Video recorders DX Series

DVR multi-technology

AHD cameras, analog, IP

Installation manual

How to connect the DVR

How networking

Contents of this handbook

The DX series VCRs range is designed to allow the management and the recording of analog CCTV cameras, AHD and IP.

This manual describes how to properly install the DVR and how to make the network connections to access the DVR remotely.

compatible cameras

The DVR DX series are intended for digital video surveillance systems. They are multi-DVR technology can handle different types of camera. The AHD and analog cameras connect directly to DVR and therefore are called "local cameras", while IP cameras are accessed via the network port.

CAMERAS AHD

The DX video recorders allow you to connect directly AHD cameras.

The AHD technology is the latest development in analog CCTV. Launched in 2014 by Nextchip, the world leader in chip CCTV production, AHD technology enables analog cameras to reach resolution HD720P (1280x720) previously only achievable using IP technology or HD-SDI.

First manufacturer in Europe, in July 2014, DSE has integrated video output AHD in their maximum profile analog cameras (RE-xxxxHDU). The DX Series video recorders fully support the AHD video inputs to 1280x720 pixels resolution, providing an image detail on the monitor almost double that of our best traditional analog cameras recorded 960H (960x576).

The AHD cameras combined with video recorders AHD DX series, provide high resolution megapixel, devoid of latency, maintaining the entire installation simplicity, robustness and cost of an analog system.

The wiring is identical cameras AHD traditional analog. E 'can use coaxial cable RG59, RG179 Minicoaxial and even twisted cable balun converters.

ANALOG CAMERAS

The DX video recorders allow to connect any traditional analog camera. The analog video input is automatically recognized by the DVR will handle it in WD1 960H maximum resolution (960x576). The WD1 resolution

960H is the maximum achievable with analog camera and plays back the best quality of our best analog cameras to 1000 TV lines. E 'can also connect cameras

analog in lower resolution.

ONVIF IP CAMERAS

The DX video recorders also allow you to manage IP cameras if they are compatible with the ONVIF standard. The IP cameras do not connect directly to the DVR but are achieved through the network connection, as happens with our NVR.

DX Series DVRs are able to manage IP cameras HD 720P resolution (1280x720) and Full HD (1920x1080).
Obviously, the total number of connected cameras will vary according to the resolutions of individual IP cameras and even the number of AHD / analog camera system (see next chapter tables).

Configurations inputs

The DVR DX series are multi-DVR technology that can handle different types of cameras. The AHD and analog cameras connect directly to the rear BNC inputs for which it is possible to connect many cameras as there are inputs available in the DVR. The IP cameras are connected via the network and their maximum number is limited by the capacity of the CPU of the DVR according to the following table.

	Cameras AHD (720P) or analog Standard (960H)	Network cameras IP Onvif (720P)	Network cameras IP Onvif (1080P)	Network cameras IP Onvif (960H)
DX-R4	4	-	-	-
	-	2	2	-
	-	8	-	-
DX-R8	8	-	-	-
	4	4	-	-
	-	-	4	-
	-	8	1	-
DX-N16	16	-	-	-
	4	4	-	-
	-	-	4	-
	-	8	1	-
	-	-	-	20

If you want to use your DVR mixed configuration of local cameras (AHD / anlogiche) and IP as the first one of the above configurations you will need to choose the DVR configuration menu as described later in the manual.

SELECTION FRA AHD CAMERA AND TRADITIONAL ANALOG

The DVR DX series are able to automatically recognize the camera technology connected to its premises BNC inputs. If you connect a camera AHD HD DVR will recognize the signal and show for a few seconds the message AHDM superimposed. If you connect a traditional analog camera DVR will overlay the written CVBS to indicate the traditional composite video signal.

CAUTION. The DVR handles the switching CVBS / AHD for pairs of adjacent inputs (1/2, 3/4 etc.). For this reason, if connected to input 1 of a DVR AHD camera can not connect a CVBS input 2, as also will have been switched to AHD. In other words, the only limitation to the connection of analog cameras or AHD lies in the fact that all places BNC inputs one below the other in the DVR (1 and 2, 3 and 4, 5 and 6, etc.) must use the same AHD or CVBS technology.

main Functions

The DVR DX series are the latest generation of video recorders that can integrate all the latest functions required by video surveillance applications.

LIVE VIEW

DX Series DVRs 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.

There is no longer the traditional analog video output BNC as it would not be able to reproduce the resolution of the video inputs.

And 'possible to view each camera full screen, the cyclical scanning and multivision
4, 8 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

DVRs have 4 audio inputs. The recording takes place with H264 compression in continuous mode, motion detection, alarm, calendar or manual emergency. Each audio / video channel is compressed in real time by an independent hardware. The audio and video are synchronized stably.

OVERWRITING PROGRAMMABLE IN DAYS

E 'you can be programmed automatically overwrite the hard disk or set a number of days to keep in memory to comply with privacy regulations.

PLAYBACK AND BACKUP

DVRs 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 dragging the mouse 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

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

PTZ CONTROL

The DVR supports PTZ control for both analog / AHD and IP cameras. The analogue / AHD motorized cameras are controlled through the RS485 port. Included are numerous protocols for the control of all speed dome cameras on the market. Use Pelco D for DSE cameras. The camera's movement is easily controlled via the keyboard, remote control, mouse, and even in remote access from a PC or mobile phone.

The IP PTZ cameras are controlled by the protocol onvif over the network and do not use the RS485 port.

INS AND OUTS OF ALARM / MOTION DETECTION

The DVR feature 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 program provided for the centralized management of multiple DVR. E 'can also access by mobile phone or tablet with the free ViewCam application.

ALARM FUNCTIONS

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

REMOTE CONNECTION P2P

DX Series DVRs 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

	DX-R4 	DX-R8 	DX-N16 
Multi-technology DVR / NVR	AHD, Analog, IP	AHD, Analog, IP	AHD, Analog, IP
Local video inputs on the DVR	4 BNC (AHD or analog)	8 BNC (AHD or analog)	16 BNC (AHD or analog)
IP Network Video Inputs	Max. 8 Tel. Onvif IP	Max. 9 Tel. Onvif IP	Max. 9 Tel. Onvif IP
Configurations available video inputs	A) 4 AHD 720P or Analog B) 2 IP 720P + 2 IP 1080P C) 8 IP 720P	A) 8 AHD 720P or Analog B) 4 AHD or Analog. + 4 IP 720P C) 4 IP 1080P C) 8 IP 720P + 1 IP 1080P	A) 16 AHD 720P or Analog B) 4 AHD or Analog. + 4 IP 720P C) 4 IP 1080P C) 8 IP 720P + 1 IP 1080P
IP Cameras Compatible	Onvif Protocol 720P / 1080P	Onvif Protocol 720P / 1080P	Onvif Protocol 720P / 1080P
HDMI Video Output	1 (FullHD 1080p)	1 (FullHD 1080p)	1 (FullHD 1080p)
VGA video output	1 (up to 1080p)	1 (up to 1080p)	1 (up to 1080p)
Video outputs BNC	-	-	-
audio Inputs	4 RCA	4 RCA	4 RCA
audio Output	1 RCA	1 RCA	1 RCA
Hard Disk compatible	SATA	SATA	SATA
Maximum Hard Disk N.	1	2	2
Maximum capacity each Hard Disk	4 TB	4 TB	4 TB
Ethernet Port	RJ45 10M / 100M	RJ45 10M / 100M	RJ45 10M / 100M
RS485 port	Yes	Yes	Yes
Alarm inputs for intrusion sensors	2 inputs NO / NC	4 inputs NO / NC	4 inputs NO / NC
Alarm output	1 output NO / NC	1 output NO / NC	1 output NO / NC
USB Ports	1 mouse 1 for backup devices	1 mouse 1 for backup devices	1 mouse 1 for backup devices

Max resolution. video recording	Tel. AHD 720P - 1280x720 Tel. 960H analog 960x576 Tel. IP 720P - 1280x720 Tel. IP 1080P - 1920x1080	Tel. AHD 720P 1280x720 Tel. 960H analog 960x576 Tel. IP 720P - 1280x720 Tel. IP 1080P 1920x1080	Tel. AHD 720P 1280x720 Tel. 960H analog 960x576 Tel. IP 720P - 1280x720 Tel. IP 1080P 1920x1080
Frame rate max. per channel recording / playback (frames / sec.)	25 f / sec. 720P with 4 channels 25 f / sec. with 8 channels 720P		12.5 f / sec. with 16 channels 720P
Frame rate max. Total recording / playback (frames / sec.)	100 f / sec. 720P	200 f / sec. 720P	200 f / sec. 720P
Compression	H.264	H.264	H.264
Approximate Recording Capacity calculated at the maximum frame / rate and average quality	About 15 days. on a Hard Disk 1000 GB (4 recording channels continues 720P)	About 8 days. on a Hard Disk 1000 GB (8 recording channels continues 720P)	About 4 days. on a Hard Disk 1000 GB (16-channel recording continues 720P)
Overwrite disc full automatic	Yes (programmable)	Yes (programmable)	Yes (programmable)
Automatic Overwriting after xx days	1-255	1-255	1-255
Mouse Control	Yes (USB mouse included)	Yes (USB mouse included) Yes (USB mouse included)	
Infrared remote control	including	including	including
Motion Detection (intrusion detection)	You (can be enabled in time slots)	You (can be enabled in time slots)	You (can be enabled in time slots)
Possible actions after alert	Registration / Local Sound / Activation output / Send E-mail / FTP Upload / Preset Recall dome	Recording / Sound / local Activation output / Send E-mail / FTP Upload / Preset Recall Speed-dome	Recording / Sound / local Activation output / Send E-mail / FTP Upload / Preset Recall Speed-dome
screen Division	Full Screen, Multi-Vision, Cyclic	Full Screen, Multi-Vision, Cyclic	Full Screen, Multi-Vision, Cyclic
Masks privacy	Yes	Yes	Yes

cyclic scan	Yes, with programmable dwell time	Yes, with programmable dwell time	Yes, with programmable dwell time
Recording Mode	Continuous, Timed, Motion detection, external alarms	Continuous, Timed, Motion detection, external alarms	Continuous, Timed, Motion detection, external alarms
Recording Programming	daily time bands can be enabled or not depending on the day of the week	daily time bands can be enabled or not depending on the day of the week	daily time bands can be enabled or not depending on the day of the week
remote access	Ethernet Port	Ethernet Port	Ethernet Port
A support PPPoE for ADSL modem connection	Yes	Yes	Yes
I bear DDNS for dynamic IP connection	Yes	Yes	Yes
Technology P2P web connection without port forwarding	Yes	Yes	Yes
Cloud services for web connection without static IP and DDNS	Yes	Yes	Yes
for connection Software	Internet Explorer	Internet Explorer	Internet Explorer
Software supplied	Software for centralization	Software for centralization	Software for centralization
Direct management 3G USB keys	Yes	Yes	Yes
Access 3G phone	Yes	Yes	Yes
access iOS	Yes (APP Free)	Yes (APP Free)	Yes (APP Free)
login Android	Yes (APP Free)	Yes (APP Free)	Yes (APP Free)
uninterrupted Registration	Hexaplex (Registration does not stop when playback, remote access, backup videos, programming)	Hexaplex (Registration does not stop when playback, remote access, backup videos, programming)	Hexaplex (Registration does not stop when playback, remote access, backup videos, programming)

Dual Stream	Yes	Yes	Yes
Protocols for PTZ control via RS485 (AHD / analog cameras)	PELCO D (Cameras DSE) + popular protocols	PELCO D (Cameras DSE) + Popular protocols	PELCO D (Cameras DSE) + Popular protocols
IP PTZ camera control	It means onvif Protocol	It means onvif Protocol	It means onvif Protocol
Supply	12VDC (adapter supplied)	12VDC (adapter supplied)	12VDC (adapter supplied)
Power consumption (HDD not included)	Max. 15W	Max. 15W	Max. 15W
DVD burner	Can be connected to USB	Can be connected to USB	Can be connected to USB
firmware Update	Possible USB port	Possible USB port	Possible USB port
Back up videos	USB Hard Drive, USB sticks and external burners	USB Hard Drive, USB sticks and external burners	USB Hard Drive, USB sticks and external burners
Operating temperature	+ 5 ... + 40 ° C	+ 5 ... + 40 ° C	+ 5 ... + 40 ° C
Operating Humidity	Less than 90%	Less than 90%	Less than 90%
dimensions	260 (L) x42 (H) x235 (P)	325 (L) x52 (H) x260 (P)	325 (L) x52 (H) x260 (P)
Weight (without Hard Disk)	1 Kg	1.4 Kg	1.4 Kg

front Panel

The keyboard of the DVR allows the DVR control in all its functions. However, it is much less convenient to use than a mouse supplied 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 - PWR - Indicates the on / off status of the DVR 2 - REC LED - Report which is being recorded

3 - LED LINK - Report that is in place a remote network connection of at least one client 4 - Alarm- LED E 'ongoing or occurred an alarm event (motion, input or technical event) 5 - IR - Receptor for infrared remote control supplied

6 - PAD keys 1..4 - Used to quickly retrieve the full-screen camera 1,2,3,4

7 - QUAD BUTTON (MULTIVISION) - Porta a multivision multiple camera screen. Press repeatedly to choose the split screen mode you prefer (4,8,9,16 cameras depending on the model)

8 - KEY PLAY - Starts playback of recorded video 9 - BUTTON BACK - back Playback

10 - FASTEN BUTTON - Fast playback (press repeatedly for different speeds) 11 - KEY SLOW - Playing in slow motion (press repeatedly for different speeds) 12 - KEY ARROWS / ENTER - They allow you to navigate the on-screen options and confirm with central. The ENTER key is also used to access the OSD menu of the DVR. 13 - REC BUTTON - Opens the rapid selection window of the recording modes, so as to allow quickly to manually start recording a channel independently of the automatic recording settings.

14 - KEY ESC - closes the window and returns to the top level

15 - KEY PTZ - Opens the PTZ motorized cameras command window. 16 - SEARCH BUTTON - Opens the recording search page on calendar basis.

Connections

The DVR connections are located on the back. In the example depicted is the DH-N16 model. The same types of connection are found in the other models.

1 - 12VDC - Power connector where you can connect the power adapter included 2 - 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 you set in the DVR configuration. It must take great care to set resolutions supported by your monitor, because if the resolution does not prove supported will be forced to connect another HDMI monitor can edit it. Particular attention should be made before choosing the 1920x1080 resolution that not all PC monitors are capable of supporting. The VGA cable is not supplied with the DVR.

3 - 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 recommended if you want to connect a large monitor. The HDMI cable is not supplied with the DVR.

4 - VIDEO INPUTS - BNC video connectors to connect the AHD or analog cameras. The same inputs are used for the two types of signal. The DVR automatically detects the type of input, and when you connect your video cable will show overlays for a few seconds indicating AHD or CVBS (analog).

CAUTION. The DVR handles the switching CVBS / AHD for pairs of adjacent inputs (1/2, 3/4 etc.). For this reason, if connected to input 1 of a DVR AHD camera can not connect a CVBS input 2, as also will have been switched to AHD. In other words, the only limitation to the connection of analog cameras or AHD lies in the fact that all places BNC inputs one below the other in the DVR (1 and 2, 3 and 4, 5 and 6, etc.) must use the same AHD or CVBS technology.

The number of BNC connectors varies from 4 to 16 depending on the model in question. In this manual it refers often to these inputs by calling "local input" to distinguish them from the IP cameras.

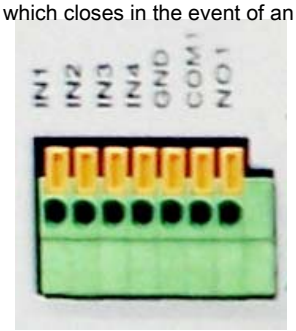
5 - NETWORK PORT - RJ45 connector to connect the DVR to a LAN 10M / 100M network. Before using the LAN connection set network parameters in the DVR setup menu.

6 - USB PORTS - The DVR is equipped with two USB ports. On the USB ports connect the supplied mouse, and USB storage devices such as USB HDD or USB flash drives for backing up movies. There are differences between the two gates. 7 - RS-485 - This port is used to control the PTZ cameras analog type or AHD (not used for IP PTZ cameras).

From the RS485 port part of the bus that goes to control the 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. The DVR DH series PelcoD support the protocol used by the DSE speed dome cameras, and various other protocols from other manufacturers.

8 - AUDIO OUT - mono audio output to connect an external speaker or the audio input of the monitor that will hear the audio of the cameras for live viewing or during local playback. The connector used is RCA.

9 - AUDIO IN - mono audio inputs for connecting external microphone or audio signal from cameras with embedded audio. The connector used is RCA. 10 - ALARM OUTPUT - 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 NO and COM which closes in the event of an alarm.



11 - ALARM INPUTS - Each DVR is equipped with 4 alarm input. The alarm inputs are numbered progressively IN1,2,3,4. Each alarm input is a contact that connects between the input terminal (eg. IN1) and the GND terminal. In the DVR configuration

possible to determine whether the alarm condition is determined when the circuit is open (NC) or closed (NO).

12 - OUTPUT BNC - In the high-resolution DVR is no longer available analog video output BNC common on all previous generation analog DVR. The reason is that this output is not

may support the video resolution of these DVR and would lead to an unacceptable impoverishment of visual quality.

Installing the Hard Disk

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

The DVR can accommodate 1 (DVR 4 inputs) or 2 Hard disk (8/16 inputs DVR), of any brand provided with SATA connector. There **maximum manageable capacity of 4000 GB (4 TB)** for each HDD.

Although you can use normal desktop PC hard drive, it is very recommended buy Hard Disk suitable for DVR as the Purple series of Western Digital which provide fewer overheating and longer life.

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 through the holes on the bottom.

3. Connect the red SATA cable for data and power cable between hard drive and motherboard. If you use only one HDD on a DVR which can accommodate more than one, there is no difference between the sata cables available.

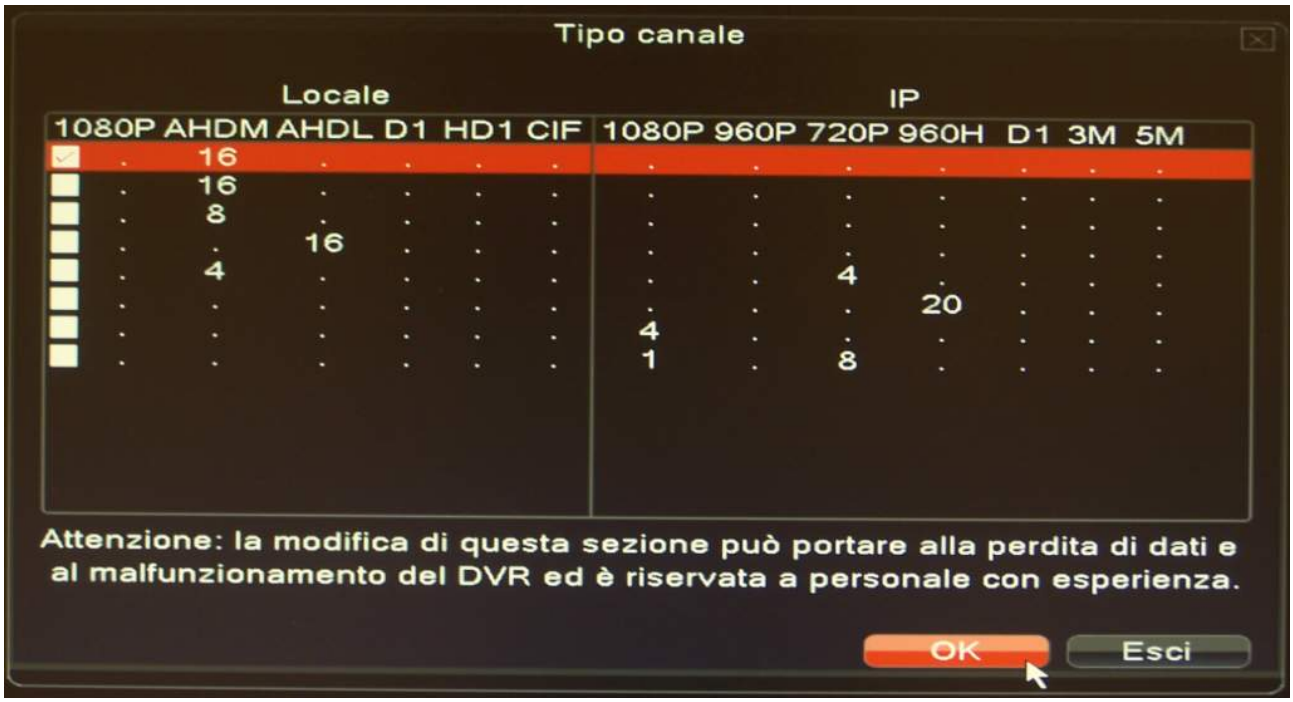
4. Close the appliance with the lid by screwing the screws.

CAUTION: Before you begin recording will need to perform physical formatting of the hard disk with the FORMAT DISC command in the programming section SYSTEM / HDD. See the instructions in the configuration manual.

Input Configuration

If you use the DVR to record only local cameras (AHD or analog) you can avoid reading this warning.

If you are running a mixed configuration with local cameras, but also IP cameras then it will be necessary to plan carefully the option of multi-technology to decide how many rooms and how many cameras do manage IP cameras to the DVR. This section is also described in the configuration manual.



You have several options of multi-technology can be selected according to the camera to be connected. In the above example it is shown the DX-N16 model.

IP cameras Configuration

If you set the DVR to record a number of IP cameras you need to make the combination of the cameras to the channels. The procedure is ear in detail in the configuration guide.

Network Configuration

DX Series DVRs incorporate a web server to which you can connect through port rear RJ45 network to a LAN to access from other computers or mobile devices. E 'can also be connected directly to a single computer with a crossover network cable or directly to an ADSL modem as DVRs are capable of handling the pppoe authentication required by providers. To connect to a LAN, the first thing you need to connect the rear door to a network port on your swicth using a straight type power cable. As soon as you plug the cable: the yellow LED and green spaces on the network connector must light up. If this does not happen, do not continue and check the good functionality of the cable and throughput of the network switch port.

IP ADDRESS ASSIGNMENT

The DVR come from the factory with 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, though from a very simple hand, it is not advisable in surveillance applications as the DVR may following a restart to change your address, and it would be necessary to reconfigure many settings. It 'much more advisable to assign a fixed address to the DVR 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 DVR 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.

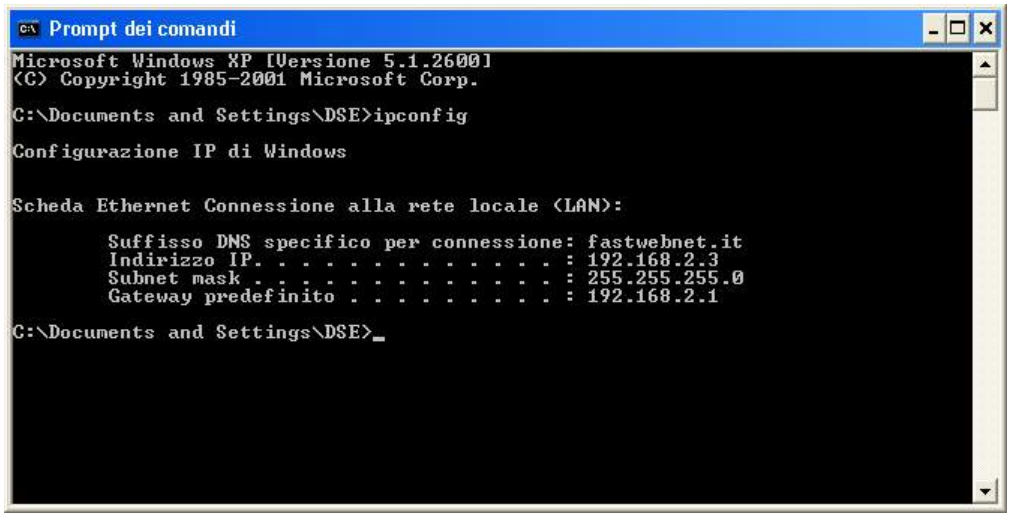
KNOW THE PARAMETERS OF COMPUTER NETWORK

If you are uncertain about the operation of your network and you do not know which IP address to assign to the DVR you 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 parameters

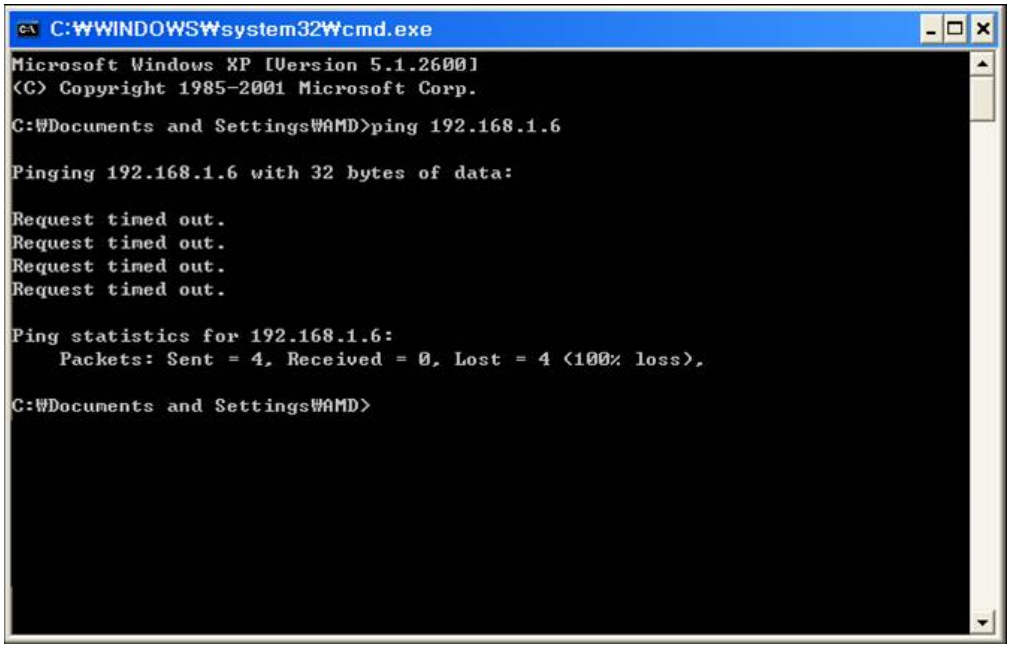
TCP / IP. The second line is the IP address assigned to your computer.



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. At the DVR so you can assign an address chosen by the 192.168.2.XXX type, where XXX is a number between 0 and 255. '

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 DVR.

KNOW OF THE NETWORK PARAMETERS DVR WITH DHCP

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

If we connect the DVR to the network and we go into the configuration already find the network parameters correct page for our DVR

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

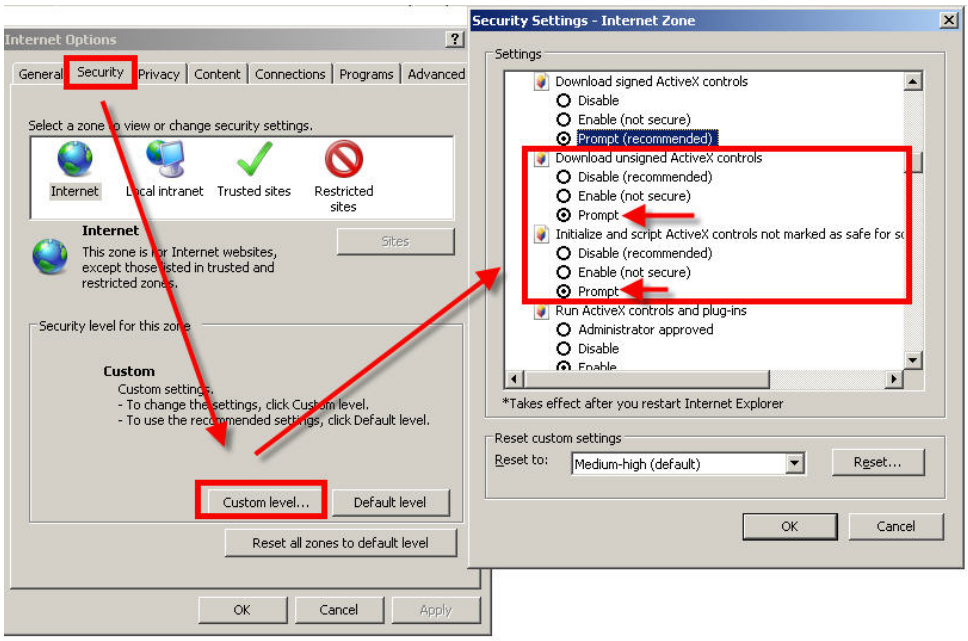
If you have assigned to your DVR a fixed IP address and the correct subnet mask used by the network you can already groped the first link from another PC on the network. To complete the network configuration is however advisable to also enter the gateway to the Internet, as a rule the xxx.xxx.xxx.1 address,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

Connection with browser

The easiest way to connect to a DVR DX series through a computer using the Internet browser. The reference browser for use with DX Series DVR is Internet Explorer although with appropriate plug-in is also possible to use other browsers (see below).

ENABLE PERFORMANCE OF ACTIVEX

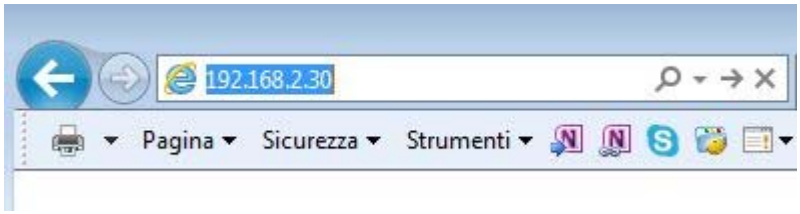
When you first connect the DVR in the Internet Explorer browser installs the necessary activeX components. Without these components, your browser can not display the image. However, Internet Explorer contains security settings that may prevent the installation. Before making the connections necessary to enable the 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. Finally, save and restart the browser.

ENTERING THE ADDRESS OF THE DOOR AND DVR WEB

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



It is not necessary to specify the connecting door as DX Series DVRs using factory port 80 which is the one usually used by browsers

If for any reason you change the DVR settings in the HTTP port then it will be necessary to specify the port to then follow up call to the IP address as in this example in the browser.

In this example we are calling the 192.168.2.30 IP on port 85.

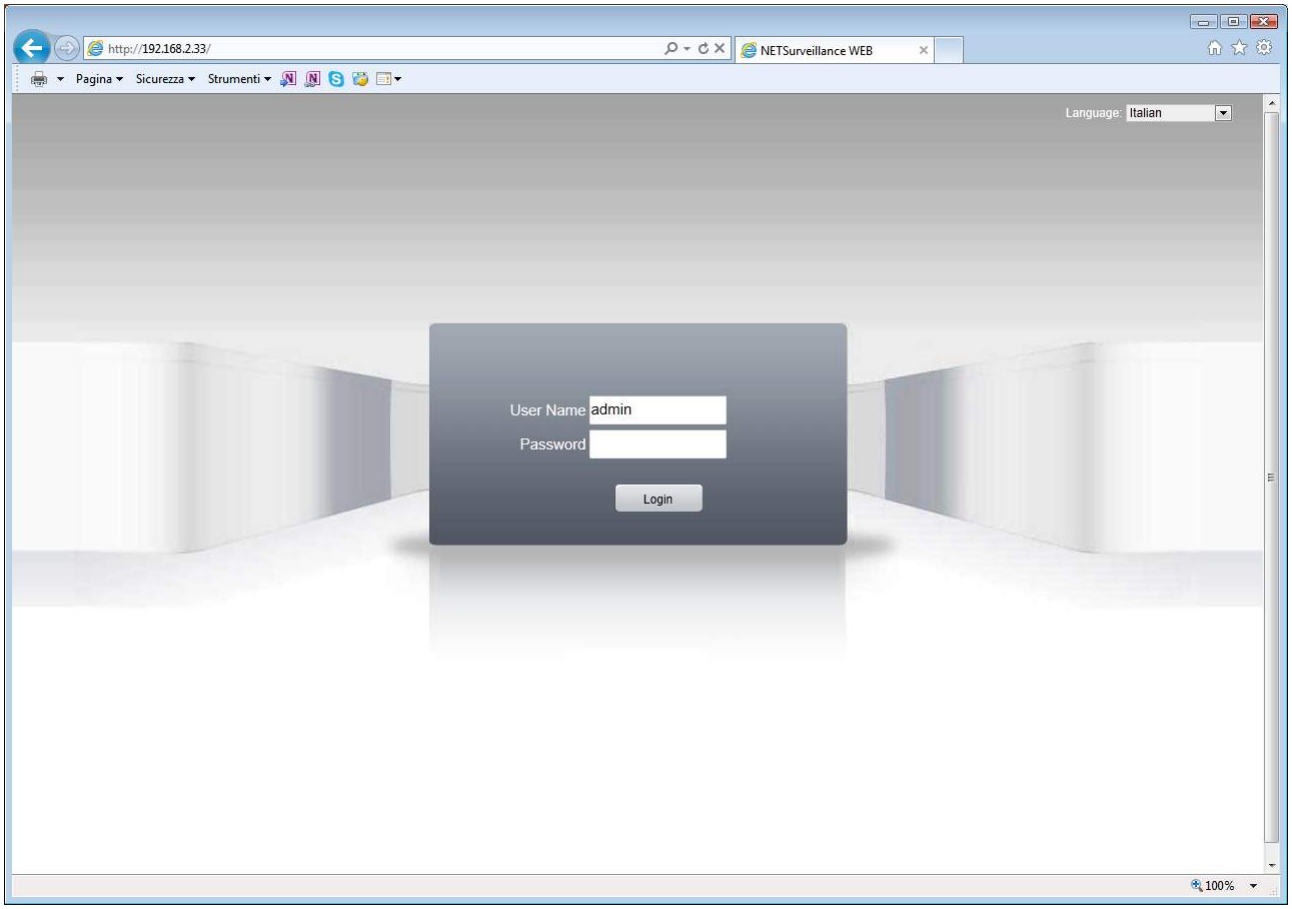
If the connection will succeed will present the log-in DVR window

MAXIMUM NUMBER OF CLIENT SIMULTANEOUS

Each DVR allows simultaneous connection of max. 10 with browser clients, 10 clients with APP and mobile client 255 with CMS software

LOG-IN

Access to DVR is password protected



If you have not changed the factory can use credentials

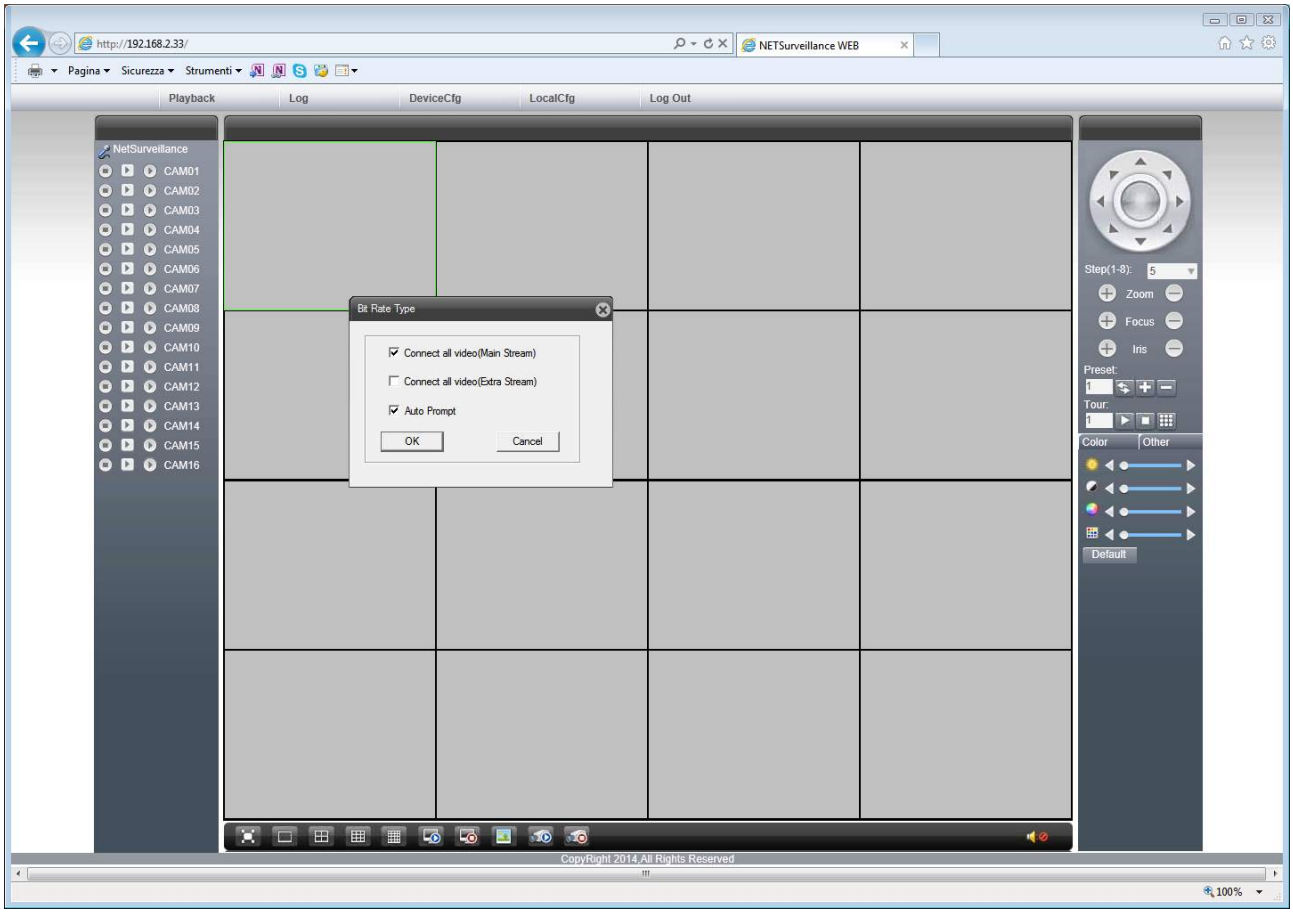
USER NAME: **admin**

PASSWORD: leave blank

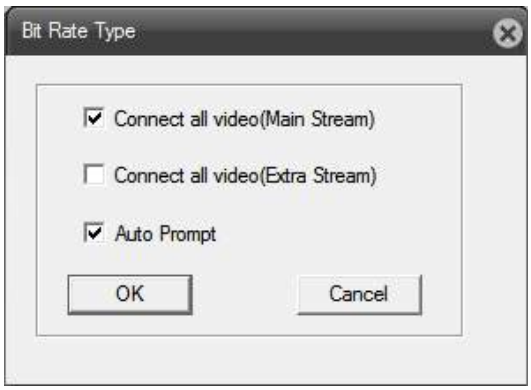
At the first access, depending on the security settings you have chosen, there could be shown a confirmation request to install the component activeX where necessary to give consent. If the installation of activeX component does not happen the screen will be divided into quadrants, and not be necessary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

START OF LIVE VIEWING

Here is the sample screen of the DX-N16 DVR.



The window that appears at startup provides a few options to select



CONNECT TO VIDEO (MAIN STREAM) - Ticcando this option and pressing OK will automatically start the live view of all channels using the main stream at full resolution

CONNECT TO VIDEO (MAIN STREAM) - Ticcando this option and pressing OK will automatically start the live view of all channels using the secondary stream (sub-stream), lighter, recommended internet.

AUTO PROMPT - Keep enabled if you want this window of choice will continue to appear each time you connect.

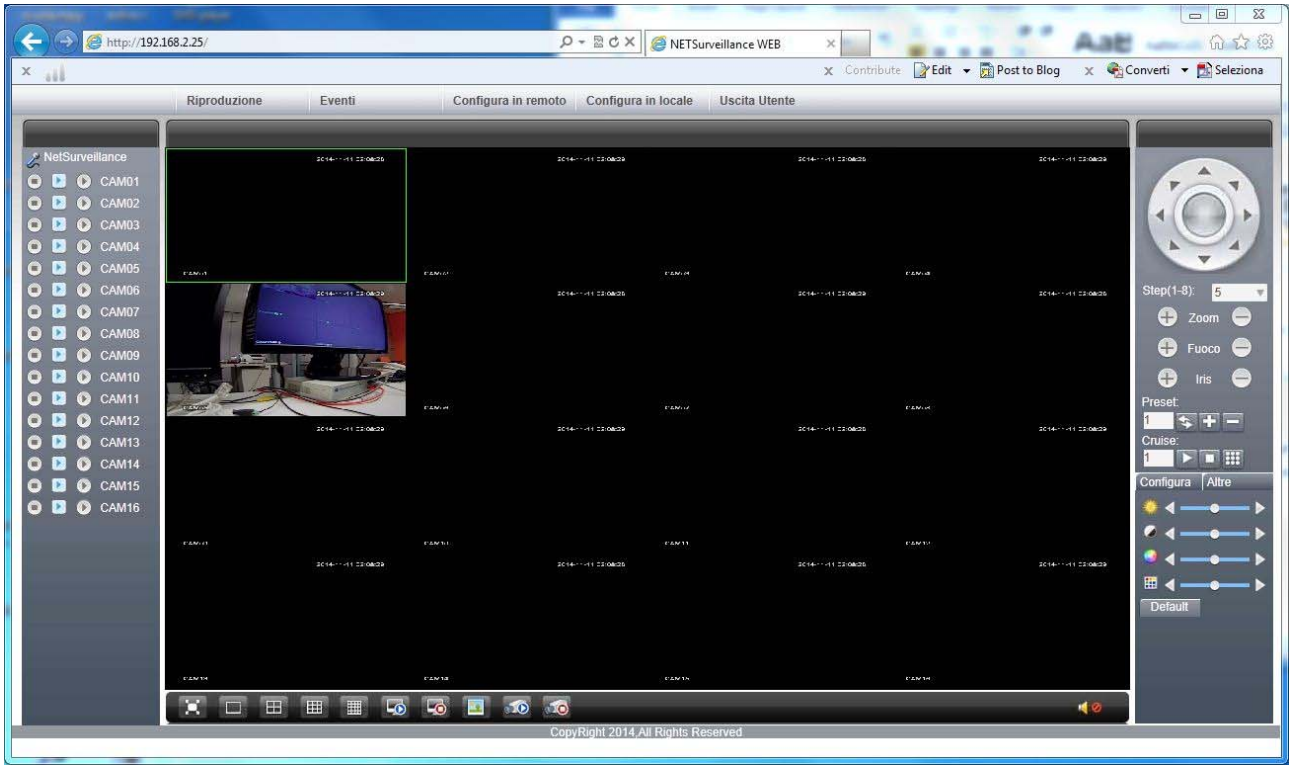
CANCEL - Pressing cancel instead of OK not any live materializes vision and we will proceed with manual connections

To start the live reproduction manually select with the mouse the box where you bring up the camera so that it is represented with a green controno, then take action cameras on the list to the left of the screen

The round button opens the main stream, while the square button secondary stream lighter and less demanding in terms of bandwidth. The round button on the left finally used to start local recording on HDD of the incoming video PC.

CONTROLS OF LIVE VIEWING

The following example shows the DX-N16 DVR with a single camera connected. There are several controls that you can use to manage the reproduction of cameras LIVE



In the live view of the cameras remotely you can select the full screen one camera by double clicking on it and amche perform digital zoom by dragging the mouse across the screen to define the particular magnify.

On the bottom left are the main controls of live control.

1 - FULL SCREEN - Take full screen only viewing video channels excluding the frame with the controls. Press ESC to return to normal viewing. 2 - SINGLE CAMERA - Porta full-screen camera 1 3 - MULTIVISION QUAD - Screen Door 1..4 the cameras 4 - MULTIVISION 9 - Screen Door 1..9 the cameras 5 - MULTIVISION 16 - Screen Door all 1..16 cameras

6 - OPEN ALL - Opens the window opening of all the video streams already described previously 7 - ALL CLOSE - Closes all active video streams

8 - SNAPSHOT - Take one frame of the selected camera and stores it in the folder set in the configuration (see below). The image file is JPG files. If you see a

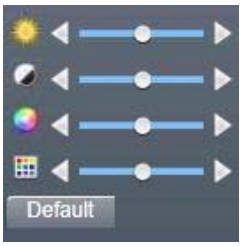
error message after you take the picture check the setting of the storage folder in local settings (see below) 9 - RECORD ALL - Start local recording of all channels 10 - RECORD ALL STOP - Stop local recording of all channels

AUDIO - To the right of the screen is the speaker icon to turn or stop audio playback.

PTZ - To the right of the screen, above the image controls there is movement control of speed dome cameras connected to the output of the DVR or RS485 controlled via network if the IP type.

The PTZ control panel replicates most of the commands that are available in the control panel that appears on the local monitor of the DVR CONFIGURATION Refer to the manual of DVR for the details of each command

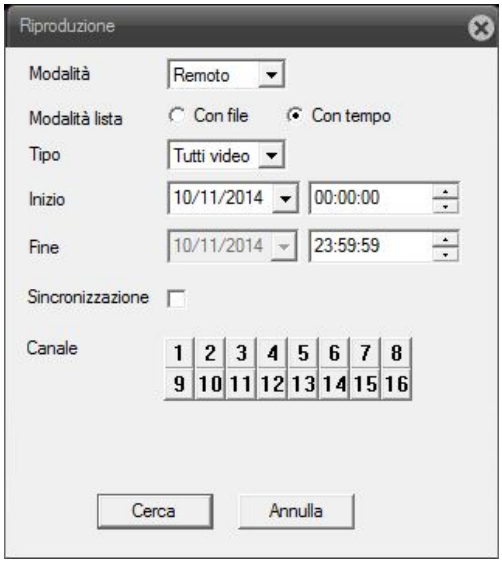
IMAGE CONTROL - To the left of the screen, under the PTZ controls, there is the panel for the image adjustment which allows to modify BRIGHTNESS ', CONTRAST, TONES AND SATURATION remote viewing independently for each camera.



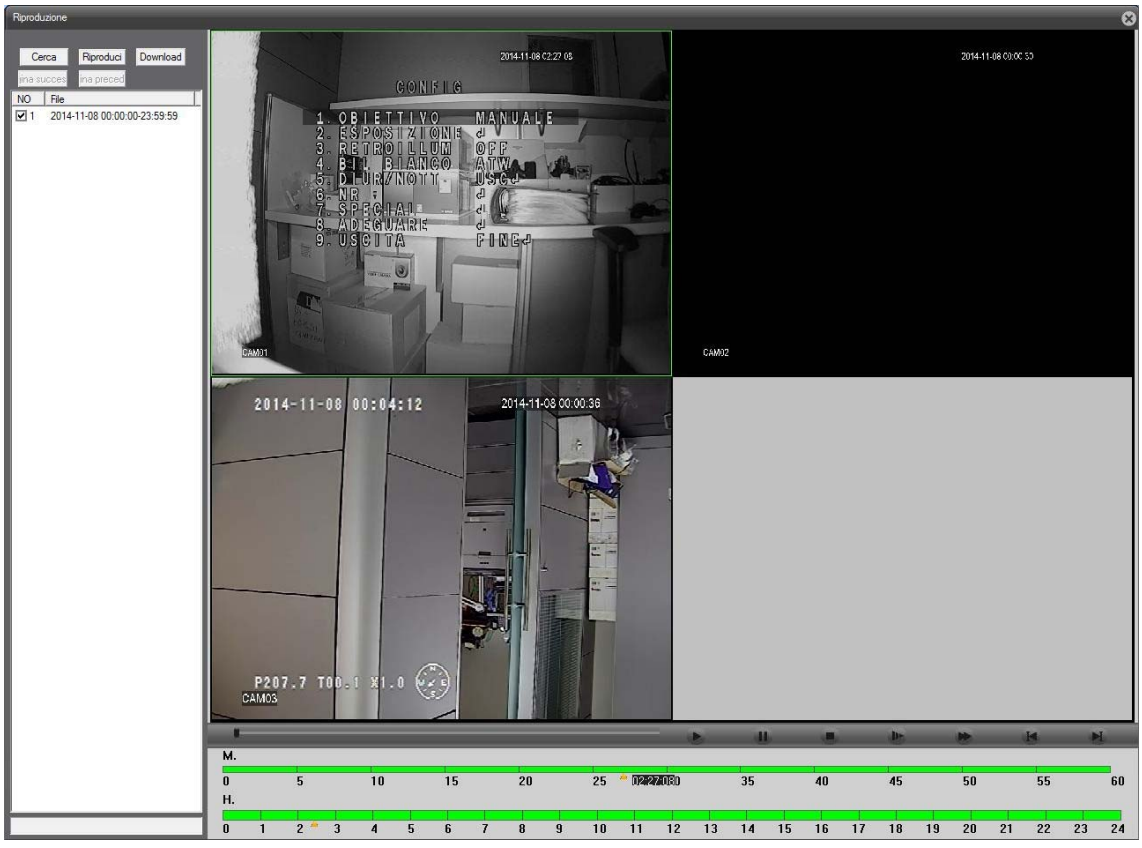
REPRODUCTION

Through remote access with the browser you can search among the records stored in the DVR and play them. To open the playback environment and to press the PLAY button in the top selection bar

It opens the screen for recording search which is stated below.



This window contains the same search options available in the local DVR. Refer to the configuration manual for details on how to conduct the research. Pressing the SEARCH button opens the playback window.

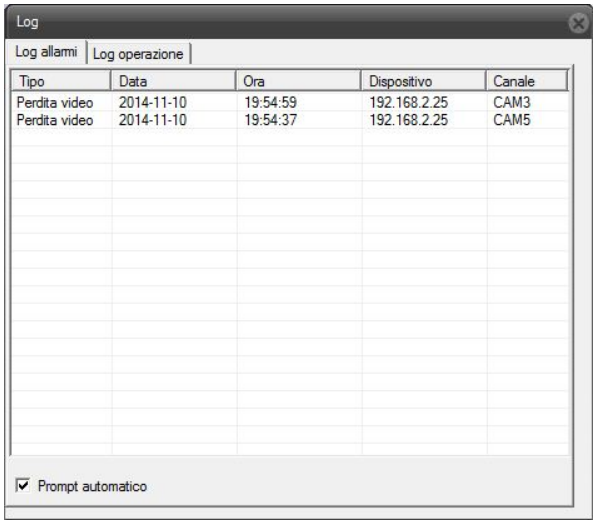


Even the playback window contains the same controls and time line of the screen menu

DVR. Refer to the configuration manual for details. The DOWNLOAD button to download the Local Hard Disk movies.

EVENT MANAGEMENT

Through the remote connection is real-time can receive events that happen in the DVR as alarms, motion etc. To see the event log click on the top of EVENTS



The check PROMPT AUTO features automatic display the event log for each event received.

The folder contains OPERATION LOG instead the event memory of the client system on which you are working, with operator access etc.

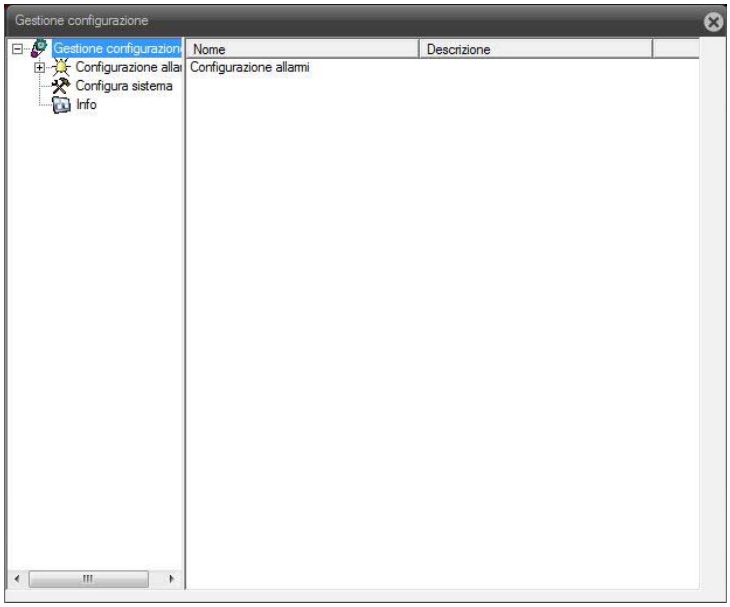
CONFIGURATION OF REMOTE DVR

Through the Internet Explorer interface you can also change all of the remote DVR configuration parameters. To access, press the top button SETUP REMOTE

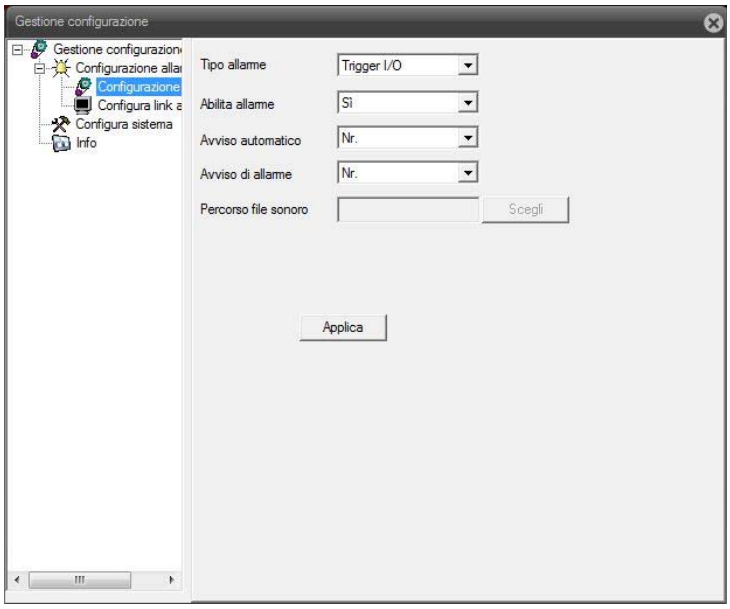
The configuration is divided into different windows for selection with the buttons below. This manual does not describe the individual programming pages in that they contain the same parameters configured on the monitor of the DVR. For details of these options, please visit the DVR configuration manual.

LOCAL SETTINGS

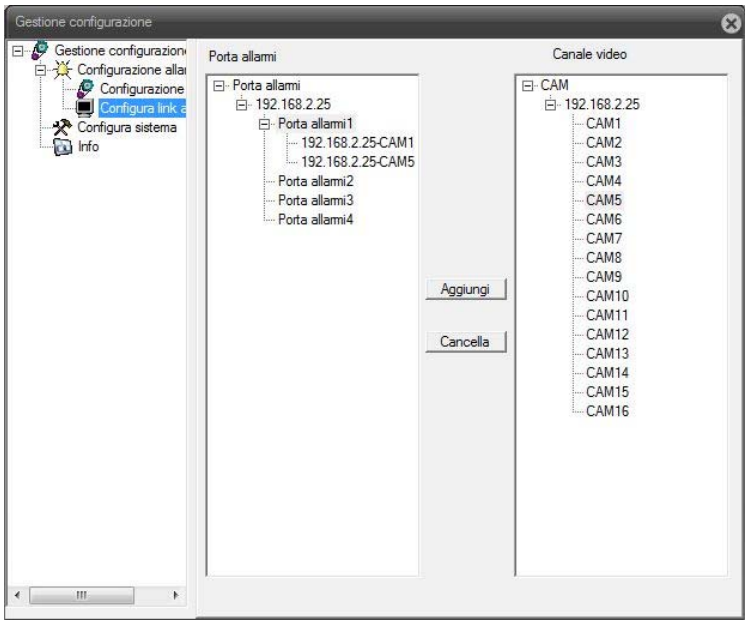
The LOCAL SETTINGS button is used to select some options that concern the client PC you're using. Press the top button SETUP IN LOCAL to access local settings.



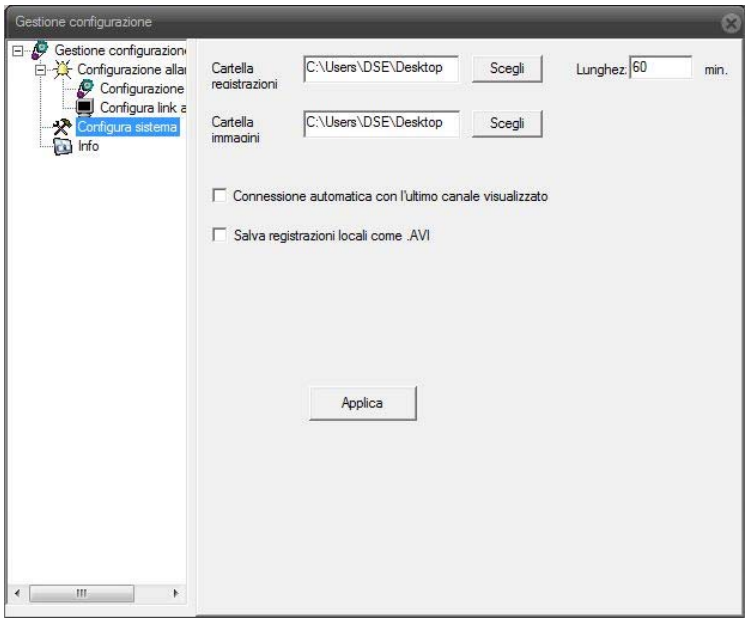
The first menu item allows you to configure local alarms that will generate the client in case of events in the remote DVR.



E 'can define the type of alarm to monitor and decide whether to automatically carry out the alarm log and possibly match a sound signal (WAV file).



It is also possible to link the alarms of the appearance of certain inputs DVR camera screen.

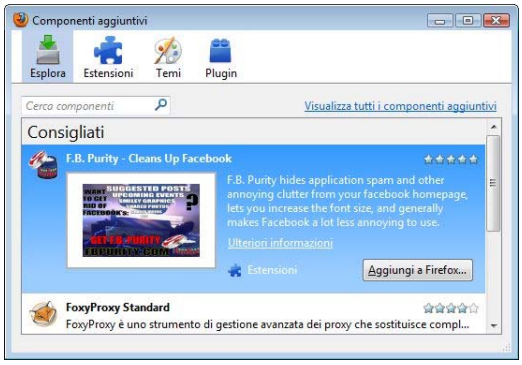


In the system configuration you can set the storage folders (recordings and photos) and some additional options related to the local client.

ACCESS TO OTHER BROWSER

Although IE is the reference browser for remote connection to the DVR DX series it is also possible to 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.

Connecting player RTSP

The DVR supports the RTSP protocol is factory set to use port 554. It 'can connect to a single channel of DVR using any RTSP player such as VLC.

The address to call must have the following syntax: RTSP: // IP : PORT / USER = xxx & PASSWORD = xxx & CHANNEL = xxx & STREAM = xxx .sdp The red parts are the variables to customize according to the following instructions: IP - IP Address

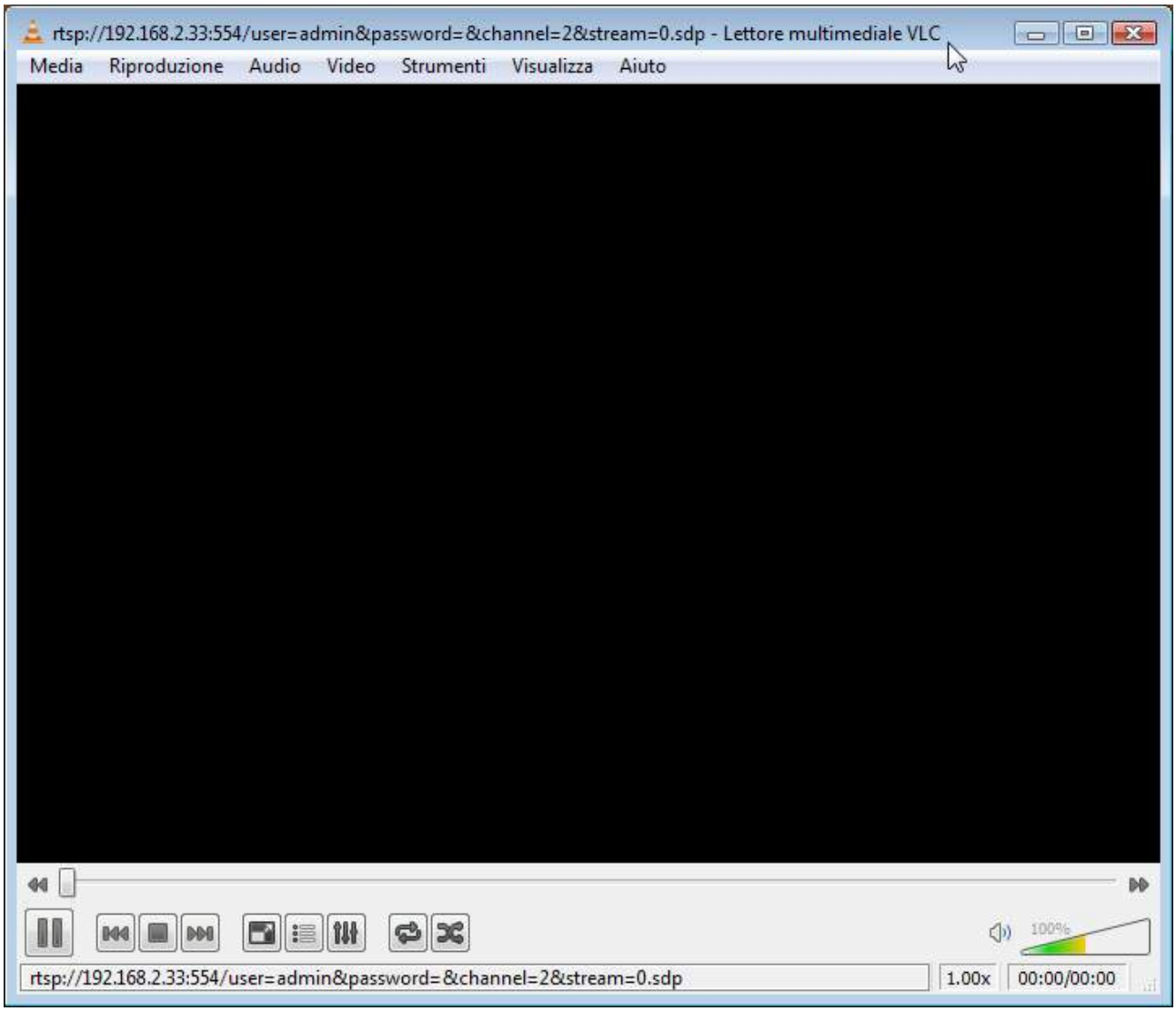
PORT - Porta rtsp Factory 554

USER - user name to log in (by default: admin) PASSWORD - Password to log in (by default: empty) CHANNEL - number of the channel you want to receive

STREAM - Stream that you do get (0 = main stream, 1 = secondary stream)

Here's an example:

rtsp: //192.168.2.33: 554 / user = admin & password = & channel = 2 & stream = 0.sdp In this example you get the connection to channel 2 with the main stream, and using the door and the DVR factory credentials.


rtsp://192.168.2.33:554/user=admin&password=&channel=2&stream=0.sdp - Lettore multimediale VLC
Media
Riproduzione
Audio
Video
Strumenti
Visualizza
Aiuto
100%
rtsp://192.168.2.33:554/user=admin&password=&channel=2&stream=0.sdp
1.00x
00:00/00:00

Internet Connection

A DVR is connected rule to a local LAN that connects to the Internet via a Router. If we connect to the DVR using an internal PC to the network, the DVR address (typically the 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 our cloud server (see below). It is not sufficient, however, type in the browser the IP address of the WAN side Router to connect to the DVR. 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 DVR 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 DVR from the Internet is therefore necessary to enter the router configuration and insert instructions so that it directs the external incoming calls to the internal IP address of the DVR.

Obviously the directing is only performed for the communication ports that are used by the DVR, 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 DVR DX series are the following:

WEB PORT / HTTP: Default 80. And 'the port used by the DVR 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 the DVR configuration you set a port other than the web 80 (ie. Port 85) needs to be clarified in the browser which port to use for the call after pointing address

with ":" as the separation. 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.

DOOR MEDIA / MOBILE: By default 34567. E 'the port used by the DVR to communicate with the CMS software and centralization with mobile and tablet devices that use mobile APP.

These ports are mapped MEDIA WEB and from the WAN side of the router to the internal IP address of the DVR. 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

DX Series DVRs 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 DVR 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 Services included with the DVR

Each user of a DVR DX Series acquires with the DVR can enjoy free use of a CLOUD service to its online service to make easy connection to DVR via the Internet.

This service can solve with a few mouse clicks the two main problems in connecting the Internet to the DVR, 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 DVR via Internet, you need to 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. 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 / DVR. The DVR DH Series supports many popular DDNS network services like dyndns, no-ip etc. However these services are thick paid but not always easy to set up.

With the DX series DVR CLOUD services you do not need or get a fixed IP address from your provider, or take out a subscription DDNS.

MAPPING THE PROBLEM OF THE DOORS

Almost always between the DVR and the Internet it stands a ROUTER. This device can become a major obstacle in connection to the DVR because it prevents external calls to penetrate to the internal network. To allow this step you need to enter the router programming of mapping instructions which we discussed in earlier chapters.

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 DVRs DX series, thanks to P2P technology you can connect to your DVR 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. In the P2P connection it is in fact possible that the connection speed, and then the fluidity of the remote video is lower than the direct connection.

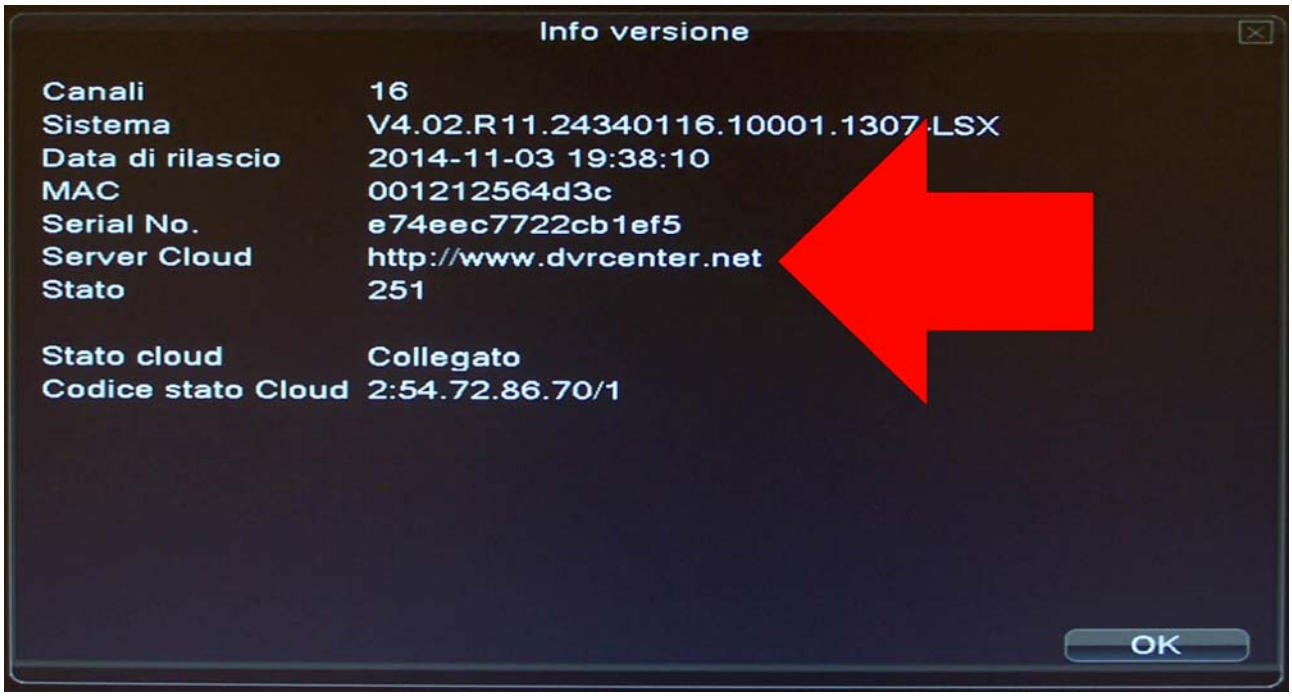
The CLOUD SERVER FOR DVR SERIES DX

To DVRs DX series are available in 2 CLOUD network server at the following addresses

www.dvrcenter.net

www.xmeye.net

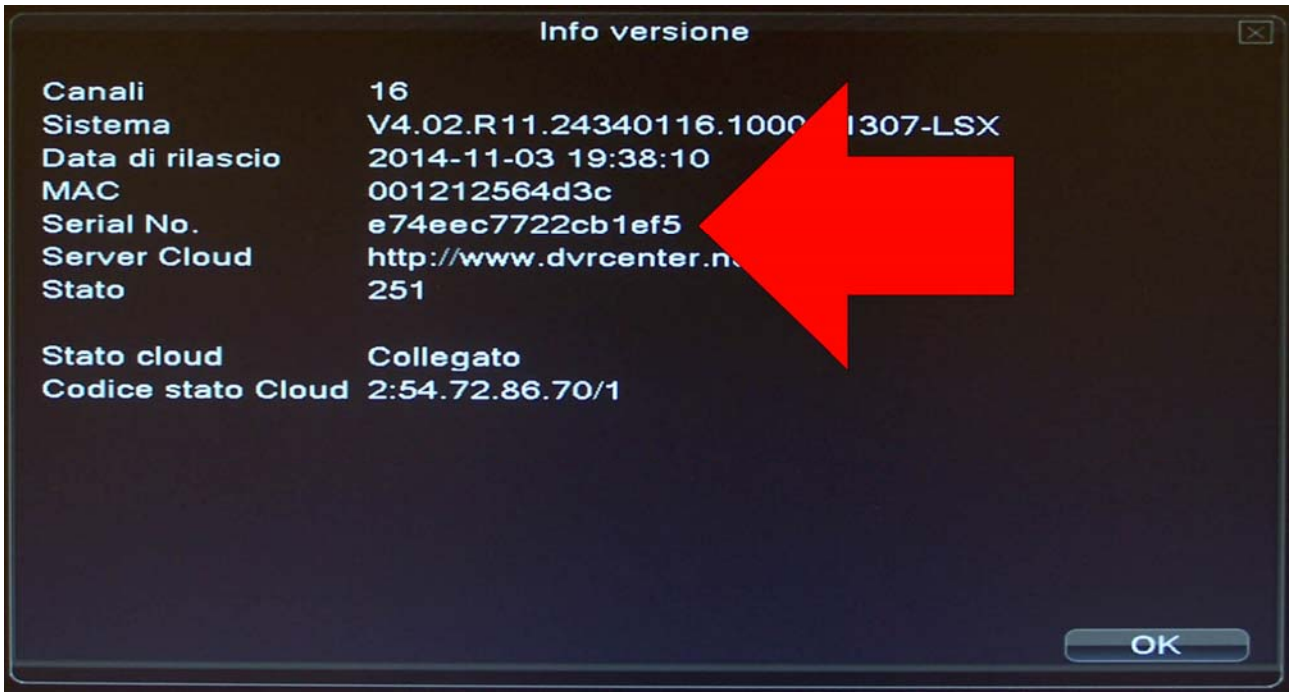
To know if your DVR is connected, press the INFO button on the taskbar and select ABOUT VERSION



The DVR above is for instance loaded on the server **www.dvrcenter.net but you can also use www.xmeye.net.**

THE SERIAL NUMBER (ID) DVR

The DVR that you have bought is already registered in our cloud server and is distinguished by a unique ID. The ID of the DVR is in the same panel ABOUT VERSION of the DVR menu, just above the CLOUD server address.

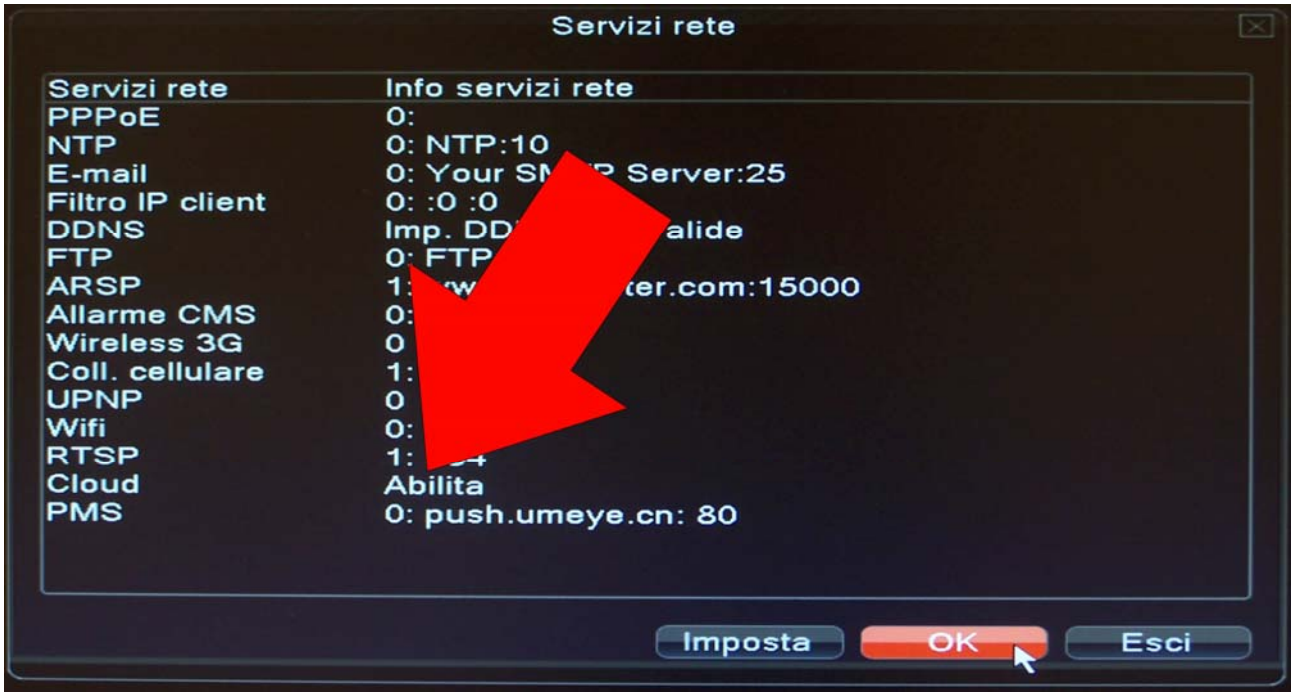


The serial ID is readable even in remote connection via browser and CMS software.

ACTIVATE THE CLOUD DVR

The first thing to do in order to benefit of cloud servers and enable the cloud server management in DVR configuration, as explained in the configuration guide. Enabling the cloud server you are requested by the wizard that is proposed to Pima power of the DVR.

To enable or disable the cloud server then manually go to NETWORK / NETWORK SERVICES



Do not modify the orders of factory settings in this section.

ACCESS TO CLOUD

The cloud server **www.dvrcenter.net and www.xmeye.net** They are substantially identical in

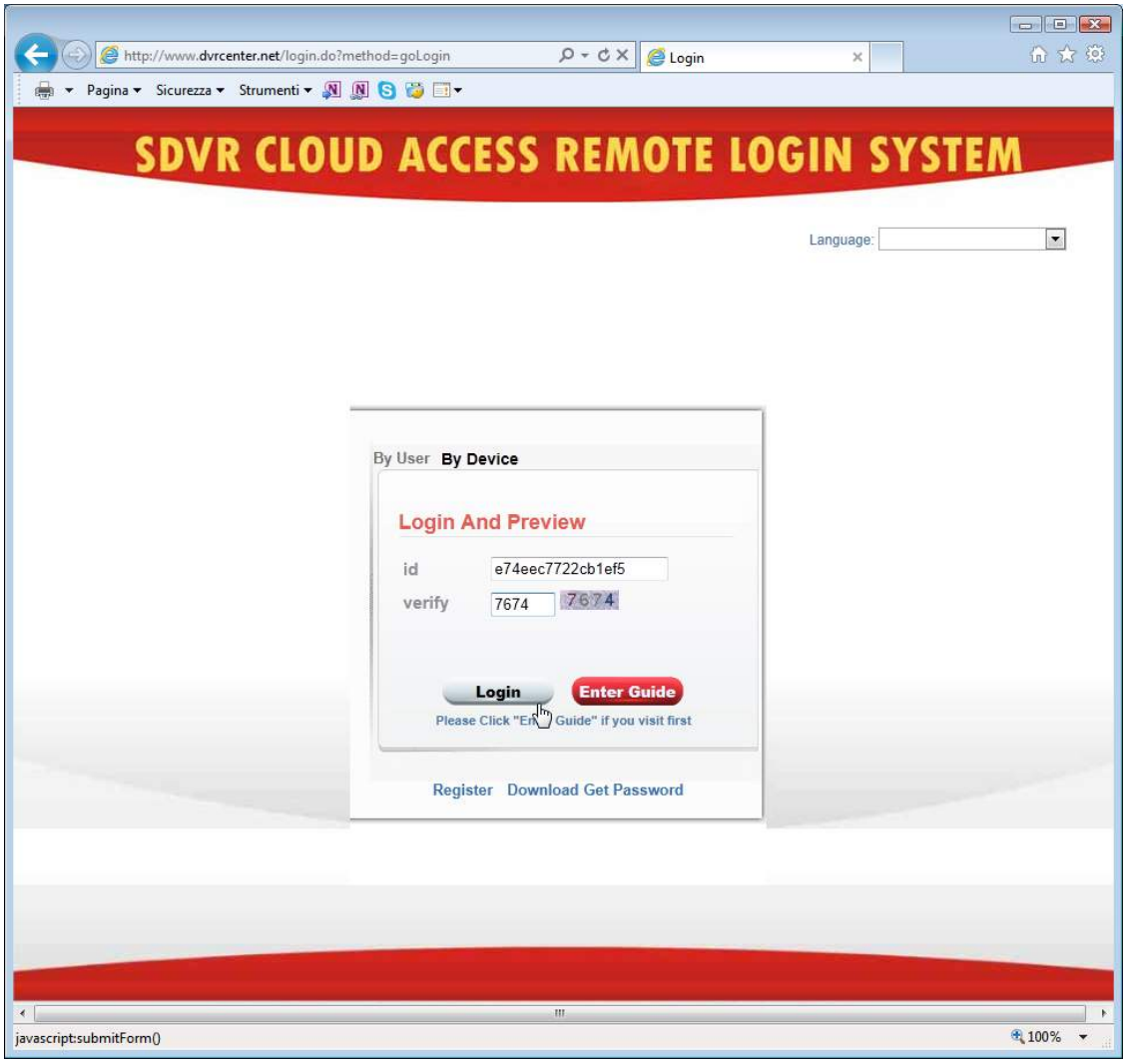
funzinalità. As an example, let's step through the process of using the site www.dvrcenter.net

Remember to use the browser **Internet Explorer.**

The server page 2 provides opportunity to log in: BY DEVICE (DVR) and BY USER (per user) that are selected by clicking on the respective terms.

ACCESS TO CLOUD SERVER BY DEVICE

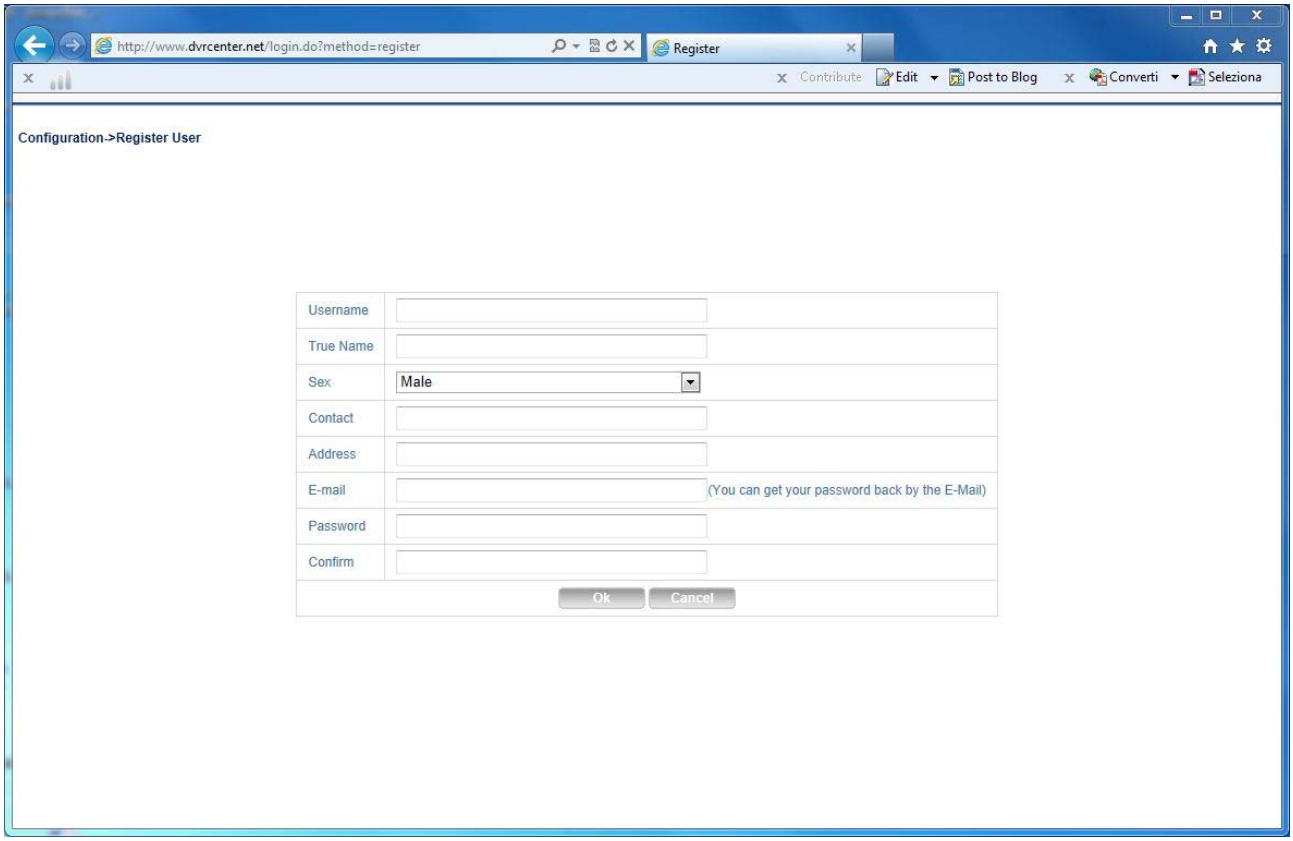
BY DEVICE Access to the server is the most direct mode that allows direct connection to a DVR by entering the serial ID of the DVR. Just enter the ID of your DVR and the verification code and press LOGIN as in the following example.



ACCESS TO CLOUD SERVER BY USER

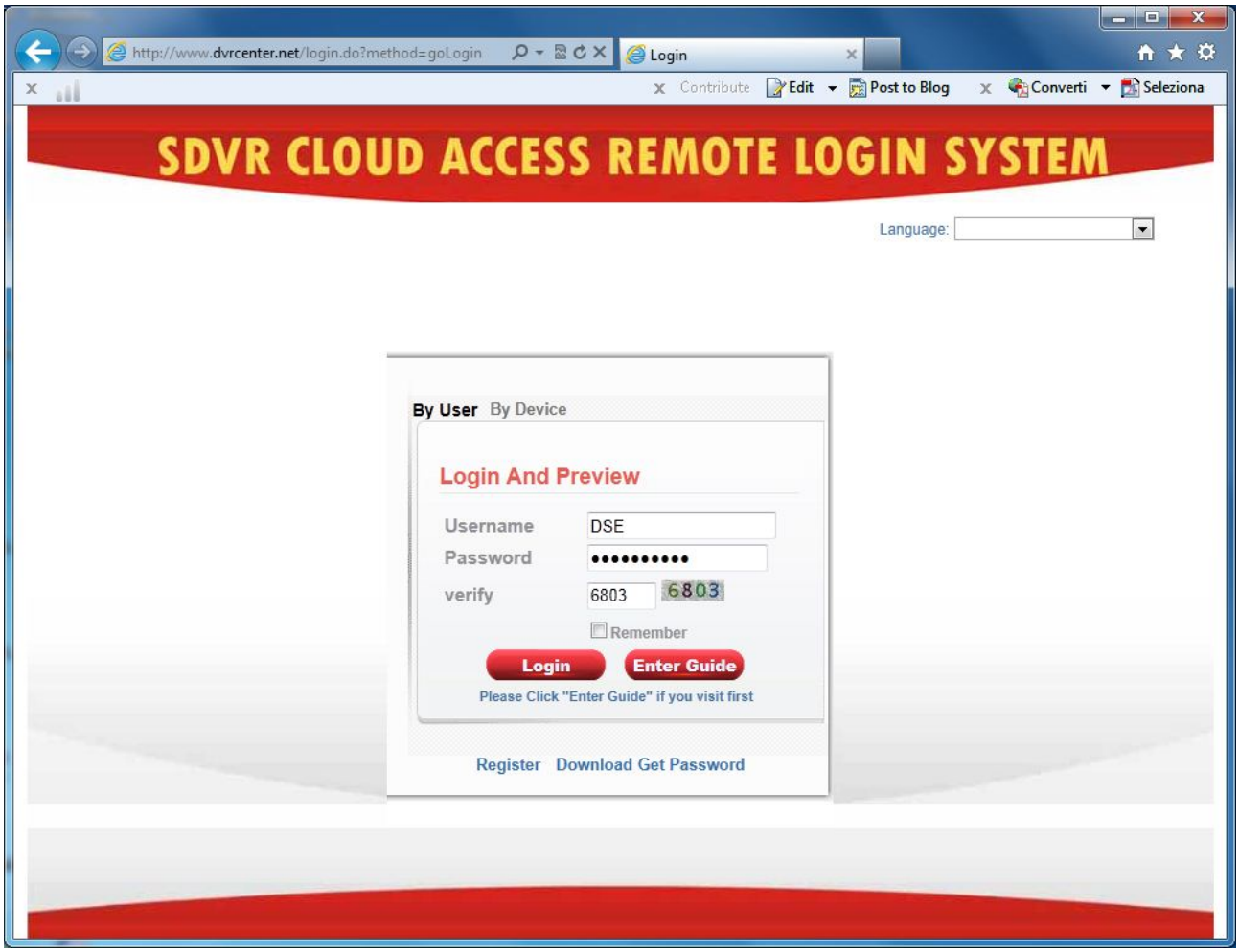
Access to the cloud server as a user enables you to have a personal page where you can upload more than one DVR.

First you must choose REGISTER to register as a user of the service.

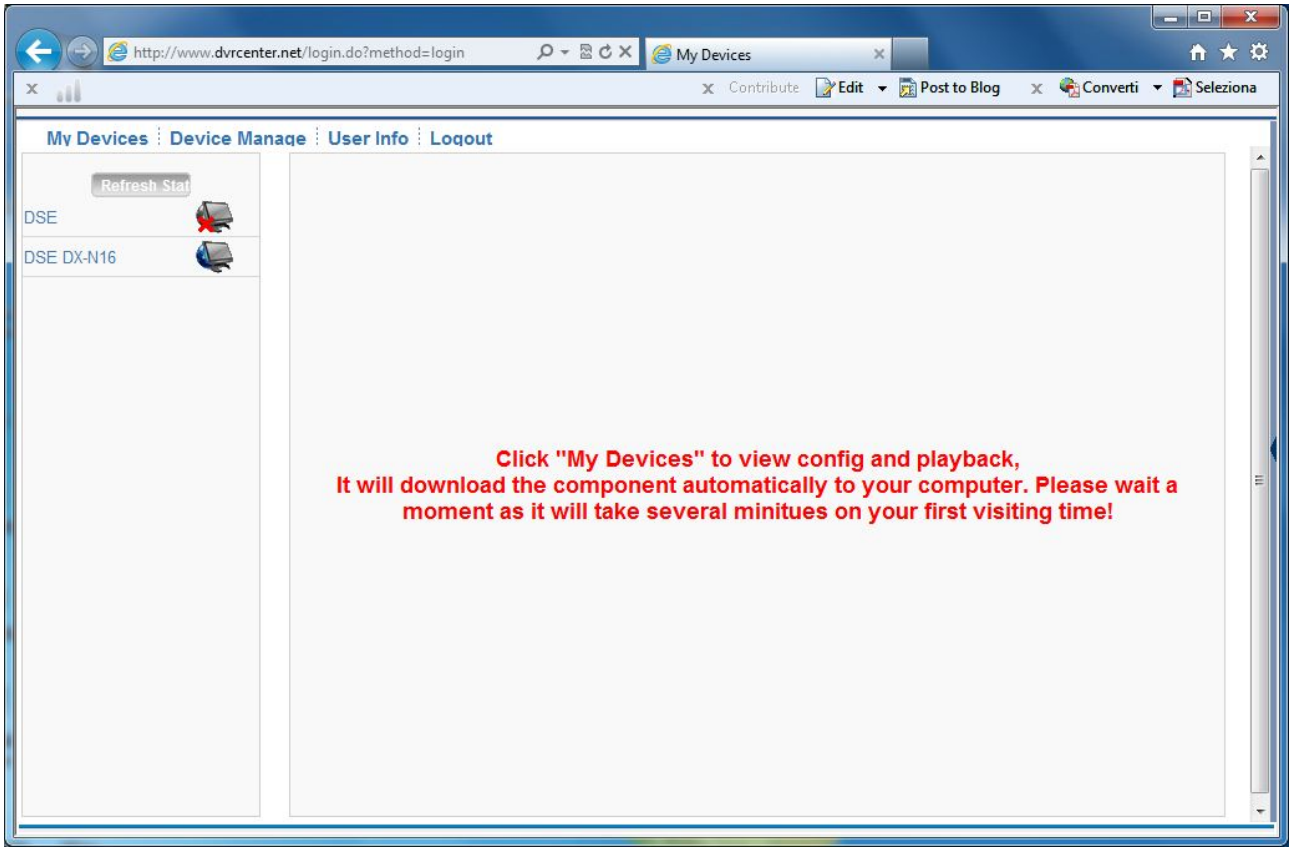


Enter your details and press OK to register as a user. Store your user name and password to access the service.

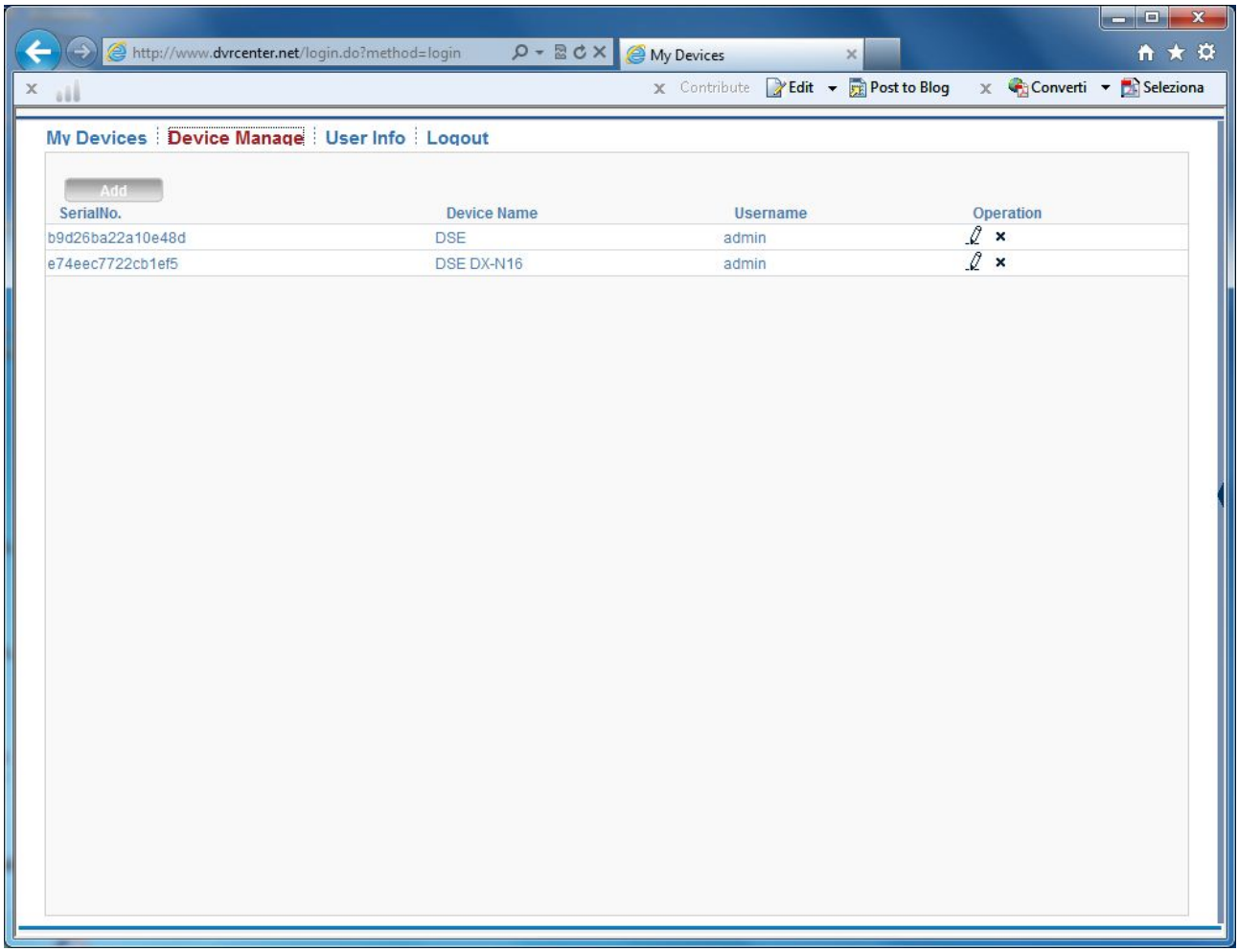
Registration takes place immediately and will see a confirmation message. You can then return to the log-in and use your credentials page always in the BY USER mode



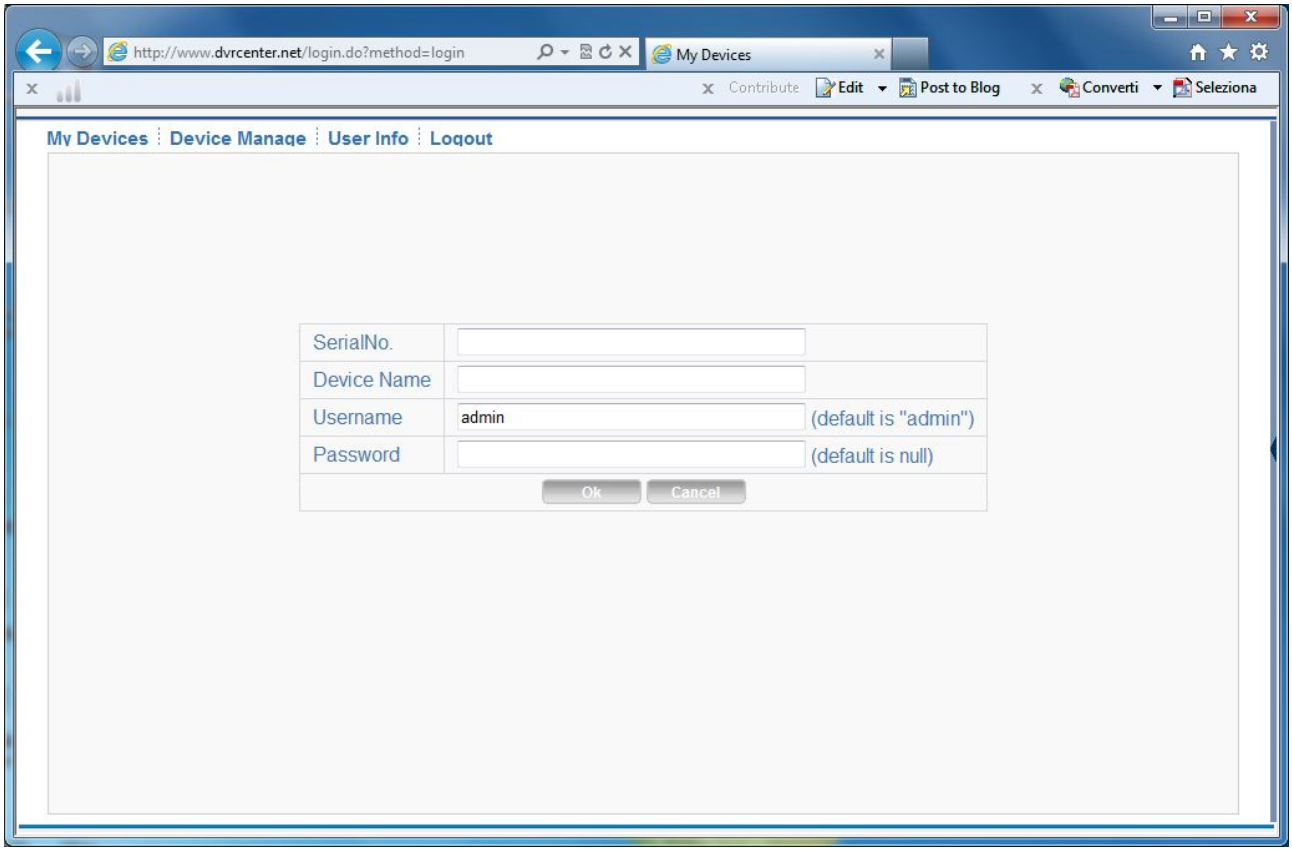
You log into your DVR control page that is at your disposal to be configured.



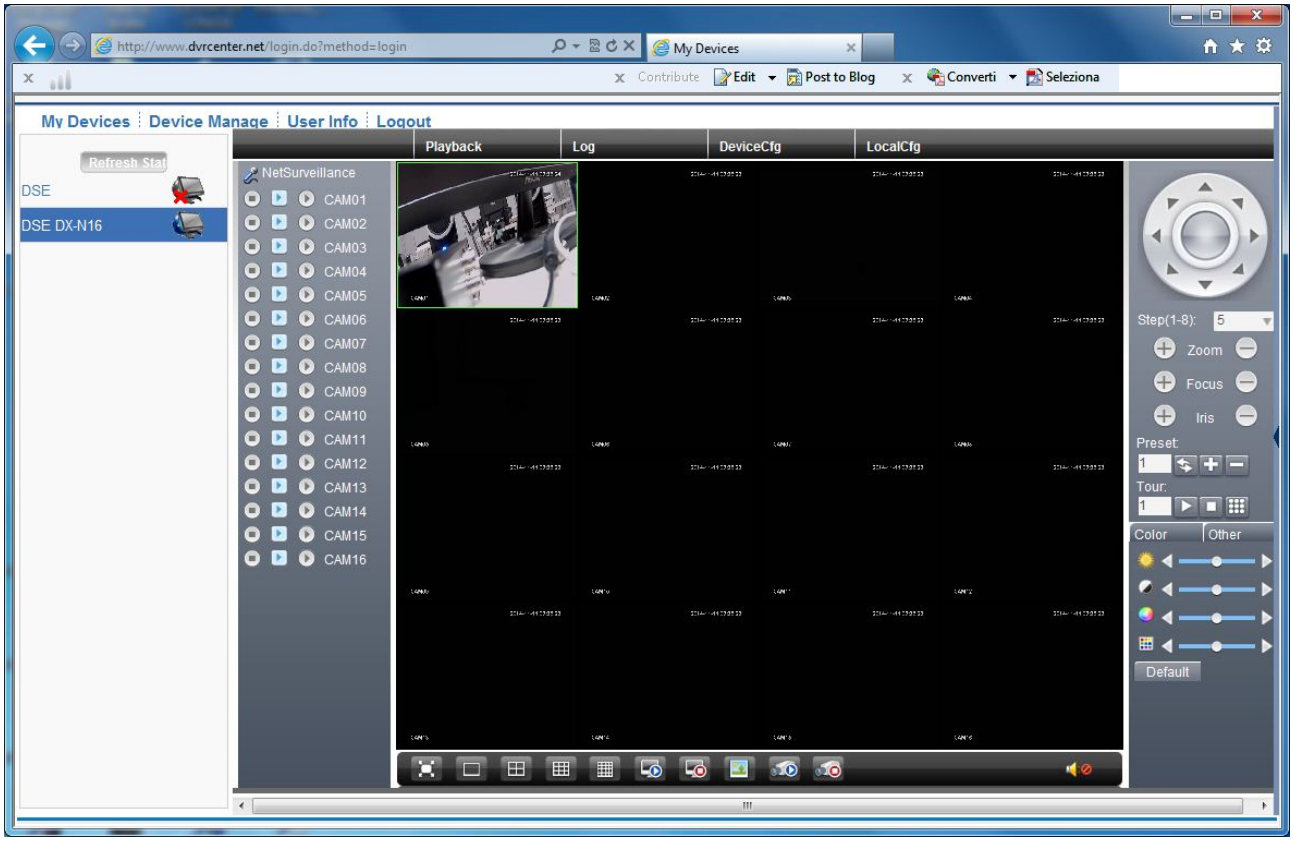
At the top you have available a menu bar. Click DEVICE MANAGER to place your DVR.



Press ADD and enter the serial ID and the login credentials of your DVR



Once plugged into your DVR MY DEVICES Click to return in the remote link page and start the connection by double-clicking on the left DVR



If the icon of your DVR does present a red cross, as in the first example DVR occurred here over the connection in DVR network because it is not sending the connection data to the server.

ACCESS TO SERVICES AND CLOUD WITH CMS MOBILE APP

I can use the services of CLOUD DX series DVR 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 DVR 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 the USB port of the DVR and upgrade the firmware in the programming menu.