Procedimiento de actualización ISSU del switch Catalyst serie 6500 con 6800IA (FEX) conectado

Contenido

Introducción Prerequisites Requirements Componentes Utilizados Procedimiento de actualización Configuración inicial Pasos de actualización Verificación

Introducción

Este documento describe un procedimiento de actualización de software en funcionamiento (ISSU) paso a paso en los switches Catalyst de Cisco serie 6500 en el modo de Virtual Switching System (VSS) con el uso de Supervisor 2T con switches de acceso instantáneo (FEX) Cisco Catalyst 6800 de doble conexión conectados.

Prerequisites

Requirements

No hay requisitos específicos para este documento.

Componentes Utilizados

La información de este documento se basa en los switches Catalyst de Cisco serie 6500 en modo VSS que ejecutan Supervisor Engine 2T con un 6800IA de doble reposición conectado en tarjetas de línea WS-X6904-40G.

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.

Procedimiento de actualización

Configuración inicial

El procedimiento de actualización se realiza para Cisco IOS[®] Software Release 15.1(2)SY a Release 15.1(2)SY1.

Estas son las estadísticas anteriores al proceso ISSU:

- El chasis Catalyst 6500 con ID de switch 1 está activo y el switch con ID 2 está en espera (en caliente).
- Ambos chasis están activos en Cisco IOS Software Release 15.1(2)SY.
- Un único 6800IA que ejecuta Cisco IOS Software Release 15.0(2)EX2 está conectado a VSS en tarjetas de línea WS-X6904-40G con una conexión doméstica dual. El número de canal de puerto FEX es 99 y el ID de FEX es 110.

6K1#**show mod sw all** Switch Number: 1 Role: Virtual Switch Active _____ Mod Ports Card Type Model Serial No. ____ ____ 5 Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G 2 SAL1632K9P2 20 DCEF2T 4 port 40GE / 16 port 10GE SAL1741E4ZA 3 Mod MAC addresses Hw Fw Sw Status ______ 2 c471.fe7c.de96 to c471.fe7c.de9d 1.3 12.2(50r)SYS **15.1(2)SY** Ok 3 e02f.6d6a.698c to e02f.6d6a.699f 1.0 12.2(50r)SYL 15.1(2)SY Ok Mod Sub-Module Model Serial Hw Status ____ _____ 2Policy Feature Card 4VS-F6K-PFC4SAL1637MCQQ1.2Ok2CPU DaughterboardVS-F6K-MSFC5SAL1637MKX81.4Ok 3 Distributed Forwarding Card WS-F6K-DFC4-E SAL1745FSD6 1.0 Ok Mod Online Diag Status 2 Pass 3 Pass Switch Number: 2 Role: Virtual Switch Standby _____ Mod Ports Card Type Model Serial No. ____ _____ ______ 5 Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G SAL1650UC8L 2 3 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G SAL17173QD3 Hw Fw Mod MAC addresses Sw Status ____ _____ 2 2c54.2dc4.2f3a to 2c54.2dc4.2f41 1.4 12.2(50r)SYS **15.1(2)SY** Ok 70ca.9b8f.510c to 70ca.9b8f.511f 1.0 12.2(50r)SYL 15.1(2)SY 3 Serial Hw Status Mod Sub-Module Model ____ _____ 2Policy Feature Card 4VS-F6K-PFC42CPU DaughterboardVS-F6K-MSFC5 SAL1651UG8P 1.2 Ok SAL1651UEBY 1.5 Ok 3 Distributed Forwarding Card WS-F6K-DFC4-E SAL17173QHY 1.2 Ok

```
_____
2 Pass
3 Pass
Switch Number: 110 Role:
                               FEX
-----
Mod Ports Card Type
                              Model
                                          Serial No.
____ _____ _____
   48 C6800IA 48GE
                              C6800IA-48TD FOC1736W1A6
1
Mod MAC addresses
                        Hw Fw
                                    Sw
                                             Status
____ _____
1 c025.5cc2.2d00 to c025.5cc2.2d33 0.0 Unknown
                                    15.0(2)EX2 Ok
Mod Online Diag Status
____ _
1 Pass
6K1#show switch virtual
         : Virtual Switch
Switch mode
Virtual switch domain number : 100
Local switch number : 1
Local switch operational role: Virtual Switch Active
Peer switch number : 2
```

Pasos de actualización

 Asegúrese de que la nueva imagen de Cisco IOS (Cisco IOS Software Release 15.1(2)SY1) esté presente en el disco de inicio y en el disco de inicio eslavebootdisk.

```
6K1#dir bootdisk: | in s2t54
5 -rw- 120035816 Jan 23 2014 22:35:12 +00:00
s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
8 -rw- 119792104 Feb 10 2014 19:42:12 +00:00
s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
6K1#dir slavebootdisk: | in s2t54
5 -rw- 120035816 Jan 23 2014 22:26:14 +00:00
s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
8 -rw- 119792104 Feb 10 2014 19:46:14 +00:00
s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
```

Peer switch operational role : Virtual Switch Standby

 (Opcional) Utilice estos comandos para verificar que el VSS esté listo para ejecutar el procedimiento de actualización: show issu state detailshow redundancyshow module switch all6K1#show issu state detail

El sistema está configurado para actualizarse en modo escalonado. Se ha encontrado que dos nodos supervisores están en línea. Resumen el sistema se actualizará en modo de tándem.

Slot = 1/2 RP State = Active ISSU State = Init

```
Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
Operating Mode = sso
ISSU Sub-State = No Upgrade Operation in Progress
Starting Image = N/A
Target Image = N/A
Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
```

```
Slot = 2/2
RP State = Standby
ISSU State = Init
Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
Operating Mode = sso
ISSU Sub-State = No Upgrade Operation in Progress
Starting Image = N/A
Target Image = N/A
Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
```

This system is Fex-capable

```
Fex-ID ISSU Status
```

110 FEX_INIT

```
6K1#
```

```
6K1#show redundancy
Redundant System Information :
_____
     Available system uptime = 36 minutes
Switchovers system experienced = 0
           Standby failures = 0
      Last switchover reason = none
               Hardware Mode = Duplex
  Configured Redundancy Mode = sso
   Operating Redundancy Mode = sso
            Maintenance Mode = Disabled
             Communications = Up
Current Processor Information :
------
            Active Location = slot 1/2
      Current Software state = ACTIVE
     Uptime in current state = 36 minutes
              Image Version = Cisco IOS Software, s2t54 Software
               (s2t54-ADVENTERPRISEK9-M),
               Version 15.1(2)SY, RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 04-Sep-13 12:37 by prod_rel_team
                       BOOT = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
                CONFIG_FILE =
                    BOOTLDR =
      Configuration register = 0x2102
Peer Processor Information :
_____
            Standby Location = slot 2/2
      Current Software state = STANDBY HOT
     Uptime in current state = 34 minutes
               Image Version = Cisco IOS Software, s2t54 Software
```

```
(s2t54-ADVENTERPRISEK9-M),
Version 15.1(2)SY, RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 04-Sep-13 12:37 by prod_rel_team
BOOT = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
CONFIG_FILE =
BOOTLDR =
Configuration register = 0x2102
```

3. Utilice el comando issu loadversion para iniciar el proceso de upgrade.

En este paso, el chasis VSS en espera se reinicia, se recarga con la nueva imagen y se inicializa como el chasis VSS en espera en el modo de redundancia SSO, ejecutando la nueva imagen. Este paso se completa cuando se sincroniza la configuración del chasis, como indica el mensaje **Bulk sync exitosamente**. La carga de la nueva imagen puede tardar entre varios segundos y algunos minutos, y el chasis VSS en espera puede pasar al modo SSO.

```
6K1#issu loadversion 1/2 bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
2/2 slavebootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
System configuration has been modified. Save? [yes/no]: yes
Building configuration...
[OK]
%issu loadversion initiated successfully, upgrade sequence will begin shortly
6K1#
*Feb 11 05:24:40.091: %ISSU_PROCESS-SW1-3-LOADVERSION: Loadversion sequence
will begin in 60 seconds. Enter 'issu abortversion' to cancel.
*Feb 11 05:25:10.091: %ISSU_PROCESS-SW1-6-LOADVERSION_INFO: Resetting Standby shortly
<...output truncated...>
*Feb 11 05:29:46.075: %VS_GENERIC-SW1-6-VS_HA_HOT_STANDBY_NOTIFY: Standby switch
is in Hot Standby mode
*Feb 11 05:29:46.079: %HA_CONFIG_SYNC-SW1-6-BULK_CFGSYNC_SUCCEED: Bulk Sync succeeded
*Feb 11 05:29:46.079: %RF-SW1-5-RF_TERMINAL_STATE: Terminal state reached for (SSO)
*Feb 11 05:30:25.091: %ISSU_PROCESS-SW1-3-LOADVERSION: Loadversion has completed.
Please issue the 'issu runversion' command after all modules come online.
1
! Boot variable for standby should point to new Image in "show issu state detail" output.
6K1#show issu state det
        The system is configured to be upgraded in staggered mode.
        2 supervisor nodes are found to be online.
        Summary: an in-tandem upgrade is in progress.
               Slot = 1/2
          RP State = Active
         ISSU State = Load Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
     Operating Mode = sso
     ISSU Sub-State = Load Version Completed
     Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
       Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
```

```
Slot = 2/2
          RP State = Standby
        ISSU State = Load Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
    Operating Mode = sso
    ISSU Sub-State = Load Version Completed
    Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
      Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
   Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
This system is Fex-capable
Fex-ID ISSU Status
110 FEX_UPGRADE_INIT
6K1#show redundancy states
     my state = 13 -ACTIVE
   peer state = 8 -STANDBY HOT
        Mode = Duplex
         Unit = Secondary
      Unit ID = 18
Redundancy Mode (Operational) = sso
Redundancy Mode (Configured) = sso
Redundancy State = sso
   Maintenance Mode = Disabled
  Manual Swact = enabled
Communications = Up
 client count = 144
 client_notification_TMR = 30000 milliseconds
        keep_alive TMR = 9000 milliseconds
      keep_alive count = 1
   keep_alive threshold = 19
         RF debug mask = 0x0
```

4. Cuando el chasis en espera VSS ejecuta correctamente la nueva imagen en el estado de redundancia SSO y todas las tarjetas de línea en el chasis en espera VSS están activas y en línea, ingrese el comando issu runversion para forzar un switchover. El chasis VSS en espera actualizado toma el relevo como el nuevo chasis activo, ejecutando la nueva imagen. El chasis anteriormente activo se recarga e inicializa como el nuevo chasis VSS en espera en modo SSO, ejecutando la imagen antigua (en caso de que deba anularse la actualización del software y restaurarse la imagen antigua). Este paso se completa cuando se sincroniza la configuración del chasis, como indica el mensaje Bulk sync exitosamente.

6K1#issu runversion

Este comando recargará la unidad activa.

%issu runversion initiated successfully *Feb 11 05:35:19.035: %RF-SW1-5-RF_RELOAD: Self reload. Reason: Admin ISSU runversion CLI <...output truncated...> Feb 11 05:35:21.411: %SYS-SW1-5-SWITCHOVER: Switchover requested by Exec. Reload Reason: Admin ISSU runversion CLI. Resetting 1 !Standby chassis now becomes active. Below logs are from new active switch. 1 Initializing as Virtual Switch ACTIVE processor *Feb 11 05:37:36.107: %PFREDUN-SW2-6-ACTIVE: Standby initializing for SSO mode *Feb 11 05:39:56.563: %HA_CONFIG_SYNC-SW2-6-BULK_CFGSYNC_SUCCEED: Bulk Sync succeeded *Feb 11 05:39:56.563: %RF-SW2-5-RF_TERMINAL_STATE: Terminal state reached for (SSO) *Feb 11 05:39:56.555: %PFREDUN-SW1_STBY-6-STANDBY: Ready for SSO mode in Default Domain ! Wait till all the modules and Fex Port-channel 99 links come up 1 *Feb 11 05:41:28.467: %ISSU_PROCESS-SW2-6-RUNVERSION_INFO: Runversion has completed. Please issue the 'issu acceptversion' command Feb 11 05:43:13.034: %LINK-3-UPDOWN: Interface TenGigabitEthernet1/0/2, changed state to up (FEX-110) Feb 11 05:43:14.033: %LINEPROTO-5-UPDOWN: Line protocol on Interface TenGigabitEthernet1/0/2, changed state to up (FEX-110) *Feb 11 05:43:14.491: %SATMGR-SW2-5-FABRIC_PORT_UP: SDP up on interface Te1/3/5, connected to FEX 110, uplink 52 *Feb 11 05:43:14.491: %SATMGR-SW2-5-DUAL ACTIVE DETECT CAPABLE: channel group 99 is now dual-active detection capable 6K1#**show issu state** The system is configured to be upgraded in staggered mode. 2 supervisor nodes are found to be online. Summary: an in-tandem upgrade is in progress. Slot = 2/2RP State = Active ISSU State = Run Version Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12; bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12 Slot = 1/2RP State = Standby ISSU State = Run Version Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12; This system is Fex-capable Fex-ID ISSU Status 110 FEX_UPGRADE_INIT

```
FEX: 110
              Description: FEX0110
                                    state: online
FEX version: 15.0(2)EX2
Extender Model: C6800IA-48TD, Extender Serial: FOC1736W1A6
FCP ready: yes
Image Version Check: enforced
Fabric Portchannel Ports: 2
Fabric port for control traffic: Te2/3/5
Fabric interface state:
           - Interface Up.
   Po99
   Te1/3/5 - Interface Up.
                                state: bound
   Te2/3/5 - Interface Up.
                                state: bound
```

 Utilice el comando issu acceptversion para detener el Temporizador de Reversión. Esto es necesario porque si el temporizador caduca, el chasis actualizado se recarga y vuelve a la versión de software anterior.

6K1#issu acceptversion % Rollback timer stopped. Please issue the 'issu commitversion' command.

6. Utilice el comando issu runversion fex all para iniciar el procedimiento de descarga y actualización de imágenes en el FEX (6800IA). El FEX activa la descarga de la imagen del nuevo paquete de software del Supervisor2T (aquí Cisco IOS Software Release 15.2(2)SY1). Si utiliza pilas FEX, el maestro es responsable de extraer la imagen a sus miembros. Un servidor TFTP se ejecuta en 192.1.1.1.

```
6K1#issu runversion fex all
% Successfully initiated 'runversion fex' for Fex IDs: 110.
Use 'show issu state' for more information.
6K1#show issu state det
        The system is configured to be upgraded in staggered mode.
        2 supervisor nodes are found to be online.
        Summary: an in-tandem upgrade is in progress.
               Slot = 2/2
          RP State = Active
         ISSU State = Run Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;bootdisk:
s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
    Operating Mode = sso
     ISSU Sub-State = Run Version Completed
    Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
      Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
    Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
              Slot = 1/2
          RP State = Standby
         ISSU State = Run Version
      Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
     Operating Mode = sso
```

```
ISSU Sub-State = Run Version Completed
Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
```

This system is Fex-capable

```
Fex-ID ISSU Status
```

110 FEX_UPGRADE_IN_PROGRESS

Following are the logs on from FEX 6800IA console:

1

!192.1.1.1 is the tftp running on FEX controller i.e. VSS active and vlan 1012 is the control vlan associated with fex.

!

```
examining image...
extracting info (112 bytes)
extracting c6800ia-universalk9-mz.150-2.EX4/info (792 bytes)
extracting info (112 bytes)
```

Stacking Version Number: 1.55

```
System Type:0x0000000Ios Image File Size:0x00EB5200Total Image File Size:0x00EC6A00Minimum Dram required:0x0800000Image Suffix:universalk9-150-2.EX4Image Directory:c6800ia-universalk9-mz.150-2.EX4Image Name:c6800ia-universalk9-mz.150-2.EX4.binImage Feature:IP|LAYER_2|SSH|3DES|MIN_DRAM_MEG=128FRU Module Version:No FRU Version Specified
```

```
Old image for switch 1: flash:/c6800ia-universalk9-mz.150-2.EX2
Old image will be left alone
```

Extracting images from archive into flash...

! The console will be waiting for about 5-10 minutes after the above line.

<output truncated>

New software image installed in flash:/c6800ia-universalk9-mz.150-2.EX4

Following are the logs from the 6500 Active supervisor:

*Feb 11 06:00:30.387: %SATMGR-SW2-5-ONLINE: FEX 110 online *Feb 11 06:00:30.391: %SATMGR-SW2-5-FEX_MODULE_ONLINE: FEX 110, module 1 online *Feb 11 06:00:30.395: %OIR-SW2-6-INSREM: Switch 110 Physical Slot 1 - Module Type LINE_CARD inserted *Feb 11 06:00:30.951: %SATMGR-SW2-5-FABRIC_PORT_UP: SDP up on interface Te2/3/5, connected to FEX 110, uplink 51 *Feb 11 06:00:30.951: %SATMGR-SW2-5-DUAL_ACTIVE_DETECT_CAPABLE: channel group

```
99 is now dual-active detection capable
*Feb 11 06:01:00.983: %OIR-SW2-6-SP_INSCARD: Card inserted in Switch_number =
110, physical slot 1, interfaces are now online
FEX-110#show ver | in image
System image file is "flash:/c6800ia-universalk9-mz.150-2.EX4/
c6800ia-universalk9-mz.150-2.EX4.bin"
6K1#show issu state det
        The system is configured to be upgraded in staggered mode.
        2 supervisor nodes are found to be online.
        Summary: an in-tandem upgrade is in progress.
              Slot = 2/2
          RP State = Active
        ISSU State = Run Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
    Operating Mode = sso
     ISSU Sub-State = Run Version Completed
    Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
      Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
    Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
              Slot = 1/2
          RP State = Standby
        ISSU State = Run Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
    Operating Mode = sso
    ISSU Sub-State = Run Version Completed
    Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
      Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
```

```
Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
```

This system is Fex-capable

Fex-ID ISSU Status

110 FEX_UPGRADE_COMPLETE

7. Para continuar, ingrese el comando issu commitversion para actualizar el chasis en espera de VSS y completar la secuencia ISSU. El chasis VSS en espera se reinicia, se recarga con la nueva imagen y se inicializa como el chasis VSS en espera en el estado de redundancia SSO, ejecutando la nueva imagen. Este paso se completa cuando se sincroniza la configuración del chasis, como indica el mensaje Bulk sync exitosa, y todas las tarjetas de línea en el nuevo VSS-Standby están activas y en línea.

```
Commitversion sequence will begin in 60 seconds. Enter 'issu abortversion'
to cancel.
*Feb 11 06:06:00.839: %ISSU_PROCESS-SW2-6-COMMITVERSION_INFO:
Resetting Standby shortly
*Feb 11 06:08:48.571: %PFREDUN-SW2-6-ACTIVE: Standby initializing for SSO mode
*Feb 11 06:09:01.163: %ISSU_PROCESS-SW2-6-COMMITVERSION_INFO: Standby has
come online, wait for terminal state
*Feb 11 06:10:41.267: %VS_GENERIC-SW2-6-VS_HA_HOT_STANDBY_NOTIFY: Standby switch
is in Hot Standby mode
*Feb 11 06:10:41.271: %HA_CONFIG_SYNC-SW2-6-BULK_CFGSYNC_SUCCEED:
Bulk Sync succeeded
*Feb 11 06:10:41.271: %RF-SW2-5-RF_TERMINAL_STATE: Terminal state reached for (SSO)
*Feb 11 06:10:46.403: %ISSU_PROCESS-SW2-6-COMMITVERSION_INFO: Upgrade has completed,
updating boot configuration
1
!Boot variable now displays both new and old image in ?show issu state detail? output.
1
6K1#show issu state detail
        The system is configured to be upgraded in staggered mode.
        2 supervisor nodes are found to be online.
        Summary: an in-tandem upgrade is in progress.
              Slot = 2/2
          RP State = Active
        ISSU State = Commit Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
     Operating Mode = sso
     ISSU Sub-State = Commit Version completed, waiting for system to settle
    Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
      Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
    Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
              Slot = 1/2
          RP State = Standby
        ISSU State = Commit Version
     Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
    Operating Mode = sso
    ISSU Sub-State = Commit Version completed, waiting for system to settle
     Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin
       Target Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
    Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
This system is Fex-capable
```

Fex-ID ISSU Status

110 FEX_UPGRADE_COMPLETE

```
Available system uptime = 1 hour, 28 minutes
Switchovers system experienced = 1
            Standby failures = 1
      Last switchover reason = user forced
               Hardware Mode = Duplex
  Configured Redundancy Mode = sso
     Operating Redundancy Mode = sso
            Maintenance Mode = Disabled
              Communications = Up
Current Processor Information :
_____
             Active Location = slot 2/2
      Current Software state = ACTIVE
     Uptime in current state = 36 minutes
               Image Version = Cisco IOS Software, s2t54 Software
(s2t54-ADVENTERPRISEK9-M), Version 15.1(2)SY1, RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
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                        BOOT = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
                 CONFIG_FILE =
                    BOOTLDR =
      Configuration register = 0x2102
Peer Processor Information :
Standby Location = slot 1/2
      Current Software state = STANDBY HOT
     Uptime in current state = 1 minute
               Image Version = Cisco IOS Software, s2t54 Software (s2t54-ADVENTERPRISEK9-
M),
Version 15.1(2)SY1, RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
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Compiled Thu 28-Nov-13 12:58 by prod_rel_team
                        BOOT = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin,12;
bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12
                 CONFIG_FILE =
                     BOOTLDR =
      Configuration register = 0x2102
```

Verificación

Para verificar que la actualización fue exitosa, utilice estos comandos:

- show issu state detail
- show redundancy
- show module switch all

Este es el estado actual después del proceso ISSU:

- El chasis 6500 con ID de switch 2 está activo y el switch con ID 1 está en espera (en caliente). Ahora se encuentran en la versión 15.1(2)SY1 del software del IOS de Cisco.
- El cliente de acceso instantáneo (6800IA) ahora ejecuta Cisco IOS Software Release 15.0(2)EX4.

6K1#**show mod swi all** Switch Number: 1 Role: Virtual Switch Standby -----Mod Ports Card Type Model Serial No. ___ ____ _ ____ 5 Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G 2 SAL1632K9P2 20 DCEF2T 4 port 40GE / 16 port 10GE 3 WS-X6904-40G SAL1741E4ZA Mod MAC addresses Hw Fw Sw Status 2 c471.fe7c.de96 to c471.fe7c.de9d 1.3 12.2(50r)SYS **15.1(2)SY1** Ok 3 e02f.6d6a.698c to e02f.6d6a.699f 1.0 12.2(50r)SYL 15.1(2)SY1 Ok Mod Sub-Module Model Serial Hw Status ____ ______ ----- ----- -----2Policy Feature Card 4VS-F6K-PFC42CPU DaughterboardVS-F6K-MSFC5 VS-F6K-PFC4 SAL1637MCQQ 1.2 Ok SAL1637MKX8 1.4 Ok 3 Distributed Forwarding Card WS-F6K-DFC4-E SAL1745FSD6 1.0 Ok Mod Online Diag Status ---- ------2 Pass 3 Pass Switch Number: 2 Role: Virtual Switch Active ------Mod Ports Card Type Model Serial No. ___ ____ ____ 2 5 Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G SAL1650UC8L SAL17173QD3 3 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G Mod MAC addresses Hw Fw Sw Status ____ _____ 2 2c54.2dc4.2f3a to 2c54.2dc4.2f41 1.4 12.2(50r) SYS **15.1(2) SY1** Ok 3 70ca.9b8f.510c to 70ca.9b8f.511f 1.0 12.2(50r)SYL 15.1(2)SY1 Ok Mod Sub-Module Model Serial Hw Status ____ _____ 2 Policy Feature Card 4 VS-F6K-PFC4 SAL1651UG8P 1.2 Ok VS-F6K-MSFC5 2 CPU Daughterboard SAL1651UEBY 1.5 Ok 3 Distributed Forwarding Card WS-F6K-DFC4-E SAL17173QHY 1.2 Ok Mod Online Diag Status ____ _____ 2 Pass 3 Pass Switch Number: 110 Role: FEX _____ Serial No. Mod Ports Card Type Model ____ _____ ______ 48 C6800IA 48GE C6800IA-48TD 1 FOC1736W1A6 Mod MAC addresses Hw Fw Sw Status --- ----- ------ ------1 c025.5cc2.2d00 to c025.5cc2.2d33 0.0 Unknown **15.0(2)EX4** Ok Mod Online Diag Status 1 Pass

6K1#

6K1#**show switch virtual**

Switch mode: Virtual SwitchVirtual switch domain number: 100Local switch number: 2Local switch operational role:Virtual Switch ActivePeer switch number: 1Peer switch operational role :Virtual Switch Standby