Checking Port Status and Connectivity

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Check Cable Status Using Time Domain Reflectometer

The Time Domain Reflectometer (TDR) feature allows you to determine if a cable is OPEN or SHORT when it is at fault.

Running the TDR Test

To start the TDR test, perform this task:

Procedure

	Command or Action	Purpose
Step 1	**test cable-diagnostics tdr** {**interface** { *interface-number* }}	Starts the TDR test.
Step 2	**show cable-diagnostics tdr** {**interface** *interface-number*}	Displays the TDR test counter information.

TDR Guidelines

The following guidelines apply to the use of TDR:

- Do not change the port configuration while the TDR test is running.
- If you connect a port undergoing a TDR test to an Auto-MDIX enabled port, the TDR result might be invalid.
- If you connect a port undergoing a TDR test to a 100BASE-T port such as that on the device, the unused pairs (4-5 and 7-8) are reported as faulty because the remote end does not terminate these pairs.
- To run a TDR test, the cable length should be at least 10 meters. If the cable is shorter than 10 meters, the test is considered as invalid.

- Due to cable characteristics, you should run the TDR test multiple times to get accurate results.
- Do not change port status (for example, remove the cable at the near or far end) because the results might be inaccurate.
- TDR works best if the test cable is disconnected from the remote port. Otherwise, it might be difficult for you to interpret results correctly.
- TDR operates across four wires. Depending on the cable conditions, the status might show that one pair is OPEN or SHORT while all other wire pairs display as faulty. This operation is acceptable because you should declare a cable faulty provided one pair of wires is either OPEN or SHORT.
- TDR intent is to determine how poorly a cable is functioning rather than to locate a faulty cable.
- When TDR locates a faulty cable, you should still use an offline cable diagnosis tool to better diagnose the problem.

Feature History for Checking Port Status and Connectivity

This table provides release and related information for features explained in this module.

These features are available on all releases subsequent to the one they were introduced in, unless noted otherwise.

Release	Feature	Feature Information
Cisco IOS XE Gibraltar 16.12.1	Time Domain Reflectometer (TDR)	TDR allows you to determine if a cable is OPEN or SHORT when it is at fault.

Use Cisco Feature Navigator to find information about platform and software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn.