

Juipu Elementary School Selects DTV to Protect Teachers and Students

Site Name	Juipu Elementary School
Country/ City	Taiwan/ Taoyuan
Industry	Campus
Solution	DTV Digital FHD Surveillance System
Solution Provider	FUHO Technology Co., Ltd
Reasons of Adoption	■Retrofit without re-cabling ■Long-distance transmission ■Full HD video quality



CUSTOMER NEEDS AND PROBLEMS

Founded in 1928, when Taiwan is still under Japanese rule, Juipu elementary school is a historic school. After renaming several times, the school changed to its current name “Juipu” in Aug. 1952 after Taiwan's retrocession. To secure the safety of teachers and students and to manage the campus, the school had installed CCTV surveillance system a long time ago. After many years' operation, except that some really bad cameras troubled with missing or blurry signal have been replaced, most equipment was still in use. In 2016, several campus security accidents happened in Taiwan and the public began to pay high attention to campus safety. The school decided to replace all the old 34-kilopixel CCTV analog system to the new HD system. They also requested to add additional cameras to eliminate safety blind spots on campus.

CUSTOMER BENEFITS

Because the elementary school is a public institution, its procurement is subject to the law, which requires open tender. Many security system installers (SI's) proposed a variety of solutions including analog HD systems such as AHD and TVI, and digital system such as IP. FUHO Technology also proposed a digital system based on DTV.

As the cables have been scorched and drenched by sun and rain for many years, the cable aging causes impedance increase. Because DTV is a digital system, it is less sensitive to the cable quality degradation than analog system. Therefore, most of the time it works on the existing cable, which means there is no need of re-cabling. In addition, DTV has another feature which would impress most people – cable sharing.

Up until now, in almost all surveillance systems including above-mentioned CCTV, AHD, TVI, and IP systems, no matter which kind of cable they use (coaxial or network cable), every camera need its own cable to transmit signal to the server. However, DTV is different. Based on digital TV transmission technology, DTV surveillance system has some good features like digital TV. In addition to long-distance transmission and good resistance to interference, DTV surveillance system supports cable sharing. Theoretically, it is possible to send 128 channels over one single cable. High channel-count DVRs, such as 16-channel or even

32-channel DVRs, are available on the market to better support the cable sharing feature. Cable sharing reduces the effort of adding additional cameras. One only needs to connect the newly installed camera to the nearest existing cable and makes a T-connection. No cross-campus re-cabling is needed.

If considering only the hardware, analog products cost less than DTV digital HD products. However, if taking into account the installation efforts, such as re-cabling and the addition of new cameras, DTV solution wins because its total tangible and intangible cost shall be less than that of any other solutions.

The following figures show the comparison before and after the system upgrade.



Figure 1. the original CCTV surveillance system. The signals of some channels became blurry and even disappear due to cable aging.

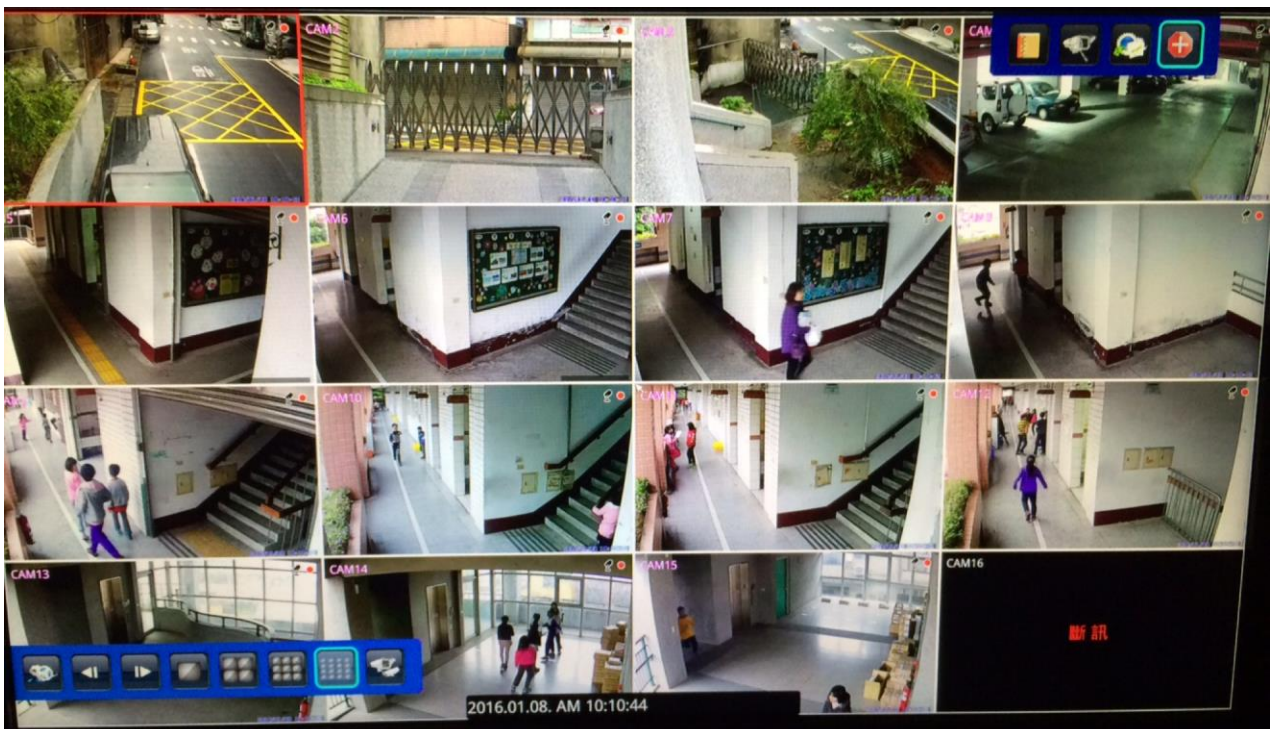


Figure 2. the upgraded DTV surveillance system. The images are sharp and clear. If zooming in on a selected image, its 1080p quality shows all the details.