

NEURAL NETWORK

INTRUSION &
FIRE ALARM

■ NOTIFICATION

■ FACP

■ SENSORS

■ VIDEO ENCODERS

■ IP CAMERAS

■ DVR
■ NVR

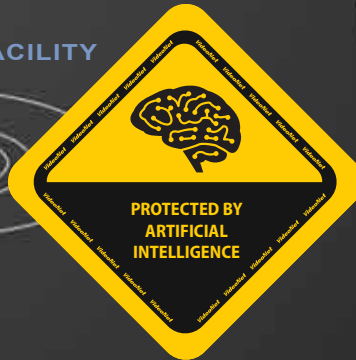
■ IP CAMERAS

ACCESS CONTROL

■ ACCESS TO FACILITY

VIDEO SURVEILLANCE
VIDEO ANALYSIS

■ VIDEO SURVEILLANCE



SINGLE PLATFORM FOR ALL SECURITY SYSTEMS

CCTV ▲ ACCESS CONTROL ▲ INTRUSION DETECTION ▲ FIRE ALARM ▲

PERIMETER SECURITY ▲ INDUSTRIAL AUTOMATION ▲ ROAD AUTOMATION ▲

SINGLE SOFTWARE SOLUTION FOR ALL EQUIPMENT

VideoNet – PSIM class security platform

Centralized monitoring and integrated management of security systems

- Integrates all security devices on a single platform
- Offers convenient monitoring of the facility
- Securely stores video records
- Detects and alerts about alarms
- Fast event search across archives

More than 150,000 customers across worldwide
25 years experience in security solutions market

SECURITY PLATFORM WITH ARTIFICIAL INTELLIGENCE

VideoNet - PSIM class security system

for centralized object monitoring and integrated security system management: surveillance system, access control system, fire and intrusion alarm system, perimeter security system. It uses modern Analytics and artificial intelligence capabilities to create an effective incident response system with various scenarios. Also it provides a complete picture of events for decision-making and operational incident investigation.

State-of- the-art technologies are implemented in the incident detection platform:

- Face recognition
- Licence plate recognition
- Multi-factor identification
- Biometric identification
- Intelligent perimeter protection
- Artificial intelligence for thermal imaging equipment
- Neural networks trained for object recognition

The platform has a high level of security and has functionality to protect against interference and damage from third parties:

- Specialized data storage format
- Protection of access to archives
- Software protection of system access
- Hardware protection of system access
- Multi-level access rights to functionality and data

The platform has the functionality to protect video evidence from forgery.

A special format for recording data prevents forgery and modification of video evidence.

VideoNet integrates:

- Video
- Audio
- Access control
- Intrusion & fire alarm
- POS and cash-counting machines
- Industrial equipment



Connect to VideoNet:

- IP cameras
- Access controllers
- Fire and intrusion alarm devices
- POS and cash-counting machines
- Banking equipment
- Perimeter intrusion detectors
- DVRs and NVRs
- AHDM, 960H cameras
- Microphones

VideoNet PSIM Getting closer to your goals

VideoNet PSIM offers a new outstanding capabilities and approach to security.

We created an intelligent way to integrate access control, intrusion & fire alarm devices, and video equipment from various vendors on a single operating platform. With VideoNet, you can easily manage all subsystems and any individual device to see a big picture of your facility. VideoNet software solution offers seamless integration capabilities to achieve complex security approach, consolidation and functional expansion of all connected devices.

Situational awareness and responsive management are two milestones of PSIM system. When compared to traditional video surveillance or integrated system, VideoNet PSIM gives a way to see a big picture of your facility and delivers all crucial data necessary to promote greater control and faster decision making.

VideoNet PSIM key features

THIRD PARTY DEVICES SUPPORT. VideoNet PSIM offers a flexible and scalable solution and allows you to protect investments through the use of your existing equipment and infrastructure.

SITUATIONAL AWARENESS. Gives a big picture using complex data from multiple sources: video cameras and DVRs of various standards, access control, intrusion and fire alarm devices, microphones, perimeter intrusion detectors, industrial equipment, POS terminals, commercial and other external systems – integrated in a single informational environment.

COST-SAVING SOLUTION. Customizable to meet different customer needs. With modular architecture, customer can pay only for those functions that are really needed to get maximum value from security system, save ownership and maintenance costs.

EFFECTIVE SOLUTION. Significantly improves detection of any abnormal events, enhances security capabilities and delivers crucial data, makes faster complex alarm response. You can get maximum value from using security system, make proper decision faster and more effectively response to critical situation.

VideoNet offers a single point of control and response by integrating various equipment into a common platform:

- IP cameras
- access controllers
- fire and intrusion alarm devices
- POS-terminals and cash-counting machines
- ATMs and banking equipment
- perimeter intrusion sensors
- industrial equipment
- DVRs and NVRs
- AHDM, 960H standard cameras
- microphones
- actuating devices
- audio, video and data analysis
- third party external systems

A whole system can be managed by single or several operators irrespectively to its complexity and equipment used. Operator can easily monitor situation and make proper decisions, handle alarm events in real time and effectively response when they occur.



PSIM

VIDEONET PSIM SOFTWARE OFFERS FOLLOWING CAPABILITIES:

- Acquires data from virtually any number of integrated devices
- Analyzes and compares data, events, statuses and signals
- Detects critical situations and prioritizes them
- Notifies operator in a convenient manner about event to facilitate decision making
- Provides post-analysis and generates reports
- Controls operator actions and response time

Automation of standard operation procedures allows operator to make proper actions in every situation and effectively response to potential hazards.

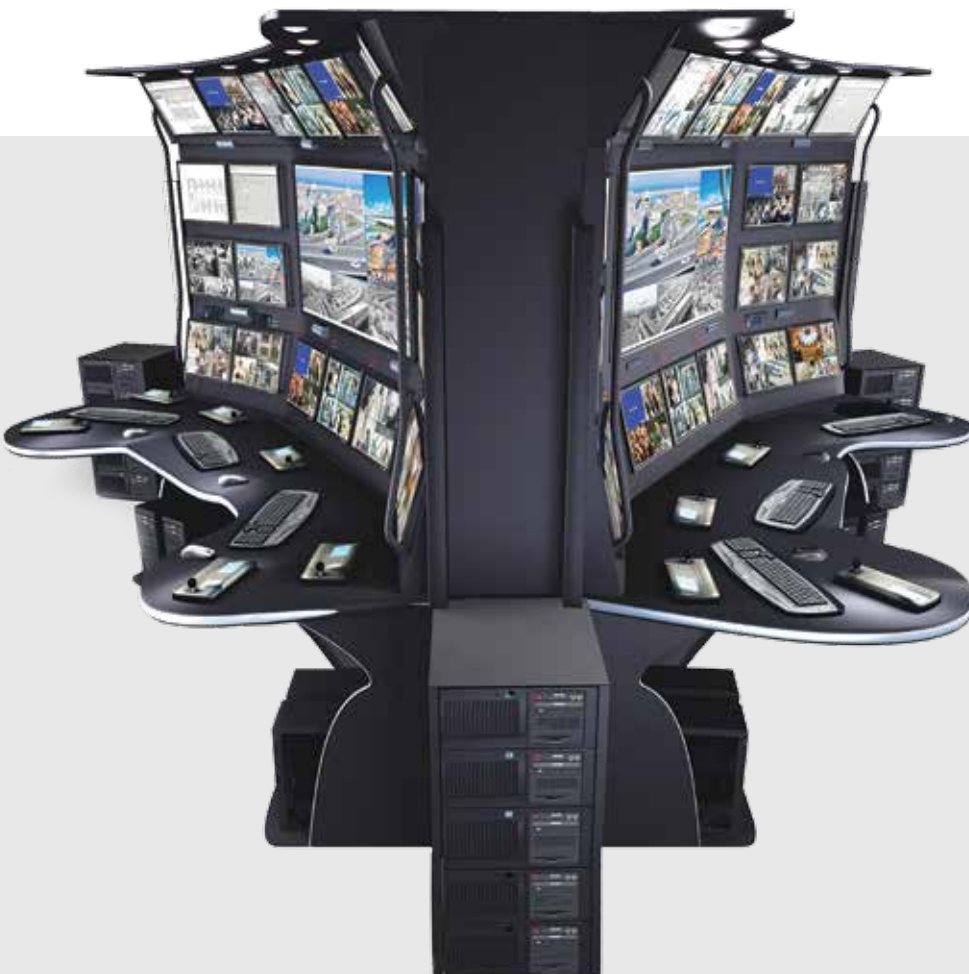
VideoNet PSIM represents a flexible and intelligent solution allowing to maintain the highest standards of safety and security for your business, staff, assets and customers. This is a cost-saving and scalable solution capable to meet your current and future needs.

Control and management center for facility security systems

VideoNet PSIM allows you to create single situational centers for powerful monitoring and management of the protected sites of any complexity, including DSA.

All information from systems (CCTV, access control, intrusion detection and fire alarm, perimeter protection, industrial automation, external systems) together with data from integrated analysis modules goes to a single control and management center and appears on operator workstations. The whole system regardless of size and hardware can be managed from one or several workstations.

VideoNet PSIM platform includes embedded video and audio analysis modules and offers an advanced complex solution. An intelligent video and audio detectors automatically reveal suspicious events, threats and alerts about important information.



When comparing to integrated systems, VideoNet PSIM platform offers direct consolidation of all devices into a single centralized information environment within a single system. VideoNet PSIM offers a big picture by combining data and events from various devices and linking these events with each other, together with video and audio analysis data, and thus providing complete situational awareness and control to operators.

Combining different data sources in a single interface allows operator to immediately make an informed and proper decision

The mobile application can be installed on smartphones and tablets of company executives and security personnel to remotely monitor the situation and be aware of what is happening at the site, receive notifications of important events, remotely view cameras, video archives, event logs and give commands.

Informed and fast decision making, investigation of incidents

Fast access to necessary data in archive using various reports and built-in video analysis search system helps to resolve conflicts, investigate incidents and analyze accumulated information.

The configurable logic of the VideoNet PSIM allows to create different event-based actions for fire and alarm sensors, access control and CCTV, microphones, detectors, recognition modules, cash units and industrial equipment depending on the specific application requirements, work schedules and other requirements.

Ease of use, improved overview and automation of routine actions

In case of large data volumes, operator workflow can be effectively streamlined by minimizing routine manual tasks. For fast response and maximum situational awareness operator can use alarm monitor (spot monitor) where system automatically displays video images from cameras that detected most important events.

PSIM security system offers an improved efficiency by:

- Using a single VideoNet interface by operator to quickly respond to an incident;
- Powerful processing of data received directly from the equipment together with video and audio analysis results;
- Using neural network detectors, whose accuracy cannot be affected by weather conditions or illumination level;
- Automatic tracking and responding to potential threats;
- Pre-configured operator actions for specific events;
- Showing occurred events from all devices in video windows, graphical maps and event logs;
- Direct management of all executive devices of the system in automatic and manual mode.

Manage video, get a facility-wide overview

VideoNet automatically generates responses to different alarm events, immediately alerts and notifies about event in real time without any manual intervention.

With VideoNet, you can access live video from cameras, playback video records and manage video archive, reveal events of interest using video and audio from cameras and microphones. You can manage relays, perimeter intrusion sensors and remote measured values. You can integrate external systems, intrusion & fire alarm devices, access control systems.



VIDEO MANAGEMENT

Easy scalable system can be expanded with virtually any number of devices.



RELIABLE STORAGE

Centralized storage, remote playback and video archives.



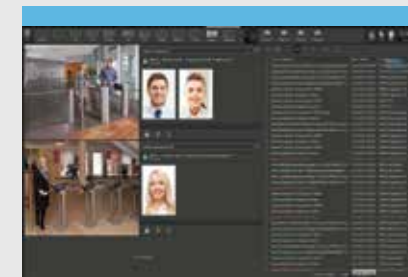
CONVENIENT SURVEILLANCE

Easy video surveillance and monitoring of the facility.



GRAPHICAL MAPS

Situational awareness, visual monitoring and fast response.



VIDEO ANALYSIS

Effective detection of alarm events and incidents.



WEB ACCESS

Remote access to video surveillance all over the world.

Indicates an important event that requires your attention



OBJECT CLASSIFIER



Neural networks

Recognizes and Classifies type of objects within camera view.

CROSSING LINE DETECTOR



Cross line detection differentiates between two events: approaching or crossing virtual line.

OBJECT COUNTER



Object counting automatically detects number of objects within camera view.

SMOKE DETECTOR



Video-based smoke detector provides smoke recognition within camera view.

FACE DETECTOR



Face detection provides people identification, counting and storage in system data base.

DIRECTION DETECTOR



Direction detection reveals objects moving in a specified direction.

ADAPTIVE OBJECT DETECTOR



Adaptive object detection allows to prevent false activations.

FIRE DETECTOR



Video-based fire detector provides fire recognition within camera view.

AUDIO DETECTOR



Audio detection determines allowed noise levels and duration of abnormal noises.

MOTION DETECTOR



Motion detection identifies moving objects within camera view.

ABANDONED OBJECT DETECTOR



Detector identifies abandoned or removed objects.

QUEUE DETECTOR



Neural networks

Detects the formation of a queue of objects of a certain type.

TAMPER DETECTOR

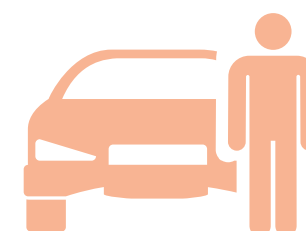


Tamper detection identifies malfunctions and abnormal conditions of cameras.

Smart detectors

VideoNet offers an intelligent detection capabilities to automatically identify and respond to abnormal or hazardous events. For each camera, you can specify a certain number of these detections and

select regions of interest (ROI) with individual settings. And detection reliability will no more depend on human factor.



NEURAL NETWORK OBJECT DETECTOR

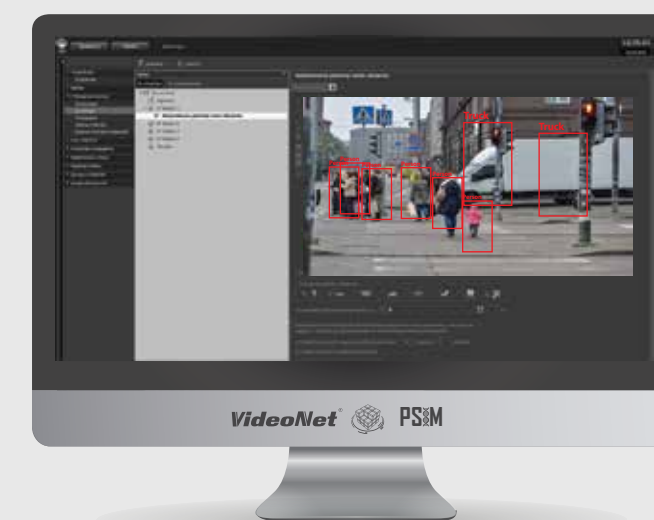
Identifies and classifies objects

A neural network object detector offers clear identification of the following object types on image: person, car, bus, motorcycle, bicycle, dog, train, and aircraft.

Neural networks can deliver great advantages for video surveillance applications: from retail shops to «Safe City» solutions. For security systems market transition from assumptions based on mathematical analysis of the geometry and color characteristics of a set of pixels to pattern recognition can be considered as a serious step in the situational analysis development. Analysis results clearly show people crowd, or person on the rails, or truck near the gate. Neural network technology can be effectively used for searching and analyzing data during accident investigations. Also, you can sort objects by classes to save time and obtain more clear results.

Detector operation algorithm includes a unique neural network ensuring high reliability of identification of such objects. The identification accuracy cannot be affected by weather conditions, day/night, illumination and etc.

A neural network object detector refers to the category of detectors that use object identification algorithm based on high-accuracy neural networks. The object detector can quickly and with minimal error determine objects of specific types within camera's field of view.





Persons, cars, buses or motorcycles queue detection

Queue detector
determines a queue of
selected type objects in
the controlled zone.

The detector uses an object type identification algorithm based on high-accuracy neural networks. Neural network allows to categorize objects by type. A neural network detector can be configured to determine queue of the following types: person, car, bus, motorcycle, and bicycle.



Specific type object detection within camera's field of view.

This detector can be used to manage personnel or equipment operation for different service applications (retail shops, customs terminals, parking lots and etc.). Detector can be effectively used for transport and logistics, trading and any other application where needed information about the queue of any specific objects.

Using queue detector you can more effective manage retail space and employees schedule, optimize traffic flows etc. When several objects of specific type stay at a single point of the frame longer than a specified time, detector considers it as queue.

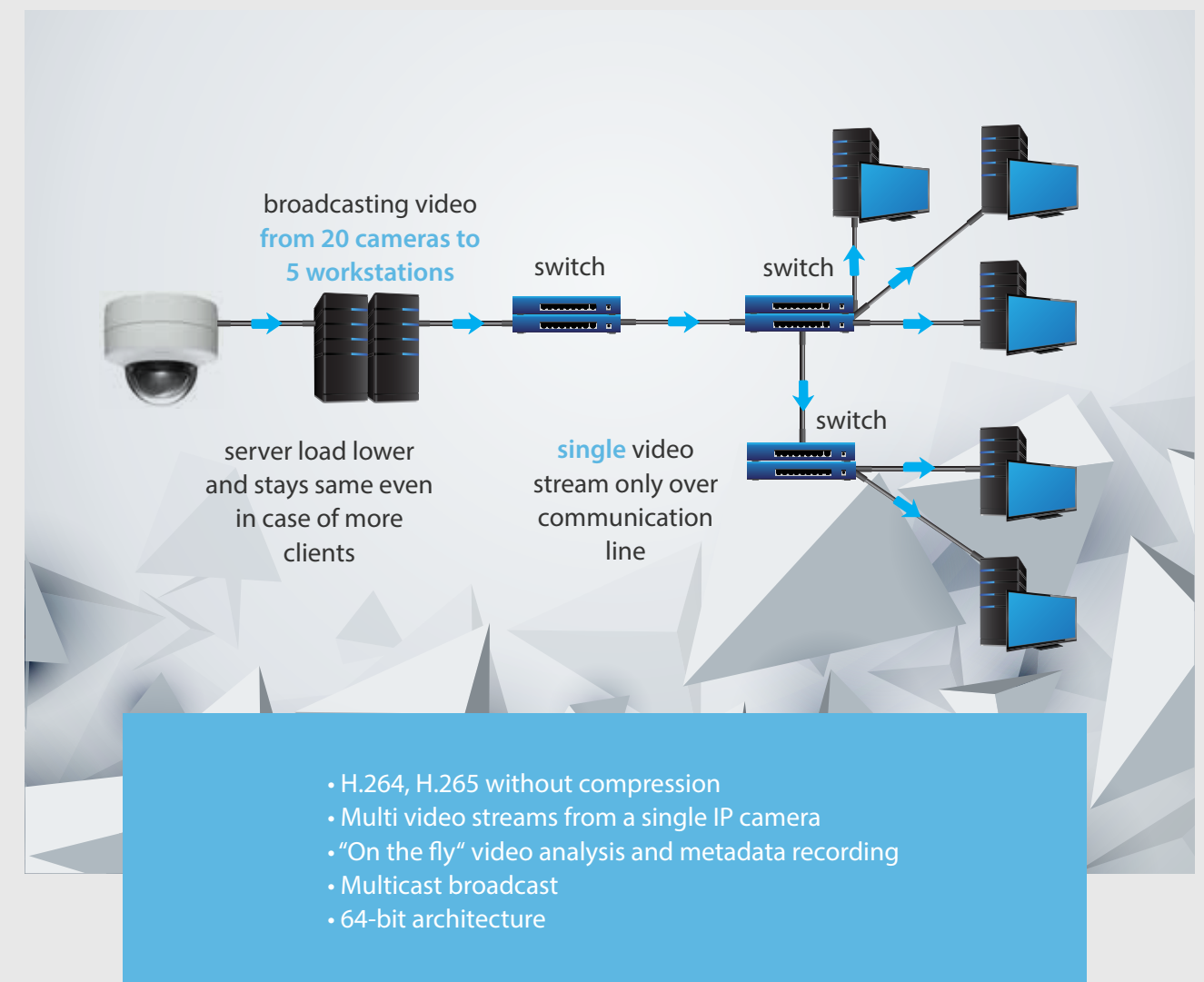
When system detects an object of specific type on the live video from camera, this object image on the screen will be marked with rectangular frame with its type and number in the queue.

Reduce hardware and infrastructure load

VideoNet can manage a huge number of cameras and provide an effective video surveillance across facility.

With VideoNet, you can deploy complex and large size video surveillance systems along with significant savings and more efficient use of video station's hardware resources. Also, network infrastructure load can be reduced. Using a wide selection of settings, including closing time and

event-based actions during working hours, holidays and after-hours, you can more flexibly adapt security functions to your business operations as well as record and store only valuable data.



Multicast broadcasting allows to save bandwidth and minimize load on network devices by reducing number of video streams. No video stream

duplication as each stream is delivered to a dedicated subscribers (operators). Last common switch performs allocation between subscribers.

Free operator from routine tasks to improve safety and security

VideoNet platform enables to automatically notify operator about alarms events, save time and minimize response time. Efficiency of video surveillance and security system directly depends on degree of automation of time-consuming tasks associated with processing of a huge homogeneous data flows, quickly causing operator to become tired and inadvertent. Reduce operator fatigue by removing routine repetitive tasks. VideoNet enables to automatically generate event-bases actions, deliver alerts about alarm events and facilitate operator to proper and fast response.



Create your own system behavior model

You can determine event-based actions. Create tasks in VideoNet.

For example, using a wide selection of settings you can set a different event-based actions to be performed during office working hours, holidays or after-hours.

Each task refers to a combination of possible events that may occur and response actions to be performed by VideoNet system

Automate your security process

Set an event-based actions for: smoke detectors and intrusion sensors, access control devices, microphones, detectors, POS-terminals and other external devices.

Start audio/video recording

Enables to start audio/video recording in accord with selected settings.

Audio notification

When a specific event occurs, system can playback selected audio file. Also, audio file can be played back on operator workstation, IP cameras and IP loud speakers. You can set required number of pauses for cyclic playback.

Stop audio/video recording

Enables to stop recording audio/video.

E-mail messaging

Enables to send alarm messages via E-mail to specified recipients. Also, system can send files as attachments.

SMS messaging

Enables to send SMS message containing pre-determined text to specific phone number.

Auto view

Enables to automatically activate specific monitor view (multi cameras view, full screen view, output to spot monitor/video wall)

Save snapshot

Enables to save snapshot of the currently displayed video frame to file and send via E-mail.

Add to archive

Enables to automatically add records to long-term archive.

Launch application

Enables to launch an executable file (*.exe) on the PC.

Send command

Enables to send changing status command to device, security zone or whole system. Enables to automatically arm/disarm security device, reset alarm or activate relay outputs.

Camera tours/presets

Enables to activate a specific preset or tour for selected PTZ-camera.

Logging

Enables to make entry to event log according to pre-selected settings.

Generate report

Enables to run analysis report template, save to storage media or send via E-mail to specified recipients.

Activate detector

Enables to activate detection capability for selected camera or pre-setting (regions of interest, sensitivity, object size)

Overlay messages

Enables to display pre-determined overlay messages on the camera video.

Event output to Event panel

Enables to throw message to Event panel.

Vehicles access control for facility security

Vehicle access control solution allowing to manage access to the facility territory, warehouses or residential complex, customs terminal or business center, parking or restricted access area.



For creating a single security system and reducing costs for organizing business processes at the enterprise, VideoNet platform offers vehicle plate numbers recognition module. For effective vehicle plate number recognition depending on movement speed, illumination requirements for the check zone, CCTV system and installation location, you can select recognition subsystem with maximum economic efficiency.

Vehicle number plate recognition module offers following capabilities:

- Automatic recognition and recoding of vehicle number plates
- Adding vehicle number plates to database along with movement direction and date & time stamp.
- Video recording of transit events. Video playback using event from log.
- Automatic searching of vehicle number plate across databases and alerting operator with a corresponding message.
- Automation of access mode, access devices and barrier management.
- Search across databases by number, date, time, recognition result, movement direction.
- Overlay indication of recognized vehicle number plates
- Notifications about transit events via SMS, e-mail, frozen image, audio and etc.

VideoNet system stores all transition events in event log. VideoNet system allows to generate following reports: vehicle transits, date & time, recognized or non-recognized vehicle number plates, manually corrected by operator vehicle number plates, transit points, vehicle time on territory.

VideoNet system allows flexible programming of system operation scenarios and various ways to inform operators. Operator can manually enter vehicle number plate and this fact will be reflected in the event log along with operator ID. Also, operator can search vehicle number plate in the authorized number plate database and open the barrier.

With wide flexible settings you can organize the work of the checkpoint for each site individually. Visitor vehicle number plates can be added to database containing vehicles allowed to enter individual time schedules for them can be created. VideoNet system offers possibility to configure any available event-based action for event when vehicle crosses check area.



VideoNet PSIM provides effective cooperation between vehicle plate number recognition system and access control system. You can:

- Assign vehicle data to the person data to manage access control using vehicle;
- Use vehicle access control based on double verification: vehicle access can be granted only provided that plate number is recognized and driver has valid access card.

Effective cooperation between vehicle number plate recognition module and access control environment by VideoNet PSIM allows to completely automate vehicle transit process. You can create time schedule depending on work schedules of employees, e.g. field service technicians, and use the employee's vehicle numbers for their time & attendance.

Customize access control for your facility

VideoNet PSIM offers integrated VideoNet ACS, an advanced full-featured software environment for access control and management.

VideoNet's access control environment offers access control and monitoring capabilities, reporting tools, access card infringements and time attendance evidence.

Integration of video surveillance with access control enables to improve situational awareness, expand functional capabilities of access control system and make video available as evidence. Using a rules engine you can determine who will be denied or granted access where and when, determine where a person currently stay, control personnel movement and generate different reports.



Using VideoNet ACS interface you can:

- Connect access controllers from different vendors.
- Manage various actuating devices: electromagnetic and electromechanical locks, turnstiles, card readers, boom gates.
- Use any suitable access control IDs: Touch Memory keys, proximity cards of various standards, biometrics.
- Use different data exchange protocols: RS-485 and Ethernet.

Through direct connection and management of access control devices via VideoNet platform you can use multi vendor controllers, manage them and, of the prime importance, create common complex access rules, including different floating schedule, holiday and weekend exceptions, unlimited number of time zones. The access control environment of VideoNet solution utilizes dedicated algorithms for data synchronization between all controllers to enable common access rules for each controller of any brand or type, and, in fact, this allows to expand their standard capabilities.

Depending on application, VideoNet ACS enables to flexibly create dedicated workstations:

- **GATEHOUSE WORKSTATION** – visual monitoring and video verification of cardholder.
- **ACCESS CONTROL WORKSTATION** – access card issue and access rights assigning.
- **HR WORKSTATION** – time and attendance.
- **SECURITY WORKSTATION** – monitoring of device statuses and effective response to alarm situations.

Also, each of the created workstations can be expanded by using data from other VideoNet PSIM software environments and any integrated devices and external systems that can be effectively monitored and controlled through interactive graphical maps.

Advantages:

- Different controllers support
- Integration of different controllers into a single access control system
- Expanded controllers functionality
- Clear and detailed reports
- Interactive graphical maps

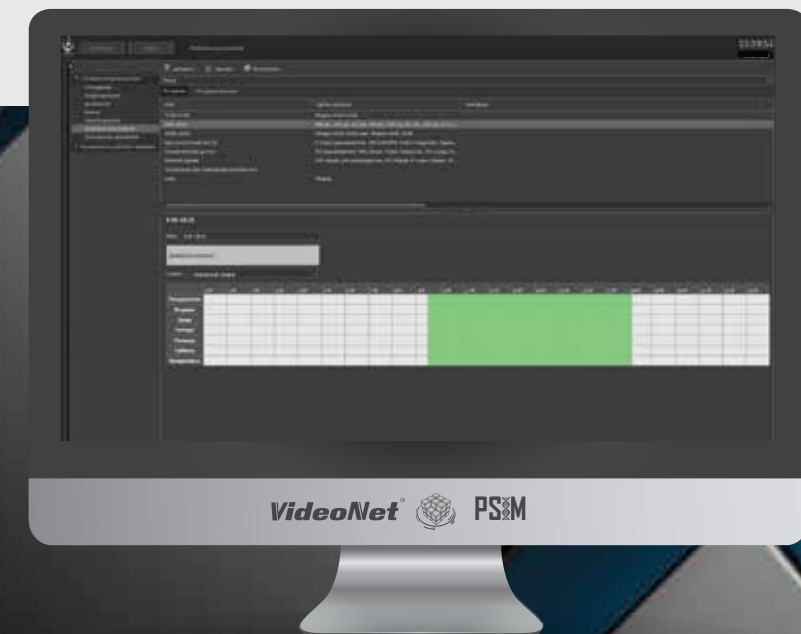
Access rules:

- Schedule/working hours
- User profiles management
- Device profiles management

Time and attendance management

VideoNet access control environment enables you to record the employees working time, control their presence or absence at working places, late comings and extra hours.

The VideoNet solution offers a wide selection of settings to completely automate employees' time & attendance using access cards. You can effectively improve safety and security in your company and employees discipline. This functionality especially gives added value to organizations where the employee salaries depend on the amount working hours.



"Occupancy" report

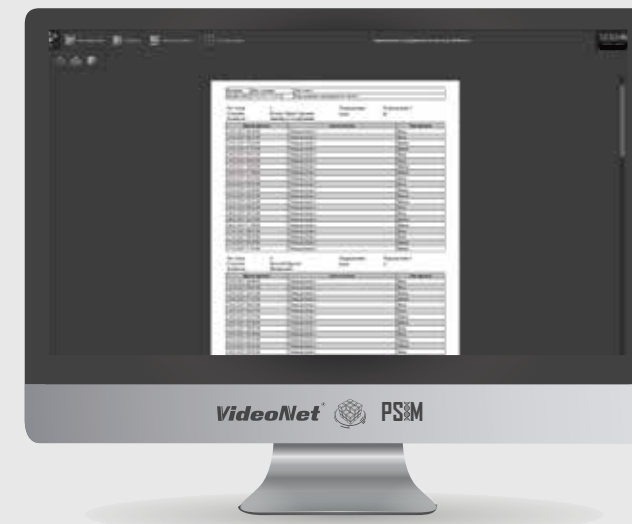
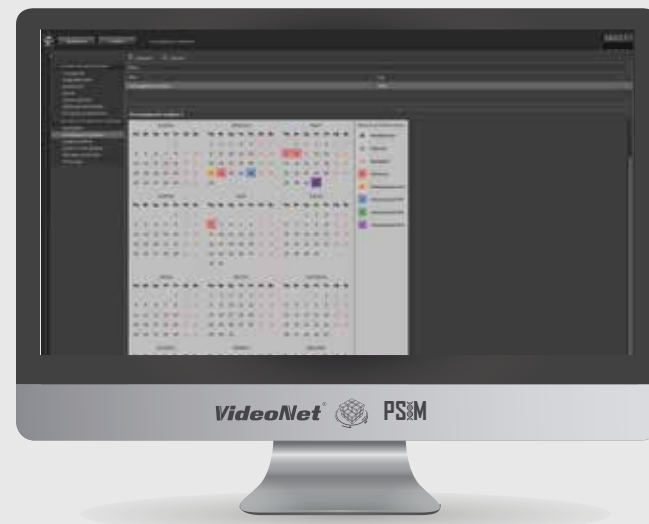
Can be used to identify persons staying in a particular room during a certain time period.

"Employee movement" report

Can be used to analyze movement of employees across facility.

"Working time" report

Can be used to analyze presence or absence of the employees at the workplace during each day of the selected time interval and his/her actual attended time.



"Extra hours" report

Can be used to analyze all extra hours for each employee per each day of the specified time period.

"T13" report

Can be used to show attended time using T-13 standard form. Also, report on daily basis shows when employee was present or absent on the working place.

"Violations" report

Can be used to show list of all violations for specified time period.

A vast variety of reports is available to show actual working schedule of employees, analyze amount of work done and causes of working time lost. Reports can be generated for specific dates, employees, departments or a whole organization. Basic reports can be exported in pdf, xls, html, rtf, bmp for further use.

Connect and manage Intrusion and fire alarm devices

All events associated with intrusion and fire alarm devices are immediately recorded to event log, processed and securely stored. You can manage your devices through “Monitoring” environment or use automated management based on pre-configured settings.

VideoNet PSIM offers integrated VideoNet FIAS, an advanced full-featured software environment for intrusion detection and fire alarm.

Intrusion detection and fire alarm devices can be connected directly to VideoNet software.



VideoNet FIAS environment offers the following advantages:

- Integration of intrusion and fire alarm devices
 - Configuration of all system components: alarm loops, zones, areas and access rules
 - Monitoring and status view of security zones, addressable modules and devices, and FACP's on graphical plans.
 - Automatic and manual control of all connected components.
 - Enhanced system events logging.
- In convenient manner operator can manage intrusion & fire alarm devices directly on graphical plan of a facility. Using multi level graphical plans facilitates in facility monitoring, improves situational awareness and enables to see complete status overview of all shown devices and easily manage them individually or in groups. Using visual indications, VideoNet alerts operator about alarm and status of devices shown on graphical plans enabling him/her to quickly reveal any incident.

Advantages from using FIAS as part of VideoNet system

- VideoNet manages settings and processing of standard operations (arming/disarming security zones and areas, processing alarm messages, response actions).
- VideoNet expands amount of response actions through using definable commands and event-based actions relating to intrusion detection and fire alarm devices(detectors). This enables to use more possible response actions for any devices and subsystems connected to VideoNet.
- VideoNet offers an advanced solution for applications, not possible before. For example, when intrusion detector triggers, in addition to standard action “ACTIVATE AUDIBLE ALARM” system can move PTZ camera to preset, send alarm message or audio signal etc.
- VideoNet improves situational awareness. False alarms are always a problem. Now, system recognizes as alarm event only event confirmed by alarms from several sources and having pre-configured trigger settings and video verification by operator or guard.
- VideoNet reduces affect of human factor to security. Using system behavior model, you can automate most processes to avoid false operator actions.

Centralized monitoring and fast response

The VideoNet platform offering a single interface for global integration and security system management allows to connect perimeter protection systems.

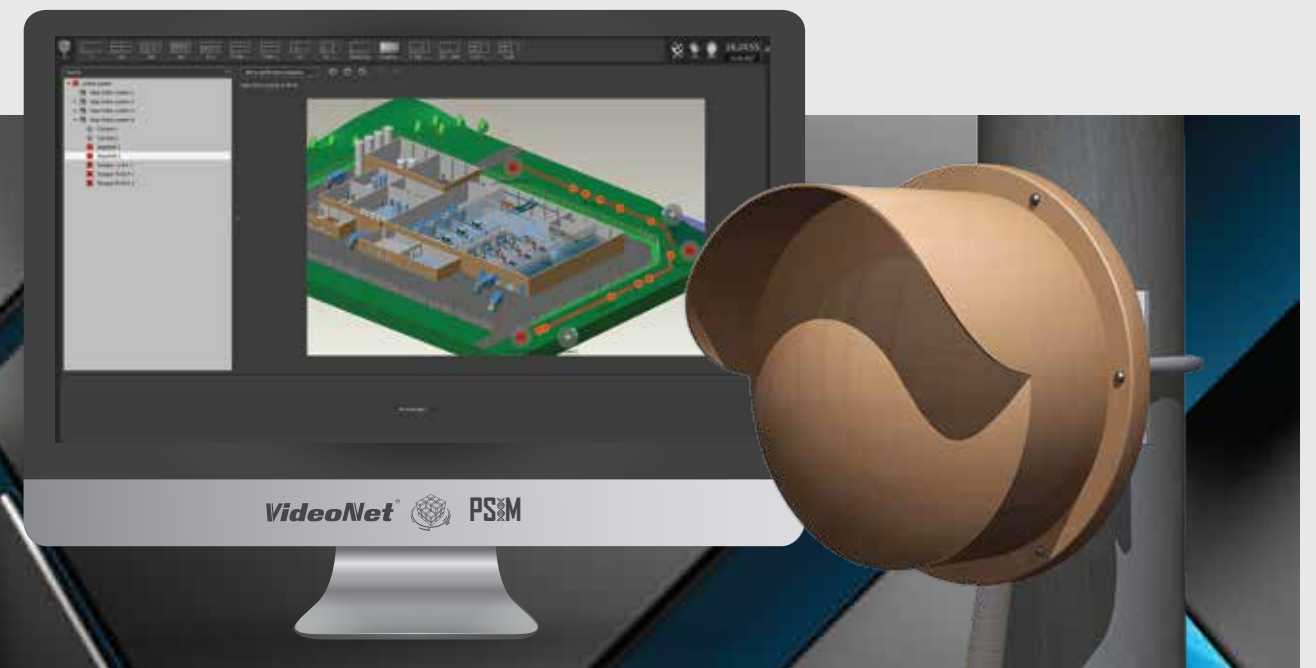
The VideoNet solution has Total.PSS platform for integration of perimeter protection systems. The platform enables to add devices of perimeter protection system to VideoNet configuration and select their settings. System can automatically search and add devices to configuration and communicate with them over several lines simultaneously. This ensures that data can be received from the devices even in case of line break or any other damage of the main communication line in any perimeter section.

Operator can use centralized monitoring and manage connected devices of the perimeter protection system manually or automatically. All device events and operator actions are recorded to the system log.

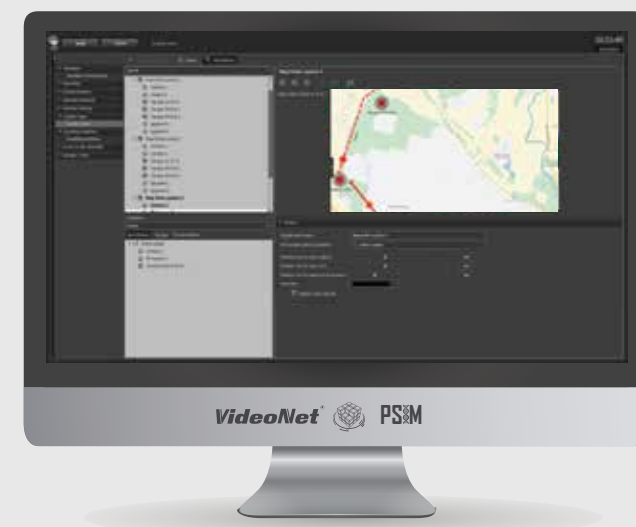
The graphical plans show the location where intrusion occurred with an accuracy of one meter guaranteed by devices. Using schedule, you can configure VideoNet system responses to intrusion events directly to the intrusion area.



For effective system management, you can locate all perimeter security devices on the graphical plan as they are actually located on your site. You can manage perimeter protection devices using graphical plan window: arm and disarm perimeter segments and perimeter sensors, receive status data from perimeter devices.



In the schedule you can configure automatic response to system events. For example, when alarm event occurs, video from respective camera appears on the monitor in full screen mode, camera turns to the alarm area, specific camera and microphone start recording, an alarm message or an audio alarm appears (or system can perform any other action).



Get evidence for incident investigation

Use an intelligent archive data search and analysis capabilities for detailed assessment of the situation and informed decision making. Reveal event of interest using “Analytics” environment. You can generate reports showing system events, time attendance, object movement pattern within controlled area. Also, you can search video records using different criteria, e.g. parameter values etc.

An advanced video search engine offered by VideoNet allows security professionals in real time or virtually close to real time process data from hundreds or even thousands of cameras in certain minutes, for example to find an object or alarm event. When investigating incidents, powerful search tools allows to significantly save analysis time and reduce number of personnel involved to this task.

VideoNet algorithms enabling fast retrieval of data from video archive can be used for various applications: city video surveillance, transport security, banking, logistics and industry. An intelligent search feature allows to find the necessary event-related information or data from different subsystems.



“Analytics” offers distinct advantages in different situations

- Detection of moving objects exceeding speed limits or direction limits
- Investigation of removed objects (stolen vehicle, intrusions, theft etc.);
- Object color differentiation;
- Detection of suspicious behavior;
- Analysis of suspicious situations on video records for a specified time period;
- Parallel acquisition of event-related data from all available sources (e.g., broken glass sound could be recorded before detected motion etc.);
- Generation of different reports based on video surveillance, intrusion and fire alarm or access control events;
- Object traffic assessment;
- Detection of typical routes of vehicles or customers.

Search criteria

The solution is completely independent of functionality or type of cameras - all calculations are performed by server. You can search across any number of cameras in various combinations using different criteria: whole video frame, selected area within a frame or another predetermined parameter. Operator can specify object size or proportions, color, speed, movement direction. Also, operator can select additional search criteria like type of video subsystem-related alarm event, apply audio data filters, use messages from other integrated subsystems or devices, such as access control or intrusion and fire alarm detection.

Generates reports of different types and forms for any subsystem

- **Summary report** can be used to find necessary event even quicker
- **Heat maps** can be used to analyze concentration of moving objects in specific areas
- **Event report** can be used to analyze text data for specified interval from event log
- **Employee movement** can be used to analyze movement of employees across territory

Face recognition module

Use multi-factor identification and PSIM's unique approach to improve object security

The solution based on VideoNet PSIM combines various methods of identification - from ordinary access cards to biometrics, built-in video, audio and neural network analytics, data from video surveillance systems, ACS, FIAS and PSS.

PSIM technology allows you to use any combination of data for multi-factor identification. Through this approach, it is possible to determine the presence of employees in the room without using the access control system, and when fire alarm systems are triggered, they can inform about the presence of employees in the rooms. This way of organizing the work of security systems makes it possible to build intelligent and complex scenarios for alarm detection and automatic responding to them.



Principle of operation of the built-in face recognition module

In real-time, the module analyzes the image, automatically finds the face image that is optimal for recognition, saves the image, compares it with the reference images in the databases, and outputs the recognition result.

When recognizing an offender VideoNet PSIM automatically sends a message to the police or security service about the appearance of the offender in the protected area. This functionality is in demand in crowded places — at railway stations, stadiums, airports, subway, etc. The module is used to automate the process of face-control in banks, shops, hotels for identifying VIP-clients, staff or offenders.

In VideoNet PSIM, the built-in face recognition module can be used both for solving traditional tasks - access control or detection of offenders, and for implementing unique and individual solutions thanks to the PSIM concept.

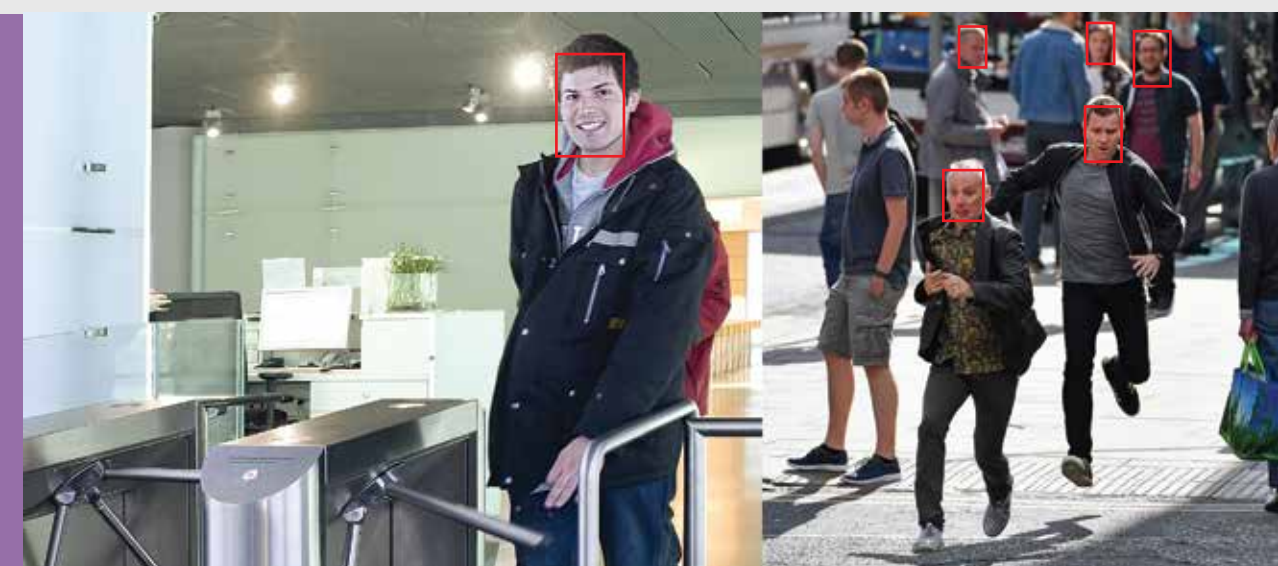
Convenient and intuitive interface of the VideoNet PSIM allows the operator:

- See the result of the comparison of detected in real time faces with stored face databases
- Automatically inform the response services of the appearance of a certain person in the control zone
- Receive alarm notifications in the form of sound alerts, camera images on the alarm monitor, message to the event monitor toolbar, e-mail, SMS notifications, etc.
- Search for people in the archive by specified parameters: photo, age, gender, time and date.
- Manually create a database of persons with face identifiers for access to the facility or rooms
- Create new databases based on previously detected faces
- Generate reports

CONTROL OF ACCESS TO AN OBJECT USING FACE RECOGNITION

Collaboration of the face recognition module and access control system:

- Automatically provides access to rooms based on face recognition results.
- Ensures access to specially protected areas only to authorized persons.
- Uses face recognition result as the main or additional access control identifier (card + face, face).
- Prevents unauthorized intrusion into the object and provides assistance in locating offenders.
- Detects outsiders on the objects territory and generates alarms in real time.
- Keeps records of working time and controls the movement of employees on the object



The face recognition module in VideoNet PSIM is a complete element of the access control and management system. Access to the object can be organized in the identification or verification mode.

Improve your security system capabilities

VideoNet Integration Module VIM
enables integration of your
software with VideoNet system.

Advantages:

- A single informational system and reports generation
- Management of other information system resources
- A single operator workstation to manage multiple systems
- Standardization and optimization of enterprise business and information processes

Using VIM module you can integrate any application-specific hardware and software systems. For example, VideoNet can be integrated with industrial automation systems (SCADA) to manage industrial processes and end product quality. Also, VideoNet can be integrated with CRM and inventory management software to easily control deliveries.

Integration of VideoNet video surveillance and security system with third-party software solutions enables cost optimization, complex management of business processes and improved situational awareness.

VN COMMAND INTERFACE

A simple and convenient solution enabling to integrate VideoNet with any external system capable of running an executable file.

This interface allows external applications to send text messages to VideoNet, where they are recorded to event log. You can schedule VideoNet system actions when certain events from an external system occur. It may be an individual action or a sequence of actions to be performed by VideoNet, e.g., start recording from a specific camera, send an alarm message etc. System offers a wide selection of event-based actions.

The VN Command Interface enables to significantly reduce time and costs for investigating various incidents. You just need to use a simple search across event log and

quickly view video clips to immediately understand what happened. VideoNet platform offers various warns and alerts to notify about alarm event and prevent any incident.



Integrate security system and industrial systems on a single platform

OPC DA 2.0 standard support is an important step in the development of the VideoNet PSIM concept. Now you can integrate security system with industrial and engineering systems on a single enterprise-wide management platform.

In real time operator can receive data from all systems for automatic and centralized monitoring. This significantly improves quality of decision-making by the supervision departments of the enterprise. You create common information environment, improve management efficiency and reduce operational costs.

The OPC standard was originally developed and utilized for industrial process control and automation systems. However, recently the standard is actively used for security systems due to the following reasons:

- Increasing demand for integration of SCADA systems with video surveillance for visual monitoring and process status recording.
- The OPC standard can be used as a communication protocol between intrusion detection, fire alarm subsystems and access control subsystems because they unlike the video surveillance systems have no own generally accepted standards at least at the level of ONVIF standard.
- To manage complex events security system needs to be integrated with engineering and process systems. For example, when intrusion detection and fire alarm subsystem produces alarm signal, process equipment must be switched to a safe operation mode, power supply disconnected if necessary and other security systems activated.



VideoNet platform supports OPC DataAccess 2.0 specification. To meet OPC DA 2.0 compatibility requirements, VideoNet has Total. SCADA platform for process monitoring and communication with external systems supporting this protocol.

How VideoNet integration adds value?

Retail store or supermarket



Recommendations:

- Video and audio evidence management
- POS
- Integration with anti-theft system
- Central point of control
- Fast data search

Results:

Fast conflict resolving, reduced losses at POS, improved service quality and employee supervision

Commercial building or business center



Recommendations:

- video surveillance
- access control
- intrusion & fire alarm
- graphical maps

Results:

Advanced and effective access control system, complete interaction between security systems in case of incidents, individual safety and security plan for each occupant

Create an individual solution adapted to specific industry requirements. Effectively manage complex systems with a large number of devices and servers in a centralized manner from anywhere within network, automate monitoring and security processes, immediately respond and prevent any expected threats.

Enterprise



Recommendations:

- video surveillance
- access control, intrusion and fire alarm
- perimeter intrusion detection
- integration with BMS
- Monitoring center
- graphical maps
- VIM, VN-Command interface
- Multicast, overlay messages

Results:

An effective and advanced access control system, improved quality assurance of industrial processes, complete interaction of security systems in case of incidents, immediate detection of intrusions and alerts, employee supervision

Bank or financial organization



Recommendations:

- Video and audio evidence management
- POS
- integration with cash-counting machines and ATMs
- archive encryption
- Central point of control
- fast data search and analysis

Results:

Fast resolving conflict situations, prevention of frauds, reduced risks of commercial losses and reputational damage, improved quality of services and employee supervision

Select solution for your application

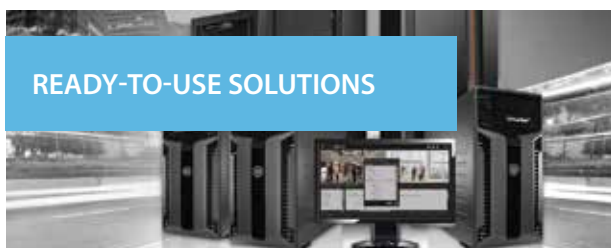
INDUSTRY-SPECIFIC SOLUTIONS



PROJECT-SPECIFIC SOLUTIONS



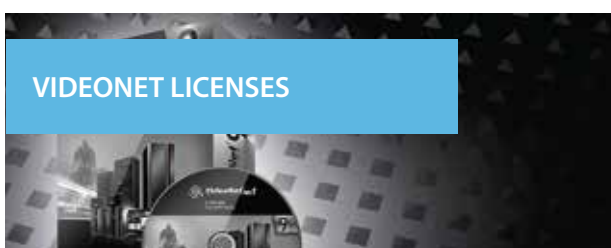
READY-TO-USE SOLUTIONS



DVRS AND NVRs



VIDEONET LICENSES



SOLUTIONS TO ENSURE COMPLEX SECURITY

Solutions for applications of any size and complexity. Complete control and monitoring from anywhere in the video network. Adapted to application-specific requirements.

INDIVIDUAL SOLUTIONS FOR YOUR APPLICATION

Project-specific solutions refer to customized video stations from manufacturer to create security system meeting highest safety and security standards.

FLEXIBLE SOLUTIONS FOR STANDARD APPLICATIONS

We have developed video stations adapted to video surveillance system requirements and to ensure that our solution meet a wide range of applications. Simply install, activate and use.

COST-EFFECTIVE AND SCALABLE SOLUTION FOR BUSINESS

VideoNet Guard NVR – video recorder to create video surveillance system using IP-cameras. We offer VideoNet Guard NVRs with 24, 32, 48 or 60 IP cameras support. Simultaneous recording and playback.

SOFTWARE SOLUTION FOR SECURITY SYSTEMS

In real time detects and responds to dangerous situations, immediately alerts about incident. Facilitates in fast decision-making, provides reliable storage and video export.



SAFE CITIES

RIGA (LATVIA)
ROSTOV-ON-DON (RUSSIA)
NOVOKUZNETSK (RUSSIA)
NABEREZHNYE CHELNY (RUSSIA)

ADMINISTRATIVE AND GOVERNMENT FACILITIES

OLYMPIC OBJECTS, SOCHI
FEDERAL SECURITY SERVICE OF RUSSIA
STATE ROAD TRAFFIC SAFETY INSPECTION OF RUSSIA
MINISTRY OF JUSTICE OF RUSSIA
MINISTRY OF INTERNAL AFFAIRS, REPUBLIC OF UZBEKISTAN
BUNDESGRENZSCHUTZ POLIZEI (GERMANY)
POLIZEI SACHSEN (GERMANY)
CONSULATE GENERAL (KINGDOM OF SWEDEN)
CONSULATE GENERAL (INDIA)
FEDERAL PENITENTIARY SERVICE OF RUSSIA
MINISTRY OF INTERNAL AFFAIRS (RUSSIA)



BANKS AND FINANCIAL INSTITUTIONS

THE CENTRAL BANK OF THE RUSSIAN FEDERATION
THE VAULT OF THE CENTRAL BANK OF RUSSIA
NATIONAL BANK OF THE REPUBLIC OF KAZAKHSTAN
SBERBANK OF RUSSIA
VTB BANK
RAIFFEISENBANK
MTS BANK
GAZPROM BANK
CREDIT BANK OF MOSCOW
SANKT-PETERBURG BANK

INDUSTRIAL FACILITIES

"GAZPROM" JSC
"GAZPROM NEFT" JSC
"ROSNEFT" JSC
"LUKOIL" JSC
"SEVERSTAL" JSC
ALROSA DIAMOND COMPANY
"AVTOVAZ" JSC
"KAMAZ"
"HENKEL ERA"
JSC "LATVIJAS GAZE" JSC

"TAIF"
JSC RAILWAYCAR-BUILDING WORKS TVER
URAL MINING AND METALLURGICAL COMPANY
JSC ANTIPINSKY REFINERY



TRANSPORTATION FACILITIES

"VNUKOVO" AIRPORT (MOSCOW, RUSSIA)
LEIPZIG/HALLE AIRPORT (GERMANY)
BORYSPIL INTERNATIONAL AIRPORT (KIEV, UKRAINE)
BEGISHEVO AIRPORT (REPUBLIC OF TATARSTAN)
SAMARKAND INTERNATIONAL AIRPORT
SAINT PETERSBURG METRO (RUSSIA)
KIEV METRO (UKRAINE)
MINSK METRO (BELARUS)
"NORTH-WESTERN SHIPPING COMPANY" JSC
"RZHD" JSC

COMMERCIAL ENTERPRISES AND LOGISTICS COMPANIES

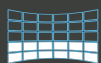
"RAMSTORE" RETAIL CHAIN
"K-RAUTA" RETAIL CHAIN
"MEGA IKEA" RETAIL CHAIN
"MCDONALDS" FAST FOOD CHAIN
"LENTA" RETAIL CHAIN

"GUM"
"BOSCO DI CILIEGI"
"EUROSIB GROUP"





PSM



DIAGNOTEX

MULTICAST

DVPACK



FACE RECOGNITION

LICENCE PLATE RECOGNITION

MULTI-FACTOR IDENTIFICATION

BIOMETRIC IDENTIFICATION

INTELLIGENT PERIMETER PROTECTION

ARTIFICIAL INTELLIGENCE FOR THERMAL IMAGING EQUIPMENT

NEURAL NETWORKS TRAINED FOR OBJECT RECOGNITION

DVR
NVR

PERIMETER
SECURITY

AUTOMATION OF COMMERCIAL
AND INDUSTRIAL SYSTEMS

WWW.VIDEONET9.COM

TECHNICAL SUPPORT: support@videonet9.com