

Install an Expressway Series Option Key via the Web Interface and CLI Configuration Example

Contents

[Introduction](#)
[Prerequisites](#)
[Requirements](#)
[Components Used](#)
[Configure](#)
[Web Interface Option Key Installation Example](#)
[CLI Option Key Configuration Example](#)
[Important Keys](#)
[Verify](#)
[Troubleshoot](#)

Introduction

This document describes the installation of an option key on a Cisco Expressway Series device via the web interface and Command Line Interface (CLI).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

Expressway Installation

Have successfully installed your Expressway and applied a valid IP address that is reachable via web interface and or CLI.

Have applied for and received an option key valid for your Expressway serial number.

Have access to the Expressway with an **admin** account by web interface or CLI.

Have used a web browser such as Firefox, Internet Explorer or Chrome.

Note: Expressway Series installation guides can be found here:

<http://www.cisco.com/c/en/us/support/unified-communications/expressway-series/products-installation-and-configuration-guides-list.html>

Components Used

The information in this document is based on these software versions:

Expressway Version x8.8.1

Expressway Core x7.X and x8.X releases

Expressway Edge x7.X and x8.X releases

PuTTY (terminal emulation software)

---Alternatively, you could use any terminal emulation software that supports Secure Shell (SSH) such as Secure CRT, TeraTerm and so on.

Licensing email with an Option Key.

A web browser such as Firefox, Internet Explorer or Chrome.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configure

This web interface example video supplements this document.

Web Interface Option Key Installation Example

Step 1: Once you have installed your Expressway, have your serial number and applied for your option key using your PAK and serial number, you receive a license email from the Cisco licensing team which may or may not contain a release key and option keys. In the example email, you can see an example of an option key for a VCS device, which is ok, the email looks the same for an Expressway Series device.

Note: Examples of PAK are outside the scope of this document.

EMAIL EXAMPLE

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            : -
Upgrade To Image URL     : -

```

This is the name and type of option key you will install.

```

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-DEPROV:
Tandberg Option Name     : 116341P00:VCS - Enable Device Provisioning
Option Key                : 116341P00-1-1FEB68A1

```

This alpha-numeric chain is what you will add through the Web Interface or CLI

```

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

```

```

Options

```

Step 2: Log in to the web interface and navigate to Maintenance > Option Keys:

The screenshot shows the Cisco Expressway-C web interface. At the top, there's a navigation bar with links for Status, System, Configuration, Applications, Users, Maintenance, Help, and Logout. A red arrow points to the 'Option keys' link under the Maintenance menu. A red box highlights the 'Click on Option Keys' button. A message at the top right says 'This system has 6 alarms'.

System Information	
System name	EXP-Core
Up time	6 days 15 hours 7 minutes 51 seconds
Software version	X8.7.3
IPv4 address	192.168.1.117
Options	1 Rich Media Sessions, Encrypted

Resource usage (last updated: 12:53:04 UTC)		
Bi-directional 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%

Step 3: Copy the option key you received in your license email and enter it in the Add option key and click Add option:

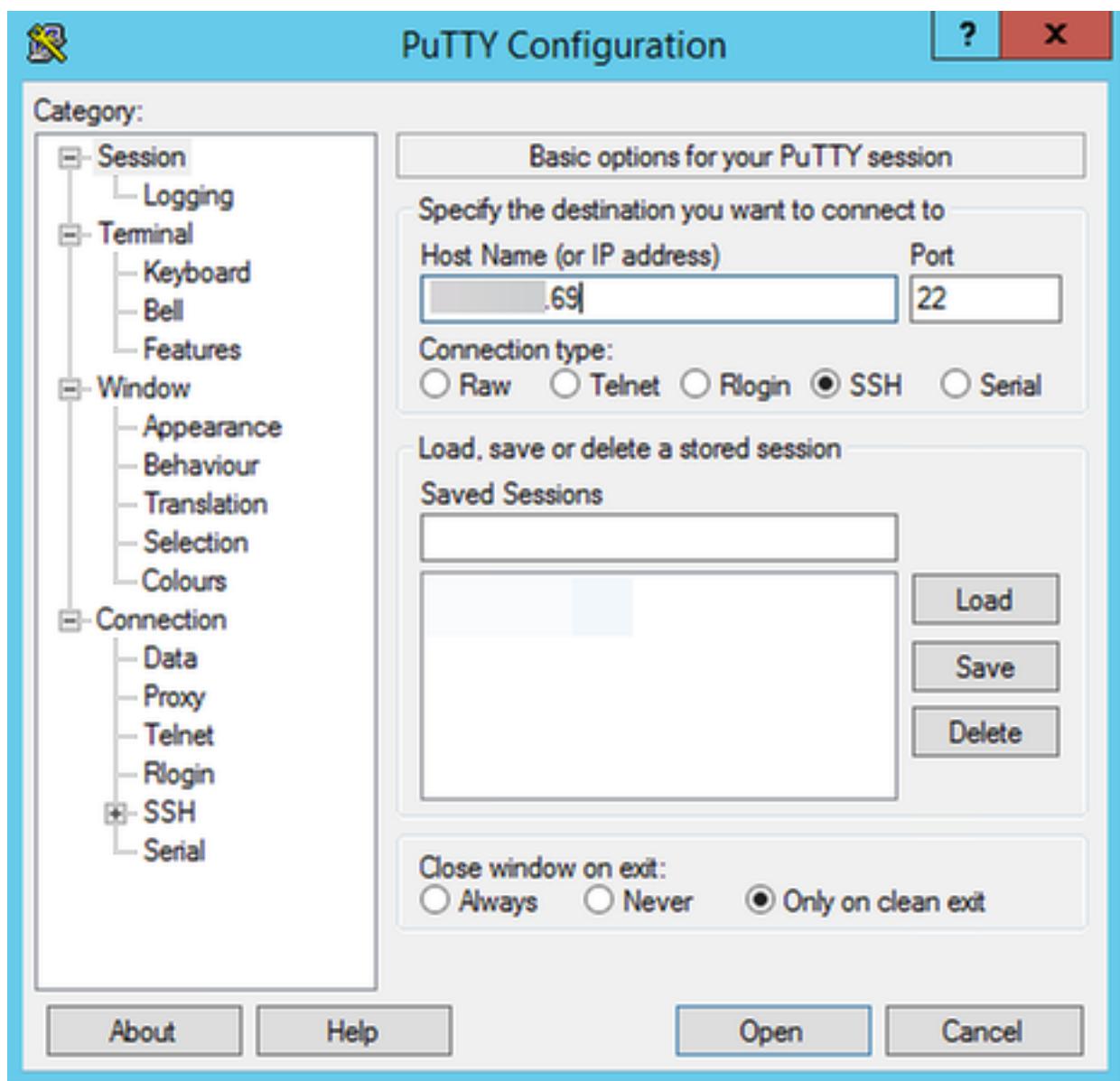


Note: Be careful to add the option key in the **Add Option key** field. A common mistake is to add an option key in the **Release key** field. This mistake results in an error condition.

Note: You can repeat this process for any option key that you want to add. Once added, the option key takes effect immediately. A restart is NOT required with one exception. The **Expressway Series option key DOES** require a restart when applied.

CLI Option Key Configuration Example

Step 1: Start a Secure Shell (SSH) session using PuTTY. Enter the Expressway IP Address value in the **Host Name (or IP Address)** field, click the **SSH Radio Button** and click **Open**:



Step 2: Log in with an admin account and enter the admin account password when prompted.

Step 3: Type the command **xCommand OptionKeyAdd Key: [option key]**:

The screenshot shows a PuTTY session titled "69 - PuTTY". The terminal window displays the following text:

```
login as: admin
Using keyboard-interactive authentication.
Password:

2 alarms:
 * warning Insecure password in use - The root user has the default password
set
 * warning Insecure password in use - The admin user has the default password
set

Last login: Mon Nov  7 00:14:54 UTC 2016
TANDBERG Video Communication Server X8.7.3
SW Release date: 2016-04-14 10:20, build

OK

xCommand OptionKeyAdd Key: 116341E00-1-D1E934F8
```

A red box highlights the command "xCommand OptionKeyAdd Key: 116341E00-1-D1E934F8". A yellow box highlights the output "*r Result (status=OK) ID: 3". A yellow callout box points to the status message with the text: "'status=OK' indicates the option key was successfully added". Another yellow callout box points to the space between "Key:" and the option key with the text: "Note the space that goes between "Key:" and the option key".

Note: You can repeat this process for any option key that you want to add. The process is the same for both Expressway Core and Expressway Edge devices.

Important Keys

The **Expressway Series option key** changes the Virtual Machine (VM) from a VCS Series to an Expressway Series:

Note: A **restart** is required after adding this **option key** for it to take effect. Click the **restart** link to restart the Expressway and follow the prompts.

The screenshot shows the Cisco Expressway-C web interface under the "Maintenance" tab. The "Option keys" section displays the following information:

Key	Description	Status	Validity period
116341E00-1-D1E934F8	Expressway Series	Active	Unlimited

A message at the top states: "Option key added. A [restart](#) is required for it to take effect." Buttons at the bottom include "Delete", "Select all", and "Unselect all".

The **Traversal Server option key** turns an Expressway-C into an Expressway-E and the **Advanced Networking option key** adds the Dual-NIC feature and NAT features:



Status System Configuration Applications Users **Maintenance** [? Help](#) [Logout](#)

Option keys

You are here: Maintenance > Option keys

Key	Description	Status	Validity period
116341E00-1-C539DC25	Expressway Series	Active	Unlimited
116341G00-1-2C53223D	H323-SIP Interworking Gateway	Active	Unlimited
116341L00-1-956DA85D	Advanced Networking	Active	Unlimited
116341T00-1-123A151A	Traversal Server	Active	Unlimited

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

System information

Serial number	0E54DE9A
Active options	0 Rich Media Sessions, 0 Room Systems, 0 Desktop Systems, 0 TURN Relays, Traversal Server, Encryption, Interworking, FindMe, Device Provisioning, Advanced Networking, Expressway Series.

On Expressway x8.8.X there is a new license **Room Systems option key** and **Desktop Systems option key** which allow you to register Collaboration Endpoints to an Expressway-C.

Status System Configuration Applications Users **Maintenance** [? Help](#) [Logout](#)

Option keys

You are here: Maintenance > Option keys

Key	Description	Status	Validity period
116341A10-1-E1004349	10 Room Systems	Active	Unlimited
116341B10-1-515C894F	10 Desktop Systems	Active	Unlimited
116341E00-1-889B63D6	Expressway Series	Active	Unlimited
116341G00-1-2B4A156D	H323-SIP Interworking Gateway	Active	Unlimited
116341Y100-1-845EA6D2	100 Traversal Calls	Active	Unlimited

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

System information

Serial number	024EC022
Active options	100 Rich Media Sessions, 10 Room Systems, 10 Desktop Systems, Encryption, Interworking, FindMe, Device Provisioning, Expressway Series.

Verify

Navigate to **Maintenance > Option keys** page and notice how the **option key** has been added and is now visible in the **Keys** section, **Active options** of the **System Information** section and **Current licenses** section:

The screenshot shows the 'Option keys' configuration page in the Cisco TelePresence Video Communication Server Control interface. At the top, there's a navigation bar with links for Status, System, Configuration, Applications, Users, and Maintenance. Below the navigation bar, the 'Option keys' section is displayed with a yellow header bar containing the message 'Option key added'. A table lists the added option key: '118341156-1-61532689' with a description of '50 Traversal Calls', status 'Active', and an 'Unlimited' validity period. Below the table, there are sections for 'System information' (Serial number: 09C166FF, Active options: 0 Non Traversal Calls, 50 Traversal Calls, 2500 Registrations, Encryption), 'Software option' (Add option key field), 'Release key' (Release key field), and 'Current licenses' (Non-traversal calls: 0, Traversal calls: 50, Registrations: 2500).

Troubleshoot

Note: These images are from a VCS Series, that is ok, they are the same for an Expressway Series device.

Add a key and you see an error, "**Unable to add option key**":

- Confirm that you correctly copy the alpha-numeric chain that it is an **option key** value. Ensure there were no extra spaces or characters.
- Confirm that you apply the option key to the correct Expressway. The option keys are matched to the device serial number.
- Confirm you add the option key in the **Add option key** field and not the **Release key** field. The Expressway will accept the **option key** in the **Release Key** field and prompt for a restart

Note: When you add an **option key** to an Expressway, it takes effect immediately. A restart is NOT required in all but one case. The **Expressway Series option key** changes the Virtual Machine (VM) from a VCS Series to an Expressway Series. This option key **DOES require a restart**.

Observe after restart, a banner pops up with an error "**Invalid release key**":

Install the **release key** and **option key** in the correct fields and **restart** the Expressway again to correct this issue.

If you encounter errors after you confirm the procedures documented in the **Troubleshoot** section of this document, contact Cisco TAC.