



Satellite Communications connects isolated mine sites for improved profitability and safety.

TACHYON UNITS SAVED A COAL COMPANY OVER \$100,000 AND 25,000 FT OF FIBER OPTIC CABLE



A Virginia-based Coal Company (“CC”) faced with a very unique problem providing data connectivity to a location nearly 4 miles underground in a coal mine.

SPECIALIZED NEEDS

CC must provide infrastructure for the miner and equipment tracking. Senior management is not located at any of the actual mine sites, so they must see the pace, process, and effectiveness of the mining process plus monitor safety and security issues using a video conferencing application. The video coming out of the mine locations must be available, reliable, and secure. CC found their current Hughes system didn’t offer the correct hardware for their unique mine environment, it was unreliable, and they couldn’t access all video feeds simultaneously.

POSSIBILITIES

Tachyon carefully evaluated all of CC’s present and future needs. We listened and asked questions. Our experienced RF and networking engineering experts offered an appropriate solution based on CC’s specialized needs. Tachyon offers a complete remote networking solution, not a band-aid or partial approach.

THE LOGISTICS

The CC bore hole extended from the surface into the mine at a location approximately 20,000 feet underground. This bore hole was located in a remote, heavily wooded area with no terrestrial options for communications. The only two solutions possible were a long-range WiFi connection or Satellite Communications. The terrain was not conducive to a reliable WiFi connection, so the Satellite solution was the best choice.

Satellite Communications

COST SAVINGS

Installing 25,000 feet of MSHA-approved fiber optic cable and maintaining it for 3 years would cost \$150,000. The Tachyon Satellite solution was \$50,000 _ an impressive \$100,000 cost savings for the project.

THE SOLUTION

Tachyon will co-locate a customer-owned and operated router at our San Diego facility, and create a VPN tunnel between San Diego and Charleston, WV. This will enable CC to use hardware encryption, increase their throughput over the Tachyon satellite link, and eliminate excess hardware costs.

Testing of the Tachyon system onsite was the worst possible day for satellite communications, with 4-6 inches of snow falling and a heavy cloud cover. The Tachyon system and network performed beyond anything CC anticipated. Tachyon proved it can sustain this critical system for CC. The result is the system is implemented and working great.

TACHYON INFORMATION

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