



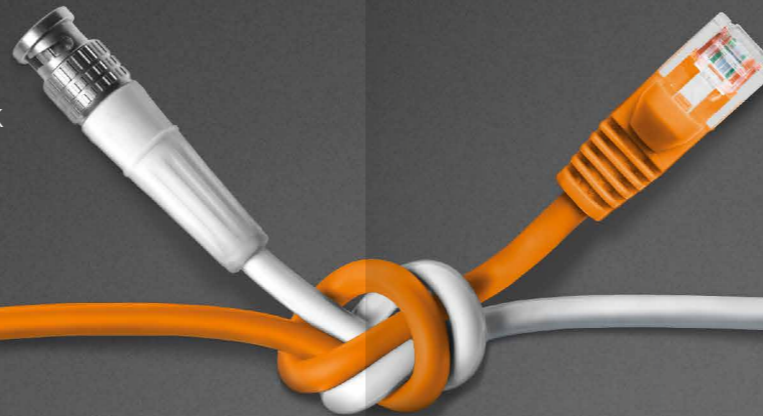
# TECHNOLOGY IN FOCUS: IP

Industry solutions and products



# Connecting Technologies, Shaping Change.

Future-oriented video security begins with network products from eneo.



Over the last fifteen years, specialist installers have been finding everything they need for reliable industry solutions from a single source: our technologically comprehensive portfolio ranges from cameras through recorders right up to monitors, illuminators and accessories. And because the quality as well as the installer-friendliness and user-friendliness of our video security products are impressive, the eneo brand name has a good reputation among video security professionals around the world. In this context, the strongest growing technology segment, not only for the eneo portfolio but for the industry as a whole, is gaining ever more importance: network technology.

So much has happened since introduction of the first cameras and recorders in this field that it is now time for a comprehensive overview of the products and solutions of the eneo IP portfolio. Of course, such an overall view especially in rapid evolving digital technologies can only have the character of a snapshot.

Therefore – and also because our partners and customers have asked us again and again – we have focused the concept for this IP brochure on examples of industry solutions with eneo network products. And naturally on presentation of our IP key products. So the following pages are still subject to a certain „shelf life“ despite the enormous development dynamics typical of IP.

The general characteristic features of products are at the centre of attention for individual series and groups, and less prominence is given to the technical details such as focal lengths, special functions and protection ratings. These are extensively documented in the specifications and data sheets for each of the devices and are available in the product section on our website.

We considered it important to illustrate industry solutions with relatively simple as well as complex scenarios and, where possible, to incorporate all product categories – from the attractively priced network cameras in the eneo Economy class, right up to models such as those customised for classic industry applications. Purely network-based as well as hybrid solutions (keyword: migration) are shown where existing analogue systems are modernised in a price-efficient way, i.e. expanded by IP components and integrated in a network.

The extent to which eneo IP cameras have proven their high value in practice is what you will learn in the small case study starting on page 16 where the responsible installer as well as the end customer have their say. Finally, the last two pages are dedicated to the topic of ONVIF and our technology partnerships in video management.

And we now wish you a stimulating and insightful read.

## Contents

6	eneo IP – our product solutions
8	Industry solutions overview
10	Retail
12	Warehouse
14	Car dealership
16	Security centre
18	Case study
20	ONVIF and VMS partners



# eneo IP – our product solutions



## CALLISTO

Modular design, integrated infrared LEDs and full HD resolution make the IP domes in the eneo Callisto series the optimally functional, versatile solution for the widest range of video security applications and installation requirements.



## CANDID

With their perfect balance of form and function, the network cameras from the eneo Candid series epitomise the eneo performance promise more than virtually any other product. Distinctive in look, they offer the successful combination of the installer-friendly Easy Installation design, aesthetics, quality and attractive cost effectiveness.



## PTZ-DOMES

The PTZ network domes in the NXD series are high-performance full-HD video cameras with autofocus zoom video analysis functions for the full overview around the clock.



## RAID BOX

The eneo RAID Box has slot bays for a total of five 2.5" and 3.5" SATA hard drives. As external storage expansion, it represents the optimal addition to HDR-5000 and PNR-5300 recorders.



## NETWORK VIDEO RECORDERS

eneo network video recorders such as the NVRs of the PNR-5300 series are proven and performant. And as real Easy Installation products they impress through their convenient setup and high user friendliness.



## ENCODERS

The eneo video encoders link existing analogue technology with groundbreaking network video technology thus enabling gradual and cost-effective modernisation of video security systems.



## ECONOMY CLASS

A wide range of functions and an especially attractive price characterise the full HD network cameras in the eneo Economy Class. This, along with the usual high eneo quality, makes the domes and bullets in this series interesting for especially small applications.



## AK-4 WIRELESS KIT

The AK-4 Wireless Kit connects Candid network cameras to the video network by Wi-Fi. Quickly, securely and easily. The Wi-Fi modules are preconfigured and automatically establish a stable 1-to-1 connection.



## NETWORK KEYBOARD

The eneo KBDNSC-100 Network Keyboard opens up new methods for simultaneous control of analogue and digital devices. The joystick in the separate housing allows ergonomic positioning for left- and right-handed users.



## IRAS CONTROL SOFTWARE

The central control and image transmission software iRAS manages up to 1024 analogue and IP cameras, NVRs and DVRs in a system. The user-friendly interface and features such as time-based and event-driven image search or the editable e-map make working with the software extremely user-friendly.



## RAS MOBILE APP

As an addition to stationary, PC-based control, the eneo RAS Mobile app for iPhone and Android gives mobile network access at any time. RAS Mobile supports, for example, 720p and 1080p image resolutions, bidirectional audio transmission as well as control of PTZ-capable devices.

# Scalable. Flexible. From a single source. Industry solutions with eneo IP products

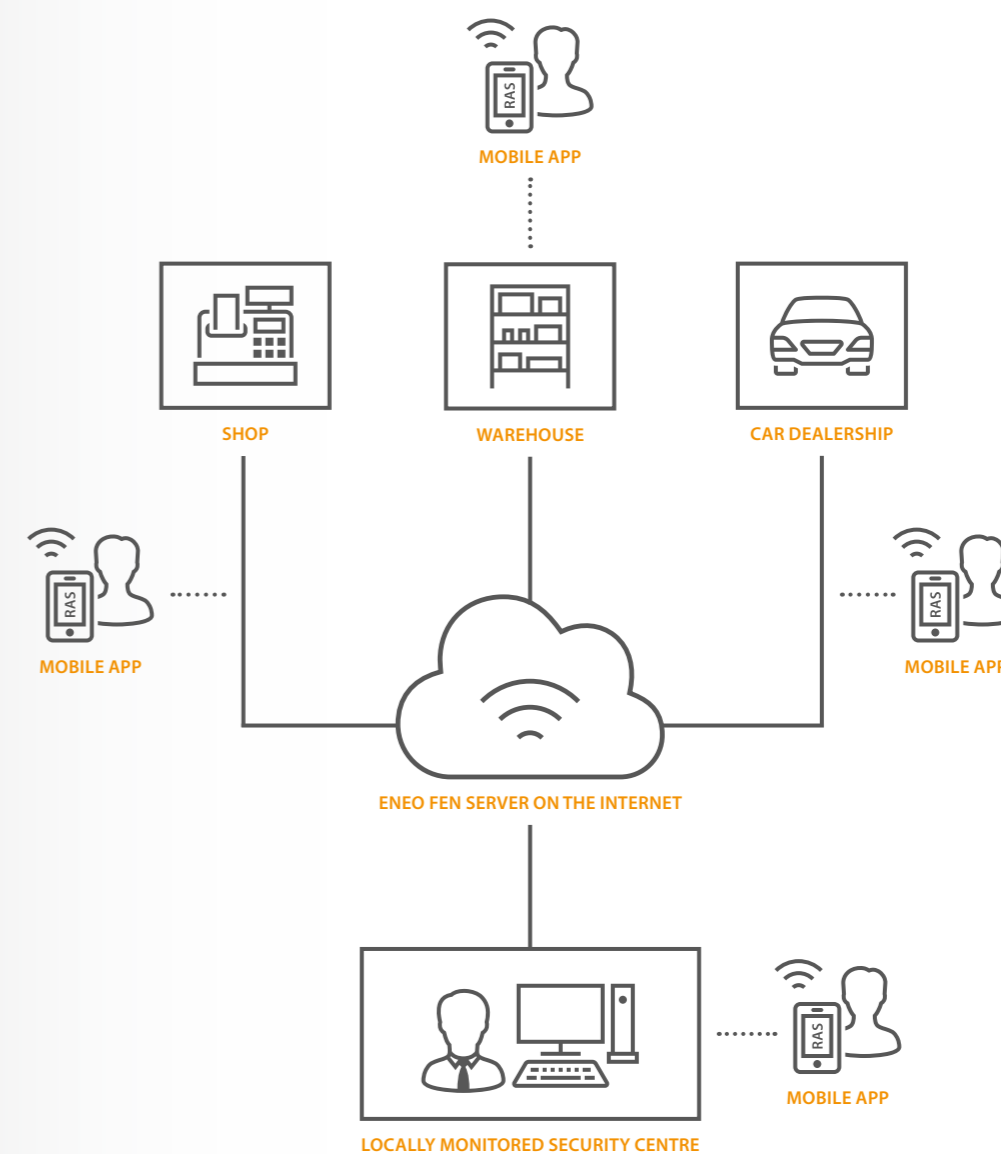
You can count on the cameras, recording systems and software products from the eneo IP portfolio: high-class image quality, scalability, flexibility and last but not least attractive cost effectiveness characterise our networked industry solutions.

The whole is more than the sum of its parts. Therefore, we will not go down to the last detail on the different functions and model versions of the individual products in our IP portfolio here, rather we will introduce you to examples of overall solutions for specific applications based on our network products. After all, end customers are not particularly interested in the performance characteristics of single cameras and recorders, rather in the performance and economy of the overall system: performance demonstrated in high-class image quality, high user-friendliness and a large feature set; economy proven in the effectiveness of the products and in the scalability of the overall system – expectations that form the core of the eneo performance promise and which are fulfilled by all products in our IP portfolio.

The system drawings on the following pages illustrate how these modules can be merged into reliable industry solutions from a single source, and how these in turn are connected in a complex video network with centralised and also decentralised management.

The architecture of this video network is illustrated by the overview on the opposite page: three industry solutions („Shop“, „Warehouse“, „Car dealership“) are connected over the internet to a security centre that supplements local monitoring. Additionally, the RAS Mobile app provides mobile access to every single video network around the clock. The security centre is also monitored locally to ensure process transparency. Mobile network access is also possible here.

You can find the overall schema on the following pages in a greatly reduced form at the top right of the page for better orientation. Of course, the examples of solutions shown here are exactly that: examples of some of many possible eneo IP video security solutions that do not lay any claim to completeness or general validity.





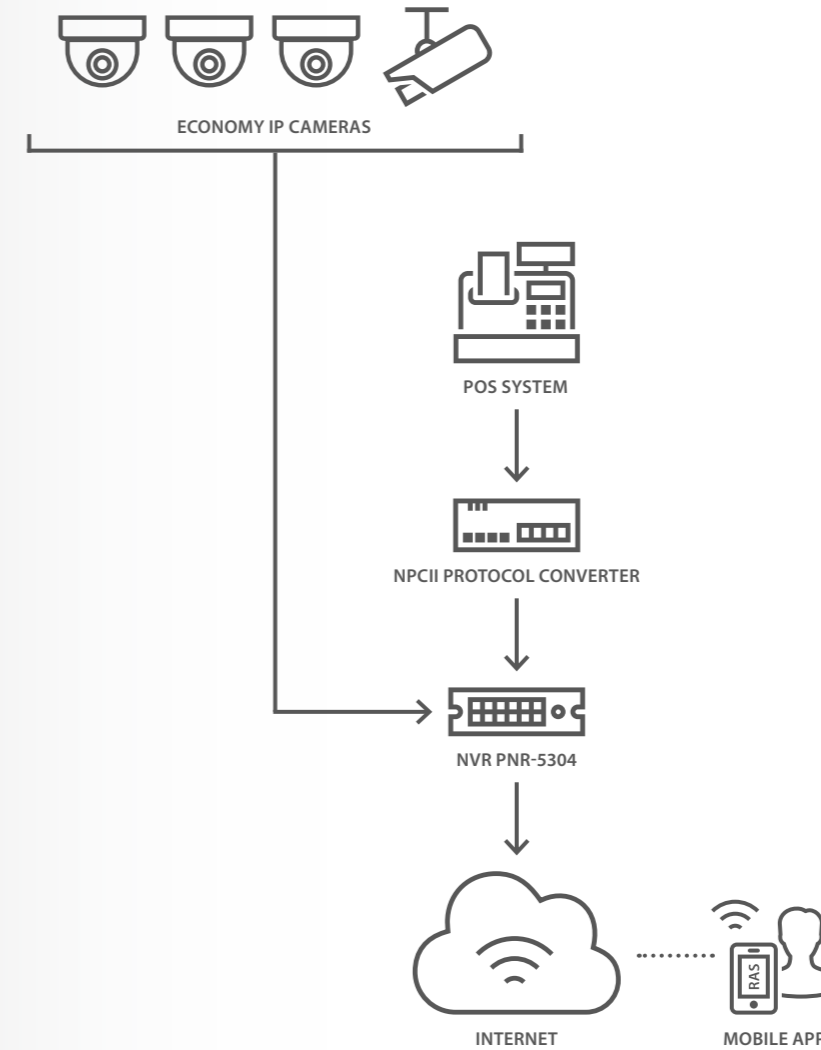
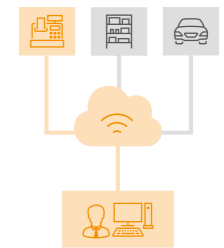
# Retail

Solution for integration of the POS system in a particularly cost-effective IP video security system.

This video surveillance solution for the retail industry uses very attractively priced network cameras from the eneo Economy series: three NXD-980 IR37P IP Domes monitor the action on the sales floor, supported by one NXB-980 IR35 16M Bullet Camera. Of course, in full HD across the board. Each Dome is designed for day-night usage and has a lens with a fixed focal length of 3.7 mm.

The common features also include a light sensor for automatic activation and deactivation of LEDs, as well as integrated IR LEDs and a switchable IR cut filter. In addition to private zone masking and motion detection, the Triple Streaming and Boost functions are especially noteworthy: Triple Streaming permits simultaneous output of up to three video streams with full resolution and different codecs (e.g. 2xH.264, 1xMJPEG), whilst the Boost function automatically raises the frame rate in the event of an alarm and allows considerable savings in disk space.

The video data are supplemented in this example by detailed point of sale information: the POS system is connected to the video recording system by the NPCII universal protocol converter. Flexible integration can be made over the device serial RS 232 or Ethernet ports. Data from barcode scanners, cash desks, card readers, etc. are converted by the NPC and forwarded to the recording system – in this example the eneo PNR-5304 Network Recorder – where it is displayed live with camera sequences or stored for subsequent evaluation of data with text search as required. Video data can be displayed locally on the monitor with iRAS or mobile with the RAS Mobile app.



ECONOMY DOME  
NXD-980 IR37 P



ECONOMY BULLET  
NXB-980 IR35 16M



NETWORK VIDEO RECORDER  
PNR 5304

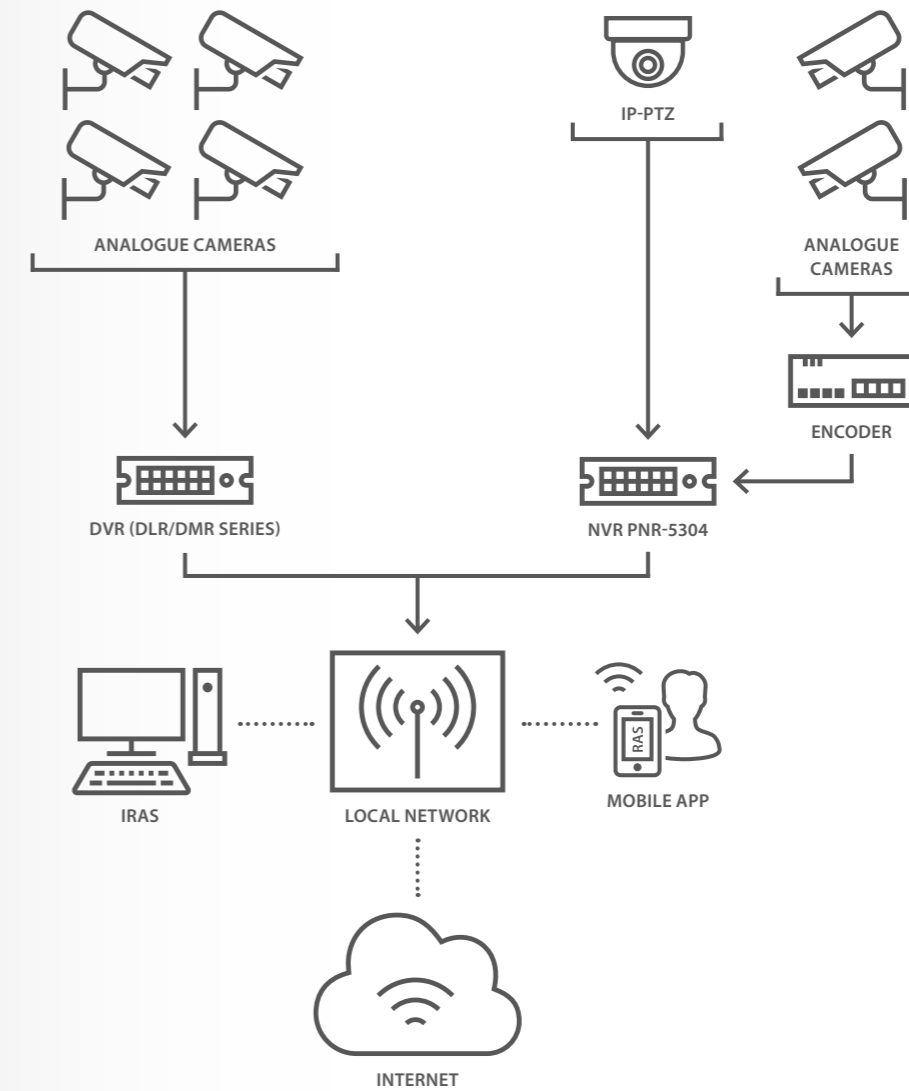
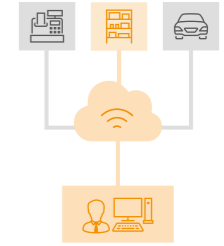
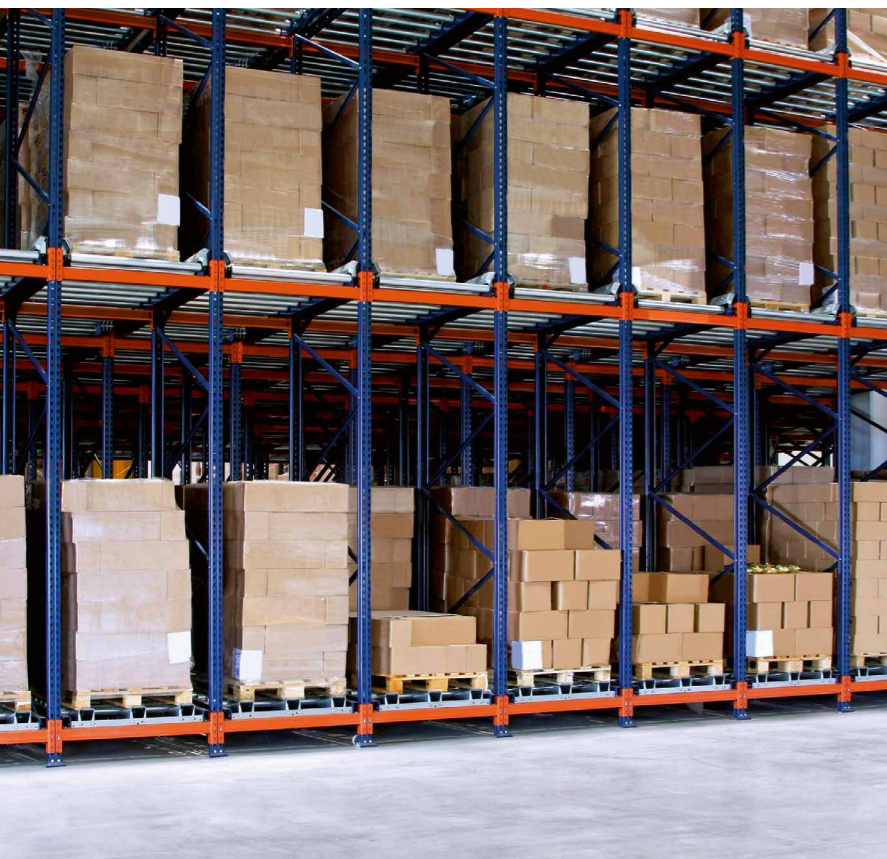


# Warehouse

From the closed circuit TV system to the flexible, future-oriented video network.

Developed video security architecture is characteristic for the warehouse in this example. A digital video recorder (such as a DVR of the DLR series) and a network recorder from the eneo PNR series additionally connected to an encoder integrate analogue and IP components in a local video network. Just like in the solution for the example of the retail industry, display and evaluation of video sequences is also carried out on the local monitor, mobile with RAS Mobile, or over the internet in the security centre. The cameras for the originally purely analogue system, Candid series bullet cameras, have been expanded by a high-performance NXD-2030 PTZ 1080 IR Network Dome.

This powerful full HD PTZ, which can be used equally indoors and outdoors, has a 30x autofocus zoom lens and transfers up to 50 frames per second. The integrated infrared lighting of the NXD combines zoom-synchronised IR LEDs with fixed IR LEDs, thus allowing targeted illumination over a distance of approximately 150 m with simultaneous illumination of the close vicinity. Other analysis functions include, for example, motion detection, tampering protection and trip wire detection.



RAS MOBILE APP



NETWORK PTZ  
NXD-2030 PTZ 1080 IR



ENCODER  
PLS-5304

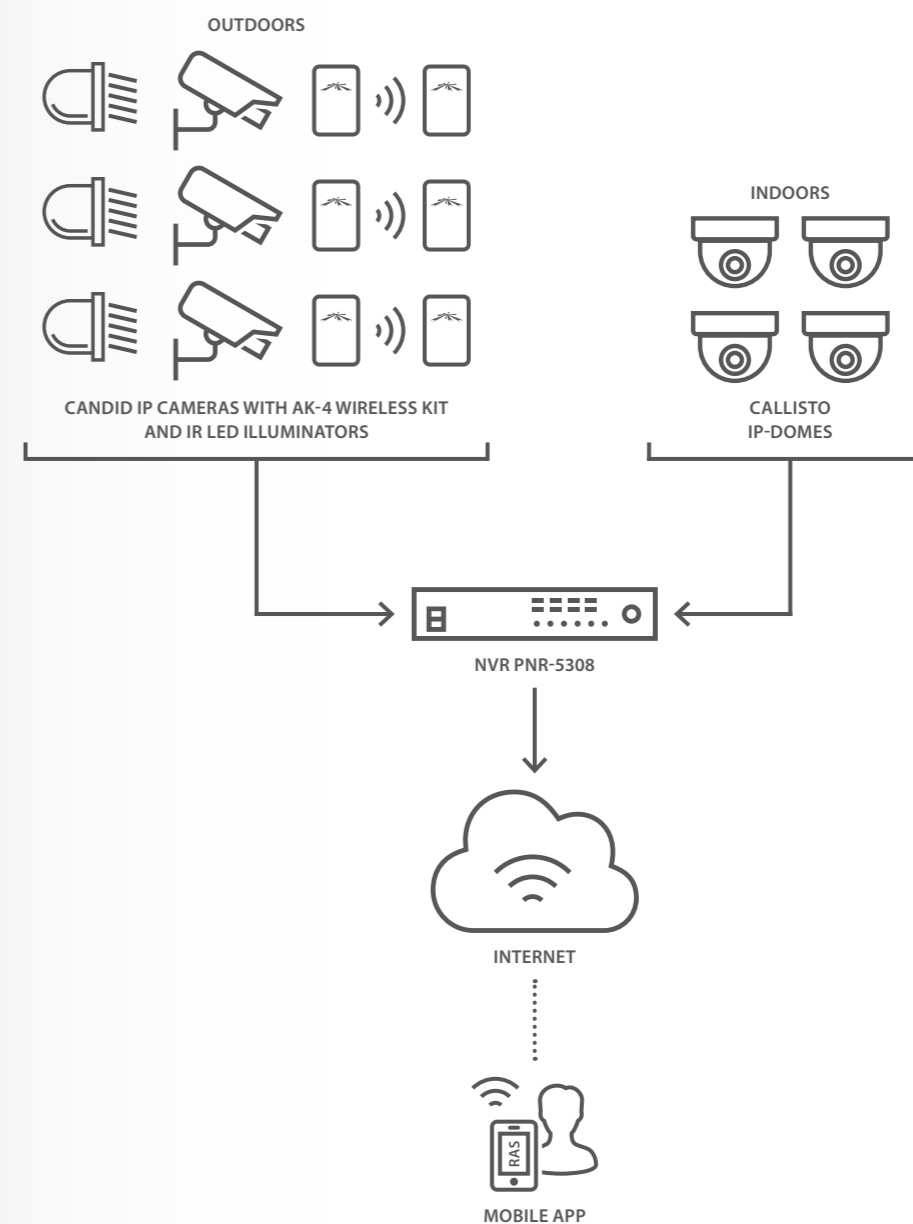
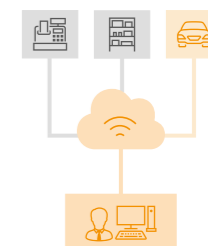


# Car dealership

Comprehensive protection based on wireless and cabled video surveillance.

High-value goods require comprehensive security precautions. At a car dealership video cameras secure not only the showroom, but also the outside area with car park and access roads, as well as the service zones. In the video security solution sketched out here, Callisto series network domes installed in the walls and ceilings discretely monitor the entire interior areas. The high-resolution camera modules are equipped with IR-LEDs for day and night use. The car park and access roads are protected by Candid series IP bullet cameras. Each of the outdoor cameras is integrated in the video network by Wi-Fi with an AK-4 Wireless Kit. Just like all eneo network products, installation and first start-up of this wireless solution does not require any special network knowledge.

The Wi-Fi modules are preconfigured and automatically establish a 1-to-1 connection to the network. The bidirectional data transmission has secure encryption. Illumination of the monitored area is provided by sturdy high-power infrared LED illuminators from the eneo 400 series which are equipped with high-power SMT LEDs and achieve ranges up to 220 metres. Thanks to the integrated twilight switches they activate automatically in response to the prevailing light conditions. Recording and managing of video data are also carried out in this case by a PNR series NVR that is connected over the internet to the emergency call and service control centre.



CANDID



AK-4 WIRELESS KIT



IR LED ILLUMINATOR





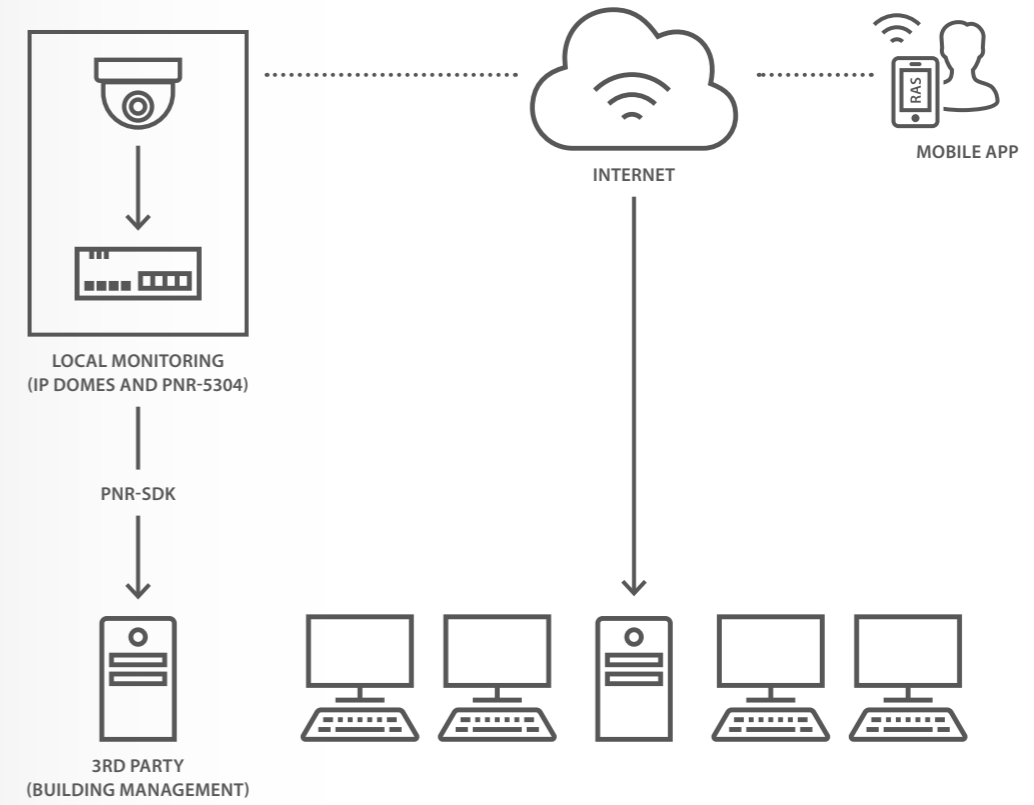
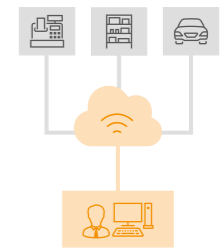
# Security centre

Central management of complex video security systems.

The core element of an effective security concept is the connection of local security systems to a response centre. Regardless of whether it is a large control room, an emergency call and service control centre, or a security centre, the principle is always the same: incoming messages are evaluated by personnel, measures are initiated as required. Sequences in the security centre itself are also monitored to ensure the safety and transparency of operations.

In our example, the local video security system is integrated into a building management system over the PNR SDK (users can request the corresponding Software Development Kit from eneo Support).

The video sources installed in the centre are Callisto series IP cameras, combined with AK-5 junction boxes that, just like the AK-4 Easy Installation Box for Candid bullet cameras, enable quick and tidy installation. Recording and management of video sources is also carried out here by a PNR series network recorder. The compact and ergonomic KBD-NSC-100 network keyboard enables security personnel to control the analogue and IP cameras of the video security installations in the connected monitored buildings and areas with equal convenience. Central control and management of video sources is carried out by the iRAS software that can integrate up to 1024 analogue and IP cameras, NVRs and DVRs.



NETWORK KEYBOARD



CALLISTO WITH AK-5



IRAS

# eneo network cameras secure largest Finnish car dealer

In Autotalo Laakkonen branches eneo IP cameras deter vandals and criminals and provide clarity on legal liability issues.

Autotalo Laakkonen (English: Laakkonen Car Dealership) is the largest car dealer in Finland. Well-known brands are sold, 1,400 people are employed in the national branches of the family business. BLC Turva, the largest security integrator in Eastern Finland, is responsible for the security of the branches. In addition to the Mirasys video management software, eneo network cameras form an integral part of the complete solutions: more than 250 IP domes and IP bullet cameras have been installed to date. Between 10 and 35 cameras are in use depending on the size of the branch. Special emphasis is placed on the security of the employees because a great deal of cash is handled at the cash points, just as at the service reception or the spare parts counter.

High-resolution IP domes such as the PXD-2080 MIR from the Callisto series contribute here to the employees' sense of security and, should an incident occur despite the deterrence, to providing clarification on the events. Equipped with the innovative „Smart Motion“ zoom developed specially for video security applications in entrances and POS zones, these fixed domes are able to capture objects or persons in any position of the image area by a visual pan and therefore enlarge what is really relevant in the event of an emergency. Outdoors, on the other hand, rugged networked full-HD PTZ domes carry out full-day monitoring of the company premises.

*„The eneo price-performance ratio is simply impressive.“*



*More than satisfied:  
Jani Lehtikainen and Juha Oksanen*

Jani Lehtikainen, who is responsible for the Laakkonen sites and properties, is fully satisfied: „The eneo price-performance ratio is simply impressive. Integration in Mirasys went smoothly and overall the number of service cases is extremely low. The installation solutions are also ideal for us, I am thinking here of the AK-5 Easy Installation Box for the Callisto domes. They have been installed in our installations in combination with the new PXD-2080 models. The result is extremely good: someone has really thought it through.“

Juha Oksanen, Senior Key Account Manager of BLC Turva, added: „Our climate in Finland is mostly anything but cosy. This places special demands on the equipment of course. eneo has the sturdy video cameras that easily handle the harsh environmental conditions, and the product design is gratifyingly constant – the bullets and domes don't change with each new generation. And also the support, that eneo provides partly in even the national language, is exemplary.“



# Flexibility for multi-vendor video security

What counts is the solution: strong technology partnerships in video management and ONVIF-compliant IP products present all possibilities to installers.

Flexibility is of great importance in the sustainable and solution-oriented product philosophy of eneo. We want all installers and users to have all options for technologically and economically optimal video security solutions at hand. A claim that our network products meet through their interoperability and multi-vendor compatibility: eneo IP cameras and network recorders consistently support the ONVIF open interface standard and can therefore readily be combined with the ONVIF-compliant products of other network video technology providers. Furthermore, we cooperate with leading suppliers of system solutions to give our customers the capability of choosing the best products for them in terms of video management and recording among the top products.

As continuous expansion of the eneo partner network and integration of our IP products in the video management software and recording solutions of our partners is an ongoing process, we recommend you regularly visit our website [www.eneo-security.com](http://www.eneo-security.com). At the Video Management menu you will find further information on the nature and extent of the integration of eneo network products in the software and hardware of our technology partners as well as a current overview of all manufacturers. And also the eneo newsletter regularly keeps subscribers up to date on new technology partnerships and the status of VMS integration.



## INTERFACE STANDARD



## TECHNOLOGY PARTNERS



Stay up to date on the subject of video management:





