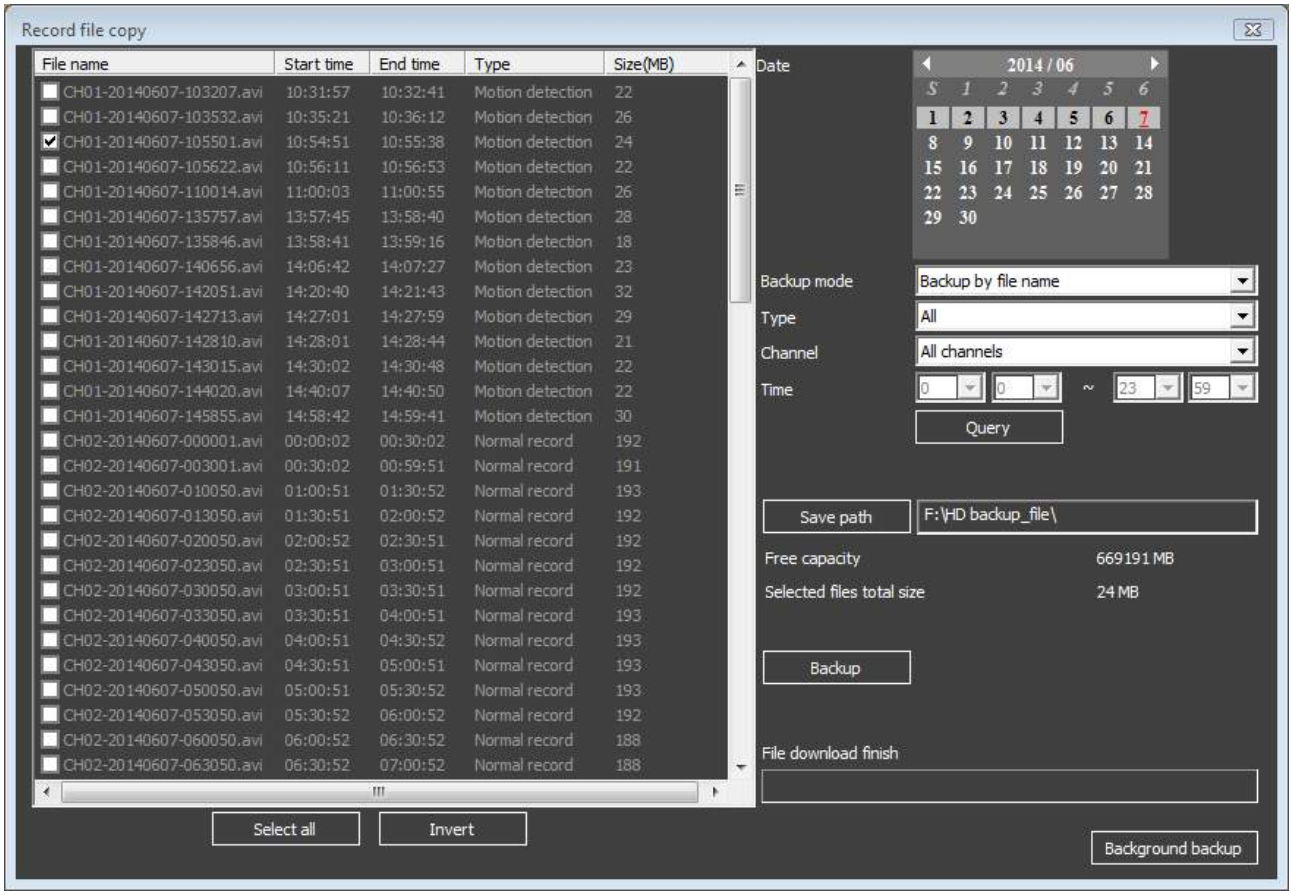
CAPTURE FRAME

During live view, you can press the CAPTURE button and save a photo of all the active channels in the hard disk of the local PC desk (BMP). The rescue persorso can be set in the SETUP section (see below)



BACKUP

The BACK button is used to download movies stored in NVR hard disk of the local computer.



The controls on the right allow you to search video files and then download them to your PC. DATE - Choose the day when you want to search the recorded video in the NVR BACKUP MODE - Sort video files to be searched by name (BY NAME) or by time (BY TIME)

TYPE - Lets you choose what type of recording to search (All, continuous, Motion, Alarm, technical Event, Blindness)

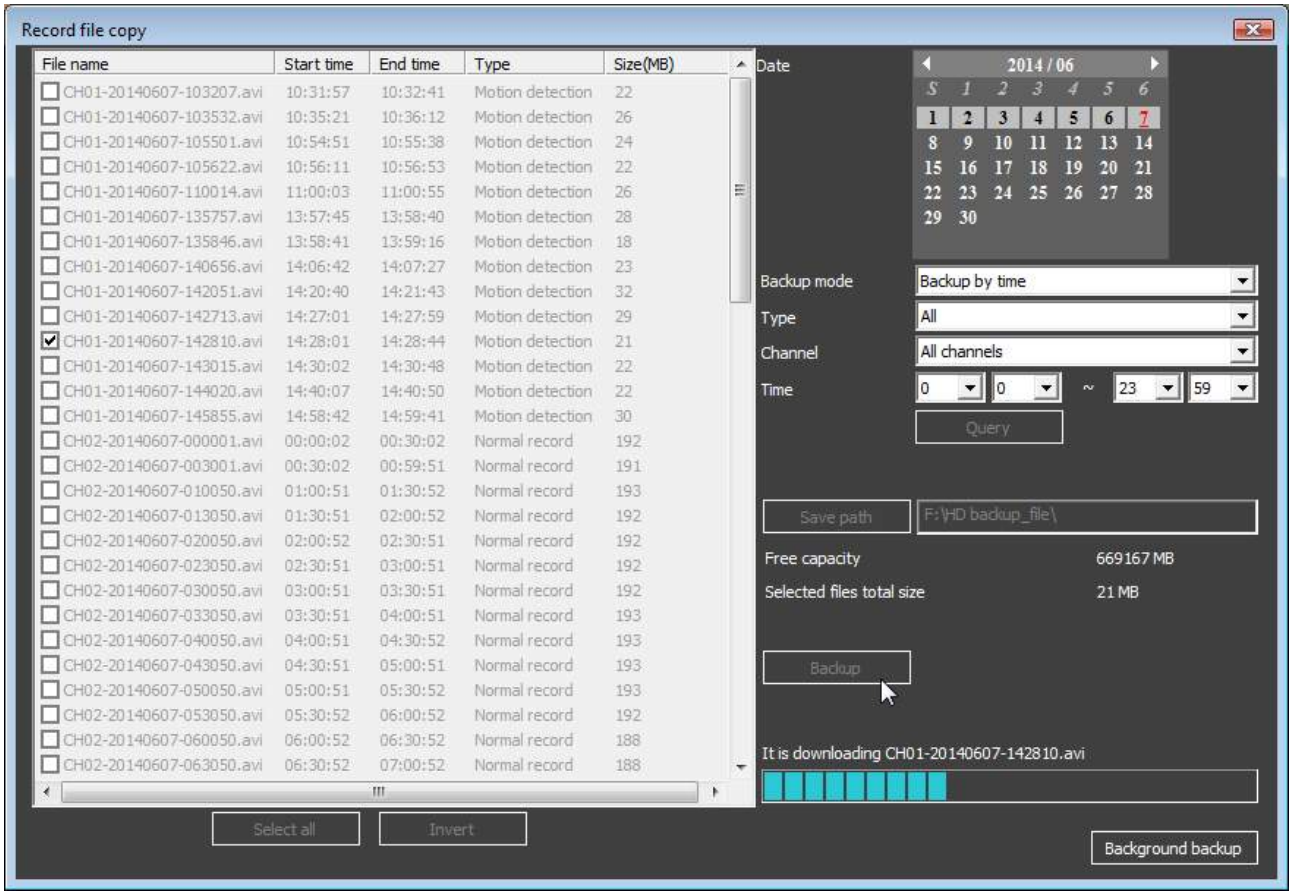
CHANNEL - Select the channel to search for recordings or leave ALL to search all channels.

TIME - Define the time of the search strip

QUERY - Press this button to start the search in the NVR memory. The list of recordings stored in the NVR will appear in the left window.

SAVE PATH - Choose the path to save the files

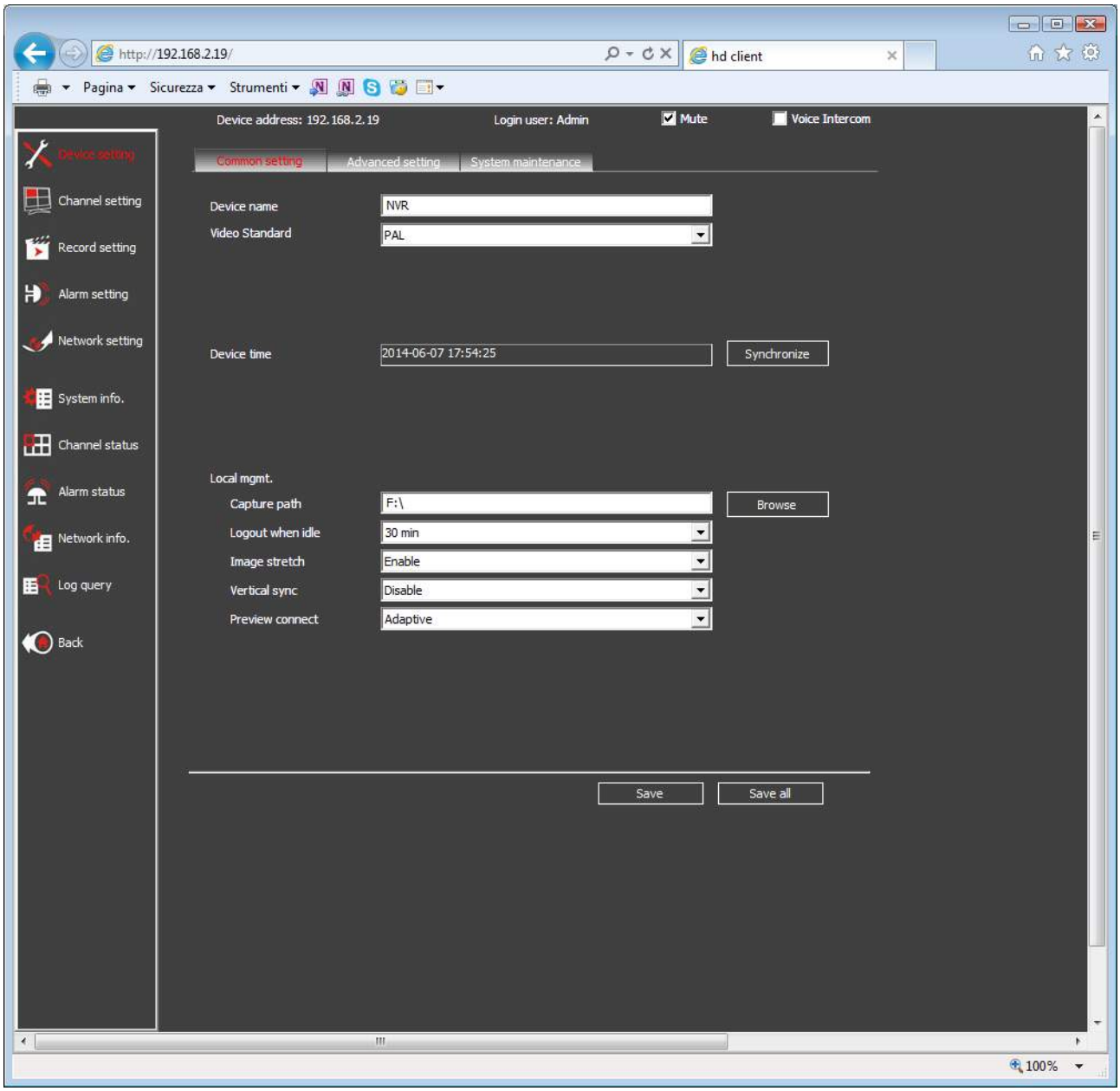
BACKUP - After selecting the files to be downloaded in the table on the left, press the button to start the download



The downloaded video files are saved on the NVR PC in AVI format to be able to be played by any player (WMP, VLC etc.)

SETUP

The SETUP button is used to access the remote configuration of the NVR. In this section you can program all the DVR configuration options, the same as they are configured in the local OSD device.



For details of each option refer to the configuration of the NVR manual. The only part of this section does not apply to the remote NVR is the section SETTING DEVICE / LOCAL MGMT. where they set up options regarding the behavior of the browser Internet Explorer Local.

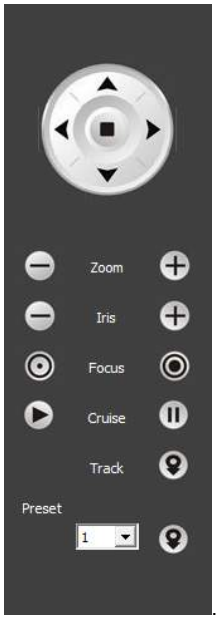
CAPTURE PATH - Define where to save fotogrammai caught with the CAPTURE button LOGOUT WHEN IDLE - Defines the idle time after which there will be the automatic logout from the NVR

IMAGE STRETCH - If enabled, the image windows are automatically resized to fill the available pane. If disabled it is always preserves the original aspect ratio. E 'can change this setting by clicking the right button on the live images.

PREVIEW CONNECT - Allows you to choose whether to receive the main stream of the cameras (MAIN STREAM) or SUB-STREAM, more suitable in connection with insufficient bandwidth available, for example via the Internet. It 'also available ADAPTIVE option to automatically choose the stream to the client to be used depending on the bandwidth availability.

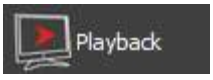
PTZ

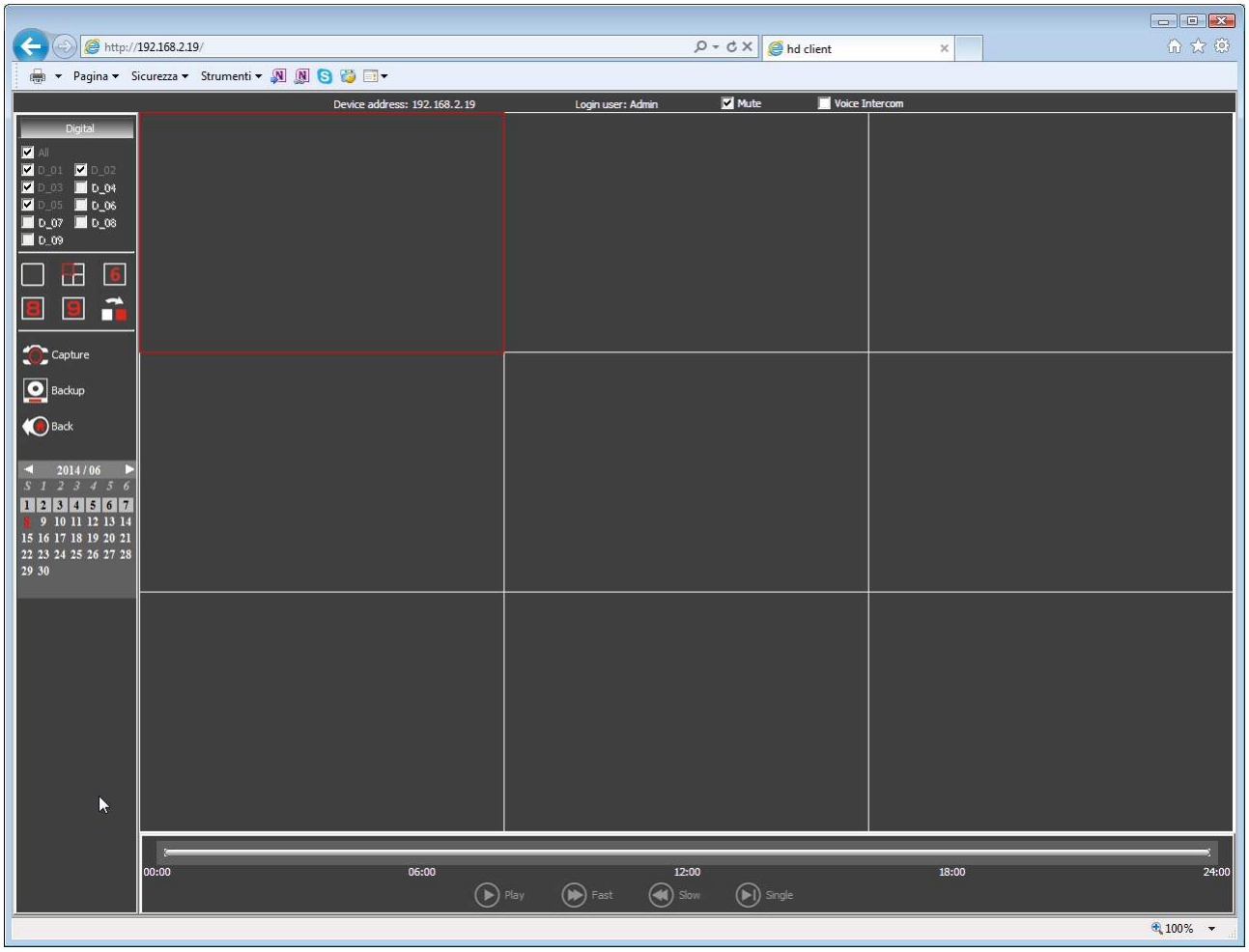
The PTZ button to control the movements of speed dome cameras



PLAYBACK

Through remote access with the browser you can search among the records stored in the NVR and play. The playback button lets you open the search page





To review the records left simply select the channels you want to play, and the day to search. At the bottom there is a timeline cone 24 hours of the day to move in reproduction at will by simply clicking Dulla scroll bar. E 'can slow down or speed up playback up to 16x.

In the riporoduzione window to the CAPTURE BACKUP commands are available to save stills and video with the same features already described in the live view.

MAXIMUM NUMBER OF CONNECTED CLIENTS

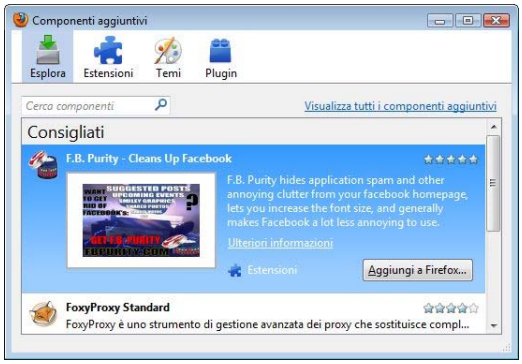
E 'can connect to the NVR up to a maximum of 30 clients connected simultaneously in various types (IE, CMS, 3G)

ACCESS TO OTHER BROWSER

Although IE is the reference browser for remote connection to the NVR DN series it is also

You can use other browsers such as Firefox or Google Chrome. To do this you need to install a free add-on called IE Tab V2.

The installation is performed by accessing the browser add-ons management and looking into the search box: IE TAB Following the example with Firefox



This plugin, once installed lets you press a button to recreate in Firefox or Chrome an Internet Explorer window.

Internet Connection

An NVR is connected rule to a local LAN that connects to the Internet via a Router. If we connect to the NVR using an internal PC to the network, the address of the NVR (typically 192.168.XXX.XXX type) will be directly accessible. If you wish to connect via the Internet using a PC placed elsewhere, the internal network addresses will no longer be accessed directly as the only visible from the web IP address will be that that our router will by its WAN side that is towards the Internet outside world.

The IP address of the router has to the Internet is assigned by the provider (ISP). And 'advisable to get from the provider a fixed IP address each time you connect. If there is a chance you need to resort to the DDNS service or use our cloud service (see below).

It is not sufficient, however, type in the browser the IP address of the WAN side Router to connect to the NVR. The router acts as a filter and drops every external call that an outgoing call from inside the network is not paid before. To be able to connect to the NVR is therefore necessary to insert inside the router ports of directing instructions which, depending on the router manufacturers are called NAT, PORT FORWARDING, PORT MAPPING etc.

To access the NVR from the Internet is therefore necessary to enter the router configuration and insert instructions so that this direct calls coming from outside, to the inside IP address of the NVR.

Obviously the directing is only performed for the communication ports that are used by the NVR and that will be detailed below.

For information on how to operate in the router, refer to your router's manual or technical all'assitenza of its builder.

The communication ports used by NVR DN series are as follows:

WEB PORT: Default 80. And 'the port used by the NVR to communicate with the browser. Browsers such as Internet Explorer use the factory port 80 for communication. For example, if we type in the browser address bar: http://212.12.34.201 will be called the '

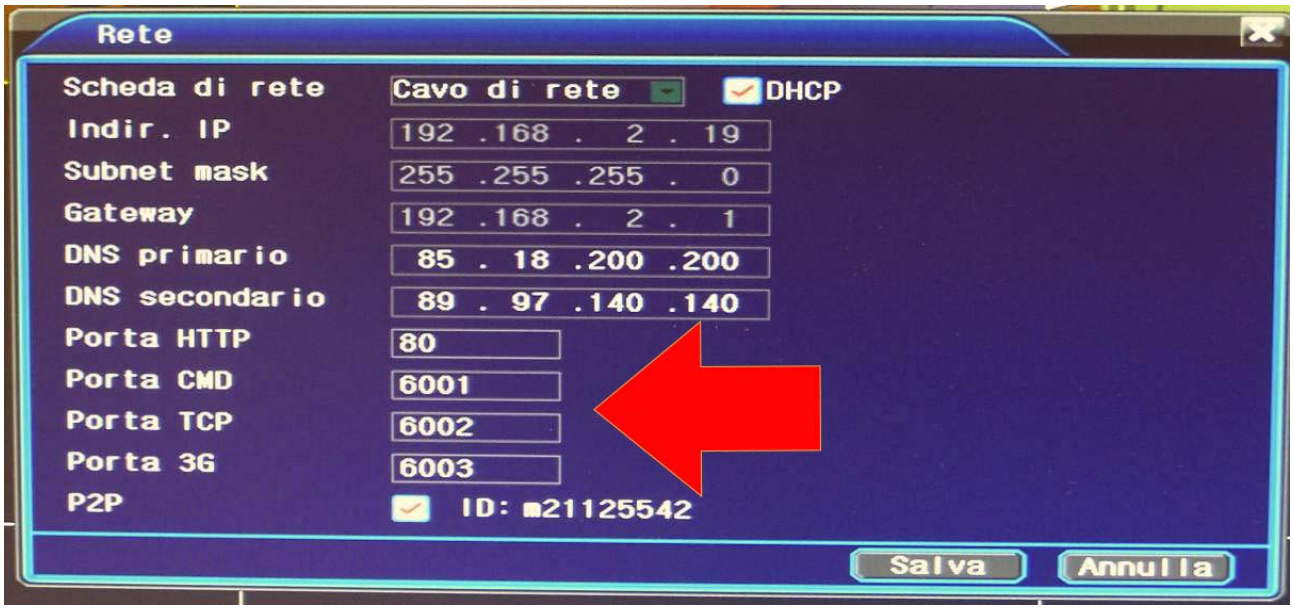
212.12.34.201 IP address on port 80.
If in the configuration of the NVR is set different from a WEB port 80 (eg. The door 85

factory) needs to be clarified in the browser which port to use for the call after pointing the address with ":" to separate it. If, for example. http://212.12.34.201:85 we type will be called the IP address of 212.12.34.201 on port 85.

CMD PORT: Default 6001. And 'the port used by the CMS centralized management program

MEDIA PORT TCP: Default 6002. And 'the port used for streaming video

PORT 3G: Default 6003. And 'the port used by APP for smartphones Meye Super E' can change the factory gates in the configuration of the NVR



All these ports are mapped from the WAN side of the router to the internal IP address of the NVR. Note that many routers require that each directing NAT is also combined with a rule in the firewall section that determines the opening of the affected port. Consult your router's manual for details on how to program the port mapping

INTERNET CONNECTION P2P WITHOUT MAPPING OF DOORS

The NVR DN series are able to allow connection via the Internet even without having performed the port mapping thanks to P2P technology.

This makes network installation of these simple NVR even if you do not have computer skills or if you do not have access to the router's configuration. To use this type of access is necessary to use our CLOUD services that are described in the following chapter. The mapping of ports on your router, if feasible, is still always advisable to allow more connection options.

CLOUD P2P Service

Each user of an NVR NVR DN series acquires along with the ability to freely make use of a CLOUD service to its online service to make connection to the NVR via the Internet simple.

These services allow to solve with a few mouse clicks the two main issues in the Internet connection to the NVR, ie:

- **Signing of a DDNS service if you do not have a fixed IP Internet**
- **Mapping of router ports**

THE PROBLEM OF DDNS

To connect to a NVR via the Internet you must know the IP address of the router that connects to the Internet. To find out which IP address has its own router from the WAN side that is towards Internet just consult the router configuration or by qualasiasi internal PC to the network visit a site like www.whatismyip.com or similar.

Even in the NVR you information panel shows the address to the Internet (WAN side) If you can get from your Internet service provider (ISP) a **fixed IP address,** Just take note of this IP address in order to call your router at any time. Many times, however, the providers do not release fixed IP addresses or require the customer to purchase them. Without a router you will have a variable IP address may therefore modifcarsi fixed IP over time making it impossible for the remote connection.

In this case you can use DDNS services that allow you to know at any time the IP address of your router / NVR. The DN NVR series supports many popular DDNS network services like dyndns, no-ip, 3322 etc. However these services are often paid but not always easy to set up.

With CLOUD services NVR DN series there must either get a fixed IP address from your provider, or take out a subscription DDNS.

MAPPING THE PROBLEM OF THE DOORS

Almost always among the NVR and the Internet it stands a ROUTER. This device can become a major obstacle in connection to the NVR as it does not allow external calls to penetrate to the internal network. To allow this step you need to enter in which we discussed in chapters router programming of mapping instructions

previous.

Operate these instructions is not always easy because each router has its own configuration menu terminologies to rules often not unique.

In addition to this difficulty you may find yourself in situations where the router configuration is inhibited by the provider or not possible due to complesità the network scenario. With CLOUD services NVR series DN, thanks to P2P technology can connect your NVR without the need to perform any configuration on the router, and you will be ready to be accessed remotely in minutes.

The mapping of ports on your router, if feasible, is always advisable to allow more connection options.

The CLOUD SERVER FOR NVR SERIES DN

The cloud server for NVR RH series is available at the following address

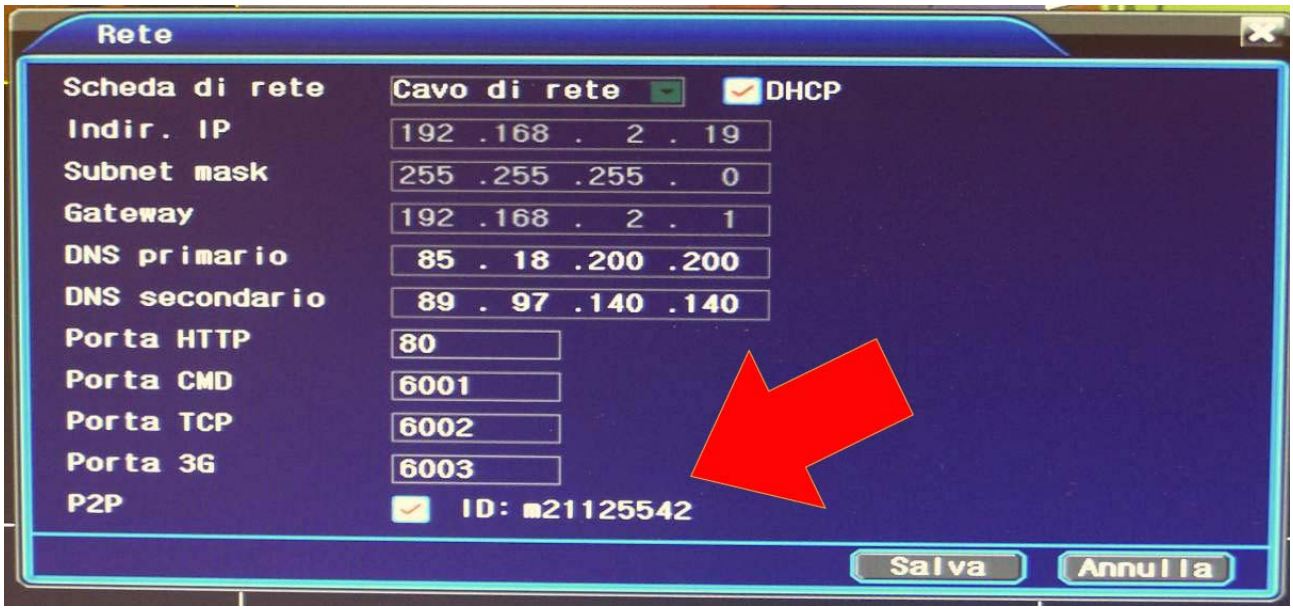
WWW.DDDNS.ORG

THE SERIAL NUMBER (ID) of NVR

L 'NVR you purchased is already registered in our cloud server and is distinguished by a unique ID. The NVR ID is located on a sticker on the machine and also in the panel of the NVR NETWORK menu. And 'even remotely readable link. If you must enter the ID of the NVR in the cell by applying Super Meye adhesive label of the NVR it is also a QR code will be scanned to avoid manual typing.

ACTIVATE THE CLOUD NVR

The first thing to do in order to benefit of cloud servers and enable the cloud server management P2P in the NVR configuration, as explained in the configuration guide. The cloud server setting is located in Settings / SYSTEM / NETWORK necessary to put a check on the option to enable P2P management servers CLOUD.



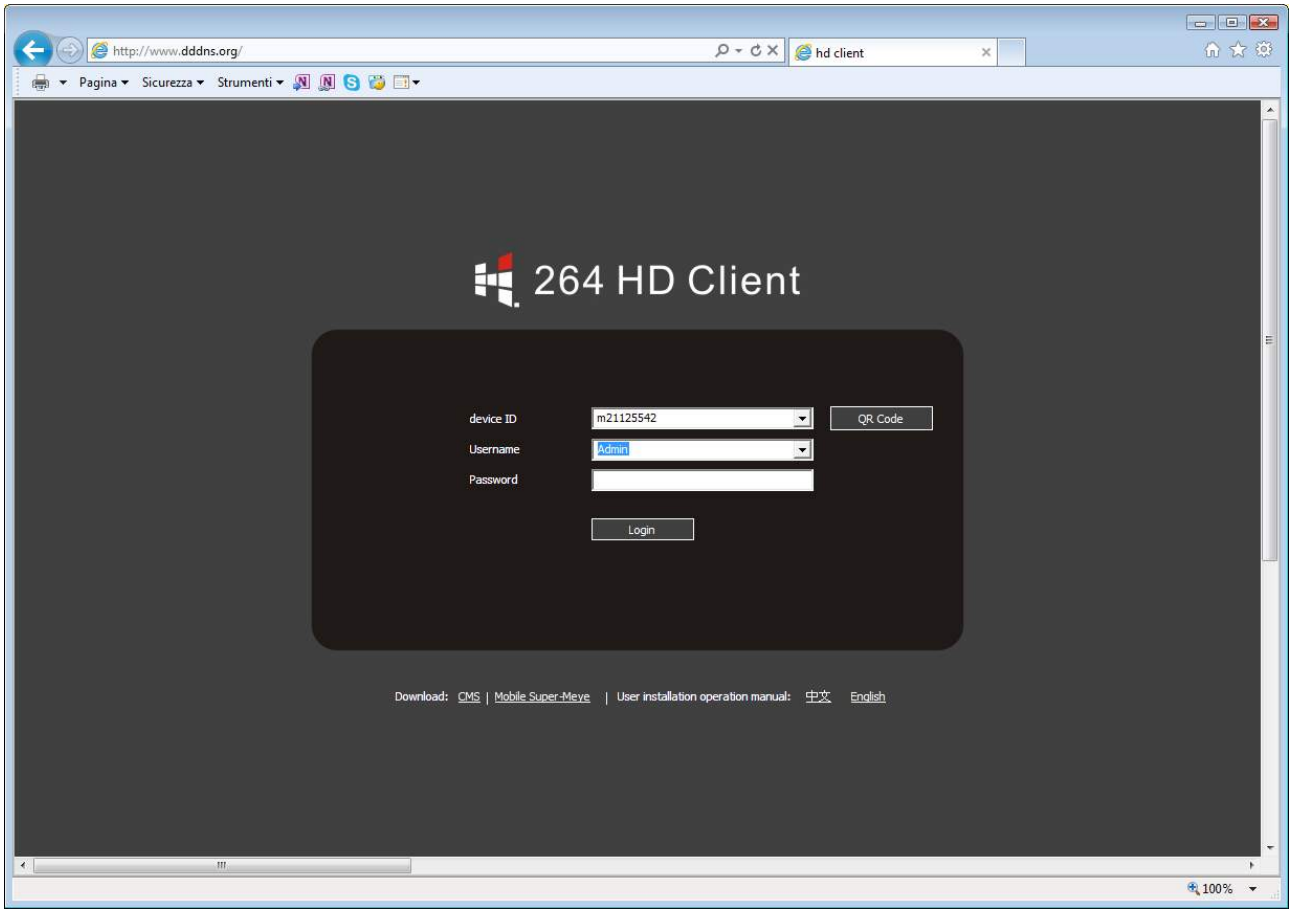
ACCESS TO CLOUD

To use the P2P cloud servers connect to the site WWW.DDDNS.ORG Remember to use your

browser **Internet Explorer.**

After installing the software components that should be authorized simply insert in the mask log-in ID of the NVR, the user name and password.

Click LOGIN to access the DVR without the need for static IP, DDNS and mappatuta router ports.



ACCESS TO CLOUD WITH PROGRAM AND MOBILE CMS

I can use the services of CLOUD NVR DN series not only through the Internet Explorer browser, but also with the client program for Windows CMS and the app for smartphone / tablet. See the manuals of the two applications for details.

firmware Update

The internal software of the NVR can be updated if this is necessary. Before you upgrade you must obtain the update file by downloading it from the DSE website. The file must be copied into a USB pen.

Insert the key into a USB port of the NVR and update the firmware in the programming menu, section ADVANCED / UPGRADE.

E 'can also carry out the firmware update remotely using the Internet Explorer browser interface section SETUP / DEVICE SETTING / SYSTEM maintanance