LEVITON®

Johnson C. Smith University Opts For 100% Fiber Utilization

For nearly a century, Johnson C. Smith University (JCSU) has provided outstanding education for a diverse group of talented and highly motivated students from various ethnic, socioeconomic, and geographic backgrounds. A private liberal arts university with proud Historically Black College and University (HBCU) traditions, JCSU continues to improve campus facilitates to advance student opportunities and create a foundation for continued success. “One of our key campaign objectives is to provide a vibrant campus experience to our more than 1,600 students and 7,000 alumni,” said Dr. Ronald L. Carter, president of Johnson C. Smith University.

In 2015, JCSU completed construction of its new Science Center. This four-story, 62,000 square-foot academic facility is dedicated to helping students prepare for careers in the competitive global marketplace in science, technology, engineering, and mathematics (STEM).

At a Glance

Profile:	In 2015, JCSU completed construction of a New Science Center dedicated to helping students prepare for careers in the competitive global marketplace in science, technology, engineering, and mathematics (STEM).
Industry:	Higher Education
Location:	United States
Business Problem:	JCSU needed a flexible, custom solution that would maximize fiber utilization and provide high-speed 10G performance.
Solution:	Leviton Opt-X® Unity System

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The new Science Center is a reflection of JCSU's commitment to preparing students for STEM-related fields, and the facility houses four newly created education centers, including the Center for Renewable Energy, the Center for Medical Informatics, the Center for Analytics, and the Center for Bioinformatics. Students will also benefit from state-of-the-art auditoriums and lecture halls, as well as cutting-edge energy labs and workstations.

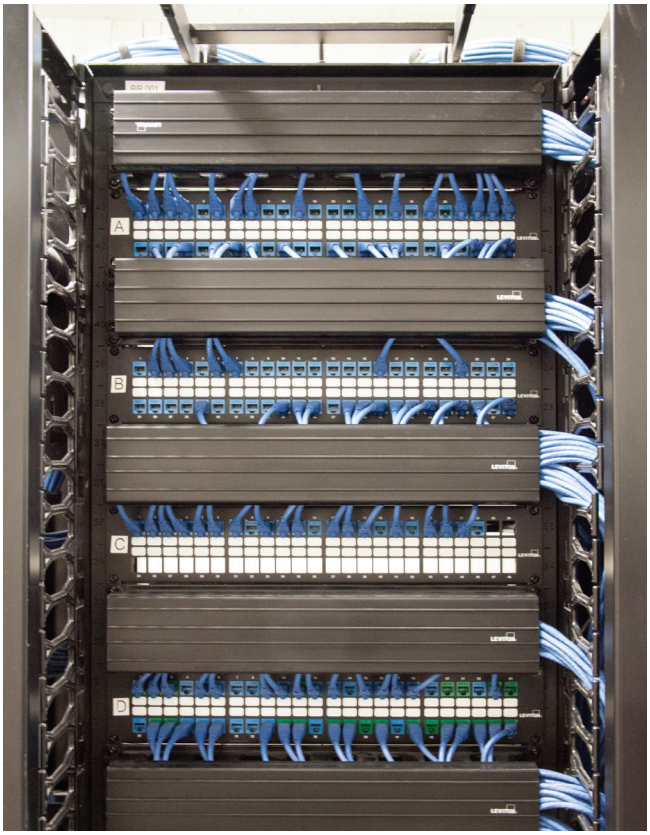
"The network in our previous STEM building was not meeting the school's needs," said John Norris, IT director at JCSU. "We needed to bridge the gap for what was missing in higher education." To achieve this goal, JCSU turned to Leviton for its network connectivity needs.

Making the Switch to Leviton

JCSU originally selected a non-Leviton connectivity system to support the new Science Center. However, once they became aware of the flexibility and customization offered by Leviton, the project was re-specified to exclusively include Leviton connectivity. "Competitor products couldn't match the design flexibility Leviton offered," said Norris, "and Leviton was able to create custom solutions to meet our specific network requirements."

> *"Competitor products couldn't match the design flexibility Leviton offered."*

The infrastructure for the new Science Center was designed by Vertex Technology Consultants, Inc., a low-voltage data, telecom, security, and audio video network design firm that has worked with JCSU for more than 15 years. "When JCSU told us they wanted to install Leviton products in the new Science Center, I was eager to assess Leviton's capabilities," said Rick Sousa, president of Vertex Technology Consultants, Inc. "After careful evaluation, we determined Leviton products aligned well with the established specifications and were happy to include them."



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By deploying the Leviton Opt-X® Unity 24-fiber MTP® system, JCSU can now split pairs to utilize 100% of the fiber in the network. Using pre-terminated cable and custom cassettes allowed the university to breakout 8 fibers for 40G between switches and 16 fibers for eight 10G links with cassettes, eliminating dark fiber, reducing costs, and maximizing space usage.

JCSU had installed a fixed-shelf fiber enclosure, but issues with accessibility led the university to upgrade to more accessible Opt-X 1000i Enclosures with removable sliding trays. "Throughout the project we'd been working closely with Leviton and our sales rep, Todd Lovelace of JPI Associates," said Norris. "They were able to rush a Leviton solution that provided the accessibility we needed."

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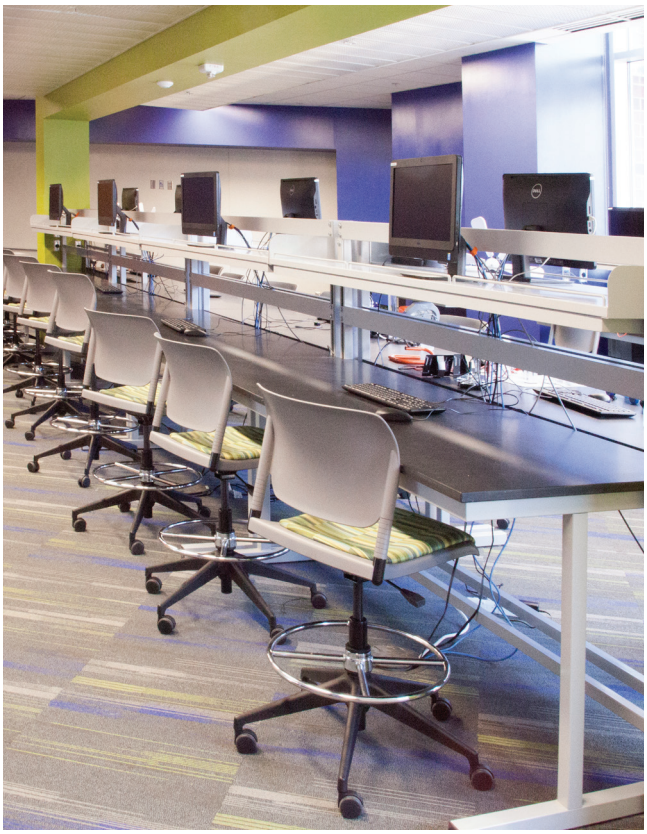
In addition to deploying the Leviton Opt-X Unity solution, Opt-X 1000i Enclosures, and single-mode fiber, connectivity for the new Science Center is also supported by 1,200 eXtreme® Cat 6 UTP QuickPort® Connectors. And for improved network performance with a small outside diameter, JCSU installed Berk-Terk LANmark-6™ Plenum-Rated cable.



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> *"Leviton products transitioned seamlessly with other infrastructure equipment and network installation was smooth every step of the way."*

Setting New Standards

The new JCSU Science Center is the first building on campus to support a 10G backbone. It is also the first campus building to use Leviton connectivity, but it won't be the last. "Leviton products transitioned seamlessly with other infrastructure equipment," said Norris, " and network installation was smooth every step of the way."

To install their new 10G network, JCSU relied on the expertise of AFL Network Services. "For this installation, JCSU needed a quick-turn, customized, flexible solution that would support future network growth, and Leviton delivered," said Elias Elia, regional director of enterprise services, AFL Network Services. AFL has a long-standing relationship with JCSU, and they have extensive knowledge of the latest technologies that create infrastructures for fast, reliable, and flexible networks. "Leviton manufactures a competitive, reliable product," said Elia, "and we use them as often as we can."

Now that the new Science Center is complete, more than 1,600 students annually will benefit from high-speed 10G performance. Leviton helped set the standard for infrastructure deployment as the university grows. "Leviton brought tremendous value to this project through their design flexibility and service-oriented approach," said Norris. "We are very happy with the value Leviton provides."

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