CASE STUDY

Taiwanese government authority uses Axis network video technology for disaster prevention.

Instant video surveillance of hydrological conditions plays a pioneering role.

Organization:
Disaster Prevention Center of Ministerial Level

Location: Taiwan

Industry segment:
Government

Application:
Disaster prevention and reduction based on real-time IP-Surveillance

Axis partner:
Taiwan WaveTech Communications, Inc. (TWCI)

Mission

Taiwan, due to its geographical location, is subject to fierce typhoons and torrential rains that occur seasonally each year. The rivers rise rapidly within short periods of time, flooding the land along the riverbanks and often causing heavy damage to crops as well as people's lives and assets. To strengthen the national system of disaster prevention and reduction, the government authority of Taiwan launched a construction plan known as the "Hydrological Conditions Instant Video Surveillance System". The plan aims at building an instant video surveillance system covering the southwestern coastal areas with serious strata subsidence, the main reaches of the important rivers and the coastal wave run-up points. Once the depth of flooding exceeds the warning level, the system will automatically send back a report as a reference for emergency response.

Solution

The authorities deployed AXIS 214 PTZ Network Cameras and AXIS Camera Station video management software at the 150 hydrological sites throughout Taiwan, in order to monitor the water-level changes on a 360-degree basis 24 hours a day, and to immediately provide important reference information for decision-making in disaster prevention and relief. Additionally, ten sites with alarm management integrating flood reporting systems were built in Chiayi Dongshi, Budai and Yizhu.

Result

The Axis network video solution allows the disaster prevention center to easily handle the operations of video surveillance, video recording and playback as well as alarm management remotely via the Internet. The solution, which features an advanced multi-window video viewing platform, allows staff at the national center to rapidly assess the situation and take immediate action in case of potential disaster.

AXIS COMMUNICATIONS

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"The AXIS 214 PTZ Network Cameras' crystal-clear images, together with their 360-degree rotation and 24-hour monitoring of water-level changes, enable us to monitor our hydrological sites via a wireless microwave network, as well as to immediately transmit the hydrological video information to the relevant units. These aspects all serve as important reference information for decision-making in disaster prevention and relief."

The Disaster Prevention Center of Ministerial Level.

Hydrological condition changes recorded on a 360-degree/24-hour basis

Before setting up such video monitoring facilities, the work of observing the rivers' water-level changes was done through manual inspections. According to Taiwan WaveTech Communications Inc. (TWCI), which assisted in building the network video system, "Now, approximately 90% of the monitoring sites are using the AXIS 214 PTZ Network Cameras. These network cameras, which can rotate 360 degrees and perform 24-hour surveillance, enable the information on changes in water level to be instantly and rapidly transmitted to the disaster prevention center."

The high-performance AXIS 214 PTZ, which features 360-degree rotation, integrates the high-definition color cameras and flexible PTZ function as one, and is equipped with 18x optical zoom and auto-focus. TWCI stressed, "The infrared filter function of AXIS 214 PTZ day/night network cameras ensures that the images contain daylight clarity even under poor night-time lighting conditions. This feature ensures that images in all kinds of weather are not distorted, which is key for the analysis of the video scenes."

With AXIS 214 PTZ Network Cameras and AXIS Camera Station video management software, the disaster prevention center can easily handle the operations of video surveillance, video recording, and alarm management. Supporting multiple recording modes - continuous, scheduled, on alarm and/or motion detection, AXIS Camera Station allows the administrative staff to easily find video records by accessing them from a remote location.

Wireless microwave, image transmission easily operated

As the monitoring points in this case were set up outdoors, the ability of the AXIS 214 PTZ Network Cameras to send the video over the IP network was particularly helpful. With built-in web server, Axis network cameras do not need to be connected to a computer or other software/hardware devices, and can send video directly. With only a wired or wireless access point connected to the IP network, the camera can be readily used.

According to TWCI, "The video images taken from the video surveillance stations convey the most updated hydrological information to the disaster prevention command center. The hydrological information can be analyzed in real-time, thereby achieving the purpose of disaster prevention, which in this case is the goal and the most important benefit."