Cross Talk

Your Source for Industry News & Insight

CLUE IN TO 2022:
Insights
for the Year to Come

To start off the new year, we talked to Brett Hanson, RCDD, for his outlook on the state of the ICT industry. Brett is the Director of Technical Sales for Leviton Network Solutions and oversees Leviton's team of specification engineers — industry experts who help customers through the network specification process, from initial design to move in.

Over the past two years, many of our "trends" conversations have been shaped by the global pandemic. What are you and your team seeing? Are things getting back to normal?

The pandemic is still ever-present and disruptive, putting many businesses in a state of flux. As more companies allow employees to work from home permanently or on a hybrid schedule, some office buildings will remain empty and leases will not be renewed. We are seeing some companies transition from larger facilities to smaller facilities or expand to satellite offices. Smaller office spaces will continue to be sought after in the future. And of course, supply chain issues continue to disrupt many project schedules.

IN THIS **ISSUE**

LEVITON **POLL**

For 40, 100, 200, or 400 Gb/s deployments in an existing network, what would be your structured cabling choice?

Single-Mode

Multimode

10%

24%

45%

21%

Install New MM

Use Exsting OM3 or OM4

Install New SM

Use Existing SM
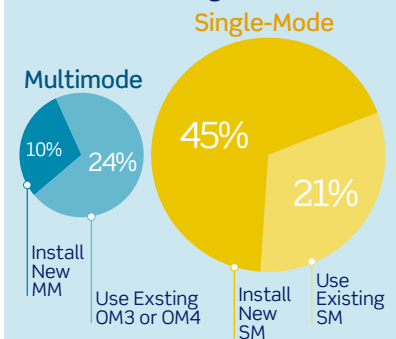
From a November 2021 poll of 125 data center network professionals.

UPCOMING **EVENTS**

New Reduced-Diameter Cable Offers a
Smaller & Lighter
Cat 6A Solution

0.230" (5.84mm)
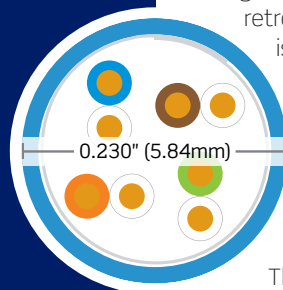
Leviton's new **LM-RDT™ Cat 6A UTP Plenum Cable** gives installers and enterprise network managers a better option for cable upgrades, retrofit applications, or areas where space is at a premium.

LM-RDT achieves a smaller outside diameter of only 0.230 inches by eliminating the cable cross-filler while maintaining Category 6A performance through Leviton's proprietary Precision Twist Technology. This proprietary technology precisely controls the cable's twist, resulting in a solution that is smaller, lighter and **easier to install, as it reduces termination time and jobsite waste**.

Clue in to 2022: Insights for the Year to Come

While data center construction slowed in 2020 due to the pandemic, the last year saw robust expansion. In primary data center markets in North America, new data center construction at the midpoint of 2021 was up 42% year-over-year, according to the North American Data Center Trends Report from the CBRE Group, Inc. We can expect more growth and network upgrades in the coming year, with demand from 5G rollouts, cloud services, and expansion of edge data computing leading to more frequent data center tech refreshes.

What notable trends are you seeing with enterprise network projects?

In new enterprise network installations, we see more facilities moving to Category 6A systems to address higher PoE and new wireless applications like Wi-Fi 6 (802.11ax). Also, larger enterprise network managers have been more likely to consider Cat 6A for enterprise campus builds due to lighter and smaller diameter cabling available on the market (see Leviton's LM-RDT reduced diameter cable, featured in this newsletter).

At the same time, building owners and facility managers are increasingly interested in ways to integrate smart building technologies. They are connecting more utility applications to their networks, incorporating things like HVAC, lighting, security systems, and energy management systems into the LAN.

As these facilities connect more remote devices to the network, many of our clients want assurances that their applications can handle longer distances. This has made extended reach solutions a bigger draw, such as the Leviton's OneReach extender system, as they provide the ability to run PoE out to devices like security cameras or access controls that are well beyond the 100-meter standards limitations.

How about in data centers? What kind of larger changes do you see happening with data center network infrastructure?

More data centers are moving to 100 Gb/s speeds for switches, and some of the big cloud service providers are even installing 100 Gb/s at servers. 100 Gb/s will soon surpass 10 Gb/s as the most widely deployed optical Ethernet connection speed, and it will remain the most popular transceiver speed in the foreseeable future.

There are now so many types of 100 Gb/s transceivers available: nearly 15 options and growing. 100G-SR10, 100G-SR4, 100G-LRL4, and 100G-LR4 are the IEEE compliant options; the rest are all defined by multi-service agreements (MSAs). Several were just introduced to the market in 2021 — 100G-SR-BD, 100G-FR, and 100G-DR — providing breakout options to 400 Gb/s for applications both in the server and the switch.

These transceiver choices will drive the network infrastructure design in a data center, but with so many options this can seem overwhelming. That's where we come in. Leviton understands the transceiver trends and next-generation standards in development, and we have tools to help confirm channel performance for those systems that might operate outside of industry standards.
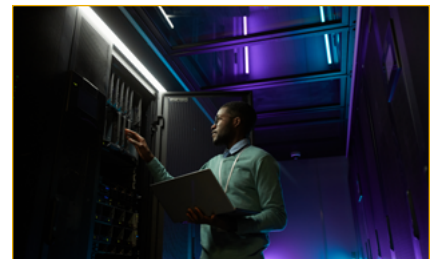
One of the other notable trends for data centers is the continued adoption of single-mode fiber (OS2) instead of multimode. Some of the shorter reach connections installed are still predominantly multimode, such as in Top-of-Rack switches to servers or out to the aggregation layer switches, but as single-mode OS2 costs continue to drop, it will find its way into more networks, especially when addressing speeds at 100 Gb/s, 200 Gb/s, 400 Gb/s and beyond.

Catch Leviton
—— AT THE ——
2022 BICSI
Winter Conference

The 2022 **BICSI Winter Conference** is a hybrid event, held both virtually and in-person in Orlando, Florida. By visiting Leviton's virtual booth at the show, you can see our latest solutions and chat with Leviton experts. We can help you:

- Design the right infrastructure for **smart building** initiatives, using a uLAN™ architecture
- Build a **data center** fiber backbone that meets greater bandwidth demands from IoT, 5G, edge computing and more
- Create greater flexibility, easier routing through pathways, and faster terminations with new **reduced diameter LM-RDT™ Cat 6A cable**

Registration is free for attending the virtual exhibition only.

Also, Leviton's smart building experts Todd Harpel and Kirk Krahn will present a concurrent session at the show, available to watch online or in person:

Networked for Wellness: Connecting Smart and Healthy Buildings
Tuesday, February 1, 2022
1:00-2:00 p.m. EST

We look forward to catching up with you at BICSI Winter!

## New Reduced-Diameter Cable Offers a Smaller and Lighter Cat 6A Solution

The cable also incorporates new Leviton FLX-1™ advanced polymer technology into the plenum-rated cable jacket for **greater flexibility** and **easier routing through cable pathways**. FLX-1 technology virtually eliminates cable memory for smoother installations.

More innovation, more options

Leviton acquired cabling manufacturer Berk-Tek in September 2020, and LM-RDT is the latest example of our combined technical teams working together to develop breakthrough cabling technology as a complete system supplier. The new cable follows the jointly developed LANmark™-SST cable, which offers premier performance in a Cat 6A cable.

The LM-RDT cable is part of two new Leviton end-to-end systems: the high-performance Atlas-X1® RDT System, and the economical eXtreme® RDT System. Both systems are designed to accommodate high-bandwidth applications where pathway space is at a premium.

For information about the cable or the complete new systems, please visit **Leviton.com/RDT** or contact your local Leviton sales representative.
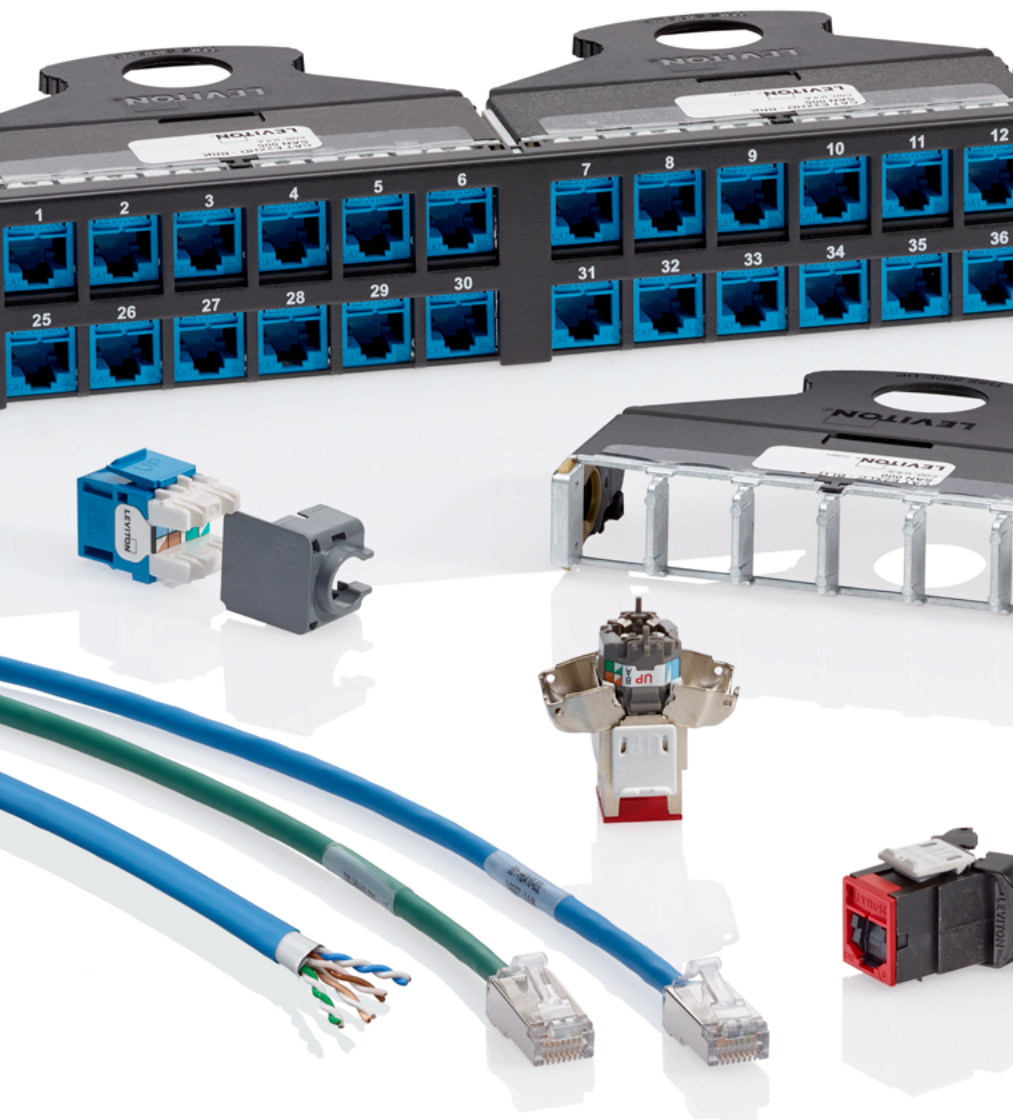
NEWS YOU CAN USE

INDUSTRY

SUPPLY CONSTRAINTS severely impacted the Enterprise Wireless LAN market in 2021, according to the Dell'Oro Group. Production and supply of Wi-Fi 6 was disrupted by the pandemic, and shortages worsened in late 2021 after the comeback of key markets like hospitality, logistics and retail. According to Dell'Oro, orders that typically ship within two to six weeks are now taking three to six months, if not longer.

COMPANY

IN DECEMBER 2021, Daryoush Larizadeh was appointed Chief Executive Officer of Leviton. A 20-year veteran at Levtion, Larizadeh had been President and COO of Leviton for the past six years, overseeing Leviton's continued growth and building on the company's successful history and culture of innovation. He is only the fourth person to hold the CEO position in 115 years since the company's inception in 1906. He assumes the role of CEO from Don Hendler, who now has the role of Chairman of the Board for Leviton.

PRODUCT

WE'VE INTRODUCED a new **Low-Profile QuickPort Zone Enclosure**, designed to be a versatile consolidation point for enterprise networks. This space-saving zero-U solution mounts to walls or ceilings and is stackable to support network growth.

YESTERDAY'S NEWS

1977 – 45 years ago, ARCnet, the world's first commercially available LAN, went live at Chase Manhattan Bank in Manhattan. It supported data rates of 2.5 Mbps and connected to 255 computers.

TECH TIPS

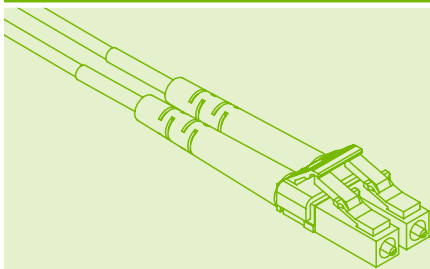## Get a Data Center Fiber Link Walkthrough

See how Leviton connects a data center spine-leaf fiber link. This overview includes a video walkthrough that covers solutions from patching at the core switches to end-of-row patching, as well as additional resources and video demos of the products included.

The Opt-X® HDX connectivity platform, including cassettes, enclosures, and fiber distribution frame — along with Leviton trunk cables and patch cords — provides pre-terminated solutions for simple deployment and manageability, while creating an ideal migration path for handling future data center tech refreshes.

Get this helpful walkthrough at **Leviton.com/dcwalkthrough**.

Core Switch Patching Hub

Core Switch

End-of-Row Patching Hub

Aggregation Switch
(or other active hardware)
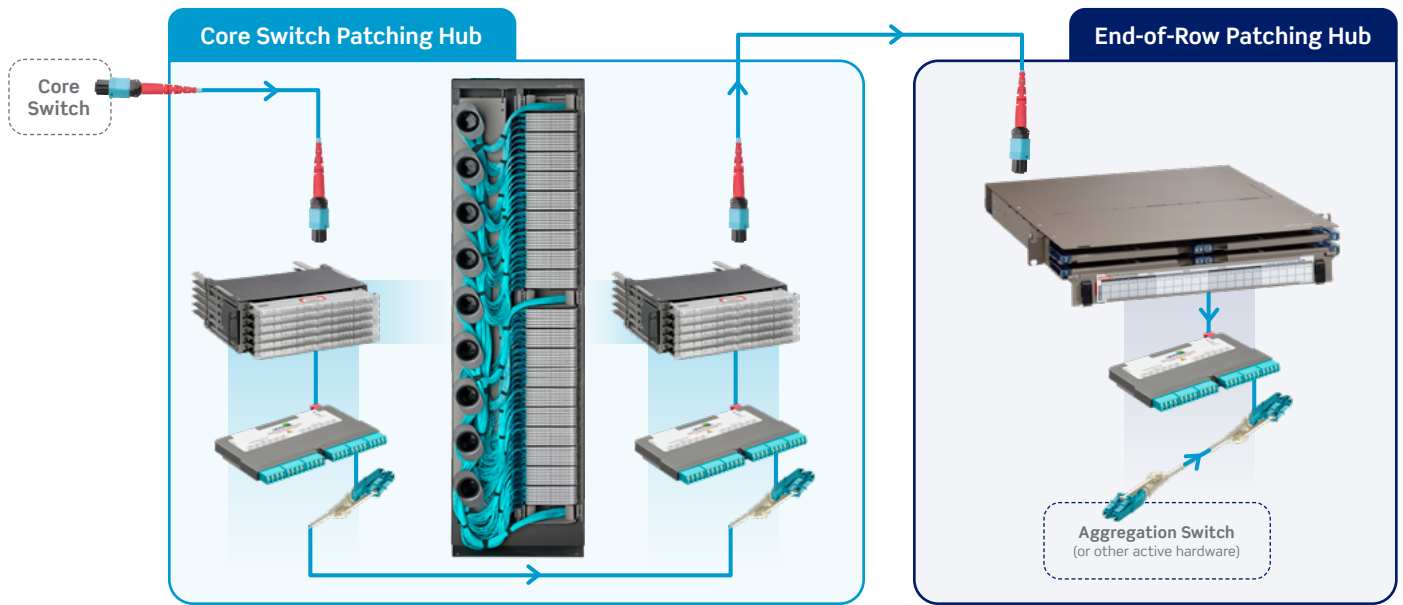
ASK THE EXPERTS

Q: If I install OM5, will it extend the life of my multimode cabling plant?

A: Yes and no. OM5 will offer some extended distances beyond OM4 performance, but only for multi-wavelength transceivers. For example, when addressing 100 Gb/s speeds, the 100G-SR-BiDi transceiver — a QSFP bidirectional option that uses wavelength division multiplexing — can extend the supported length to 150 meters over OM5, instead of 100 meters over OM4. But for most options, such as standards-based 100G-SR4, OM5 will not provide any advantage over OM4, as both support up to 100-meter distances.

Questions? Comments? Ideas?

We want to hear from you!
Email: **crosstalk@leviton.com**