PenTeleData

THE
Network**Guy**

What's Inside...

I'm I.T.

Fiber Optics: More Than Just Internet Connectivity

Did you know that the fiber optic cables used for Internet connectivity can also be used as sensors? The Fiber Optic Sensing Association is promoting this dual usage. The fiber optic cables can also act as giant sensors with use cases for public utilities, transportation companies, and smart cities.

Distributed Fiber Optic Sensing (DFOS) uses optical fibers to send pulses of light many times per second. When that occurs, DFOS can measure changes in the backscattering of the light when it encounters an unusual vibration, strain, or temperature changes. It creates a long-distancing passive sensor with high spatial resolution that occurs in real-time. Combined with AI, it is possible to detect and classify location and what is occurring based on libraries of information. This information can monitor things such as vehicle movement, digging activity, the health of bridges and railways, liquid and gas leaks, and many other conditions. Utility providers could be notified of an open manhole. Another example could be traffic alerts, especially since there are already many long-haul and middle-mile networks along interstate highways, so the fiber could be used as distributed traffic sensors.

Learn from The Network Guy

What should I know about safety on my smartphone?

The Network Guy:

As always, it's important to use apps that are reputable and reliable. Pay attention to reviews and comments before you download them.

Also, no matter where you are, be aware of the risks posed by public Wi-Fi. Using a public Wi-Fi network could expose data that could make your online accounts vulnerable to identity theft, so avoid accessing your bank accounts or making purchases via public Wi-Fi. If you need to use this, use VPN software to get some protection for the data you send over the unsecured network. If the transaction can wait, it's best to wait until you can use a private network.

The Network Guy Quiz Challenge

PenTeleData is giving one lucky winner a $150 Amazon Gift Card. Just visit **www.ptd.net/quiz-challenge** by **September 30, 2024** to answer the contest question. We will select a winner at random from all correct entries. **Good Luck!**

Click the Quiz Challenge link and see what is NOT true about public Wi-Fi.

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Things That Make You Go Hmmm...

You probably recognize those CAPTCHAs that make you squint to decipher distorted text. They began in 1997 when researchers at Carnegie Mellon University were trying to digitize books but needed human help to solve the problem of distorted text. They created CAPTCHA as a way to utilize human intelligence to tackle the challenge.

QR codes (those funky square patters of black and white squares) began in 1994 when a company called Denso Wave, a Toyota subsidiary, needed to simplify inventory management in the automotive industry. Since then, QR codes have become gateways to websites, digital payments, and information sharing.

The word "technology" is a combination of a Greek word for "art, craft" (techne) and the word for "Word, speech" (logos).

QR codes can be any color, as long as the contrast between the light and dark areas is great enough to detect.

A barcode is a way of storing numbers printed in a way that a computer can easily read. The first barcodes stored the numbers using lines (bars). The first use of barcodes was to label railroad rolling stock.

The first grocery product that used a barcode was a pack of Wrigley's Juicy Fruit Gum sold at Marsh's Supermarket in Troy, Ohio on June 26, 1974.

"Just because someone stumbles and loses their path, doesn't mean they're lost forever."
— Professor X in X-Men: Days of Future Past

PenTeleData is Proud to Serve Bloomsburg, PA

Bloomsburg is a small, historic town located in the center of Columbia County. The town was founded in 1802 by a local settler, Ludwig Eyer. Eyer was confident that the location of a new community at a regional crossroads would guarantee growth and prosperity. After a slow start, the village grew rapidly in the latter half of the 19th century.

A unique feature of Bloomsburg is its designation as the only incorporated "town" in Pennsylvania, officially made so by the State General Assembly in 1870. All other communities in the state are designated as cities, boroughs, or townships. The town is home to just over 14,000 residents, approximately 6,500 of whom are full-time college students at Bloomsburg University. Bloomsburg is also the county seat. A section of downtown Bloomsburg has been named a National Historic District, which ensures the preservation of its fine residential architecture.

The town is also home to the famous Bloomsburg Fair, which celebrates its 169th year in 2024. The Fair is held annually for an entire week starting on the last Saturday of September. It is the largest agricultural fair in the state, and boasts nationally known entertainment, rides, food, exhibits, horse races, auto races, vendors, and more. The Fair prides itself on its educational value for children and adults alike — including agricultural, horticultural, and manufacturing exhibits

The Bloomsburg Fair is a long-standing tradition in our community, so PenTeleData is proud to sponsor and be a part of the event. It's a great opportunity to meet and talk to some of our customers. If you're visiting the fair this year, stop by our vendor booth in the Ag Building to say hello and take a chance at putt-putt golf for some fun prizes.

Source of historical information:
https://itourcolumbiamontour.com/places-to-go/bloomsburg-area/