



PRODUCT

AIVU-NVR

The software solution for professional digital videorecording

AiVu-NVR



HIGHER PERFORMANCE AND QUALITY

Designed for high-performance, end-to-end security solutions, AiVu-NVR is capable of managing a virtually unlimited number of video streams, providing extreme scalability.

This is why AiVu-NVR is the software solution for the management of video streams in complex security systems, ideal for integration in large, multi-site architectures as well as for the complete management of medium to small systems with no need to install a management system.

A user interface entirely developed using HTML5 and with no plug-ins required allows users to make their video security system fully operational in no time: thanks to simple installation and configuration procedures, users can access images from their browsers without any additional plugins or external programs.

The constant upgrade of the software guarantees the absolute protection of images and data from any external attack, in compliance with the latest cybersecurity standards: this is why AiVu-NVR is the video solution providing the highest level of cybersecurity on the market.

Management of IP megapixel and analog PAL/NTSC cameras

Codec support: MJPEG, H.263, MPEG-4, H.264, WebM

Transcoding of live streams and recordings with the parameters set by the user

Strong encryption of live streams and recordings to ensure security and privacy

Efficient coding for narrow-band connections

Integration in IT infrastructures through API/SDK decoding libraries

Client for remote decoder management and screen/video-wall viewing

Interactive configuration via user interface or .xls upload

Browser-integrated H264/WebM streaming with no need of plugins

Integration with video analytics software modules



CYBERSECURITY FIRST

MAXIMUM PROTECTION OF VIDEO STREAMS

The architecture of all AiVu solutions includes a complete separation of the network segment to which video cameras are connected from the network providing access to the Internet.

Video cameras are connected to the AiVu-NVR device using dedicated network cards. Furthermore, the use of internal firewalls prevents any unauthorized or possibly harmful access from external devices.

The high security standards of AiVu-NVR allow access to video streams only through secure protocol such as HTTPS, SSH and VPN.

Video streams are encrypted, in compliance with applicable law with regard to privacy and data protection. Thanks to the AiVu-NVR software, any entry-level video camera can become fully-compliant with applicable privacy and data protection law: AiVu-NVR provides access to video streams only to users possessing the correct password.

Furthermore, the NVR and the video management application are connected through a dedicated, encrypted VPN providing a secure connection on any kind of network (for example, an open WiFi).

But that's not it: the AiVu platform can be employed with the highest security even with video camera models deemed not secure due to the possible presence of backdoors.

Robustness

AiVu-NVR manages any anomaly related to erroneous inputs or failures of the hardware devices. Furthermore, the software is capable of generating and sending alarms regarding anomalous or unexpected events.

Reliability

Aitek guarantees proper operation of its software, even in complex systems and critical infrastructures, eliminating any risk related to system crashes, failures and operating interrupts.

Cybersecurity

AiVu-NVR is designed to eliminate external attacks: all our solutions guarantee the software's incorruptibility and prevent outside access to video or the installation of malware. Furthermore, AiVu-NVR protects the system from malfunctions caused by unsafe cameras.

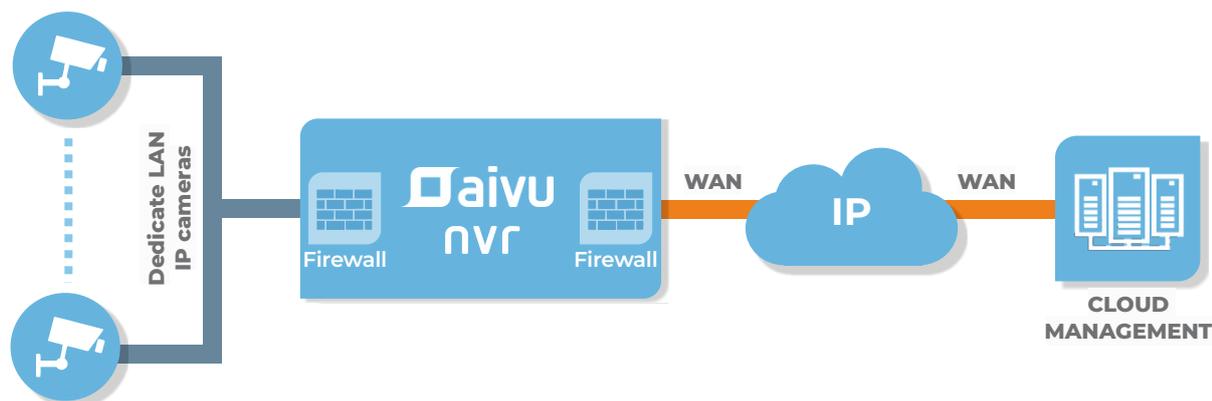
Support

Aitek guarantees technical support for all its products, forever. The complete backward compatibility of our solutions allows to revamp and upgrade any installation, thus always providing the highest reliability, security and performance.

AIVU-NVR FEATURES

Architecture

One of the strengths of all AiVu solutions is the complete protection of video streams. The video cameras are kept on a dedicated network that does not allow any external connections, and which can only be reached using the AiVu-NVR software.



User interface

A web interface accessible through any common browser allows access to all features for the remote management of a video security system.

AiVu-NVR allows enabled users to view live streams, send pan, tilt, zoom commands to cameras, download recordings, manage decoders, take charge of alarms and browse recordings using all the typical features of a video recorder (play, pause, fast forward, rewind, etc.). The interface also allows to simultaneously display video streams from different cameras in video wall mode, or to view a single video stream in full screen mode. Access to the AiVu-NVR interface relies on HTTPS connections to ensure greater security in the data transfer.

Faster and better video search

Searching and selecting video streams based on timestamps or camera names is a feature that makes using the system even easier, considerably reducing response times and making AiVu-NVR's interface a practical, easy-to-use, essential resource for security.

Real-time access to videos

The high performance of AiVu-NVR guarantees easy access to live and recorded streams, in HD quality or using on-the-fly transcoding, from control rooms as well as from the mobile devices of security personnel, even over low-band connections, allowing to save time in recreating events and identifying offenders.

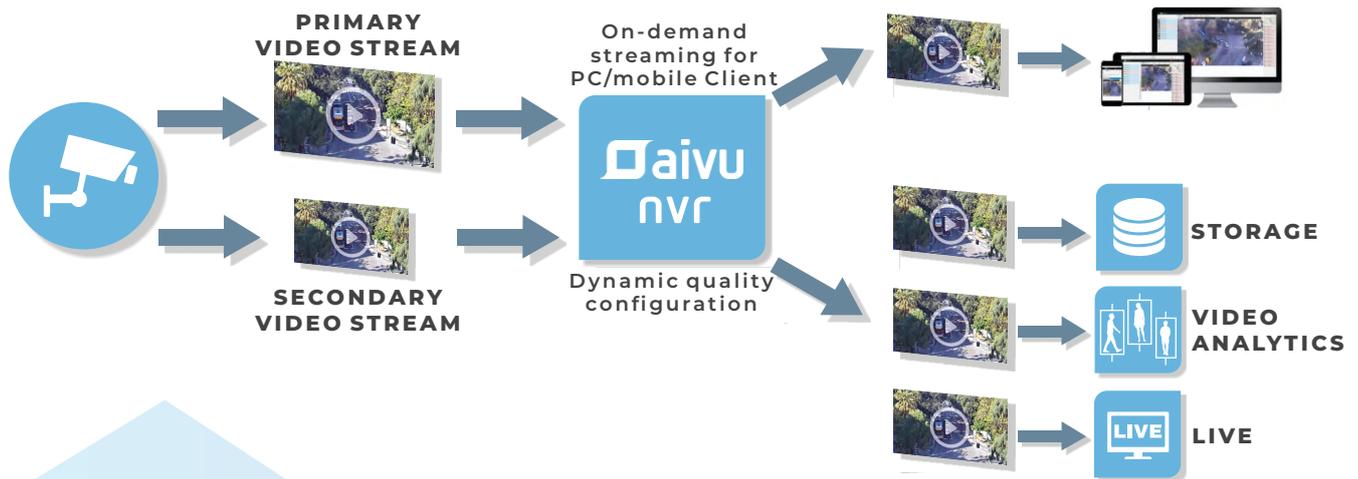
The interface for system configuration and for the management of monitoring procedures is simple and easy to use, therefore reducing installation times and the need for training, and limiting maintenance costs as well.



AIVU-NVR FEATURES

Video restreaming

The AiVu-NVR software provides the distribution of HD video streams, optimizing the required bandwidth from the video cameras to the AiVu client for image display. The restreaming technology allows to send on-demand video streams to clients with parameters that can be tuned based on the user's needs.



Simple configuration of complex system

The user interface of AiVu-NVR allows to upload configuration parameters (as an .xls file) to further simplify and speed up the configuration of a video recorder: a few clicks is all it takes to simultaneously connect a large number of video cameras and completely configure an NVR, without the need to repeat the same configuration procedure.

Image access from mobile devices

Thanks to the latest HTML5 technologies and standard video codecs, AiVu-NVR supports the latest generation of operating systems. Access to the images is also possible from mobile devices, enabling users (e.g., security guards) to view images anywhere and anytime, with no need to constantly man control stations and with considerably shorter response times in case of critical situations.

An "open" platform for great compatibility

AiVu-NVR has natively implemented SDK libraries of the leading manufacturers of cameras and video servers, ensuring full compatibility and maintaining the high quality of acquired images and maximum performance.

Georeferencing of video stream

The AiVu-NVR video-recording software can be integrated with GPS systems. Each video stream can be identified by timestamp and geographic coordinates, allowing to reconstruct the route of vehicles on a map.

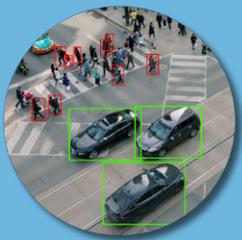
Diagnostics

AiVu-NVR is equipped with diagnostic tools capable of detecting in real time failures of the connected video sources: video signal loss, network connection issues, devices not recording, I/O card management. All reports are collected and displayed in real time on the AiVu-NVR interface.



OPTIONAL
License plate recognition

AiVu-NVR integrates video cameras for the recognition of license plates and/or ADR codes (dangerous goods), associating the acquired information (license plate, date/time, etc.) with the video recording corresponding to each vehicle. This feature is a reliable tool meant for security and traffic management personnel which simplifies any inspection and identification procedure.



OPTIONAL
Video analytics

AiVu-NVR integrates the video analytics AiVu-Smart Modules platform for the processing of live and recorded streams. The video analytics modules detect in real time a wide variety of events possibly affecting the security of monitored areas and deriving from people, objects or vehicles, but they can also apply analytics to recordings and acquire data useful for generating statistics and analyzing business intelligence.



OPTIONAL
People counting

By integrating dedicated video cameras produced by industry leaders, AiVu-NVR provides a reliable tool for automatically counting the number of people or vehicles passing through a gate or detecting the number of people inside the area monitored by the video camera.

**AiVu-VMS is conformant with
ONVIF Profile S**



AIVU-NVR TECHNICAL FEATURES

EMBEDDED SOLUTION

- ▶ Available as an appliance embedded on selected and certified physical hardware
- ▶ Aitek's own embedded Linux OS with encrypted file system featuring three backup operating systems

VIDEO INPUT

- ▶ Managing of video from IP cameras or encoders in MJPEG, H.263, MPEG-4, H.264 or WebM formats
- ▶ ONVIF-S standard certification

VIDEO OUTPUT

- ▶ Video streaming available in proprietary and ONVIF-S protocol
- ▶ SW video encoding application compliant with the MJPEG, H.263, MPEG-4, H.264, WebM standards
- ▶ Frame rate self-adjusting to optimize network bandwidth

VIDEO RECORDING

- ▶ Continuous or scheduled recording (setting days and times)
- ▶ Configurable max. retention time of recordings for each single video camera with automatic deletion
- ▶ Automatic overwriting of recordings

ALARM MANAGEMENT

- ▶ Alarm filtering based on the date / time of the event
- ▶ Marking of alarms with event timestamp, camera name, GPS coordinates, etc.
- ▶ Alarms can be display in real time on the AiVu-NVR interface or sent to third-party supervisory

OPEN INTERFACE

- ▶ SNMP reports
- ▶ Web interface based on HTTPS protocol
- ▶ JSON/SOAP/CGI interface
- ▶ SDK with support for Java e C in Linux e Windows environments



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