

### NetFlow-EC PSIM Core Functionality

How does NetFlow-EC PSIM software work? We answer a few of your technical questions here.



#### What is NetFlow-EC PSIM's architecture?

NetFlow-EC software forgoes classic client-server and three-tiered architecture for a distributed model. NetFlow-EC uses three components: server, client and gateway. The servers form a network segment with a peer-to-peer structure all data or event connections are server-to-server where possible. Clients connect to one or many servers directly or through gateways.

Gateways serve as traffic routers and optimizers, defining segments of the distributed network. A peer-to-peer NetFlow-EC network takes advantage of the many types of connectivity (LAN, WAN, mobile) between participants in a network and their cumulative bandwidth, rather than conventional centralized resources where a relatively low number of servers provide the core value to a service or application.

A distributed approach means that NetFlow-EC is highly reliable and fail-safe if a problem arises in a module or network link, NetFlow-EC automatically switches over to another functioning server.

The server component of NetFlow-EC currently runs on NT, Linux, and AIX machines.environments with difficult conditions.

## **Is NetFlow-EC PSIM compatible with our cameras, sensors, and other devices?**

NetFlow-EC has worked extensively with major hardware manufacturers and third parties to provide unparalleled compatibility out of the box. Please see our Web site or contact a product manager to confirm that your device is listed. Even if you're using equipment that we haven't planned for, don't worry we have you covered. NetFlow-EC's open architecture and object orientation means that we or our partners can provide drivers or connectors for your hardware. With **NetFlow-EC**, there's no need to upgrade your hardware until you're ready to grow.

## **What is NetFlow-EC PSIM built on?**

NetFlow-EC is coded in industry-standard C++. From the ground up, NetFlow-EC uses an object-oriented approach anything connected to it (a camera, for example) is represented as a consistent abstraction to the end user. Users don't have to worry about the type of camera, how it's connected, or where it's mounted they can control all of the cameras (or other sensors) the same way.

## **What kind of terminals can users access NetFlow-EC PSIM from?**

Any user with a Windows workstation can be set up to use NetFlow-EC. For mobile users, NetFlow-EC provides a special module that extends NetFlow-EC access to cell phones, PDAs, vertical tablet hardware, and other devices.

## **The heart of NetFlow-EC PSIM**

Learn more about NetFlow-EC's core functions and how they work together to make your safety and security a sure thing.

- **Video Surveillance**
  - **Audio Processing**
  - **Video Analytics**
  - **IP Video**
  - **Integration**
  - **Automation**
  - **Handheld and Mobile Access**
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## **Video Surveillance**

Intelligent video surveillance is at the core of NetFlow-EC's power to protect people, facilities, and assets with greater ease and efficiency.

NetFlow-EC is embedded with our advanced video surveillance module: a powerful engine that enables live and recorded video monitoring for locations of any size, under any conditions. The system's distributed architecture allows you to monitor an unlimited number of video cameras and servers, and an unlimited number of local and remote workplaces - all from a single computer.

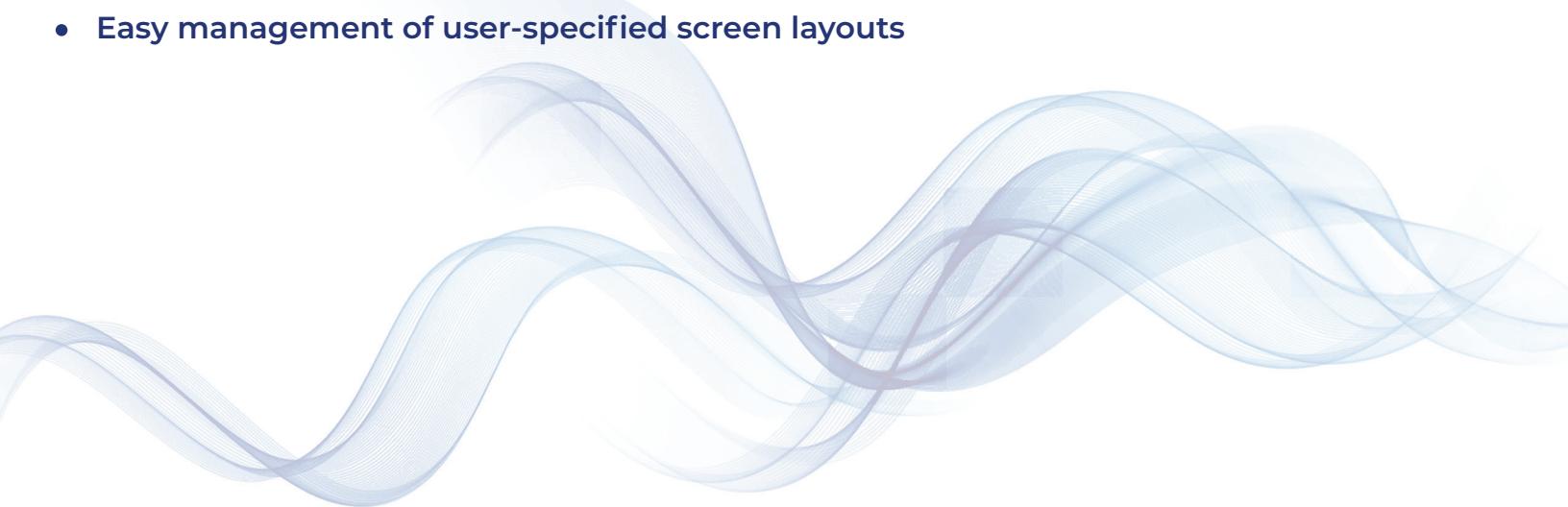
## **Usability**

It doesn't matter how great the technology is if it's not easy to use, it's simply not good enough. After all, a user-friendly interface is what will allow you to access the information you've captured, so you can make fast, timely decisions, and take action.

Our team of developers paid special attention to the user interface to make sure it's easy and intuitive. As a result, the system's design and ergonomics allow you to operate the system without preliminary training courses. It's so easy, computer literacy isn't even required!

In particular, three unique functions significantly increase the convenience and efficiency of an operator's work:

- **Instant access to backup records**
- **Simultaneous multi-channel playback of recorded data**
- **Easy management of user-specified screen layouts**



## **Performance**

NetFlow-EC's video surveillance gives you the high performance you want without sacrificing the image quality you need. The system works with a wide scope of supported video capturing devices, and advanced compression and processing algorithms allows the system to display and store video data with superb quality at maximum recording rate.

Unique video processing algorithms ensure optimal performance without burdening bandwidth or draining your CPU's resources. The multithreading structure of the video module is optimized for highly efficient operation in multiprocessor systems. The file system is optimized in order to support RAID arrays storing up to 120Tbytes. And our client-support module provides connectivity to clients systems without increased processor load.

## **Reliability**

For any security system, reliability is key. Its critical that your system is reliable, stable, and functional around the clock, every single day. A distributed approach means that NetFlow-EC is highly reliable and fail-safe if a problem arises in a module or network link, NetFlow-EC automatically switches over to another functioning server.

## **Image quality**

A video surveillance system is only as good as the quality of the images it captures. The NetFlow-EC system achieves maximum quality for both displayed and stored video by using Philips 7134 decoder-based boards that provide a high horizontal resolution of up to 500 TV-lines.

Unique decoder management technology allows the system to achieve video flow stability at higher recording rates in comparison with other Philips 7134-based systems.

Advanced MotionWavelet video compression algorithm ensures high quality compressed images at a significantly smaller file size than other compression algorithms.

Elaborate de-interlacing algorithm removes the "comb" effect at maximum resolution, with no distortion of objects' edges or decrease of real image resolution.

## **Network features**

You shouldn't have to keep an eye on your video surveillance system. NetFlow-EC's unique networking features ensure that your system is always connected, reliable and hard at work - everywhere.

Multicasting mode ensures your video flow remains uninterrupted and the servers data channel never overloads even when there are several clients connected to the server at once. And NetFlow-EC's video gate sends quality video images from the server to every client in your network, no matter where they are located.

It's easy to protect your data anytime, anywhere. Transfer all your video records, in real-time, from any server to dedicated backup servers for long-term storage. Plus, the video server and backup servers are easily accessible at any time.

## **Capture Boards**

NetFlow-EC incorporates the newest innovations in multi-channel video capture and processing boards. Produced in PCI and PCI-Express formats, NetFlow-EC's capture boards enable video signal digitizing and streaming into video surveillance systems. Along with real-time monitoring, the boards offer audio and video recording capabilities on HDDs and other forms of digital media.

## **Video and Audio Processing**

NetFlow-EC's video surveillance module also includes audio recording capability. You can configure the system to record sound when triggered by an alarm that exceeds a pre-set sound level, to record audio and video simultaneously, or both. With NetFlow-EC, the choice is yours.



## Audio Processing

Maintaining a truly secure environment requires more than just a watchful eye. NetFlow-EC's networked audio module uses sound transfer, processing and analysis to enhance your access to actionable information.

This user-friendly module allows a high level of customization. You can configure the system for alarm-triggered recording, to separate or synchronize audio and video recording, and to record directly from telephone lines. The Audio Start feature automatically triggers a selected camera to start recording when outside noise reaches a predetermined level.

Real time sound compression levels are adjustable, so you can control the quality level of your recordings. Sound files can be stored separately from video files, and archives are easily searchable by date or time. And because audio archives are exportable to WAF format, they can be played back outside of the NetFlow-EC system.

NetFlow-EC supports two types of audio signal: microphone (MIC, Soundblaster) and linear (LINE). Our distributed system supports up to ten thousand microphones and telephone lines, with a maximum of 16 per server and 32 per PC. If needed, audio data can be additionally amplified by means of software. Sampling frequency depends on the type and parameters of the sound board.

NetFlow-EC's can be integrated with a multitude of sound boards, including:

- **ITV FS5 - 2 inputs**
- **ITV FS6 (FS16) - 8 inputs**
- **SoundBlaster - 2 inputs**
- **Midiman Delta - 4 inputs**
- **OLHA - 4,6,8,12,16 inputs (tel.)**
- **Echolot - 2 inputs (tel.)**
- **L-780-M**

## IP Video

Clearer images. Easier search and retrieval. Lower maintenance. These are just a few of the many benefits of IP-based versus analog video systems. NetFlow-EC security software gives you fully networked, user-friendly video monitoring and analysis capability at the click of a mouse.

IP cameras are inexpensive to mount and easy to implement, and allow for a variety of configuration options. By connecting to your computer network and the internet, they allow you to view your live surveillance data remotely from anywhere in the world.

The NetFlow-EC system and cameras provide users with all essential options, such as video flow processing, system management, and data analysis. And because the software is upgradeable, your system will never become obsolete.

## Integration

Peace of mind doesn't have to be difficult. Right out of the box, NetFlow-EC gives you 100% compatibility with legacy hardware and software. Customization enables you to integrate NetFlow-EC with the rest of your IT systems. HR, finance, and other databases can be linked with the system to provide organization-wide security intelligence. Because NetFlow-EC fits your existing system setup, it has a much lower cost of implementation and little to no learning curve.

Currently, NetFlow-EC Intelligent platform supports the following hardware:

- **Video surveillance equipment**
- **PTZ control**
- **Access Control and Fire Alarm modules**
- **Audio detectors and phone line control units.**

## Event-Driven Automation

When it comes to security, you need a system that works so you don't have to. NetFlow-EC platform has the built-in intelligence to recognize security events as they occur, and the ability to respond appropriately. What's more, the platform has the capability to distil and present information to support smart, timely decision-making.

NetFlow-EC collects data from a wide range of devices and systems and analyzes it more intelligently, so you can automate processes that could never be automated before.

You can specify what actions (such as door-blocking, alarms, etc) should follow certain security events (such as motion detected by the video surveillance system). Actions can be as simple or as complex as you require.

## Mobile Client for remote monitoring

Video monitoring, remote video surveillance and security system management - now in the palm of your hand!

NetFlow-EC allows remotely viewing both recorded and live video, as well as configuring surveillance cameras, from iPhones and iPads.



Intellect Mobile Client main features:

- **View live and recorded video (with audio) from any camera.**
- **Get information about alarm events and jump to the video recorded during an event.**
- **Access interactive maps.**
- **Run macros for preconfigured responses to events.**
- **Manage objects (arm/disarm cameras and sensors, start/stop camera recording, etc.).**
- **Receive push notification of alarms.**
- **Remote access via smart phone or tablet makes it possible to monitor security systems even when a computer is unavailable or far away, allowing the operator to quickly react to situations of interest.**