

PTD CHAT

PENTELEDATA'S CUSTOMER NEWSLETTER

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We are celebrating our 20th Anniversary in 2014!

FUN FACTS

Crayola, LLC.

Crayola has called Lehigh Valley, Pennsylvania, its home since the turn of the century. Today, the company's world headquarters and major manufacturing facilities are located there. Downtown Easton is the home of The Crayola EXPERIENCE®, their interactive brand experience where families can enjoy a day of creative fun and see how the iconic Crayola crayons and markers are made. PenTeleData is also proud to be an active part of the Lehigh Valley community.

Whether it's providing tools to put a purple octopus on the moon, or enabling teachers to bring arts-infused learning into the classroom, Crayola is passionate about helping parents and educators raise creatively alive children who will grow to be inspired, original adults. Crayola has inspired artistic creativity in children for more than 100 years - since the first box of Crayola crayons rolled off the assembly line in 1903. The company began when cousins Edwin Binney and C. Harold Smith took over Edwin's father's pigment business in 1885. Early products included red oxide pigment used as barn paint and carbon black used in car tires. After noticing a need for safe, high quality, affordable wax crayons, in 1903, Crayola produced the first box of eight crayons and sold them for 5 cents. Since then, the Crayola brand has grown into a portfolio of innovative art tools, crafting activities, and creative toys that give kids the power to express all that inspires them as they explore, discover, play, pretend, and dream. In 1984, Crayola became a wholly-owned subsidiary of Hallmark Cards and has since played a significant role in Hallmark's personal development strategies. Until 2007, the company carried the name of its founders, Binney & Smith, but later changed their name to Crayola to reflect their number one brand.

If all of that color, fun and discovery sounds like



a lot, that's because it is. After all, inspiration and creativity should be encouraged at every age. At Crayola, both visitors and employees rely on PenTeleData's services. From dedicated Ethernet services to DOCSIS 3.0 Broadband, it takes quite a few reliable connections to support Crayola's daily operations.

Todd Lichtenwalter, Client Services and Telecommunications Supervisor at Crayola, shared, "We chose PenTeleData because of their vast fiber network in the Lehigh Valley and their competitive prices. Their network has been extremely reliable through the nine years we've been a customer. We are always notified when there are outages or upgrades are being performed. The support staff has been great, from the engineers to customer service. They went above and beyond on helping us open our new Distribution Center on time while dealing with the destruction throughout the area caused by Hurricane Sandy.

"We recently formed a partnership with PenTeleData to provide our 400,000+ yearly patrons with public Internet service."

When asked about what technologies Crayola would be using in the future, Lichtenwalter highlighted speed, especially for customer owned devices, the cloud and web-based applications at the top of his list. At PenTeleData, we pride ourselves on creative solutions to meet the need of any company, with the ongoing promise of reliable service and expansion at a manageable cost.

EVENTS

October 9, 2013

Lehigh Valley Business Expo

10 AM - 4 PM
Agri-Plex Expo Center
Allentown Fairgrounds

October 19, 2013

**Walnutport Canal Association
Creature Feature Night**

Walnutport, PA

October 24, 2013

**Ephrata Area Chamber of
Commerce Expo**

4:30 - 7:30 PM
Ephrata American Legion
Ephrata, PA

October 28, 2013

**Sussex County Chamber of
Commerce Expo**

Crystal Springs Country Club
Sussex, NJ

Letter from our GM

Dear Valued Customer,

I just spoke to our Engineers for an update and they confirmed that IPv6 is coming! You might be asking what IPv6 is, so let's try to explain. Every computer, mobile device, tablet and game console that has access to the Internet has a special address called an IP address. Way back in the day when the fore fathers of the Internet were designing how systems would interact they came up with what is called IPv4. Well, the IPv4 address space was theoretically limited to 4.3 billion addresses. We say "theoretical" because there are some addresses that are reserved (like when you use a Linksys router – they give out private addresses to computers in your home). Well, we've reached the point where we're running out of IPv4 addresses!

The standards bodies that come up with the various technologies on the Internet came together to design a new way of addressing computers – from this we have IPv6. What's the difference you might ask? Remember how IPv4 has a theoretical 4.3 billion addresses? Well, IPv6 has a theoretical limit of 2^{128} addresses, or approximately 3.4×10^{38} , or 340,000,000,000,000,000,000,000,000,000,000,000,000,000,000, or 340 undecillion possible addresses!

PenTeleData being on the cutting edge has begun rolling out IPv6 with our peering providers and will have full IPv6 routing capability within the core network by the end of this year. What does this mean for you, the end user? Not much yet. But, our roadmap has us giving out IPv6 addresses to our customers by the end of 2014. So there's definitely more to come!

Thank you for making PenTeleData your source of fiber. We'll *Chat* again in the new year.

Sincerely,
John H. Williams
General Manager, PenTeleData

HOW CAN YOU STAY CURRENT WITH ONLINE SECURITY TIPS AND WIN GREAT PRIZES AT THE SAME TIME?

AT PENTELEDATA, CUSTOMER EDUCATION IS A TOP PRIORITY.

WE KNOW THAT IF WE CAN HELP KEEP OUR CUSTOMERS SAFE, IT KEEPS OUR NETWORK SAFE TOO!

With copyright infringement and online predators on the rise, we've taken an active stance to educate and protect our customers. Just visit www.ptd.net/securitytips for monthly security tips and a customer contest. After reading the article, scroll to the bottom of the page to answer a few true or false questions. All correct entries are eligible to win the current prize. Be sure to check back every month!

By the way, "Like Us" on Facebook or "Follow Us" on Twitter to stay up to date on important security tips, the latest industry happenings, ticket giveaway announcements, social media exclusive contests and much more. Visit our homepage, www.ptd.net for direct links. (But don't worry if you prefer not to use social media, there are still plenty of contests for everyone!)



THE MAGIC OF FIBER OPTICS

WHAT DO YOU THINK OF WHEN YOU HEAR "FIBER OPTICS"? PERHAPS YOU THINK OF FANCY LIGHTS DISPLAYS OR LIGHT-UP HALLOWEEN COSTUMES. THAT'S NOT SURPRISING, BUT DO YOU ALSO THINK OF YOUR INTERNET SERVICE? AFTER ALL, IT'S THE MAGIC OF THE PULSES OF LIGHT THAT DELIVER BILLIONS OF BITS OF DATA PER SECOND AND MAKE OUR INTERNET CONNECTIONS FAST AND RELIABLE.

Fiber optic cables are much more efficient than their copper predecessors. The cable is made of two separate parts. The main part, the middle, is called the core. This is where tiny particles of light bounce down the glass fibers and bounce repeatedly off an outside layer known as cladding. Cladding is made of a different type of glass than the fibers and keeps the signals inside the core. Technically, the cladding has a higher refractive index than the core. Light travels slower in the cladding and any light that leaks from the core bends back as if it were reflected from a mirror instead of being lost. This is known as internal reflection. When the light reaches its destination, the signal (which has been transmitted as laser pulses for ones and nothing for zero) is received and converted into an electrical format.

Phew! Sounds like a lot of work, doesn't it? Well, it should be. Internet connections are responsible for many important transactions, including the transmission of medical records, completion of ATM and credit card transactions, online research, government communications, and much more. Even wireless towers for cellular service and data require hardware and a network like PenTeleData to operate.

PenTeleData and our partners have built a network that has 9,000+ miles of fiber optic cabling. There can be 288 or more strands of fiber in a single fiber optic cable sheath. A single pair of fiber can be used to transmit 100 Gbps Ethernet. That's quite impressive! In fact, in addition to Internet connections, our fiber provides hundreds of digital TV channels, high definition services with local news & sports programming, Video On Demand (VOD), Digital Video Recorder (DVR), Broadband Internet, and digital telephone.

New research suggests that the particles that make up light, photons, may live for at least 1 quintillion (1 billion multiplied by 1 billion) years. Similarly, we're confident that the value of using fiber optics will live on and expand for many years to come.

To learn more about our fiber optics, check out our latest company TV spot at www.penteledata.net/fiber.

CONTEST

OCTOBER 2013:

PenTeleData is giving one lucky winner a family 4-pack of tubing or skiing passes to their choice of Blue Mountain Ski Area in Palmerton, PA; CamelBack Ski Area in Tannersville, PA; Ski Sawmill in Morris, PA; or Ski Denton in Coudersport, PA.

How to play:

Rack your brain and figure out the answer to the brain teaser below.

Then send us an e-mail with your full name, address, daytime telephone number (where we can contact you), and the answer to the brain teaser below, to chat@corp.ptd.net. All entries must be received by **10/31/13**.

**Good Luck!
PenTeleData**

Brain Teaser:

Although it bends waves of light this mode of data transportation is no optical illusion. What is it?

ATTENTION SMALL BUSINESSES: INCREASE PRODUCTIVITY AND EFFICIENCY WITH UP TO 50 Mbps!

DOCSIS (Data Over Cable Services Interface Specification) refers to an international telecommunications standard that allows greater speeds over existing fiber-coaxial infrastructure.

Well, if you would like speeds that are faster than your existing cable modem, for gaming, music downloads, or business transactions, DOCSIS 3.0 is a good option.

To find out more about the speeds that are available to your home, please contact our cable partner serving your area. For business, call us at 1.800.281.3564 or visit our website at www.penteledata.net/sonic.

 **PenTeleData.**

FUN FACTS

It's been documented that locusts have formed swarms measuring up to one mile wide, 100 feet deep, and 50 miles long. They may travel more than 2,000 miles. A swarm this enormous has been known to contain as many as 40 billion locusts.

Disney World in Orlando, Florida covers 30,500 acres (46 square miles), making it twice the size of the island of Manhattan, New York.

The giant squid is the largest creature without a backbone. It weighs up to 2.5 tons and grows up to 55 feet long. Each eye is a foot or more in diameter.

On a bingo card of 90 numbers, there are approximately 44 million ways to make B-I-N-G-O.

The bumblebee does not die when it stings – it can sting again and again. In bumblebee hives, the entire colony, except for the queen, dies at the end of each summer. Each year, an entirely new colony of bees must be produced.

The total water content of the oceans on Earth would take one million years to be cycled through the atmosphere as part of the water cycle.

Water from the north Pacific can be carried by deep ocean currents right around Africa and into the North Atlantic.

The crocodile does not chew its food, but swallows it whole. It carries several pounds of small stones in its stomach to aid in grinding up and digesting its nourishment.

To keep bugs out of flour, it is recommended to place a couple of bay leaves in the container.

JULY 2013 CONTEST WINNER!

**Congratulations to Denise Horn of Effort, Pa.
Denise was the winner of a \$100 Amazon Gift Card.**

QUESTION: If the wind blows only from the north, where must I be on planet earth?
Answer: South Pole

WHY IS THE NUMBER 20 SO IMPORTANT TO US AT PENTELEDATA?

HERE ARE SOME GOOD GUESSES:

- > The number 20 is the number located between 19 and 21.
- > Twenty-twenty vision is perfect eyesight, proved by reading letters on a chart from 20 feet.
- > The number 20 written as a product of prime factor is $2 \times 2 \times 5$.
- > At age 20 a person is no longer a teenager.
- > Twenty is a village in Lincolnshire.
- > The Roman numeral for twenty is XX.
- > 20 doubled is 40 and half of 20 is ten.
- > The number 20 may also be referred to as a score.
- > 20 is the number of quarter or half turns required to optimally solve a Rubik's Cube in the worst case scenario.
- > 20% as a decimal is 0.2 and $1/5$ as a fraction.
- > When someone is able to see only after an event how things turned out, that person is often said to have had "20/20 hindsight".
- > 20 can be written as the sum of 2 positive square numbers 4 and 16 (since $4+16=20$).
- > The letter T is the 20th letter in the ISO basic Latin alphabet.
- > Twenty-dollar bills have an average life span of slightly over two years.

**BUT, THE REAL REASON IS THAT WE'LL BE CELEBRATING
OUR 20TH ANNIVERSARY IN 2014!**

**WATCH FOR SPECIAL CONTESTS, SPECIAL NEWSLETTER EDITIONS, AND OTHER
EXCITING EVENTS TO HELP US MARK THE MEMORABLE OCCASION!**