Solución de problemas de Bootflash y recuperación de imagen del sistema para CGOS CGR 1000

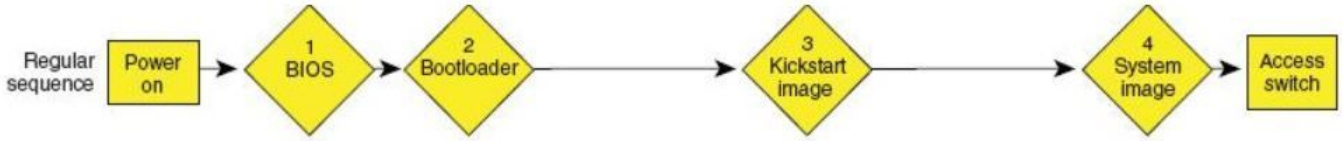
Contenido

Introducción

Este documento describe los pasos de troubleshooting para recuperar la memoria flash de inicialización y la imagen del sistema en CGR 1000.

Antecedentes

El CGR1000 utiliza la memoria de tarjeta Cisco Secure Digital (SD) para almacenar imágenes de inicio rápido, imágenes del sistema, configuraciones, etc. En raras ocasiones, la tarjeta SD se daña. Como resultado, la imagen de inicio rápido y/o la imagen del sistema se dañan. Esto evita que la CGR se inicie. La secuencia para la función de arranque se describe en la figura dada. El esquema del procedimiento en este artículo es restaurar el CGR desde un estado de memoria de tarjeta SD corrupto.



Prerequisites

1. Servidor TFTP instalado en el PC local

2. Configure el servidor TFTP para que tenga la imagen de inicio rápido y la imagen del sistema

Requirements

Cisco recomienda que tenga conocimiento sobre estos temas:

1. Cable de consola

2. CAT5

3. La imagen de inicio rápido y las imágenes del sistema

Componentes Utilizados

Este documento está restringido a la versión de CGOS que se ejecute en CGR 1120 y CGR1240.

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.

Pasos de recuperación

1. Configure el cable de la consola con el comando putty.

2. Conecte el cable CAT5 desde la NIC de la PC local a la CGR ETH 2/2 . Esta es la única interfaz que funciona en el momento del proceso de recuperación.

3. Configure la NIC de pc local para que esté en la misma subred que la CGR.

Por ejemplo; la NIC del PC es 192.0.2.1 subred 255.255.255.0.

Para el CGR será 192.0.2.2 subred 255.255.255.0.

4. En la sesión de Putty, verá:

```
"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. Configure la dirección IP de ETH2/2 con el comando "set 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. Configure la dirección de la puerta de enlace para que sea la PC NIC local con el comando "set gw".

```
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. Inicie la imagen kickstart desde el servidor tftp local con el comando "boot 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 quie
t 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. Una vez que se inicie la imagen, verá una salida similar a esta salida.

```
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. Formatee la tarjeta SD dañada con el comando "format bootflash:".

```
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. Ejecutar en sistema (paso de opción: este comando da formato a la tarjeta SD y elimina todo).

```
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. Configure la interfaz de administración (esto es necesario para copiar el inicio rápido y la imagen del sistema en la memoria flash de inicialización).

```
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. Copie el inicio rápido y la imagen del sistema en la memoria flash de inicialización.

```
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. Verifique que el inicio rápido y la imagen del sistema estén en el CGR con "dir".

```
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. Inicie la imagen del sistema con el comando "load bootflash".

```
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 ...
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. Una vez que el CGR se inicie en la imagen del sistema, debe instalar el kickstart y la imagen del sistema con "install all bootflash:<kickstart-image> system 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
```