

The Smart Cities Opportunity

In the wake of the government's smart cities mission, video surveillance industry is standing on the verge of a golden opportunity. After all, how can a city be smart without being safe? **Shweta Nanda** takes a closer look at how the major players are geared up to cash in on the Smart Cities boom

Ever since the government announced its ambitious vision of developing 100 smart cities for India, the project has garnered constant limelight. Given the country's overpopulated cities and their strained infrastructure, the concept of smart cities that utilize technology in every aspect to massively improve the quality of life for citizens can truly prove path-breaking.

One industry that is watching every development in the smart cities mission closely is video surveillance and security. This is because surveillance is central to the success of the initiative. "Smart cities models will operate on information gathering, storing and its distribution through ICT for communication. One such tool that can aid in achieving all of the above is surveillance systems," explains Sanjeev Gulati, Country Manager-India & SAARC at VIVOTEK.

While smart cities will enhance ease of living for citizens at various levels, ensuring robust security and safety for the citizens is at the heart of the initiative. The security arrangements of these cities will definitely differ from the existing security set up. Here again advanced video surveillance solutions will have a critical role to play.

"Latest IP-enabled intelligent high definition cameras with seamless integration with universal surveillance software platform are definitely going to have a role to play in the future of urbanized living. Video surveillance shall help and increase criminal investigation efficiency and traffic management and response time with intelligent integrated video surveillance platform," says Sharad Yadav, General Manager, Buildings, Honeywell Home and



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Elaborating on how integrated surveillance solutions have the capability to improve security and law and order situation in smart cities, Balasubramaniam Jayam, Head of Marketing - India & SAARC Countries, Dahua Technology says, "In a smart city, surveillance solutions at different areas within the city from railway stations, road to cab are interconnected. All the data from various surveillance systems is collected at a single control room which can be monitored to take timely action against any safety threats. Through popups, authorities are alerted of any suspicious activities or behaviour, say for example, unidentified baggage, rash driving,

etc. This real-time information empowers authorities to prevent crime or catch the culprit before they flee."

While safety is an obvious advantage of video surveillance systems, they can also play a vital role in providing more advanced public services in smart cities.

"Today, surveillance is not just about security, but it also has great potential in providing more advanced public services," asserts Mehernosh Pithawalla, Associate Vice President and Head - Marketing, Sales & Innovation, Godrej Security Solutions Division, Godrej & Boyce.

For instance, in order to control traffic, a video surveillance system could automatically transmit information about a traffic hazard to another system, which can then instantaneously advise drivers in the area to take an alternate route. "Other connected transportation systems (rail, subway, air) within a city or region, even nationally, can also adjust and improve their efficiency accordingly, and benefit from an orderly system of instantaneously





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Godrej Security Solutions Division

transmitted machine-to-machine transactions that help the public to move around smoothly,” Pithawalla adds.

Echoing similar sentiments, Kanwaljeet Kukreja, Business Development, Energy & Smart Cities, Schneider Electric, India says, “With the growing population, public services need to become smarter: more efficient, innovative and available to all and this is the key agenda of Smart Cities. This also includes the safety aspect and makes security management of utmost importance to public. Video surveillance systems help improve community safety and a sustainable traffic management system. Up to 30% reduction

in street crime from video surveillance system can be delivered.”

100 Cities, Countless Opportunities

Considering that surveillance systems are to be installed at every junction in a smart city and given the enormity of the country, the demand for video surveillance-related technology will grow significantly in the coming years.

According to a research and consulting firm 6Wresearch, the India video surveillance market is projected to grow at a compounded annual growth of over 13% between 2016 and 2022. The market size is expected to top \$2.4 billion by 2020.

Major video surveillance players are gearing up to tap this enormous business opportunity with their innovative offerings. Take the case of Honeywell, which continues to invest in advanced technologies such as Honeywell Universal Surveillance (HUS) which integrates closed-circuit televisions, access control, intrusion alarm and video analytics, unified command and control center and emergency response.

“HUS is a distributed system designed for large scale multi-level management and cross functional networks with high definition video surveillance that has been developed through rigorous testing and validation to deliver exceptional benefits and is uniquely positioned to support India's 100 smart cities mission,” informs Yadav.

Honeywell is engaged with 14 cities in India to make them smart and secure including Bhubaneswar and 11 cities in Madhya Pradesh. It is helping Odisha Police with a city-wide surveillance system that helps boost security, prevent crimes, maintain law

and order, and control traffic in the state's capital city. 114 CCTV cameras have been installed at 28 strategic locations in the city, including high-traffic junctions. Cameras and digital video recorders have also been installed on police vehicles.

Similarly, Dahua Technology, a prominent name in the global video surveillance segment, is also planning to cash in on the smart cities opportunity. Through its robust network of distribution partners, Dahua already has a vast reach and presence in the country. Now, considering the number of opportunities that will be generated in the wake of Smart Cities initiative, it is foraying in India directly.

Sharing details about the key features of Dahua products Jayam updates, “Our solution for smart city integrates CCTV, face recognition, access control, intrusion alarm, video analytics, intelligent transportation



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and control center under one roof. As an integrated platform tasked with unified command and centralized data storage, the solution allows rapid emergency response and cross-system or cross-department information sharing.”

Godrej Security Solutions is also strategizing to make the most of immense opportunity. “We have always positioned ourselves as a comprehensive security provider and Smart Cities offer huge opportunity for us as security is one of the important pillars of a smart city. Infrastructure projects which involve the usage of CCTV cameras, alarm systems, access control systems would be some major opportunities that we would like to work on,” Shares Pithawalla.

He further informs that Godrej Security Solutions is focusing on raising awareness regarding the relevance of security solutions in the daily lives of common people. “There are various products available in the security solutions space, and a lot has been spoken about them as well. However, adoption of security solutions for personal use is still an under-penetrated space. We



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are doing a lot of things in this field and these products are exclusively made for the Indian market. Security is an important aspect that influences and improves the livability quotient of a city. However, it is important to educate consumers that security should be all-encompassing and should not be restricted to just installing quick-fix solutions,” Pithawalla adds.

For Smart City, VIVOTEK has introduced the new vandal dome, MS8392-EV to upgrade its multiple-sensor product line. “Building on the achievements of the MS8391-EV outdoor camera, the new MS8392-EV provides an all-in-one solution, featuring four 3-megapixel CMOS sensors with 180-degree panoramic views, revitalized within a brand new aesthetic design. For wide open areas requiring detailed coverage, such as parking lots, shopping malls, schools, parks and plazas, it can maximize the field of view and reduces the total number of cameras required, thereby saving on both installation time and maintenance costs,” updates Gulati.

Smarter Security for Smart Cities

With the video surveillance market slated to grow significantly in the coming years, the space is buzzing with new technological advances.

“Devices surrounding us are getting smarter each day,” agrees Kukreja. “Innovative features such as Wide Dynamic Range (WDR), P-iris, and image stabilization, accompanied with high megapixel count, are just some of the inventions that have been made in video imaging,” he adds.

Manufacturers today are offering cameras with built-in algorithms that are capable of detecting and concluding various scenarios independently and without a need for a back-end server to drive conclusions. “Existing offerings include cameras that are capable of reading a vehicle’s license plate, detecting crowds or simply identifying a vehicle within traffic. The cameras are serving as multipurpose sensors, providing visual as well as scene related data to a central hub,” Kukreja shares.

Updating about the areas that are seeing maximum innovation, Yadav says,



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“The technological advancement is more towards integrated and software based solutions.”

Internet of Things (IoT) and increasing dependence on connected solutions is shifting the market focus towards convergence of platforms with IP technology backed by open platform and video analytics integration.

“IoT is driving the need for edge based devices interconnectedness to central intelligence/ analytics hub. We see increasing adoption of edge based analytics in applications like city surveillance and traffic management for Automatic number plate recognition (ANPR) & Red Light Violation Detection System (RLVDS),” Yadav adds.

Whether it is for better security or for public services, high-definition video surveillance systems will be at the forefront in enabling smart cities. Looking ahead, major players in the segment will continue to launch innovative products to tap the opportunity and provide authorities with new technologies to battle crime and make cities safer.