FiberSmart

AUTOMATED TESTING

The fiber optics sector has seen rapid advancement and new network deployment methods. This has become necessary since OTDR testing is indispensable for buildings, certifying, troubleshooting, & maintaining fiber optic systems.

A good use case to demonstrate the advancement in the industry is the use of ROME for Automated testing as regards OTDR testing.

Firstly, an OTDR, which stands for Optical Time Domain Reflectometer, is an instrument used to create a virtual picture of fiber optic cable route. The analyzed data can give detailed information on the condition and performance of certain fibers.

Before now, after an installation by field engineers, they have to access the installed application physically to connect an OTDR to the right fiber to trigger an OTDR shot.

ROME automation changes the game by controlling the connectivity to the OTDR. Once field engineers are done installing the applications, they can access it remotely to connect an OTDR to the appropriate fiber to trigger a shot. This way there are fewer errors, reduced risk, and optimized output.

Also, the output from the OTDR is automatically captured, labeled, & stored. Finally, since the OTDR is the only fiber testing tool that can troubleshoot fiber optic cable failures using distance to the fault and type of fault, there is improved accuracy in readings when using ROME to automate compared to humans.

ROME FOR BI-DIRECTIONAL TESTING WITH AN OTDR

Industry standards require that most manufacturers carry out tier 2 testing, which is done bi-directionally.

This means that the testing is done from both ends of the fiber link. Manufacturers understand that this is the only way to know the actual overall loss for the link because measuring the loss of fiber connectors and overall link loss depends on the testing direction.

Averaging the result from both directions is needed for accurate measurement but this takes significant time and significant cost.

ROME solves this problem by speeding up the completion time for Bi-directional testing using OTDR and also reducing the cost involved while removing the risk to field engineers.