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Surveillance in Transportation Industry

"Surveillance cameras can reduce transport crime by a quarter"
Source: Surveillance Cameras and Crime*

It is critical that transport operators and municipal organisations providing flight, train, bus, tram and metro services, as well as managing large scale transport hubs, can ensure the continued safety of commuters. They also need to protect staff from the threat of abuse and assets from potential damage.

This is why access to the latest surveillance equipment and supporting data storage technology is essential.

There has been the widespread deployment of surveillance systems on public transport infrastructure in recent years. This provides an invaluable way of monitoring what is happening on an ongoing basis and means the heavy costs of having security operatives or police officers present can be avoided. There are a multitude of benefits for transport operators to consider though. As well as preventing vandalism, theft and graffiti, these include the checking of compliance with social distancing and mask-wearing, plus addressing harassment of both customers and staff too. In addition, people counting data derived via surveillance may be used to decide which transport routes are in need of extra services.

Discouraging criminal activity – Knowing that surveillance cameras are in operation is likely to serve as a major deterrent to those looking to carry out acts of a criminal nature or indulge in anti-social behaviour. This translates into a safer and more secure transport environment that commuters feel comfortable in - leading to greater usage.

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Making the environment safer – By utilising sophisticated AI algorithms, video footage that surveillance cameras produce will allow the identification of known terrorists, with alerts automatically being sent to the authorities. Likewise, this technology can prove incredibly effective at tracking criminals. AI-enabled surveillance systems can be used for object detection purposes, so that operators can be notified of suspicious unattended baggage items.

Obtaining evidence – Video footage can be of huge importance in enabling evidence to be obtained for police investigations or government security work. Facial recognition, tracking and zoom function in surveillance solutions can be applied in relation to violent crimes, the searching for missing people, or the identification of terrorist suspects. It can also be used by transport operators to deal with any insurance claims they are subject to.

HDD Recommendations

Delivering continuous 24/7 operation, Toshiba's latest generation of HDD data storage solutions are highly optimised for use in transport surveillance systems. With 180 TB/year workload capabilities and up to 10TB of storage available, the S300 Pro series units can deal with data streams simultaneously produced by 64 high-resolution cameras. Their large cache size, elevated data transfer speeds

mitigate potential frame loss situations. Achieving industry-leading reliability, the MG series of enterprise grade HDDs covers data storage capacities up to 18 TB. Highly suited to large-scale centralised back-end surveillance implementations, such as those used to analyse public transport networks, the 550 TB/year workload levels are optimised for AI applications.

	MG09	MG08		MG07	MG06	MG04	S300 Pro		
Capacity	18 | 16 TB	16 TB	8 | 6 | 4 TB	14 | 12 TB	10 | 8 | 6 TB	6 | 4 | 2 | 1 TB	10 TB	8 TB	6 TB
Form factor	3,5"						3,5"		
Interface	SATA / SAS						SATA		
Workloads	550 TB/year						180 TB/year		
Rotational speed (rpm)	7.200 rpm						7.200 rpm		
24 x 7 operation	Yes						Yes		
Buffer	512 MB		256 MB			128 MB	256 MB		
Limited warranty (years)	5						3		
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		