Embracing a Sustainable Future with Technology

Designed around energy-saving principles, Hanwha Vision's product and technology deliver a sustainable approach for security and monitoring needs

Pangyo, 24 July 2023 – While video surveillance systems are touted as [integral to build smart and sustainable cities](link), the cameras themselves must also be designed for sustainability. Individually, modern security cameras do not consume a significant amount of energy. However, extensive surveillance systems can incorporate dozens of cameras and servers, creating a more substantial energy burden that impacts progress towards a sustainable future.

"[The recent 8th Annual Global Conference on Energy Efficiency](link) saw 45 countries endorse the Versailles Statement on this being 'the crucial decade for energy efficiency'. Hanwha Vision has always strived for innovation to advance tomorrow. We are incorporating energy-efficient features into our solutions to support global sustainability and energy security targets without compromising on safety," said **Andy Ryu, Head of Product Division, for Hanwha Vision**

In line with this commitment, **Hanwha Vision**, a global vision solution provider, recently unveiled the SolidEDGE camera – the first real Solid State Drive (SSD)-based camera with an embedded server – that was designed around energy-saving principles for reduced environmental impact.

Energy Conservation through Serverless Video Solution

One of the revolutionary features of the SolidEDGE camera is its serverless setup, which significantly reduces energy consumption and total cost of ownership. It eliminates the traditional need for separate servers in temperature-controlled data centers, which consume considerable amounts of electricity.

Hanwha Vision has integrated solid storage directly into the body of the SolidEDGE camera and pre-installed the Wisenet WAVE video management system, which can run on the edge. Additionally, the SolidEDGE camera can also connect to and record video from up to five additional guest cameras. This consolidation of functions not only provides impactful energy savings, but also ensures that video data and recordings are captured without delay.

Energy-efficient Data Analytics with Edge AI

[The exponential growth in surveillance technology has led to an unprecedented amount of data being generated daily](link) – more than 2,500 petabytes of data as of 2019. Storing and analyzing this data consumes significant energy as servers in data centers require substantial power. However, Hanwha Vision has tackled this challenge by incorporating edge artificial intelligence (Edge AI) into the camera.

By leveraging Edge AI, Hanwha Vision's cameras can quickly control and transmit important metadata, reducing the operating load on the server and minimizing overall power consumption. This also eliminates common energy burdens caused by network overloads or storage overcapacity. Additionally, Hanwha Vision's AI network video recorders (NVR) further enhance the efficiency of data analysis, enabling quick identification and retrieval of relevant information. This results in increased operational efficiency and significant energy savings.

Increased Energy Savings with AI-based Low-light Image Processing Technology

Traditionally, surveillance cameras require well-lit environments to produce high-quality recordings. This often leads to businesses leaving lights on in stores and outside storefronts, contributing to unnecessary energy consumption. In fact, [major European retailer SPAR Austria estimated an annual energy consumption reduction of one million kilowatt hours](#) simply by reducing storefront advertising and outside lighting hours across more than 1,500 stores.

However, Hanwha Vision's edge devices use state-of-the-art [AI-based, low-light image processing technology](#). This enables clear recordings in dim conditions and eliminates the need to maintain a well-lit environment solely for surveillance. As such, it is ideal for businesses looking to minimize their environmental impact.

Hanwha Vision: A Commitment to Sustainability and the Future

Hanwha Vision's focus on sustainability extends beyond product design. The company has launched several initiatives aligned with the United Nations Sustainable Development Goals (SDGs), demonstrating the commitment to making a positive impact on the world. These initiatives include the [Hanwha-KAIST Spacekids Program](#), [Hanwha Clean Up Mekong Initiative](#), and [Win-Win Support Program](#) among others.

The synergy between technology and energy is key to building a sustainable tomorrow. Hanwha Vision's product exemplifies this synergy by incorporating energy-saving principles, a serverless setup, edge AI and low-light technology. This innovative approach not only enhances security and monitoring capabilities, but also reduces environmental impact and energy consumption.

Hanwha Vision's commitment to sustainability, coupled with a comprehensive range of surveillance solutions, makes us a trusted partner for businesses and organizations prioritizing sustainability.

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About Hanwha Vision

Hanwha Vision (formerly Hanwha Techwin) has been leading the global video surveillance industry with world-class optical design, image processing and cybersecurity technologies for more than 30 years. As the company broadens its business to become a global vision solution provider, Hanwha Vision will deliver more valuable and meaningful insights to customers by collecting key information and providing big data analytics utilizing AI and cloud technologies.

Hanwha Vision offers a comprehensive line of security and video surveillance solutions which include IP cameras that support up to 8K resolution, a video management system, video and audio analytics, multi-sensor technologies and device integration with a host of 3rd party application providers. The company's intelligent surveillance solutions are used globally, securing people, property and data across a range of industries including retail, transportation, education, banking, healthcare, hospitality, airports and more.

For more information, visit www.HanwhaVision.com.