Seamless Safety and Security? Not An Issue For Skytrain

Taiwan Taoyuan International Airport (TPE) is one of five airports in Taiwan with regular international flights, and is by far the busiest. Last year, TPE dealt with approximately 34 million passengers, ranking TPE the 11th busiest airport worldwide in terms of international passengers. TPE comprises two terminals, each harboring roughly half of the passengers. A comprehensive transport system is established within the airport to transport passengers between terminals and in/out of the airport. This system comprises trains, buses, taxis, and the people mover system (PMS), better known as the Skytrain.

High quality security system is required for the unmanned transport system
The Skytrain is a fully automatic train system that runs between the two terminal buildings at TPE. The construction of the PMS was initially imitated by the Civil Aeronautics Administration in 1997, and subsequently completed under the collaboration of the China Engineering Consultants Inc., Japan Niigata Transys Co., Ltd., and Taiwan Rapid Transit Corp. The PMS was formally launched by TPE on 18 January 2003. The PMS consists of 2 parallel tracks, North and South, each providing bidirectional service. A single car serves the north track for airline passengers only. The south track serves both airline passengers and the public, separated by platform dividers between the cars. Because of the increasing number of passengers that use the PMS each year, security within train carriages has become prevailing problem for the unmanned transport system. Thus, TPE commissioned Apogear, a distributor of VIVOTEK products in Taiwan, and System Integrator Plustek to design and deploy a solution to meet the safety and security demands of TPE.

Comprehensive mobile solution for the mobile environments
Taking into account the immense flow of people in an international airport context, as well as the fact that surveillance in mobile environments required specialized products, Apogear and Plustek formulated a comprehensive mobile solution comprising 10 state-of-the-art VIVOTEK cameras. A series of hardware and software comparisons were conducted to identify the ideal device for this setting, where the VIVOTEK MD8562 Mobile Dome Network Camera surpassed all established benchmarks and all competition in its category. Thus, the MD8562 was selected for the in-carriage surveillance of the Skytrain.

The MD8562 is a dome network camera geared specifically for mobile applications, such as trains, buses, and other vehicles. This camera model is fully compliant with EN50155 standards and meets all shock and vibration criteria set by EN50155. The camera is housed within a vandal- (IK10-rated) and weatherproof (IP67-rated) dome housing to withstand the harshest environmental conditions. The

camera itself features a 2-megapixel CMOS sensor capable of capturing 1080p Full HD video at 30 FPS and supports real-time H.264, MPEG-4, and MJPEG compression technologies to provide detailed footage whilst reducing file size and conserving network bandwidth. The wide-angle fixed lens and WDR Pro technology exponentially increases the camera's field of view and ability to capture minute details in extremely bright, extremely dark, or light-fluctuating environments. Therefore, the MD8562 Mobile Dome Network Camera is ideal for monitoring the mobile carriage spaces of the Skytrain system.

Safety and security are well ensured within the PMS

Sandy Huang, Product Manager at Plustek, stated "Since the deployment of the new surveillance system in August 2014, a tangible improvement in safety and security within the PMS can be well observed. The cameras installed in each of the train carriages operate seamlessly with the airport's network video recorder to produce detailed, unobstructed footage. Airport management praised VIVOTEK for the excellent quality of its cameras, anticipating future collaboration in enhancing the security of other sections of the airport."