

Case Study

University of Wisconsin–Milwaukee Doubles Data Center Density with Angled Patch Panels and GST Jacks

The University of Wisconsin–Milwaukee has one of the highest density/square foot student populations in the nation. Research expenditures top \$60 million annually, which includes work as part of the LIGO Scientific Collaboration, an international consortium that recently confirmed Einstein’s theory of gravitational waves. The UWM group “contributed computing power to the search and was involved both in building the infrastructure and in resolving issues related to using the data.” *



Challenge

“We execute maintenance on our data center or communications rooms every day. It’s nonstop,” says Steve Bailey, who as Network Services Specialist at the University of Wisconsin – Milwaukee (UWM) is responsible for managing the physical connectivity on the campus. “I make sure everything connects to everything else,” he says.

Bailey and his team need to ensure that UWM’s 25,000 students, faculty, administrative staff and researchers stay connected on both LANs and WANs. While increasing density is the obvious solution, “Moving into high density created issues. One problem was the racks we were using. They didn’t have the wire management that we needed.”



Bailey also needed to scale up the number of connections, but the racks in the telecommunication rooms were already filled to capacity. “We were, and are, collapsing our infrastructure on our racks. And we work in very small rooms that we can’t expand.”

*<https://uwm.edu/news/uwms-big-data-helps-find-gravitational-waves/>

Solution

After meeting with the area HellermannTyton sales representative, Bailey decided that the company's Horizontal Cable Organizer with Metal Rings would be the best choice for streamlining daily equipment refreshes, as well as ongoing projects. "Only HellermannTyton had racks that could easily retrofit into our cabinet and deliver the wire management we need," Bailey explains.

A new project was started soon after. HellermannTyton recommended its new line of small form factor GST jacks and angled Patch Panels; 48 GST keystone jacks fit into each angled panel. The slim, shallow design of the Category 6 UTP jacks allows for more space at the rear of the module, and has an integrated wire manifold, lid and cable management, which provides integral strain relief for the cable.

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Steve Bailey, Network Services Specialist

Result

"We buy HellermannTyton racks in bulk," says Bailey. Part of the decision to standardize was based after collaborating with HellermannTyton engineers, who changed the design in response to Bailey's experience during installation. "It's been really nice to work with someone that's very interested in making sure their product is doing what it should do in the field."

As for the panels and connectors, Bailey says, "HellermannTyton has supplied most of our replacement jacks." By replacing their legacy panels with Modular Angled Panels and GST jacks, rack density was doubled – within the same footprint.

A mutually advantageous relationship is another outcome. Bailey and some members on his team have toured HellermannTyton's production facility and, as discussed, worked together to think through problems. Bailey sums up: "The tours helped our engineers and techs understand what really goes into the products. And, we can talk with a design or sales engineer, have some input and work through worst-case, 'What if?' scenarios."

Bailey's team pulls cable six days a week. And UWM has multiple 10 GB links to the Internet. With HellermannTyton data communication solutions, cable management and connectivity are efficient, and "everything is connected to everything else."

More

For more information on HellermannTyton's complete line of network connectivity solutions, visit www.hellermann.tyton.com or contact us at **800-537-1512**.

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