As most security professionals will acknowledge, loading docks are normally the weak point of any manufacturing or warehouse operation. They are characterised by lots of activity, a number of people coming and going, trucks and other vehicles entering and leaving, and usually a large area that has to be protected.

An IP video surveillance system is now indispensable in protecting these vulnerable areas. High performance cameras in conjunction with network switches, IP video storage devices and video management software are instrumental in helping protect stored assets against damage, loss, and theft.

Untapped Opportunities for Increased Efficiency

Load Validation - Video monitoring is a powerful tool to certify inbound and outbound shipments. To verify these shipments, transfer points such as the loading ramps are often critical areas. A complete video record of the loading/unloading process is your ace in the hole for verifying circumstances in case of claims of damage, short orders or lost goods. The video record will allow you to respond to a customer’s claims efficiently and effectively by simply sending a digital shipment verification file showing the entire process.

Verification of Compliance - Today, there are far more requirements for many US companies to verify that they are complying with regulations. These range from the Customs-Trade Partnership Against Terrorism (C-TPAT) to the Free and Secure Trade Program (FAST) to a variety of vertical industry-specific requirements. Some of these regulations are, at present, voluntary and designed to attract companies with the promise of faster trade clearance. Progressive companies are addressing compliance now, so that they can take advantage of present incentives while planning for the future.

Improved Traffic Coordination - Loading docks are a crucial component to the efficiency of your company’s warehousing and logistical operations. If you have inefficient loading dock operations, you can lose valuable time and money. Using video technology that provides remote control scanning of any truck activity at the docks, or in the parking lot, enables you to efficiently and safely guide waiting trucks to loading dock doors as soon as the docks become available.

Workflow and Employee Monitoring - Every company wants to believe they have the best employees who are always working tirelessly to ensure accuracy, efficiency and productivity. Yet there is usually room for improvement in personnel, processes and procedures. One of the advantages of video monitoring is the opportunity of viewing those areas in real time, or viewing stored video to fine tune processes, document employee activity and streamline workflow.

Improved Employee Safety - Loading dock employees should know proper safety procedures for, among other things, locking vehicle restraints, opening overhead doors and safely loading and unloading products and materials. Safety classes and training lay the foundation for creating a safe environment, but being able to monitor those activities throughout the facility, in real time, allows facilities managers to not only ensure adherence to safety protocols, but also to identify possible problems that have gone unnoticed and fix them before an accident occurs.
Recovering outdated, analog CCTV equipment with an advanced IP surveillance system for recording, monitoring and archiving digital video delivers exceptional value and increased functionality. An IP surveillance system can connect seamlessly to your existing network — greatly simplifying installation, maintenance and support while providing ROI in as little as 12 months. Dynamic improvements in efficiency and employee satisfaction have also been reported.

**A Smarter IP Surveillance Solution**

**High Resolution IP Cameras** - A mix of camera types can be paired to specific requirements for your facility and workflow requirements. Camera form factors include cube, box, bullet, fixed dome and speed dome that are specifically designed for reliable performance in a variety of indoor and outdoor applications and environments. Some models also support 2-way audio and come equipped with Varifocal lenses or PTZ capability. Fixed dome cameras can monitor reception areas, facility entrances, and internal hallways. Multi-megapixel day/night cameras in the shipping area record in high resolution and roof-mounted pan/tilt/zoom cameras can provide remote control scanning of any truck activity at the docks or in the parking lot.

**Advanced Network Switching Technology** - No security professional or logistics manager should have to worry about system disruption or downtime because of an unreliable IP network switch. That's why you should insist on field-proven, secure network switches that are durable, reliable, easy to configure and provide the advanced performance your system needs to stay up and running.

Power over Ethernet (PoE) connectivity allows for discreet installation in virtually any indoor or outdoor location. Cameras with built-in 802.3af compliant PoE modules ease the installation process by reducing the need to drill holes and lay additional cabling to a power source. In addition, 10/100Base-TX Ethernet ports seamlessly connect to your local network or to the Internet via a PoE capable gateway router that provides up to 30W of power per port. Other features to consider include:

- Easy configuration through a web-based management system.
- Auto Surveillance VLAN to automate configuration and ensure the quality of real-time video without compromising the transmission of network data.

**Scalable Video Storage** - A key component to an effective IP surveillance solution is having the capacity to handle the demand of recording multiple IP camera video streams. And as your video storage needs expand, you need a solution that can grow with you. That means properly assessing future plans as well as current usage.

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**A Case In Point**

One of the most important decisions you can make when upgrading an aging system or installing IP surveillance technology for the first time, is the partner you choose to guide you through the various product and software options. In the case of Tandus Flooring in Dalton, Georgia, that partner was D-Link.

Tandus’ corporate manufacturing and distribution centre has 15 loading docks where thousands of rolls of carpet and pallets of tile are dispatched to Tandus’ sales offices, dealer partnerships and a variety of locations around the world.

Their challenge? Tandus had an aging analog CCTV and video tape recording system for monitoring their distribution centre that provided only low resolution black and white images and didn’t capture activity from all 15 docks. In addition, the laborious task of reviewing and locating analog video, digitising it and shipping it to customers was time consuming and costly. Because of the inferior video quality, it was of little help in pinpointing and correcting loading, transfer or shipment errors.

The smarter solution? Tandus replaced their old equipment with an advanced D-Link IP surveillance system that connected seamlessly to their existing IP network for recording, monitoring and retrieving digital video. This network connectivity greatly simplified installation, maintenance and support while saving thousands of dollars over an antiquated hard-wired CCTV system.

The added benefit of the D-Link IP surveillance system included the ability for warehouse personnel to efficiently dispatch waiting trucks to available docks – greatly increasing productivity while improving dock safety. Additionally, a record of the loading and unloading of those trucks is digitally captured by the system. This captured video footage is then used to verify shipment details through a Digital Shipment Verification file that is emailed to their customers. With their previous system, this normally took them several hours to process but it can now be done in a matter of minutes – onsite or remotely from any portable device that connects securely to the internet.

This D-Link IP surveillance ‘smarter solution’ has been so successful that Tandus plans to take logistics coordination to an even higher level by installing the same system at its other seven facilities in the Dalton area. Additionally, a similar D-Link IP surveillance system will be installed at their Nova Scotia manufacturing and distribution facility.

“The D-Link camera system has been great in making our shipment verification and distribution logistics a lot smoother. The time savings from performing digital search alone makes the system worthwhile. The people who use it love it.”

—Terry Diamond, IT Director, Tandus Flooring
A Variety of Storage Products are Available Depending on Your System Needs

Network Video Recorders (NVRs) - These are economical, standalone, PC-less, all-in-one IP surveillance recorders. They offer plug-and-play operation and are usually ready to use right out of the box. They offer quick set-up and easy operation for a limited number of cameras, an intuitive graphical user interface (GUI), and because they're IP-based they can be accessed from anywhere.

Network Attached Storage (NAS) - For larger applications, Network Attached Storage (NAS) devices offer expanded capacity and flexibility. Compared to traditional storage, NAS devices offer faster data access, easier administration, and simple configuration. A NAS is designed to be used with Video Management Software (VMS).

iSCSI Storage Area Network (SAN) Arrays - For the most demanding environments, high performance and flexible SAN arrays are the technology of choice. These powerful devices are ideal storage platforms for archiving IP video in an extensive network environment. With an easy-to-use management interface, built-in RAID protection and the ability to expand your raw storage capacity, SAN array solutions offer a cost-effective platform for large-scale video surveillance applications. SAN arrays are designed to be used with Video Management Software (VMS).

Video Management Software (VMS) - In any IP surveillance system, but especially in large-scale deployments, Video Management Software (VMS) is the core of the IP surveillance system, connecting all the hardware into an optimal, integrated solution. There are a variety of product options depending on the specifics of your applications and requirements. Many VMS solutions can easily integrate into other systems like point of sale (POS), access control, and building management systems, as well as fire and burglar alarm systems.

Smarter IP Surveillance Begins with an Advanced End-To-End Solution

At D-Link, we understand that successful IP surveillance solutions demand more than isolated products with limited functionality and connectivity. As a global leader in network connectivity solutions for SMB and larger businesses, we’ve taken a more intelligent approach to developing our end-to-end IP surveillance systems.

We start with the network and work outward to ensure that all our systems are secure, easy to manage and reliable while delivering unparalleled performance and value. At D-Link, a full line of IP cameras, network switches, video storage devices and video management software (VMS) are seamlessly integrated into IP surveillance systems that have the flexibility, scalability and compatibility that deliver unprecedented value and performance.

When coupled with the support from our nationwide Professional Services organisation, the result is a clearly “smarter” end-to-end IP surveillance solution.