

SUP8E 4500無線入門指南：初始安裝和故障排除

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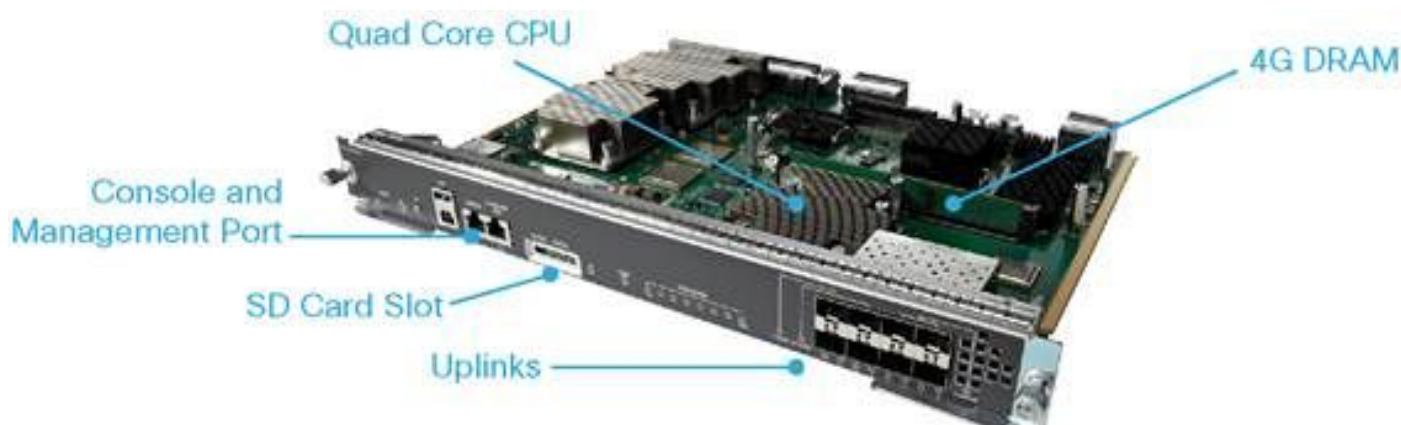
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簡介

本文說明為啟動並運行無線版4500 SUP8E而需要處理的基本核對表。本文不著重介紹如何在Sup8E上設定無線控制器，而是著重介紹之前要驗證的事項以及平台特定事項。完成此操作後，此平台將主要像任何其他融合接入交換機一樣運行，並可遵循其他文檔和指南。

背景資訊

Cisco Catalyst® 4500E管理引擎8-E是下一代企業級交換引擎，可在單個平台上實現有線和無線網路之間的完全融合。這款全新的思科®統一接入資料平面(UADP)專用積體電路(ASIC)支援無線融合，有助於實現統一的有線 — 無線策略實施、應用可視性、靈活性和應用最佳化。



開始

要使無線裝置在此裝置上啟動並運行，您必須確保滿足以下要求：

1. 檢查Rommon版本

2. 映像必須為K9 — 加密
3. 僅3.8及更高版本支援虛擬交換系統(VSS) (僅限雙管理引擎)
4. 交換機必須在安裝模式下運行
5. 許可證必須為Entservices或IP Base
6. 在套件組合模式下，子卡無法啟動 (僅在安裝模式下)
7. 支援的最大接入點(AP)為50/最大支援的客戶端 — 2000
8. AP必須終止於同一機箱/管理引擎(SUP)
9. 一旦啟動這些功能，其餘配置類似於任何融合接入交換機(3850/5760...)

讓我們從輸出的角度來看其中的每一種。

1.檢查ROMMON版本

附註：必須是15.1(Xr)SG4 [X — 從1開始的數字]或更高版本。

```
BGL.I.15-4500-2#sh version
ROM: 15.1(1r)SG4
BGL.I.15-4500-2 uptime is 6 minutes
System returned to ROM by power-on
Running default software
Jawa Revision 3, RadTrooper Revision 0x0.0x41, Conan Revision 0x1449
Last reload reason: power-on
```

2.檢查影象

附註：它必須運行3.7或更高版本，並且必須是K9加密映像。其他方法都不管用。

加密映像如下所示：

```
4500-2#sh version
Cisco IOS® Software, IOS®-XE Software, Catalyst 4500 L3 Switch Software (cat4500es8-
UNIVERSALK9-M), Version 03.07.00E RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2014 by Cisco Systems, Inc.
Compiled Sun 07-Dec-14 17:59 by prod_rel_team
```

非加密映像如下所示：

```
Cisco IOS® Software, IOS®-XE Software, Catalyst 4500 L3 Switch Software (cat4500es8-UNIVERSAL-
M), Version 03.03.00.XO RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 14-Aug-13 09:51 by prod_rel_team
```

3.驗證VSS

3.8之前的行為：

附註：如果已啟用VSS，則不存在無線命令；反之亦然，如果已啟用無線命令，則不存在VSS命令。

```
4500-2#sh switch virtual
Switch Mode : Standalone
Not in Virtual Switch mode due to:
Domain ID is not configured
```

啟動IOS® XE 3.8及更高版本：

附註：無線操作支援Dual-Sup VSS。但是，無線不支援Quad-Sup VSS。

4.確保交換器在安裝模式下而非套件組合模式下執行

Bundle Mode - bootsystem pointing to .bin image (no wireless commands)

Install Mode - Bootsistem pointing to package.conf instead of Bin

BGL.I.15-4500-2#dir bootflash:

在套件組合模式下：

Directory of bootflash:/

```
81602 -rw- 181583336 Oct 7 2014 09:18:45 +00:00 cat4500es8-universal.SPA.03.03.00.XO.151-
1.XO.bin
81603 -rw- 181601128 Nov 18 2014 18:28:43 +00:00 cat4500es8-universal.SPA.03.03.02.XO.151-
1.XO2.bin
81604 -rw- 483862876 Dec 31 2014 20:21:43 +00:00 cat4500es8-universalk9.SPA.03.07.00.E.152-
3.E.bin
```

1708220416 bytes total (857677824 bytes free)

This is how the boot looks like

4500-2#sh boot

```
-----
Switch 1
-----
```

Current Boot Variables:

BOOT variable = flash:cat4500es8-universal.SPA.03.07.00.E.152-3.E.bin;

Boot Variables on next reload:

BOOT variable = flash:cat4500es8-universal.SPA.03.07.00.E.152-3.E.bin;

Allow Dev Key = yes

Manual Boot = no

Enable Break = no

在安裝模式下：

BGL.I.20-4500-1#dir bootflash:

Directory of bootflash:/

```
81602 -rwx 199051336 Oct 7 2014 02:00:02 +00:00 cat4500es8-universalk9.SPA.03.06.00.E.152-
2.E.bin
81603 -rw- 215049252 Dec 29 2014 07:07:31 +00:00 cat4500es8-universal.SPA.03.07.00.E.152-
3.E.bin
   16 drwx 4096 Dec 29 2014 07:14:26 +00:00 virtual-instance
   18 drwx 4096 Dec 29 2014 07:14:26 +00:00 virtual-instance-stby-sync
81606 drwx 4096 Dec 30 2014 01:52:34 +00:00 wnweb_store
```

```

 21 -rw- 126880776 Dec 30 2014 01:34:38 +00:00 cat4500es8-base.SPA.03.07.00E.pkg
57125 -rw- 82245776 Dec 30 2014 01:34:45 +00:00 cat4500es8-dc-base.SPA.03.07.00E.pkg
57126 -rw- 7019480 Dec 30 2014 01:34:47 +00:00 cat4500es8-dc-drivers.SPA.03.07.00E.pkg
57127 -rw- 35161204 Dec 30 2014 01:34:46 +00:00 cat4500es8-dc-infra.SPA.03.07.00E.pkg
81604 -rw- 483862876 Dec 30 2014 01:24:49 +00:00 cat4500es8-universalk9.SPA.03.07.00.E.152-
3.E.bin
57128 -rw- 26876920 Dec 30 2014 01:34:47 +00:00 cat4500es8-dc-platform.SPA.03.07.00E.pkg
57129 -rw- 4225328 Dec 30 2014 01:34:39 +00:00 cat4500es8-firmware.SPA.03.07.00E.pkg
57130 -rw- 54192 Dec 30 2014 01:34:39 +00:00 cat4500es8-infra.SPA.03.07.00E.pkg
57131 -rw- 1987552 Dec 30 2014 01:34:47 +00:00 cat4500es8-platform.SPA.03.07.00E.pkg
57132 -rw- 88661144 Dec 30 2014 01:34:42 +00:00 cat4500es8-universalk9.SPA.152-3.E.pkg
57133 -rw- 110742524 Dec 30 2014 01:34:51 +00:00 cat4500es8-wcm.SPA.10.3.100.0.pkg
 20 -rw- 1724 Dec 30 2014 01:35:59 +00:00 packages.conf
81605 ---- 11679 Dec 31 2014 23:15:15 +00:00 dc_console_log-20141230-014159-UTC

```

1708220416 bytes total (321839104 bytes free)
BGL.I.20-4500-1#

```

4500-2#sh run | i boot
boot-start-marker
boot system bootflash:packages.conf
boot-end-marker
BGL.I.15-4500-2#sh boot
BOOT variable = bootflash:packages.conf,12;
CONFIG_FILE variable does not exist
BOOTLDR variable does not exist
Configuration register is 0x2102

```

附註：配置暫存器是0x2102是子卡被檢測到的要求。

附註：4500(config)#config-register ?<0x0-0xFFFF>配置暫存器號

[如何將套件組合轉換為安裝](#)

5.許可證必須為Entservices或IP Base

附註：啟用網路服務並重新啟動後，您就可以在使用權(RTU)中看到AP計數。

```

BGL.I.15-4500-2#sh license right-to-use
License Store: Primary License Storage
License Store: Dynamic License Storage
StoreIndex: 1 Feature: entservices Version: 1.0
    License Type: PermanentRightToUse
    License State: Inactive
    License Count: Non-Counted
StoreIndex: 3 Feature: ipbase Version: 1.0
    License Type: PermanentRightToUse
    License State: Inactive
    License Count: Non-Counted
StoreIndex: 4 Feature: lanbase Version: 1.0
    License Type: PermanentRightToUse
    License State: Active, Not in Use, EULA not accepted
    License Count: Non-Counted
StoreIndex: 6 Feature: apcount Version: 1.0
    License Type: PermanentRightToUse
    License State: Inactive

```

License Count: 0/0

4500-2#license right-to-use activate entservices acceptEula (Requires Reboot)

```
BGL.I.15-4500-2#sh license right-to-use
License Store: Primary License Storage
License Store: Dynamic License Storage
StoreIndex: 1 Feature: entservices Version: 1.0
    License Type: PermanentRightToUse
    License State: Active, In Use
    License Count: Non-Counted
StoreIndex: 3 Feature: ipbase Version: 1.0
    License Type: PermanentRightToUse
    License State: Inactive
    License Count: Non-Counted
StoreIndex: 4 Feature: lanbase Version: 1.0
    License Type: PermanentRightToUse
    License State: Active, Not in Use, EULA not accepted
    License Count: Non-Counted
StoreIndex: 6 Feature: apcount Version: 1.0
    License Type: PermanentRightToUse
    License State: Inactive
    License Count: 0/0
```

6.子卡僅在安裝模式下啟動，而不是套件組合模式下啟動

附註：如果裝置在捆綁包模式下運行，則不會啟動無線所需的子卡。這可透過show module命令驗證。子卡故障被視為管理引擎故障，可能需要RMA。

裝置啟動時，您可以看到：

```
Cisco IOS®-XE software, Copyright (c) 2005-2014 by Cisco Systems, Inc.
All rights reserved. Certain components of Cisco IOS-XE software are
licensed under the GNU General Public License ("GPL") Version 2.0. The
software code licensed under GPL Version 2.0 is free software that comes
with ABSOLUTELY NO WARRANTY. You can redistribute and/or modify such
GPL code under the terms of GPL Version 2.0.
(http://www.gnu.org/licenses/gpl-2.0.html) For more details, see the
documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.
```

Daughter Card is booting.. Please stand by.....

Daughter Card is ready, continuing in wireless mode..

```
BGL.I.20-4500-1#sh module
Chassis Type : WS-C4510R+E
```

Power consumed by backplane : 40 Watts

Mod	Ports	Card Type	Model	Serial No.
2	2	1000BaseX (GBIC)	WS-X4302-GB	JAE10307QDW
3	48	10/100/1000BaseT POE E Series	WS-X4648-RJ45V-E	JAE1211B9K2

```

4      6  1000BaseX (GBIC)                               WS-X4306          JAE053700PA
5     12  Sup 8-E 10GE (SFP+), 1000BaseX (SFP)         WS-X45-SUP8-E    CAT1814L3A7

```

M	MAC addresses	Hw	Fw	Sw	Status
2	0015.62e6.e2b8 to 0015.62e6.e2b9	3.2			Ok
3	001e.7af2.95f0 to 001e.7af2.961f	1.0			Ok
4	0004.4dfb.87c4 to 0004.4dfb.87c9	2.0			Ok
5	70ca.9b5e.6600 to 70ca.9b5e.660b	1.1	15.1(1r)SG4	03.07.00E	Ok

Mod	Redundancy role	Operating mode	Redundancy status
5	Active Supervisor	RPR	Active

Mod	Submodule	Model	Serial No.	Hw	Status
5	Daughter Card	WS-UA-SUP8E	CAT1814L5H1	1.0	Ok

7. 最大支援的AP/客戶端數

支援的最大AP數-50/支援的最大客戶端數 — 2000

8. AP連線

確保AP終止在同一機箱/SUP上，否則AP不會加入交換機無線控制器。

與3850和3650一樣，AP必須直接連線到4507的接入埠才能加入Sup8控制器。

9. 與5760/3850/3650號相同(於二零一

附註：一旦處理了前面提到的事項，其餘事項也類似，以便使3850/5760啟動並運行。

GUI如下圖所示。

The screenshot displays the Cisco Wireless Controller GUI. The main content area is divided into two columns. The left column contains a 'System Summary' table and an 'Access Point Summary' table. The right column features a search bar, 'Top WLANs', and 'Rogue APs' sections.

System Time	20:24:29.441 UTC Wed Jan 7 2015
Software Version	03.07.00E RELEASE SOFTWARE (fc4)
System Name	BGL.I.15-4500-2
System Model	WS-C4506-E
Up Time	14 hours, 58 minutes
Wireless Management IP	10.106.48.150
802.11 a/n/ac Network State	Enabled
802.11 b/g/n Network State	Enabled
Mobility Role	MA
Software Activation	Detail

	Total	Up	Down
802.11a/n/ac Radios	0	0	0
802.11b/g/n Radios	0	0	0
All APs	0	0	0

Active Rogue APs	0	Detail
Active Rogue Clients	0	Detail
Adhoc Rogues	0	Detail