Commercial Electrical Contractor Saves Time With NetXpert XG2

NetXpert XG2 facilitates job completion, streamlines troubleshooting and minimizes unnecessary service callbacks for a full-service electrical contractor.

Qualifying installed fiber-optic or copper Ethernet networks can often vary in difficulty and duration. If installations aren't successful on the first attempt, troubleshooting and remedying already completed work can quickly eat up allotted material and labor costs. These challenges are exacerbated when the project involves complicated cable runs, data connections — or both.

A testing methodology that minimizes the time and effort spent troubleshooting terminations, connections and hidden dangers that can cause loss of data is essential to maintaining project deadlines and budgets while preventing finger pointing. It is also advantageous to avoid unnecessary service callbacks. The Softing NetXpert XG2, a robust copper and fiber-optic cable performance tester, enables this methodology. This tool finds installation mistakes and proves data performance with its array of testing and diagnostic tools, keeping your project on track and within budget.

Here's how one company, N&S Electric, Inc., uses NetXpert XG2 for its high-volume projects to test and verify copper and fiber-optic installations, leading to a number of time-saving benefits.

About N&S Electric, Inc.

N&S Electric, Inc., a family-owned and operated electrical contracting company, has been serving Connecticut's commercial and residential communities since 1967. It operates as a full-service contractor with the majority of its work focused on commercial and industrial applications. Its technicians primarily install medium-voltage power hookups and low-voltage installations like data wiring or power over Ethernet (PoE). Common fiber-optic applications include interconnections between individual distribution frames (IDF) and main distribution frame (MDF) rooms. For PoE jobs, the majority of applications are security camera connections.

There is a lot of copper wire already installed across many businesses and residences, but PoE and fiber-optic applications are growing in popularity and scale. N&S is now contracted to work on copper, fiber, and PoE for large or mid-sized construction or renovation projects.

Reasons Why They Keep Two On Hand

When N&S Electric, Inc. was first looking to replace its old certification and testing equipment, they decided to investigate a new business model by using the NetXpert XG2 with bit error rate testing (BERT) which allowed them to test and prove performance for complex fiber-optic applications. Such applications require proof of performance but don't need certification for cable warranty. N&S has owned two NetXpert XG2 base units and two remote units for about four years now.

Here are some of the reasons why:

Application flexibility. N&S Electric, Inc. takes full advantage of NetXpert XG2's flexibility to work on both copper and fiber-optic projects. Keeping two sets of NetXpert XG2 units in-house allows the technicians to combine the two kits to execute complex tests for fiber optics. For copper Ethernet projects, two technicians can each use a base unit and remote — either doubling their speed on a single project, or tackling two separate projects.

Upgradeability. NetXpert XG2's two SFP bays allow technicians to expand their testing capabilities by swapping SFPs to accommodate different fiber connectors. Furthermore, NetXpert XG2 reports SFP configuration properties, so you can check if you are using the right SFP for the job — a very powerful troubleshooting capability. NetXpert XG2 will also allow you to insert the customer's SFP and test BERT through it — on both ends of the cable — proving that both the fiber cables and the SFPs will work in the application.

An easy learning process. Technicians found training on the NetXpert XG2 to be an intuitive and easy process. While there was a small learning curve — as there is with any new technology — the team was soon operating the device with ease. With BERT testing, all of the complexities of certification are gone — such as identifying the installed link (MPTL, end-to-end, channel, or permanent link installation), choosing the right tester hardware and setting the right test category (CAT 6, CAT6A, etc).
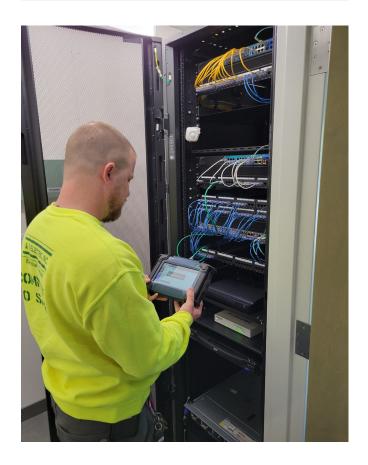
Saving Time on the Job

N&S Electric, Inc. finds NetXpert XG2 to be extremely helpful when troubleshooting common sources of installation problems like improper terminations, swapped wires, shorts and physical cable damage. The cables are delicate and easy to damage. NetXpert XG2 helps technicians ensure that a cable or device is functioning correctly after installation — an otherwise difficult task. It is difficult because you can't see if a cable has been damaged by a drywall screw, pulling the cable too hard, crimping the cable or running too close to power cables.

NetXpert XG2 provides technicians with the insight to determine if they need to fix an issue. For example, if a customer calls N&S for support with a data run, NetXpert XG2 helps the technicians find the fault, and in some cases, even see where it's located.

"NetXpert XG2 is an essential time saver for us," says Phil Nizzardo, Vice President at N&S Electric, Inc. "After completing 100 runs in a building, our technicians want to make sure there are no problems with the installed infrastructure. This is especially important when working with data. For power connections, it's easy to tell if your installation was correct because lights and other devices turn on. But when working with data, 'on' is only part of the equation, and performance is the other part, so you don't know if you've succeeded without some kind of instrument check."

About N&S Electric, Inc.

N&S Electric, Inc. takes pride in delivering the best solutions possible for its customers. Offering a diverse array of services, the company provides clients with the comfort and flexibility to optimize projects. It also creates lasting customer relationships through comprehensive, high-quality work. N&S's experience and professionalism ensure timely and cost-effective project completion. For more information, visit www.nandselectric.com.

optimize!

N&S is currently contracted at an apartment building that features data connections. To accelerate its job completion and prevent future service callbacks, technicians test and prove performance of the installations as work progresses.

Sometimes, customers ask for proof that installed cables and hardware meet certification or speed requirements. This is a common request at university and business campuses. While N&S doesn't do full warranty-level certifications, it provides clients with formal proof, including a report, that their network speeds are performing to IEEE standards.

In these cases, N&S uses BERT with the NetXpert XG2 to show exactly how the installed equipment passes the IEEE standards, using real data as proof. This feature is useful even if N&S did not handle the initial installation. For example, if a university buys a new building, N&S technicians can use NetXpert XG2 to confirm that the existing infrastructure operates properly or needs work.

Ongoing Support

N&S Electric, Inc.'s satisfaction with NetXpert XG2 is enhanced by Softing's ongoing technical support and regular software updates. Previously, the technicians were only able to run tests one after another. After a NetXpert XG2 software update, the technicians could run certain tests simultaneously, such as BERT, wiremap, signal-to-noise ratio (SNR) delay skew, and cable length tests. This feature greatly reduces the time spent running a test. Even though the test may take a few minutes to complete, the time savings quickly add up when proving performance of hundreds of installed Ethernet cables.

When cable certification and warranty work are not required, NetXpert XG2 with BERT allows N&S to prove copper or fiber cable performance to IEEE standards while the cable is installed — even in challenging environments. This capability facilitates job completion, streamlines troubleshooting and minimizes unnecessary service callbacks for a full-service electrical contractor.

For more information on NetXpert XG2, visit our website.