

排除故障CGOS的CGR 1000 Bootflash和系统镜像恢复

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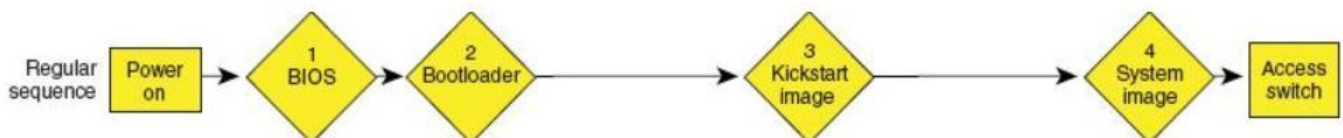
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简介

本文描述troubleshoot步骤恢复Bootflash和系统镜像在CGR 1000。

背景信息

CGR1000使用Cisco Secure对存储的数字(SD)卡存储器kickstart镜像、系统镜像、配置等等。在少见occassions，SD卡毁损。结果，kickstart镜像和系统镜像毁损。这防止CGR启动。启动的顺序在给的图概述。在此条款的步骤概述是恢复从一损坏的SD卡存储器状态的CGR。



先决条件

1. 在本地PC安装的简单文件传输协议(TFTP)服务器
2. 设置TFTP server有kickstart镜像和系统镜像

要求

Cisco 建议您了解以下主题：

1. 控制台电缆
2. CAT5
3. kickstart镜像和系统镜像

使用的组件

本文限制对CGOS在CGR 1120和CGR1240的仅版本运行。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

恢复步骤

1. 设置控制台电缆使用PuTTY。
2. 连接从本地PC NIC的CAT5电缆到CGR ETH 2/2。这是在恢复进程时工作的唯一的接口。
3. 设置本地PC NIC在相同子网作为CGR。

例如; PC的网卡是192.0.2.1子网255.255.255.0。

对于CGR将是192.0.2.2子网255.255.255.0。

4. 在PuTTY会话上，您看到：

```
"loader>"
```

```
IOFPGA @ 0xd0000000 version=0x30020700, datecode=0xc080d17 CPLD version 0x14  
Reset Reason = 0(0)  
Scratch pad test passed !!!
```

```
BIOS Version: Build # 12 - Wed 06/27/2012  
CGR Loader Version: 1.00.01
```

```
Filesystem type is ext2fs, partition type 0x83  
Filesystem type is ext2fs, partition type 0x83
```

```
GNU GRUB version 0.97
```

```
CGR Loader Version 1.00.01
```

```
loader>
```

5. 设置ETH2/2的IP地址用命令“集ip”。

```
set ip 192.0.2.2 255.255.255.0
```

```
Correct - ip addr is 192.0.2.2, mask is 255.255.255.0  
Found Intel IOH GBE [2:0.1] at 0xe020, ROM address 0x0000  
Probing...[Intel IOH GBE]  
MAC address 78:da:6e:8:ad:e1  
External PHY link UP @ 1000/full  
Address: 192.0.2.2  
Netmask: 255.255.255.0
```

```
Server: 0.0.0.0
Gateway: 0.0.0.0
```

```
loader>
```

6. 设置网关地址是本地PC NIC用命令“设置的千兆瓦”。

```
set gw 192.0.2.1
```

```
Correct gateway addr 192.0.2.1
Address: 192.0.2.2
Netmask: 255.255.255.0
Server: 0.0.0.0
Gateway: 192.0.2.1
```

7. 启动从本地TFTP server的kickstart镜像用命令“引导程序tftp://”。

```
loader> boot tftp://192.0.2.1/cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin      ??????
Address: 192.0.2.2
Netmask: 255.255.255.0
Server: 192.0.2.1
Gateway: 192.0.2.1
  Filesystem type is tftp, using whole disk
Booting: /cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin console=ttyS0,9600n8nn quiet loader_ver="1.00.01"....
.....
.....Kickstart image verification Successful
Image verification OK
```

```
INIT: Checking all filesystems ..... done.
Warning: switch is starting up with default configuration
Creating boot config file...
/etc/rc.d/rcS.d/S26check-flash: line 528: /mnt/bootloader/boot/grub/menu.lst.local: No such file
or directory
cp: cannot stat `/mnt/cfg/0/boot/grub/menu.lst.local': No such file or directory
WARNING: image sync is going to be disabled after a loader netboot
Loading system software
INIT: Sending processes the TERM signal?[H?[J
INIT: Sending processes the TERM signal
INIT: Sending processes the
```

```
KILL signal
```

8. 一旦镜像启动，您将看到类似于此输出的输出。

```
Router(boot)# ?
Exec commands:
clear      Reset functions
config     Enter configuration mode
copy       Copy from one file to another
delete     Delete a file or directory
dir        Directory listing for files
exit       Exit from the EXEC
find       Find a file below the current directory
format     Format disks
init       Initialize internal disk
load       Load system image
mkdir      Create new directory
move       Move files
no         Disable debugging functions
pwd        View current directory
reload     Reboot this supervisor module
```

```
rmdir      Remove existing directory
show       Show running system information
sleep     Sleep for the specified number of seconds
ssh       SSH to another system
tail      Display the last part of a file
telnet    Telnet to another system
```

9. 格式化与命令“格式化Bootflash的损坏的SD卡：”。

This command is going to erase the contents of your bootflash:.

Do you want to continue? (y/n) [n] y

```
Formatting bootflash:
Formatting started at: Fri Feb 20 23:56:00 UTC 2015
mke2fs 1.35 (28-Feb-2004)
Formatting finished at: Fri Feb 20 23:56:52 UTC 2015
Formatting completed
```

10. 运行init系统(选项步骤：此指令格式SD卡和消除一切)。

```
Router(boot)# init system
```

```
This command is going to erase your startup config, licenses as well as the contents of your bootflash:.
```

```
Do you want to continue? (y/n) [n] yInitializing the system
```

```
mount: /dev/mmcblk0p4 already mounted or /bootflash busy
```

```
mount: according to mtab, /dev/mmcblk0p4 is already mounted on /bootflash
```

```
ERROR: cannot mount filesystem
```

```
cp: omitting directory `~/bootflash/`
```

```
Partitioning failed
```

11. 设置管理接口(这要求为了复制kickstart和系统镜像到Bootflash)。

```
Router(boot)# configure terminal
Router(boot)(config)# interface mgmt0
Router(boot)(config-if)#ip address 192.0.2.2 255.255.255.0
Router(boot)(config-if)#no shut
```

12. 复制kickstart和系统镜像到Bootflash。

```
Router(boot)# copy tftp://192.0.2.1/cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin bootflash:
Trying to connect to tftp server.....
Connection to server Established. Copying Started.....
```

```
TFTP get operation was successful
```

```
Copy complete, now saving to disk (please wait)...
```

```
Router(boot)# copy tftp://192.0.2.1/cgr1000-uk9.5.2.1.CG4.3.SPA.bin bootflash:
Trying to connect to tftp server.....
Connection to server Established. Copying Started.....
```

```
TFTP get operation was successful
```

```
Copy complete, now saving to disk (please wait)...
```

13. 验证kickstart和系统镜像在与“dir” CGR。

```
Router(boot)#dir
 29167616    Feb 21 00:39:59 2015  cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin
 143332283  Feb 21 00:42:06 2015  cgr1000-uk9.5.2.1.CG4.3.SPA.bin
      372    Feb 23 17:55:52 2015  fpga.log
      1905   Feb 23 18:39:54 2015  mts.log
```

```
Usage for bootflash://
691462144 bytes used
8859394048 bytes free
9550856192 bytes total
```

14. 启动系统镜像用“负载Bootflash”命令。

```
Router(boot)# load bootflash:cgr1000-uk9.5.2.1.CG4.3.SPA.bin
```

```
Loading system software
Uncompressing bootflash:/cgr1000-uk9.5.2.1.CG4.3.SPA.bin.....done. (in 37 seconds)
Loading plugin 0: core_plugin...
```

```
INIT: Switching to runlevel: 3
INIT: Sending processes the TERM signal
Router(boot)#
```

```
INIT:
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
System is coming up ... Please wait ...
2015 Feb 21 00:47:56  %$ VDC-1  %$ %COPP-2-COPP_NO_POLICY: Control-plane is unprotected.System is
coming up ... Please wait ...
2015 Feb 21 00:47:58  %$ VDC-1  %$ %VDC_MGR-2-VDC_ONLINE: vdc 1 has come online 2015 Feb 21
00:47:58 Router %$ VDC-1  %$ %PLATFORM-2-
```

```
INPUT_POWER_SOURCE_TRANSITION: Three Phase and DC Input Status Alert: L1 Phase ON, L2 Phase
OFF, L3 Phase OFF, DC Input Absent
```

15. 一旦CGR启动到系统镜像，您需要配置kickstart和系统镜像与“安装所有Bootflash : <kickstart-image>系统Bootflash : <system image>”。

```
cgr1120# install all kickstart bootflash:cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin system
bootflash:cgr1000-uk9.5.2.1.CG4.3.SPA.bin
```

```
Verifying image bootflash:/cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin for boot variable
"kickstart".
-- SUCCESS
```

```
Verifying image bootflash:/cgr1000-uk9.5.2.1.CG4.3.SPA.bin for boot variable "system".
-- SUCCESS
```

```
Verifying image type.
-- SUCCESS
```

```
Extracting "system" version from image bootflash:/cgr1000-uk9.5.2.1.CG4.3.SPA.bin.
-- SUCCESS
```

```
Extracting "kickstart" version from image bootflash:/cgr1000-uk9-kickstart.5.2.1.CG4.3.SPA.bin.
-- SUCCESS
```

```
Extracting "bios" version from image bootflash:/cgr1000-uk9.5.2.1.CG4.3.SPA.bin.
-- SUCCESS
```

Checking for Battery Power Mode.

-- SUCCESS

Checking for Module Power Status.

-- SUCCESS

Checking for WPAN upgrade compatibility.

-- SUCCESS

Performing module support checks.

-- SUCCESS

Notifying services about system upgrade.

-- SUCCESS

Compatibility check is done:

Module	bootable	Impact	Install-type	Reason
1	yes	disruptive	reset	Hitless upgrade is not supported

Images will be upgraded according to following table:

Module	Image	Running-Version(pri:alt)	New-Version	Upg-Required
1	system	5.2(1)CG4(3)	5.2(1)CG4(3)	no
1	kickstart	5.2(1)CG4(3)	5.2(1)CG4(3)	no
1	bios	v16.1.0(10/15/2013):V12.1.0(06/27/2012)	v16.1.0(10/15/2013)	no
1	fpga	2.07.00	2.07.00	no

Switch will be reloaded for disruptive upgrade.

Do you want to continue with the installation (y/n)? [n] y