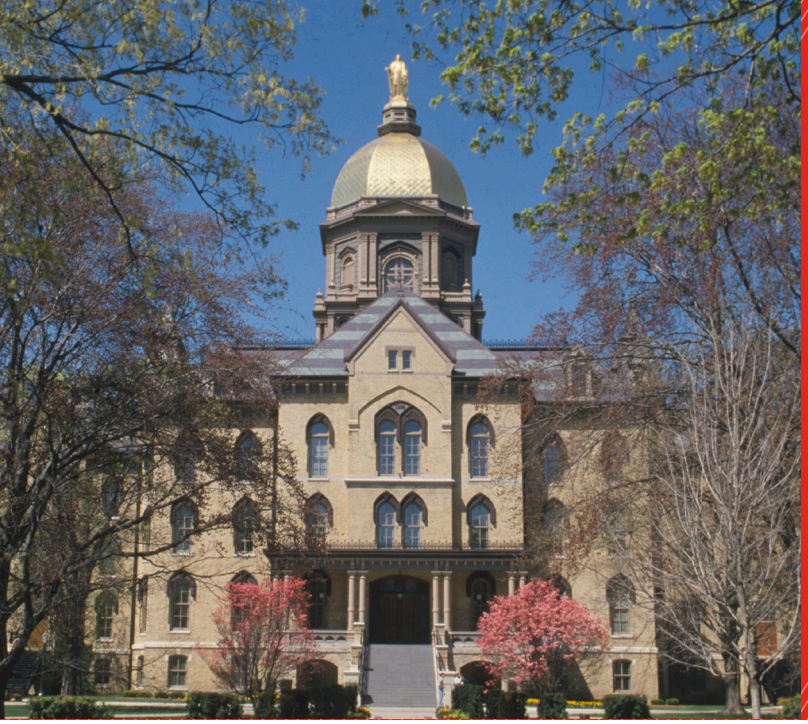


SUPERIOR ESSEX

CASE STUDY

Well regarded for its academic excellence, the University of Notre Dame offers four undergraduate colleges, ten major research institutions, more than 40 centers and special programs and the University Library system. Located in Notre Dame, Indiana, the beautiful, 1,250-acre campus comprises roughly 12,000 students and 136 buildings, all of which now rely on durable, flexible fiber optic cabling from Superior Essex to elevate their networking capabilities.

UNIVERSITY OF NOTRE DAME

BUILDING THE BACKBONE OF A STURDY FUTURE

In addition to maintaining its long-standing traditions, Notre Dame continues to invest substantially in the campus, local area network (LAN) to keep ahead of the data demands of its faculty and student body. One recent area of technical improvement was the upgrade of the campus, fiber optic cabling infrastructure. The Notre Dame Office of Information Technologies (OIT) selected the Superior Essex line of riser-rated indoor/outdoor tight buffer fiber optic cables for the backbone portion of the network.

With decades of experience in advancing Notre Dame's networking technology, the five-person OIT wiring team handles 95% of the design, installation and service of the campus cabling network. Dr. Dewitt Latimer, Chief Technology Officer and deputy Chief Information Officer of Notre Dame, stated, "Technology is an integral part in our goal efforts to assist students, faculty and staff in their learning, teaching and research programs. Notre Dame invests heavily in the professional development of its information technologies staff across the board."

OIT's Network Design Engineer, Eric S. Mauch, acknowledged product breadth and technical assistance as the reasons for choosing Superior Essex cabling solutions.

"Not only is the Superior Essex fiber optic cabling product line as complete as any that I have found in the industry, but what really set Superior Essex apart was their attention to technical service for the customer. I received total team support from the local sales representative and the Superior Essex technical support and applications engineering team at its headquarters in Atlanta."

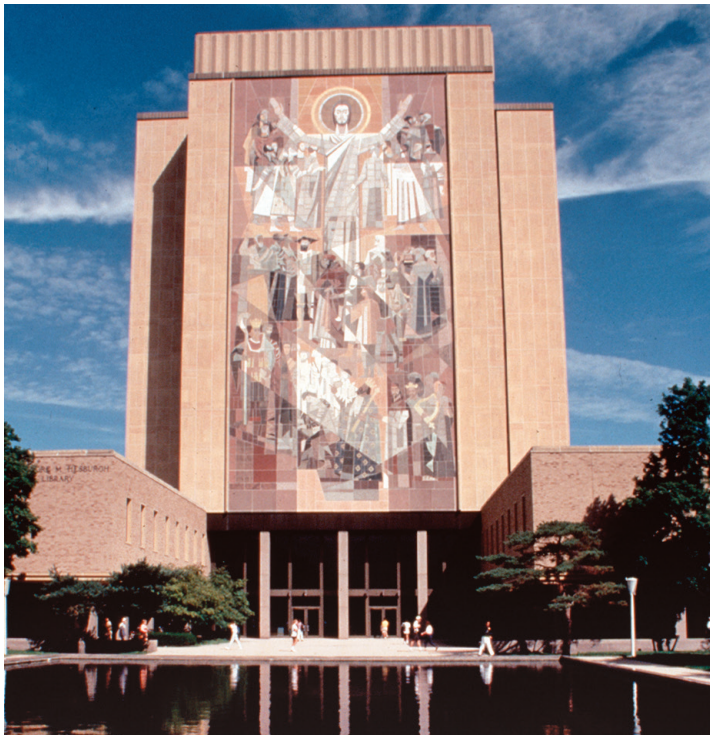
// Eric S. Mauch, Network Design Engineer, University of Notre Dame

Notre Dame Stadium, with a seating capacity of over 77,500, now has the networking capabilities to keep every game attendee connected.

THE INSTALLATION

By nature, universities require many types of telecommunications services because of their varied layouts and applications. Notre Dame's backbone cabling infrastructure must be specialized enough to handle the unique demands of each department or facility while the distribution system must also have the flexibility to address future technologies and growth.

The backbone system at Notre Dame is a physical star wiring topology. The main cross-connect, located in the basement of Hesburgh Library, utilizes high-performance fiber optic cables to connect seven intermediate cross-connects strategically located in outlying buildings. This past summer, the OIT team installed the largest concentration of single-mode fiber optic cable on campus, selecting several Superior Essex fiber optic cables to accommodate both future technologies and campus expansion. A 4,500 foot run of a 96-strand single-mode fiber optic cable and a 4,500 foot length of a hybrid, 24-strand single-mode/12-strand multi-mode, fiber optic cable were installed from Hesburgh Library to the cross-connect located in the brand new Marie P. DeBartolo Center for the Performing Arts.



The Notre Dame Hesburgh Library houses over 3.4 million volumes and the main cross-connect for the campus' advanced fiber optic network.

Mauch feels the tight buffered configuration offers advantages over more traditional loose tube designs, stating, "Because of some tight bends in our underground pathways, we require the flexibility that a tight buffered product offers. Second, the 900 micron tight buffered fibers eliminate the need for breakout kits or other special termination equipment which saves us time and money."

Time is especially valuable given that day-to-day issues still demand attention even when projects that require the installation of cable are taking place.

> "The riser flammability rating of this product's indoor/outdoor construction means that the cable can run directly from our underground pathway to the cross-connect in the respective building. This eliminates the need to purchase separate cables for indoor and outdoor use."
>
> // Eric S. Mauch, Network Design Engineer , University of Notre Dame

The hybrid cable was installed primarily to serve the DeBartolo Center. The multi-mode fiber serves as the backbone cabling to support today's technologies while the single-mode fiber positions Notre Dame to take advantage of future technology offerings.

The expanded fiber system will help support the joint Indiana University/Notre Dame medical education and research facility. Additionally, in an initiative to upgrade the Internet and Internet2 services and bandwidth, the 96-strand fiber will link with incoming fiber from the cities of South Bend and Chicago. Internet2 is a consortium being led by 202 universities working in partnership with industry and government to develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's Internet.

As a university that is recognized for both its academic and athletic excellence, Notre Dame has lived up to its reputation with the advancements made recently to its fiber cable network. The selection of Superior Essex indoor/outdoor fiber cable was an investment that will support both current needs and future growth of the campus. //

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