Troubleshoot Catalyst 9000 Switches Booting to Switch Prompt

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Introduction

This document describes a problem and solution about Catalyst 9000 Series Switches that fail to boot normally and fall into the bootloader prompt.

Problem

Chassis 2 reloading. Reason is Active/Standby selection failed in 1+1 Mode:

```
switch: boot
attempting to boot from [flash:packages.conf]

Located file packages.conf
#
###############################################################################################################
Validate packages: SHA-1 hash:
calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA
expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

Both links down, not waiting for other switches
Switch number is 2

Chassis 2 reloading, reason - Active/standby selection failed in 1+1 Mode                  <<<<<<
Feb 19 20:06:55.572 FP0/0: %PMAN-5-EXITACTION: Process manager is exiting: reload fp action requested
Feb 19 20:06:57

Initializing Hardware...

System Bootstrap, Version 16.6.1r [FC1], RELEASE SOFTWARE (P)
Compiled Sat 07/15/2017 8:31:57.39 by rel

Current image running:
Primary Rommon Image

Last reset cause: SoftwareReload
```

```
C9300-48U platform with 8388608 Kbytes of main memory

attempting to boot from [flash:packages.conf]

Located file packages.conf
#
################################################################################################################

Validate packages: SHA-1 hash:
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expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA
```

Another way to identify this problem is to look at the STACK 1+1 bootloader variable by running the **set** command in bootloader mode. To get the switch in bootloader mode, click the **mode** button while the switch begins to boot up.

```
switch: set
ABNORMAL_RESET_COUNT=0
AUTOREBOOT_RESTORE=1
BOARDID=20569
BOOT=flash:packages.conf
BSI=0
MAC_ADDR=00:ab:cd:ef:01
MANUAL_BOOT=yes
MODEL_NUM=C9300-48UXM
MODEL_REVISION_NUM=D0
MOTHERBOARD_ASSEMBLY_NUM=73-17959-06
MOTHERBOARD_REVISION_NUM=A0
MOTHERBOARD_SERIAL_NUM=XXXXXXXXXXX
RANDOM_NUM=1901228755
RET_2_RCALTS=
ROMMON_AUTOBOOT_ATTEMPT=3
STACK_1_1=2_0                        <<<<<<<
SWITCH_IGNORE_STARTUP_CFG=1
SWITCH_NUMBER=2
SYSTEM_SERIAL_NUM=XXXXXXXXXXX
TEMPLATE=access
VERSION_ID=V01

switch:
```

Solution

Unset the Stack 1+1 variable. After, this switch can boot normally.

```
switch:unset STACK_1_1

switch: set
ABNORMAL_RESET_COUNT=0
```

```
AUTOREBOOT_RESTORE=1
BOARDID=20569
BOOT=flash:packages.conf
BSI=0
MAC_ADDR=00:ab:cd:ef:01
MANUAL_BOOT=yes
MODEL_NUM=C9300-48UXM
MODEL_REVISION_NUM=D0
MOTHERBOARD_ASSEMBLY_NUM=73-17959-06
MOTHERBOARD_REVISION_NUM=A0
MOTHERBOARD_SERIAL_NUM=XXXXXXXXXXX
RANDOM_NUM=1901228755
RET_2_RCALTS=
ROMMON_AUTOBOOT_ATTEMPT=3
SWITCH_IGNORE_STARTUP_CFG=1
SWITCH_NUMBER=2
SYSTEM_SERIAL_NUM=XXXXXXXXXX
TEMPLATE=access
VERSION_ID=V01

switch:
```

Once the Stack 1+1 bootloader variable is unset, run the **boot** command so, that switch can boot from the boot variable set on the switch.

```
switch: boot
attempting to boot from [flash:packages.conf]

Located file packages.conf
#
###############################################################################################################
Validate packages: SHA-1 hash:
calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA
expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

Both links down, not waiting for other switches
Switch number is 2
```

Related Information

For more information about the Stack 1+1 mode, refer to 1:1 Redundancy.