

通过Web界面和CLI配置示例安装Expressway系列版本密钥

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[配置](#)

[Web界面版本密钥安装示例](#)

[CLI版本密钥安装示例](#)

[验证](#)

[版本密钥安装的Web界面验证](#)

[版本密钥安装的CLI界面验证](#)

[故障排除](#)

简介

本文档介绍通过Web界面和命令行界面(CLI)将版本密钥安装到Cisco Expressway系列设备。

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先决条件

要求

Cisco 建议您了解以下主题：

Expressway安装

已成功安装Expressway并应用了可通过Web界面和或CLI访问的有效IP地址。

已申请并收到对Expressway序列号有效的版本密钥。

通过Web界面或CLI，可以通过根（通过CLI）和管理员帐户访问Expressway。

已从Cisco.com下载Expressway软件升级映像。

注意：安装指南位于：[安装和升级指南](#)

使用的组件

本文档中的信息基于以下软件版本：

Expressway版本x8.7.3和x8.8.3

Expressway C x7.X和x8.X版本

Expressway E x7.X和x8.X版本

PuTTY (终端仿真软件)

— 或者，您可以使用任何支持SSH的终端仿真软件，如Secure CRT、TeraTerm等。

PSCP (PuTTY安全复制协议客户端)

— 您可以使用支持SCP的任何客户端。

使用版本密钥或升级密钥许可电子邮件。

Web 浏览器.在本例中，使用Firefox，Internet Explorer和Chrome同样工作。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

配置

Web界面版本密钥安装示例

您有两种选择：

选项1，您可以设置释放密钥。

选项2，您可以在升级过程中添加版本密钥。

任一选项都有效，我们先显示set选项，然后显示upgrade选项。

注意：两个选项都需要Expressway重新启动。

选项1显示set选项。

步骤 1：安装Expressway后，您会使用PAK和序列号获得序列号并应用您的版本密钥，然后您会收到思科许可团队发来的许可证电子邮件，其中可以包含或不能包含版本密钥和选项密钥。

注意：示例电子邮件是VCS的，这是正常的，Expressway系列的电子邮件看起来是相同的。

注意：PAK示例不在本文档的范围内。

电子邮件示例

You have received this email because your email address was provided to Cisco Systems during the Serial Number Lookup process for software license activation key/file. Please read this email carefully and forward it with any attachments to the proper system administrator if you are not the correct person.

```
System Serial Number      : 0B616767
Hardware Serial Number   : 0B616767
MAC Address              : 000000000000
Service Contract         : -
SC End Date              : -

Software Part Name       : L-VCS-FINDME:
Tandberg Item No        : L-VCS-FINDME:VCS - Enable User Policy feature
Shipped Version         : -
Shipped Version Key     : 116341U00-1-1C328745
Shipped Image URL      : -
Upgrade To              : -
Upgrade To Key          : 7513492028475672
Upgrade To Image URL    : -
```

Sample Release Key

```
Options
Cisco Option Name       : LIC-VCS-300:
Tandberg Option Name   : 116341X300:VCS - add 300 non-traversal calls
Option Key              : 116341X300-1-7D03B558
```

```
Options
Cisco Option Name       : LIC-VCS-DEVPROV:
Tandberg Option Name   : 116341P00:VCS - Enable Device Provisioning
Option Key              : 116341P00-1-1FEB68A1
```

```
Options
Cisco Option Name       : LIC-VCS-GW:
Tandberg Option Name   : 116341G00:VCS - Enable GW feature
Option Key              : 116341G00-1-96554215
```

步骤 2：使用Web浏览器访问Expressway的Web界面。使用管理员帐户登录，您将进入Expressway状态屏幕。

注意：本文档中有些数字故意模糊。

The screenshot shows the Cisco Expressway web interface. At the top, there is a navigation bar with tabs for Status, System, Configuration, Applications, Users, and Maintenance. A red callout bubble points to the 'Status' tab with the text 'Note: Login brings us to the status screen'. In the top right corner, there is a notification that says 'This system has 6 alarms'. Below the navigation bar, the 'Overview' section is displayed. A red box highlights a message: 'Invalid release key. Release key is missing: the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.' Below this, a table provides system information: System name (EXP-Core), Up time (6 days 15 hours 7 minutes 51 seconds), Software version (X8.7.3), and IP v4 address (blurred). A note in a white box with a red border states: 'Note also, our release key is invalid.' At the bottom, there is a table for 'Resource usage (last updated: 12:53:04 UTC)' showing metrics for Rich media session calls and Rich media sessions.

步骤 3：导航至适当的屏幕以安装您的版本密钥。将鼠标悬停在维护选项卡上。

Status System Configuration Applications Users **Maintenance** Click on Maintenance Help Logout

Overview You are here: Status Overview

Invalid release key: Release key is missing: the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

System information

| | |
|------------------|---|
| System name | EXP-Core |
| Up time | 6 days 15 hours 7 minutes 51 seconds |
| Software version | X8.7.3 |
| IPv4 address |117 |
| Options | 1 Rich Media Sessions, Encryption, Interworking, Expressway Series. |

Resource usage (last updated: 12:53:04 UTC)

| | | |
|--------------------------|--------------------------------|----|
| Rich media session calls | Current video | 0 |
| | Current audio (SIP) | 0 |
| | Peak video | 0 |
| | Peak audio (SIP) | 0 |
| | Since last restart video | 0 |
| | Since last restart audio (SIP) | 0 |
| Rich media sessions | License usage current | 0% |
| | License usage peak | 0% |

User: admin Access: Read-write System host name: VCS-C System time: 13:06 UTC Language: en_US S/N: 0DE16F47 Version: X8.7.3

步骤 4：弹出菜单后，单击“选项键”。

CISCO Cisco Expressway-C This system has 6 alarms

Status System Configuration Applications Users **Maintenance** Help Logout

Overview You are here: Status Overview

Invalid release key: Release key is missing: the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

System information

| | |
|------------------|---|
| System name | EXP-Core |
| Up time | 6 days 15 hours 7 minutes 51 seconds |
| Software version | X8.7.3 |
| IPv4 address |117 |
| Options | 1 Rich Media Sessions, Encryption, Interworking, Expressway Series. |

Resource usage (last updated: 12:53:04 UTC)

| | | |
|--------------------------|--------------------------------|----|
| Rich media session calls | Current video | 0 |
| | Current audio (SIP) | 0 |
| | Peak video | 0 |
| | Peak audio (SIP) | 0 |
| | Since last restart video | 0 |
| | Since last restart audio (SIP) | 0 |
| Rich media sessions | License usage current | 0% |
| | License usage peak | 0% |

User: admin Access: Read-write System host name: VCS-C System time: 13:12 UTC Language: en_US S/N: 0DE16F47 Version: X8.7.3

步骤 5：观察Release key部分，如果这是新安装，则有一个空白的Release key字段。另一个Expressway安装的Release key字段已预填充当前版本密钥值。在这种情况下，使用升级选项设置版本密钥。

注意：版本密钥在次要版本升级之间不会更改。版本密钥仅在主要版本升级（如x7.X到x8.X）之间更改。

将您的版本密钥复制并粘贴到“版本密钥”字段：

The screenshot shows the Cisco Expressway-C maintenance interface. At the top, there is a navigation bar with tabs for Status, System, Configuration, Applications, Users, and Maintenance. A red notification bubble indicates "This system has 6 alarms". Below the navigation bar, the "Option keys" section is displayed. A table lists the keys, with one key highlighted: "116341E00-1-2B872ED6" with description "Expressway Series" and status "Active". Below the table, there are sections for "System information", "Software option", and "Release key". The "Release key" section has a text input field that is currently blank. A red box highlights this field, and a red arrow points from a text box to it. The text box contains the following instructions: "Note the Release Key field is blank if a new Expressway Series Device. This field may be pre-populated if a release key is already installed or upgrading from a prior version. Copy your new release key into this field." Below the "Release key" section, there is a "Set release key" button. At the bottom of the page, there is a footer with user information: "User: admin Access: Read-write System host name: VCS-C System time: 13:16 UTC" and "Language: en_US S/N: 0DE16F47 Version: X8.7.3".

步骤 6：您可以看到粘贴到“释放密钥”(Release key)字段的释放密钥。

Option keys

You are here: [Maintenance](#) > Option keys

Invalid release key: Release key is missing: the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

| Key | Description | Status | Validity period |
|---|-------------------|--------|-----------------|
| <input type="checkbox"/> 116341E00-1-2B872ED6 | Expressway Series | Active | Unlimited |

[Delete](#) [Select all](#) [Unselect all](#)

System information

Serial number: ODE16F47
Active options: 1 Rich Media Sessions, Encryption, Interworking, Expressway Series.

Software option

Add option key [i](#)

[Add option](#)

Release key

Release key [i](#)

Here I've pasted in the Release Key I received for this Expressway

[Set release key](#)

Current licenses

Traversal calls: 1

步骤 7：单击“Set release key (设置释放密钥)”。

Option keys

You are here: Maintenance > Option keys

Invalid release key. Release key is missing, the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

| Key | Description | Status | Validity period |
|---|-------------------|--------|-----------------|
| <input type="checkbox"/> 116341E00-1-2B872ED6 | Expressway Series | Active | Unlimited |

Delete Select all Unselect all

System information

Serial number: 0DE16F47

Active options: 1 Rich Media Sessions, Encryption, Interworking, Expressway Series.

Software option

Add option key

Add option

Release key

Release key: 7800812430795357

Set release key

Click Set release key

Current licenses

| | |
|-----------------|---|
| Traversal calls | 1 |
|-----------------|---|

步骤 8::单击页面顶部提示符中的restart 超链接以重新启动Expressway。

Option keys

Saved: The release key has been updated, however a restart is required for it to take effect.

Notice how a message comes up saying I need to restart. Click on the Restart hyperlink and follow the steps from there. Once rebooted, the key will be installed.

Invalid release key: Release key is missing; the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

| Key | Description | Status | Validity period |
|---|-------------------|--------|-----------------|
| <input type="checkbox"/> 116341E00-1-2B872ED6 | Expressway Series | Active | Unlimited |

Delete Select all Unselect all

System information

Serial number: 0DE16F47

Active options: 1 Rich Media Sessions, Encryption, Interworking, Expressway Series.

Software option

Add option key:

Add option

Release key

Release key: 7800812430795357

Set release key

Current licenses

选项二：升级选项以安装版本密钥

步骤 1：在Web界面中，按前样单击Maintenance，然后在菜单弹出窗口中单击Upgrade。

Upgrade

Component

- B2BUA Presence Relay
- B2BUA Service
- c_mgmt
- collectdsupport
- oaksupport
- stringencoderssupport
- System platform
- traffic_server
- xcp-vcs
- xcpsupport

Maintenance

- Upgrade
- Logging
- Option keys
- Tools
- Security certificates
- Backup and restore
- Diagnostics
- Maintenance mode
- Language
- Restart options

Release key

You are here: Maintenance > Upgrade

7800812430795357

Upgrade component

WARNING: You should backup the system before upgrading. [System backup](#)

Select file No file selected.

步骤 2：在“升级”屏幕上，您会看到“升级组件”部分。

注意：本文档假设您已将Expressway软件升级映像下载到本地计算机。

单击**Browse**以找到下载的Expressway升级映像：

Upgrade

You are here: Maintenance > Upgrade

| Component | Version | Release key |
|-----------------------|---------------------|------------------|
| B2BUA Presence Relay | 1.0-oak-v8.7.3-rc-2 | |
| B2BUA Service | 1.0-oak-v8.7.3-rc-2 | |
| c_mgmt | 8.6-1.0.321052 | |
| collectsupport | 5368 | |
| oaksupport | 5368 | |
| stringencoderssupport | 5368 | |
| System platform | X8.7.3 | 7800812430795357 |
| traffic_server | 5368 | |
| xcp-vcs | 1.0-oak-v8.7.3-rc-2 | |
| xcpsupport | 5368 | |

Upgrade component

WARNING: You should backup the system before upgrading. [System backup](#)

Select file

No file selected.

Click Browse to locate your upgrade software on your local machine and then upload.

步骤 3：出现提示时，在Release key字段中输入释放密钥值。从邮件中复制并粘贴，或者如果是次要升级，例如x8.7.3到x8.8.3，则从同一屏幕复制并粘贴。

Upgrade

You are here: Maintenance > Upgrade

| Component | Version | Release key |
|-----------------------|---------------------|-------------|
| B2BUA Presence Relay | 1.0-oak-v8.7.3-rc-2 | |
| B2BUA Service | 1.0-oak-v8.7.3-rc-2 | |
| c_mgmt | 8.6-1.0.321052 | |
| collectdsupport | 5368 | |
| oaksupport | 5368 | |
| stringencoderssupport | 5368 | |
| System platform | X8.7.3 | |
| traffic_server | 5368 | |
| xcp-vcs | 1.0-oak-v8.7.3-rc-2 | |
| xcpsupport | 5368 | |

7800812430795357

Upgrade component

WARNING: You should backup the system before upgrading.

[System backup](#)

Select file

Browse... s42700x8_8_3.tar.gz

Release key

Once the file is selected, you can paste your release key in the field noted to the left. You can copy the release key from your licensing email. Or, if you are just doing a minor upgrade like in this example from 8.7.3 to 8.8.3, you can copy and paste the release key already installed which is circled above in this example.

Upgrade

步骤 4：单击“升级”按钮。请观察后面的流程，不要离开该流程，或者必须重新开始。上传映像，然后安装映像。出现提示时单击“restart (重新启动)”。

You are here: Maintenance > Upgrade

| Component | Version | Release key |
|-----------------------|---------------------|------------------|
| B2BUA Presence Relay | 1.0-oak-v8.7.3-rc-2 | |
| B2BUA Service | 1.0-oak-v8.7.3-rc-2 | |
| c_mgmt | 8.6-1.0.321052 | |
| collectdsupport | 5368 | |
| oaksupport | 5368 | |
| stringencoderssupport | 5368 | |
| System platform | X8.7.3 | 7800812430795357 |
| traffic_server | 5368 | |
| xcp-vcs | 1.0-oak-v8.7.3-rc-2 | |
| xcpsupport | 5368 | |

Information

The 16-character release key for the new software version. This is not required if you are upgrading to a dot release, for example from 1.0 to 1.1.

Upgrade component

WARNING: You should backup the system before upgrading. [System backup](#)

Select file ⓘ

Release key ⓘ

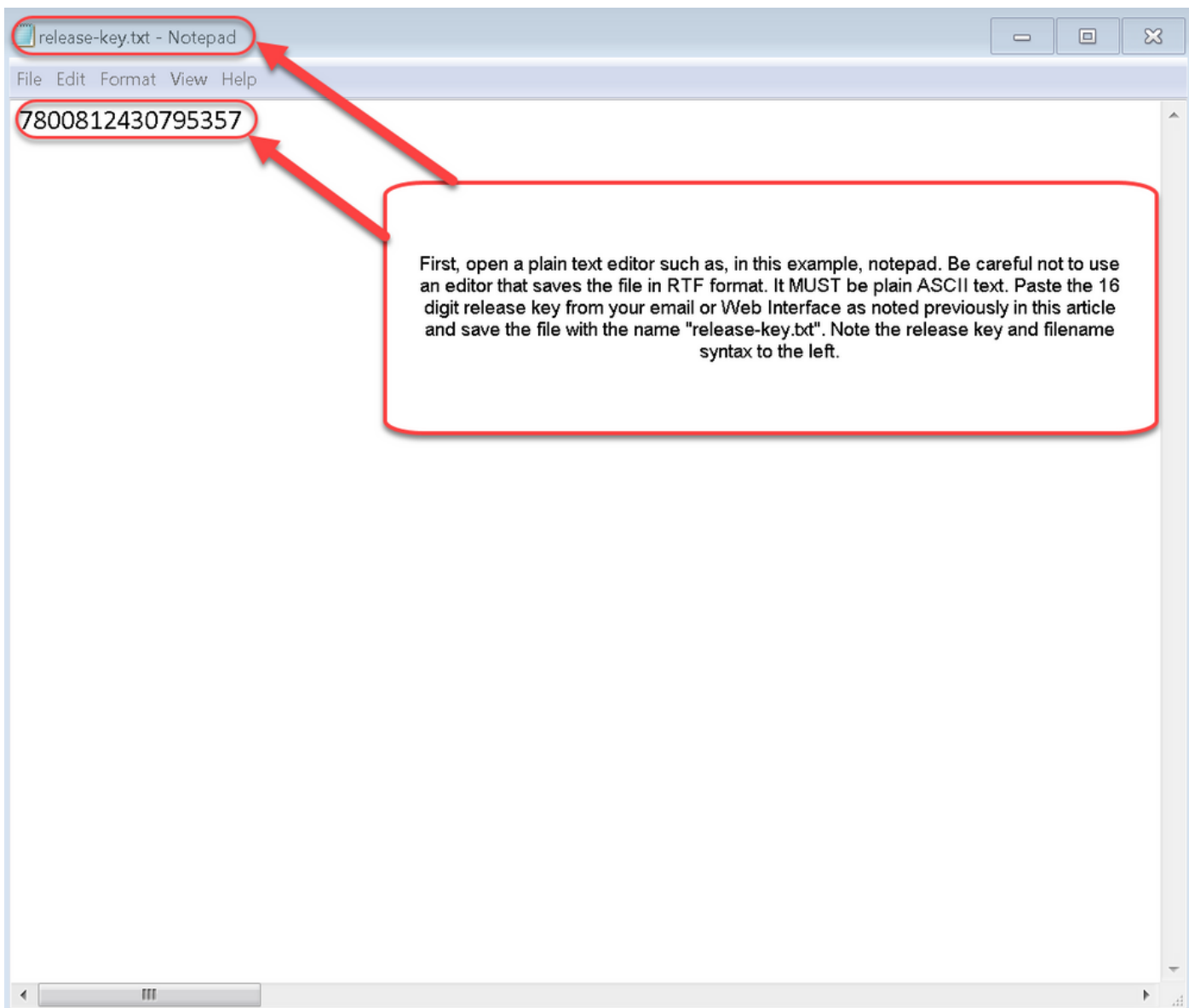
Once the release key is pasted, you can click upgrade and then follow the steps from there. Do not leave the screens that follow or you will have to start over. The image will first upload, then it gets installed and finally you restart the Expressway. Once it is restarted and comes back up, it should be on the new release and the release key can be verified exactly the same as with a fresh install.

在Expressway重新启动后，验证版本是否已正确安装。使用本文档“验证”部分中介绍的两种方法。

CLI版本密钥安装示例

通过CLI安装版本密钥。这是一个包含两部分的过程，涉及在Windows中使用SCP客户端(本例中为PSCP，来自命令(CMD)提示符)和终端仿真软件应用程序(如PuTTY)。

步骤 1：将您的版本密钥复制到纯ASCII文本文件中。确保释放密钥值前后没有空格。将版本密钥复制到文本编辑器应用程序中，将文件保存为**release-key.txt**。



步骤 2：将release-key.txt文件和PSCP.exe放在计算机上的同一目录中。在Windows中使用命令 (CMD)提示符导航到该目录，然后将版本密钥复制到Expressway上的临时目录。使用PSCP事务的根帐户。根据提示输入根帐户密码。按100%的指示验证已完成的转接。示例如下：

```
C:\Users\jwall>cd desktop
C:\Users\jwall\Desktop>pscp release-key.txt root@.117:/tmp/release-key
Using keyboard-interactive authentication.
Password:
release-key.txt | 0 kB | 0.0 kB/s | ETA: 00:00:00 | 100%
C:\Users\jwall\Desktop>pscp s42700x8_8_3.tar.gz root@.117:/tmp/tandberg-image.tar.gz
Using keyboard-interactive authentication.
Password:
s42700x8_8_3.tar.gz | 19164 kB | 598.9 kB/s | ETA: 00:12:40 | 4%
```

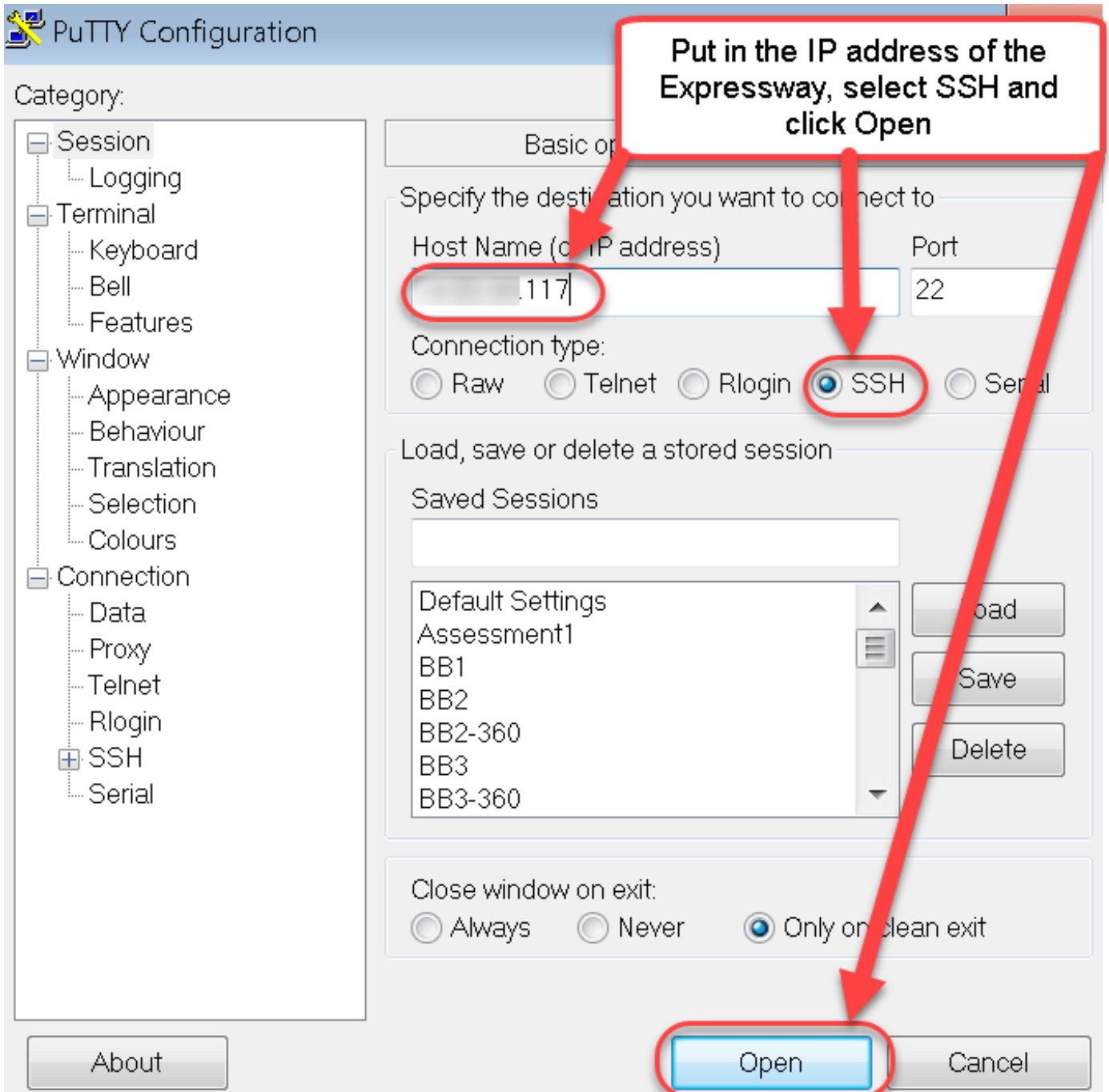
Note in the first circle above, we are using a Windows CMD prompt where I've saved the release-key.txt file to my desktop. In the first line, I've navigated to my desktop with the CMD command "cd desktop" and then am copying the file over to the Expressway using free-ware Putty PSCP. In the next circle, I am copying over the upgrade image to the Expressway using PSCP. The third circle is showing the file transfer progress. Once complete, I will use Putty SSH shell to restart the Expressway.

步骤 3：复制要升级到的映像，如此处使用的8.8.3。通过PSCP复制此映像。验证状态显示为100%，这表示映像的软件已传输到Expressway，并且您已准备好重新启动Expressway。

```
C:\Users\jwall>cd desktop
C:\Users\jwall\Desktop>pscp release-key.txt root@[REDACTED].117:/tmp/release-key
Using keyboard-interactive authentication.
Password:
release-key.txt          | 0 kB | 0.0 kB/s | ETA: 00:00:00 | 100%
C:\Users\jwall\Desktop>pscp s42700x8_8_3.tar.gz root@[REDACTED].117:/tmp/tandberg-image.tar.gz
Using keyboard-interactive authentication.
Password:
s42700x8_8_3.tar.gz     | 474310 kB | 577.7 kB/s | ETA: 00:00:00 | 100%
C:\Users\jwall\Desktop>_
```

Note, the installation is complete. Now we go to Putty and restart the Expressway via CLI from an SSH session. Alternatively, you can reboot the Expressway from the Web Interface.

步骤 4：通过与Expressway的SSH会话重新启动Expressway。打开PuTTY并键入Expressway的IP地址。单击SSH打开。



步骤 5：出现提示时，单击**Open**并使用管理员帐户登录Expressway。出现提示时输入管理员帐户密码。验证您是否具有重新启动Expressway的正确命令。输入命令，后跟空格和问号，以确保其正确。Expressway确认xCommand引导已重新启动。输入命令xCommand Boot以重新启动Expressway。



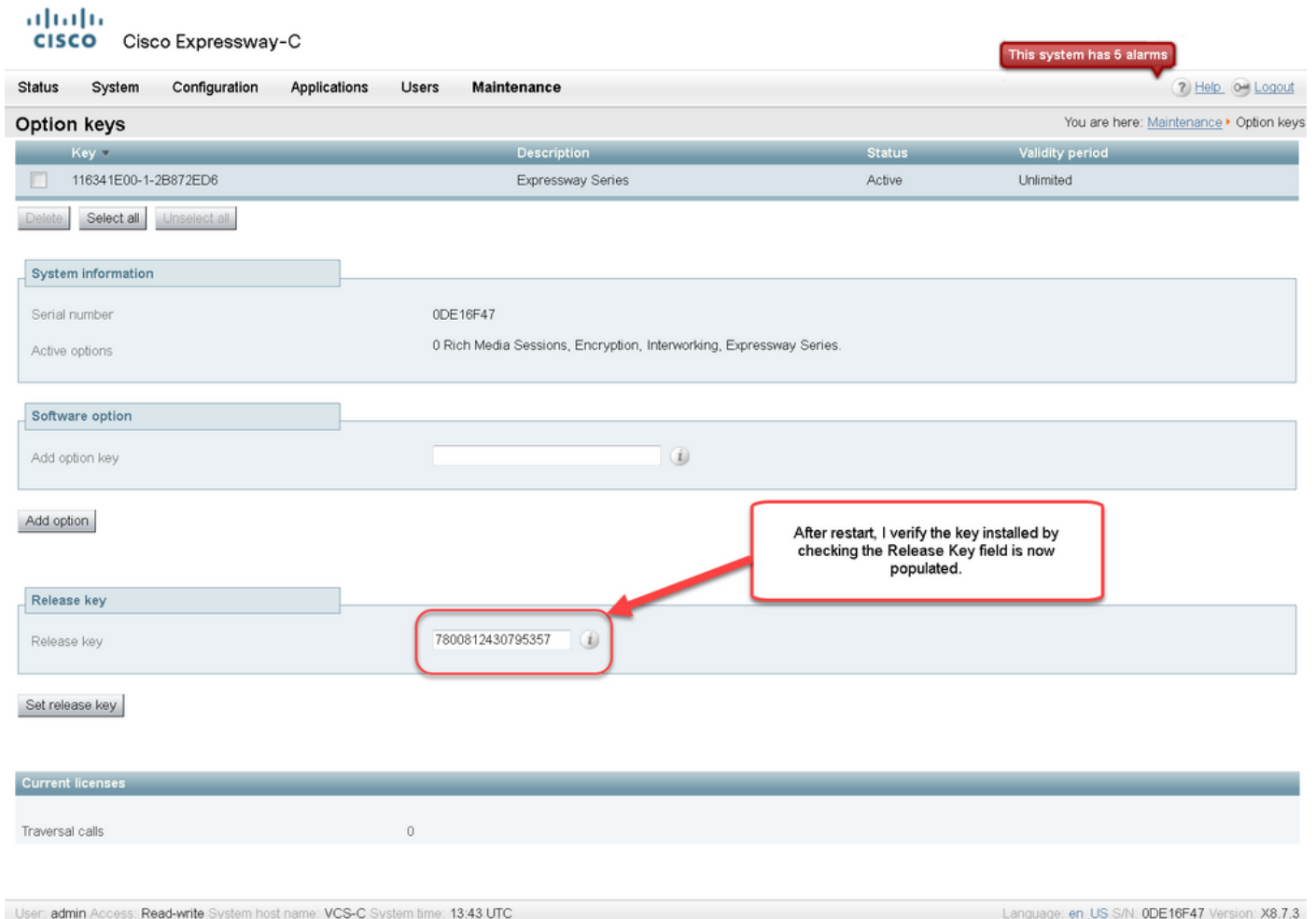
Expressway会闪烁其正在重新启动过程，并且您的PuTTY会话关闭。此行为是正常的，因为连接在Expressway重新启动时终止。Expressway需要大约三到五分钟才能重新启动。完成后，按照本文档的“验证”部分所述，通过Web界面或CLI验证正确安装的版本密钥。

验证

版本密钥安装的Web界面验证

验证Web界面中安装的版本密钥的方法有两种：

选项 1：如前所述，查看“选项密钥”页，并选中“发布密钥”字段。



选项 2：如前所述，检查升级页面：

This system has 5 alarms

Status System Configuration Applications Users Maintenance

Help Logout

You are here: Maintenance > Upgrade

| Component | Version | Release key |
|-----------------------|---------------------|------------------|
| B2BUA Presence Relay | 1.0-oak-v6.7.3-rc-2 | |
| B2BUA Service | 1.0-oak-v6.7.3-rc-2 | |
| c_mgmt | 8.6-1.0.321052 | |
| collectsupport | 5368 | |
| oaksupport | 5368 | |
| stringencoderssupport | 5368 | |
| System platform | X8.7.3 | 7800812430795357 |
| traffic_server | 5368 | |
| xcp-vcs | 1.0-oak-v6.7.3-rc-2 | |
| xcpsupport | 5368 | |

Upgrade component

WARNING: You should backup the system before upgrading. [System backup](#)

Select file No file selected.

User: admin Access: Read-write System host name: VCS-C System time: 13:46 UTC Language: en_US S/N: 0DE16F47 Version: X8.7.3

版本密钥安装的CLI界面验证

通过与CLI的SSH会话验证通过CLI界面安装的版本密钥。使用管理员帐户登录，如本文档前文所述。在该位置后，输入命令 `xStatus SystemUnit Software`。您会看到升级成功，并且安装了版本密钥：

```
login as: admin
Using keyboard-interactive authentication.
Password:
5 alarms:
 * warning   NTP server not available - The system is unable to contact an NTP
server
 * warning   Insecure password in use - The root user has the default password
set
 * warning   Configuration warning - For phone book requests to work correctly,
authentication policy must be enabled on the Default Subzone and any other rele
vant subzone; authentication must also be enabled on the Default Zone if the end
points are not registered
 * warning   Date and time not validated - The system is unable to obtain the c
orrect time and date from any of the NTP servers
 * warning   Configuration warning - For provisioning to work correctly, authen
tication policy must be enabled on the Default Zone and any other relevant zone
that receives provisioning requests

TANDBERG Video Communication Server X8.8.3
SW Release date: 2016-10-12 11:14, build
OK

xstatus systemunit software
c SystemUnit: /
Software:
Build: "oak_v8.8.3_rc_1"
Configuration:
AdvancedAccountSecurity: "False"
DeviceProvisioning: "True"
DualNetworkInterfaces: "False"
Encryption: "True"
EnhancedOCSCollaboration: "False"
Expressway: "False"
ExpresswaySeries: "True"
FindMe: "True"
Interworking: "True"
NonTraversalCalls: "750"
Registrations: "0"
StarterPack: "False"
TPRoom: "0"
TraversalCalls: "0"
UserDevice: "0"
Name: "s42700"
ReleaseDate: "2016-10-12"
ReleaseKey: "7800812430795357"
Version: "X8.8.3"
^c/END
OK
```

Using Putty to SSH, as noted previously, I login as admin.

Once logged in, I use the command "xstatus systemunit software" to verify both my software version (in this case, my upgrade succeeded) and release key installed towards the bottom of the output.

故障排除

在Cisco Expressway上安装版本密钥时，您没有任何问题。在Expressway的“版本密钥”字段中输入选项密钥，或在升级是导致失败的最常见原因时输入选项密钥。本文开头引用的电子邮件示例除了版本密钥外，还显示了选项密钥。当在Release Key字段中输入选项键时出错：

Option keys

You are here: Maintenance > Option keys

Saved: The release key has been updated, however a restart is required for it to take effect.

| Key | Description | Status | Validity period |
|---|-------------------|--------|-----------------|
| <input type="checkbox"/> 116341E00-1-2B872ED6 | Expressway Series | Active | Unlimited |

Delete Select all Unselect all

System information

Serial number: 0DE16F47
 Active options: 0 Rich Media Sessions, 0 Room Systems, 0 Desktop Systems, Encryption, Interworking, FindMe, Device Provisioning, Expressway Series.

Software option

Add option key

Add option

Release key

Release key

Set release key

Here, I've made a mistake which is one of the most common causes of a release key installation failure. Specifically, I've tried to install an option key as a release key. The Expressway will allow me to make this mistake and will not show the error until I have fully restarted/rebooted the Expressway. Just as before, I've pasted in the "bad" key in the release key field, clicked on "Set release key" and now as before I am being prompted to restart the Expressway.

Current licenses

| | |
|------------------------|---|
| Traversal calls | 0 |
| Desktop System License | 0 |
| Room System License | 0 |

Expressway接受“版本密钥”字段中的任何值。重新启动Expressway，输入的值不正确，您会收到错误“Invalid release key”(无效版本密钥):

Invalid release key. Release key is missing: the system is in demonstration mode and has limited functionality; contact your Cisco support representative to buy your release key.

| Key | Description | Status | Validity period |
|---|-------------------|--------|-----------------|
| <input type="checkbox"/> 116341E00-1-2B872ED6 | Expressway Series | Active | Unlimited |

Delete Select all Unselect all

System information

Serial number: 0DE16F47

Active options: 1 Rich Media Sessions, 0 Room Systems, 0 Desktop System Encryption, Interworking, FindMe, Device Provisioning, Expressway Series

Software option

Add option key:

Add option

Release key

Release key:

Set release key

Current licenses

| | |
|------------------------|---|
| Traversal calls | 1 |
| Desktop System License | 0 |
| Room System License | 0 |

Ugh, now I have a very Unhappy Expressway because I installed an option key as a release key. Note the option key showing as the release key now with the big red warning at the top? To fix this error, I simply use the procedure in this document to install a proper RELEASE KEY and not an option key.

按照本文档中的说明安装版本密钥以更正此情况。

注意：版本密钥和选项密钥与Web界面右下角显示的序列号关联，如果序列号发生更改（虚拟机的硬件可能发生更改），则需要重新生成并重新安装版本密钥和选项

请联系思科TAC，寻求其他故障类型的帮助。