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简介

本文描述步骤升级在激活和备用Supervisor的N7K-SUP2/E Bootflash固件永久解决在软件缺陷讨论的固件问题[CSCus22805](#) : N7K-SUP2/E : eUSB闪存故障或无法保存配置。更改

此步骤将升级在两个Supervisor的Bootflash固件在连结7000个机箱，**当您的当前软件版本时**。作为替代方案，您可以升级到NX-OS包含[CSCus22805](#)的固件修正的软件版本。

另一个选项是使用闪存恢复工具(下载的联机)并且能自动地改正所有单个闪存错误，当存在。这不是永久的修正。用本文突出显示的此步骤永久升级Bootflash固件，以便内置嵌入式闪存设备不再是易受RAID失败。

背景

每个N7K Supervisor 2/2E配备有在RAID1配置，一主要的和一镜像的2个eUSB闪存设备。同时他们为启动镜像、启动配置和不变应用程序数据提供非易变信息库。

什么能发生在几个月内是或几年在使用中，这些设备之一可能从USB总线被断开，造成RAID软件从配置丢弃设备。设备能用1/2设备通常仍然作用。然而，当第二个设备退出阵列时，Bootflash被重登上如只读，含义我们不能保存配置或文件到Bootflash，或者请允许待机同步到在重新加载的事件的激活。

没有在运行在一双重闪存故障状态的系统的操作影响，然而受影响的Supervisor的重新加载是需要的从此状态恢复。此外，在断电情形下，对运行的配置的任何变化不会反射在启动上，并且丢失。

指南和限制

- [CSCus22805](#)只影响连结7000请运行从版本6.1(1)的NX-OS版本6.2(12)的Supervisor2 (N7K-SUP2)和Supervisor 2E (N7K-SUP2E)模块

使用的组件

信息在本文在这些软件和硬件版本测试了。

- Cisco连结7000系列交换机，版本6.2(10)
- N7K SUP2

升级 程序

1.)控制到激活和备用Supervisor。

2.)复制在激活和备用Supervisor上Bootflash的NX-OS 7.2(1)D1(1)。

3.)设置在待机的kickstart和系统引导变量为NX-OS 7.2(1)D1(1)。

```
N7K-1(config)# boot kickstart bootflash:n7000-s2-kickstart.7.2.1.D1.1.bin sup-2
Performing image verification and compatibility check, please wait...
Note: system and kickstart bootvars are pointing to incompatible images
```

```
N7K-1(config)# boot system bootflash:n7000-s2-dk9.7.2.1.D1.1.bin sup-2
Performing image verification and compatibility check, please wait...
```

4.)保存所有VDCs的配置并且确认在下一次重新加载的引导变量设置为在备用Supervisor的NX-OS 7.2(1)D1(1)。

```
N7K-1# copy running-config startup-config vdc-all
[#####] 100%
Copy complete.
```

```
N7K-1# show mod
Mod  Ports  Module-Type                Model                Status
---  -
1    0      Supervisor Module-2        N7K-SUP2             active *
2    0      Supervisor Module-2        N7K-SUP2             ha-standby
4    48     1/10 Gbps Ethernet Module  N7K-F248XP-25E      okN7K-1# show boot
Current Boot Variables:
```

```
sup-1
kickstart variable = bootflash:/n7000-s2-kickstart.6.2.10.bin
system variable = bootflash:/n7000-s2-dk9.6.2.10.bin
sup-2
kickstart variable = bootflash:/n7000-s2-kickstart.7.2.1.D1.1.bin
system variable = bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin
No module boot variable set
```

Boot Variables on next reload:

```
sup-1
kickstart variable = bootflash:/n7000-s2-kickstart.6.2.10.bin
system variable = bootflash:/n7000-s2-dk9.6.2.10.bin
sup-2
kickstart variable = bootflash:/n7000-s2-kickstart.7.2.1.D1.1.bin
system variable = bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin
No module boot variable set
```

5.)重新加载备用Supervisor。

```
N7K-1# reload module 2
This command will reboot standby supervisor module. (y/n)? [n] y
```

6.)备用Supervisor将启动7.2(1)D1(1) kickstart镜像并且升级Bootflash固件。一旦备用Supervisor尝试启动7.2(1)D1(1)系统镜像将检测版本不匹配并且重新加载与从激活的Supervisor的前一个镜像。

```
NX7k SUP BIOS version ( 2.12 ) : Build - 05/29/2013 11:58:20
PM FPGA Version : 0x00000022
Power sequence microcode revision - 0x00000009 : card type - 10156EEA0
Booting Spi Flash : Primary
CPU Signature - 0x000106e4: Version - 0x000106e0
```

CPU - 1 : Cores - 4 : HTEn - 1 : HT - 2 : Features - 0xbfebfbff
FSB Clk - 532 Mhz : Freq - 2154 Mhz - 2128 Mhz
MicroCode Version : 0x00000002
Memory - 12288 MB : Frequency - 1067 MHZ
Loading Bootloader: Done
IO FPGA Version : 0x1000c
PLX Version : 861910b5
Bios digital signature verification - Passed
USB bootflash status : [1-1:1-1]

Reset Reason Registers: 0x0 0x8
Filesystem type is ext2fs, partition type 0x83

GNU GRUB version 0.97
Autobooting bootflash:/n7000-s2-kickstart.7.2.1.D1.1.bin bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin...
Filesystem type is ext2fs, partition type 0x83
Booting kickstart image: bootflash:/n7000-s2-kickstart.7.2.1.D1.1.bin....
.....
.....
Kickstart digital signature verification Successful
Image verification OK

?
INIT: version 2boot device node /dev/sdc
Bootflash firmware upgraded successfully
boot device node /dev/sdc
boot mirror device node /dev/sdb
Bootflash mirror firmware upgraded successfully
boot mirror device node /dev/sdb
obfl device node /dev/sda
OBFL firmware upgraded successfully
obfl device node /dev/sda
Checking obfl filesystem.r
Checking all filesystems..r.r.r.retval=[1]
r done.
Starting mcelog daemon
rCreating logflash directories
Loading system software
/bootflash//n7000-s2-dk9.7.2.1.D1.1.bin read done
System image digital signature verification successful.
Uncompressing system image: bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin Wed Mar 2 15:56:21 UTC 2016
blogger: nothing to do.
C

..done Wed Mar 2 15:56:27 UTC 2016

INIT: Entering runlevel: 3

7.)一旦备用Supervisor是回到HA待机状态，请更改引导变量回到正确NX-OS版本并且执行对故障切换的一个Supervisor切换Supervisor。

```
N7K-1# show module
Mod  Ports  Module-Type  Model  Status---
-----1  0  Supervisor
Module-2
N7K-SUP2  ha-standby4  48  1/10 Gbps Ethernet Module  N7K-F248XP-25E
okN7K-1(config)# boot kickstart bootflash:n7000-s2-dk9.6.2.10.bin sup-2
Performing image verification and compatibility check, please wait....Note: system and kickstart bootvars are pointing to incompatible images
N7K-1(config)# boot system bootflash:n7000-s2-dk9.6.2.10.bin sup-2
Performing image verification and compatibility check, please wait.... N7K-1# copy running-config startup-config vdc-all [#####] 100%Copy complete.N7K-1# system switchover
```

8.)确认上一个激活的Supervisor启动到HA待机状态并且设置在待机的引导变量为NX-OS 7.2(1)D1(1)。

```

N7K-1# show moduleMod Ports Module-Type Model Status---
-----1 0 Supervisor
Module-2 N7K-SUP2 ha-standby2 0 Supervisor Module-
2 N7K-SUP2 active *4 48 1/10 Gbps Ethernet Module
N7K-F248XP-25E ok N7K-1(config)# boot kickstart bootflash:n7000-s2-kickstart.7.2.1.D1.1.bin
sup-1Performing image verification and compatibility check, please wait....Note: system and
kickstart bootvars are pointing to incompatible images N7K-1(config)# boot system
bootflash:n7000-s2-dk9.7.2.1.D1.1.bin sup-1Performing image verification and compatibility
check, please wait....

```

9.)保存所有VDCs的配置并且确认在下一次重新加载的引导变量设置为备用Supervisor的NX-OS 7.2(1)D1(1)。

```

N7K-1# copy running-config startup-config vdc-all[#####]
100%Copy complete.N7K-1# show boot
Current Boot Variables:sup-1kickstart variable = bootflash:/n7000-s2-
kickstart.7.2.1.D1.1.binsystem variable = bootflash:/n7000-s2-dk9.7.2.1.D1.1.binsup-2kickstart
variable = bootflash:/n7000-s2-kickstart.6.2.10.binsystem variable = bootflash:/n7000-s2-
dk9.6.2.10.binNo module boot variable setBoot Variables on next reload:sup-1kickstart variable =
bootflash:/n7000-s2-kickstart.7.2.1.D1.1.binsystem variable = bootflash:/n7000-s2-
dk9.7.2.1.D1.1.binsup-2kickstart variable = bootflash:/n7000-s2-kickstart.6.2.10.binsystem
variable = bootflash:/n7000-s2-dk9.6.2.10.binNo module boot variable set

```

9.)重新加载备用Supervisor。

```

N7K-1# reload module 1This command will reboot standby supervisor module. (y/n)? [n] y

```

10.)备用Supervisor将启动7.2(1)D1(1) kickstart镜像并且升级Bootflash固件。一旦备用Supervisor尝试启动7.2(1)D1(1)系统镜像将检测版本不匹配并且重新加载与从激活的Supervisor的前一个镜像。

```

NX7k SUP BIOS version ( 2.12 ) : Build - 05/29/2013 11:58:20PM FPGA Version : 0x00000022 Power
sequence microcode revision - 0x00000009 : card type - 10156EEA0Booting Spi Flash : Primary
CPU Signature - 0x000106e4: Version - 0x000106e0 CPU - 1 : Cores - 4 : HTen - 1 : HT - 2 :
Features - 0xbfbfbfff FSB Clk - 532 Mhz : Freq - 2154 Mhz - 2128 Mhz MicroCode Version :
0x00000002 Memory - 12288 MB : Frequency - 1067 MHZ Loading Bootloader: Done IO FPGA
Version : 0x1000c PLX Version : 861910b5Bios digital signature verification ?
PassedUSB bootflash status : [1-1:1-1]Reset Reason Registers: 0x0 0x8 Filesystem type is
ext2fs, partition type 0x83 GNU GRUB version 0.97Autobooting bootflash:/n7000-s2-
kickstart.7.2.1.D1.1.bin bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin... Filesystem type is ext2fs,
partition type 0x83Booting kickstart image: bootflash:/n7000-s2-
kickstart.7.2.1.D1.1.bin.....
.....Kickstart digital signature verification
Successful Image verification OK?INIT: version 2boot device node /dev/sdcBootflash firmware
upgraded successfullyboot device node /dev/sdcboot mirror device node /dev/sdbBootflash mirror
firmware upgraded successfullyboot mirror device node /dev/sdbobfl device node /dev/sdaOBFL
firmware upgraded successfullyobfl device node /dev/sdaChecking obfl filesystem.rChecking all
filesystems..r.r.r.retval=[1]r done.Starting mcelog daemonrCreating logflash directoriesLoading
system software/bootflash//n7000-s2-dk9.7.2.1.D1.1.bin read doneSystem image digital signature
verification successful.Uncompressing system image: bootflash:/n7000-s2-dk9.7.2.1.D1.1.bin Wed
Mar 2 15:56:21 UTC 2016blogger: nothing to do.C

```

11.)在回到HA待机状态的备用Supervisor，您将要更改引导变量回到NX-OS 6.2(10)和保存配置。

```

N7K-1# show moduleMod Ports Module-Type Model Status---
-----1 0 Supervisor
Module-2 N7K-SUP2 ha-standby2 0 Supervisor Module-2
N7K-SUP2 active *4 48 1/10 Gbps Ethernet Module N7K-F248XP-25E
okN7K-1(config)# boot kickstart bootflash:n7000-s2-dk9.6.2.10.bin sup-2Performing image
verification and compatibility check, please wait....Note: system and kickstart bootvars are
pointing to incompatible images N7K-1(config)# boot system bootflash:n7000-s2-dk9.6.2.10.bin
sup-2Performing image verification and compatibility check, please wait....
N7K-1# copy running-config startup-config vdc-all[#####]
100%Copy complete.

```

12.)一旦完成在vPC复杂的一个成员的上述步骤，您将要验证服务和继续执行在vPC对的第二个成员的同一步骤。

警告

步骤要求非中断的Supervisor切换。然而实行这些步骤在更改窗口期间避免所有suprises是可行的。

Relavant链路

[Field Notice : FN - 63975](#) -连结7000 Supervisor2和2E被嵌入的闪存写错误

[连结7000 Supervisor2闪存恢复工具](#)。欲了解更详细的信息请参阅在tarfile的Flash_Recovery_Tool_ReadMe文件。