

# 接続されている 6800IA ( FEX ) による Catalyst 6500 シリーズ スイッチ ISSU アップグレード手順

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## 概要

このドキュメントでは、デュアルホーム Cisco Catalyst 6800 インスタント アクセス スイッチ ( FEX ) が接続されているスーパーバイザ 2T を使用した、仮想スイッチング システム ( VSS ) モードの Cisco Catalyst 6500 シリーズ スイッチでの段階的なインサービス ソフトウェア アップグレード ( ISSU ) 手順について説明します。

## 前提条件

### 要件

このドキュメントに特有の要件はありません。

### 使用するコンポーネント

このドキュメントの情報は、WS-X6904-40G ラインカードでデュアル ホーム 6800IA が接続されているスーパーバイザ エンジン 2T を実行する、VSS モードでの Cisco Catalyst 6500 シリーズ スイッチに基づくものです。

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されました。このドキュメントで使用するすべてのデバイスは、初期 ( デフォルト ) 設定の状態から起動しています。対象のネットワークが実稼働中である場合には、どのようなコマンドについても、その潜在的な影響について確実に理解しておく必要があります。

# アップグレード手順

## 初期設定

アップグレード手順により、IOS<sup>®</sup>ソフトウェア リリース 15.1(2)SY を、リリース 15.1(2)SY1 にアップグレードします。

ISSU プロセスの前の統計を以下に示します。

- スイッチ ID 1 の Catalyst 6500 シャーシがアクティブで、ID 2 のスイッチがスタンバイ (ホット) です。
- 両方のシャーシが、Cisco IOS ソフトウェア リリース 15.1(2) SY で起動しています。
- Cisco IOS ソフトウェア リリース 15.0(2) EX2 を実行している単一の 6800IA が、デュアルホーム接続で WS-X6904-40G ラインカードの VSS に接続されます。FEX ポート チャンネル番号は 99 で、FEX ID は 110 です。

```
6K1#show mod sw all
```

```
Switch Number:      1    Role:    Virtual Switch Active
-----
Mod Ports Card Type                               Model                               Serial No.
-----
 2     5 Supervisor Engine 2T 10GE w/ CTS (Acti VS-SUP2T-10G          SAL1632K9P2
 3    20 DCEF2T 4 port 40GE / 16 port 10GE      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)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
-----
 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 Standby
-----
Mod Ports Card Type                               Model                               Serial No.
-----
 2     5 Supervisor Engine 2T 10GE w/ CTS (Hot) VS-SUP2T-10G          SAL1650UC8L
 3    20 DCEF2T 4 port 40GE / 16 port 10GE      WS-X6904-40G          SAL17173QD3

Mod MAC addresses                               Hw   Fw           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
-----
 2  Policy Feature Card 4                       VS-F6K-PFC4          SAL1651UG8P      1.2  Ok
```

```

2 CPU Daughterboard          VS-F6K-MSFC5          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
-----

```

```

Mod Ports Card Type Model Serial No.
-----
1 48 C6800IA 48GE C6800IA-48TD FOC1736W1A6

```

```

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

```

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

```

## アップグレード手順

1. 新しい Cisco IOS イメージ ( Cisco IOS ソフトウェア リリース 15.1(2) SY1 ) が、ブートディスクおよびスレーブブートディスクにあることを確認します。

```

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

```

2. ( 任意 ) 以下のコマンドを使用して、VSS がアップグレード手順を実行できる状態にあることを確認します。

```

show issu state detailshow redundancys show module switch all6K1#show issu state detail

```

システムは時差モードでアップグレードするように設定されます。  
 2つのスーパバイザはオンラインであることが確認されます。  
 要約：システムはタンデムモードでアップグレードされます。

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. issu loadversion コマンドを実行して、アップグレードプロセスを開始します。

この手順では、VSS スタンバイ シャーシがリブートされ、新しいイメージでリロードされ、VSS スタンバイ シャーシとして SSO 冗長モードで初期化され、新しいイメージを実行します。シャーシの設定が同期されると、この手順が完了し、「Bulk sync succeeded」メッセージが表示されます。新しいイメージがロードされて、VSS スタンバイ シャーシが SSO モードへ移行するのに、数秒から数分かかる場合があります。

```
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. VSS スタンバイ シャーシが SSO 冗長状態で新しいイメージを正常に実行し、VSS スタンバイ シャーシのすべてのライン カードが起動してオンラインになっている場合、スイッチ オーバーを実施するには、**issu runversion** コマンドを入力します。アップグレードされた VSS スタンバイ シャーシは、新しいアクティブ シャーシとしてロールを代行し、新しいイメージを実行します。前にアクティブだったシャーシは、新しい SSO モードの VSS スタンバイ シャーシとしてリロードおよびリブートされ、(ソフトウェア アップグレードを終了して古いイメージを復元する必要がある場合は) 古いイメージを実行します。シャーシの設定が同期されると、この手順が完了し、「**Bulk sync succeeded**」メッセージが表示されます。

6K1#**issu runversion**

This command will reload the Active unit.

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.

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;**

This system is Fex-capable

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
```

5. ロールバック タイマーを停止するには、**issu acceptversion** コマンドを使用します。タイマーの期限が切れると、アップグレードされたシャーシはリロードされ、以前のソフトウェアバージョンに戻るため、これが必要になります。

6K1#issu acceptversion

% Rollback timer stopped. Please issue the 'issu commitversion' command.

6. FEX ( 6800IA ) でイメージのダウンロードとアップグレードの手順を開始するには、**issu runversion fex all** コマンドを使用します。FEX が、Supervisor2T ( ここでは Cisco IOS ソフトウェア リリース 15.2(2)SY1 ) の新規ソフトウェア バンドルからのイメージのダウンロードをトリガーします。FEX スタックを使用する場合、メンバーへのイメージの抽出はマスターが担当します。TFTP サーバは 192.1.1.1 で稼働します。

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.SY1.bin,12
      Operating Mode = sso
      ISSU Sub-State = Run Version Completed
      Starting Image = bootdisk:s2t54-adventerprisek9-mz.SPA.151-2.SY1.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.

!

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.

<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. 続行するには、`issu commitversion` コマンドを入力して VSS スタンバイ シャーシをアップグレードし、ISSU シーケンスを完了します。VSS スタンバイ シャーシはリブートされ、新しいイメージでリロードされ、VSS スタンバイ シャーシとして SSO 冗長状態で初期化され、新しいイメージを実行します。シャーシの設定が同期されて「Bulk sync succeeded」というメッセージが表示され、新しい VSS スタンバイですべてのラインカードが起動してオンラインになると、この手順は完了します。

```
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**

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>

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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

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

## 確認

アップグレードが正常に実行されたことを確認するには、次のコマンドを使用します。

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

以下に示すのは、ISSU プロセスの後の現在の状態です。

- スイッチ ID 2 の 6500 シャーシがアクティブで、ID 1 のスイッチがスタンバイ (ホット) で

- す。これらは Cisco IOS ソフトウェア バージョン 15.1(2) SY1 で実行されています。
- インスタント アクセス クライアント ( 6800IA ) は、Cisco IOS ソフトウェア リリース 15.0(2) EX4 を実行しています。

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
3	20	DCEF2T 4 port 40GE / 16 port 10GE	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	<b>15.1(2)SY1</b>	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
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.
2	5	Supervisor Engine 2T 10GE w/ CTS (Acti	VS-SUP2T-10G	SAL1650UC8L
3	20	DCEF2T 4 port 40GE / 16 port 10GE	WS-X6904-40G	SAL17173QD3

Mod	MAC addresses	Hw	Fw	Sw	Status
2	2c54.2dc4.2f3a to 2c54.2dc4.2f41	1.4	12.2(50r)SYS	<b>15.1(2)SY1</b>	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
2	CPU Daughterboard	VS-F6K-MSFC5	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

Mod	Ports	Card Type	Model	Serial No.
1	48	C6800IA 48GE	C6800IA-48TD	FOC1736W1A6

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

Mod Online Diag Status

-----

1 Pass

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