Transfer files at the speed of light with JDSU's MTS/T-BERD Platforms

Introduction

Fiber Optic Cable Acceptance Test

Bi-directional analysis is a technique used to minimize the effect of backscatter coefficient differences along a fiber link, resulting in erroneous splice readings. This technique is used when accurate baseline data is desired. It is also used during acceptance testing where splice measurements, often performed by subcontractors, are required. In the scenario where the operator requires a complete commission of the network, bi-directional optical time domain reflectometer (OTDR) techniques must be used to take into account the fiber performance differences. Two technicians, one at each end of the cable, are required to perform this type of test.

Conventional process to perform an acceptance test

Using an OTDR, the two field technicians measure each fiber from both ends of the cable, save their results, and meet to compile the acceptance report with the average splice readings.

A high performance OTDR, combining a fast acquisition process with storage capability, is preferred for this type of test.

Inconvenience and drawbacks of the traditional OTDR solutions

Collecting data from both ends of the cable is the only way to perform a bi-directional OTDR analysis. This technique requires both technicians to meet, or gain access to the Ethernet, to exchange measurement results.

When problems, errors, or incorrect results occur, the far end tester must re-visit and perform the OTDR acquisition. This scenario has the potential to produce multiple errors and drastically affects the cost of doing business.

Today's OTDR test platforms claim to solve problems with LAN or modem connections. Since such solutions are not readily available at most test sites during the early stages of the installation when the OTDR measurements are required, it does not offer sufficient flexibility to the technician.
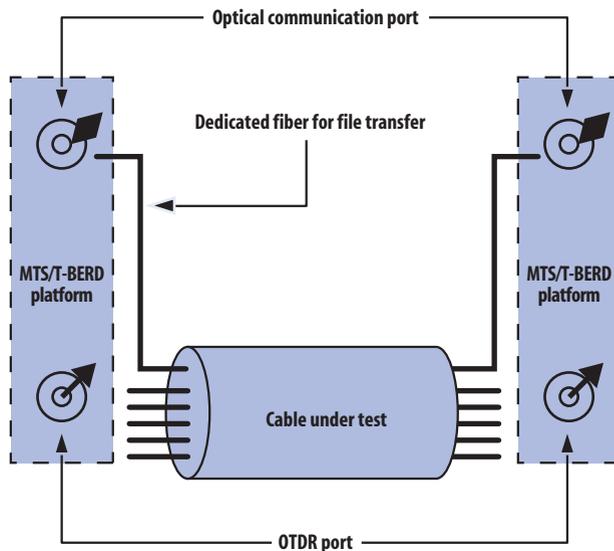
Innovative solution to save time and money

JDSU understands the need for faster processing and reliable results. To address this need, JDSU, in collaboration with experienced fiber installers, has developed solutions to satisfy productivity and error reduction requirements.

Integrated fiber file transfer solution

JDSU's MTS/T-BERD platforms allow technicians to have a communication media permanently available. No need to look for a modern or a LAN connection when the fiber can do the job!

Easy to use

JDSU's MTS/T-BERD platforms require no modem configuration and eliminate firewall-to-server problems. The technician simply selects the files and transfers them through the fiber to the far end test unit. This step can be integrated into the measurement process, enabling automatic, online data exchange after each trace acquisition.

Innovative file transfer solution with JDSU's
MTS/T-BERD platforms for cable commissioning

Save time and cost

Fiber technicians can now have online access to both end results of the commissioned fiber. This provides immediate fault finding and problem identification in case of incorrect bi-directional OTDR trace analysis. Technicians no longer need to meet for file exchange, eliminating transportation time and costs.

Regardless of the location, the technician can immediately react when faced with incorrect measurement analysis without having to re-visit the testing site.

This new process dramatically reduces the time needed for a complete cable commission and report generation. Combining JDSU's MTS/T-BERD platforms with OFS-200 FiberCable Software, technicians are entirely dedicated to testing, analyzing, and reporting.

Traditional Test Method:

From data collection to report generation.

1. **Both ends acquisition and trace storage**

2. **Data Collection:**
   Technicians must meet to compile results or get access to Ethernet for file exchange

3. **Generate bi-directional OTDR analysis report**

4. **Re-visit site to collect additional data**

5. **Problem Identification:**
   Technician returns to end location to perform new measurement (can take hours)

6. **Generate bi-directional OTDR analysis report**

Step 1
Step 2
Step 3
Step 4
Step 5
Step 6

Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
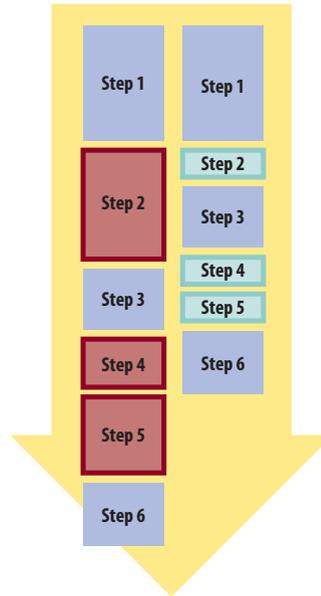
JDSU Test Method:

From data collection to report generation. Saves Time.

1. **Both ends acquisition and trace storage**

2. **File transfer through the fiber (reduced to a few seconds).**

3. **Generate bi-directional OTDR analysis report**

4. **Perform new measurement if problem identified**

5. **New file transfer through the fiber (reduced to a few seconds)**

6. **Generate bi-directional OTDR analysis report**

Conclusion

In the past, large amounts of time and money were spent to improve the speed of the OTDR. JDSU's MTS/T-BERD platforms address this need by bridging the gap between fast OTDR acquisition and speedy report generation - bringing the speed of light to results transportation.

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