

Dahua IP Megapixel solution secures Pescara Port



Dahua supplied a complete solution at Pescara Port in Italy, including 3MP and 2MP IR cameras and 2MP 20x speed domes.

Pescara harbour, a port at the mouth of the River Pescara on Italy's Adriatic coast, is significant for the trading and tourism around the region. The port includes a dock, a freight yard and a sea bridge that is one of the biggest cyclo-pedestrian-type in Europe. In a joint effort with Videotrend – Dahua Technology's distributor in Italy – Dahua and its megapixel solution successfully secured the contract for the Pescara port.

The problems encountered in this particular application include the unpleasant weather and high humidity of the region, which can cause the corrosion of devices and thus shorten their lifespan; in addition, the high temperatures and moisture can affect the smooth transmission of IP stream during

deployment and installation.

In order to solve the above-mentioned issues given the climate is an unalterable factor, Dahua, Videotrend and the local system integrator attempted to approach it from a different perspective – the structure. The system adopts a ring networking structure with optical fibre adopted instead of conventional star-topology; and to further guarantee an adequate bandwidth at 108Mbps for the cycling lane, the radio transmission system was configured at an access point of dual band 2.4/5.8GHz.

On the product front, Dahua 3MP and 2MP IR cameras (IPC-HFW3300P / IPC-HFW3200CP) and 2MP 20x speed domes (SD6982A / 6523H-HN) cruised into the final selection after a series of

tests. Equipped with lenses of 3.3-12mm and 8-16mm, box cameras manage to capture a wide range of scenarios under surveillance. What is more, with the help of high-efficiency IR LEDs, cameras can also render a clear night-vision effect; and as for the back-end devices, Dahua NVR, DH-SVR3016H is used as it can enable the storage of large volumes of footage, in addition to its RAID function enhancing reliability and stability of the system.

“The previous problems have been well addressed by this solution, which, at the same time is quite flexible and convenient,” said Pasquale Totaro, CEO of Videotrend. “It has been over two years since the project was completed, and everything still goes well. The local officials are satisfied with this project as it not only



Dahua Eco-Savvy 1.3Mp/2Mp/3Mp Network Cameras DH-IPC-4000/5000-series

Dahua's Eco-Savvy range of network cameras.

helps to achieve identifying non-essential personnel, but also makes the whole surveillance system run smoothly."

"We appreciate the client's trust and partners' efforts in this case, as we are refining our network product portfolio, and more versatile products will be launched to satisfy different requirements," said Elmer Zhang, sales director for Europe at Dahua Technology. "Take this port case for example, the speed domes installed on the bridge are IP66-rated, able to withstand the severe environment; and the accurate PTZ function helps with vehicle tracking. We are confident to provide solutions and products in various applications as we have been actively involved in different projects and have accumulated valuable experience in recent years."

IP surveillance for outdoor port applications

A port is characterised as an open area with complex facilities, a large flow of people and potentially an aggressive climate that can create difficulties for the installation of a comprehensive video surveillance system. Designed as IP-based video surveillance systems, Dahua's two series products – including weather-proofed Ultra-Smart network cameras and Eco-Savvy network cameras – allow video to be viewed and recorded from anywhere in the port and can better solve the abovementioned

challenges and risks in port surveillance and security.

Ultra-Smart network cameras

The Ultra-Smart network DH-IPC-8000 camera series offers 3MP in diverse designs and shapes, featuring ultra codec and smart detection. Its video analytics can better manage video surveillance, especially for outdoor applications, such as those in ports and harbours. Ultra codec includes region of interest (ROI), corridor mode, electronic image stabilisation (EIS) and scalable video coding (SVC). ROI allows cameras to enhance the image quality of the area of interest by decreasing non-ROI image quality to allow the acquisition of more computing power and bandwidth.

Corridor mode, also known as rotate mode, adjusts a horizontal scene to vertical, achieving significant cost savings because in conventional hallway scenarios, which are usually long and narrow, it usually takes a few cameras to cover the monitored area and is thus less economic and more labour intensive.

EIS ensures a clear image without the blur associated with a shaky camera, while SVC saves bandwidth and better allocates network resources by working with NVRs; in terms of video storage, it has a maximum 3/4 extra storage space, while 3/4 extra storage time could be saved. As for smart detection, Ultra-Smart series supports intelligent analytics

such as tripwire, intrusion detection, abandoned/missing, scene change, defocus, facial detection and audio detection, allowing automatic detection under rulemaking and trigger alarms, accordingly.

The first released models are HF8301E, HFW8301E and HDBW8301 in box shapes, IR-bullet and dome. The series supports max 25/30fps@3MP encoding and features in triple-stream codecs, enabling customised configuration on codec, frame rate and bit rate, depending on various purposes. Two-streaming can process 1080p resolution while the third streaming is capable of flexible usage, such as live view on mobile devices.

"Embracing intelligent functions is one of the main trends in industry," said James Wang, overseas product director at Dahua Technology. "With the rapid development of the Internet and cloud technology, video surveillance will further integrate one another and Ultra-Smart Series features new intelligent functions to provide a better, more effective performance, and a smart user experience."

Eco-Savvy 1.3MP to 3MP network cameras

Eco-Savvy network camera series (DH-IPC-5000/4000-series) offers 1.3MP, 2MP as well as 3MP with diverse designs and sizes. The series features low consumption and low streaming, making



Figure 1. Comparison: 720p@4M (conventional), 720p@1M (Eco-Savvy series).



Figure 2. Superb Color Reproduction;



Figure 3. Motion Deblur - Vehicle Moving.



Figure 4. WDR Test-On,



VS Off.



Figure 5. Ultra low-light effect.



Figure 6. Smart IR Test-On



VS Off (tested with 1.3MP camera model).

this product stand-out in terms of power efficiency, and can be used for port/harbor scenarios in a broader, video-surveillance perspective. Featuring a new Ambarella chipset and in-house ISP technology, this new camera series manages to encode @1080p with bitrate 2M and @720p with 1M, which represents a 75% saving in networking bandwidth and storage compared to the existing models. In addition, the new chip features better design on power control, consuming 50% less than the previous generation cameras and allowing increased product longevity.

The Eco-Savvy series provides crystal-clear images with better color reproduction and has better detail rendering, motion deblurring and superb night-vision effects. (The following test photos are based on the performance of the 2MP HFW4200S camera)

Meanwhile, the system is coupled with 3D-NR technology, which helps to eliminate image noise in low-light conditions without creating ghosting and blurring; Dahua's patented Smart IR technology makes night vision effects even better.

In addition, with refined software, the system is more stable and efficient with stronger networking connectivity. It simultaneously supports maximum 20-user visits and 6-users@1080p preview. It ensures no packet loss up to 100m networking transmission. Besides, dual-storage backup ensures system stability.

About the organisation

Dahua Technology Co is a professional manufacturer in the field of security and surveillance. Over the past 15 years' of development, Dahua Technology has had extensive experience in the research and design of cutting-edge technology surveillance equipment. Both hardware and software are modular-designed with flexibility for different configurations, various scales of applications and future expansion. In 2013, the company was ranked ninth in the Security 50 ranking by a&s International.

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