

# 在Expressway上配置智慧許可證

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## 簡介

本文檔介紹如何在Cisco Expressway上配置智慧許可。

## 必要條件

### 需求

思科建議您瞭解以下主題：

- 思科智慧軟體管理員(CSSM)存取
- 智慧帳戶(SA)
- 虛擬帳戶(VA)

### 採用元件

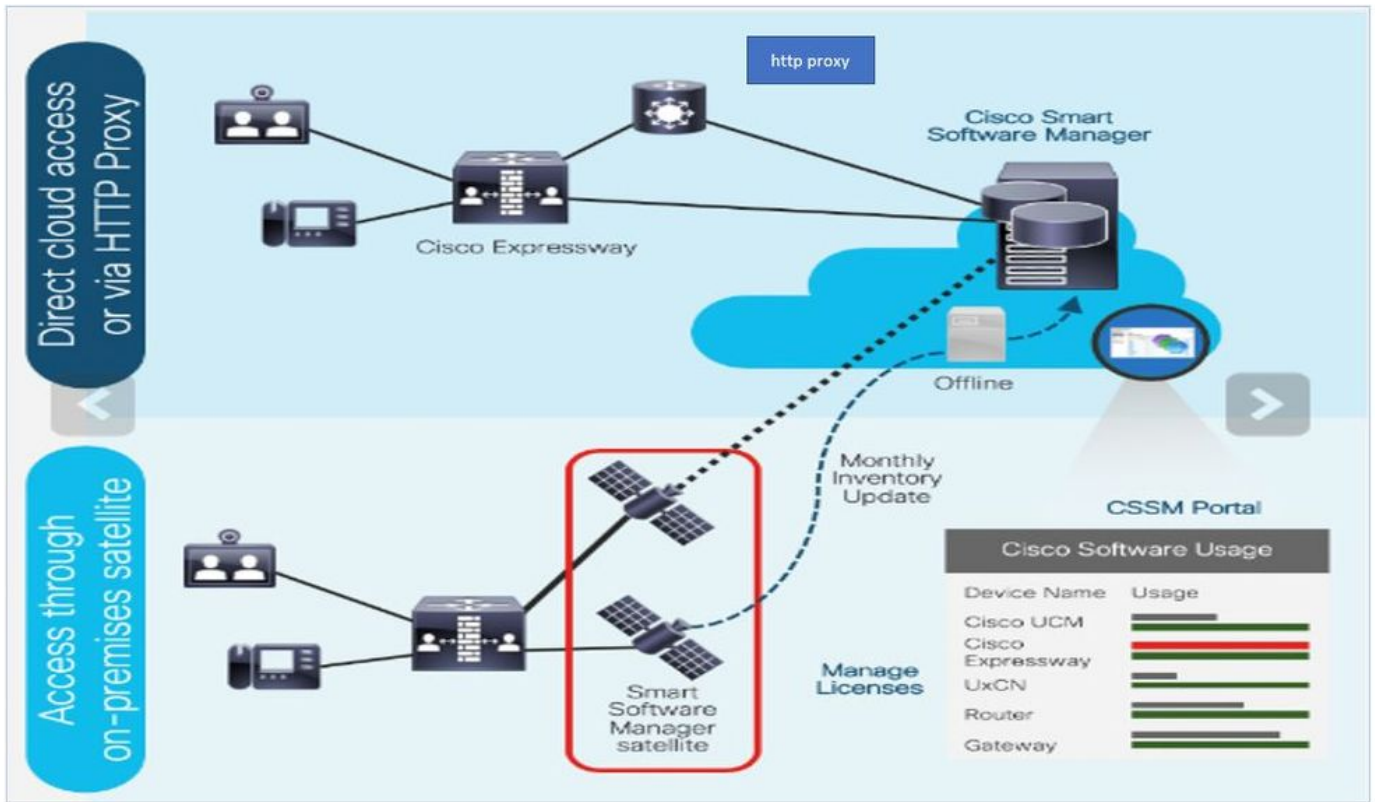
本文中的資訊係根據以下軟體和硬體版本：

- Cisco Expressway版本12.6及更高版本。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

## 背景資訊

思科智慧軟體許可是一種考慮許可的新方法。它簡化了整個企業的許可體驗，使購買、部署、跟蹤和續訂思科軟體更加輕鬆。它透過單一、簡單的使用者介面提供對許可證擁有和使用的可視性。



您在思科商務工作空間下訂單，該訂單與智慧帳戶相關聯。此資訊會填入位於Cisco.com上的智慧軟體管理員中。現在，您可以全面瞭解訂購和購買的內容。

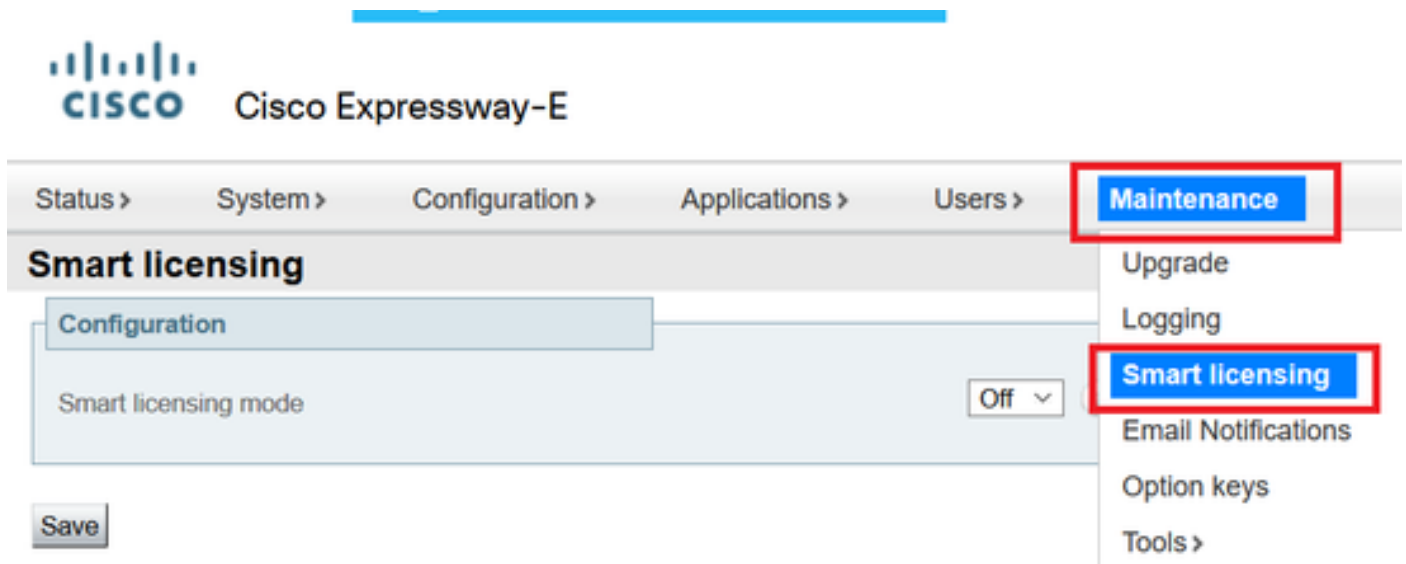
已啟用智慧許可的產品（透過CLI或GUI）註冊到CSSM，然後向CSSM報告許可證使用情況。有兩個模型可以報告使用情況：

**直接模式-** 在裝置可以直接與Internet通訊或可以透過HTTPS代理連線到Internet的環境中使用此模式。與Cisco.com的通訊是透過HTTPS進行的，因此，所有流量都會在傳輸過程中加密。如果流量是透過HTTPS代理傳送的，如果需要應用其他檢查或安全策略，裝置與Cisco.com之間的所有通訊將透過集中位置進行傳輸。

**中介部署模型-** 在裝置沒有任何形式可以連線到Internet、因而無法訪問Cisco.com的網路中使用此模型。此部署模式要求您在本地安裝CSSM衛星虛擬機器，然後所有內部主機都可以訪問該虛擬機器。本地衛星可以每月、每週在Cisco.com上以與CSSM同步的連線模式進行部署，也可以以完全斷開連線的配置進行部署，該配置需要手動上傳和下載檔案以保持衛星同步。建議至少每30天進行一次同步。

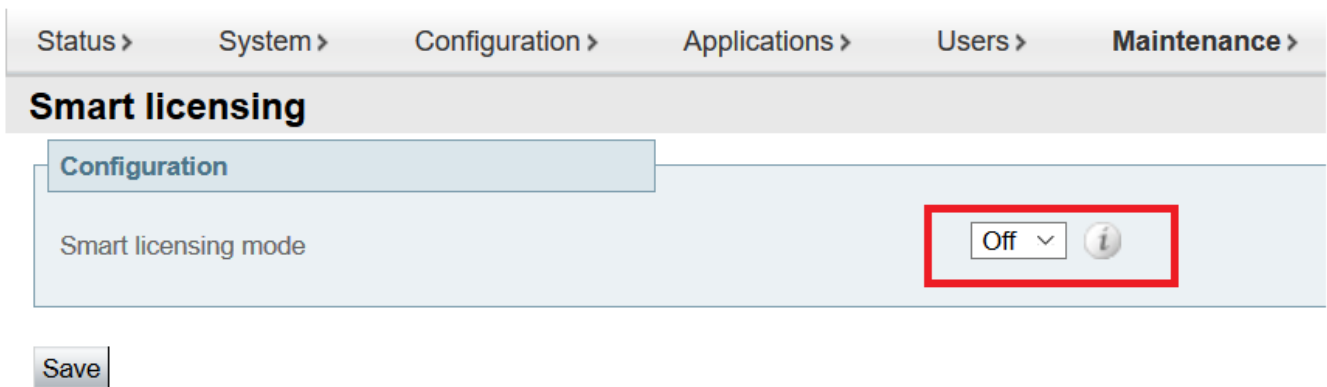
# 設定

步驟 1. 導航到維護>智慧許可頁籤。



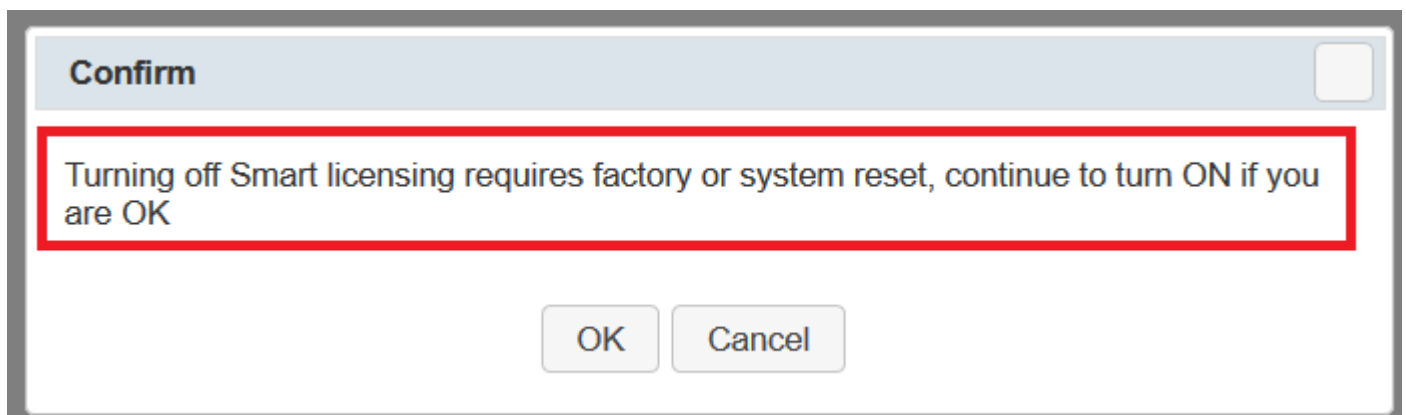
The screenshot shows the Cisco Expressway-E configuration interface. The top navigation bar includes Status >, System >, Configuration >, Applications >, Users >, and Maintenance. The Maintenance tab is highlighted with a red box. Below the navigation bar, the 'Smart licensing' section is visible. A 'Configuration' tab is selected. The 'Smart licensing mode' is currently set to 'Off' with a dropdown arrow. A 'Save' button is located at the bottom left. A dropdown menu is open on the right side of the Maintenance tab, with 'Smart licensing' highlighted by a red box. Other options in the menu include Upgrade, Logging, Email Notifications, Option keys, and Tools >.

步驟 2. 打開智慧許可。按一下Save。




The screenshot shows the same configuration page as in step 1. The 'Smart licensing mode' is still set to 'Off'. A red box highlights the 'Off' dropdown and an information icon (i) next to it. The 'Save' button is still visible at the bottom left.

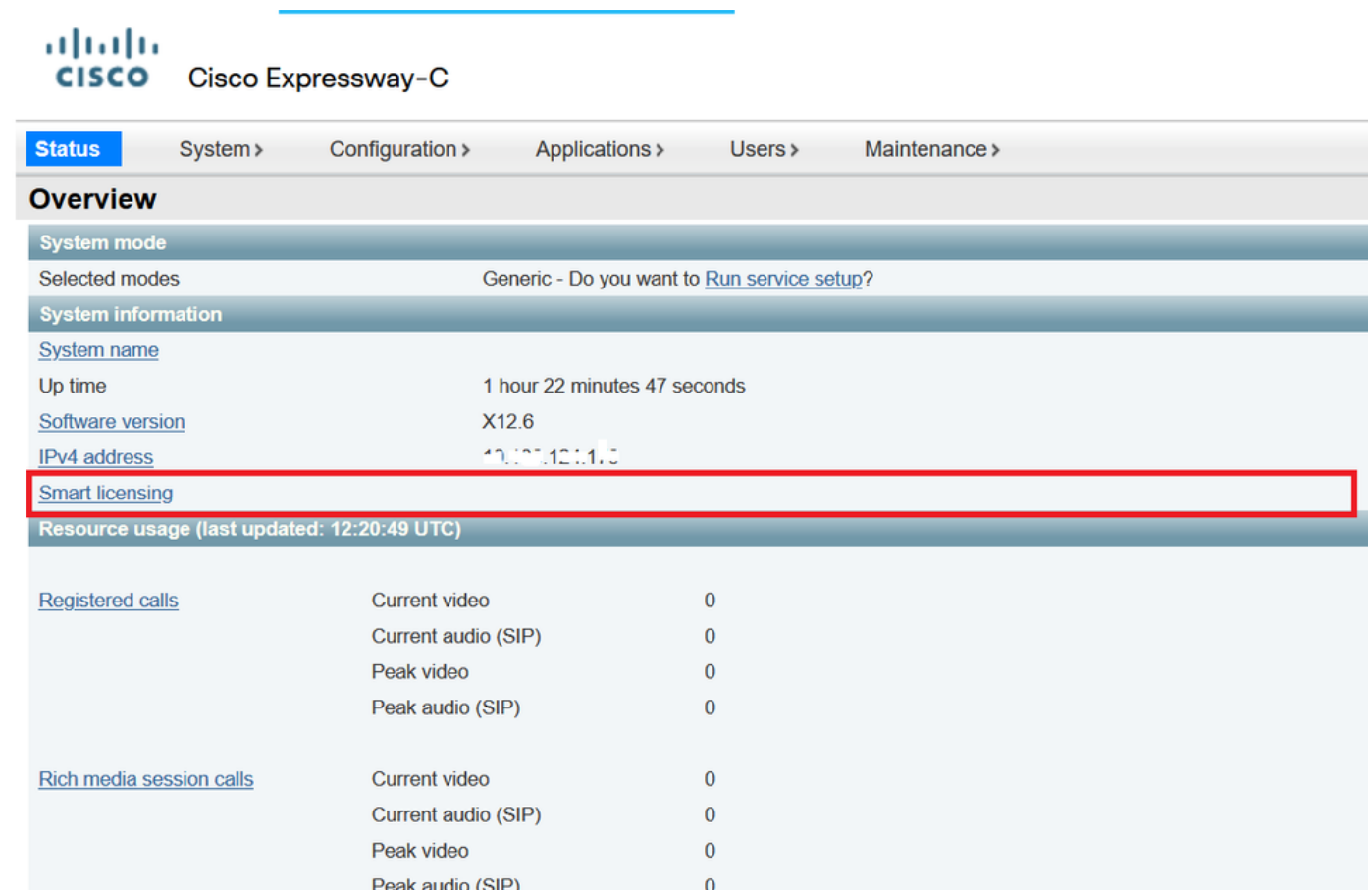
**⚠ 注意：**智慧許可是專有的，不能與產品授權金鑰(PAK)許可模式同時運行。如果需要在Smart Licensing和PAK之間切換，則需要執行裝置的出廠重置。



The screenshot shows a 'Confirm' dialog box. The title bar says 'Confirm'. The main text area contains the message: 'Turning off Smart licensing requires factory or system reset, continue to turn ON if you are OK'. This message is highlighted with a red box. At the bottom of the dialog, there are two buttons: 'OK' and 'Cancel'.

 注意：建議始終進行配置備份，以避免出現任何部分或完整的配置丟失情況。

 注意：「概觀」標籤下沒有顯示任何特徵選項。



The screenshot shows the Cisco Expressway-C Overview page. The navigation bar includes Status, System, Configuration, Applications, Users, and Maintenance. The Overview section is expanded, showing System mode (Generic - Do you want to Run service setup?), System information (System name, Up time: 1 hour 22 minutes 47 seconds, Software version: X12.6, IPv4 address: 10.101.121.1.0), Smart licensing (highlighted with a red box), and Resource usage (last updated: 12:20:49 UTC). The Resource usage table shows 0 for all metrics: Registered calls (Current video, Current audio (SIP), Peak video, Peak audio (SIP)) and Rich media session calls (Current video, Current audio (SIP), Peak video, Peak audio (SIP)).

驗證裝置是否顯示未註冊到CSSM或衛星。

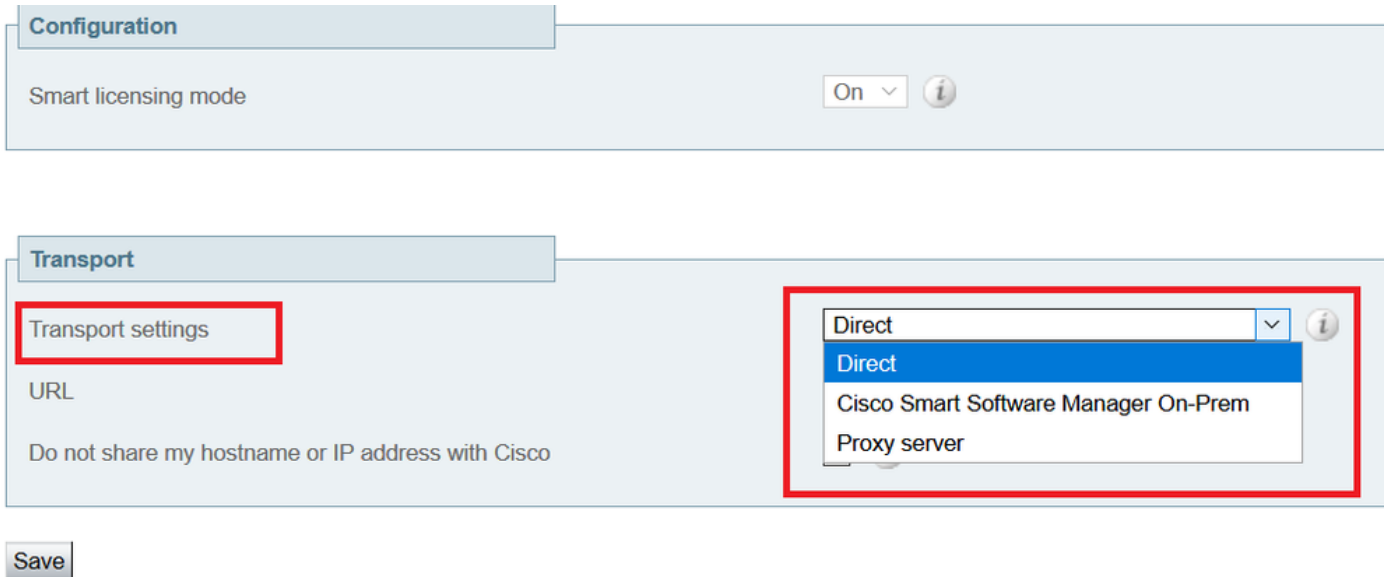


The screenshot shows the Licensing status section, which is highlighted with a red box. It displays the following information:

Licensing status	
Registration status	✘ Unregistered
License authorization status	✔ No Licenses In Use
Smart account	
Virtual account	
Export-controlled functionality	Not allowed

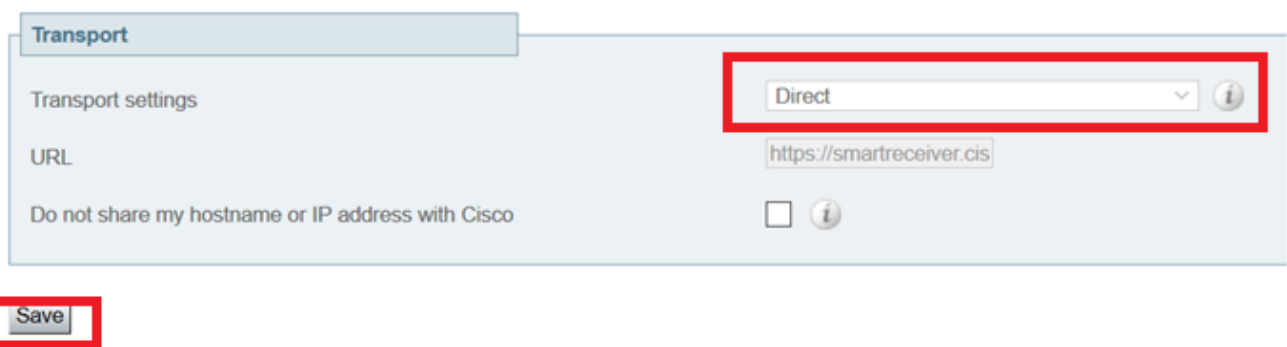
步驟 3. 根據您的智慧許可部署模式，在許可頁面下選擇傳輸設定。

- 直接：直接連線到雲。
- 衛星：直接與CSSM通話的本地解決方案。
- 代理：HTTPS代理。

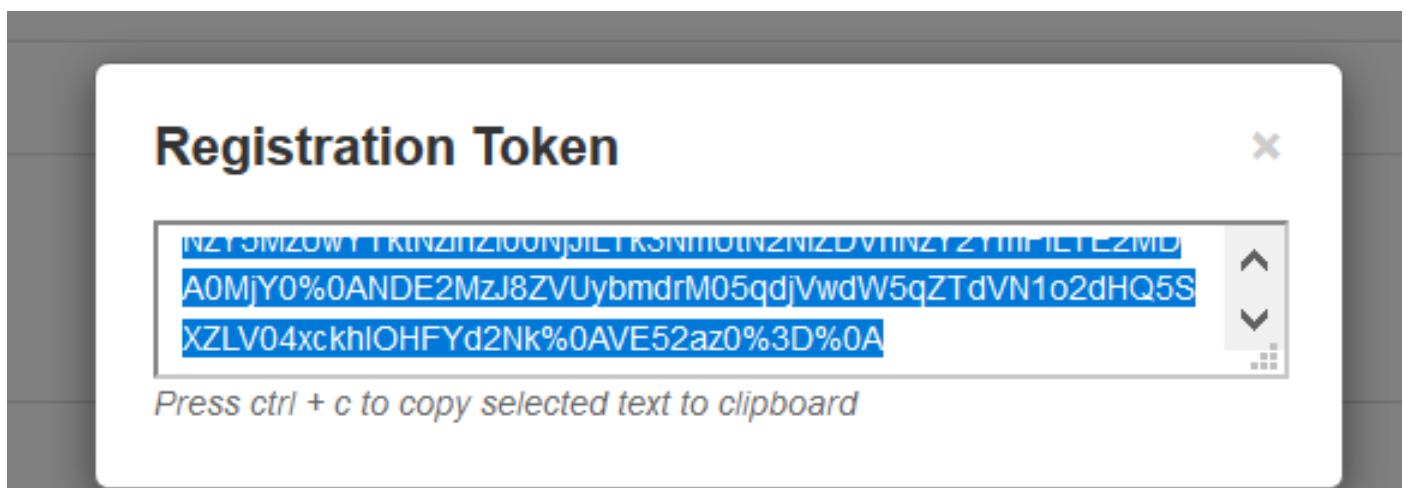


## 直接模型

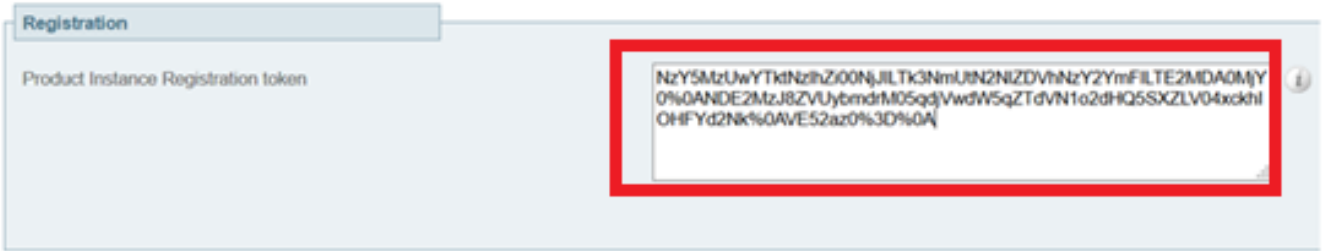
對於Direct Model，選擇Direct和Save。檢查。如果您的安全策略不允許您在雲中共用資訊，請勿與思科共用我的主機名或IP地址。




步驟 4. 在CSSM上建立權杖。



步驟 5. 貼上令牌並按一下Register。



 注意：確保Cisco Expressway已打開通向雲的連線，如下一張圖中所突出顯示的那樣。

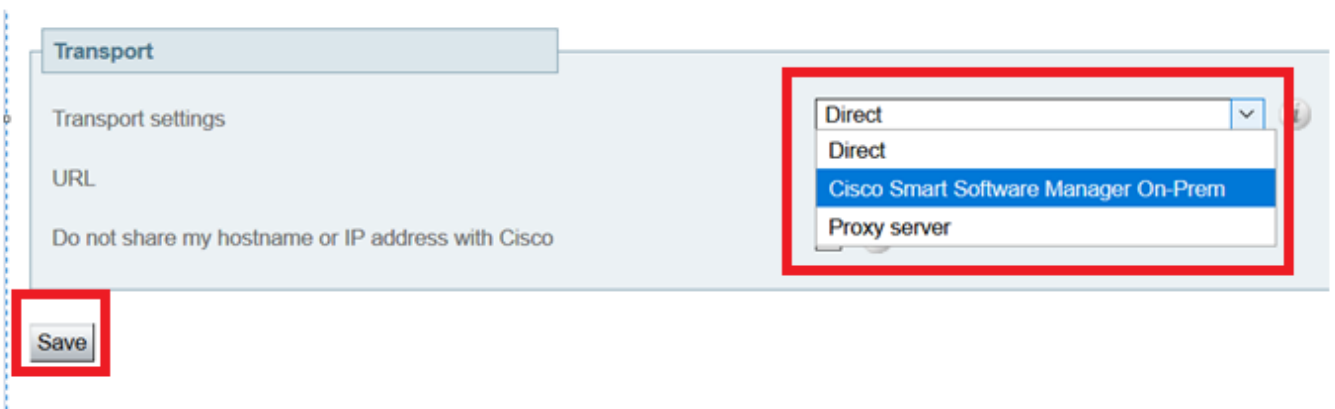
Smart Licensing requests originating from Expressway-E	Expressway-E	Ephemeral (30000-35999)	TLS	https://smartreceiver.cisco.com/licservice/license	443
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驗證是否已成功註冊例項。

Licensing status	
Registration status	✓ Registered
License authorization status	✓ Authorized

## 中介部署模式

步驟 1. 選擇Cisco Smart Software Manager On-Prem和Save。




步驟 2. 更新CSSM onprem URL。輸入正確的URL。

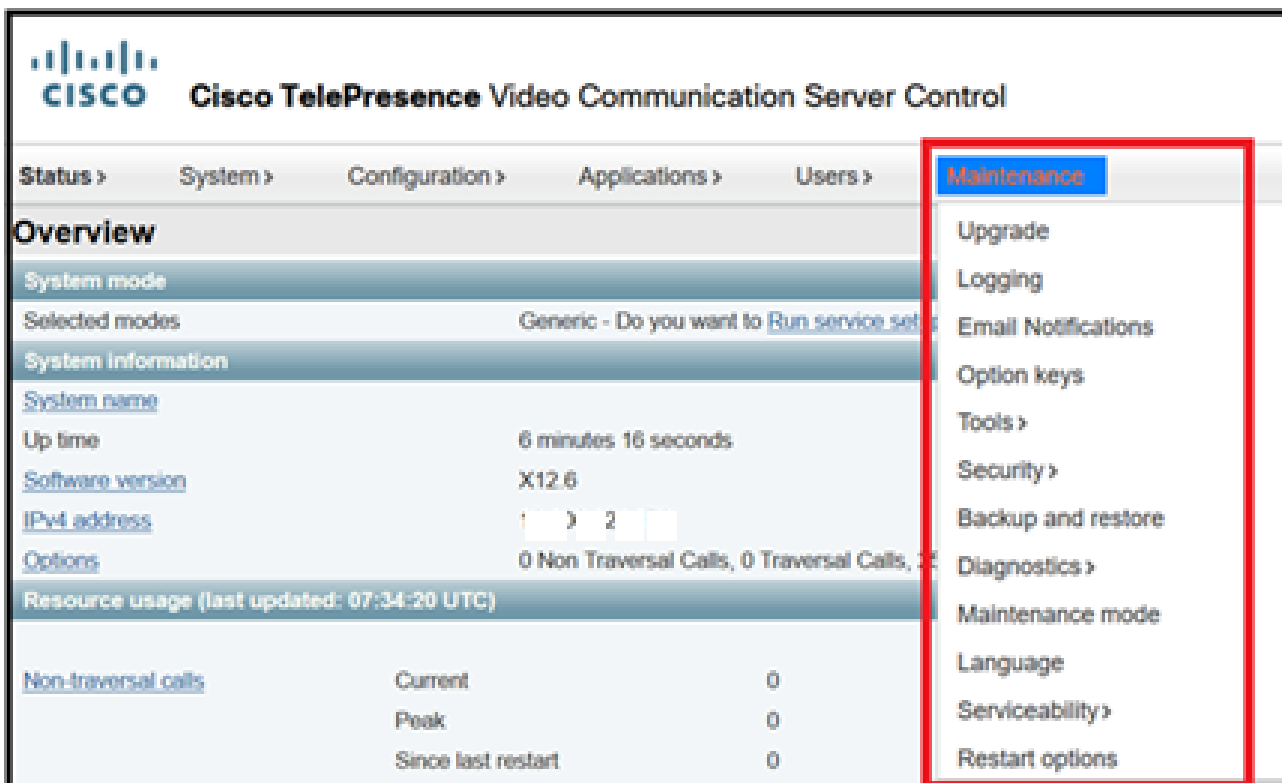


狀態顯示已註冊。

Licensing status	
Registration status	✓ <a href="#">Registered</a>
License authorization status	✓ <a href="#">Authorized</a>

## 疑難排解

 注意：如果未提供智慧許可選項，則是由12.6版本上的舊VCS功能所致。



The screenshot shows the Cisco TelePresence Video Communication Server Control web interface. The top navigation bar includes links for Status, System, Configuration, Applications, Users, and Maintenance. The Maintenance menu is expanded, showing options such as Upgrade, Logging, Email Notifications, Option keys, Tools, Security, Backup and restore, Diagnostics, Maintenance mode, Language, Serviceability, and Restart options. The main content area displays system information including System mode, Selected modes (Generic - Do you want to Run service set...), System information, System name, Up time (6 minutes 16 seconds), Software version (X12.6), IPv4 address (1.1.1.1), and Options (0 Non Traversal Calls, 0 Traversal Calls, 2...).

## 驗證

您可以在CLI上使用xstatus // license命令驗證智慧許可狀態。

```
xstatus // license
*s Show: /
License:
All:
Smart Licensing Status
=====
```

```
Smart Licensing is ENABLED
```



Registration:  
Status: REGISTERED  
Smart Account: petelive.cisco.com  
Virtual Account: Default  
Export-Controlled Functionality: ALLOWED  
Initial Registration: SUCCEEDED on Jun 10 2020 07:57:22 UTC  
Last Renewal Attempt: None  
Next Renewal Attempt: Jul 11 2020 09:08:38 UTC  
Registration Expires: Sep 11 2020 11:31:12 UTC

License Authorization:  
Status: AUTHORIZED on Jun 10 2020 08:02:32 UTC  
Last Communication Attempt: SUCCEEDED on Jun 10 2020 08:02:32 UTC  
Next Communication Attempt: Jul 10 2020 08:02:31 UTC  
Communication Deadline: Sep 08 2020 07:33:04 UTC

Data Privacy:  
Sending Hostname: yes  
Callhome hostname privacy: DISABLED  
Smart Licensing hostname privacy: DISABLED  
Version privacy: DISABLED

Transport:  
Type: Smart  
URL: https://petelive/SmartTransport  
Proxy:  
Not Configured

## 特定許可證如何應用於我的Expressway

所有許可證都彙集在一起。每個節點僅提取其所需的許可證。您不向特定節點分配許可證數量。

例如，如果您有10個UC Manager Enhanced Plus許可證，這允許您註冊10個終端。

如果您的Expressway全都註冊到虛擬智慧許可證帳戶，該怎麼辦？

無論您指向第一個端點的哪個節點，該節點都允許註冊。Expressway使用從虛擬帳戶註冊的令牌連線到雲，並報告使用了一個UC Manager Enhanced Plus許可證。在虛擬帳戶的CSSM門戶上，您現在可以看到您有九個UC Manager Enhanced Plus許可證。如果您將另一個終端註冊到註冊到同一虛擬許可證帳戶的不同Expressway節點，它將使用相同的流程，並報告使用了一個UC Manager Enhanced Plus許可證。檢視CSSM門戶。您可以看到您有八個UC Manager Enhanced Plus許可證。

### 範例

在本示例中，您可以看到虛擬帳戶中有十個UC Manager Enhanced Plus許可證：

License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
Active Call Bridge Node	Prepaid	3	3 (3 Reserved)	-	0		Actions
Cisco Expressway Rich Media Session License	Prepaid	10	0	-	+10		Actions
CMS Customization	Prepaid	2	1 (1 Reserved)	-	+1		Actions
CMS Recording & Streaming	Prepaid	2	2 (2 Reserved)	-	0		Actions
Personal Multiparty	Prepaid	10	10 (10 Reserved)	-	0		Actions
Shared Multiparty	Prepaid	10	10 (10 Reserved)	-	0		Actions
UC Manager CUWL License	Prepaid	10	0	-	+10		Actions
UC Manager Enhanced Plus License	Prepaid	10	0	-	+10		Actions

Showing All 8 Records

在此Expressway上，Expressway >維護>智慧許可證：許可證使用情況下沒有任何智慧許可證。

The screenshot shows the Cisco Expressway Smart Licensing configuration page. The page is titled "Smart licensing" and includes sections for Transport, Action, and Registration. The Transport settings show "Direct" as the transport type and "https://smartreceiver.cisco.co" as the URL. The Action settings show "Please select" as the additional operations. The Registration section shows "Product Instance Registration token" as empty. The Licensing status section shows "Registered" and "Authorized" with a green checkmark. The Smart account section shows "InternalTestDemoAccount@ cisco.com" and "Matt Limbrick". The License usage section shows a table with columns for License type, Current usage, Status, and Description.

向註冊到虛擬帳戶的Expressway註冊終端後，您必須注意UC Manager Enhanced Plus許可證數量減少到9，並且UC Manager Enhanced許可證現在顯示一個正在使用。

Virtual Account: Licenses							
License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
Active Call Bridge Node	Prepaid	3	3 (3 Reserved)	-	0		Actions
Cisco Expressway Rich Media Session License	Prepaid	10	0	-	+10		Actions
CMS Customization	Prepaid	2	1 (1 Reserved)	-	+1		Actions
CMS Recording & Streaming	Prepaid	2	2 (2 Reserved)	-	0		Actions
Personal Multiparty	Prepaid	10	10 (10 Reserved)	-	0		Actions
Shared Multiparty	Prepaid	10	10 (10 Reserved)	-	0		Actions
UC Manager CUWL License	Prepaid	10	0	-	+10		Actions
UC Manager Enhanced License	Prepaid	0	1	From Higher: +1	0		Actions
UC Manager Enhanced Plus License	Prepaid	10	0	To Lower: -1	+9		Actions
Source: Manual Entry Subscription Id: N/A		Sku: UC_Manager_Enhanced_Plus_License_14 Family: UCL		Quantity: 10	Start Date: 2021-Dec-17 Expires: 2022-Dec-12		

您可以驗證註冊到此虛擬帳戶的Expressway是否有一個終端在Expressway >狀態>註冊>按別名下註冊。

Alias	Alias type	Protocol	Creation time	Address	Device type
DX70@hotac.net	AOR	SIP	2022-08-17 01:35:28	sip:DX70@10.0.0.29:43576;transport=tcp	Desktop Systems


然後，您可以導航到Expressway >維護>智慧許可，確認註冊的終端使用一個UC Manager增強型許可證。

The screenshot displays the Cisco Expressway-C Smart Licensing configuration interface. It includes sections for Transport settings (Direct mode, URL: https://smartlicserver.cisco.co), Action settings (Please select), and Registration (Product Instance Registration token). The Licensing status section shows the following details:

- Registration status: ✓ Registered
- License authorization status: ✓ Authorized
- Smart account: InternalTestDemoAccount@cisco.com
- Virtual account: Matt Limbrick

License type	Current usage	Status	Description
UCM_Enhanced	1	AUTHORIZED	UC Manager Enhanced License

如果您從註冊到虛擬帳戶的Expressway中取消註冊此終端，則計數將返回到10個C管理器增強型Plus許可證，並且Expressway >維護>智慧許可證：許可證使用情況下的Expressway條目會消失。

 注意：虛擬帳戶和Expressway可能需要幾分鐘才能反映許可證使用情況。許可證使用不會不斷更新，因為它會生成大量網路消息。許可證使用率每六小時更新一次，或者可以在按一下Update usage details時手動更新。

## 智慧許可證的型別

- 許可證擴展磁碟
- 許可證擴展會議室
- LIC-EXP-RMS

LIC-EXP-DSK表示為CSSM上的UC Manager增強型許可證。這些僅適用於EX60、EX90、DX70和DX80等案頭SIP裝置。這些裝置的H323註冊用作房間許可證。

LIC-EXP-Room在CSSM上表示為UC Manager Telepresence Room許可證。這些適用於除上述所列的SIP案頭裝置之外的所有其他SIP註冊，以及所有H323註冊。

UC Manager Enhanced License		Prepaid	20	2	-	+18	Actions ▾
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-DSK Family: UCL	Quantity: 20	Start Date: 2022-Sep-13 Expires: 2025-Jun-08	
UC Manager Enhanced Plus License		Prepaid	10	0	-	+10	Actions ▾
UC Manager Telepresence Room License		Prepaid	40	6	-	+34	Actions ▾
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-ROOM Family: UCL	Quantity: 20	Start Date: 2022-Sep-15 Expires: 2025-Jun-10	
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-ROOM Family: UCL	Quantity: 10	Start Date: 2022-Sep-15 Expires: 2025-Jun-10	
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-ROOM Family: UCL	Quantity: 10	Start Date: 2022-Sep-15 Expires: 2025-Jun-10	

LIC-EXP-RMS表示為Cisco Expressway富媒體會話許可證。以下是遍歷呼叫/非統一通訊呼叫的許可證。

Cisco Expressway Rich Media Session License		Prepaid	30	1	-	+29	Actions ▾
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-RMS Family: Expressway Products	Quantity: 20	Start Date: 2022-Sep-15 Expires: 2022-Oct-15	
<input type="checkbox"/>	Source: Manual Entry Subscription Id: N/A			Skus: LIC-EXP-RMS= Family: Expressway Products	Quantity: 10	Start Date: 2021-Dec-17 Expires: 2022-Dec-12	

## 許可證使用情況

## Room and Desktop Registrations on Expressway

If Expressway is configured as a SIP registrar or H.323 Gatekeeper, it needs to be licensed for concurrent systems (the Unified CM model) and not for concurrent calls.

For SIP deployments, you do this by adding either or both of the following license types to the Cisco Expressway-C or Cisco Expressway-E:

- TelePresence Room System License
- Desktop System License

The following SIP devices register as desktop systems; all other devices are considered room systems:

- Cisco TelePresence EX60
- Cisco TelePresence EX90
- Cisco Webex DX70
- Cisco Webex DX80
- If you use Cisco Jabber Video for TelePresence (Movi) soft clients (now end-of-sale), they also register to Expressway as desktop systems.



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**Note** To register as desktop systems (for SIP), DX systems must be running version CE8.2 or later, and EX systems must be running TC7.3.6 or later. DX and EX systems running earlier versions still register for SIP, but will consume a room system license.

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For H.323 deployments, all endpoints consume a TelePresence Room System License. This is due to a limitation in H.323, which does not determine the difference between desktop and room type endpoints. We therefore recommend SIP as the preferred signaling protocol, although H.323 is available as a fall back for endpoints that do not support SIP.

## 關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。