

Huawei switch



Overview

Troubleshooting CRC Error Packets on an Interface (V200) Remove and reinstall the optical fibers and optical modules and check whether the fiber connectors.

Key Takeaways

Multiple CRC errors on a Huawei switch optical interface usually indicate physical layer issues such as faulty transceivers, damaged fibers, or mismatched interface settings. Understanding CRC Errors

CRC (Cyclic Redundancy Check) errors occur when the transmitted and received data verification values do not match, indicating data corruption on the link. Persistent CRC errors can lead to packet loss, degraded network performance, and alarms on the switch. On Huawei devices, these errors are visible using the command display interface [interface-name] and are often accompanied by discarded packet counts and other physical layer statistics .

Common Causes

- Faulty Optical Modules: A defective transceiver can generate repeated CRC errors.
- Damaged or Contaminated Fiber: Scratched, bent, or dirty connectors degrade signal quality.
- Cable Quality or Length Issues: Exceeding the supported transmission distance of the optical module can trigger low optical power and CRC errors.
- Mismatched Interface Settings: Duplex or speed mismatches, or inconsistent auto-negotiation settings, can cause errors.

- **Environmental Interference:** Electromagnetic interference (EMI) from nearby equipment may affect signal integrity .

Troubleshooting Steps

- **Check Interface Statistics:** Run display interface [interface-name] multiple times to monitor CRC error trends.
- **Inspect and Reinstall Hardware:** Remove and reinstall optical fibers and transceivers. Clean connectors and use dust-proof caps for idle ports. Replace any damaged fibers or modules .
- **Verify Optical Module Compatibility:** Ensure multimode modules are used with multimode fibers and single-mode modules with single-mode fibers. Confirm wavelengths match at both ends using display interface transceiver verbose.
- **Check Transmission Distance:** Confirm the fiber length does not exceed the module's supported distance. For example, OM1 modules support up to 30 meters, OM3 up to 300 meters .
- **Adjust Interface Settings:** Disable auto-negotiation if necessary and manually set matching speed and duplex on both ends.
- **Monitor Alarms:** Huawei switches may trigger alarms when CRC errors exceed thresholds (e.g., 20 errors per minute). Use MIB/OID monitoring for remote units to track error statistics .
- **Firmware Updates:** Ensure the switch firmware is up to date to avoid known CRC-related bugs .

Preventive Measures

- Keep fiber connectors clean and covered when idle.
- Use high-quality optical cables and modules.
- Regularly monitor interface statistics to detect early signs of degradation.
- Ensure consistent configuration across connected devices. By systematically following these steps, you can identify the root cause of multiple CRC errors and restore stable optical link performance on Huawei switches.

Article Content

Troubleshooting CRC Error Packets on an Interface (V200)

Remove and reinstall the optical fibers and optical modules and check whether the fiber connectors are damaged or contaminated, to

Troubleshooting the Problem of CRC Error Packets on an Interface of

Check the link interconnection status. Remove and re-install the optical fibers and optical modules and check whether

Troubleshooting for Optical Modules on Huawei Switch

Check whether the optical module is Huawei-certified. If it is not certified by Huawei, replace it with a Huawei certified one. Remove

ALM-4286849029 The number of CRC error packets on an ...

Cause 1: The optical module is faulty. Cause 2: The fiber is faulty. Replace the optical module and check whether the

Checking that the Number of Error Packets on the Physical Interface ...

If a CRC or symbol error occurs on the interface, check whether the optical module and optical power are normal. Run the display

After Two Optical Interfaces Are Connected, an Alarm on Abnormal ...

Symptom An optical interface of the device connects to an optical interface of another device. An alarm on high or low

Why Does an Interface Receive CRC Error Packets? What Should I

Can I Use MIB to Obtain the Number of Packets Discarded by an Interface? Can Optical Interfaces on CloudEngine

Troubleshooting CRC Error Packets on an Interface

If a single-mode optical module is used with a single-mode optical fiber, the transmission distance is often longer than 10 km. Check

What Is Cyclic Redundancy Check? How to Fix CRC Errors?

For example, the connected twisted pair or optical fiber is faulty, or the optical module on the interface does not work

Troubleshooting CRC Error Packets on an Interface (V200)

Step 4 Check whether the optical fiber length is within the allowed transmission distance range of the optical module. If the

Troubleshooting CRC Error Packets on an Interface (V300)

Single-mode optical modules are generally used with single-mode optical fibers, and can also be used with multimode optical fibers.

Checking Whether Packet Statistics on the Interface Contain Error

Replace the medium (optical fiber or module) without affecting services on the switch to check whether error packets are related to

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

