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1 Configuring MAC Loopback

1.1 Introduction

1.1.1 Overview

Media Access Control (MAC) loopback refers to a case in which packets sent from a local end are transferred internally in the system and returned to the local end for interface self-loop.

MAC loopback can be used to determine whether an Ethernet interface is faulty. For an interface with MAC loopback enabled, if the interface runs normally, the physical status of the interface is always up even without network cable connection; and if the interface runs abnormally, the physical status of the interface is down.

MAC loopback can be applied to multi-port mirroring scenarios. One-to-many mirroring can be implemented by configuring an interface as a MAC loopback interface, and adding the mirroring destination port and expected outbound mirroring port to a remote VLAN.

1.1.2 Principles

After a MAC loopback interface is configured on a device, the chip of the device sends test packets and then receives these packets through the loopback created internally. By this, the loopback test of the interface is completed.

⚠ Caution

With MAC loopback enabled on an interface, data forwarding on this interface is abnormal. After the test, disable MAC loopback.

1.2 Configuring Basic Features

1.2.1 Overview

This section describes how to enable MAC loopback on an interface for interface self-loop.

1.2.2 Procedure

- (1) Enter the privileged EXEC mode.
enable
- (2) Enter the global configuration mode.
configure terminal
- (3) Enter the interface configuration mode.
interface *interface-type interface-number*
- (4) Configure an interface as a loopback interface, and enable MAC loopback on the interface.
mac-loopback

MAC loopback is disabled for an interface by default.

- (5) Disable MAC loopback after the test.

no mac-loopback

MAC loopback is disabled for an interface by default.

1.3 Monitoring

This section describes the **show** commands used for checking the running status of a configured function to verify the configuration effect.

Table 1-1 MAC Loopback Monitoring

Command	Purpose
show mac-loopback	Displays the loopback interface configuration status of the current device.