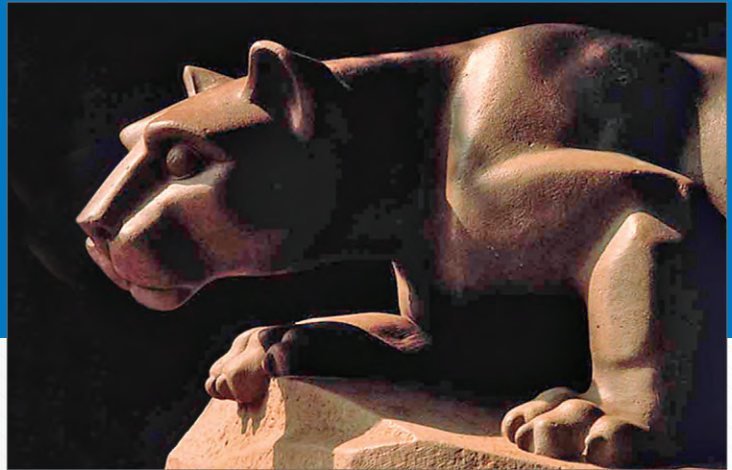


Pennsylvania State University Pond Laboratory

**NextLAN 6eX Copper Cabling System
Chosen for Infrastructure Upgrade**

NextLAN[®]
LEVITON[®] SUPERIOR ESSEX[®]



Founded in 1855 as an agricultural college, Pennsylvania State University admitted its first class in 1859. Poised to celebrate its sesquicentennial, today over 41,000 students pass through the halls at the main campus located in University Park. This expansive campus includes over 770 buildings spread amongst nearly 6,500 acres.

performance without compromise

Penn State continues to invest substantially in the campus network to keep ahead of the data demands of its faculty and student body. Recently, an upgrade of the horizontal cabling infrastructure for Pond Laboratory was completed. Built in 1918, today Pond Laboratory houses the College of Liberal Arts and Technology Classrooms. Installing the NextLAN solution comprised of Superior Essex and Leviton copper components ensures that Pond Laboratory is well positioned for both today's and tomorrow's technologies.

DESIGNING AND INSTALLING

Penn State's Information Technology Services specifies and oversees the campus cabling. Designing the communications infrastructure for numerous buildings, each with a unique construction and its own set of cabling requirements, requires a highly skilled staff. Ronald P Dodson, Jr., Director of Special Projects explains, "Recognizing that technology is an integral tool in assisting students, faculty, and staff in their learning, teaching, and research programs, Penn State continues to invest in the professional development of our team."

While Information Technology Services specifies and designs the networking systems, the installation and maintenance of the system is left to a pre-qualified select group of contractors. For this project, contractors were selected that were NextLAN certified, a designation that is earned after completing a rigorous training program that has been designed and continuously refined by RCDD experts over the past eight years. Every permanent link in the system for all NextLAN projects is thoroughly tested and documented by the certified installer, who submits all cable test result data to both the customer and the NextLAN team.

Using a certified installer also allows Penn State to take advantage of the comprehensive and unique NextLAN warranty. NextLAN systems are backed by a lifetime performance, applications, product, and labor warranty on certified horizontal and backbone systems. By installing a qualified NextLAN cabling system, Penn State automatically qualified to receive the full benefits of the NextLAN Campus Warranty, which includes a 20-year warranty on all Superior Essex outside plant cabling (both copper and fiber) and a 20-year warranty on all Superior Essex voice-grade inside cabling that will be installed as part of the overall upgrade.



All NextLAN components are fine-tuned to guarantee electrical performance that exceeds industry standards.

With a guaranteed 12 dB PS ACR headroom and a warranty that ensures installed performance will exceed industry specifications for all parameters swept out to 350 MHz, the NextLAN 6eX cabling solution is designed to support the exponential rise in data and video throughput that Penn State University expects.

George J. Hayden, Inc. installed the communications infrastructure upgrade at Pond Laboratory. With humble roots dating back to 1975, Hayden Inc. is currently a leader in the industry when it comes to electrical construction, telecommunications installation, and computer networking. Hayden Communications engages in a wide array of telecommunications cabling, specializing in data, voice and video cabling infrastructures using copper, coaxial, and optical fiber media. Hayden offers a full line of communication services including design, installation, testing, certification, and service contracts.

Cabling pathways and spaces are limited for older buildings like Pond Laboratory. Hayden installed a vertical closet system and cable trays to accommodate the new cabling. The result was magnificent. George F. Hayden, Hayden Communications Operations Manager, stated "Our crew deserves the credit; it is not often that you see such craftsmanship. All aspects of the installation were immaculate."

THE HORIZONTAL

Pond Laboratory represents Information Technology Services new horizontal cabling infrastructure standard for all upgrades. Category 6 is now the Penn State standard to handle the high capacity data and video applications associated with the demands at an institution of higher learning.

After evaluating many cabling systems George F. Hayden recommended the NextLAN cabling system as the solution for the building. Hayden stated "With a guaranteed 12 dB PS ACR headroom and a warranty that ensures installed performance will exceed industry specifications for all parameters swept out to 350 MHz,

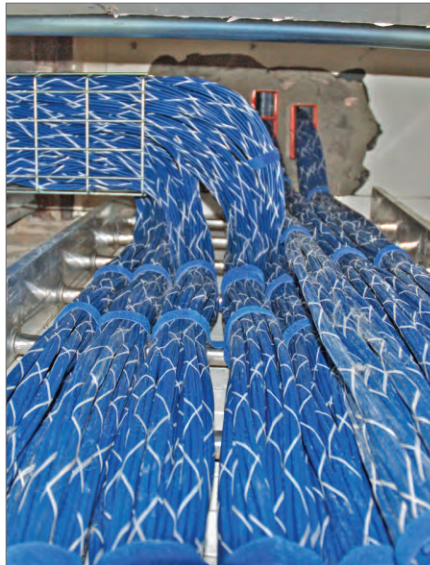
the NextLAN 6eX cabling solution is designed to support the exponential rise in data and video throughput that Penn State expects.”

In an effort to reduce the number of cable pulls and simplify cable management, Penn State encouraged Hayden Communications to install a customized bundled cable for the application. Each work area includes four active Category 6 outlet locations so Superior Essex wrapped four (4) Category 6+ NextGain® components together using a contra-helically wrapped technique. The criss-cross method is superior to a single binder construction in that the two binders ensure that individual components will not knuckle during installation. The binder configuration allows easy breakout and offers superior flexibility to a composite overjacket design. Hayden Communications installed more than 40,000 linear feet of the bundled product in Pond Laboratory, and realized a 20% savings in time as a result of the bundled construction.

At nearly 1,200 work outlets, Superior Essex NextGain cable is connected to Leviton eXtreme 6+ patch panels and connectors, which employ patented Retention Force Technology™ for the protection of the insertion of non-RJ-45 style plugs. The robust copper infrastructure, with an emphasis on uniformity, gives Penn State tremendous flexibility in supporting technologies such as Gigabit Ethernet, Power over Ethernet (PoE), and Voice over Internet Protocol (VoIP). Pond Laboratory, as well as all future infrastructure upgrades, utilizes the local area network for all voice communication, better known as VoIP. Power over Ethernet (PoE) has also been mass deployed to power the VoIP telephones and wireless access points.

FOR MORE INFORMATION

For more information on the NextLAN difference, including the unique comprehensive Campus Warranty, please visit our website at NextLANsystems.com.



Cabling pathways and spaces are limited for older buildings like Pond Laboratory. A vertical closet system was installed to accommodate the cabling.

NextLAN breaks the paradigm of empty promises by providing clear and comprehensive guarantees, so you can make a truly informed decision about your cabling system.

PERFORMANCE

The NextLAN suite of cabling systems is comprised of high-bandwidth solutions that are:

- » Guaranteed to exceed TIA/EIA industry frequency and performance specifications
- » Guaranteed to meet IEEE 802.3ab Bit Error Rate requirements
- » Guaranteed to support current and future applications designed for Category 5e, Category 6 and optical fiber systems

CONFORMANCE

While single test reports may illustrate great margin over the specification, they do not guarantee repeatable performance. Only NextLAN offers copper solutions that are independently verified by Underwriters Laboratories (UL) to meet the specifications guaranteed by each NextLAN system. This program includes:

- » All copper NextLAN systems are verified quarterly
- » UL test reports are available for customer viewing
- » All products used for testing are randomly acquired by UL through distribution

ASSURANCE

NextLAN system performance guarantees are backed by a lifetime warranty on certified horizontal and backbone systems. Furthermore, installed verification of permanent link performance provides automatic full channel warranty when Leviton patch cords are used.

By installing a qualified NextLAN cabling system, a project is automatically qualified to receive the full benefits of the Superior Essex Campus Warranty, which includes:

- » 20-year warranty on all Superior Essex outside plant cabling (both copper and fiber)
- » 20-year warranty on all Superior Essex voice-grade inside cabling

NextLAN[®]
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HIGH PERFORMANCE CABLING SYSTEMS



Superior Essex is one of the largest manufacturers of communications cable products in the world, and a market leader in datacom copper and optical fiber cables. With more than 50 years of experience in telecommunications cable design and production, Superior Essex Communications has built a reputation for delivering products that lead the market in terms of technology and quality. From Outside Plant (OSP) to in-building LANs, Superior Essex cables carry the voice and data traffic for the largest telecommunications service providers in the world as well as many of the leading enterprises throughout North America. Visit SuperiorEssex.com/Comm to learn more.

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Leviton Network Solutions is part of Leviton Manufacturing, Inc., a 100-year-old company offering more than 25,000 products and devices for homes, businesses and industries. Today, the division is dedicated to producing network infrastructure systems for the enterprise, data center, government, health care, education, and residential markets. Copper, fiber and power solutions include structured cabling systems, enclosures, PDUs and much more. All Leviton products are engineered to exacting standards and offer guaranteed performance. For more information, visit Leviton.com.

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