

# SUP8E 4500无线入门：初始安装和故障排除

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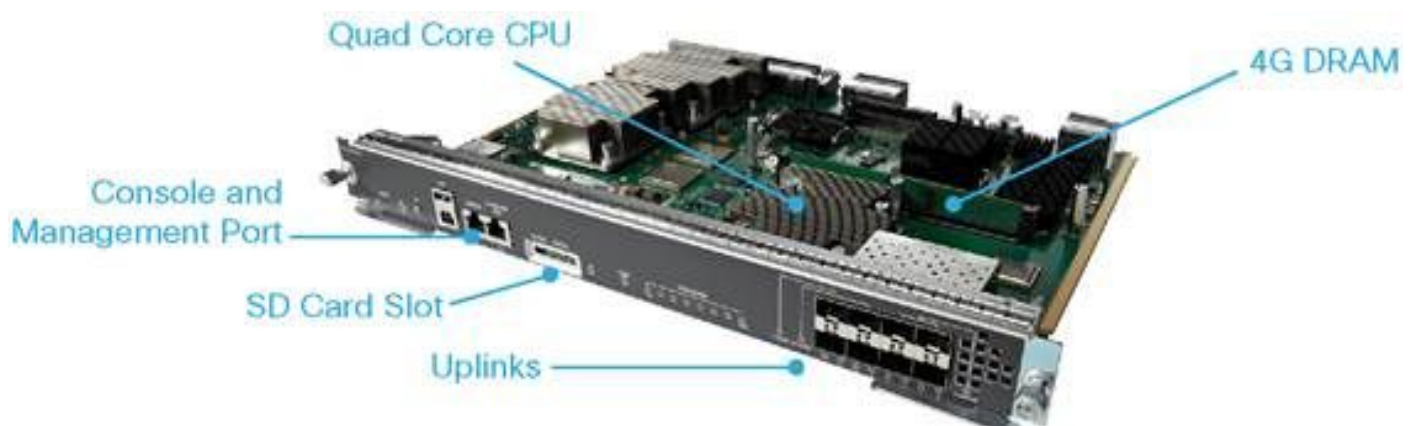
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## 简介

本文档介绍为使4500 SUP8E在无线环境中启动并运行而需要处理的基本核对表。本文档不重点介绍如何在Sup8E上配置无线控制器，而是重点介绍之前要验证的事项，以及这些事项是特定于平台的。完成此操作后，此平台的运行方式将与任何其他融合接入交换机类似，并可遵循其他文档和指南。

## 背景信息

Cisco Catalyst® 4500E管理引擎8-E是下一代企业级交换引擎，可在单个平台上提供有线和无线网络之间的完全融合。这款全新的思科®统一接入数据平面(UADP)专用集成电路(ASIC)为无线融合提供了强大的动力，有助于实现统一的有线—无线策略实施、应用可视性、灵活性和应用优化。



## 使用入门

要在此设备上启动和运行无线，您必须确保满足以下要求：

1. 检查Rommon版本
2. 映像必须是K9 — 加密
3. 仅3.8及更高版本支持虚拟交换系统(VSS) ( 仅限双管理引擎 )
4. 交换机必须在安装模式下运行
5. 许可证必须是Entservices或IP Base
6. 在捆绑模式下，子卡不会启动 ( 仅在安装模式下 )
7. 支持的最大接入点(AP)数为50/支持的最大客户端数 — 2000
8. AP必须端接于同一机箱/管理引擎(SUP)
9. 一旦您启动这些设备，其余配置将类似于任何融合接入交换机(3850/5760 ...)

让我们从输出的角度来看每一个。

## 1.检查ROMMON版本

**注意：**它必须是15.1(Xr)SG4 [X — 从1开始的编号]或更高。

```
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.检查图像

**注意：**它必须运行3.7或更高版本，并且必须是K9加密映像。其他都不管用。

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.检验VSS

3.8之前的行为：

**注意：**如果启用了VSS，则不显示无线命令，如果启用了无线命令，则不显示VSS命令，反之亦然。

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

启动IOS® XE 3.8及更高版本：

**注意：**无线操作支持双管理引擎VSS。但是，无线不支持四管理引擎VSS。

## 4. 确保交换机在安装模式下运行，而不在捆绑模式下运行

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:

在捆绑模式下：

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

在安装模式下：

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

```

**注意：配置寄存器0x2102是子卡被检测到的一个要求。**

**注意：4500(config)#config-register ?<0x0-0xFFFF>配置寄存器编号**

## [如何将捆绑包转换为安装](#)

### 5. 许可证必须是EntServices或IP Base

**注意：一旦启用Entservices并重新启动，您就可以在“使用权”(RTU)中看到AP计数。**

```

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.子卡仅在安装模式而非捆绑模式下启动

**注意：**如果设备在捆绑模式下运行，则无线所需的子卡不会出现。这可以通过show module命令进行验证。子卡故障被视为SUP故障，可能需要RMA。

设备启动时，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.支持的最大AP/客户端数

支持的最大AP数 — 50/支持的最大客户端数 — 2000

## 8. AP连接

确保AP终止于同一机箱/SUP，否则AP将不加入交换机无线控制器。

与3850和3650一样，AP必须直接连接到4507的接入端口，才能加入Sup8控制器。

## 9.与5760/3850/3650从此处开始相同

**注意：**一旦处理了前面提到的事物，其余的就类似，以便3850/5760启动并运行。

GUI如图所示。

The screenshot displays the Cisco Wireless Controller GUI. The top navigation bar includes 'Home', 'Monitor', 'Configuration', 'Administration', and 'Help'. The main content area is divided into several sections:

- System Summary:** A table showing system details such as 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), and network states for 802.11 a/n/ac and b/g/n.
- Access Point Summary:** A table with columns for Total, Up, and Down, showing 0 APs for 802.11a/n/ac, 802.11b/g/n, and All APs.
- Client Summary** and **Protocol Statistics** sections are visible at the bottom left.
- Search** and **Top WLANs** sections are on the right side.
- Rogue APs:** A table showing 0 Active Rogue APs, 0 Active Rogue Clients, and 0 Adhoc Rogues.