# Catalyst serie 6500 Switch - Procedura di aggiornamento IOS con connessione 6800IA (FEX)

## Sommario

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## Introduzione

In questo documento viene descritta una procedura dettagliata di aggiornamento del software in servizio (ISSU) sugli switch Cisco Catalyst serie 6500 in modalità VSS (Virtual Switching System) con l'uso di Supervisor 2T con switch Cisco Catalyst 6800 Instant Access (FEX) dual-homed.

## Prerequisiti

### Requisiti

Nessun requisito specifico previsto per questo documento.

### Componenti usati

Per la stesura del documento, sono stati usati switch Cisco Catalyst serie 6500 in modalità VSS con Supervisor Engine 2T e 6800IA dual-homed collegato a schede di linea WS-X6904-40G.

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

## Procedura di aggiornamento

### Configurazione iniziale

6K1#**show mod sw all** 

La procedura di aggiornamento viene eseguita per il software Cisco IOS<sup>®</sup> versione 15.1(2)SY e la versione 15.1(2)SY1.

Ecco le statistiche prima del processo ISSU:

- Lo chassis Catalyst 6500 con ID switch 1 è attivo e lo switch con ID 2 è in standby (a caldo).
- Entrambi gli chassis sono compatibili con il software Cisco IOS versione 15.1(2)SY.
- Un unico switch 6800IA con software Cisco IOS versione 15.0(2)EX2 è collegato al software VSS sulle schede di linea WS-X6904-40G con una connessione dual-home. Il numero del canale della porta FEX è 99 e l'ID FEX è 110.

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 2 SAL1632K9P2 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G 3 SAL1741E4ZA Mod MAC addresses Hw Fw Sw Status \_\_\_\_ \_\_\_\_\_ c471.fe7c.de96 to c471.fe7c.de9d 1.3 12.2(50r)SYS **15.1(2)SY** 2 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 \_\_\_\_ \_\_\_\_\_ 2 Policy Feature Card 4 VS-F6K-PFC4 SAL1637MCQQ 1.2 Ok VS-F6K-MSFC5 SAL1637MKX8 1.4 Ok 2 CPU Daughterboard 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 -----Model Mod Ports Card Type Serial No. 5 Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G 2 SAL1650UC8L 3 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G SAL171730D3 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 3 70ca.9b8f.510c to 70ca.9b8f.511f 1.0 12.2(50r)SYL 15.1(2)SY Ok Mod Sub-Module Model Serial Hw Status \_\_\_\_ \_\_\_\_\_ 2Policy Feature Card 4VS-F6K-PFC4SAL1651UG8P1.22CPU DaughterboardVS-F6K-MSFC5SAL1651UEBY1.5 Ok 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 \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_ C6800IA-48TD 48 C6800IA 48GE FOC1736W1A6 1 Hw Fw Mod MAC addresses Sw Status \_\_\_\_ \_\_\_\_\_ 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

### Passaggi di aggiornamento

Peer switch number : 2

Peer switch operational role : Virtual Switch Standby

1. Verificare che la nuova immagine Cisco IOS (software Cisco IOS versione 15.1(2)SY1) sia presente nel disco di avvio e nel disco di avvio.

```
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
```

 (Facoltativo) Utilizzare questi comandi per verificare che il Servizio Copia Shadow del volume sia pronto per eseguire la procedura di aggiornamento: mostra dettagli stato problemamostra ridondanzashow module switch all6K1#show issu state detail

Il sistema è configurato per essere aggiornato in modalità sfalsata. Due nodi supervisor risultano online. Riepilogo: il sistema verrà aggiornato in modalità tandem.

```
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
```

```
Standby Location = slot 2/2
Current Software state = STANDEY 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. Usare il comando debug loadversion per avviare il processo di aggiornamento.
```

In questo passaggio, lo chassis di standby VSS viene riavviato, ricaricato con la nuova immagine e inizializzato come chassis di standby VSS in modalità di ridondanza SSO, eseguendo la nuova immagine. Questo passaggio è completo quando la configurazione dello chassis viene sincronizzata, come indicato dal messaggio **Sincronizzazione in blocco riuscita**. Il caricamento della nuova immagine e il passaggio dello chassis in standby VSS alla modalità SSO potrebbero richiedere da alcuni secondi a pochi minuti.

```
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.
! 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
    Current Version = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.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. Quando lo chassis in standby VSS esegue correttamente la nuova immagine nello stato di ridondanza SSO e tutte le schede di linea sullo chassis in standby VSS sono attive e online, immettere il comando issu runversion per forzare il passaggio. Lo chassis in standby VSS aggiornato diventa il nuovo chassis attivo, eseguendo la nuova immagine. Lo chassis precedentemente attivo viene ricaricato e inizializzato come nuovo chassis in standby VSS in modalità SSO, eseguendo l'immagine precedente (nel caso in cui l'aggiornamento del software debba essere interrotto e l'immagine precedente ripristinata). Questo passaggio è completo quando la configurazione dello chassis viene sincronizzata, come indicato dal messaggio Sincronizzazione in blocco riuscita.

#### 6K1#issu runversion

### Questo comando ricarica l'unità attiva.

```
Proceed ? [confirm]
%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 .....
!
!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
!
*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 = 2/2
           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
               Slot = 1/2
           RP State = Standby
         ISSU State = Run Version
      Boot Variable = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY.bin,12;
```

Fex-ID ISSU Status

110 FEX\_UPGRADE\_INIT

```
6K1#show fex 110 detail
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:
    Po99 - Interface Up.
    Te1/3/5 - Interface Up. state: bound
    Te2/3/5 - Interface Up. state: bound
```

 Per interrompere il timer di rollback, usare il comando issu ACCEPTversion. Ciò è necessario perché se il timer scade, lo chassis aggiornato viene ricaricato e viene ripristinata la versione software precedente.

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

6. Usare il comando output runversion fex all per avviare la procedura di download e aggiornamento dell'immagine sul server FEX (6800IA). Il FEX attiva il download dell'immagine dal nuovo bundle software di Supervisor2T (qui software Cisco IOS versione 15.2(2)SY1). Se si utilizzano stack FEX, il dispositivo master è responsabile dell'estrazione dell'immagine dai relativi membri. Un server TFTP funziona alla versione 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:
!
!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.
1
FEX-110#
Loading c6800ia-universalk9-mz.150-2.EX4.bin from 192.1.1.1
[OK - 15493122 bytes]
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:
                      0x00000000
 Ios Image File Size: 0x00EB5200
Total Image File Size: 0x00EC6A00
Minimum Dram required: 0x08000000
                 universalk9-150-2.EX4
 Image Suffix:
 Image Directory:
                    c6800ia-universalk9-mz.150-2.EX4
                     c6800ia-universalk9-mz.150-2.EX4.bin
 Image Name:
 Image Feature:
                     IP|LAYER_2|SSH|3DES|MIN_DRAM_MEG=128
 FRU 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 = 2/2RP 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 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 = 1/2RP 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\_UPGRADE\_COMPLETE

Fex-ID ISSU Status

110

7. Per continuare, immettere il comando commit version per aggiornare lo chassis in standby VSS e completare la sequenza ISSU. Lo chassis in standby VSS si riavvia, viene ricaricato con la nuova immagine e viene inizializzato come chassis in standby VSS in stato di ridondanza SSO, eseguendo la nuova immagine. Questo passaggio è completo quando la configurazione dello chassis è sincronizzata, come indicato dal messaggio Bulk sync successfully (Sincronizzazione di massa riuscita), e tutte le schede di linea sul nuovo VSS-Standby sono attive e online.

```
6K1#issu commitversion
%issu commitversion initiated successfully, upgrade sequence will continue shortly
6K1#
*Feb 11 06:05:30.839: %ISSU_PROCESS-SW2-3-COMMITVERSION: issu commitversion;
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
```

```
Fex-ID ISSU Status
```

110 FEX\_UPGRADE\_COMPLETE

```
6K1#show redundancy
Redundant System Information :
_____
     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
Copyright (c) 1986-2013 by Cisco Systems, Inc.
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
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
Copyright (c) 1986-2013 by Cisco Systems, Inc.
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
```

## Verifica

Per verificare che l'aggiornamento sia riuscito, utilizzare i seguenti comandi:

- mostra dettagli stato problema
- mostra ridondanza
- · show module switch all

Di seguito è riportato lo stato corrente dopo il processo ISSU:

- Lo chassis 6500 con ID switch 2 è attivo e lo switch con ID 1 è in standby (caldo). Sono ora disponibili sul software Cisco IOS versione 15.1(2)SY1.
- Sul client Instant Access (6800IA) è ora in esecuzione il software Cisco IOS versione 15.0(2)EX4.

6K1#show mod swi all Switch Number: 1 Role: Virtual Switch Standby \_\_\_\_\_ Mod Ports Card Type Model Serial No. \_\_\_\_ \_\_\_\_ 2 5 Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G SAL1632K9P2 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G 3 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 e02f.6d6a.698c to e02f.6d6a.699f 1.0 12.2(50r)SYL 15.1(2)SY1 3 Ok Serial Hw Mod Sub-Module Model Status 2 Policy Feature Card 4 VS-F6K-PFC4 SAL1637MCQQ 1.2 Ok 2 CPU Daughterboard VS-F6K-MSFC5 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. \_\_\_\_\_ \_\_\_\_ 5 Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G 2 SAL1650UC8L 3 20 DCEF2T 4 port 40GE / 16 port 10GE WS-X6904-40G SAL17173QD3 Mod MAC addresses Hw Fw Sw Status \_\_\_\_ \_\_\_\_\_ 12.2(50r)SYS 15.1(2)SY1 2 2c54.2dc4.2f3a to 2c54.2dc4.2f41 1.4 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 \_\_\_\_ \_\_\_\_\_ 2Policy Feature Card 4VS-F6K-PFC4SAL1651UG8P1.2Ok2CPU DaughterboardVS-F6K-MSFC5SAL1651UEBY1.5Ok 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 ------\_\_\_\_\_ Mod Ports Card Type Model Serial No. \_\_\_\_ \_\_\_\_\_ 48 C6800IA 48GE C6800IA-48TD FOC1736W1A6 1 Sw Mod MAC addresses Hw Fw 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