

Our focus is innovating security
where you need it most



Smooth video streaming from anywhere and
reduced storage costs



BOSCH

Invented for life

Ensuring video data is minimized and easily managed

So you benefit from:

- ▶ Lower data storage costs and network strain
- ▶ Faster video searches – even over low bandwidth

As a loss prevention professional in retail, you need to record and store high-resolution video from all cameras in all of your stores. These recordings are valuable evidence and you will often need to search them from your central office for particular incidents. However, sometimes your system will use relatively low bandwidth connections, so searching video stored at the retail location is time-consuming and the image quality can be poor. Now all that has changed, thanks to our advanced IP video solutions for retail video surveillance.



How to reduce costs?

Bosch IP video cameras reduce storage costs, because they reduce video data by as much as 50% - without any loss in image quality. This means you can reduce the number of disc drives required to store video data also by 50%. The resulting cost savings are significant because hard drives typically amount to half of your entire video system investment, so you can reduce the overall cost of your video system by up to 25%.

How does Bosch enable faster video searches?

Smaller data files are more easily transmitted over networks than large data files, however limited bandwidth can still make it impossible to smoothly stream high resolution video on, for example, mobile devices. A technique called „Dynamic Transcoding“ takes high-resolution video from the hard drive and re-encodes it to a bitrate that is best suited to the available bandwidth. This ensures smooth video streaming regardless of available bandwidth, and speeding your search for possible incidents. When you pause at an incident, you immediately get a full quality, high resolution still image. This high-level of detail enables you to make more accurate decisions.

You can check your videos from any location

Dynamic Transcoding ensures smooth video streaming, even over the low bandwidth connections often seen from remote sites and over cellular mobile connections. The moment you identify an event, simply press pause and receive a high resolution still image in fine detail. This is possible because all the video information – at the original resolution and frame rate - is retained, with no compromise on quality.

How do Bosch IP cameras reduce data by 50%?

First, the latest and most efficient video compression techniques are used to minimize the amount of data recorded – but on top of that, “Intelligent Dynamic Noise Reduction” (IDNR).

This innovating technology uses a combination of two noise reduction techniques: one that is best suited for scenes with motion (spatial noise reduction) and another that is best suited for still scenes (temporal noise reduction). Special algorithms in our cameras determine which scenes have motion, and therefore which noise reduction technique is used. IDNR uses three factors to control spatial and temporal noise reduction:

- ▶ Movement analysis
- ▶ Scene light level
- ▶ User-set levels

By combining these processes, bitrate is minimized when there is no motion. But when an important object is detected, bitrate increases to capture maximum details. In this way, IDNR reduces bitrates and required storage capacity without affecting video quality. Finally, Encoder Regions can be used to further reduce required bitrates. This feature allows the image to be divided into zones of high importance with less compression and lower importance, with more compression. For example; if the top of the image is always looking at the sky, this area can be marked for high compression, thereby lowering the required bit rate.



Which products can I use?

- ▶ All Bosch IP cameras provide IDNR and Encoder Regions. Below overview shows most suitable products for retail applications
- ▶ To gain all benefits of Dynamic Transcoding simply expand the network video surveillance solution with one of the DIVAR IP recording solutions (see overview below) or transcoder VIDEOJET XTC XF.

Security all round

In addition to the Bosch video surveillance systems, we offer a full line of security products and accessories, as well as a variety of tools to help you specify and design the optimum system for your operation. You can rely on our renowned quality and reliability, backed by our three-year warranty, and our world-class training and technical support. Also, compatibility with third-party products is assured, thanks to ONVIF¹ and our Integration Partner Program.

For additional information, please refer to our website or contact one of our sales representatives.

FLEXIDOME IP micro 5000 HD / MP	FLEXIDOME IP indoor 4000 HD/IR FLEXIDOME IP indoor 5000 HD/MP/IR	FLEXIDOME IP outdoor 4000 HD/IR FLEXIDOME IP outdoor 5000 HD/MP/IR	DINION IP bullet 4000 HD DINION IP bullet 5000 HD	DINION IP 4000 HD DINION IP 5000 HD / MP
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FLEXIDOME IP micro 2000 VGA/HD	TINYON IP 2000 PIR/WI	FLEXIDOME IP panoramic 5000	DIVAR IP 2000	DIVAR IP 3000
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¹ ONVIF (Open Network Video Information Forum) ensures interoperability between different products, regardless of manufacturer.

A tradition of quality and innovation




For over 125 years, the Bosch name has stood for quality and reliability. Bosch is the global supplier of choice for innovative technology, backed by the highest standards for service and support.

Bosch Security Systems proudly offers a wide range of security, safety, communications and sound solutions that are relied upon every day in applications around the world, from government facilities and public venues to businesses, schools and homes.

Bosch Security Systems

To learn more about Video Systems please visit www.boschsecurity.com/hdsecurity

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