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## Introduction

Ce document décrit une manière de récupérer le système 6000 (NCS6K) de convergence de réseau après que mise à jour défectueuse sans utiliser un lecteur USB. La reprise avec le lecteur USB exige l'accès physique au périphérique qui le plus souvent peut être un défi et coûteux en temps.

La procédure décrite dans ce document utiliserait une machine Linux agissant en tant que TFTP et serveur DHCP pour récupérer le NCS6K par l'intermédiaire du port Ethernet de Gestion RP.

## Conditions préalables

### Conditions requises

Cisco recommande que vous ayez la connaissance de base du Linux, du TFTP, du DHCP et du Cisco XR CLI.

### Composants utilisés

Ce document est limité à la plate-forme NCS6K.

Les informations contenues dans ce document ont été créées à partir des périphériques d'un environnement de laboratoire spécifique. Tous les périphériques utilisés dans ce document ont démarré avec une configuration effacée (par défaut). Si votre réseau est opérationnel, assurez-vous que vous comprenez l'effet potentiel de toute commande.

## Procédure pas à pas

1. Téléchargez le fichier requis de démarrage XR USB du site Web Cisco.
2. Téléchargez le fichier zip téléchargé au serveur Linux et défaites la fermeture éclair de lui dans /tftpboot :
3. Trouvez le MAC address du port Ethernet de Gestion du processeur d'artère NCS6K (RP). Il peut être trouvé dans les logs de console :

```
Press F12 to go to Boot Manager..Bootting System Host OS..Verifying Image for Secure Boot failed with status 15System Host OS boot failed.Bootting 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.Bootting Ext
```

```
Network 0 for IPv4 (4C-4E-35-B6-63-33)..
```

- Ajoutez le suivant au fichier dhcpd.conf. Ceci allouera une adresse IP statique au port Ethernet de mgmt RP en amorçant (par exemple : 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" ;
    }
}
```

} Remarque: 10.48.32.93 est l'adresse TFTP et de serveur DHCP.

- Tirez une copie de grub.cfg (fichier généré dans étape 2). Nommez le fichier après que l'adresse IP NCS6K obtenue du DHCP :root@xxxr:/tftpboot# cp /tftpboot/EFI/boot/grub.cfg /tftpboot/10.48.32.160.cfg

- Éditez le fichier généré ci-dessus pour s'assurer que l'OIN est sélectionnée du réseau

```
(enlevez la conduite/) :root@xxxr:/tftpboot# diff /tftpboot/EFI/boot/grub.cfg
/tftpboot/10.48.32.160.cfg1,12c11,12<         echo "Booting from USB.."<         loopback
loop /boot/install-image.iso--->         echo "Booting from network..">         loopback
loop boot/install-image.iso
```

Pour 5.2.3, il regarderait n'importe quoi de pareil

```
: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}
```

- La configuration sur le serveur Linux est complète. À la prochaine tentative de démarrage PXE, le DHCP allouera 10.48.32.160 au NCS6K RP. Il obtiendra alors le ver .efi et .cfg utilisant le TFTP. Après ceci, le VER commencerait automatiquement et chargerait l'OIN utilisant le TFTP.

Remarque: Le fichier ISO est normalement autour de 700Mb. Cela prendra un certain temps (jusqu'à 10 minutes) après « avoir amorcé du réseau. » le message est affiché. Terminez-

```
vous les logs de l'activité :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

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..

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

Après une certaine heure, d'autres RP et linecards commenceront également l'initialisation.