

Nexus 5500 Failed to Allocate Shared Memory Error



Document ID: 116478

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Sep 13, 2013

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Introduction

This document describes the process to solve this error message:

```
MCASTFWD-3-NO_SH_MEM: mcastfwd Failed to allocate shared memory  
mfwd_mrrib_get_route_buffer()
```

Requirements

Cisco recommends that you have knowledge of Cisco NXos CLI.

Components Used

The information in this document is based on these software and hardware versions:

- Any Nexus 3000 Chassis
- Any Nexus 5500 Chassis

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Problem

The switch reports this error:

```
MCASTFWD-3-NO_SH_MEM; mcastfwd [3208] Failed to allocate shared memory  
mfwd_mrrib_get_route_buffer()
```

Solution

This error message might be due to two problems:

1. Cisco Bug *IDCSCtn95676 (3k)*

On a Nexus 30xx Series switch, "Failed to allocate shared memory mfw_d_mrib_get_route_buffer()" might be displayed.

This message indicates the temporary condition of no buffers available to process when a high rate of Internet Group Management Protocol (IGMP) join/leave that hit the CPU. This condition is transient and has no overall functional impact on the system.

The bug was filed to document the behavior. This is not a software defect.

2. Cisco Bug *IDCSCtl73025 (5k)*

This message is logged on the Nexus 55xx due to two reasons:

- ◆ Multiple multicast joins occur

The Nexus 55xx should be able to handle 4,000 mroutes. This message typically starts logging around 1,000 mroutes. This does not affect production traffic.

The rest of the entries are discovered over time.

- ◆ An unstable state occurs

This might be a combination of a large number of mroutes (some without a valid route to the sources).

Obtain the output:

```
show ip mroute sum vrf all
```

Example:

IP Multicast Routing Table for VPN Routing and Forwarding (VRF) "default"

```
Total number of routes: 923
Total number of (*,G) routes: 0
Total number of (S,G) routes: 922
Total number of (*,G-prefix) routes: 1
Group count: 921, rough average sources per group: 1.0
```

CSCtl73025 is fixed in Version: 6.0(2)N1(1).