

在Expressway上配置智能许可证

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简介

本文档介绍如何在Cisco Expressway上配置智能许可。

先决条件

要求

Cisco 建议您了解以下主题：

- 思科智能软件管理器(CSSM)访问
- 智能帐户(SA)
- 虚拟帐户(VA)

使用的组件

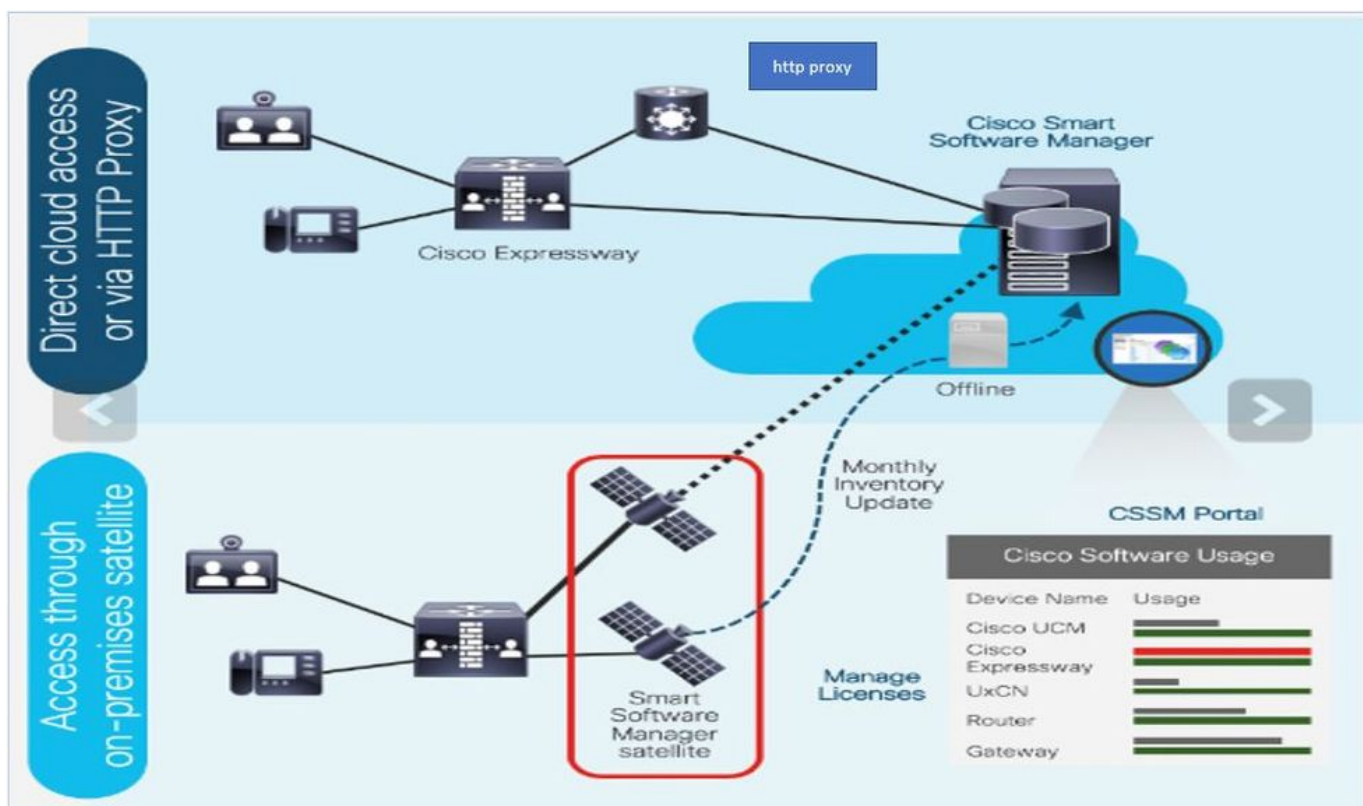
本文档中的信息基于以下软件和硬件版本：

- Cisco Expressway版本12.6及更高版本。

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。

背景信息

思科智能软件许可是一种考虑许可的新方法。它简化了整个企业的许可体验，使购买、部署、跟踪和续订思科软件更加容易。它通过单个简单的用户界面提供对许可证所有权和使用量的可视性。



您在思科商务工作空间下订单，并且该订单与智能帐户相关联。此信息填充在智能软件管理器上，该管理器位于Cisco.com上。现在，您可以全面了解您订购和购买的内容。

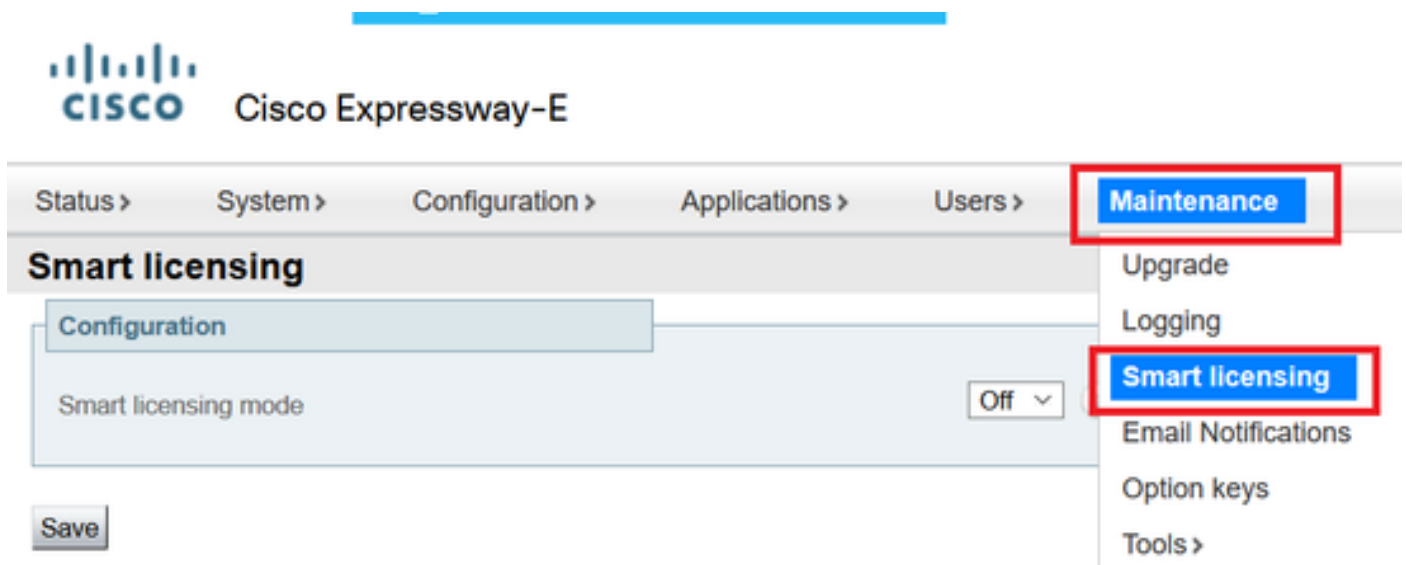
已启用智能许可的产品（通过CLI或GUI）已注册到CSSM，并且它们会向CSSM报告许可证使用情况。有两种模型可用于报告使用情况：

直接模式- 在设备可以直接与Internet通信或可以通过HTTPS代理连接到Internet的环境中使用此模式。与Cisco.com的通信是通过HTTPS进行的，因此，所有流量在传输中均被加密。如果流量是通过HTTPS代理发送的，则在需要应用其他检查或安全策略时，设备与Cisco.com之间的所有通信将通过一个集中位置建立信道。

中介部署模式- 在设备没有任何形式可连接到互联网因而无法到达Cisco.com的网络中使用此模式。此部署模式要求您在本地安装CSSM卫星虚拟机，然后所有内部主机都可以访问该虚拟机。内部部署卫星可以按月或每周在Cisco.com上与CSSM同步的连接模式部署，也可以采用完全断开连接的配置部署，这种配置需要手动上传和下载文件以保持卫星同步。建议至少每30天同步一次。

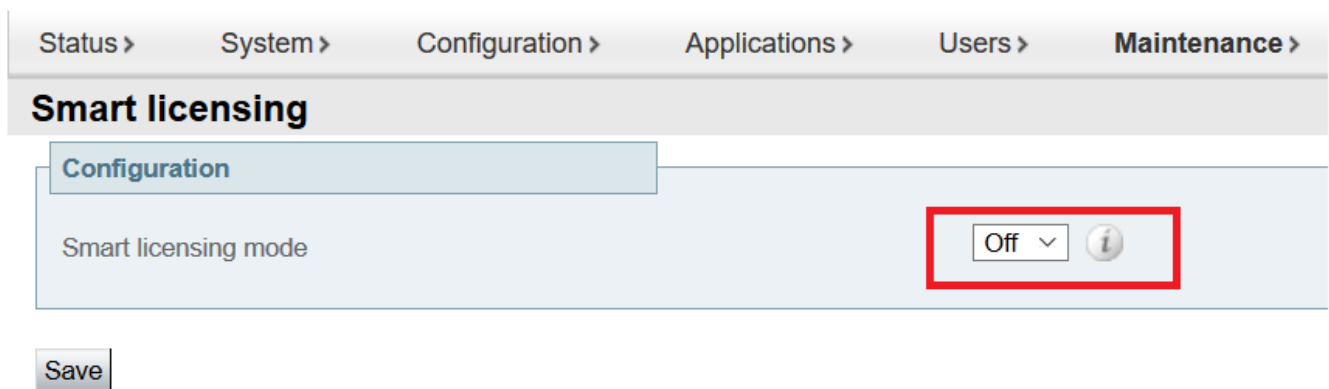
配置

步骤1: 导航到维护>智能许可选项卡。




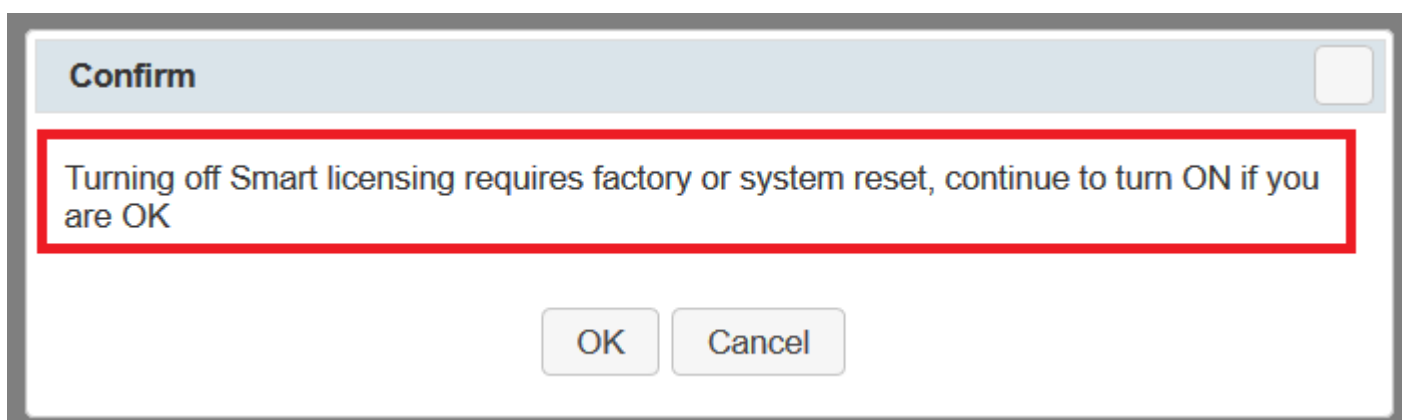
The screenshot shows the Cisco Expressway-E web interface. The navigation bar includes Status >, System >, Configuration >, Applications >, Users >, and Maintenance. The Maintenance menu is expanded, showing options like Upgrade, Logging, Smart licensing (highlighted), Email Notifications, Option keys, and Tools >. In the main content area, the 'Smart licensing' section is visible, with a 'Smart licensing mode' dropdown menu currently set to 'Off'. A 'Save' button is located at the bottom left of the configuration area.

第二步：将智能许可设置为On。Click Save.




This screenshot shows the same configuration page as the previous one, but the 'Smart licensing mode' dropdown menu is now set to 'On'. An information icon (i) is visible next to the dropdown. The 'Save' button remains at the bottom left.

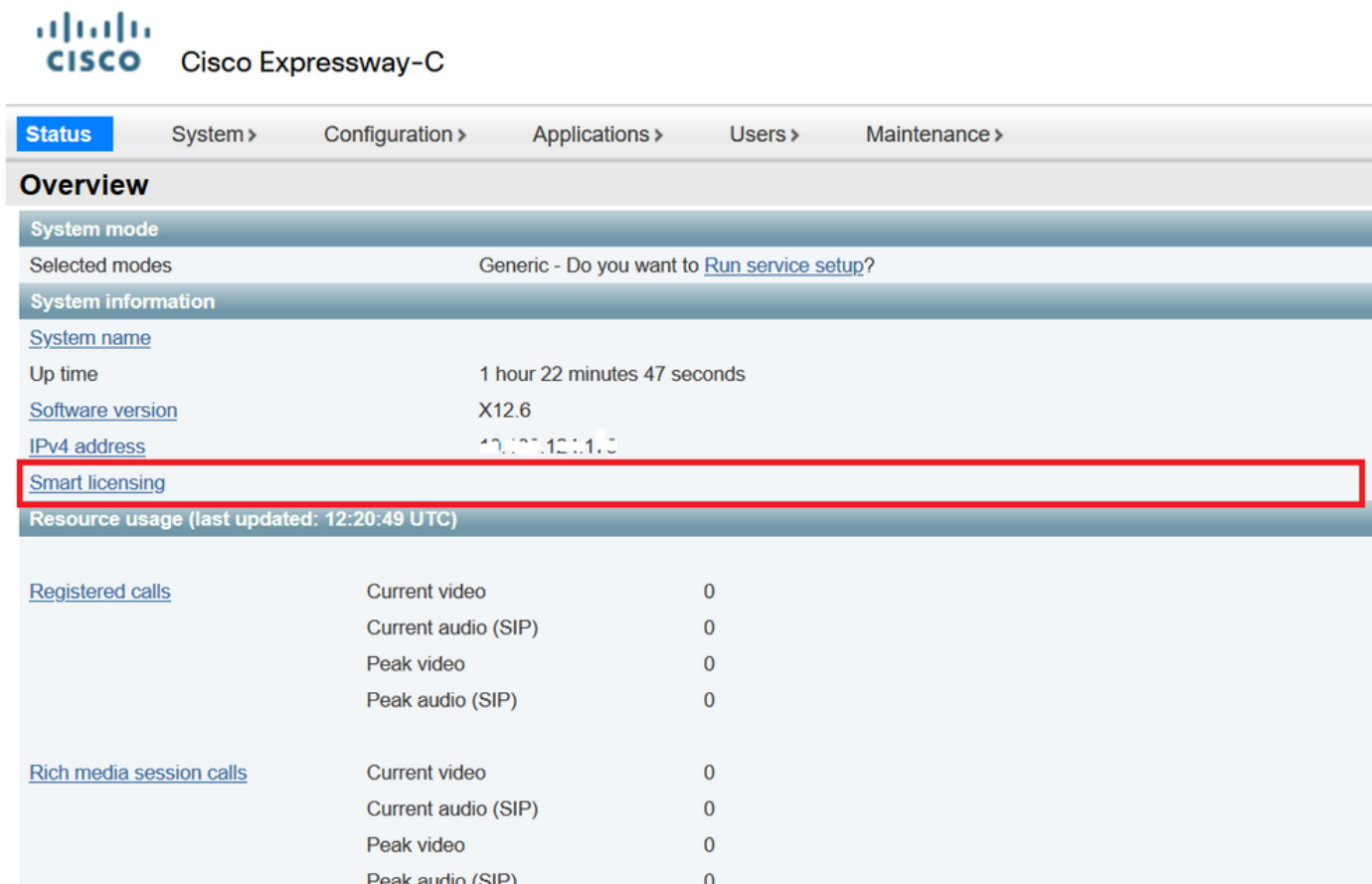
 注意：智能许可是专有的，不能与产品授权密钥(PAK)许可模式同时使用。如果需要在Smart Licensing和PAK之间切换，则需要执行设备的出厂重置。



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

 注意：始终建议进行配置备份，以避免任何部分或完整的配置丢失情况。

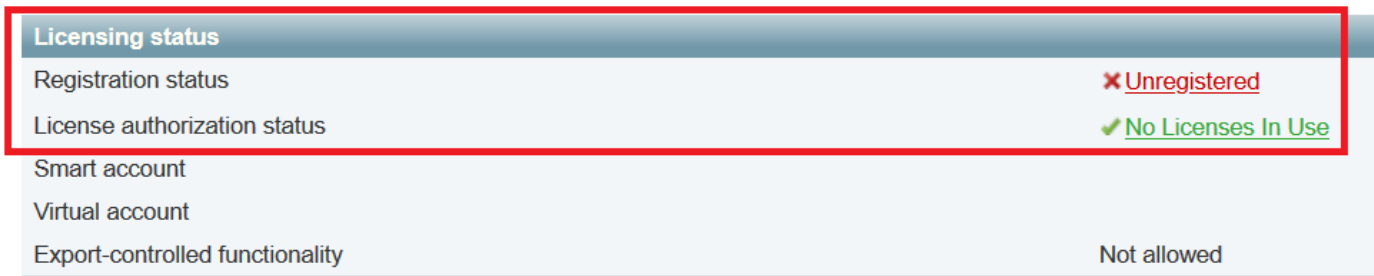
 注意：概述选项卡下不显示任何功能选项。



The screenshot shows the Cisco Expressway-C Overview page. The navigation bar includes Status (selected), 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: 10.101.101.10), Smart licensing (highlighted with a red box), and Resource usage (last updated: 12:20:49 UTC). The Resource usage table shows zero calls for both Registered and Rich media session calls across video and audio (SIP) metrics.

Resource usage (last updated: 12:20:49 UTC)		
Registered calls	Current video	0
	Current audio (SIP)	0
	Peak video	0
	Peak audio (SIP)	0
Rich media session calls	Current video	0
	Current audio (SIP)	0
	Peak video	0
	Peak audio (SIP)	0

验证设备是否显示未注册到CSSM或卫星。



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

第三步：根据您的智能许可部署模式，选择许可页面下的传输设置(Transport settings)。

- 直接：直接连接到云。
- 卫星：直接与CSSM对话的现场解决方案。
- 代理：HTTPS代理。

Configuration

Smart licensing mode On i

Transport

Transport settings

URL

Do not share my hostname or IP address with Cisco

Direct i

Direct

Cisco Smart Software Manager On-Prem

Proxy server

Save

直接模型

对于直接模型，请选择直接和保存。检查。如果您的安全策略不允许您在云中共享信息，请勿与思科共享我的主机名或IP地址。

Transport

Transport settings

URL

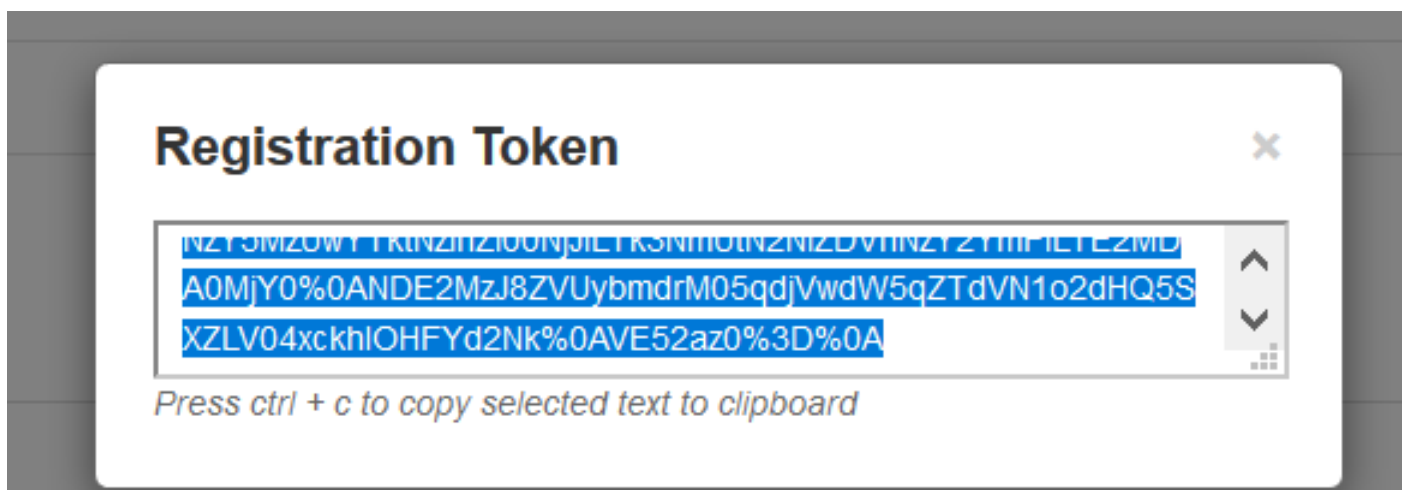
Do not share my hostname or IP address with Cisco i

Direct i

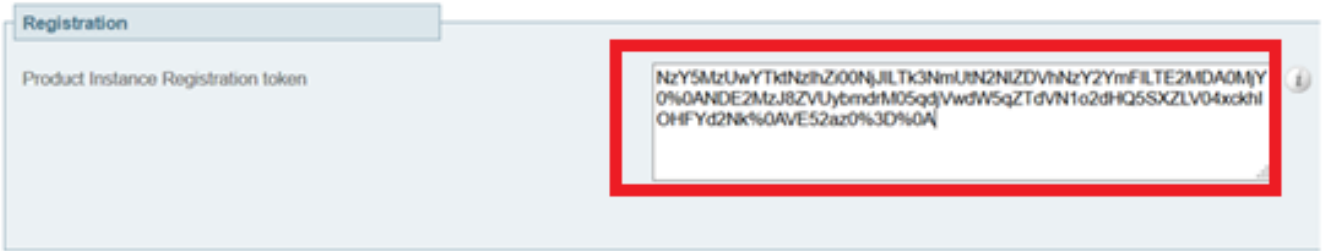
<https://smartreceiver.cis>


Save

第四步：在CSSM上创建令牌。



第五步：粘贴令牌并单击Register。



 注意：确保Cisco Expressway已打开通向云的连接，如下一张图中的突出显示内容所示。

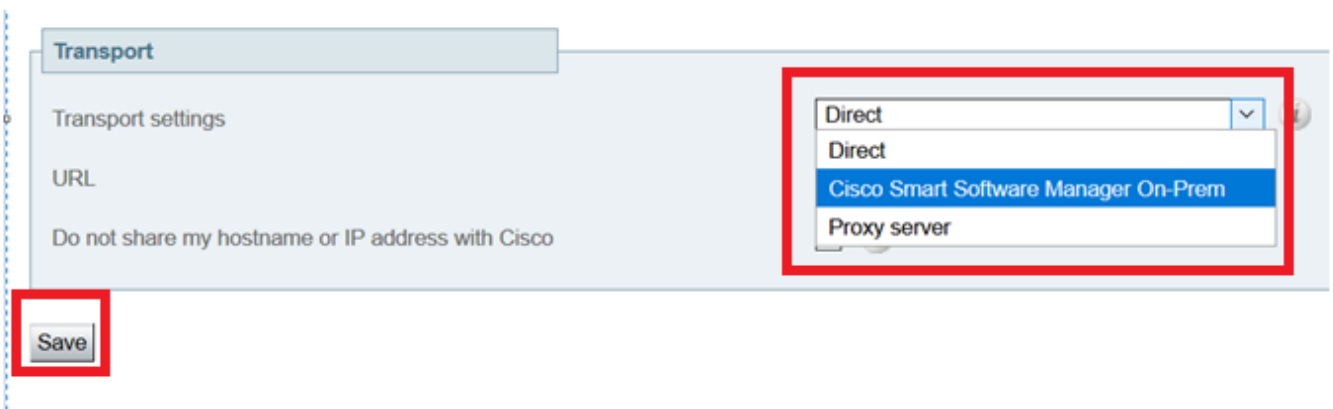
Smart Licensing requests originating from Expressway-E	Expressway-E	Ephemeral (30000-35999)	TLS	https://smartreceiver.cisco.com/licservice/license	443
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验证是否成功注册了实例。

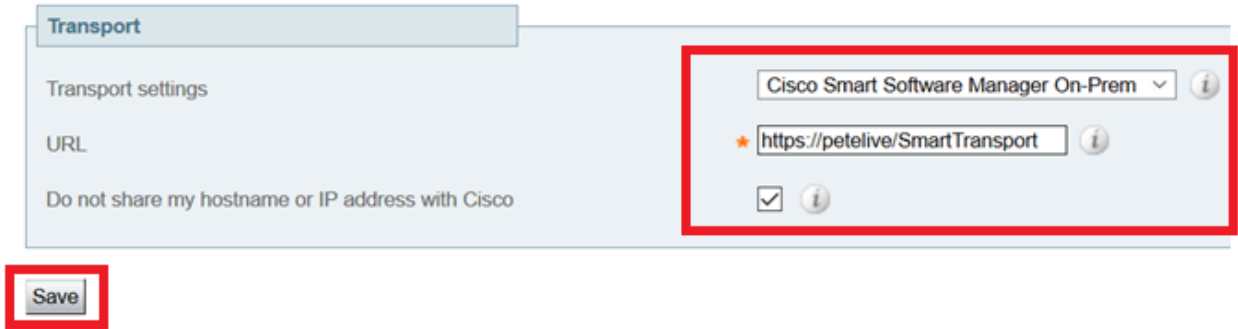
Licensing status	
Registration status	✓ Registered
License authorization status	✓ Authorized

中介部署模式

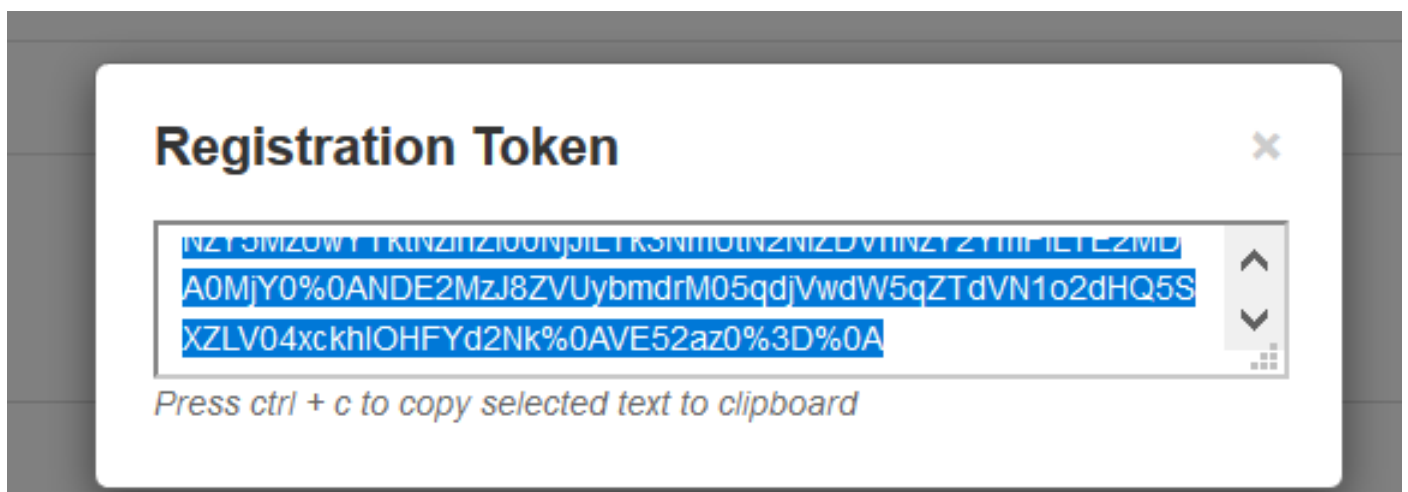
步骤1: 选择Cisco Smart Software Manager On-Prem和Save。



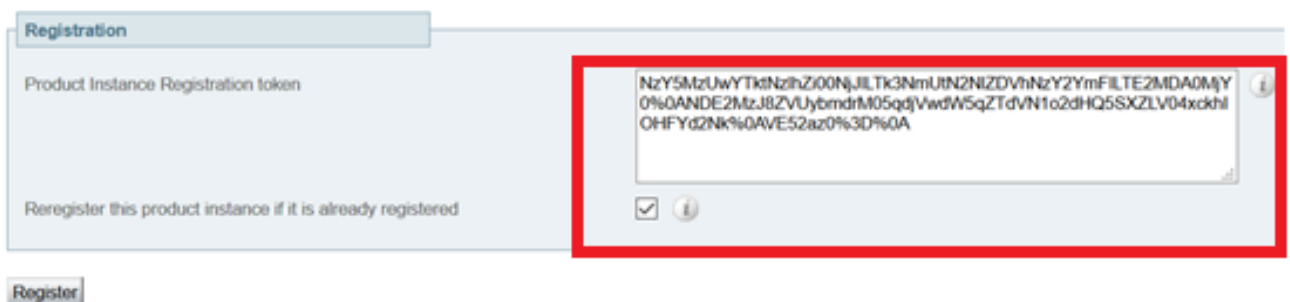
第二步：更新CSSM onprem URL。输入正确的URL。



第三步：访问onprem CSSM并生成令牌。



第四步：粘贴标记。点击注册。




实例正在注册。

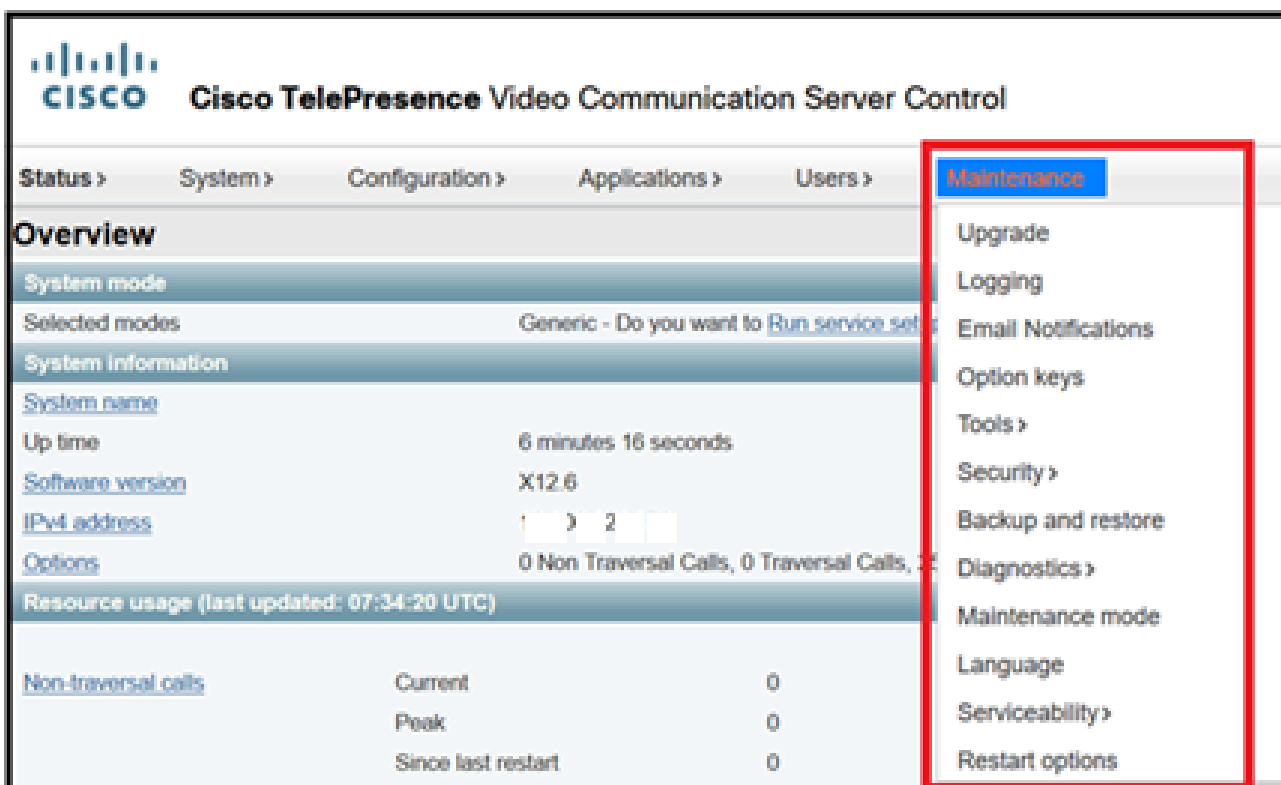
Licensing status	
Registration status	✗ Register In Progress
License authorization status	✓ No Licenses In Use
Smart account	
Virtual account	
Export-controlled functionality	Not allowed

状态显示已注册。

Licensing status	
Registration status	✓ Registered
License authorization status	✓ Authorized

故障排除

 注意：如果智能许可选项不存在，则是因为12.6版本上存在旧的VCS风格。



The screenshot shows the Cisco TelePresence Video Communication Server Control interface. The top navigation bar includes 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 (1.1.1.2), and Options (0 Non Traversal Calls, 0 Traversal Calls, 2). Resource usage is also shown, with Non-traversal calls (Current, Peak, Since last restart) all at 0.

验证

可以在CLI上使用xstatus // license命令验证智能许可状态。

```
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

特定许可证如何应用于Expressway

所有许可证都汇集在一起。每个节点仅提取它需要的许可证。您不会向特定节点分配多个许可证。

例如，如果您有10个UC Manager Enhanced Plus许可证，这允许您注册10个终端。

如果您有4个Expressway全部注册到虚拟智能许可证帐户，情况会如何？

无论您指向第一个终端哪个节点，该节点都允许注册。Expressway使用从虚拟帐户注册的令牌连接到云，并报告使用了一个UC Manager增强型许可证。在虚拟帐户的CSSM门户上，您现在可以看到您有九个UC Manager Enhanced Plus许可证。如果您将另一个终端注册到注册到同一虚拟许可证帐户的不同Expressway节点，它将使用相同的流程，并报告使用了一个UC Manager Enhanced Plus许可证。回顾CSSM门户。您可以看到您有八个UC Manager Enhanced Plus许可证。

示例

在本例中，您可以看到虚拟帐户中有十个UC Manager Enhanced Plus许可证：

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，在Expressway >维护>智能许可证：许可证使用情况下没有任何智能许可证。

← → ↻ Not secure | https://10.0.0.18/smartlicensing

Cisco Expressway-C

Status > System > Configuration > Applications > Users > Maintenance >

Smart licensing

Transport settings: Direct, URL: https://smartreceiver.cisco.co

Save

Action: Additional operations: Please select

Save

Registration: Product Instance Registration token

Reregister

Licensing status: Registered, License authorization status: Authorized, Smart account: InternalTestDemoAccount@ cisco.com, Virtual account: Matt Lembrick

License type	Current usage	Status	Description
Update usage details			

向注册到虚拟帐户的Expressway注册终端后，您必须注意UC Manager增强型许可证数量减少到九个，并且UC Manager增强型许可证现在显示一个正在使用。

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		

您可以验证注册到此虚拟帐户的Expressway是否在Expressway >状态>注册>按别名下注册了一个终端。

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

然后，导航到Expressway >维护>智能许可，确认注册的终端使用一个UC Manager增强型许可证。

← → ↻ ⚠ Not secure | https://10.0.0.18/smartlicensing

CISCO Cisco Expressway-C

Status > System > Configuration > Applications > Users > Maintenance >

Smart licensing

Transport

Transport settings: Direct

URL: https://smartlicensing.cisco.com

Do not share my hostname or IP address with Cisco:

Save

Action

Additional operations: Please select

Save

Registration

Product Instance Registration token:

Reregister

Licensing status

Registration status: ✓ Registered

License authorization status: ✓ Authorized

Smart account: InternalTestDemoAccount@cisco.com


Virtual account: Matt Lembrick

License usage (last updated: 06:04:07 EDT)

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

Update usage details

如果您从注册到虚拟帐户的Expressway中取消注册此终端，则计数将返回到10个C管理器增强型Plus许可证，并且Expressway >维护>智能许可证：许可证使用情况下的Expressway条目会消失。

 **注意：**虚拟帐户和Expressway可能需要几分钟才能反映许可证使用情况。许可证使用量不会不断更新，因为它会生成大量网络消息。许可证使用情况每六小时更新一次，或者可以在单击Update usage details时手动更新。

智能许可证的类型

- LIC-EXPRESS-DSK
- LIC-EXP会议室
- LIC-EXP-RMS

LIC-EXP-DSK表示为CSSM上的UC Manager增强型许可证。这些仅适用于EX60、EX90、DX70和DX80等桌面SIP设备。这些设备的H323注册作为房间许可证使用。

LIC-EXP-Room表示为CSSM上的UC Manager网真会议室许可证。这些许可证适用于除上述所列的SIP桌面设备之外的所有其他SIP注册，以及所有H323注册。

<input checked="" type="checkbox"/>	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	
<input checked="" type="checkbox"/>	UC Manager Enhanced Plus License	Prepaid	10	0	-	+10	Actions ▾
<input checked="" type="checkbox"/>	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表示为Cisco Expressway富媒体会话许可证。以下是用于遍历呼叫/非统一通信呼叫的许可证。

(3 Reserved)							
<input checked="" type="checkbox"/>	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	

许可证使用情况

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.



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.

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.

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

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