



FLUKE®

Warranty and certification testing go hand in hand for ROI

GENERAL, INSTALLATION AND TESTING, BEST PRACTICES

Certification testing of an installed structured cabling plant is not optional. Not if an end user wants a system warranty.

As Panduit's product line manager Frank Straka puts it, "Certification testing will always be required for warranty, regardless of the number of drops on a project."

It's not just a Panduit requirement either. All reputable cabling system manufacturers require certification testing for end users to obtain a system warranty. The question isn't whether to do it, it's understanding why it matters so much.

The value of a cabling system warranty

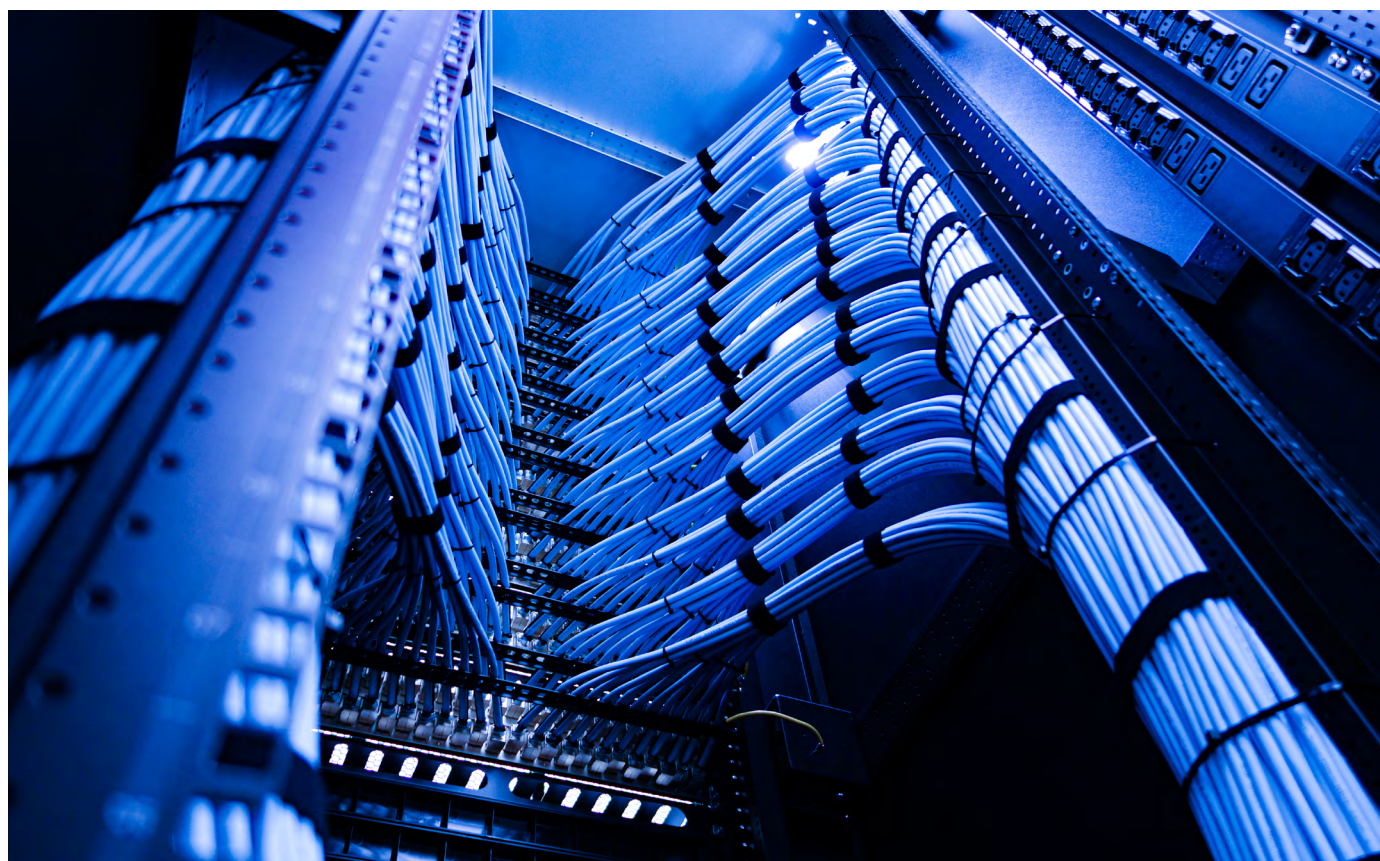
While a structured cabling plant is typically only about 15% of the cost of total network deployment, it is essential for connecting people and devices and transmitting information. It is also the most challenging and expensive part of the network to replace, requiring extensive labor and significant disruption to a workplace. That's why the structured cable plant should have the longest lifecycle.

Leading cabling system manufacturers offer product warranties covering individual components against defects, ranging from 1 to 5 years depending on the product. But it's the system warranty that ensures performance over the full lifecycle of the structured

cabling plant. Sometimes called an extended warranty or application assurance, a system warranty guarantees that the cabling plant will support current and future applications designed to run on that system.

As Dave Valentukonis, North American technical services manager for Siemon, explains: "The structured cabling system is the foundation of the network and the most disruptive component to replace. We want our customers to get the most out of their investment and support multiple generations of equipment and applications. A system warranty adds a layer of assurance for our customers. It also protects and strengthens our relationship with certified installers, who are an extension of our brand and vital to maintaining our industry reputation for innovative, high-quality, high-performance cabling and connectivity."

Most system warranties from leading industry manufacturers last 20 or 25 years. The value is straightforward: end users don't need to worry about whether the structured cabling system will outlast several generations of network equipment. For installers, offering a system warranty sets them apart from the competition, demonstrates commitment and expertise, and gives customers peace of mind to keep them coming back.



No warranty without certification testing

Manufacturers don't hand out cabling system warranties to just anyone. They require Bill of Materials (BOM) proof that every component was theirs, and most require installation by one of their certified installers. Many even require installers to be BICSI certified, with a Registered Communications Distribution Designer (RCDD) on staff. But the number one requirement is certification testing.

Belden, CommScope, Corning, Hubbell, Leviton, nCompass (Superior Essex and Legrand), Paige, PanGen (Panduit and General Cable), Siemon, and Signamax system warranties all require it. End users, designers, and installers should be wary of any cabling system manufacturer that doesn't offer a warranty and require certification testing, it's a sure red flag of sub-standard, non-compliant, or even counterfeit components, which introduces a significant area of risk.

Valentukonis is direct on this point: "We require 100% certification testing as objective evidence that our products and systems were installed properly, which is critical for Siemon to offer a 25-year performance and application warranty."

One-hundred-percent certification testing means that once installed, every link must be tested to ensure compliance with a specific category or class of cable, as determined by parameters and channel limits outlined in ANSI/TIA-568 or ISO/IEC 11801 cabling standards. For copper twisted-pair category cabling, that covers insertion loss, return loss, and crosstalk parameters including near-end crosstalk (NEXT), power sum NEXT, equal-level far-end crosstalk (ELFEXT), attenuation-to-crosstalk ratio (ACR), and alien crosstalk (ANEXT). For fiber, it means testing for continuity, polarity, length, insertion loss (Tier 1 certification), backscatter, reflectance, and optical return loss (Tier 2 certification).

There are some exemptions – certification testing is often not required for pre-terminated cabling systems that are pre-tested at the factory. Some manufacturers also don't require alien crosstalk testing for Category 6A copper cabling, and most only require Tier 1 testing for fiber systems rather than Tier 2.



Why manufacturers require certification testing

The reasons are practical. As Straka explains: “There are many ways a cable plant installation can go bad – shipping damage, water or paint getting onto the cable, job site conflicts, inexperienced installers, and more. Certification testing protects our end users, Panduit ONE partners, and Panduit. End users know that they received the system that they wanted. Panduit ONE partners can leave a job site knowing that the product they installed worked, and if they get a call on a bad link, they have a record of the performance when they left. And Panduit knows that the installation was initially done properly.”

Ron Tellas, Belden’s technology and applications manager for LANs, points out that warranty programs and certification testing also ensure return on investment for certified training programs, which represent a substantial percentage of manufacturers’ expenses, including trainer salaries, training facilities, materials, travel expenses, and administration. “Certification testing helps us justify the use of certified installers – it’s also something we can attach to good installers and vice versa.”

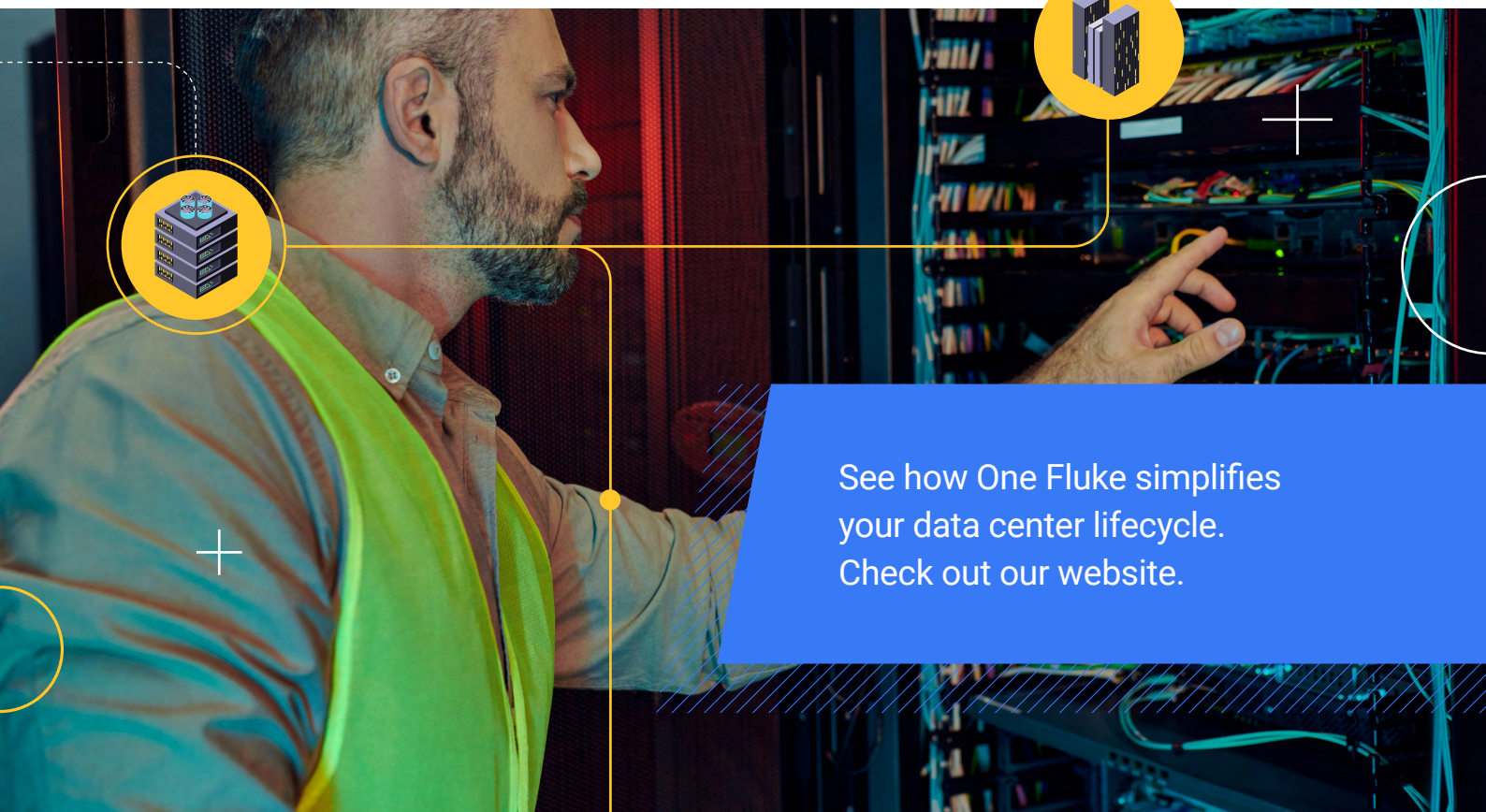
Choosing the right certification tester

There is also value in choosing the right tool for the job. Manufacturers provide a list of approved testers, where you’re almost guaranteed to see a Fluke Networks Versiv™

Cable Certifier. With the highest accuracy level and graphical displays showing exactly where any failures are on a given link, Versiv helps installers and manufacturers identify and address the cause of problems early in the process.

Siemon’s Valentukonis highlights the practical impact: “Requiring tests from a Fluke certification tester in the native. FLW format has allowed us, on multiple occasions, to identify the root cause of marginal or failing links. Having the ability to review these tests remotely and provide quick feedback saves us time and travel, keeps our customers on schedule, and saves our installation partners time and money.”

Even where an end user doesn’t require a system warranty, installers should still carry out certification testing. The labor to perform and document it adds only about 5% to a typical installation job. It is insurance that protects them from product failures and provides proof that work was done correctly, and it can prevent them from being on the hook for repairs and replacements later.



See how One Fluke simplifies your data center lifecycle. Check out our website.