TOSHIBA

Surveillance in Logistics Environments

"In 2020, €172 million worth of merchandise was stolen from EMEA supply chains."
Source: TAPA EMEA, Cargo Theft Annual Report*

Modern supply chain operations have been able to maintain peak performance levels and run with maximum efficiency. They are complex, fast-moving environments which can be very challenging to manage effectively. The scales involved are often huge too - with the world's largest order fulfilment centre covering over 330,000m².

Having state-of-the-art surveillance systems, along with superior data storage capabilities, means various issues impacting on profitability or threatening employee safety can be fully addressed.

According to estimates made by the Transported Asset Protection Association, EMEA, merchandise worth €172 million was lost from EMEA supply chains during 2020 through theft - this equates to almost €500,000 each day. It is believed that the actual figures are even higher though, as many incidents of theft are not actually reported. In addition to stealing, the loss or damage of items can reduce profit margins, as well as harming a supplier's reputation if orders are not met on time. Measures must therefore be taken to provide logistics operatives with complete visibility 24/7.

Preventing theft – Warehouse/supplier theft is rising. This can take the form of employee theft (which is becoming increasingly common) or intruders stealing items. The acquisition of video footage and its subsequent analysis can be used to not only get convictions, but also decide on how security procedures can be improved. In addition, AI-based analysis tools can compare real-time video with footage of previous incidents. If the system thus notices something which seems suspicious, it can alert the management so that pre-emptive action may be taken.

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Tracking shipments/recovering lost assets – The constant influx of inventory in/out of storage depots can lead to items being difficult to find. This can slow down operations and impinge on the overall efficiency. There is the prospect of items being permanently mislaid (which like theft will once again result in financial losses being accrued). Real-time tracking of object movements and object counting via video cameras means that items' locations can be continuously updated - thereby speeding up order completion and mitigating the risk of items being lost.
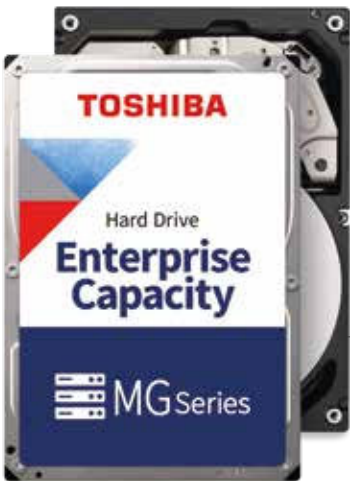
Maintaining staff safety – There are a number of functions that surveillance systems can provide in relation to this. These include alerting security guards of the presence of trespassers who could pose a threat, and making sure that operatives do not accidentally wander into unauthorised areas (where there are forklifts or other types of potentially dangerous materials handling equipment in use). It can also help to ensure that protective clothing and headgear are always worn on the site.

HDD Recommendations

Merging advanced technology with unrivalled application knowledge, Toshiba has developed elevated-performance data storage solutions that are ideally suited to surveillance in logistics environments. Toshiba's HDDs can be used in surveillance systems supporting object detection, counting and tracking functions, as well as more sophisticated AI-driven activities - like situation awareness and facial recognition. Key HDD options are the S300 Pro series, with up to 10 TB capacity, which can simultaneously support video data coming from 64 high-resolution cameras and the 1 TB to 24 TB enterprise grade MG series, which can handle 550 TB/year workload levels.

	MG11	MG10		MG09	MG10		S300 Pro			
Capacity	24 TB	22 TB	20 TB	18 | 16 | 14 | 12 TB	10 | 8 | 6 | 4 | 2 TB	1 TB	10 TB	8 TB	6 TB	4 TB
Form factor	3,5"						3,5"			
Interface	SATA / SAS					SATA	SATA			
Workloads	550 TB/year						300 TB/year			
Rotational speed	7.200 rpm						7.200 rpm			
24 x 7 operation	Yes						Yes			
Buffer	1024 MB	512 MB					512 MB			
Limited warranty (years)	5						5			
Use for	• Centralized Surveillance Data Storage Systems • Archive and Data Recovery Systems • Industrial Server- and Storage Systems • Enterprise Storage Arrays						• Surveillance Digital Video Recorders (sDVR) • Surveillance Network Video Recorders (sNVR) • Hybrid sDVR (analog and IP) • RAID Storage Arrays for Surveillance			

Further information
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