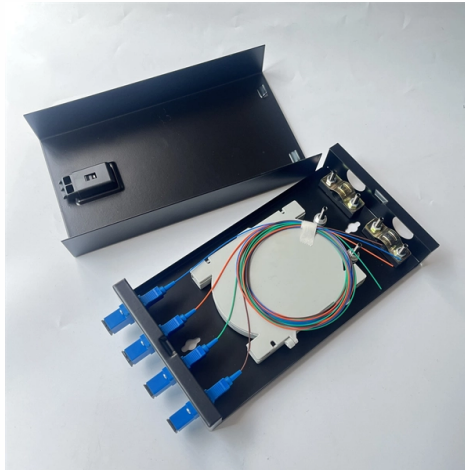


# Core Switch Multicast Anomaly



## Article Overview

Multicast anomalies on a core switch often occur due to missing multicast routing protocols, IGMP snooping misconfigurations, or VLAN-to-VLAN forwarding issues.

### Common Causes of Multicast Anomalies

1. **Lack of Multicast Routing Protocols:** When multicast traffic needs to traverse multiple VLANs, a Layer 3 core switch requires a multicast routing protocol such as PIM (Protocol Independent Multicast). Without PIM, multicast packets may not be forwarded between VLANs even if IP forwarding is enabled, causing receivers on other VLANs to miss the multicast stream.
2. **IGMP Snooping and Group Membership Issues:** IGMP snooping ensures that multicast traffic is only sent to ports with interested receivers. If IGMP snooping is misconfigured or if devices have not joined the multicast group, the core switch may drop multicast packets or fail to forward them correctly. Commands like `show ip igmp groups` and `show ip mroute` can help verify group membership and routing paths.
3. **Multicast VLAN Registration (MVR) Requirements:** For simple multicast forwarding across VLANs, MVR can be used. However, enabling MVR may require disabling `ipmcforwarding` on certain switches. Misalignment between MVR and IP multicast forwarding can prevent traffic from reaching receivers.
4. **MAC Address Overlaps and Reserved Multicast Ranges:** Multicast MAC addresses share a common OUI (01:00:5E), and certain IP ranges (e.g., 224.0.0.0/24) are treated as local or broadcast-only. Using these reserved addresses incorrectly can result in dropped packets.
5. **Broadcast or Multicast Storms:** Excessive multicast traffic or misbehaving devices can create multicast storms, overwhelming the core switch and causing intermittent forwarding anomalies. Monitoring switch logs and identifying the source MAC addresses can help locate and mitigate storms.

## Article Content

Multicast within same vlans spanning across multiple Cisco switches

Multicast within same vlans spanning across multiple Cisco switches Hi, i am new to multicast and we have been assigned a task to

Enabling Multicast and Broadcast in the 5G Core for ...

This article fills the gap by describing solutions for 5G mobile core network architecture incorporating multicast and

Understand and Mitigate Network Loops (STP)

To maintain network stability and prevent loops, follow these best practices:  
Centralized Switching: Avoid overutilizing the built-in

Multicast Routing Troubleshooting : r/networking

After configuration, I attempted to test multicast using a pair of devices running a multicast testing tool (One Server and One Client).

Multicast Packets Killing Network

You can verify this by using dm raw commands, when the switch is experiencing high CPU, the multicast traffic is

Solved: Multicast Issue with Audio System

Hello, I am experiencing a multicast issue where an audio central unit (HUB), connected to a switch, streams to about

Multicast Routing Troubleshooting : r/networking

These interfaces are already routing Unicast traffic. I have configured IP multicast routing on the core switch using the ip multicast

High CPU Utilization on Catalyst Switches due to IPv6 Multicast ...

This is explained in Multicast on Cisco Catalyst 4500E and 4500X Series Switches  
When it comes to IPv6 Multicast

My New OVERKILL UniFi Network

Reach out at: web@beamnetworks v [redacted] Chapters: - Intro - Montage - The Gear - IDF

Multicast configuration on Layer 3 switch. : r/networking

Hello, I have a layer 3 switch with a handful of vlans and SVI configured. I need to configure inter-VLAN multicast routing. The source

Core Switch Multicast Anomaly

This is a simple Multicast distribution setup with the M4100-26-POE as the core switch for multi-casting. The downstream network is

Troubleshooting Common IP Multicast Issues | OrhanErgun

Fix common IP Multicast problems—RPF failures, RP and IGMP snooping issues, LAN flooding—plus design best

What is Multicast Listener Discovery (MLD) snooping

What is Multicast Listener Discovery (MLD) snooping and how does it work with my managed

FS Community

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Multicast not passing through two XOS Cores (670)

I have a network with two cores that were dual homed but we are upgrading and breaking legs so that only one leg

How to check if multicast is enabled on Cisco Switch?

Multicast is a bandwidth-conserving technology that enables the simultaneous transmission of a single data stream to

multicast traffic is not sent over the switch

Ensure that the multicast group (s) from VLAN 14 are being joined on VLAN 420.  
Enable IGMP Snooping: If IGMP

ICMPv6 "Multicast Listener Report" flooding the network

I watched at the PRTG monitoring software and the network-ports from the HP switches were at high load/traffic: and this was on

Troubleshooting Common IGMP Issues | NSC

Situation: Users report network sluggishness, with investigation revealing excessive multicast traffic on segments

Slow performance of LAN due to a high degree of multicast traffic or ...

By default, a LAN switch floods multicast traffic within the broadcast domain and this can consume a lot of bandwidth

show ip multicast anomalies | AOS-CX Command-line interface

This command is used to display IPv4 multicast anomalies occurring across all the multicast modules in the system. Use this issue to

Juniper Core-Switch Multicast Routing : r/networking

Juniper Core-Switch Multicast Routing Hi Guys, unfortunately I don't know much about Multicast and need it way to less to get my

UniFi Switch Settings - Ubiquiti Help Center

Allows you to manually specify a switch to be the IGMP Querier, instead of relying on default election. This may be required by Dante

How to identify and resolve multicast and broadcast storms in your ...

This article will show how to see what device which is causing multicast or broadcast storms in your network and if there is a loop in

Troubleshoot IP Multicast Guide

Why Does IP Multicast Not Load Balance Across All Available Equal Cost Paths? This section provides a solution to

show ip multicast anomalies

This command is used to display IPv4 multicast anomalies occurring across all the multicast modules in the system. Use this issue to

Fix Multicast Traffic Issues in Same VLAN on Catalyst Switches

This document describes how to fix a multicast application failure when it is deployed in the same VLAN between

IP Multicast routing on Core switch over Multiple Vlans PIM Sparse

The Video server uses multicast I have implemented Multicast routing PIM-Sparse mode by making core switch 1 as

IP Multicast

IP Multicast-Some links below may open a new browser window to display the document you selected.

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For more information, pricing, or custom solutions, please contact us:

Website: <https://e-motional.eu>

Email: [info@e-motional.eu](mailto:info@e-motional.eu)

Phone: +49-30-657-8924

Address: Friedrichstraße 101, 10117 Berlin, Germany

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