KOREA SECURITY BRIEFING

MARCH EDITION

2020 KOREA PHYSICAL SECURITY MARKET OUTLOOK Vol. I

The world economy has been shriveling since the outbreak of COVID-19 last December. To prevent further loss, an 'Expansion Trade Strategy Adjustment Meeting' was held under the supervision of the Korean Prime Minister. Export support measures and finding solutions for enterprises suffering under COVID-19 attacks, were the main topics of the meeting. A further 2.5 billion-dollar support was approved for trade finance, making it 214 billion dollars in total.

Despite the stagnancy due to the unexpected COVID-19 outbreak, the Korean security enterprises are preparing for takeoff as they wait for the cessation of the crisis.

△HANWHA TECHWIN

The relation between Smart Video Surveillance technology and Vertical Solutions

Hanwha Techwin, the key manufacturing affiliate of Hanwha Group, possessing both next-generation technology competitiveness and an insight into the fast-changing trend, is striving to become the leading video surveillance solution company. The 30-year video surveillance business experience enabled Hanwha Techwin to obtain the world's finest optical design and image processing technology. Thanks to the consistent technology and market developments, Hanwha Techwin was able to maintain its place as number one in market share, establishing of over 16,000 networks in the global market, where 75% of Hanwha Techwin's total income of sales are from the overseas market.

2020 Security Market Prospect

IoT and AI based technologies have become inevitable as they are currently the main trends of the security market. Hanwha Techwin mentioned how video surveillance companies will spur in order to secure such technologies and stressed the importance of enhancing cyber security.

2020 Security Market Keywords

Keywords selected by Hanwha Techwin are as follows: ① Integrated Security Solution (AI) ② Cyber Security ③ The emergence and expansion of Cloud ④ The subdivision of Vertical Platforms ⑤ Personal Data Protection. Having predicted the invigoration of AI video security solutions, Hanwha Techwin predicts how 'Edge AI technology' (AI algorithms processed on a hardware device, which allows the device to process data and make decisions connectionless) installed in cameras, will gradually transform itself to an AI integrated security solution (End-to-End AI).

Easier access to IoT devices means higher risk of cyber-attacks. Hanwha Techwin emphasized how cyber security needs to be fortified and how more attention needs to be paid to the use of Cloud which stores vast amounts of data. Security companies should adapt and apply developments of the latest technology, setting responsibility and ethical awareness as the foundation for solutions regarding personal data protection and misuse of video data.

2020 Market Target Strategy

In order to meet the standards of the current AI technology, customer's demands and their expectations, Hanwha Techwin recently established an in-company research institute in order to retain Algorithm analysis, differentiated core technology, concentrating on self-empowerment for a more successful buildup of AI integrated security solutions. By accelerating the deployment of 'End-to-End AI' solutions, Hanwha Techwin announced its plan to establish the 'Solution Provider', a solution realizing the needs of every customer. The big picture of Hanwha Techwin is to lead the global market by combining solutions from the US, Europe, and Asia in order to establish a unified systematic solution run by its headquarters.

Product of 2020

Hanwha Techwin is preparing the launch of an Ai line-up product, 'PTZ Camera', in which a new chipset 'Wisenet 7' has been inserted for a higher resolution and security advancement. Not only is 'PTZ Camera' concerned with the technology itself but has also taken the voices of the customers into account.

△ HIKVISION

Meeting the needs of Vertical Markets- A comprehensive range of Products and Solutions

Hikvision is the world's leading supplier of security products and solutions with a highly skilled R&D team. Such highly skilled R&D team provides strong fundament for Hikvision to develop products and solution lines which suit the needs of almost all requirements. Not only is Hikvision occupied with security industry fulfilling long-term prospects, but also smart home technology, automation, and automotive electronics industry.

2020 Security Market Prospect

According to Hikvision, new technologies and application programs such as multidimensional cognition, UHD, low-light imaging, AI, and Cloud, which open up infinite possibilities, prepare for an even more exciting innovation. The simultaneous connection between millions of cameras, other security devices and network, is to become the predominant factor of the future IoT industry.

2020 Security Market Keywords

① Multi-dimensional cognition ② Ultra-High Definition ③ Visibility ④ Smart Multi-camera

⑤ Cloud are the five security market keywords selected by Hikvision. In order to detect

objects and its movement 100 meters away (also amidst bad weather conditions), Hikvision presents solutions which integrate intelligent multi-camera radars and videos. Embedding smoke, heat and pressure detection systems in cameras allow for a precise monitoring of events, providing a stronger security system. Multi-dimensional cognition was chosen as one of the security market keywords, as more functions are required for a safer environment.

Moving on from the HD era, UHD images are now being easily transmitted through the support of larger bandwidths, minimized latencies and improved transmission technologies. Apart from the popularization of 8K cameras, improved object visibility attained through low-light imaging, enables a more detailed monitoring, fire detection and thermometry amidst weather conditions such as fog, smog, rain, snow and during the nighttime.

Smart multi-cameras which execute numerous functions based on AI chip performance improvement, are to become the main trend of AI cameras. As the internet enables more security devices to have stronger connections to IoT, it is foreseen that Cloud services may bring immense merit in its efficiency in cost as well as flexibility and security.

Security Systems Integrators have accepted VSaaS (Video Surveillance as a Service), which is a great tool for reinforcing business models regarding the 'Cloud migration' trend. In order to provide services to clients and sustain business expansion, System Integrators can use Cloud similar to Remote Maintenance through the usage of VSaaS.

△ CUDO COMMUNICATION

Understanding Intelligent Video Analytics Market through Smart Monitoring Control Solutions

'Smart Monitoring Control Solutions', which is an AI video analytics, is a Deep Learning based traffic surveillance solution which provides smart accident detection and traffic management of real-time analysis of all tunnels and intersections in South Korea. 'Smart Monitoring Control Solutions' by CUDO COMMUNICATION, is being supplied to local government integrated control centers, where video analytics applied Smart Monitoring products are being operated at the integrated control center in Seoul.

2020 Security Market Prospect

The main business of CUDO COMMUNICATION this year is the distribution and operation of AI products in local government integration control centers. CUDO COMMUNICATION foresees a more vitalized market as AI will be heavily applied to safety, access control and many other sectors.

2020 Security Market Keywords

①Smart Monitoring ②Thermal Imaging Camera ③ Min-sik Law ④ Face Recognition ⑤ Smart Search High Speed are the five keywords selected by CUDO COMMUNICATION. Smart Monitoring systems installed in CCTV integrated control centers and local governments reduce the controller's workload and increase security monitoring efficiency. In particular, the demand of thermal imaging cameras is on the rise as COVID-19 made its appearance.

In order to prevent school and silver zone accidents, the installation of traffic control equipments in school zones have now become compulsory. The 'Min-sik Law', was named after a young boy called Min-sik, was run over by a car in a school zone. Drivers killing a child by driving faster than the 30km/h limit in a school zone will be sentenced to a minimum of three years in jail. To provide a safer environment, CUDO Communication is planning to develop a solution which notifies the driver about the traversing children, the old and the infirm.

Moreover, the rising popularity of facial recognition is the main reason for the increase in installation and management of CCTV cameras, in which Smart Search High Speed will come to the force as finding the precise data quickly is inevitable.

Product of 2020

CUDO Communication plans to concentrate on Smart monitoring Solutions (CDO-Smart-AI) which consists of functions such as 12 types of event filtering, 2 types of object filtering and monitoring scenarios. Various types of movement, crime, disaster situations such as fire and smoke, characteristics of a specific person, facial recognition, license plate recognition and many more, can be identified through a specific event filtering.

△CATIS

CATIS- The professional security manufacturer for both national and international key facilities

CATIS is a professional physical security manufacturer with many years of experience in building security systems in key places such as Incheon Airport, nuclear power plants and many governmental facilities. CATIS puts emphasis on the development of new technology products, its localization as well as the overseas market pioneering through manufacture of integrated security systems such as 'AxiLog' and intelligent external sensors.

보안뉴스

2020 Security Market Prospect

CATIS foresees how the Korean security market's growth rate in 2020 will be faster than the other main overseas countries. More government investments in the construction of social safety nets and smart video management systems are to be made, where existing integrated control centers are to be developed into Smart cities.

2020 Security Market Keywords

① AI (Artificial Intelligence) CCTV ② Smart Monitoring System ③ Smart City Integrated Platform ④ Facial Recognition are the four Security Market keywords selected by CATIS.

2020 Market Target Strategy

Installing stable systems in places with high terror and damage risk such as airports and government offices are inevitable. CATIS aims to replace foreign products with state-of-the-art domestic products at key facilities and by securing technological competitiveness as well as leading global security manufacturers, CATIS plans to make its appearance in major markets such as in the Middle East, Asia, and Africa.

Product of 2020

CATIS plans to start a business centered around the IHS (Intelligent Hybrid Sensor) consisting of functions such as the accurate MEMS Nanotechnology sensor and machine learning based false alarm filtering.

△UNION COMMUNITY

Biometrics based Multi-Modal authentication and Integrated Security Solutions

As a company specializing in biometrics, UNION COMMUNITY was founded in the year 2000. Their main business consists of development, manufacture and sales of fingerprint and facial recognition-based biometrics card readers, fingerprint recognition modules, ID scanners, and Integrated Security solutions. UNION COMMUNITY holds more than 100 patented technologies, exporting its products to more than 100 countries. Celebrating its 20th anniversary, UNION COMMUNITY will be presenting more of their latest products, targeting an increase in sales in order to hold a dominant market position.

2020 Security Market Prospect

Biometric products mainly used for access control and time & attendance management are now being applied to various areas such as apartment entrance doors, home security, visitor and vehicle access control, building management and video surveillance. To keep up with the trends, UNION COMMUNITY will be launching the Multi-Modal authentication (enhancing security and convenience) as well the integrated security solution 'UBio Alpeta', which is an integrated solution used individually.

2020 Security Market Keywords

UNION COMMUNITY has selected the following keywords relating to biometrics- ① Facial Recognition ② Multi-modal authentication ③ AI ④ Smart Home ⑤ Security Convergence. Many are now recognizing the importance of multi-modal technology as security goes hand in hand with convenience. By integrating AI analysis technology, the security industry will be facing new aspects of facial recognition and multiple simultaneous authentication options such as distinguishing whether the identified face is of a living person.

Many people are now becoming accustomed to IoT devices as biometric-based products and technologies are being applied to Smart Homes. The use and service of a unified security solution and software which takes management, convenient use and security all into account, is to be the new trend.

Product of 2020

'UBio-X Pro2', a facial recognition product equipped with a Deep Learning algorithm not only is able to operate from a close distance but from various angles and distances by using the Walk-Through facial recognition system. Facial recognition is possible from a 3m distance and the Liveness Detection enables the system to distinguish whether the person is an actual living person. On top of this, the Liveness Detection is also able to block those attempting to gain access through high resolution images, 3D models and videos as well as demonstrating high performance matching speed under 30,000 lux.