



*“TRENDnet’s industrial equipment... gave us a **reliable connection we can count on**—even during storms and temperature swings. **Since installing TRENDnet’s industrial networking hardware, we haven’t had any failures. It’s been a dependable long-term solution that fits the unique needs of our camp.**”*

Victoria Tran
Easterseals Delaware & Maryland's Eastern Shore

Challenge

To upgrade a non-profit organization's recreational overnight camp with hardened networking equipment.

Solution

TI-PG541

Industrial Gigabit PoE+ DIN-Rail Switch

TI-MGBS10

Industrial Single Mode Fiber SFP Module

TI-S15052

Industrial DIN-Rail Power Supply

Weatherproof Networking for Critical Camp Infrastructure

Building a Resilient Network for Easterseals Camp Fairlee with TRENDnet Industrial Solutions

Most networking equipment, particularly Ethernet switches and fiber media converters, are designed to be used in climate-controlled environments. As with many electronics, the temperature of networking equipment rises as it is used, so a climate-controlled environment is crucial for ongoing, long-term use. When the temperature changes and other conditions were too extreme for Easterseals Camp Fairlee, a non-profit camp for individuals with disabilities, TRENDnet’s industrial networking solutions featuring hardened components provided the networking solution it required.

The Challenge

Easterseals Delaware & Maryland’s Eastern Shore is a non-profit organization that serves as a vital resource for individuals with disabilities, seniors, their families, and caregivers. It provides safe, enriching, and recreational opportunities, as well as education, outreach, and advocacy. They offer many areas of support, including a recreational overnight camp. At Camp Fairlee, campers experience safe and accessible campgrounds where they are challenged, learn new skills, and make friendships, all while families and caregivers get a much-needed break.

Camp Fairlee recently added a new pool and accompanying pool house. For safety purposes and in case of emergencies, the building is required to connect back to the rest of the camp’s network, while also having a working phone.



Cellular service is especially unreliable around the area. The network rack housed in the pool house’s mechanical room is not temperature controlled. This was a major problem for the previously installed equipment that would not function properly with the extreme temperature and weather changes. In addition to the non-climate-controlled

pool house, the weather around Camp Fairlee is very severe at times, and previous networking equipment has been destroyed by storms and lightning strikes.

The Solution

The previously installed networking equipment was removed from the pool house. It was quickly replaced with TRENDnet's industrial network solutions, including an unmanaged PoE+ switch, power supply, and fiber SFP module. Due to the general location of the camp, and the non-climate-controlled pool house, TRENDnet's industrial networking equipment was selected because they are designed to withstand extreme temperature changes and severe environmental conditions. With proper installation, TRENDnet's industrial networking devices are also capable of withstanding electrical surges.

TRENDnet's TI-PG541 industrial PoE+ switch was connected to a wireless access point and a VoIP phone in the pool house. The industrial switch features a full 120W PoE+ power budget which was an ample amount for the pool house requirements. It features dual redundant power inputs with overload current protection, and an alarm output that is triggered by a primary or redundancy power failure. The grounding point on the switch protects equipment from external power surges.

Camp Fairlee initially only had a copper Ethernet line, but to help with lightning strikes, a fiber connection line was added. With the fiber line, the camp was able to utilize the SFP port of the industrial PoE+ switch with the TI-MGBS10 industrial fiber SFP module. This created a more reliable source of connectivity back to Camp Fairlee's main network. Only one SFP module was needed as the pool house location is at the end of an open loop.

The industrial switch was powered by the TI-S15052 industrial power supply, delivering up to 150W of power, which was more than enough for the pool house's access point and VoIP phone. TRENDnet's industrial power supply also provided additional protection against overload, short circuit, over voltage, over current and over temperature. It also has a built-in active Power Factor Controller to help eliminate unusable reactive power.

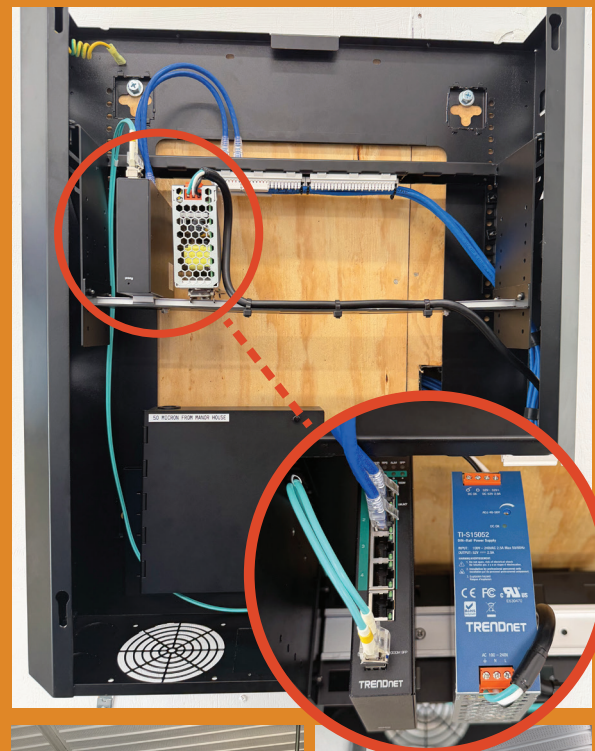
The Result

"Initially, we installed a standard network switch at the pool house; however, due to extreme temperatures, we knew we needed a more rugged solution. TRENDnet's industrial equipment has held up extremely well against the harsh weather and lack of climate control. The new setup, including the industrial PoE+ switch, fiber SFP module, and power supply, gave us a reliable connection we can count on—even during storms and temperature swings.

"Adding a fiber connection helped address the issues we'd had with lightning strikes, and the VoIP phone and wireless access point now work without interruption. Since installing TRENDnet's industrial networking hardware, we haven't had any failures. It's been a dependable long-term solution that fits the unique needs of our camp."

Victoria Tran

Easterseals Delaware & Maryland's Eastern Shore, IT Systems Supervisor



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