# إجراء ترقية Catalyst 6500 Series Switch ISSU مع توصيل 6800ia (FEX)

## المحتويات

## المقدمة

يصف هذا المستند إجراء ترقية البرامج أثناء الخدمة (ISSU) خطوة بخطوة على محولات Cisco Catalyst 6500 Series Switches في وضع نظام التحويل الظاهري (VSS) باستخدام Supervisor 2T مع إرفاق محولات Cisco Catalyst 6800 Instant Access (FEX) مزدوجة المسار.

## المتطلبات الأساسية

### المتطلبات

لا توجد متطلبات خاصة لهذا المستند.

### المكونات المستخدمة

أسست المعلومة في هذا وثيقة على cisco مادة حفازة 6500 sery مفتاح في VSS أسلوب أن يركض مشرف محرك 2T مع dual-home 6800ia يربط على WS-X6904-40G خط.

تم إنشاء المعلومات الواردة في هذا المستند من الأجهزة الموجودة في بيئة معملية خاصة. بدأت جميع الأجهزة المستخدمة في هذا المستند بتكوين ممسوح (افتراضي). إذا كانت شبكتك مباشرة، فتأكد من فهمك للتأثير المحتمل لأي أمر.

## إجراء الترقية

# الإعداد الأولي

يتم تنفيذ إجراء الترقية لبرنامج Cisco IOS®، الإصدار SY(2)15.1 إلى الإصدار SY1(2)15.1.

فيما يلي الإحصاءات قبل عملية ISSU:

- يكون هيكل Catalyst 6500 ذو معرف المحول 1 نشطا، كما أن المحول ذو المعرف 2 يكون في وضع الاستعداد (HOT).
- كلا الهيكلين فوق برنامج Cisco IOS Software، الإصدار SY(2)15.1.
- يتصل الإصدار EX2(2)15.0 أحادي الطراز 6800ia الذي يعمل ببرنامج Cisco IOS Software بطاقة VSS على سلاسل WS-X6904-40G مع اتصال مزدوج المنزل. يكون رقم قناة منفذ FEX 99 ومعرف FEX 110.

```
6K1#show mod sw all
                  Switch Number:    1   Role:   Virtual Switch Active
              ----------------------------    ---------------------
.Mod Ports Card Type                           Model             Serial No
---------- ---------------------------- ------------------------------ ----- ---
Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G      SAL1632K9P2  5   2
DCEF2T 4 port 40GE / 16 port 10GE      WS-X6904-40G      SAL1741E4ZA  20  3

Mod MAC addresses                       Hw    Fw         Sw            Status
------- ------------ ------------ ------ ------------------------------ ---
    c471.fe7c.de96 to c471.fe7c.de9d  1.3   12.2(50r)SYS 15.1(2)SY   Ok  2
    e02f.6d6a.698c to e02f.6d6a.699f  1.0   12.2(50r)SYL 15.1(2)SY   Ok  3

Mod  Sub-Module               Model             Serial      Hw    Status
------- ------- ----------- ------------------ ------------------------- ----
    Policy Feature Card 4     VS-F6K-PFC4       SAL1637MCQQ  1.2   Ok  2
    CPU Daughterboard         VS-F6K-MSFC5      SAL1637MKX8  1.4   Ok  2
    Distributed Forwarding Card WS-F6K-DFC4-E   SAL1745FSD6  1.0   Ok  3

                                        Mod  Online Diag Status
                                        ------------------ ----
                                                Pass  2
                                                Pass  3

                  Switch Number:    2   Role:   Virtual Switch Standby
              ----------------------------    ---------------------
.Mod Ports Card Type                           Model             Serial No
---------- ---------------------------- ------------------------------ ----- ---
Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G      SAL1650UC8L  5   2
DCEF2T 4 port 40GE / 16 port 10GE      WS-X6904-40G      SAL17173QD3  20  3

Mod MAC addresses                       Hw    Fw         Sw            Status
------- ------------ ------------ ------ ------------------------------ ---
    2c54.2dc4.2f3a to 2c54.2dc4.2f41  1.4   12.2(50r)SYS 15.1(2)SY   Ok  2
    70ca.9b8f.510c to 70ca.9b8f.511f  1.0   12.2(50r)SYL 15.1(2)SY   Ok  3

Mod  Sub-Module               Model             Serial      Hw    Status
------- ------- ----------- ------------------ ------------------------- ----
    Policy Feature Card 4     VS-F6K-PFC4       SAL1651UG8P  1.2   Ok  2
    CPU Daughterboard         VS-F6K-MSFC5      SAL1651UEBY  1.5   Ok  2
    Distributed Forwarding Card WS-F6K-DFC4-E   SAL17173QHY  1.2   Ok  3

                                        Mod  Online Diag Status
                                        ------------------ ----
                                                Pass  2
                                                Pass  3
```

```
                Switch Number:   110   Role:                    FEX
          ----------------------------  --------------------
.Mod Ports Card Type                         Model              Serial No
---------- --------------- ----------------------------------- ----- ---
  C6800IA 48GE                          C6800IA-48TD    FOC1736W1A6  48  1

Mod MAC addresses                        Hw    Fw       Sw          Status
------- ------------ ----------- ------ --------------------------------- ---
        c025.5cc2.2d00 to c025.5cc2.2d33  0.0  Unknown    15.0(2)EX2  Ok  1

                                         Mod  Online Diag Status
                                         ----------------- ----
                                                  Pass  1


                                      6K1#show switch virtual
              Switch mode                  : Virtual Switch
                         Virtual switch domain number : 100
                            Local switch number        : 1
           Local switch operational role: Virtual Switch Active
                            Peer switch number         : 2
           Peer switch operational role : Virtual Switch Standby
```

## خطوات الترقية

1. تأكد من وجود صورة Cisco IOS الجديدة (الإصدار 15.1(2)SY1 من برنامج Cisco IOS Software) في قرص التمهيد ومحرك الأقراص المؤقت.

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

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

2. (إختياري) أستخدم هذا أمر in order to دققت أن VSS جاهز أن يركض التحسين إجراء:
إظهار تفاصيل الحالةإظهار التكرارshow issu6K1#show module switch all دولة تفصيل

تم تكوين النظام ليتم ترقيته في وضع متدرج.
تم العثور على عقدتي مشرف على أنهما متصلتان عبر الإنترنت.
ملخص: ستتم ترقية النظام في وضع الترادف.

```
                         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

                                 FEX_INIT    110

                                            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. أستخدم الأمر **issu loadversion** لبدء عملية الترقية.

في هذه الخطوة، تتم إعادة تمهيد هيكل VSS الاحتياطي، وإعادة تحميله باستخدام الصورة الجديدة، وتهيئته
كهيكل VSS الاحتياطي في وضع تكرار SSO، مما يؤدي إلى تشغيل الصورة الجديدة. اكتملت هذه الخطوة عند
مزامنة تكوين الهيكل، كما هو موضح بواسطة رسالة **نجاح المزامنة المجمعة**. قد يستغرق تحميل الصورة
الجديدة عدة ثوان إلى بضع دقائق، كما قد يتطلب انتقال هيكل الاستعداد VSS إلى وضع SSO.

```
        6K1#issu loadversion 1/2 bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin
                   slavebootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.bin 2/2

                       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
                               .supervisor nodes are found to be online 2
                               .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

                      FEX_UPGRADE_INIT    110


                      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
```

عند تشغيل هيكل الاستعداد VSS بنجاح للصورة الجديدة في حالة تكرار SSO وتكون جميع الخطوط        .4
الموجودة على هيكل الاستعداد VSS قيد التشغيل ومتصلة، فأدخل الأمر issu running version لإجبار تبديل.
يأخذ الهيكل الاحتياطي VSS الذي تمت ترقيته دور الهيكل النشط الجديد، مشغلا الصورة الجديدة. ويقوم الهيكل
النشط سابقا بإعادة التحميل والتهيئة كهيكل VSS الاحتياطي الجديد في وضع SSO، وتشغيل الصورة القديمة
(في حالة الحاجة إلى إجهاض ترقية البرنامج واستعادة الصورة القديمة). اكتملت هذه الخطوة عند مزامنة
تكوين الهيكل، كما هو موضح بواسطة رسالة نجاح المزامنة المجمعة.

### 6K1#issu runversion

سيقوم هذا الأمر بإعادة تحميل الوحدة النشطة.

```
                                [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!
                                                                          !

                          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
                      .supervisor nodes are found to be online 2
                      .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

                                       This system is Fex-capable


                                            Fex-ID    ISSU Status

                                         FEX_UPGRADE_INIT    110


                                              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
```

أستخدم الأمر issu acceptedVersion لإيقاف مؤقت التراجع. وهذا ضروري لأنه إذا انتهت صلاحية المؤقت، 5.
فإن الهيكل الذي تمت ترقيته يعيد التحميل ويرتد إلى إصدار البرنامج السابق.

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

أستخدم الأمر issu runversion fex all لبدء إجراء تنزيل الصورة وترقيتها على 6800ia (FEX). يشير ال FEX.
الصورة تنزيل من الحزمة برمجية جديد من المشرف 2T (هنا cisco ios برمجية إطلاق 15.2(2)SY1). إذا كنت
تستخدم مكدسات FEX، فإن المدير مسؤول عن إستخراج الصورة إلى أعضائها. يعمل خادم TFTP على
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
                       .supervisor nodes are found to be online 2
                    .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

                          FEX_UPGRADE_IN_PROGRESS   110
```

Following are the logs on from FEX 6800IA console:

!

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

!
FEX-110#
Loading **c6800ia-universalk9-mz.150-2.EX4.bin** from **192.1.1.1**
(via **Vlan1012**): !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[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
Image Suffix:          universalk9-150-2.EX4
Image Directory:       c6800ia-universalk9-mz.150-2.EX4
Image Name:            c6800ia-universalk9-mz.150-2.EX4.bin
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.

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

                              FEX_UPGRADE_COMPLETE      110
```

7. دخلت in order to باشرت، **ال issu** لجنة أمر أن يحسن ال VSS الاستعداد هيكل وأتمت ال issu تسلسل. يتم إعادة تمهيد الهيكل الاحتياطي VSS، وإعادة تحميله باستخدام الصورة الجديدة، وتهيئته كهيكل VSS الاحتياطي في حالة تكرار SSO، مما يعمل على تشغيل الصورة الجديدة. تكون هذه الخطوة كاملة عند مزامنة تكوين الهيكل، كما هو موضح بواسطة الرسالة **الناجحة للمزامنة المجمعة**، وتكون جميع الأسطر الموجودة في وضع الاستعداد VSS الجديد في وضع الاستعداد في وضع الاستعداد.

```
                                                          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

!

Boot variable now displays both new and old image in ?show issu state detail? output.

!

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


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
```

# التحقق من الصحة

للتحقق من نجاح الترقية، أستخدم الأوامر التالية:

- **إظهار تفاصيل الحالة**
- **إظهار التكرار**
- show module switch all

فيما يلي الحالة الحالية بعد عملية ISSU:

- ينشط هيكل الطراز 6500 المزود بمعرف المحول 2، كما أن المحول المزود بمعرف 1 يكون في وضع الاستعداد (HOT). وهم الآن على برنامج Cisco IOS الإصدار 15.1(2)SY1.
- يعمل الآن عميل الوصول الفوري (6800ia) ببرنامج Cisco IOS Software، الإصدار 15.0(2)EX4.

```
                                          6K1#show mod swi all
                        Switch Number:    1   Role: Virtual Switch Standby
                        -----------------------------  ---------------------
       .Mod Ports Card Type                            Model            Serial No
     ----------- ------------------- ----------------------------- ----- ---
       Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G      SAL1632K9P2  5   2
       DCEF2T 4 port 40GE / 16 port 10GE     WS-X6904-40G       SAL1741E4ZA  20  3

       Mod MAC addresses                        Hw    Fw      Sw          Status
     ------- ------------- ------------ ------ ------------------------------ ---
           c471.fe7c.de96 to c471.fe7c.de9d  1.3   12.2(50r)SYS 15.1(2)SY1   Ok  2
           e02f.6d6a.698c to e02f.6d6a.699f  1.0   12.2(50r)SYL 15.1(2)SY1   Ok  3

       Mod  Sub-Module              Model            Serial       Hw    Status
     ------- ------- ----------- ----------------- -------------------------- ----
```

```
        Policy Feature Card 4        VS-F6K-PFC4        SAL1637MCQQ  1.2   Ok  2
        CPU Daughterboard            VS-F6K-MSFC5       SAL1637MKX8  1.4   Ok  2
        Distributed Forwarding Card WS-F6K-DFC4-E       SAL1745FSD6  1.0   Ok  3


                                              Mod  Online Diag Status
                                              ------------------ ----
                                                    Pass  2
                                                    Pass  3


                  Switch Number:    2   Role:   Virtual Switch Active
                  ----------------------------- ---------------------
      .Mod Ports Card Type                         Model          Serial No
      ----------- ------------------ ------------------------------- ----- ---
      Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G    SAL1650UC8L  5   2
      DCEF2T 4 port 40GE / 16 port 10GE     WS-X6904-40G     SAL17173QD3  20  3

      Mod MAC addresses                   Hw   Fw         Sw          Status
      ------- ------------ ------------ ------ ------------------------------- ---
            2c54.2dc4.2f3a to 2c54.2dc4.2f41  1.4   12.2(50r)SYS  15.1(2)SY1  Ok  2
            70ca.9b8f.510c to 70ca.9b8f.511f  1.0   12.2(50r)SYL  15.1(2)SY1  Ok  3

      Mod  Sub-Module              Model           Serial         Hw    Status
      ------- ------- ----------- ----------------- --------------------------- ----
            Policy Feature Card 4     VS-F6K-PFC4      SAL1651UG8P  1.2   Ok  2
            CPU Daughterboard         VS-F6K-MSFC5     SAL1651UEBY  1.5   Ok  2
            Distributed Forwarding Card WS-F6K-DFC4-E  SAL17173QHY  1.2   Ok  3


                                              Mod  Online Diag Status
                                              ------------------ ----
                                                    Pass  2
                                                    Pass  3


                  Switch Number:   110  Role:                    FEX
                  ----------------------------- ---------------------
      .Mod Ports Card Type                         Model          Serial No
      ----------- ------------------ ------------------------------- ----- ---
      C6800IA 48GE                          C6800IA-48TD     FOC1736W1A6  48  1

      Mod MAC addresses                   Hw   Fw         Sw          Status
      ------- ------------ ------------ ------ ------------------------------- ---
            c025.5cc2.2d00 to c025.5cc2.2d33  0.0   Unknown    15.0(2)EX4  Ok  1


                                              Mod  Online Diag Status
                                              ------------------ ----
                                                    Pass  1

                                                          6K1#


                                        6K1#show switch virtual
                  Switch mode                   : Virtual Switch
                         Virtual switch domain number : 100
                            Local switch number       : 2
                  Local switch operational role: Virtual Switch Active
                            Peer switch number        : 1
                  Peer switch operational role : Virtual Switch Standby
```

حول هذه الترجمة

ترجمت Cisco هذا المستند باستخدام مجموعة من التقنيات الآلية
والبشرية لتقديم دعم للمستخدمين في جميع أنحاء العالم
بغلغت همظاال الاصة. يُرجى ملاحظة أن أفضل ترجمة آلية لن تكون دقيقة كما
هو الحال مع الترجمة الاحترافية التي يقدمها مترجم محترف. تخلي Cisco
Systems مسؤوليتها عن دقة هذه الترجمات وتوصي بالرجوع دائمًا إلى
المستند الإنجليزي الأصلي (الرابط متوفر).