



CASE STUDY

COMPLEX SECURITY SYSTEM at DHL Hungary

Solution

OSS Ltd. installed a complete integrated security system using STP Ltd products at a DHL Supply Chain in their Hungarian logistics center in the city of Üllő. The system contains a complex IP based Logipix Multi-megapixel Video Surveillance System, consisting of: five 15MP Logipix cameras, a Logipix Network Video Recorder, and 2 rack-mount Logipix Hybrid Extenders. As the Hybrid Extenders were connected to the LNVRs, the existing analog cameras were easily integrated into the new IP based system.

The entrances and the exits of the buildings at DHL Hungary use the STP Access Control System that has an anti-pass back controller, as well as additional external fingerprint readers. Thanks to the IP technology, the Access Control System is a centrally managed multi-site solution that covers three locations. OSS Ltd. installed a complete Burglar Alarm System to improve the safety of the DHL buildings. The Operator Team manages the complete security system using the Control Center software. Since it is a common software interface for the entire security system, besides displaying the camera pictures, it is able to also show the alarm events, and show an interactive graphical layout of the monitored buildings along with all the registered devices.

Benefits

The Logipix Hybrid Extender bridges the gap between the analog and the IP based system. Owing to the Logipix Hybrid Extenders, the previous analog camera system was lightly connected

to the new Logipix video surveillance system which meant that its performance was improved. The 15MP Logipix camera sensors also greatly enhanced the image quality. Since the sensors are able to cover a 36x larger area, than analog cameras, fewer devices were needed to observe the critical zones. By using the Logipix Network Video Recorder's LPoE connectors; the Logipix cameras and the Hybrid Extenders can be powered without any external power supply. Therefore DHL was able to significantly reduce their security budget. The connected STP Access Control System means that visitors and employees can be traced, and that their access to certain areas can be controlled. The high definition video monitoring system and the connected Burglar Alarm System allows the operators to notice any suspicious activity which reduces the risk of both external and internal theft.

Specification & Motivation

Since DHL is the leading logistics and express service in Hungary, it needs the safest and the most reliable security system. The main goal of DHL was to build a structure which facilitates the daily operations and ensures the security of the goods and the assets of the company. DHL needed the best image quality in order to observe the dock doors and the forecourt of the cross-docking terminals, and as such they were looking for a system into which a burglar alarm system could be built in. To be able to integrate the existing analog video surveillance system was a crucial task too. For the security of the terminal and the office block they needed a trustworthy Access Control System wherein a special authorization scheme could be introduced. In short, DHL were looking for an easy-to-use system that would help ensure the highest security of the interior and exterior of the building.

Detailed Description

The key advantage of STP system is that the Logipix Multi-megapixel Video Surveillance System, the Burglar Alarm System and the Access Control System can be connected through LAN. The system is based on IP communication and the software uses server-client structure. Therefore a complex but user-friendly security system can be built from the components. DHL was looking for a system and the STP products met their requirements.



As DHL is one of the biggest logistics and express service in Hungary they have to ensure their reliability. The image quality of the 15MP Logipix cameras, the features of the video surveillance system and the integrability of the alarm and access control components just impressed DHL.



Since the STP Access Control System was installed at the DHL center, the visitors and employees of the company are using proximity cards to enter the buildings. OSS Ltd. integrated two previous Access Control Systems into the new development, and the complete system has a centrally managed multi-site solution. The new Access Control System in Üllő contains three SK03 controllers at the reception, controlling two turnstiles and a barrier, moreover in the warehouse there are three more SK03 controllers for two additional turnstiles and for two proximity card readers at a door.



DHL's specific request was to connect two fingerprint readers to SK03 controllers for added security. OSS Ltd. installed two SK03-08 controllers as well which are serving sixteen bus card readers at the doors in the building. The Access Control System is supplemented with an anti-pass back controller which is able to synchronize the operation of the large number of card readers. Owing to the numerous entry points a complex authorization scheme was implemented for cardholders, so that they can be easily traced once inside the building. All events on the cards are logged into the system. Thus DHL can bar unauthorized entries at all the doors.

The Burglar Alarm System consists of an SCA1 controller with eight Zone expanders. The connected several hundred sensors can cover the whole area of both the dock stations and the office block as well, and they can be assigned to different partitions. Operators at DHL are using the Control Center software. They were impressed by its graphic building supervision function, since the map of the building can be seen along with all the sensors and the created partitions. Furthermore they can be remotely controlled by a single click. This graphic interface is suitable for remote door opening too.

The essential element of DHL's security system is the Logipix Multi-megapixel Video Surveillance System. Since it is able to function with the Access Control System and the Burglar Alarm System through the common software interface, it plays an important role to get irrefutable evidences of suspicious incidents. The intelligent Control Center is able to display event-conducted camera pictures and can download them immediately into 'download containers' on the server computer. Through this application the daily routine of the operator team is made a lot easier.



OSS Ltd. installed five pieces of 15 megapixel Logipix cameras to ensure the coverage of the dock doors and the forecourt of the cross-docking terminals. The image quality of the 15MP Logipix cameras took a fascinating affect to DHL. Even the smallest details can be seen on the images, such as faces, license-plate numbers and even product ID labels. Due to JPEG2000 standard, which has been developed especially for high resolution pictures, Logipix Multi-megapixel Video Surveillance System can be used seamlessly over the limited bandwidth network of DHL. The self-developed intelligent hardware side zoom function of Logipix Network Video Recorder, operators at DHL can receive multi-megapixel image details both live and in archive mode too. As the zoom value increases, so does the quality of the transmitted zoomed image. The rest of the picture is still transmitted in the original displaying resolution which fits to the monitor resolution.

The LNVR contains 12 HDDs; therefore it is capable of storing 24Tbytes of surveillance data which means eighteen days of continuous video recording in full resolution with the Logipix cameras. DHL Hungary is currently planning to expand their Logipix system with further 15MP cameras and with 8 additional HDDs for the LNVR.

To optimize their investments, DHL integrated their twenty-eight existing analog cameras into the IP based video surveillance system. To realize this solution, they needed two Logipix Hybrid Extenders. The Logipix Hybrid Extenders digitalize the pictures of the analog cameras frame by frame, and compress them according to the JPEG2000 standard. Because of the high definition self-developed signal processor the picture quality is the best possible. As the devices are the rack-mount versions of the hybrid extenders, their installation was a seamless mission as the data flow and their power supply is provided by the LPoE router of the LNVR through CAT5 cables.

Three monitor rooms are in operation at DHL. There is one 24/7 service at the main reception, another at the entrance of the warehouse, and the third is run in the office of the security manager. Thanks to the Video proxy server, all the three Control Centers can be run in the system at the same time without excessive overloading of the network. With the transparent Control Center software, observation is an easy task for the operators, and with the special search functions of the program, they can find facilely the desired period of the archived videos.

DHL Supply Chain Hungary is extremely satisfied with the Complex System and as well as with the continuous professional support provided by the staff at STP Ltd. They are planning to expand the Access Control System to more of their buildings, and also increase the number of the high definition 15MP Logipix cameras.