

Axis network cameras capture weather photos at weather stations.

Day and Night cameras deliver high-quality images round-the-clock.



Organization:
Weather bureau

Location:
Hong Kong, China

Industry segment:
Government

Application:
Real-time weather
photo capture at
automatic weather
stations

Axis partners:
Pacific System
Solutions Limited

Mission

The weather bureau in Hong Kong is responsible for forecasting weather, issuing warnings on weather-related hazards and providing other services to the public. The weather bureau also provides real-time weather photos via its website so that tourists and members of the public can plan their travel in a direct and intuitive manner. Animations of the weather photos as well as some notable weather events are available on the website to help promote weather education for the public.

The weather bureau has set up a number of weather stations but some of them are situated in remote areas which are not easily accessible. In order to provide real-time weather images to assist forecasters in forecasting weather and issuing weather-related warnings, the weather bureau decided to look for an IP-based video solution.

Solution

The weather bureau has a network of automatic weather stations at various locations in the urban and rural areas as well as on remote, outlying islands. After intensive product survey in the market and a series of product evaluation, the weather bureau finally selected Axis Communications as its network camera vendor.

Over 10 sets of network cameras have been installed in some of these automatic weather stations. Weather photos captured are transmitted via fixed line broadband or GPRS in real-time. They are also made available every 15 minutes on the website of the weather bureau.

The first camera, AXIS 2120 Network Camera, was installed at the weather station on an outlying island in 2004. It is still in use today and operates in good condition. The most recent camera deployment was AXIS 233D Network Dome Camera due to its powerful 35x optical zoom and Day and Night functionality.

"Our client's weather stations are situated in city areas, outlying islands and even remote islands. With Axis network cameras installed, all the weather stations are unmanned and operating automatically. Our client could re-allocate their experts to focus on other mission-critical tasks at the observatory."

Mr Ernest Yu, project engineer Pacific System Solutions Limited.

Result

Thanks to the Axis network cameras, the weather bureau can monitor the weather conditions remotely in real time via the Internet without the need to send someone on site. The cameras can handle all the monitoring, freeing the weather bureau specialists to focus on other business-critical projects. Easy to install, configure and maintain, they have proved to be a reliable choice, offering a host of advanced functionalities and benefits to the customer, resulting in a low total cost of ownership.

Network cameras operate round-the-clock

Pacific System Solutions Limited was in charge of the weather bureau's network cameras deployment project. Mr Ernest Yu, project engineer says, "Our client's automatic weather stations are located in city areas and remote sites. Weather photos are taken automatically at regular intervals day and night at those weather stations. To that end, we needed network cameras that feature high image quality even in dark conditions, operating automatically, reliable and durable."

Ernest explains, "The excellent image quality, high network compression quality and durability of Axis network cameras met all our client's selection criteria."

Day and Night functionality

The weather bureau broadcasts the latest regional weather photos on its website. Users can simply click to get a live view of selected weather locations. As the weather photos are taken automatically every day, network cameras that can fit in daylight and dark conditions are of utmost importance. The Day and Night function of Axis network cameras caters for this requirement.

The Day and Night function is designed to be used in outdoor installations or in indoor environments with poor lighting. Built-in with this special function, AXIS 2120 and AXIS 233D are very sensitive in dark light conditions.

As light diminishes below a certain level, the cameras can automatically switch to night mode to deliver high-quality images in dark environments.

Reliable, high-quality images

Axis network cameras are easy to set up, use and manage, and offer superior image quality. AXIS 2120 and AXIS 233D offer up to 30/25 frames per second for all resolutions as well as high speed hardware-based image compression generating high quality JPEG images. With the use of Axis cameras, the weather bureau can keep a visual track of the weather conditions via automatic weather stations.

Highly durable with minimum maintenance

Axis network cameras are easy to configure and use with minimal training needed. They also have durable casing and cover made of metal, aluminum or other strong materials, providing effective protection in indoor or outdoor environments. The durability enables the weather bureau to maintain the cameras with minimum technical support.

"Our client has not encountered any problem or downtime ever since the Axis network cameras were first installed in 2004," Ernest remarks.

Future deployment plan

Looking ahead, the weather bureau plans to use 3G mobile network in High-Speed Packet Access (HSPA) to transmit weather images from remote sites. The weather bureau targets to use AXIS 223M Network Camera due to its 2.0 Megapixel resolution and Day and Night function that deliver exceptional image detail.

