

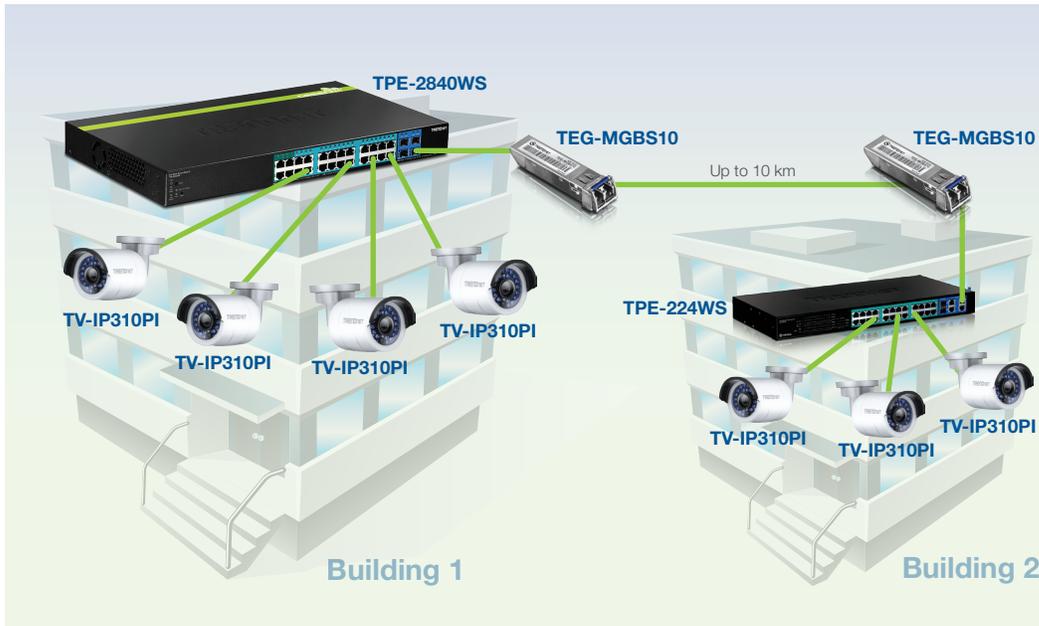
PoE Camera Solution

Surveillance Network for a Multi-Building Corporate Campus

Project Summary

A complete surveillance solution of TRENDnet's IP cameras, PoE switches, and fiber modules were utilized for a corporate campus surveillance plan. A total of 40 outdoor cameras were used, eight on each building of the campus. TRENDnet's web smart switches were used to network the cameras and fiber modules were used to relay camera data feeds from long distances.

Network Solution Diagram



The diagram shows the network connection from the main building to one of the four other buildings on the corporate campus. The same method of connectivity was used on all four buildings. Please note not all cameras are shown.

Solution Details

TRENDnet offers a complete surveillance solutions portfolio to meet the varying needs of businesses. In this scenario, the corporate campus consisted of four buildings that required an updated surveillance system. The two biggest challenges were placing all 40 cameras on a single network and tackling the extended distances between each building as a standard network solution would not be able to meet these distance needs.

The company employed TRENDnet's Outdoor 3MP Full HD PoE Day/Night Network Camera, model TV-IP310PI. The TV-IP310PI is ideal for outdoor use because it provides powerful 3 megapixel night vision in complete darkness for up to 30 meters. These cameras are vandal resistant with an IP66 weather rating housing. And the ultra-compact design makes installation simple for anywhere on the building.

To tackle the distance issue, the company used TRENDnet's Mini-GBIC Single-Mode LC Module, model TEG-MGBS10. These fiber modules were the ideal solution for the corporate campus as it allows the cameras to be networked for distances up to 10 km. Multimode modules could not be used in this instance as they only allow for distances up to 550 m at Gigabit speeds.

The surveillance network was created using two of TRENDnet's PoE switches: 28-Port Gigabit Web Smart PoE+ Switch, model

TRENDnet Products Utilized:



1x **TPE-2840WS**
28-Port Gigabit Web Smart PoE+ Switch



4x **TPE-224WS**
24-Port 10/100 Mbps Web Smart PoE+ Switch



8x **TEG-MGBS10**
Mini-GBIC Single-Mode LC Module



40x **TV-IP310PI**
Outdoor 3MP Full HD PoE Day/Night Network Camera

TPE-2840WS, and 24-Port 10/100 Mbps Web Smart PoE+ Switch, model TPE-224WS. The TPE-2840WS served as the primary switch at the main office building where it would connect to the four other buildings via fiber optic cabling. The TPE-2840WS is a great choice to link the TPE-224WS models together because it supports 4 SFP slots, gigabit ports and advancement management features. The TPE-224WS is the ideal switch to power the cameras because it has gigabit ports for uplink and a large enough power budget. It also supports advanced managements features at a cost effective price.

The company managed all the cameras on the network using TRENDnet Luxriot VMS Enterprise (unlimited channels) camera management software, version TV-VMS999. All TRENDnet cameras come with complimentary professional grade software and free mobile apps, but for companies running more than 32 cameras or featuring configurations with alternative camera brands installed, the Luxriot VMS Enterprise software provides additional management options.

Finally, the company custom built its own server to fit its unique business requirements using TRENDnet's Camera Helper as reference, available for free at www.trendnet.com.