



## CASE STUDY



The Building Industry Consulting Service International (BICSI) is a professional association that supports the advancement of the information and communications technology (ICT) community. It provides education and training, hosts conferences and events, maintains credentialing and certification processes and shares best practices and reference materials with its members in over 100 countries. And when they wanted to update the technology inside their world headquarters, BICSI turned to Superior Essex Communications for its futureproof cabling solutions.



### A WORLD HEADQUARTERS FIT FOR AN INDUSTRY LEADER

Since 1984, BICSI has been the trusted source of international certification for cable installers and designers who specialize in complex voice and data cable layouts.

Recently, BICSI launched its “Project Refresh” — a complete update and remodel of its 35,000 sq. ft. world headquarters in Tampa, Florida — to keep pace with changes in the industry and to futureproof its infrastructure. The association’s goal was to offer enhanced classroom spaces to ensure that their educational learning opportunities remained on par with the industry’s latest technologies and advancements while also furthering the role of sustainability and transparency in material sourcing.

Thus, Project Refresh involved technological and configuration enhancements to the interior workspaces, the BICSI Learning Academy and a showcase telecom room to optimize the building performance and to create a Sustainable Intelligent Building that is both modern and collaborative for years to come. As a result, in less than a year and under a rather tight budget, the headquarters, initially built in 1997, underwent substantial interior workspace modernization, coupled with state-of-the-art ICT upgrades, to ensure first-class technology integration.

Noting Superior Essex Communications as a leader in the Sustainable Intelligent Building arena, BICSI collaborated with them to provide cabling solutions that fit the needs of both the project in specific and the organization in general. With support and recommendations from the Superior Essex Communications team, BICSI selected Cat-6a for networking and Wi-Fi, Cat-6a Shielded for HDBASE-T, 1G PowerWise® for PoE lighting and other applications, as well as premises fiber for networking capabilities. Overall, they chose to install these cable products as part of their building update for two key reasons — greater power efficiency and limited environmental impact during the manufacturing process. Many of the enhancements made to the headquarters contributed to a more sustainable and eco-friendly facility through the conservation of thermal and electrical energy.

As a result of this change in cabling throughout their refreshed world headquarters, BICSI has been able to collect vital building analytics — including usage data on room occupancy and vacancy, motion, temperature and humidity — using its PoE systems. They then put this data to use to help them maintain a healthy building environment by employing sustainable techniques such as carbon footprint reduction and daylight harvesting.

## A CABLE TO CONNECT IT ALL

BICSI's vision for their updated headquarters was to create a Sustainable Intelligent Building complete with an improved technology infrastructure and complex systems throughout the building. These included a distributed antenna system (DAS), upgraded Power-over-Ethernet (PoE) CCTV security and access control systems and fiber cabling enhancements to improve wide area network (WAN) reliability. The team then wanted to pair those applications with advanced sound masking and paging, fully-integrated 4K input/output design, wireless microphone and array microphone technology and PoE-powered light-emitting diode (LED) lighting systems.

To accomplish this, according to BICSI Project Refresh Lead and Chief ICT Designer Ed Donelan, the design and deployment of the digital ceiling at the BICSI world headquarters required a robust cable that also offered a limited environmental impact during its manufacturing process. And the PowerWise cable provided by Superior Essex Communications - which offers 60 watts of power with 1 gig of data throughput, all at 97% efficiency - was the perfect solution.

Seeing this, Donelan noted that Superior Essex Communications offered everything required for a successful building refresh, saying, "Superior Essex is a value-added, respected contributor that is a leader in the industry with state-of-the-art ICT products."

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// Ed Donelan, Project Refresh Lead and Chief ICT Designer, BICSI

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**97%**

POWERWISE® 1 GB 4PPOE  
OPERATES AT 97% EFFICIENCY

**55,000 FT**

OF CAT-6A CABLE POWERS  
THE BUILDING'S NETWORKING  
AND WIFI CONNECTIVITY

**110,000 FT**

OF POWERWISE® 1G CABLE  
CONNECTS THE POE LIGHTING



With the help of a fitting, sustainable cable solution from Superior Essex Communications, BICSI's Project Refresh has empowered the association with a state-of-the-art Learning Academy that enables group instruction in a future-proofed environment.

**15%**

UP TO A 15% REDUCTION IN AC-TO-DC CONVERSION POWER LOSS, COURTESY OF POE SYSTEMS

**7%**

INCREASE IN ASSET VALUE FOR GREEN BUILDINGS OVER TRADITIONAL BUILDINGS

**50%**

UP TO 50% ENERGY SAVINGS IN SUSTAINABLE INTELLIGENT BUILDINGS WITH INTEGRATED SYSTEMS OVER EXISTING, INEFFICIENT BUILDINGS

## THE RIGHT PARTNER FOR A SUSTAINABLE FUTURE

In addition to the overall optimization of its building, BICSI wanted to focus on enhancements that would contribute to creating a more sustainable facility. Their desire to pay particular attention to occupant well-being was yet another reason why they selected specific grades of Superior Essex Communications cable products.

As the only cable manufacturer to offer third-party verified Environmental Product Declaration (EPD) and Health Product Declaration (HPD) documentation, as well as the sole manufacturer with Declare Labels and Living Product Challenge certifications, Superior Essex Communications is an industry leader in the sustainability world.

In specific, the PowerWise 1 Gigabit 4PPoE cable installed for this project is uniquely designed to support a variety of PoE applications, including security, lighting, climate control and Wi-Fi. In addition, the cable is manufactured in a Zero Waste to Landfill facility, which helps to ensure that the network applications at BICSI would have limited environmental impact over the course of its life cycle.

Furthermore, the cable, a PoE solution, helps create and connect a Sustainable Intelligent Building, one that networks with various systems in the building to produce an environment that improves the mood and well-being of those occupying the space, increasing alertness and promoting productivity. It accomplishes this by maintaining lighting and air temperature at optimal levels to support occupant comfort and productivity, all while simultaneously improving the building's overall efficiency and reducing energy costs.



Project Refresh used more than 165,000 feet of multiple Superior Essex Communications cables to modernize BICSI's world headquarters.

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“BICSI plays such a vital role in setting the standards and best practices for cabling infrastructure designers and installers around the globe that for us to not be involved would have been disrespectful in many ways to such a great organization.”

// Brian Ensign, Vice President of Marketing and Demand Creation, Superior Essex Communications; past BICSI President

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## A BETTER AND BOLDER BICSI

To fully realize their Project Refresh plans for their world headquarters, BICSI collaborated with a partner that could readily provide effective and efficient communications, product availability and timely delivery of said product to meet the fast-paced demands of this project. And with over 80 years in the cabling industry, Superior Essex Communications was able to meet and exceed all of BICSI's needs and expectations as a proud partner in Project Refresh.

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“It has been a great pleasure to work with Superior Essex Communications on the successful expansion of the BICSI Learning Academy and the update to our world headquarters in Tampa, Florida.”

// John D. Clark, CAE, Executive Director & Chief Executive Officer, BICSI

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As a result of their collaboration, the new BICSI Learning Academy now includes a large, contemporary student lounge, a kitchen, a media area and an open view of a modern equipment room. Additionally, the staff areas throughout the rest of the BICSI world headquarters all received upgrades and improvements during the complete remodeling project, thereby creating bright, open and collaborative workspaces with modern efficiencies.

Altogether, these Sustainable Intelligent Building enhancements, all connected by sustainable cable from Superior Essex Communications, help to foster an environment where the members of the association can come together to create a better and bolder BICSI — one ready to take on all the ICT industry demands of the future. //



With a revamped lounge, kitchen and media room featuring a view of the newly updated equipment room, BICSI staff and association members alike can now collaborate to further advance the ICT community and industry.