Contenido

Introducción

Este documento describe una manera de recuperar el sistema 6000 (NCS6K) de la convergencia de red después de que actualización fallada sin usar una unidad USB. La recuperación con la unidad USB requiere el acceso físico al dispositivo que la mayor parte del tiempo puede ser un desafío y largo.

El procedimiento descrito en este documento utilizaría una máquina de Linux que actúa como un TFTP y servidor DHCP para recuperar el NCS6K vía el puerto de Ethernet de administración RP.

Prerrequisitos

Requisitos

Cisco recomienda que usted tiene conocimiento básico de Linux, de TFTP, del DHCP y de Cisco XR CLI.

Componentes Utilizados

Este documento se restringe a la plataforma NCS6K.

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si la red está funcionando, asegúrese de haber comprendido el impacto que puede tener cualquier comando.

Procedimiento paso a paso

1. Descargue el archivo requerido del inicio XR USB del sitio Web de Cisco.

2. Cargue descargado archivo zip al servidor Linux y desabróchelo en /tftpboot:
3. Encuentre el MAC address del puerto de Ethernet de administración del (RP) del Route Processor NCS6K. Puede ser encontrado en los registros de la consola:`Press F12 to go to Boot Manager..Booting System Host OS..Verifying Image for Secure Boot failed with status 15System Host OS boot failed.Booting Int Network 0 for IPv4 (4C-4E-35-B6-63-33)..>>Start PXE over IPv4. PXE-E18: Server response timeout.Int Network 0 for IPv4 (4C-4E-35-B6-63-33) boot failed.Booting Ext Network 0 for IPv4 (`**`4C-4E-35-B6-63-33`**`)..`

4. Agregue el siguiente al archivo dhcpd.conf. Esto afectará un aparato un IP Address estático al acceso de Ethernet del mgmt RP al iniciar (eg. : 10.48.32.160):`root@xxxr:/tftpboot/0A3020A0# cat /etc/dhcp/dhcpd.conf`

```
allow bootp;
allow booting;

subnet 10.48.32.0 netmask 255.255.255.0 {

      option routers 10.48.32.1;
      next-server 10.48.32.93;
      host pani0-rp {
              hardware ethernet  4c:4e:35:b6:63:33;
              fixed-address 10.48.32.160;
            filename "EFI/boot/bootx64.efi" ;
   }
}
```

Nota: 10.48.32.93 es el direccionamiento TFTP y del servidor DHCP.

5. Haga una copia de grub.cfg (archivo generado en el paso 2). Nombre el archivo después de que la dirección IP NCS6K consiga del DHCP:`root@xxxr:/tftpboot# cp /tftpboot/EFI/boot/grub.cfg  /tftpboot/10.48.32.160.cfg`
6. Edite el archivo generado arriba para asegurarse que el ISO está escogido de la red (quite llevar/):`root@xxxr:/tftpboot# diff /tftpboot/EFI/boot/grub.cfg /tftpboot/10.48.32.160.cfg11,12c11,12<         echo "Booting from USB.."<         loopback loop /boot/install-image.iso--->         echo "Booting from network..">         loopback loop boot/install-image.iso`Para 5.2.3, miraría algo similar:`root@xxxr:/tftpboot# cat /tftpboot/10.48.32.160.cfgset default=0serial --unit=0 --speed=115200terminal_input consoleterminal_output serialset timeout=2menuentry "System Install OS" {   echo "Booting from network..."   loopback loop boot/install-image.iso   root=loop echo "Loading Kernel.."   linux (loop)/boot/bzImage root=/dev/ram install=/dev/sda console=ttyS0,115200 prod=1 crashkernel=192M@0 bigphysarea=10M quiet pci=assign-busses noissu aer=off pci=hpmemsize=0M,hpiosize=0M   echo "Loading initrd.."   initrd (loop)/boot/initrd.img signfile=/boot/signature.initrd.img}`
7. La configuración en el servidor Linux es completa. En la tentativa siguiente del inicio PXE, el DHCP afectará un aparato 10.48.32.160 al NCS6K RP. Entonces conseguirá la comida .efi y .cfg usando el TFTP. Después de esto, la COMIDA comenzaría automáticamente y cargaría el ISO usando el TFTP.
   Nota: El archivo ISO está normalmente alrededor de 700Mb. Tardará una cierta hora (hasta 10 minutos) después de “iniciar de la red.” se visualiza el mensaje.Registros completos de la actividad:`Cisco BIOS version : SB.Panini.0014.00`
   `BIOS Build Date : 07/10/2014 by lchinnad`
   `System Memory Speed : 1600 MHz`
   `Processor Type : Intel(R) Xeon(R) CPU E5-2448L @ 1.80GHz`

```
Press F12 to goto Boot Manager..

Booting System Host OS..
Verifying Image for Secure Boot failed with status 15

System Host OS boot failed.

Booting Int Network 0 for IPv4 (4C-4E-35-B6-63-33)..
 Start PXE over IPv4.
 PXE-E18: Server response timeout.

Int Network 0 for IPv4 (4C-4E-35-B6-63-33) boot failed.

Booting Ext Network 0 for IPv4 (4C-4E-35-B6-63-33)..
Start PXE over IPv4.
```

```
 Station IP address is 10.48.32.160
 Server IP address is 10.48.32.93
 NBP filename is bootx64.efi
 Downloading NBP file...

 Succeed to download NBP file.


GNU GRUB version 2.00
Press F2 to goto grub Menu..
Booting from network..

[    6.338259] i8042: No controller found
Starting udev: [  OK  ]
Actual changes:
large-receive-offload: off [requested on]
ntuple-filters: on
Setting hostname host:  [  OK  ]
Checking filesystems:[  OK  ]
Remounting root filesystem in read-write mode:  [  OK  ]
Entering non-interactive startup
Bringing up loopback interface:  [  OK  ]
Starting system logger: [  OK  ]
Starting kernel logger: [  OK  ]
Starting kdump:[  OK  ]
Starting system message bus: [  OK  ]
Starting smartd: [  OK  ]
Generating SSH1 RSA host key: [  OK  ]
Generating SSH2 RSA host key: [  OK  ]
Generating SSH2 DSA host key: [  OK  ]
Starting sshd: [  OK  ]
Starting xinetd: [  OK  ]
Checking PCI block device /dev/sdb disk space
Thu Jun 25 14:07:13 UTC 2015: Detected /iso/host.iso
mount: block device /iso/host.iso is write-protected, mounting read-only
Thu Jun 25 14:07:13 UTC 2015: Mounted /iso/host.iso to /tmp/isomnt.iV1833
Thu Jun 25 14:07:13 UTC 2015: Found /tmp/isomnt.iV1833/rpm/ncs6k-sysadmin-hostos.all-5.2.3-
Default.x86_64.rpm in host.iso
Thu Jun 25 14:07:13 UTC 2015: Installing /tmp/isomnt.iV1833/rpm/ncs6k-sysadmin-hostos.all-
5.2.3-Default.x86_64.rpm
Preparing packages for installation...
ncs6k-sysadmin-hostos.all-5.2.3-Default.x86_64
hushd_static: no process killed
hushd restarted
Thu Jun 25 14:07:13 UTC 2015: Did not detect new pxe install script, keep going with old
xrnginstall
Thu Jun 25 14:07:13 UTC 2015: Running in  Data LV support model
/etc/rc3.d/S60xrnginstall: line 239: SIMULATION: readonly variable
Thu Jun 25 14:07:13 UTC 2015: Prepping System with calvados.iso
Thu Jun 25 14:07:13 UTC 2015: Installer will install image on sda
Thu Jun 25 14:07:13 UTC 2015: Running in LVM support model
Thu Jun 25 14:07:15 UTC 2015: Partition creation on /dev/sda took 1 seconds
Thu Jun 25 14:07:15 UTC 2015: File system creation on /dev/sda1 took 0 seconds
Thu Jun 25 14:07:15 UTC 2015: Install host image on /dev/sda1
Thu Jun 25 14:07:23 UTC 2015: Installing host image size of 183M took 8 seconds
Thu Jun 25 14:07:33 UTC 2015: File system creation on /dev/sda2 took 4 seconds
Thu Jun 25 14:08:38 UTC 2015: Copying XR iso to repository took 65 seconds
Partitioning PCI block device /dev/sdb
Added VLAN with VID == 513 to IF -:eth-pf1:-
Thu Jun 25 14:08:40 UTC 2015: Copying boot/install-image.iso from tftpserver 10.48.32.93
Thu Jun 25 14:16:58 UTC 2015: Copying Pxeboot files from tftpserver 10.48.32.93 took 498
seconds
Thu Jun 25 14:17:28 UTC 2015: File system creation on /dev/panini_vol_grp/calvados_lv0 took
5 seconds
```

```
Thu Jun 25 14:17:28 UTC 2015: Install sysadmin-vm image on /dev/panini_vol_grp/calvados_lv0
mount: block device /iso/ncs6k-sysadmin.iso is write-protected, mounting read-only
Thu Jun 25 14:17:35 UTC 2015: sysadmin-vm: RP based installation
Thu Jun 25 14:18:22 UTC 2015: Installing sysadmin-vm image size of 444M took 54 seconds
Install EFI on /dev/sda4
Thu Jun 25 14:18:24 UTC 2015: Install finished on sda
Resetting BIOS Boot Mode register ...
Automatic rebooting system after installation ...

Cisco BIOS version : SB.Panini.0014.00
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Press F12 to goto Boot Manager..

Booting System Host OS..

GNU GRUB version 2.00
Press F2 to goto grub Menu..
Booting from Disk..
Loading Kernel..
Loading initrd..
Starting udev: [  OK  ]
Setting hostname sysadmin-vm:  [  OK  ]
Checking filesystems:[  OK  ]
Mount /dev/vdd at /misc/disk1
Entering non-interactive startup
Bringing up loopback interface:  [  OK  ]
Starting system logger: [  OK  ]
Starting kernel logger: [  OK  ]
Starting system message bus: [  OK  ]
Starting smartd: [FAILED]
Generating SSH1 RSA host key: [  OK  ]
Generating SSH2 RSA host key: [  OK  ]
Generating SSH2 DSA host key: [  OK  ]
Starting sshd: [  OK  ]
Starting xinetd: [  OK  ]
Starting crond: [  OK  ]
Starting libvirtd daemon: [  OK  ]
Starting NCS6k programs for RP on sysadmin-vm: [  OK  ]
starting pm
sysadmin_startup: Starting Cisco Login Program on ttyS0
sysadmin initialized
sysadmin_startup: Starting Cisco Login Program on ttys1
sysadmin initialized

0_0_0Jun 25 14:19:32 : Send To Helper Failed - Msg : aaad[2600]: %MGBL-AAAD-7-DEBUG : AAA
Init successful
0_0_0Jun 25 14:19:33 : Send To Helper Failed - Msg : vm_manager[2628]: %INFRA-VM_MANAGER-4-
INFO : Info: VM Manager started. arguments  -W
0_0_0Jun 25 14:19:34 : Send To Helper Failed - Msg : sdr_mgr[2619]: %SM-SDR_MANAGER-4-INFO
: Info: SDR Manager started.

SYSTEM IS NOT READY FOR LOGIN

!!!NO root-system username is configured. Need to configure root-system username!!!

--- Administrative User Dialog ---


Enter root-system Username: 0_0_0Jun 25 14:20:58 : Send To Helper Failed - Msg :
plx_fpd[2616]: %INFRA-FPD_Driver-1-UPGRADE_ALERT : Driver missing fpd obfl log function for
fpd PLX-8748, FPD init continues but debugability impacted
```

```
0/RP0/ADMIN0:Jun 25 14:20:58.410 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT0-PM0:
0/RP0/ADMIN0:Jun 25 14:20:58.417 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT0-PM1:
0/RP0/ADMIN0:Jun 25 14:20:58.418 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT0-PM2:
0/RP0/ADMIN0:Jun 25 14:20:58.434 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT3-PM0:
0/RP0/ADMIN0:Jun 25 14:20:58.445 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT3-PM1:
0/RP0/ADMIN0:Jun 25 14:20:58.451 : envmon[2609]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR
:Unsupported power module detected :DECLARE :0/PT3-PM2:
0/RP0/ADMIN0:Jun 25 14:20:58.517 : zen[2630]: %INFRA-FPD_Driver-1-UPGRADE_ALERT : Driver
missing fpd obfl log function for fpd CPU Complex FPGA, FPD init continues but debugability
impacted


Enter root-system Username: root

Enter secret:

Enter secret again:


 Successfully created root-system user


System Admin Username: root

Password:

root connected from 127.0.0.1 using console on sysadmin-vm:0_RP0

sysadmin-vm:0_RP0# show platform
Thu Jun  25 14:21:33.150 UTC
Location  Card Type                HW State      SW State      Config State
--------------------------------------------------------------------------------
0/1       NC6-60X10GE-M-S          POWERED_ON    SW_INACTIVE   NSHUT
0/7       NC6-10X100G-M-P          POWERED_ON    SW_INACTIVE   NSHUT
0/RP0     NC6-RP                   OPERATIONAL   OPERATIONAL   NSHUT
0/RP1     NC6-RP                   POWERED_ON    SW_INACTIVE   NSHUT
0/FC0     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/FC1     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/FC2     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/FC3     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/FC4     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/FC5     P-L-FC-S                 POWERED_ON    N/A           NSHUT
0/CI0     NCS-CRFT=                OPERATIONAL   N/A           NSHUT
0/FT0     NC6-FANTRAY              OPERATIONAL   N/A           NSHUT
0/FT1     NC6-FANTRAY              OPERATIONAL   N/A           NSHUT
0/PT0     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
0/PT1     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
0/PT2     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
0/PT3     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
0/PT4     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
0/PT5     NCS-AC-PWRTRAY           OPERATIONAL   N/A           NSHUT
```

Después de una cierta hora, el otro RP y el linecards también comenzarán a iniciar.