Video recorders Series DH

DVRs for analog cameras, 960H, HD-SDI

Installation manual

How to connect the DVR

How networking

Contents of this handbook

The range of VCRs DH series is designed to allow the management and the recording of CCTV cameras and includes templates for analog cameras and for HD-SDI technology in cameras. This manual describes how to properly install the DVR and how to make the network connections to access the DVR remotely.

Product description

The DVR DH series are intended for digital video surveillance systems. Models are available for analog cameras, able to make the most even-resolution cameras over 700 lines thanks to 960H resolution, and HD-SDI camera with FullHD 1080p resolution.

DH SERIES FOR ANALOG CAMERAS

The DH video recorders for analog cameras allow to connect any traditional camera with analog video signal. It is the latest generation of equipment capable of obtaining the WD1 960H resolution (960x576), which far exceeds

to reach by normal DVR classic D1 (704x576). The resolution WD1 960H is essential to make the best video quality of analog cameras of the latest generation with a resolution that exceeds 700 TV lines. These DVR cameras are not compatible with HD-SDI technology.

DH SERIES CAMERA HD-SDI

The DH VTRs for HD-SDI cameras allow you to connect any camera with HD-SDI video signal. It is the latest generation of equipment able to get the full HD 1080p resolution (1920x1080), far superior to analog systems. These DVRs are not compatible with analog cameras.

main Functions

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

LIVE VIEW

The DVR DH series are equipped with 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, 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 the same number of video and 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.

100% REAL TIME

Unlike more economic end appliances, the DVR DH series are always able to record and play back all channels at full resolution and maximum frame rate of 25 F / sec to provide images always at the highest quality level.

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 connect external storage media such as USB drives, hard

external disk, 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 support PTZ control of speed dome motorized cameras 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.

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 AND PUSH NOTIFICATION

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 emails and type PUSH notifications in real time on mobile devices.

REMOTE CONNECTION P2P

The DVR DH 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

	DH-N4	DH-N8	DH-N16	DH-S4	DH-S8
Type of camera	analog HD-SDI analog analogue				HD-SDI
video Inputs	4 BNC	8 BNC	16 BNC	4 BNC	8 BNC
audio Inputs	4 RCA	8 RCA	8 RCA	4 BNC	8 BNC
HDMI Video Output	1	1	1	1	1
VGA video output	1	1	1	1	1
BNC video output	1	1	1	1	1
BNC video output programmable spot	-	-	-	1	1
BNC video output LOOP	-	-	-	-	8
HDMI Output Resolution	1024x768, 1280x1024, 1366x768, 1440x900, 720p, 1080p				
VGA Output Resolution	1024x768, 1280x1024, 1366x768, 1440x900, 720p, 1080p				
BNC Output resolution	704x576 PAL				
audio Output	1 RCA	1 RCA	1 RCA	1 BNC	1 BNC
Network port	1 RJ45 10M / 100M				1 RJ45 10M / 100M RJ45 1000M 1
Serial port for PTZ	RS485	RS485	RS485	RS485	RS485
USB Ports	2	2	2	2	2
mouse Support	Yes	Yes	Yes	Yes	Yes
Porta and external SATA	-	-	1	1	1
Alarm inputs	4 NO / NC 12VDC	8 NO / NC 12VDC	8 NO / NC 12VDC	4 NO / NC 12VDC	16 NO / NC 12VDC
Alarm outputs	1 NO / NC	1 NO / NC	1 NO / NC	2 NO / NC	4 NO / NC
LINE IN Audio input	-	-	-	1 BNC	1 BNC
Audio output LINE OUT	-	-	-	1 BNC	1 BNC
standard Video	PAL / NTSC PAL / NTSC PAL / NTSC PAL / NTSC PAL / NTSC				
video Compression	H.264	H.264	H.264	H.264	H.264
audio Compression	ADPCM	ADPCM	ADPCM	ADPCM	ADPCM
Recording resolution WD1 960H (960x576), WHD1				1080P (1920x1080)	

	(960x288), WCIF (480x288) D1 (704x576), HD1 (704x288), CIF (352x288)			720P (1280x720)	
Frame rate per channel (f / sec)	25 f / sec per channel (real time) at the maximum resolution				
Total Frame rate (f / sec)	100 f / sec	200 f / sec	400 f / sec	100 f / sec	200 f / sec
Bit rate video	WD1 / D1 (768..1536 Kbps), WHD1 / HD1 (512 ... 1280 Kbps), WCIF / CIF (384 ... 768 Kbps)			720P (1536kbps-3072kbps) , 1080P: (4608-6144kbps)	
Audio bit rate	Kbps Kbps 8-32 8-32 8-32 8-32 Kbps Kbps 8-32 Kbps				
Dual stream	Yes	Yes	Yes	Yes	Yes
Hexaplex	Yes	Yes	Yes	Yes	Yes
Consumption (excluding HDD)	15W	15W	15W	15W	70W
Supply	12VDC 2A 12VDC 2A 12VDC 2A 12VDC 2A 220V AC				
modular rack unit	1U	1U	1.1U	1.1U	2.0U
Dimensions (mm)	230x315 x40	230x315 x40	321x405 x64	321x405 x64	435x440 x90
Locations for Hard Disk	1 SATA	1 SATA	2 SATA	2 SATA	8 SATA
Capacity max. Hard Disk	4 TB	4 TB	4 TB	4 TB	4 TB
acessori included	Mouse, power supply 220VAC / 12VDC, remote control				
Weight kg.)	1.5	1.5	3	3	6
temperature function	- -10- + 55 ° C -10 to + 55 ° C -10 to + 55 ° C -10- + 55 ° C -10- + 55 ° C				

front Panel

The keyboard of the DVR allows the DVR control in 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.

In the following example we describe the keypad of the DH-N4 model. The same keys are found in other models with similar functions.

1 - HDD LED - Report flashing access to the hard disk 2 - HDD FULL LED - Illuminates when the hard disk is full

3 - LED REC - E 'being recorded in normal mode to clockwise or manual 4 - LED ALM - E' in the course of an alarm event (motion, input or technical event) 5 - LED LINK - E 'present a link on rear door LAN 6 - 100M LED - flashes during data exchange network

7 - NUMBER KEYS - Used to directly invoke full camera screen 8 - MENU BUTTON - Enters TASK BAR and the configuration menu 9 - KEY MULTIVISION - Pressed repeatedly chooses the split screen mode 10 - KEY OK - Serves as ENTER

11 - ARROW KEYS - Allow you to navigate through the on-screen options

12 - POWER BUTTON - Press and hold to turn off a few seconds to turn 13 - IR - Receptor for the supplied remote

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 - ON / OFF - Power switch

2 - 12VDC - Power connector where you can connect the power adapter included 3 - VIDEO INPUTS - BNC video connectors to connect the cameras. The number of connectors varies from 4 to 16 depending on the model in question. In models for analog cameras (DH-N4 / 8/16) connect the video outputs of the cameras using coaxial cables such as RG59 or twisted pair with suitable BALUN converters. In the case of the models for HD-SDI cameras (DH-S4 / 8) the connection is made only with RG59 coaxial cable or higher, and it is recommended not to exceed 100 m in length video cabling.

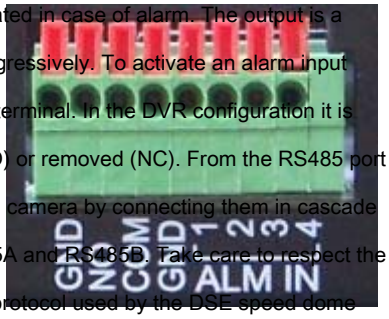
It 'good to remember that there is a great difference between the video inputs of the models for analog cameras and the model inputs for HD-SDI cameras, although both are using the BNC connector.

The DVR for HD-SDI cameras (DH-S4 / 8) are only able to reproduce the HD-SDI cameras and can not be connected to the normal analog cameras. Similarly models for analog cameras (DH-N4 / 8/16) can only handle traditional analog cameras and are not compatible with HD-SDI cameras.

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 recommended if you want to connect a large monitor. 5 - 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 BNC or HDMI monitor can edit it.

6 - 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.

7 - USB PORTS - The DVR is equipped with two USB ports. In DH-N4 / 8 models both USB ports are located at the rear. In the other models a door is rear while the second is placed on the front. On the USB ports connect the supplied mouse, and USB storage devices such as USB HDD or USB flash drives for backing up movies. 8 - E-SATA - The DVR models DH-N16 and DH-S4 / 8 are equipped with an external SATA port to connect external hard drives, in addition to those installed internally. 9 - TERMINAL - In all the DVR is present a rear terminal that can have different arrangements depending on the models and which encloses the alarm inputs, alarm outputs and RS485 port for controlling the speed dome cameras. In the figure is given by way of example, the terminal board of the DH-N4. 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. The alarm inputs are numbered progressively. To activate an alarm input 12VDC is necessary to apply a voltage between the terminal numbered (1,2,3 etc.), and a GND terminal. In the DVR configuration it is possible to determine whether the alarm condition is determined when the voltage is applied (NO) or removed (NC). 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.



10 - 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.

11 - AUDIO OUT - mono audio output to connect an external speaker that allow you to hear the audio of the live cameras and recordings. In models for analog cameras RCA connector is used, the models for HD-SDI cameras, BNC.

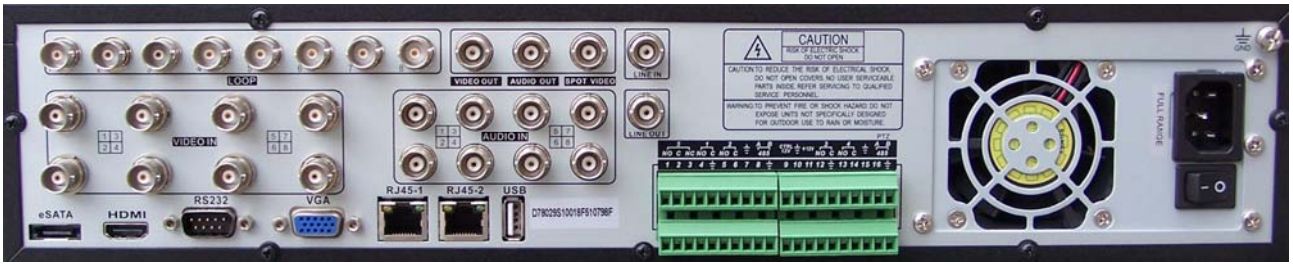
12 - AUDIO IN - mono audio inputs for connecting external microphone or audio signal

from cameras with embedded audio. In models for analog cameras RCA connector is used, the models for HD-SDI cameras, BNC.

The HD-SDI models and DH DH-S4-S8 also have

13 - AUDIO LINE IN - General Additional audio input (BNC) for two-way conference 14 - AUDIO LINE OUT - General additional audio output (BNC) for two-way conference

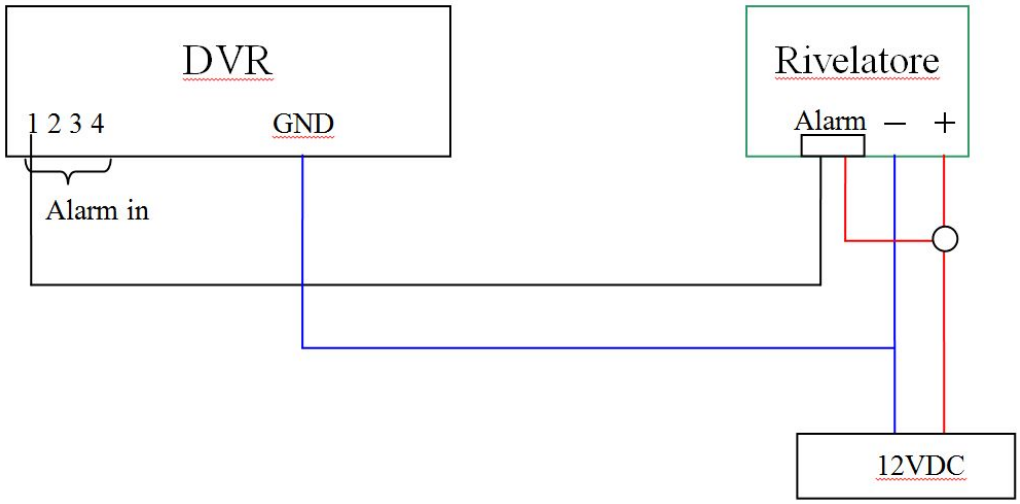
The only DH-S8 model, in the case of two modular units, has some additional connections are not available in other models.



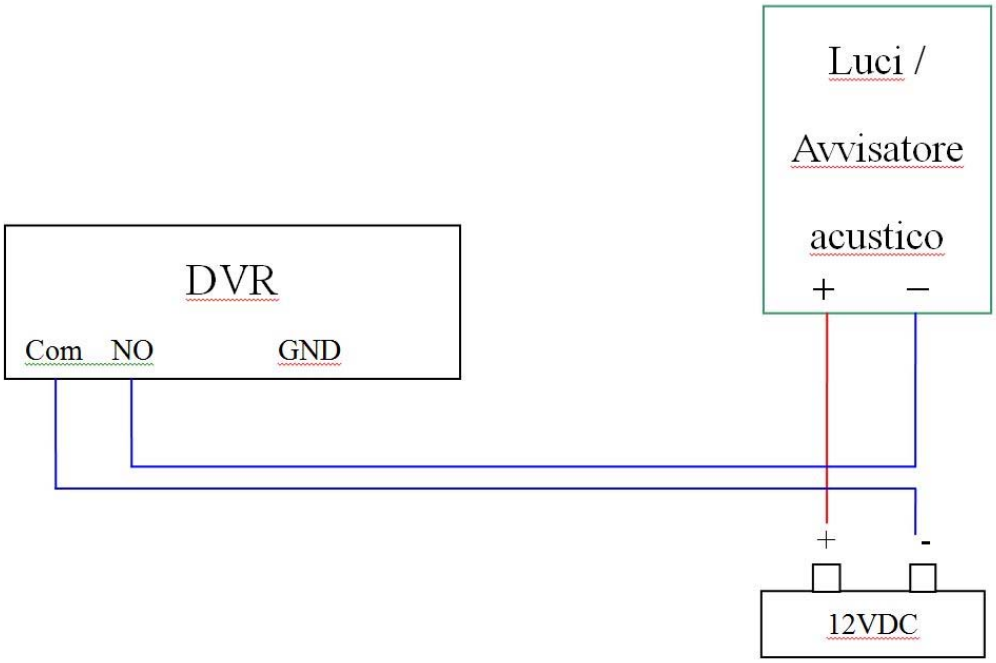
OUTPUT BNC LOOP - For each video input is available it's video output to bring the signal to other equipment.

SPOT OUT BNC - Additional analog video output with programmable display. SECOND RJ45 1000M DOOR - Further NIC to 1000M networks. The RJ45-1 connector is for use with networks 10M / 100M connettroe RJ45-2 with 1000M networks

EXAMPLE OF CONNECTION OF A SENSOR TO AN ALARM INPUT



EXAMPLE OF CONNECTION OF AN ALARM OUTPUT



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.

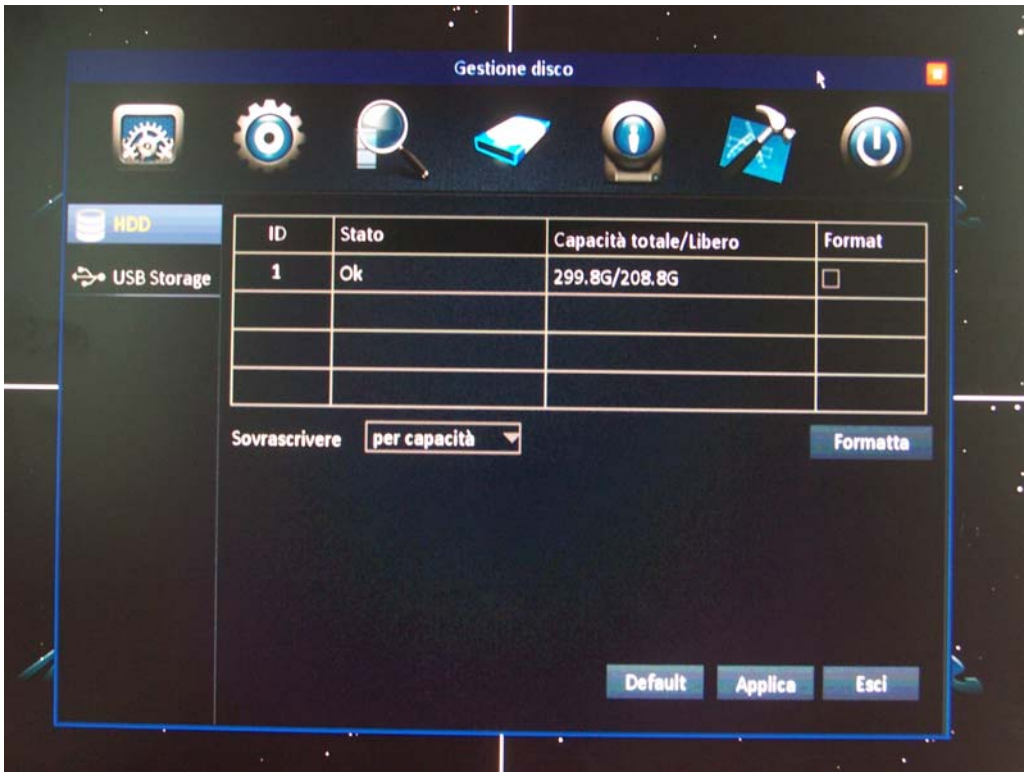
The DVR can accommodate 1, 2 or 4 Hard disk. depending on the model of any brand as long as SATA connector. There **maximum manageable capacity of 4000 GB (4 TB)** for each HDD. Proceed with the installation of the hard disk as follows:

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.

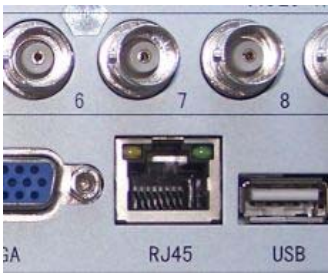
4. Close the appliance with the lid by screwing the screws.

CAUTION: Before you begin recording will need to perform physical formatting of the hard drive in the programming section CONFIGURATION / MANAGEMENT DISC / HDD. See the instructions in the DVR configuration manual


Gestione disco
HDD
USB Storage
ID
Stato
Capacità totale/Libero
Format
1
Ok
299.8G/208.8G
Sovrascrivere
per capacità
Formatta
Default
Applica
Esci

Network Configuration

The DVR DH Series integrates 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 yellow and green LED located on swicth connector (also present on some models on the DVR port) should go on. If you do not monitor the proper functionality of the cable.

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.

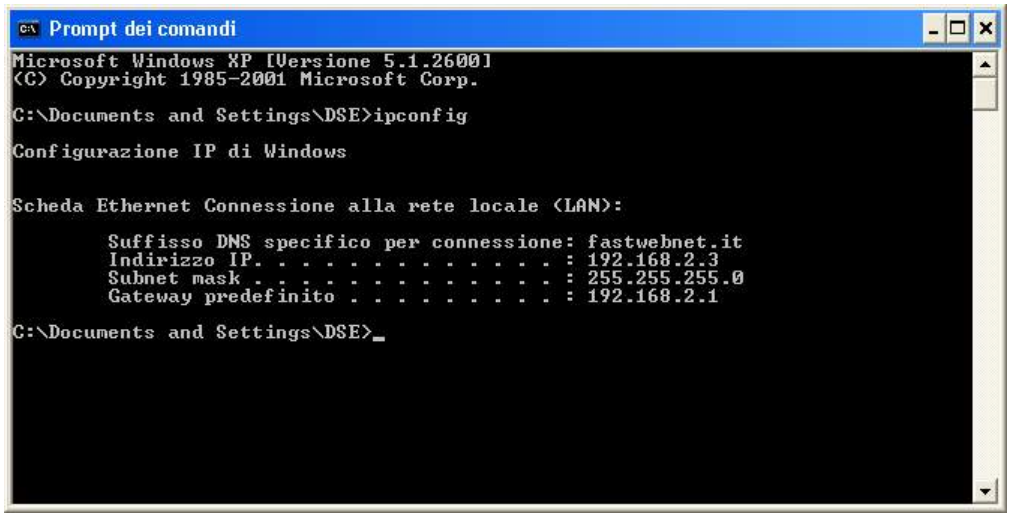
KNOW THE PARAMETERS OF COMPUTER NETWORK

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

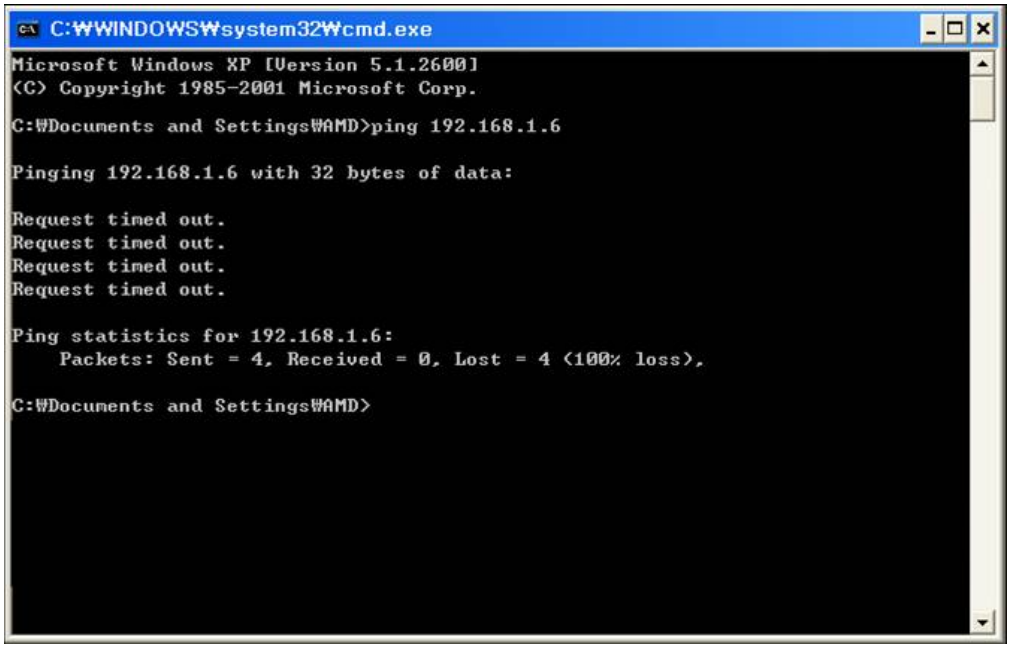
TCP / IP. The second line is the IP address assigned to your computer.



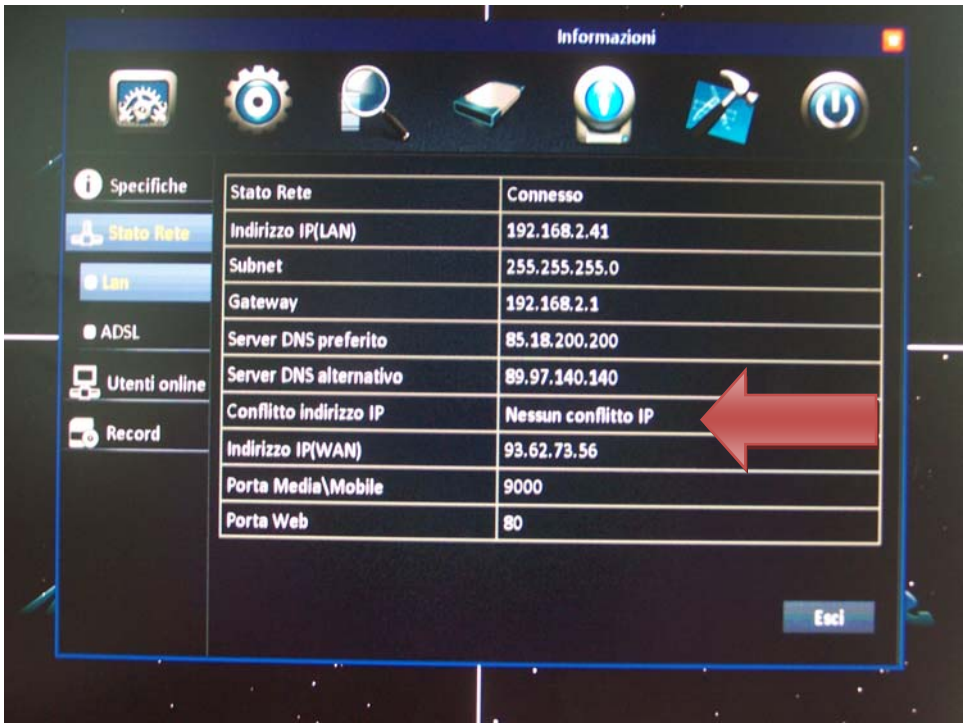
In the above example the address of the PC on which you are working is 192.168.2.3 and the subnet mask used is the classic 255.255.255.0. At the DVR so you can assign an address chosen by the 192.168.2.XXX type, where XXX is a number between 0 and 255. '

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. The DVR serious DH include a comfortable working diagnosis that automatically detects the presence of IP network collisions, is located in the configuration menu INFORMATION section.



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 Advanced / NETWORK configuration of network parameters already we find 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

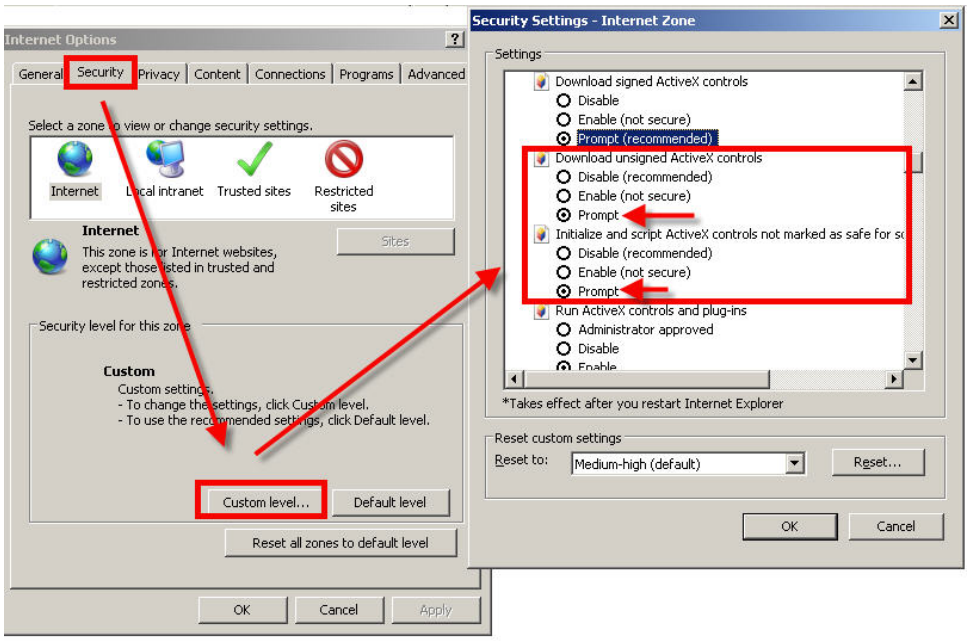
If you have assigned to your DVR a fixed IP address and the correct subnet mask used by the network you can already groped the first link from another PC on the network. To complete the network configuration is however advisable to also enter the gateway to the Internet, as a rule the xxx.xxx.xxx.1 address,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

Connection with browser

The easiest way to connect to a DVR DH series through a computer using the Internet browser. The reference browser for use with the DVR DH series is Internet Explorer although with appropriate plug-in is also possible to use other browsers (see below). The DH Series DVR allows connecting max. 4 clients simultaneously.

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.

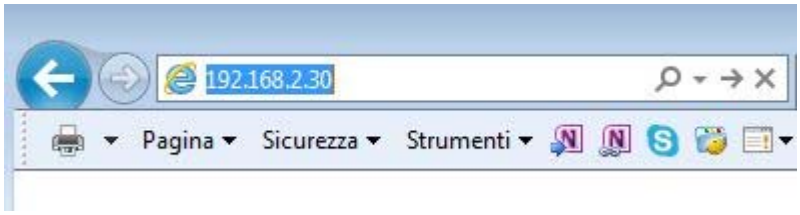
ENTERING THE ADDRESS OF THE DOOR AND DVR WEB

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. Note that after the IP address of the DVR has been specified

WEB PORT 85 which it is the default setting in the DVR,

All DVR DH series use factory WEB port 85 to avoid conflict with other devices which generally use port WEB 80. It is a security setting that nevertheless obliged to point out the communication port in the browser by entering " 85 "after the address.

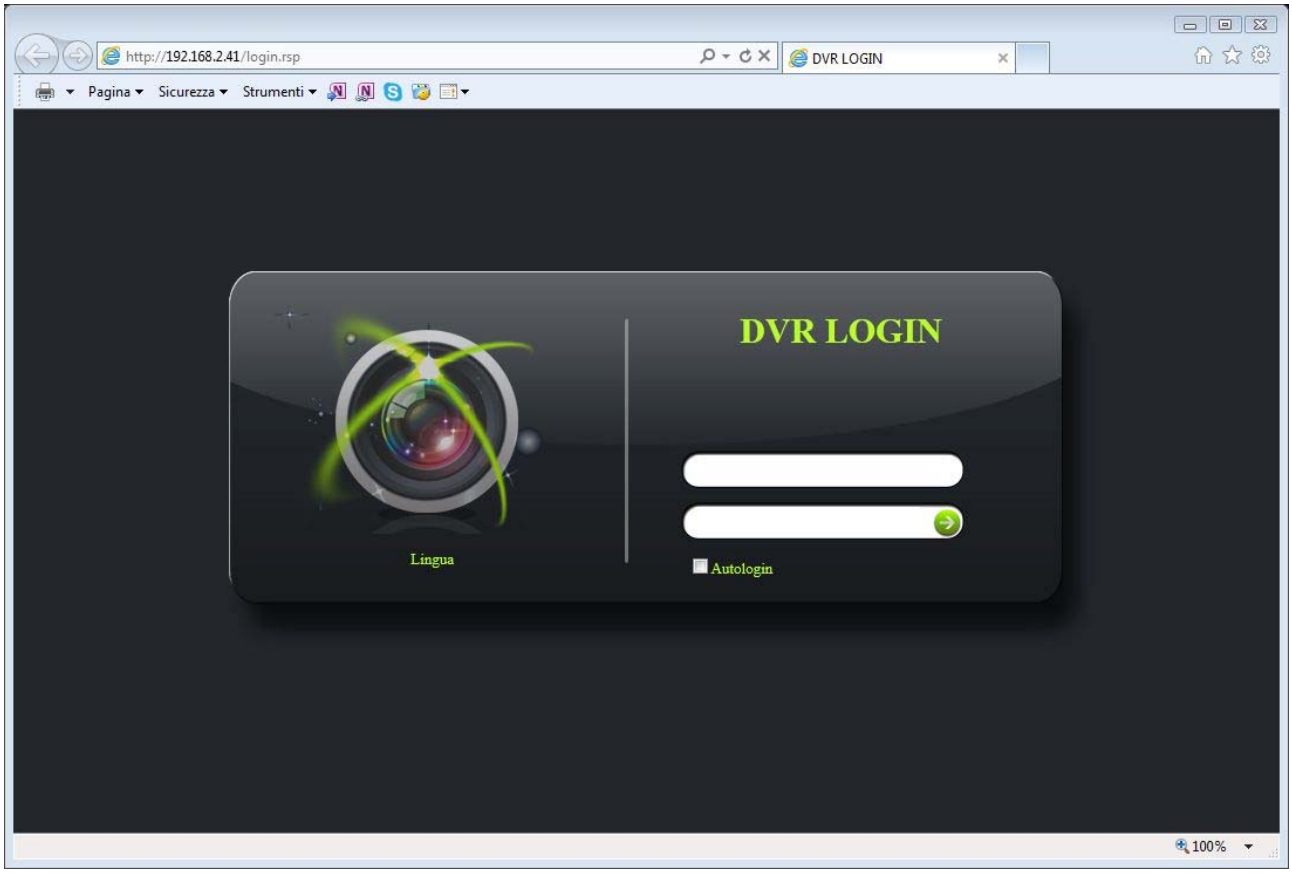
If you want to avoid specifying the door you need to change the DVR network configuration PORT WEB 85 to 80. Port 80 is the one that browsers use if none is specified another. Therefore, if you set the DVR web port 80 you can connect by simply typing:



It will present the log-in DVR window

MAXIMUM NUMBER OF CLIENT

Each DVR allows simultaneous connection of max. 4 client from different types (viewclient, ViewCam, browser etc.)

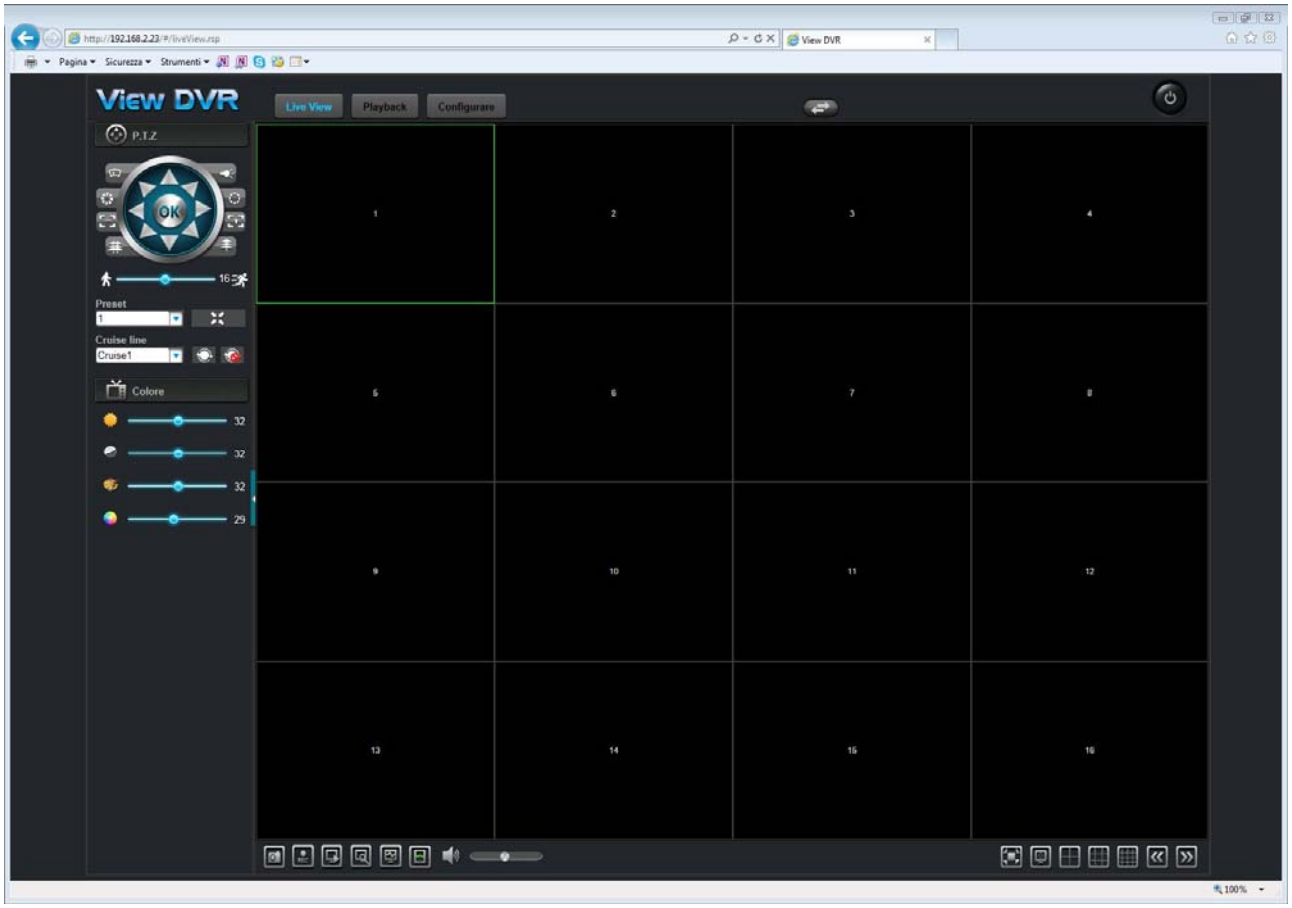


If you have not changed the factory can use user credentials: **admin** and leave the password field blank.

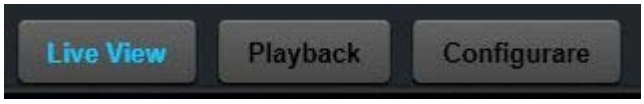
At the first access, depending on the security settings you have chosen there could be shown a confirmation request to install the component activeX where necessary to give consent. If the installation of activeX component does not happen the screen will be divided into quadrants, and not be necessary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

CONTROLS OF LIVE VIEWING

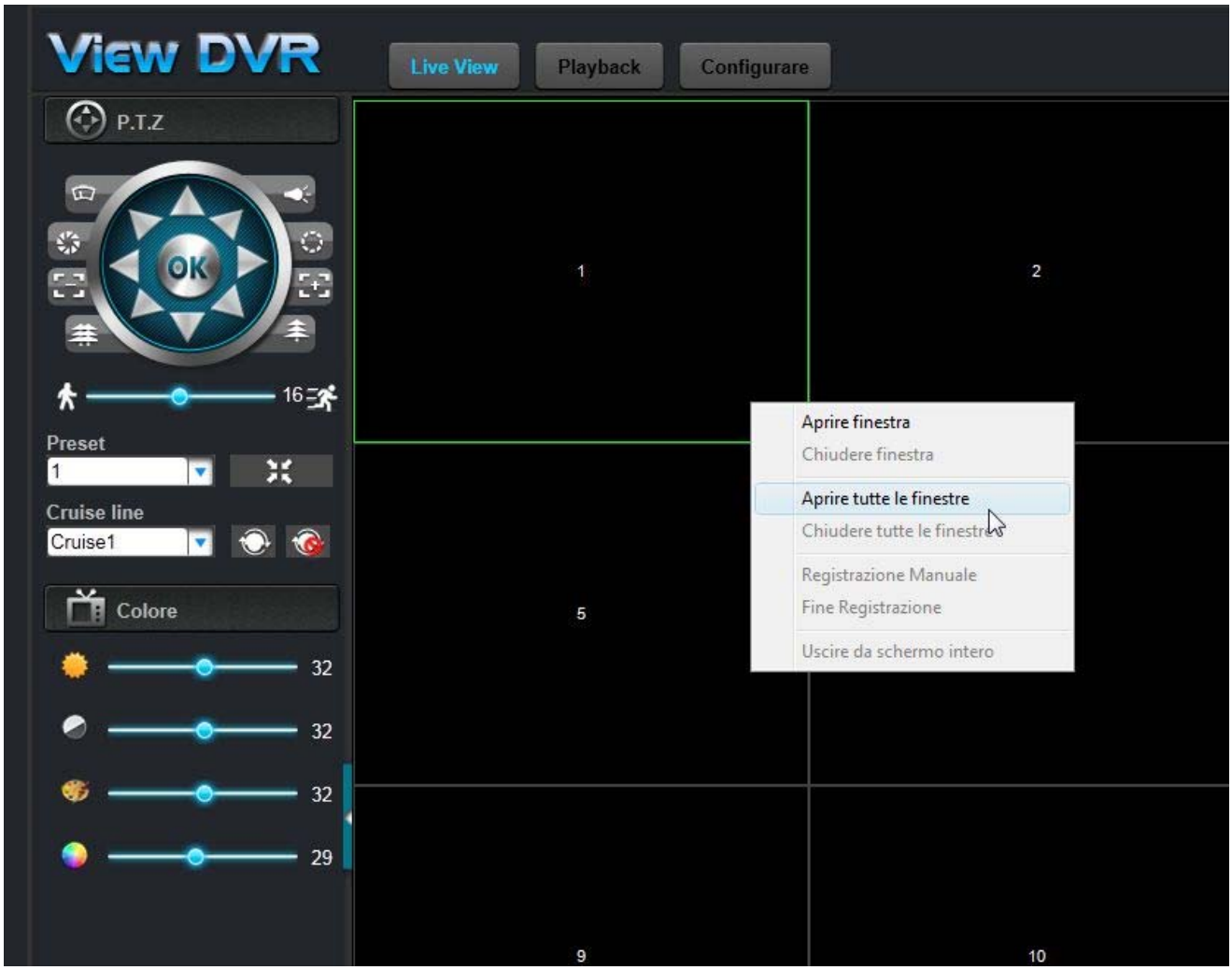
Here is the exemplary playback screen DH-N16 DVR.



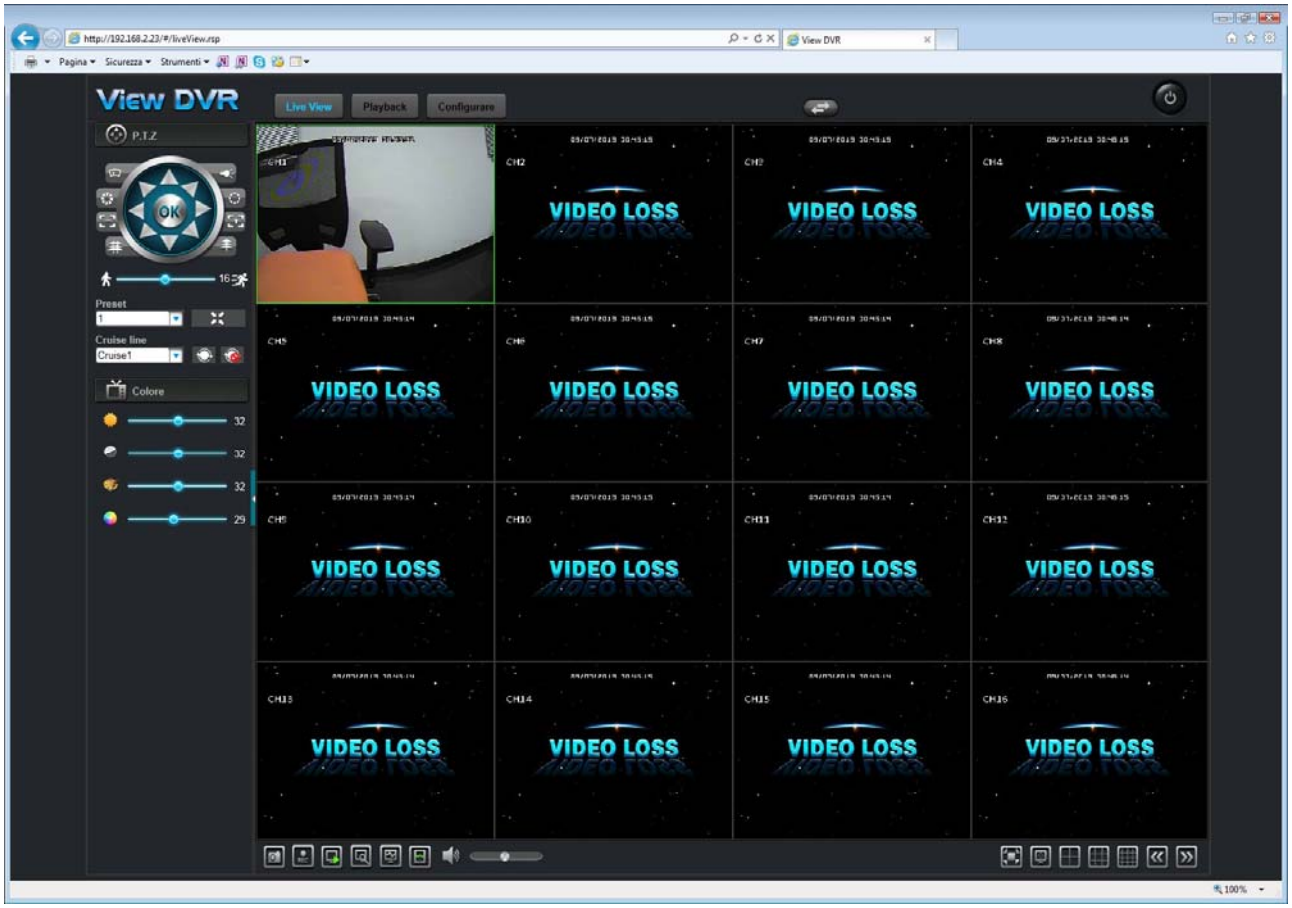
At the top it is on the factory at the time of access the LIVE Vision Window



To start viewing the cameras just click the right mouse button on a box of a camera and click WINDOW OPEN or OPEN ALL WINDOWS



The following example shows the DH-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 remote cameras you can be moved by dragging cameras from one pane and it can lead to full screen a single camera by double-clicking on it.

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

1 - 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. 2 - REC - Record the selected camera video and save it in the configuration folder set (see below). The file is saved in format 3 .264 - OPEN / CLOSE - To start or stop the live playback of all cameras 4 - DIGITAL ZOOM - this enabled, you can zoom a particular

image by dragging the mouse in the image. Once enlarged view of the particular it is possible to always move the magnification box using the mouse. Re-press this button, or click the right button to return to the original format. Digital zoom works with a single camera full screen during the multivision more cameras. 5 - MAIN STREAM - click this button, the DVR will send the video camera using the main stream, typically had the highest resolution and frame rate with higher video quality.

6 - SUB-STREAM - click this button, the DVR will send the video camera using the sub-stream, the stream typically at a lower bandwidth recommended in access through the Internet. By default the start of the stream link has enabled the sub-stream. If voltete higher video quality and press the previous button (5).

If the vision riqudri apper written NO ENCODE means that the sub-stream has not been enabled in the DVR network configuration.

7 - AUDIO - Enable or disable audio playback through the speakers of the PC 8 - VOLUME - Adjusts the volume

In the bottom right there are the on-screen display controls that can obviously vary according to the number of channels on the DVR.

1 - SCREEN FIT - Clicking this button opens the DVR screen will be automatically adjusted to occupy the entire browser window.

2 - FULL SCREEN - Clicking this button will bring their own boxes of the cameras to occupy all the available screen. There are shown either on the DVR controls or those of the Windows desktop. Press Esc to exit full screen display. 3 - QUAD - Enable the screen divided into four quadrants. 4-9 QUADRANTI - Enable the screen divided into 9 quadrants. 5-16 QUADRANTI - Enable the screen divided into 16 quadrants. 6 - PREVIOUS / NEXT - With these buttons switches to the vision of any prior or subsequent cameras when the selection screen does not enclose all of the DVR cameras. For example, in QUAD vision of 1-2-3-4 cameras, pressing the NEXT PAGE button will jump to 5-6-7-8 cameras

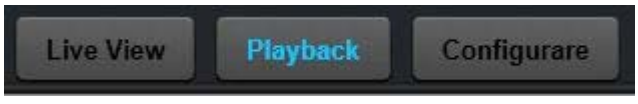
Among the display commands is not present the button to bring a single-panel camera as this function is carried out with a simple double click of the mouse. To the left there is the panel for the regloazione image which allows to modify BRIGHTNESS ', CONTRATO, TONES AND SATURATION remote viewing independently for each camera. To the right of the panel there is a tab to hide the column of side commands and maximize the viewing area.

On the left, above the image controls there is the control of the movements of the speed dome cameras connected to the output of the RS485 DVR.

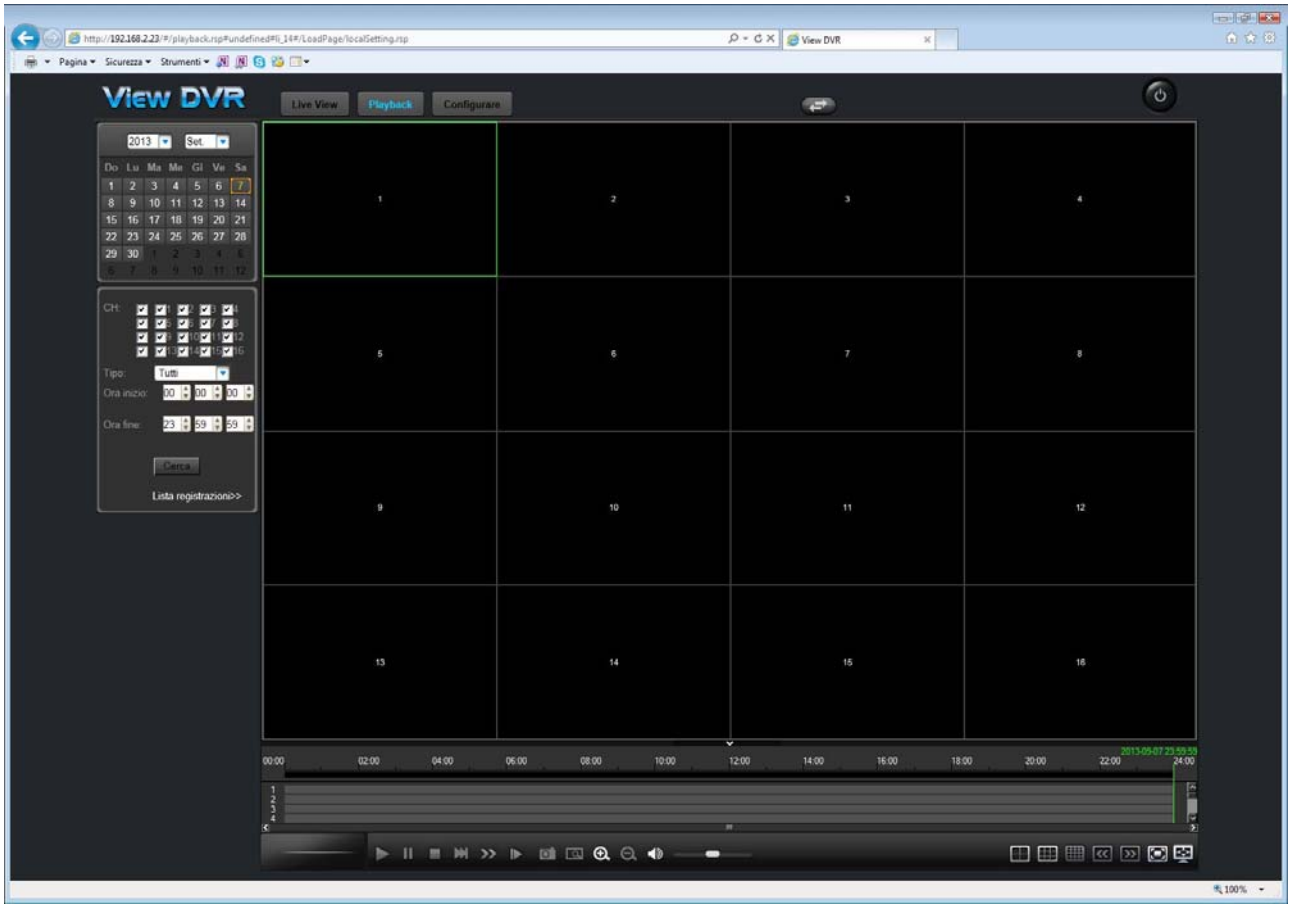
The PTZ control panel replicates most of the commands that are available in the control panel that appears on the local monitor of the DVR CONFIGURATION Refer to the manual of DVR for the details of each command.

CONTROL OF REPRODUCTION

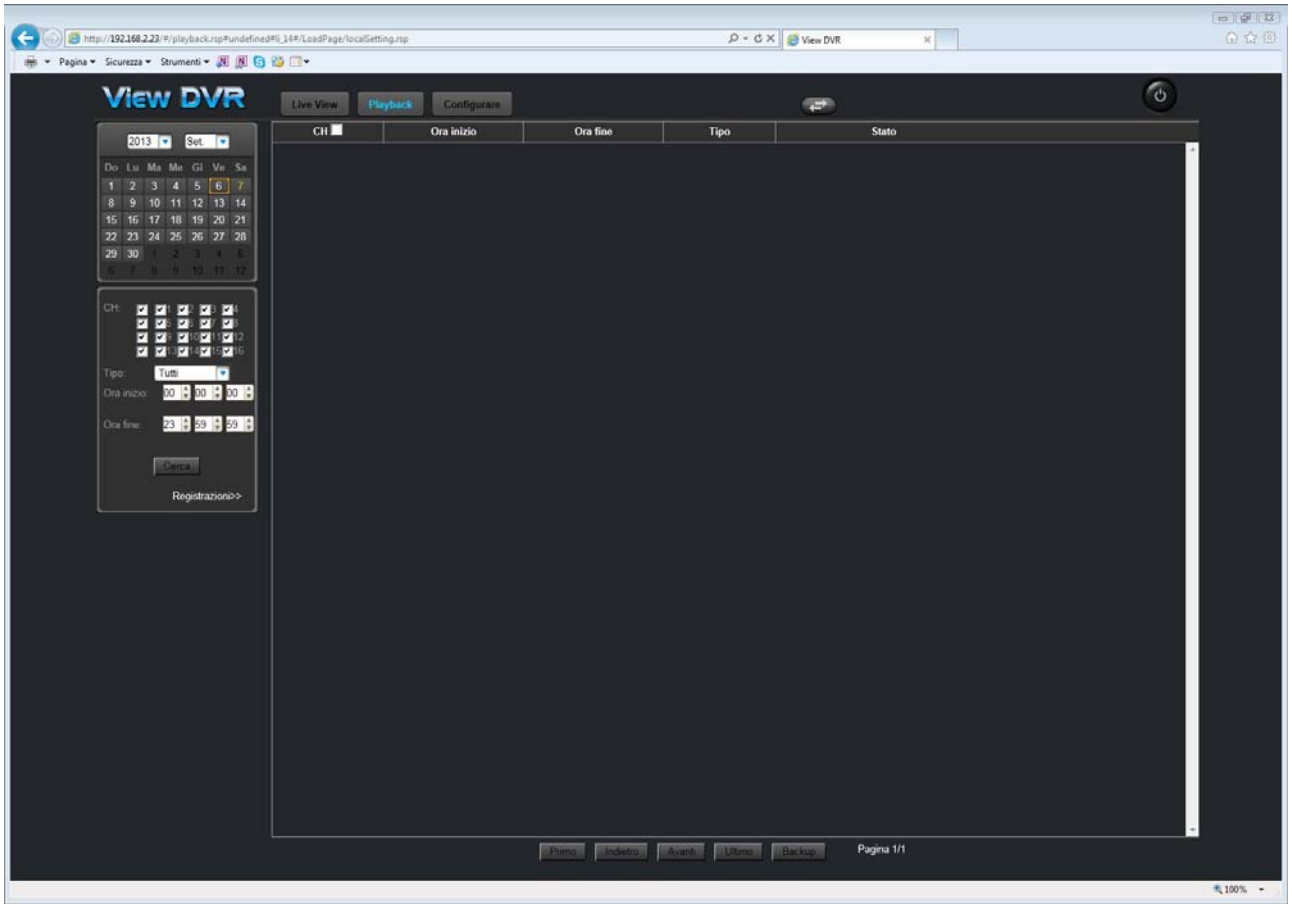
Through remote access with the browser you can search among the records stored in the DVR and play them. To open the playback environment and to press the PLAYBACK tab at the top left



It opens the screen for recording search which is stated below. This window contains the same search options available in the local DVR and the same time line that allows you to move between the hours of the day. Refer to the configuration manual for details on how to conduct the research.



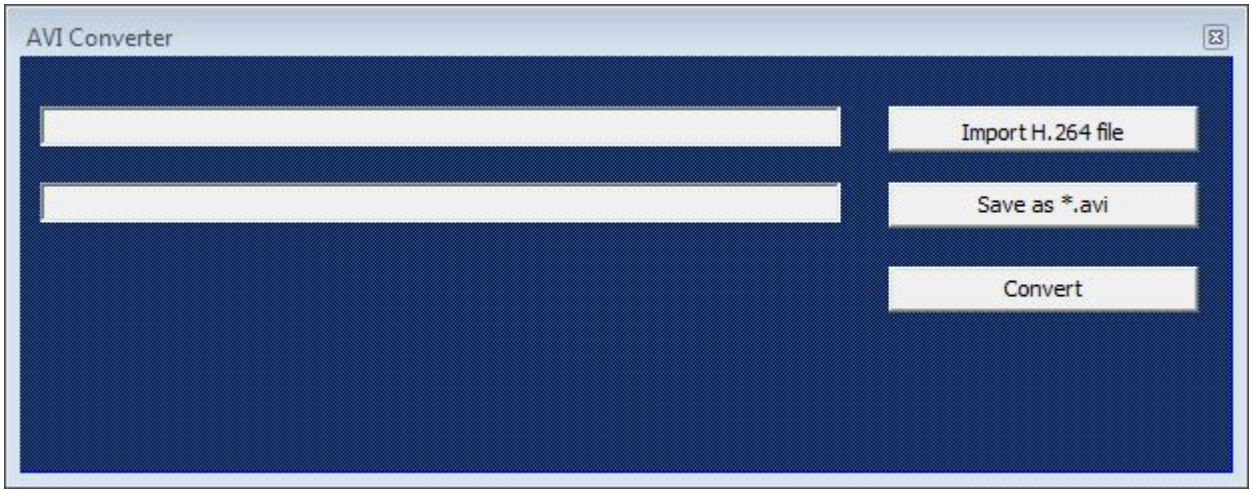
A sinstra you can press the RECORD LIST link that displays the list of files stored in the DVR.



The interesting thing about this window is the availability in the lower right corner of the BACKUP command to download the video and save it to your computer's hard drive.

EXPORT OF MOVIES

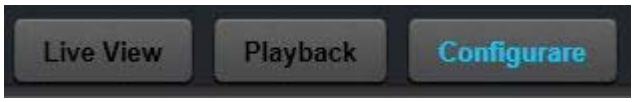
The Internet Explorer client interface can it record the images coming from the DVR, and save them to your local disk format 264 (see above). And 'it provided a utility to export these movies in AVI and play them with any media player like Windows Media Player. Press the button at the top,

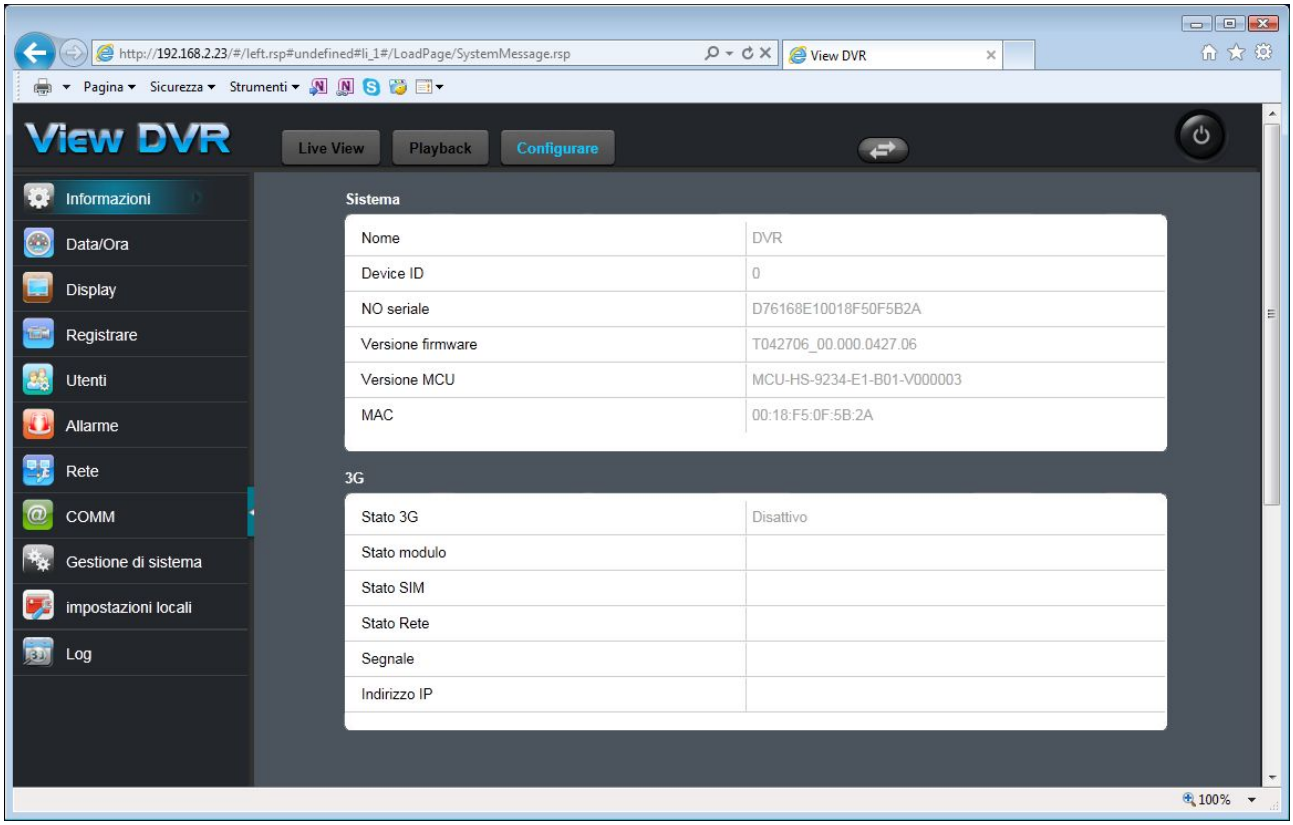


In this window you press IMPORT FILE H.264 and specify the file location to export. Then you press SAVE AS AVI and INICA location and name of the AVI file to be saved. Then press CONVERT to start the conversion.

CONFIGURATION CONTROLS

Through the Internet Explorer interface you can also change all of the remote DVR configuration parameters. To access click the tab on the top left





The configuration is divided into different windows for selection with the buttons salla left. 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. A special mention goes to the last two buttons LOCAL SETTINGS and LOG. The LOG environment allows you to read the events of DVR memory.

The LOCAL SETTINGS button is used instead to choose some options that concern the client PC you're using and precisely the folders for storing recordings made live and backup movies downloaded from the DVR. It 'also possible to define the duration of the file where local registration is divided (5 to 30 minutes).

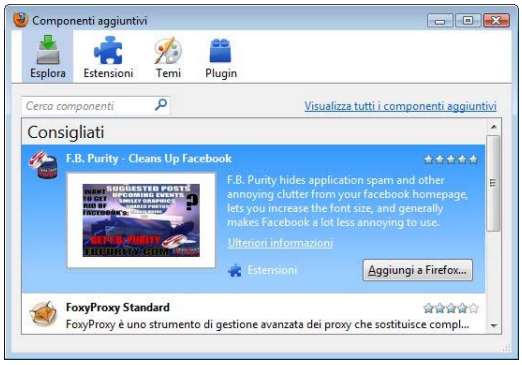
CAUTION. Although the configuration program allows it, you should NOT ALTER USER AND PASSWORD through

remote programming, but only locally acting on the DVR. This is to avoid creating inconsistencies between the characters used on the PC keyboard and those managed by the DVR.

ACCESS TO OTHER BROWSER

Although IE is the reference browser for remote connection to the DVR DH 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.

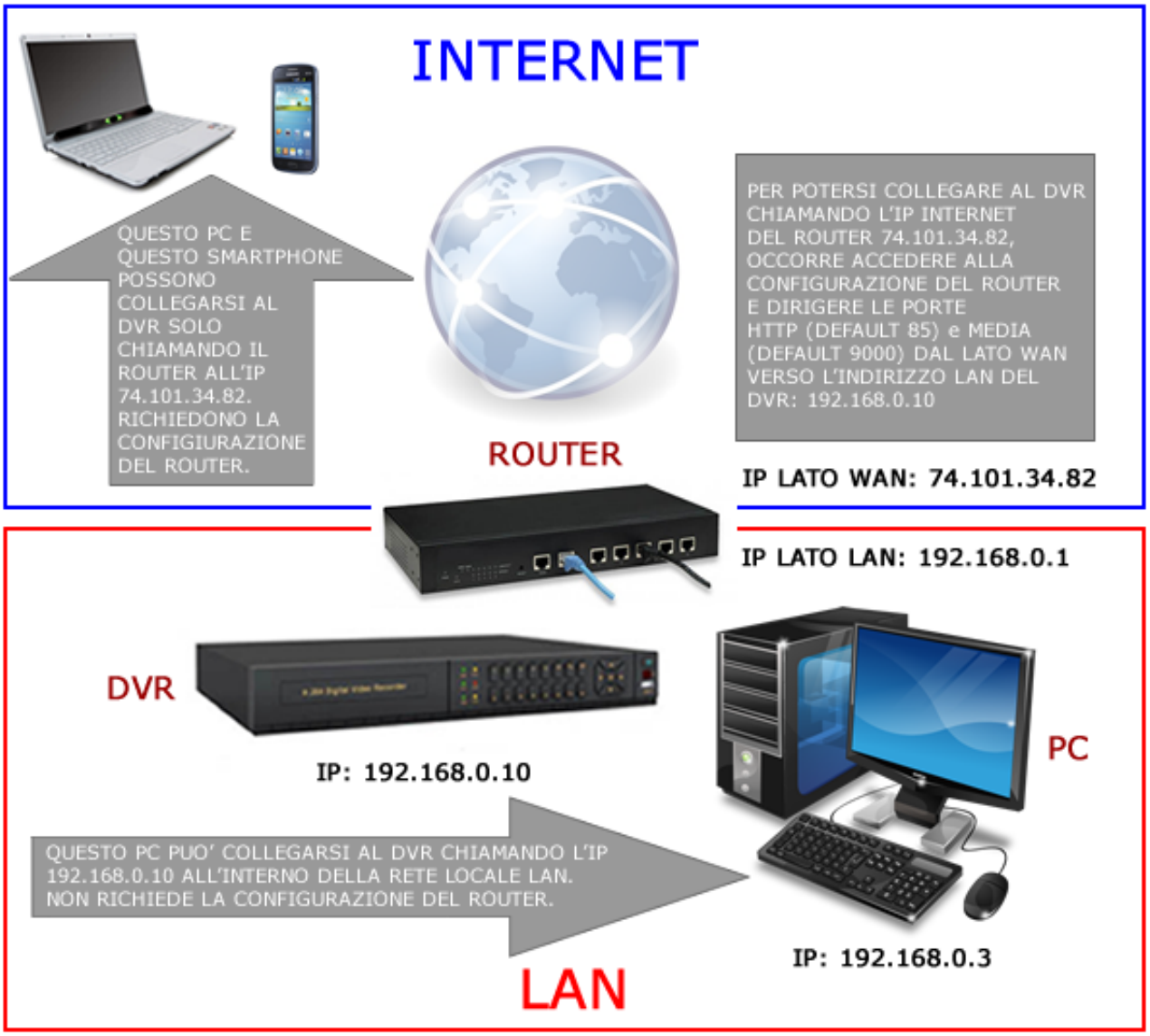
Internet Connection

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 (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.

In the diagram that follows it is represented a typical example scenario.



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 DH series are as follows:

WEB PORT: Default 85. 'the port used by the DVR for communication with browsers and even for some functions by Viewclient and ViewCam client. 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 by default) 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.

DOOR MEDIA / MOBILE: Default 9000. And 'the port used by the DVR to communicate with the centralized software VIEWCLIENT and with mobile phones and tablet devices that use the APP VIEWCAM.

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

The DVR DH 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 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 DH series acquired with the DVR can enjoy free use of 2 CLOUD excellent services to its online service to make easy connection to DVR via the Internet.

These services allow to solve with a few mouse clicks the two main issues in the Internet connection 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.

Even you information of the DVR can be found on 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 / DVR. The DVR DH Series supports many popular DDNS network services like dyndns, no-ip, 3322 etc. However these services are thick paid but not always easy to set up.

With CLOUD services of DVR DH series 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 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 of DVR DH 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 SERIES DVR DH

For DVR RH series are available in 2 CLOUD network server at the following addresses

WWW.REELINK.NET

WWW.88110.NET

The two sites are owned and separate database server for which the register on the site **not** automatically give access also to the other.

Moreover, the two cloud have slightly different functions as explained in the following table.

	88110.NET	REELINK.NET
Access to DVR without fixed IP or DDNS	Yes	Yes
Access to DVR with the router port mapping UPNP	Yes	Yes
Access to DVR without port mapping of router P2P	Yes	Yes
LIVE Vision with the mobile app dispositico and Viewcam	Yes	Yes
LIVE Vision PC program Viewclient	Yes	Yes
LIVE Vision with Internet Explorer	No	Yes

The main difference between the two is that cloud 88110 does not support live video from a PC with Internet Explorer browser.

THE SERIAL NUMBER (ID) DVR

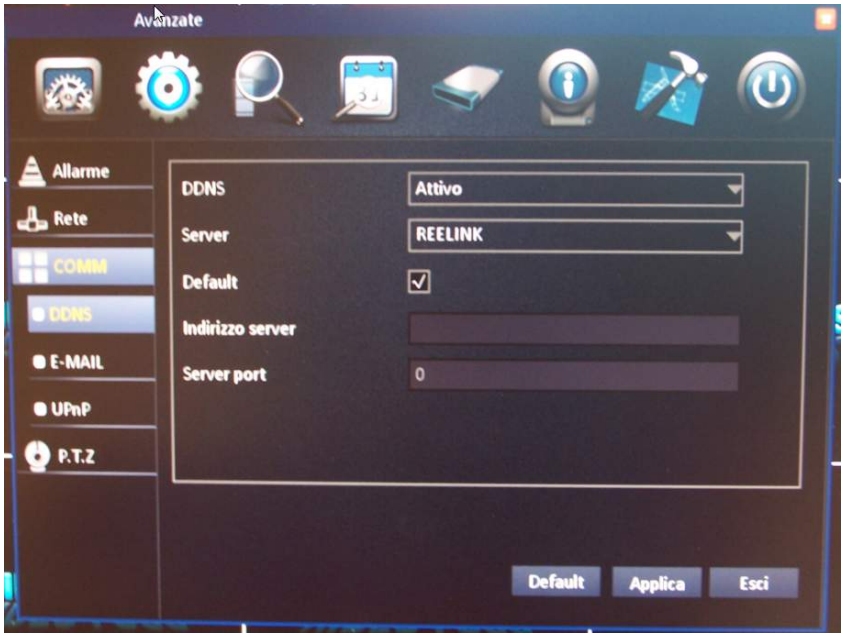
The DVR that you have bought is already registered in our cloud server and is distinguished by a unique ID. The ID of the DVR is located on a sticker on the machine and also in

INFORMATION panel of the DVR menu. And 'readable even remotely connected through the browser, ViewClient and mobile software.

If you must enter the ID of the DVR in the cell with the ViewCam application in the DVR information panel it is also a QR code will be scanned to avoid manual typing.

ACTIVATE THE CLOUD DVR

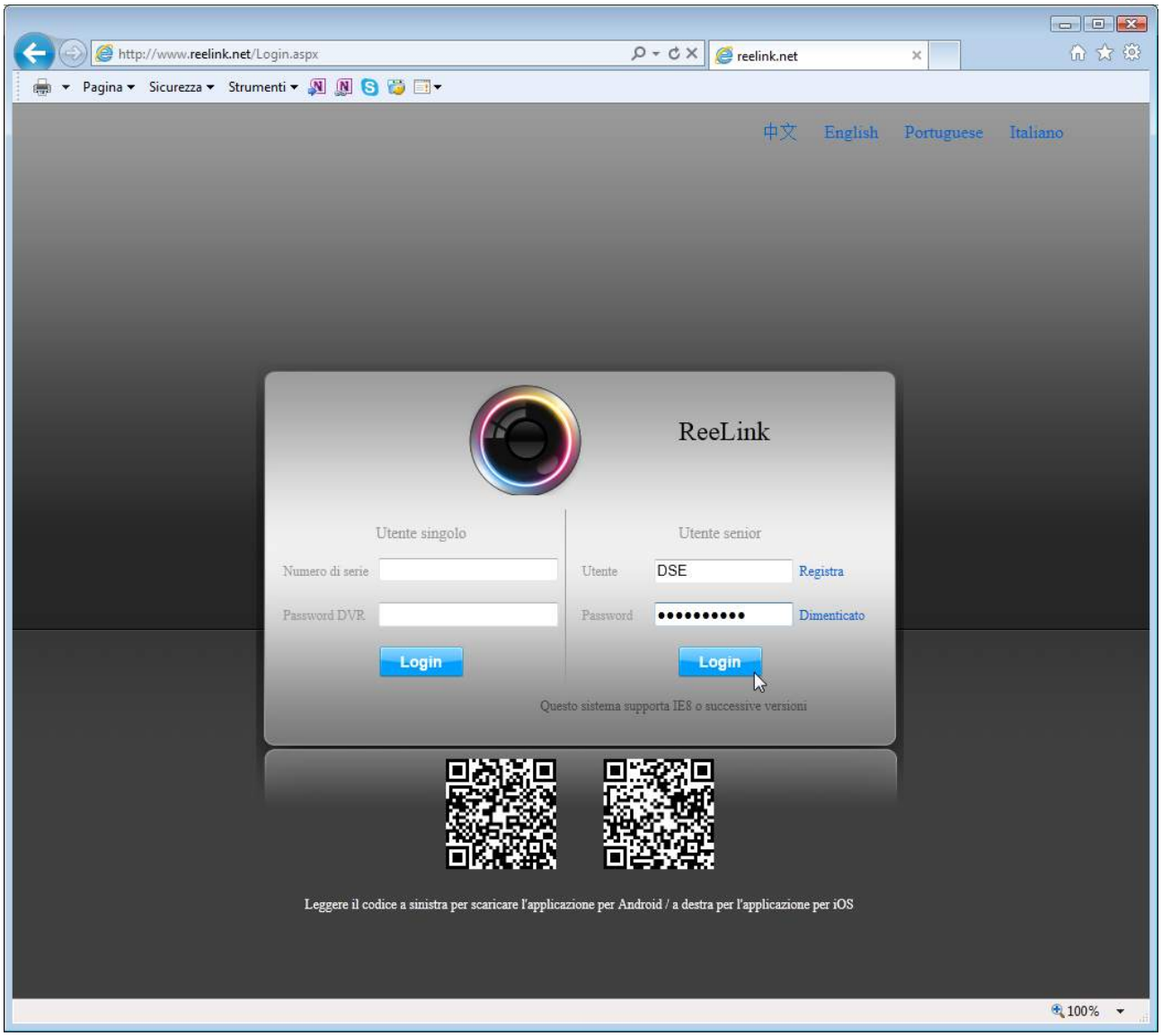
The first thing to do in order to benefit of cloud servers and enable the cloud server management in DVR configuration, as explained in the configuration guide. The cloud server setting is located in Settings / Advanced / COMM / DDNS. You should select a server to be used is to keep check on the option DEFAULT



ACCESS TO CLOUD

The cloud server 88110.net and Reelink.net are substantially identical. As an example, let's step through the registration process on the site www.reelink.net Remember to use your browser **Internet Explorer.**

At the top right you can first of all choose the language ITALIAN.



The page provides two possibilities to log in: SINGLE USER (left) and USER SENIOR right. The SENIOR USER mode is recommended since it allows to take advantage of all the functions of the cloud.

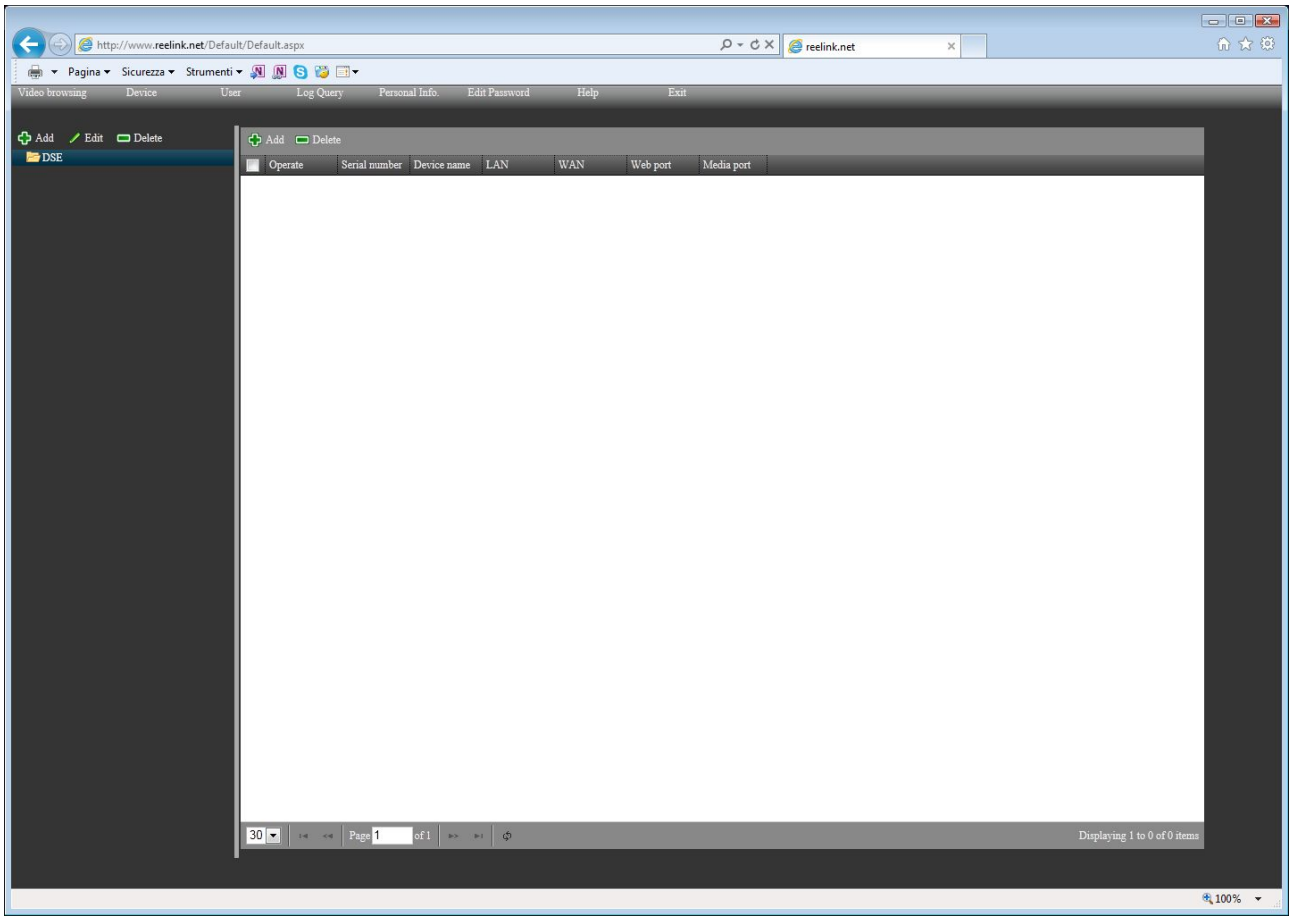
ACCESS TO CLOUD SERVER AS YOU SENIOR

Access to cloud servers as senior allows user to have a personal page where you can upload more than one DVR.

First you must select RECORD to register as a user of the service. Enter your details and press REGISTER 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 column USER SENIOR

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



At the top you have available a menu bar

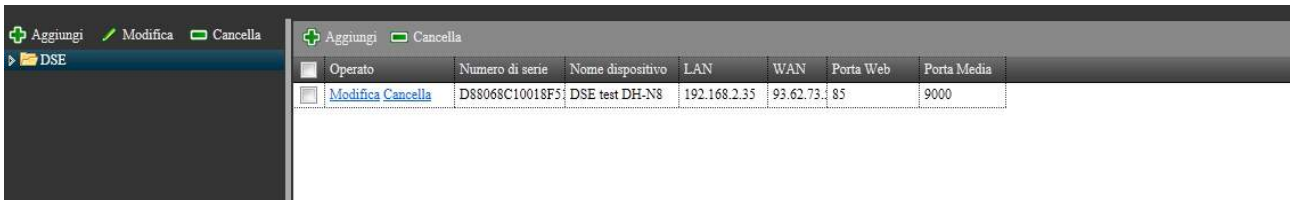
The first section is to configure the page DEVICE

On the left you will see a folder with your user name. It is your main folder where you can enter your DVR. In this section you can also create sub-folders (ADD button) which group the DVR, which can be useful for users with many installed devices such as hotel chains, corporations, institutions, etc.

In most cases it is sufficient to maintain tuttavi princiaple folder with your user name and enter your or your DVR there.

To add a DVR press the ADD button (ADD) high above the white table.

Enter the DVR data, ie the folder where you want to add (GROUP), the distinguished name and especially the **SERIAL NUMBER** which you can read in the menu of the DVR INFORMATION section or self-adhesive label applied on the back. Finally given a user name and password to access the DVR (the factory USER: admin PASSWORD: empty). The new DVR just created will be added to the list.



It 'important at this point to verify that you have enabled the **DVR configuration** the management of DDNS serivizi 88110 or REELINK depending on the site you have chosen. The DDNS configuration is in the menu under ADVANCED / COMM as explained in the DVR configuration manual.

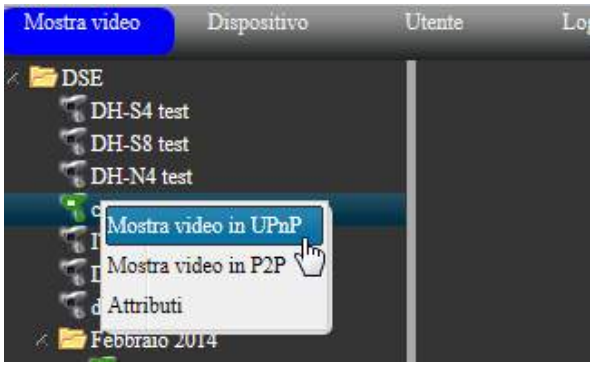
Once the correct DDNS activated in the DVR menu takes a while to see the details of their DVR to appear in the table.

The service is able to obtain from the remote DVR address to the internal network (LAN side) and the Internet (WAN side), as well as two communications ports used (and MEDIA WEB) IF you have spent a lot of time when editing information, it may be necessary to make a LOG-OUT and a new LOG-iN to get the first update data. If the connection of your DVR data will not appear in the table and the fields are left blank check that you have enabled DDNS in the DVR and that he must have internet access.

Once the data of your DVR have appeared in the table you can move in section EXHIBITION VIDEO where you will find your DVR list on sinstra

If the DVR is properly connected and visible on the network icon will be green.

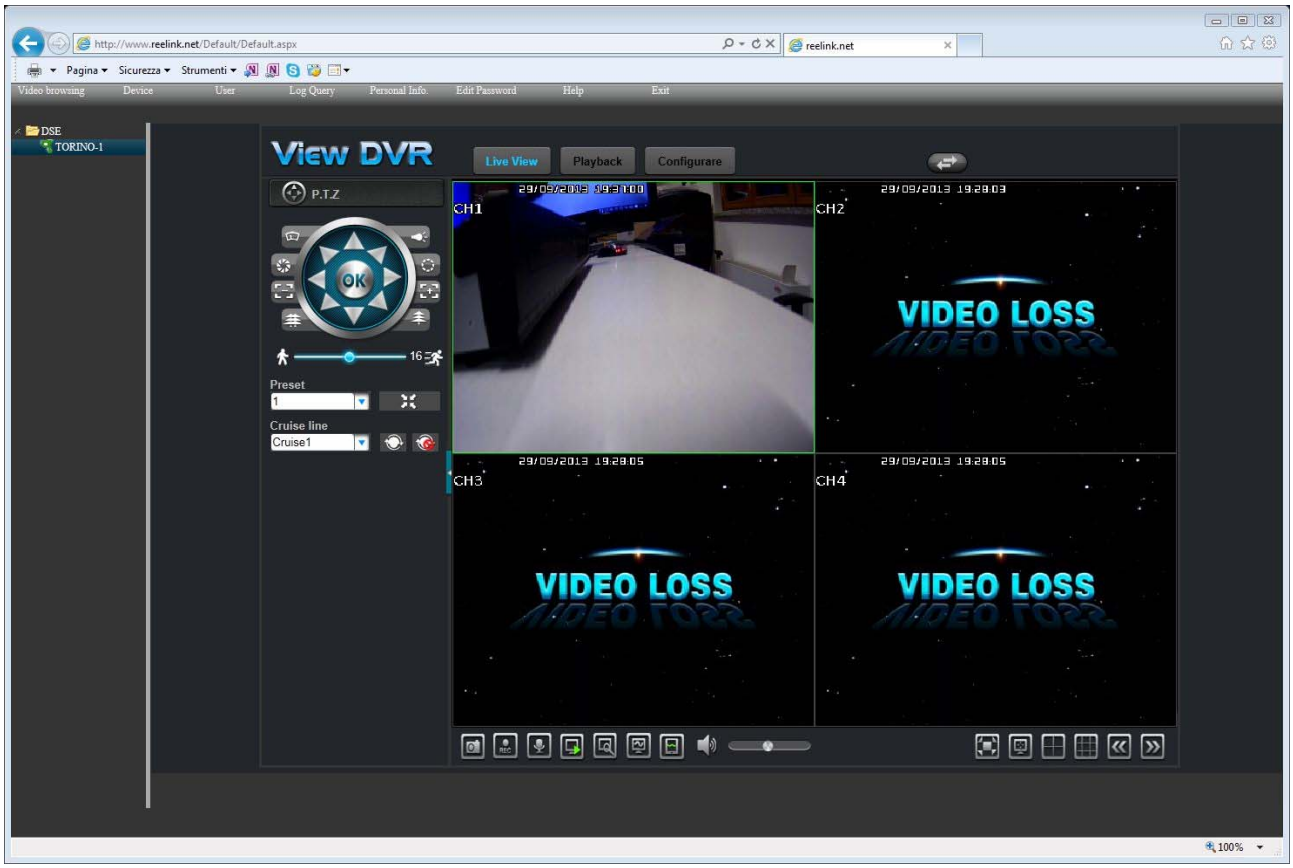
Click the right mouse button on the DVR and the connection to be made sciegliete



UPNP CONNECTION - Requires mapping of router ports, but offers the strongest connection speed and totality of the DVR control.

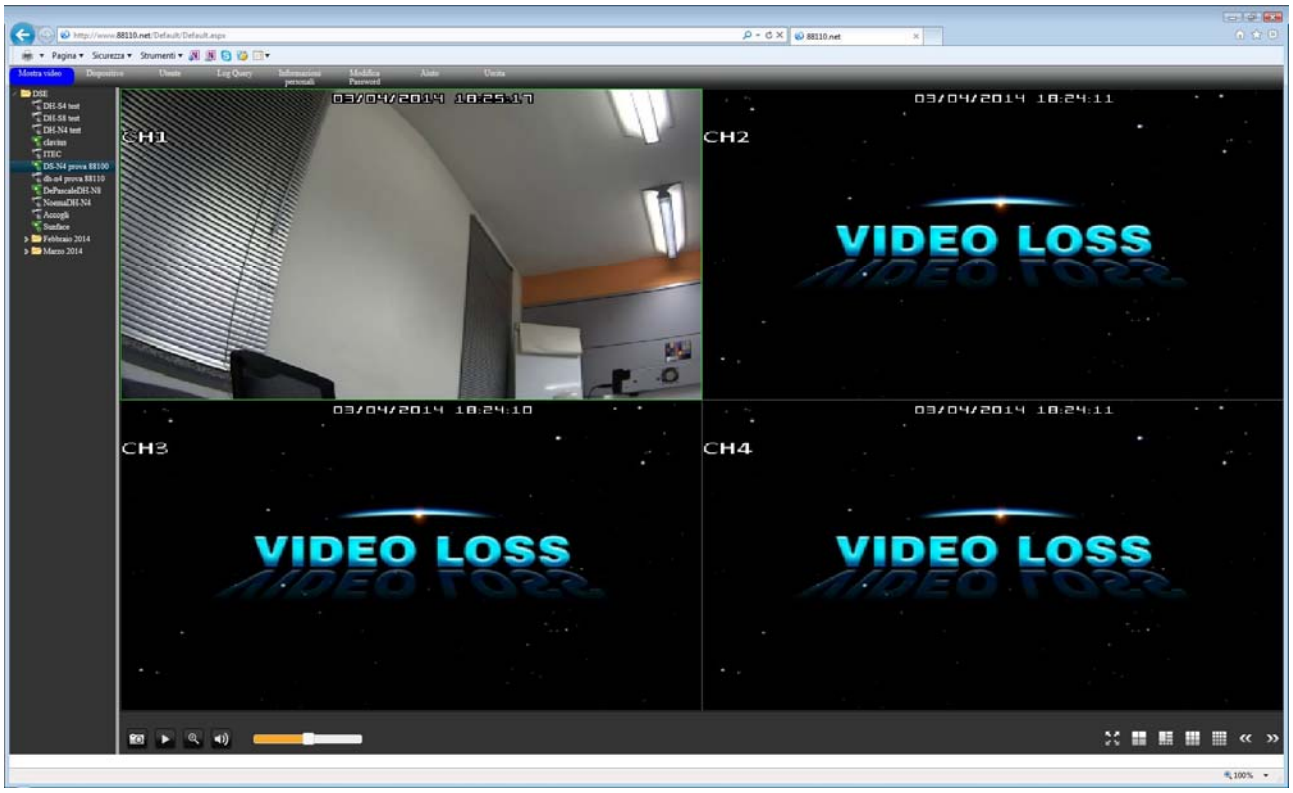
P2P CONNECTION (Available on 88110.NET) - Does not require the mapping of router ports. This mode, if on the one hand allows to avoid the router configuration, on the other hand allows the single vision live and may be slower impinging on the remote image fluidity.

In mode **UPNP** you access the DVR control directly in the browser Internet Explorer, as if they were making a direct connection to the IP of the DVR and you can complete the DVR control



The command interface is the same as previously described in the section dedicated to the connection with the Internet Explorer browser.

In mode **P2P** you can only live monitoring screen



The menu bar at the personal area of 88110 DDNS services and REELINK contains auks other buttons that allow you to change your data (INFORMATION PERSONAL / MODIFY PASSWORD), create new users of the DDNS service with personalized access (USER) and refer to the memory of all the operations carried out by users in the DDNS Service Management (LOG).

Pressing EXIT you make the LOG OUT.

ACCESS TO CLOUD SERVER AS A SINGLE USER

Access to cloud servers as a single user is a simplified mode that allows direct connection to a DVR by entering the serial ID of the DVR and the expected password for the root user (ADMIN). This mode only allows the connection in UPNP mode and does not support the P2P connection (see above)

ACCESS TO SERVICES AND CLOUD WITH VIEWCLIENT VIEWCAM

I can use the services of CLOUD DVR DH series not only through the Internet Explorer browser, but also with the client program for Windows VIEWCLIENT and the VIEWCAM 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 memory stick in a folder called. "Dvrupgrade" Insert the key into the USB port of the DVR and upgrade the firmware in the programming menu.

It 'also possible to insert the key and then turn on the DVR. In this way the DVR will automatically update without the need to enter the configuration menu.