

Phoenix, Arizona GSA Building
Nextlan Premium Copper And Fiber Cabling System
Chosen For Extensive Infrastructure Upgrade

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

The GSA logo is displayed in white on a dark blue square background. It consists of the letters 'G', 'S', and 'A' in a bold, sans-serif font. The letter 'A' is stylized with a white five-pointed star inside its upper right section.

The United States General Services Administration (GSA) is the landlord for the federal government. One of many functions the GSA performs is repairing and refurbishing existing facilities. Recently an extensive renovation, including an upgrade to the communications infrastructure, to the interior of the United States Courthouse Federal Building in Phoenix was completed.

performance without compromise

The United States Bankruptcy Court is the major occupant while various other executive agencies call this building home. By standardizing on the NextLAN solution comprised of Superior Essex and Leviton copper and fiber optic components, this GSA building is well positioned for both today's and tomorrow's technologies. The robust copper and optical fiber infrastructure supports Gigabit and 10 Gigabit Ethernet, Power over Ethernet (PoE), and Voice over Internet Protocol (VoIP).

EVALUATING, CHOOSING AND DESIGNING

The electronic nature of today's government demands a reliable network capable of supporting diverse and demanding traffic with maximum uptime. For this project, two separate groups were responsible for the stringent passive cabling system specifications specific for each groups requirements which essentially created two distinct projects for the installation.

With product offerings that address the entire scope of this installation, the NextLAN system offers a warranty on the premises and backbone products which is a superior added value for the Customer.

Understanding the end-user had varying needs and requirements, J. Scott Tubbs, Vice President of Corporate Technology Solutions, recommended the NextLAN solution to Karl Ozols, Assistant Director of Automation and Technology for The United States Bankruptcy Court. Mr. Tubbs stated "The complete renovation of the facility meant

that all horizontal and backbone cabling would be replaced." Mr. Tubbs continued "With product offerings that address the entire scope of this installation, the NextLAN system offers a warranty on the premises and backbone products which is a superior added value for the Customer." By installing a qualified NextLAN cabling system, this GSA building automatically qualifies 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.

After evaluating many cabling systems, Mr. Ozols deemed the NextLAN solution the highest value proposition. Mr. Ozols stated "NextLAN was chosen because of overall system performance. While most every cabling solution commercially available today, including more expensive

options, offers some type of performance guarantee, NextLAN is unique in that system performance is verified quarterly by Underwriters Laboratories (UL) to meet the NextLAN published specifications."

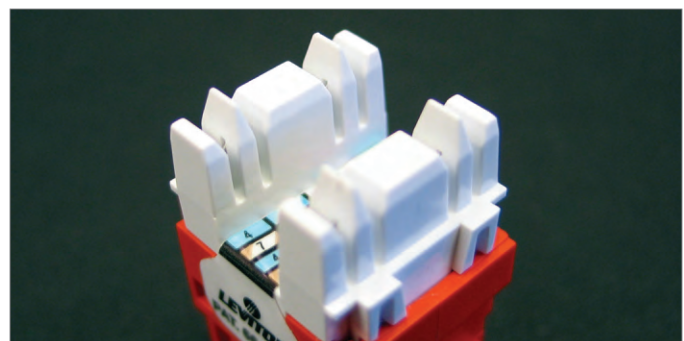
THE INSTALLATION

The installation included the typical challenges associated with the complete renovation of an older building with the additional requirement of creating and securing two distinct physical layers that occupy separate pathways and spaces. Because telecommunications rooms (TRs) were offset, these alternative cable pathways and spaces had to be devised without compromising the architectural structure of the building. Challenges such as these demanded that an experienced contractor who has the experience necessary for a job of this magnitude be chosen for the installation of the communications infrastructure.

LAFFERTY ELECTRIC, INC.

Lafferty Electric & Associates was chosen as the low voltage contractor for this project. Lafferty provides three generations of commercial and industrial electrical contracting expertise. Approaching their 22nd year as one of the state's largest electrical firms, Lafferty chooses projects based on relationships and integrity.

Known for this reputation of integrity and commitment in the Phoenix business community, understandably Lafferty has set high standards for services and products for all projects. After reviewing many candidates, Lafferty chose Corporate Technology Solutions to complete the structured cabling portion of the installation. Kaliska Day, Project Engineer at Lafferty, explains "Not only was this the largest Category 6 installation in Phoenix at the time, but the scope of work was very challenging so we needed a team equipped to tackle the installation. With their impressive client list and experience, CTS demonstrated that they were more than qualified for this project."



Pair separation towers allow easy separation of wires while maintaining the design integrity of the cable.

CORPORATE TECHNOLOGY SOLUTIONS

CTS, a Tempe, AZ based NextLAN Certified Contractor, provides full turnkey solutions for data, voice, and video cabling infrastructures. Meeting diverse requirements, CTS provides expert design, engineering, consulting, project management, and installation/maintenance for the entire copper, fiber optic, CCTV, and security system.

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NextLAN installers receive certification after completing a rigorous training program that has been designed and continuously refined by RCDD experts over the past eight years. As is the case with all projects, every permanent link in the system is thoroughly tested and documented by the certified installer, who submits all cable test result data to both the customer and the NextLAN team. Because of the contractor’s certified designation, the client is assured that the technicians are installing fiber optic and copper cabling in accordance with proper industry practices.

THE HORIZONTAL

Multiple tenants, each with different communications needs, can present installation and administration challenges. For the horizontal cabling infrastructure, Mr. Ozols selected the NextLAN 6eX solution consisting of Superior Essex NextGain® and Leviton eXtreme® 6+ connectivity. The other agencies, under the direction of the Federal Technology Services, chose the NextLAN 5e+ solution comprised of Superior Essex Cobra Category 5e cable and Leviton’s GigaMax® 5e+ connectivity for the balance of the installation. In both cases, headroom is guaranteed by warranting that installed performance of the cabling system will exceed TIA/EIA 568-B specifications for all parameters. All NextLAN copper solutions are independently verified by Underwriters Laboratories (UL) to meet the specifications guaranteed by each NextLAN system. Under this program, three copper NextLAN systems are verified quarterly and all components are used for testing are randomly acquired by UL from normal distribution channels.

Overall, nearly 500,000 feet of Superior Essex copper cable is connected to 4,200 Leviton ports. Although different performance levels of copper cabling were installed, multiple cables were run to each work area allowing maximum flexibility for the future and the capability today to deploy emerging applications. Midway through the project, the decision was made to shelve the traditional PBX and instead voice communication will operate over the local area network, better known as VoIP. Power over Ethernet (PoE) has also been mass deployed to power the VoIP telephones.

THE BACKBONE

Nearly 30 telecommunications rooms (TRs) connect the backbone and horizontal distribution systems via highperformance fiber optic cables. Superior Essex TeraGain® 10G/300 meter laser optimized 50µ multimode fiber connect to Leviton’s Opt-X™ SC connectors serves as the backbone fiber to not only support today’s needs, but this highperforming fiber optic cabling also positions the Courthouse to take advantage of future technology offerings. Redundant multimode links are also connected to the backbone allowing not only a backup pathway during an outage, but also sufficient capabilities for future expansion and technological advances.

Initially, 5,000 pairs of copper were installed to distribute the voice over the backbone; however, many of these pairs are not being utilized because of the decision to implement VoIP.

THE WARRANTY

To complement its breadth of products, NextLAN warranted all horizontal, inside and outside backbone cable products via the unique Campus Warranty Program. NextLAN offers a lifetime warranty for labor, products, performance, and applications for the structured cabling system. All NextLAN installation are automatically eligible for the Campus Warranty which means all Superior Essex fiber optic and copper backbone cables, including outside plant, are warranted for 20 years.

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

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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