

Longsing Primary School Uses DTV System to Protect the Campus

Site Name	Longsing Primary School
Country/ City	Taiwan/Taoyuan
Industry	Campus
Solution	DTV Digital FHD Surveillance System
Solution Provider	FUHO Technology Co., Ltd
Reasons of Adoption	<ul style="list-style-type: none">■Retrofit without re-cabling■System expansion by daisy-chain■Long-distance transmission■Full HD video quality



CUSTOMER NEEDS AND PROBLEMS

Longsing Primary School was founded in 1996. Since there is large population of Hakka people in Taoyuan, the campus buildings are of the Hakka Round House style and are distributed in space following the Five-Phoenix Pavilion style. The campus covers a large area and has 111 classrooms in total. To secure the safety of teachers and students and make campus management easy, the school had installed CCTV surveillance system in the early stage. During these 20 years, the system had been upgraded several times because of the blurry images due to the limited equipment life and cable aging. In 2016, because numbers of campus security accidents happened in Taiwan, the public began to pay high attention to campus safety. The school decided to upgrade the old 480- or even 380- kilopixel CCTV analog system to the new digital HD system, and also intended to increase the number of cameras for ensuring no security blind spots on campus.

CUSTOMER BENEFITS

As the primary school is a public institution, its procurement is subject to the law, which requires open tender. Many security system installers proposed a variety of solutions including analog HD systems such as AHD and CVI, and digital systems such as IP, DTV, etc. Because DTV is digital system, the impedance increase due to cable aging has less influence on DTV than on analog systems. Therefore, the system has a longer service life. In addition, DTV products use ccHDTV chips (developed and supplied by ITE Tech. Inc. in Taiwan). The chip is based on the DVB-T digital TV transmission technology, so DTV systems, like digital TV systems, support transmission of multiple video signals over one single coaxial cable. Unlike IP systems, which requires network cable installation, DTV systems can work on the existing cable. For adding additional cameras, what one need to do is to buy a TV signal splitter, which is readily available at the hardware store, and to connect the camera signal to the exiting coaxial cable. This saves the time and cost on re-cabling.

Although the equipment cost cannot match that of analog HD products made in China, considering the cable, installation, and hidden maintenance cost, DTV system wins.

As DTV is a digital system, its good sensitivity eliminates the need of amplifier for distance within 1km (roughly). In addition, the images are the same clear and sharp at 1 meter or at 1 kilometer away. The system is good for this large-area campus because the signal quality does not degrade or become blurry from the back gate of the school to the backend.



Figure 1. The upper level: all four screens show images of DTV HD cameras, sharp and clear. The lower level: the left and center screens show images from analog HD cameras. The rightmost screen shows images from CCTV analog cameras.

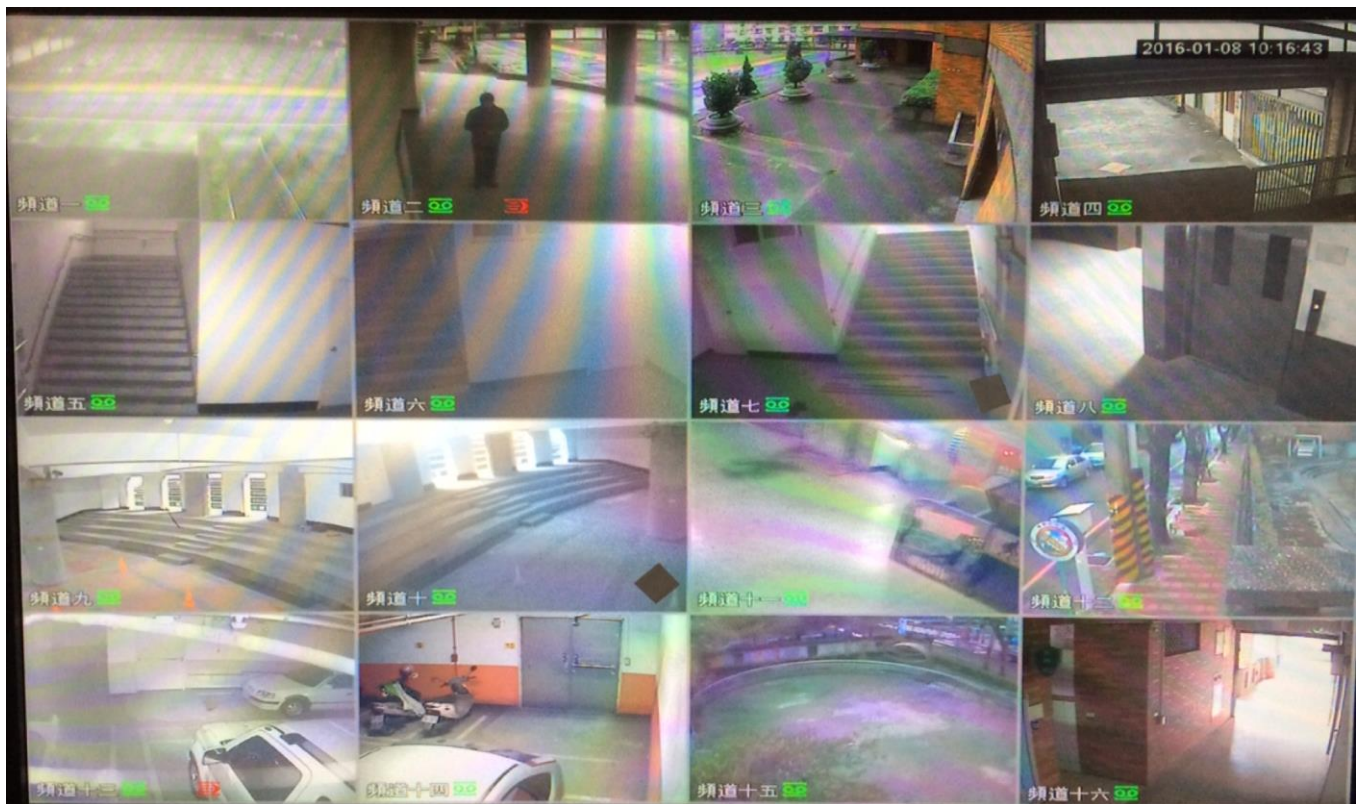


Figure 2. The zoomed-in of the lower center screen. Images from analog HD cameras.