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(54) Title: METHOD AND DEVICE FOR TOPOLOGY DISCOVERY AND CONNECTIVITY VERIFICATION IN ROADM SYSTEM

(54) 发明名称: 一种ROADM系统中拓扑发现及连接性验证的方法和设备

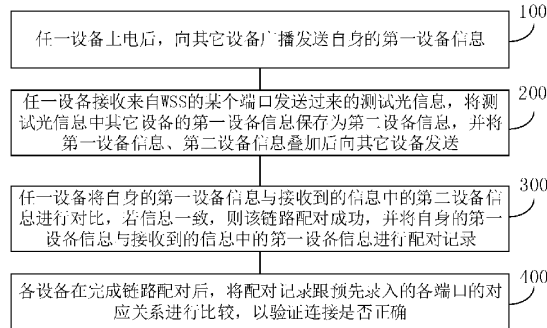


图 6

- 100 Any device sends, in a broadcasting manner after being powered on, its own first device information to the other devices
- 200 The any device receives test light information sent by a certain port of a WSS, stores first device information of the other devices in the test light information as second device information, and superposes the first device information and the second device information and then sends same to the other devices
- 300 The any device compares its own first device information with the second device information in the received information, and if the pieces of information are consistent, link pairing succeeds, and the any device records its own first device information and the first device information in the received information in a paired manner
- 400 After the devices complete link pairing, compare the paired record with a pre-entered correspondence relationship between ports to verify whether a connection is correct

(57) Abstract: The present invention relates to a method and device for topology discovery and connectivity verification in a ROAD system. The method mainly comprises: any device for topology discovery and connectivity verification in a ROAD system sends, in a broadcasting manner after being powered on, its own first device information to the other devices for topology discovery and connectivity verification in the ROAD system; the any device for topology discovery and connectivity verification in the ROAD system receives test light information sent by a certain port of a WSS, stores first device information, in the test light information, of the

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other devices for topology discovery and connectivity verification in the ROADM system as second device information, and superposes the first device information and the second device information and then sends same to the other devices for topology discovery and connectivity verification in the ROADM system; the any device compares its own first device information with the second device information in the received information, and if said pieces of information are consistent, link pairing succeeds, and the any device records its own first device information and the first device information in the received information in a paired manner. The present invention can reduce cost, and can automatically perform topology discovery and matching connection and verify the correctness of the connection, thereby avoiding the problem that errors are prone to occur in manual connections of conventional optical fiber links.

(57) 摘要: 本发明涉及一种ROADM系统中拓扑发现及连接性验证的方法和设备。其方法部分主要包括: 任一ROADM系统中拓扑发现及连接性验证的设备上电后, 向其它ROADM系统中拓扑发现及连接性验证的设备广播发送自身的第一设备信息; 任一ROADM系统中拓扑发现及连接性验证的设备接收来自WSS的某个端口发送过来的测试光信息, 将测试光信息中其它ROADM系统中拓扑发现及连接性验证的设备的第二设备信息保存为第二设备信息, 并将第一设备信息、第二设备信息叠加后向其它ROADM系统中拓扑发现及连接性验证的设备发送; 任一设备将自身的第一设备信息与接收到的信息中的第二设备信息进行对比, 若信息一致, 则该链路配对成功, 并将自身的第一设备信息与接收到的信息中的第一设备信息进行配对记录。本发明可以节约成本, 可以自动进行拓扑发现、进行匹配连接, 并验证其连接正确性, 避免了传统光纤链路人工连接容易出错的问题。