

How to debug IP on an access switch

Article Overview

Use the debug ip packet command with optional access-list filters to monitor IP traffic on a Cisco access switch safely.

Step-by-Step Approach

1. Verify Interface and IP Configuration Before debugging, ensure the interface is up and has the correct IP configuration:

- o show ip interface brief - checks interface status and IP assignment
 - o show running-config - verifies IP addresses, VLANs, and routing settings
2. Use Debug Commands Carefully Debug commands provide real-time information but can consume CPU resources. Always:
- o Limit debug to specific interfaces or IPs using access-lists
 - o Enable terminal monitoring if connected via SSH or console
 - o Disable debug after troubleshooting with undebug all or no debug ip packet
3. Debug IP Packets The primary command for IP-level troubleshooting is:
- o debug ip packet [access-list-number] - shows all IP packets processed by the switch, filtered by an optional ACL to reduce output
- Example:

```
access-list 101 permit ip host 192.168.1.10 anydebug ip packet 101
```

This monitors only traffic from the host 192.168.1.10.

4. Monitor and Analyze Output
- o Look for dropped packets, routing issues, or ACL denials
 - o Check source and destination IPs, protocol types, and interface information
 - o Compare with show ip route and show arp to confirm expected paths
5. Additional Debugging Tools
- o ping and traceroute - verify connectivity and path
 - o show logging - review system messages for errors
 - o show mac address-table - confirm endpoint connectivity on the VLAN
6. Best Practices
- o Use debug during low-traffic periods or on test ports
 - o Redirect output to a buffer or terminal monitor session
 - o Avoid debug all in production as it can overload the switch
- By following these steps, you can safely debug IP issues on an access switch, identify misconfigurations, and verify packet flow without impacting network performance.

I would like to debug and access list to see if it is catching traffic I want to pass. All I can find is a debug access

How to debug IP on an access switch

Description of the Issue You do not get an IP address. Topology for the troubleshooting flow Refer to the following

Here, we have learned how to use Cisco Debug Command on Cisco routers and switches. Debugging is very important for network

By associating a debug command with an access list, the debug output is limited to only the packets or events that match the access

Cisco ME 3400E Ethernet Access Switch Debug Commands Please confirm whether or not the This appendix describes the debug

To check whether the packet is being received on the router or switch, first create extended acl with exact source and

If a communication session is closing when it should not be, an end-to-end connection problem can be the cause. The debug ip

Resolution: Follow the instructions in the Viewing Access Point Join Information section to see join statistics for the OfficeExtend

Chapter 5. Debugging Access ListsOnce you've formatted access lists and used them to implement policies, how do

5 techniques to debug network issues in Linux and Windows Debugging a network issue should start with basic

Use This command enables detailed IP packet debugging messages. The debugging shows detailed IP information

Always try show ip route, show ip cef, and show access-lists before using debug. Cisco Embedded Packet Capture (EPC) is a safer

```
access-list 101 permit ip 192.168.50.0 0.0.0.255 192.168.60.0 0.0.0.255 ( removed Log here) access-list 101 permit ip
```

The MAC address table (CAM table) maps MAC addresses to the switch port where they were last seen. Use it to find

A Cisco CLI switch command cheat sheet is therefore a valuable reference. It provides quick access to

How to debug IP on an access switch

commonly

Catalyst 2960 Switch Debug Commands This appendix describes the debug privileged EXEC commands that have been created or

Web: <https://www.millstraining.co.za>

