DFDS Transport safeguards customer goods with Milestone IP video surveillance.

"All customers — and ourselves as well — have been screaming for a user interface where you can integrate all your security elements so you have an overview of all your buildings at once. Milestone is the solution!"

Christian Larsen, Technical Director at installation partner Plahn Systems.

Challenges: The DFDS headquarters cover 150,000 square meters in a suburb of Copenhagen where 11-12,000 shipments occur daily. Customers demand the highest security for their goods, but DFDS' old analog CCTV system could not archive recordings long enough, it sometimes crashed and data was lost. Hundreds of drivers traffic the area round the clock, which makes the surveillance even more critical should any lost or stolen goods need to be investigated. Proof of handling is also necessary for resolving supplier disputes.

Solution:
The company's analog DVR security system has been replaced with an IP network-based solution using Milestone XProtect Enterprise software, designed for operating up to 64 cameras per server running on a Dual Xeon CPU, 1 GB RAM with Microstorage 14/16 Bay DAS (Direct Attached Storage) of 5.6 TB and 6.4 TB for longer archiving. They use a mix of the old analog cameras with new Axis network cameras. The installation is handled by EET Nordic's partner Plahn Systems A/S.

Advantages:
DFDS now has a flexible, user-friendly IP video surveillance system that provides many days' of archived recordings, with disk mirroring for increased security — an important parameter that no other system could offer. The frame rates are increased: the analog recordings were only 1-2 frames per camera, and now there are 6 frames each for all the cameras. This ensures higher quality of evidence, and the system can easily and quickly give operators the overview to monitor all activities in every area.

Company profile

DFDS Transport is an international business with 10-11,000 employees in three divisions: Road division, Air & Sea Division and DFDS Transport Solutions (logistics). The group headquarters in Brondby near Copenhagen has 700 workers and 100 big customers with volumes of product moving in and out of storage and transport — everything from consumer goods to industrial products. DFDS in Denmark has two other locations: one in Taastrup for long-term warehousing where 100 men work daily and another in the city of Horsens with a transport terminal and more long-term storage. Horsens will expand the most in future, being the newest facility of impressive size (more than a mile long) that requires sharp "camera-eyes" to keep watch from one end to the other.

1

The organization primarily uses independent truck drivers, airlines and shipping companies as sub-suppliers. This allows them to adjust quickly and cost effectively to changes in demands from the transport market. In addition, DFDS strives to be on the leading edge of developments, including a focus on the latest IT tools. This also applies to the company's security system, which has integrated the IP approach of the future in their new installation.

DFDS' affection for high technology solutions is a big hit with their customers, who place great demands on security. Some of them even have a point system that the transport firm has to follow.

Works as prevention and proof

The network system functions first and foremost preventively.

"We can just as well ensure systems that are so good that the weaker souls cannot be tempted!" smiles Finn Nielsen, Technical Manager at DFDS Transport.

Misbehavior unfortunately does occur, however, where people are tempted anyway, but the work to resolve such issues is now much easier with the IP network system. Recognition of incidences has been optimized and all angles of the large areas are covered by the cameras' clear images.

Christian Larsen illustrates how one man was caught stealing from the inventory: "One of the system operators followed him onscreen with the surveillance software and got him in the act when he set the stolen goods on top of the goods for his shipment then picked them up together before turning to leave. The police found out that man was responsible for a series of previously unsolved break-ins and robberies!"

Long archiving

It was the need for long-term archiving of recordings that got DFDS and Plahn Systems to consider the IP approach: "We could see that it tasted more and more of IP, if we were going to get enough disk space and be able to do all the things required," says Christian Larsen.

Finn Nielsen underlines the importance of the long-term archiving: "Our recordings have to be saved to resolve any outstanding issues, then they are deleted automatically based on our own settings in the system. Customers are able to make enquiries for a certain number of days, so we should always be able to show proof of their goods' proper handling."

Finn told a story about a very valuable package that was stolen during transport outside of DFDS boundaries: "We could just go in to our recordings and see that package being driven from here, at what time and by whom, so it clearly was not stolen on the DFDS grounds."

Great flexibility a benefit for everyone

One of the biggest advantages with the IP network approach according to Finn is the enormous flexibility possible for tailoring the system to individual customer needs: "If we get some very expensive products coming into storage for several days, it is easy to add some cameras and just plug them into network connections. We can simply set them up then take them down again later; that would have been a nightmare with the old coax cables."

All the cameras' images can now be seen on one PC screen. The old DVR system made such visual flow impossible. "If we wanted to look at camera 1 then at camera 60, we had to move from one recording machine to another. We don't have to switch like that anymore to see everything, and we're really happy about that! It means a more flexible operation," reports Christian Larsen.

Installations for several locations

EET Nordic and Plahn Systems implemented the new IP solution for DFDS, which has more than 200 cameras spread out over three locations as of mid-summer 2005.

To make the most out of earlier security investments, DFDS was able to re-use their analog cameras by using Axis video servers that convert the images to digital for use in the Milestone software. Eventually, all those cameras will be replaced with IP models both inside and outside the buildings.

In the new transport halls at Horsens, only Axis IP cameras with POE (Power Over Ethernet) have been installed. Via 3Com 24-port switches with support for POE, DFDS has central management of both camera positions and bandwidth control. This saves on installation costs because the cameras are powered over the network and no additional power plugs are needed. This means that they can also have cameras operational during power cuts by using a UPS on the POE switches.
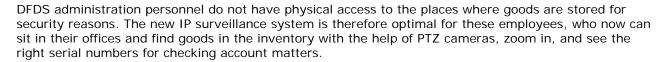
Christian Larsen has been certified with special training by EET Nordic to install Milestone XProtect Enterprise, but all the users of the system have found it quite easy to learn for their operation of it.

"To begin with, our system users were a little irritated at having to switch to new technology, but when they saw what video-over-IP could offer, they were really delighted. One gets such better quality for the same price," declares Finn Nielsen.

Security at its best

Microstorage 14/16 Bay DAS (Direct Attached Storage) has increased data security from the previous DVR system and now runs with Raid Level 5 disk mirroring with 14-16 hot-swap disks. Together with the Milestone XProtect Enterprise central control, it is easy for the IT administrators to handle both operational messages and alarms from the Microstorage equipment and the connected Axis network cameras and video servers.

3

DFDS administration personnel do not have physical access to the places where goods are stored for security reasons. The new IP surveillance system is therefore optimal for these employees, who now can sit in their offices and find goods in the inventory with the help of PTZ cameras, zoom in, and see the right serial numbers for checking account matters.

Progress with vision

DFDS is an organization in positive progress, not least due to the new technology that gives them unlimited options for growth, overview and control of every corner of their enterprise.

All new building additions and locations from now on will be enriched with Axis IP cameras running with the Milestone software. Plans also include integration of the Milestone solution with other security systems like access control and alarms, plus a "track and trace" system that will make it even simpler to find misplaced goods.

With the Milestone system remote access, Finn Nielsen and the other surveillance operators can even sit at home and be informed if anything happens at the different sites.

"It is absolutely the way of the future!" concludes Finn Nielsen.

See more at _www.dfdstransport.dk_, _www.plahn-systems.dk_ , _www.eet.dk_, www.axis.com, and _www.milestonesys.com_.

4