TOSHIBA

Surveillance in Smart Cities

"Annual smart city investment passed $124 billion in 2020, with 32% of the overall spend going to public safety and intelligent transport." Source: IDC*

Surveillance systems will be a key element of future smart city initiatives - helping municipal administrations, government agencies and utility companies to carry out their duties with greater efficiency and less ecological impact. The benefits for citizens will include less traffic congestion, reduced levels of pollution, greater sustainability and heightened safety.

An ever-increasing percentage of the global population is now located in densely-packed urban environments, and this can have a significant effect on the quality of people's lives. The roll-out of smart city infrastructure will result in better organised municipal operations - keeping the associated costs down and stretching budget funds further. It will be instrumental in curbing energy consumption, bringing down wastage and combating crime. Access to round-the-clock video material from surveillance cameras will be at the foundation of such initiatives.

Traffic Management – Using surveillance infrastructure distributed across a city's road network, it is possible for various important traffic and urban mobility-related tasks to be performed. In addition to smart traffic light systems, municipalities can utilise surveillance video analytics to pinpoint where congestion is particularly high and then look to alleviate this (reducing air pollution levels in the process). They can also be alerted of accidents, so that emergency services may be deployed quicker. In addition, AI-enabled number plate recognition functionality can help with the issuing of speeding fines or the collection of toll charges.

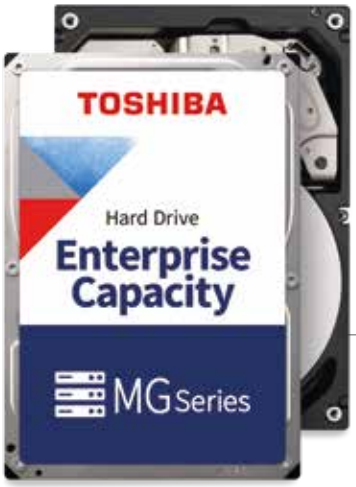
*Source: IDC, February 10, 2020, Press Release New IDC Spending Guide Forecasts $124 Billion Will Be Spent on Smart Cities Initiatives in 2020

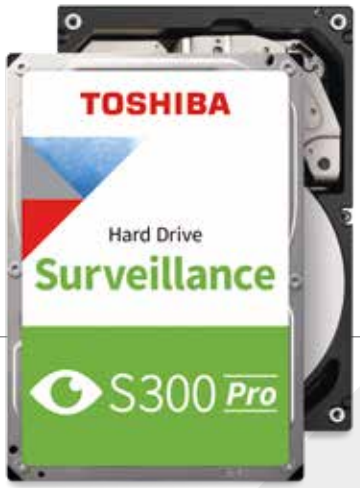
Ensuring the safety of citizens – Law enforcement is another key area where surveillance technology is being mandated. It presents a deterrent to potential perpetrators of criminal activity (discouraging them from committing crimes, anti-social behaviour or acts of terrorism). This technology can assist police in anticipating situations where public order problems could arise and accelerate their response when crowd dispersal is called for. It also offers a highly effective method for gathering valuable evidence after a crime has actually been committed.

Better allocation of resources – Networked camera systems, in combination with video analytics, can be used to collect and aggregate anonymous people counting data or uncover behavioural patterns. The derived information can subsequently be employed in the formulation of better municipal strategies. This can be in relation to adding extra public transport services to address greater demand, utilising real-time data to optimise street lighting, or referring to crime-based video data to assign more police officers to certain areas.

HDD Recommendations

Enabling the storage of huge quantities of video footage, Toshiba's high-performance and ultra-reliable HDDs are already playing a major part in smart city surveillance projects all over the world. Toshiba's enterprise grade MG series HDDs are optimised for centralised surveillance hubs undertaking public safety and traffic management work. They have storage capacities ranging from 1 TB to 24 TB, and support up to 2.5 million hours operational lifespan. With storage capacities of up to 10 TB, the S300 Pro models are able to support real-time video capture from 64 high-resolution cameras simultaneously, enabling object identification and face recognition.





	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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