

Problems Caused by Simultaneous Access to Router NVRAM

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Introduction

This document discusses problems encountered when there is simultaneous access to a router's Non-Volatile RAM (NVRAM) and how to resolve these issues.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

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.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Problems Caused by Simultaneous Access to the NVRAM

When there is simultaneous access to a router's NVRAM, you might encounter these two errors:

- While you display the contents of the NVRAM with the **show startup-config** command:

```
Router#show startup-config
Using 5524 out of 129016 bytes
%Error opening nvram:/startup-config (Device or resource busy)
```

- While you save a configuration to the NVRAM with the **copy running-config startup-config** command:

```
Router#copy running-config startup-config
Destination filename [startup-config]?
startup-config file open failed (Device or resource busy)
```

Solution

Here is a step-by-step approach to help you resolve the issue shown in this document:

1. Enter the **show users** command in order to determine how many users are connected to the router.

```
Router#show users

Line          User          Host(s)      Idle         Location
  0 con 0     user1         idle         00:00:14
* 2 vty 0     user2         idle         00:00:00    64.104.207.114
```

As shown in the output, there is another user connected to the router through the console.

The "*" next to line 2 vty 0 indicates the line used in this session. If there are more than two users, clear all of them, except for the line with the "*". That user has accessed the NVRAM at this time and has locked it.

2. In order to clear the line the other user(s) is (are) connected on and free the NVRAM, issue the **clear line** command.

```
Router#clear line 0

[confirm]
[OK]
```

3. Issue the **show users** command again to verify.

```
Router#show users

Line User  Host(s) Idle Location
* 2  vty 0 user2  idle 00:00:00 64.104.207.114
```

As shown, now there is only one user connected to the router during this session.

The NVRAM is now accessible, and you can issue the **show startup-config** and **copy running-config startup-config** commands and not encounter any more problems.

```
Router#show startup-config
Using 5524 out of 129016 bytes
!
version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption

Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
```

%SYS-4-NV_BLOCK_INITFAIL: Unable to initialize the geometry of nvram

The %SYS-4-NV_BLOCK_INITFAIL: Unable to initialize the geometry of nvram error message appears when the configurations stored in the NVRAM has increased more than 2K.

The temporary solution is to use the **write erase** command (format NVRAM) and then issue the **write memory** command. The other option is to issue the **service compress-config** command.

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