

# 在Nexus平台上使用策略配置智能许可

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## 简介

本文档介绍如何在Nexus 9K平台上使用策略(SLP)配置智能许可。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

- Nexus NX-OS软件
- Cisco NX-OS许可选项
- 域名系统 (DNS)

### 使用的组件

本文档中的信息基于NXOS版本10.2(5)的Cisco Nexus 9000。

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

智能软件许可(SL)为您的所有思科产品提供单一的标准许可解决方案。它是基于云的许可端到端平台，由授权思科产品使用和报告的工具和流程组成。它可以在产品实例上运行，并通过Smart

Call Home传输介质与思科云许可证服务通信，以完成产品注册和授权。

使用策略的智能许可(SLP)在Cisco NX-OS版本10.2(1)F中引入，它至今仍然是唯一受支持的许可模式。

使用策略的智能许可是智能软件许可的增强版本，其首要目标是提供不会中断网络运行的许可解决方案，而是支持合规性关系以说明您购买和使用的硬件和软件许可证。

使用策略的智能许可基于荣誉。但是，许可证使用合规性要求软件报告。

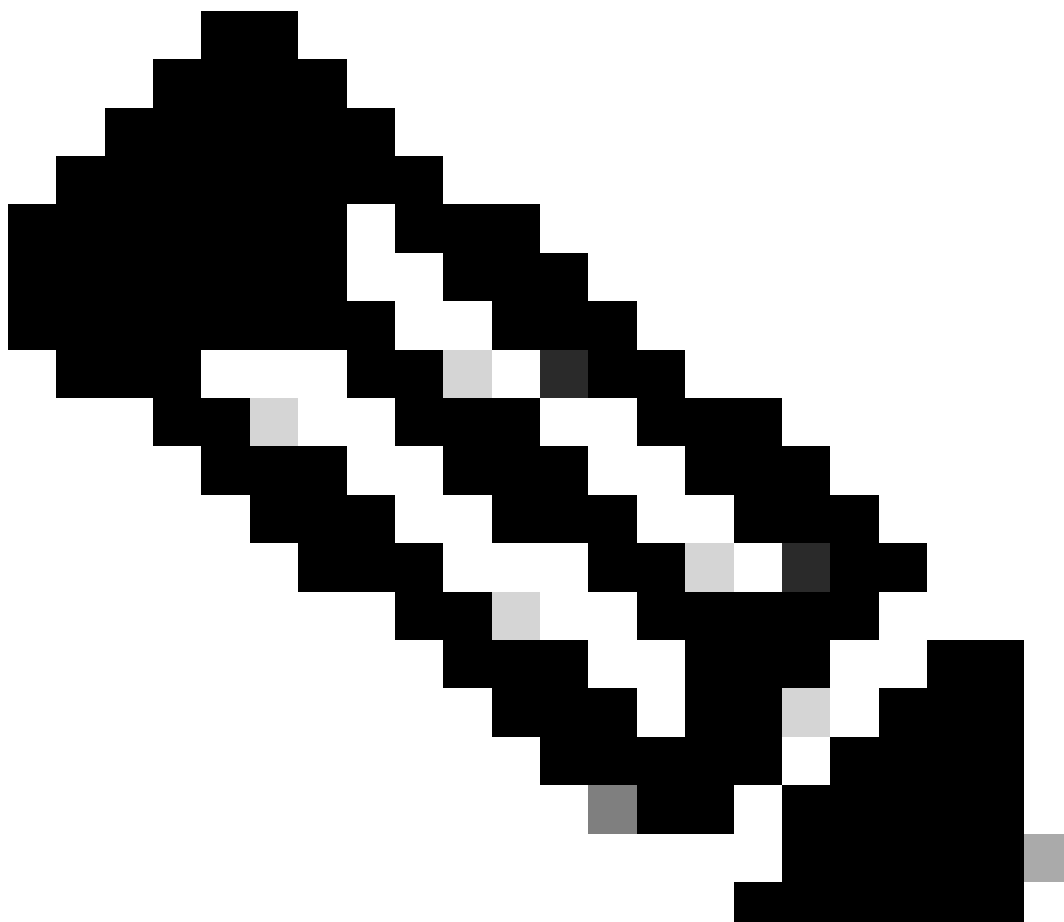
思科智能软件管理器(CSSM)负责管理帐户和许可证实例。CSSM在[Cisco站点](#)上全天候运行。

## 方法

将Nexus交换机连接到CSSM的主要方法：

- 直接：您使用互联网连接直接指向思科站点。
- 通过思科智能许可实用程序(CSLU)：这是可以在您的计算机上运行的软件应用。[安装指南](#)。
- 通过内部许可服务器：运行思科提供的操作系统的专用服务器。[安装指南](#)。
- 离线：您在Nexus交换机上生成报告，并将文件上传到CSSM以生成确认文件，然后需要将该文件应用于Nexus交换机。

---



注意：使用哪种方法并不重要，仍必须在接下来的90天内向CSSM提交第一次报告。之后，报告频率要求每365天提交一次，除非许可证使用发生更改，否则这需要在接下来90天内提交另一份报告。

---

## 配置

这些配置在Nexus 9K交换机上实施，使用管理VRF进行所有通信，这是SLP的默认VRF。

### 方法1：直接连接

- 支持智能和呼叫总部两种传输模式。
- 在NXOS 10.2(2)F之前，仅管理VRF在Call Home传输模式上受支持，同时开始支持NXOS 10.2(3)F非管理VRF。
- 在NXOS 10.3(2)F之前，智能传输模式仅支持管理VRF。从NXOS 10.3(2)F开始，还支持非管理VRF。

步骤1:配置DNS客户端。

```
Nexus(config)# ip domain-lookup
Nexus(config)# vrf context management
Nexus(config-vrf)# ip name-server <dns server ip>
```

第二步：配置智能传输模式。

```
Nexus(config)# license smart transport smart
```

第三步：指示CSSM URL。

```
Nexus(config)# license smart url smart https://smartreceiver.cisco.com/licservice/license
```

第四步：在[思科站点](#)中创建信任代码（令牌）。

登录到思科软件中心>智能软件许可>资产>常规。

点击新建令牌.....

Cisco Software Central > Smart Software Licensing InternalTestDemoAccount69.cisco.com

## Smart Software Licensing SL Product Details Support Help

Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | On-Prem Accounts | Activity

Virtual Account: **CML - bpaiez** 1 Major | Hide Alerts

**General** | Licenses | Product Instances | Event Log

**Virtual Account**

Description: Private virtual account for personal use of CML.

Default Virtual Account: No

---

**Product Instance Registration Tokens**

The registration tokens below can be used to register new product instances to this virtual account.

**New Token...**

Token	Expiration Date	Uses	Export-Controlled	Description	Created By	Actions
No Records Found						

The token will be expired when either the expiration or the maximum uses is reached

步骤4a.填写所需信息并单击Create Token。

## Create Registration Token

This will create a token that is used to register product instances, so that they can use licenses from this virtual account. Once it's created, go to the Smart Licensing configuration for your products and enter the token, to register them with this virtual account.

Virtual Account: CML - bpaez

Description: SLP Test

\* Expire After: 30 Days

*Between 1 - 365, 30 days recommended*

Max. Number of Uses: 10

*The token will be expired when either the expiration or the maximum uses is reached*

Allow export-controlled functionality on the products registered with this token ?

Create Token

Cancel

步骤4b. 点击新创建的令牌。

Cisco Software Central > Smart Software Licensing

InternalTestDemoAccount69.cisco.com

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)

[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)

Virtual Account: CML - bpaez

1 Major | [Hide Alerts](#)

**General** | Licenses | Product Instances | Event Log

### Virtual Account

Description: Private virtual account for personal use of CML.

Default Virtual Account: No

### Product Instance Registration Tokens

The registration tokens below can be used to register new product instances to this virtual account.

New Token...

Token	Expiration Date	Uses	Export-Controlled	Description	Created By	Actions
NGFjYjcwMjYtZjlkNi0...	2023-Aug-21 02:58:42 (in 30 days)	0 of 10	Allowed	SLP Test	bpaez	<a href="#">Actions</a> ▾

The token will be expired when either the expiration or the maximum uses is reached

步骤4c. 按ctrl + c将所选文本复制到剪贴板。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)Virtual Account: [CML - bpaez](#)1 Major | [Hide Alerts](#)

General

Licenses

Product Instances

Event Log

**Virtual Account**

Description: Private virtual account for personal use of CML.

Default Virtual Account: No

product instances to this virtual account.

```
NGFjYjcwMjYtZjlkNi00ZDA4LTlhNWmtMzM4ZTJlO
TkzY2YxLTE2OTI1ODY3%0AMjI1NzI8SThuU0dhdF
AwYUxXbjNBOVdUMGQwYVRjTVNnNXQvaHJ3bi9
oNDM4%0Ac0RCND0%3D%0A
```

Press ctrl + c to copy selected text to clipboard.

Uses	Export-Controlled	Description	Created By	Actions
0 of 10	Allowed	SLP Test	bpaez	<a href="#">Actions</a> ▼

The token will be expired when either the expiration or the maximum uses is reached

第五步：在Nexus交换机中安装信任代码。

```
Nexus# license smart trust idtoken <token from step 4> all force
Initiated trust establishment with backend. run show license status, for trust establishment status
```

第六步：确保Nexus存在于CSSM上。

登录到思科软件中心>智能软件许可>资产>产品实例。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)Virtual Account: [CML - bpaez](#)1 Major | [Hide Alerts](#)

General

Licenses

Product Instances

Event Log

Search by Device or by Product Type

Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:N9K-C9336C-FX2: UDI_SN:FDO24400PT4:	N9300	2023-Jul-22 01:51:01		<a href="#">Actions</a> ▼

Showing 1 Record

步骤 7.启用需要您所需许可证的任何功能。在本示例中，启用需要NX-OS LAN企业服务许可证的功能。

---

注意：NX-OS始终要求许可证层次结构中的枝叶节点。  
NX-OS始终要求使用基于功能的许可证，而不是基于层的许可证。

---

```
Nexus(config)# feature eigrp
```

步骤 8 确认您使用的是预期的许可证（基于功能）。

```
Nexus# show license summary
```

```
License Usage:
```

License	Entitlement tag	Count	Status
-----			
LAN license for Nexus 9...	(LAN_ENTERPRISE_SERVICES_PKG)	1	IN USE

```
Nexus# show license usage LAN_ENTERPRISE_SERVICES_PKG
```

```
Feature List:
```

```
eigrp
```

步骤 9 验证 [Cisco 站点](#) 上是否使用了预期的许可证。

登录思科软件中心>智能软件许可>资产>许可证。

Cisco Software Central > Smart Software Licensing InternalTestDemoAccount69.cisco.com

### Smart Software Licensing

Alerts | **Inventory** | Convert to Smart Licensing | Reports | Preferences | On-Prem Accounts | Activity

Virtual Account: **CML - bpaez** 1 Major | Hide Alerts

General | **Licenses** | Product Instances | Event Log

Available Actions | Manage License Tags | License Reservation... |  Show License Transactions | Search by License

License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
<input type="checkbox"/> CML - Base	Prepaid	10	0	-	+10		Actions
<input type="checkbox"/> CML - Nodes	Prepaid	2000	0	-	+2000		Actions
<input checked="" type="checkbox"/> NXOS LAN for Nexus 9300 10G+ Leaf XF	Prepaid	1	1	-	0		Actions

登录思科软件中心>智能软件许可>资产>许可证，点击列表中的预期许可证以查看详细信息。

### NXOS LAN for Nexus 9300 10G+ Leaf XF in CML - bpaez

Overview | **Product Instances** | Event Log | Transaction History

Product Instance	Product Type	Licenses used
UDI_PID:N9K-C9336C-FX2; UDI_SN:FDO24400PT4;	N9300	1

Showing 1 Record

Actions | Close

步骤 10 确认与思科站点的通信是否成功。

```
Nexus# show license status
```

```
Utility:
```

```
Status: DISABLED
```

```
Smart Licensing using Policy:
```

```
Status: ENABLED
```

```
Data Privacy:
```

```
Sending Hostname: yes
```

```
Callhome Hostname Privacy: DISABLED
```

```
Smart Licensing Hostname Privacy: DISABLED
```



Version Privacy: DISABLED

Transport:

Type: Smart

URL: <https://smarterreceiver.cisco.com/licservice/license>

Proxy:

Not configured

Policy:

Policy in use: Merged from multiple sources

Reporting ACK required: Yes

Unenforced/Non-Export:

First report requirement (days): 90 (CISCO default)

Ongoing reporting frequency (days): 365 (CISCO default)

On change reporting (days): 90 (CISCO default)

Enforced (Perpetual/Subscription):

First report requirement (days): 0 (CISCO default)

Ongoing reporting frequency (days): 0 (CISCO default)

On change reporting (days): 0 (CISCO default)

Export (Perpetual/Subscription):

First report requirement (days): 0 (CISCO default)

Ongoing reporting frequency (days): 0 (CISCO default)

On change reporting (days): 0 (CISCO default)

Miscellaneous:

Custom Id: <empty>

Usage reporting:

Last ACK received: Jul 21 19:28:32 2023 UTC

Next ACK deadline: Jul 20 19:28:32 2024 UTC

Reporting push interval: 30 days

Next ACK push check: <none>

Next report push: Aug 20 19:23:33 2023 UTC

Last report push: Jul 21 19:23:33 2023 UTC

Last report file write: <none>

Trust Code installed: Jul 21 19:18:04 2023 UTC

Active: PID: N9K-C9336C-FX2, SN: FD024400PT4

Jul 21 19:18:04 2023 UTC

Nexus#

## 方法2 : CSLU

在NXOS 10.3(2)F之前，CSLU传输模式仅支持管理VRF。从NXOS 10.3(2)F开始，还支持非管理VRF。

步骤1:配置DNS客户端。

---

注意：如果您未在运行CSLU的主机上使用完全限定域名(FQDN)，则可跳到第3步。

---

```
Nexus(config)# ip domain-lookup
Nexus(config)# vrf context management
Nexus(config-vrf)# ip name-server <dns server ip>
```

第二步：在DNS服务器上为cslu-local添加条目。

---

注意：Nexus会自动发现主机名cslu-local和cslu-local。 <domain>

---

第三步：确保配置了cslu transport。这是默认配置。

```
Nexus(config)# license smart transport cslu
```

第四步：指示CSLU传输URL。

```
Nexus(config)# license smart url cslu http://<ip address of the host running CSLU>:8182/cslu/v1/pi
```

第五步：启用需要您所需许可证的任何功能。在本示例中，您启用需要NX-OS LAN企业服务许可证的功能。

---

注意：NX-OS始终要求许可证层次结构中的枝叶节点。  
NX-OS始终要求使用基于功能的许可证，而不是基于层的许可证。

---

```
Nexus(config)# feature isis
```

第六步：确认您使用的是预期的许可证（基于功能）。

```
Nexus# show license summary
```

```
License Usage:
```

License	Entitlement tag	Count	Status
LAN license for Nexus 9... (LAN_ENTERPRISE_SERVICES_PKG)		1	IN USE

```
Nexus# show license usage LAN_ENTERPRISE_SERVICES_PKG
```

```
Feature List:
```

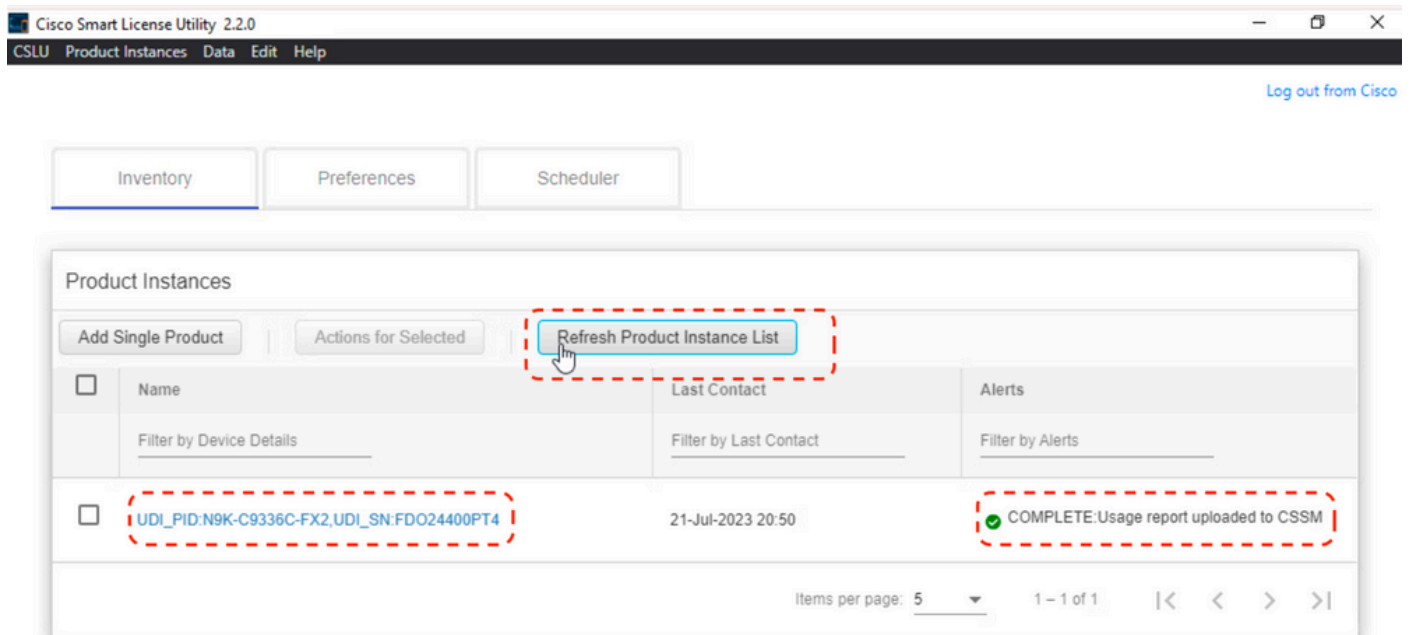
isis

步骤 7.将许可证使用情况报告（称为RUM报告）发送到CSSM。

```
Nexus# license smart sync all  
Initiated sync with backend.
```

步骤 8点击刷新产品实例列表并验证CSLU上是否存在产品实例，指示完成：使用情况报告已上传到CSSM。

打开CSLU > Inventory > Product Instances。



步骤 9确保Nexus存在于CSSM上。这证实了CSLU和CSSM之间的通信工作正常。

登录到思科软件中心>智能软件许可>资产>产品实例。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)Virtual Account: [CML - bpaez](#)1 Major | [Hide Alerts](#)

General | Licenses | **Product Instances** | Event Log

Authorize License-Enforced Features... 📄 Search by Device or by Product Type 🔍

Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:N9K-C9336C-FX2; UDI_SN:FDO24400PT4;	N9300	2023-Jul-22 01:51:01		<a href="#">Actions</a> ▼

Showing 1 Record

步骤 10 验证预期许可证已在CSSM内部本地服务器上使用。

登录到思科软件中心>智能软件许可>资产>许可证。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)Virtual Account: [CML - bpaez](#)1 Major | [Hide Alerts](#)

General | **Licenses** | Product Instances | Event Log

Available Actions ▼ Manage License Tags License Reservation... 📄  Show License Transactions Search by License 🔍

By Name | By Tag

Advanced Search ▼

<input type="checkbox"/> License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
⊕ CML - Base	Prepaid	10	0	-	+10		<a href="#">Actions</a> ▼
⊕ CML - Nodes	Prepaid	2000	0	-	+2000		<a href="#">Actions</a> ▼
⊕ NXOS LAN for Nexus 9300 10G+ Leaf XF	Prepaid	1	1	-	0		<a href="#">Actions</a> ▼

登录到思科软件中心>智能软件许可>资产>许可证>单击“许可证”>“产品实例”。

**NXOS LAN for Nexus 9300 10G+ Leaf XF in CML - bpaez** ⓘ ✕

Overview | **Product Instances** | Event Log | Transaction History

Product Instance	Product Type	Licenses used
UDI_PID:N9K-C9336C-FX2; UDI_SN:FDO24400PT4;	N9300	1

Showing 1 Record

Actions ▲ Close

步骤 11 确认与思科站点的通信是否成功。

```
Nexus# show license status
```

```
Utility:
```

```
Status: DISABLED
```

```
Smart Licensing using Policy:
```

```
Status: ENABLED
```

```
Data Privacy:
```

```
Sending Hostname: yes
```

```
Callhome Hostname Privacy: DISABLED
```

```
Smart Licensing Hostname Privacy: DISABLED
```

```
Version Privacy: DISABLED
```

```
Transport:
```

```
Type: CSLU
```

```
Cslu address: http://10.201.255.233:8182/cslu/v1/pi
```

```
Policy:
```

```
Policy in use: Merged from multiple sources
```

```
Reporting ACK required: Yes
```

```
Unenforced/Non-Export:
```

```
First report requirement (days): 90 (CISCO default)
```

```
Ongoing reporting frequency (days): 365 (CISCO default)
```

```
On change reporting (days): 90 (CISCO default)
```

```
Enforced (Perpetual/Subscription):
```

```
First report requirement (days): 0 (CISCO default)
```

```
Ongoing reporting frequency (days): 0 (CISCO default)
```

```
On change reporting (days): 0 (CISCO default)
```

```
Export (Perpetual/Subscription):
```

```
First report requirement (days): 0 (CISCO default)
```

```
Ongoing reporting frequency (days): 0 (CISCO default)
```

```
On change reporting (days): 0 (CISCO default)
```

```
Miscellaneous:
```

```
Custom Id: <empty>
```

```
Usage reporting:
```

```
Last ACK received: <none>
```

```
Next ACK deadline: Oct 20 01:09:12 2023 UTC
```

```
Reporting push interval: 30 days
```

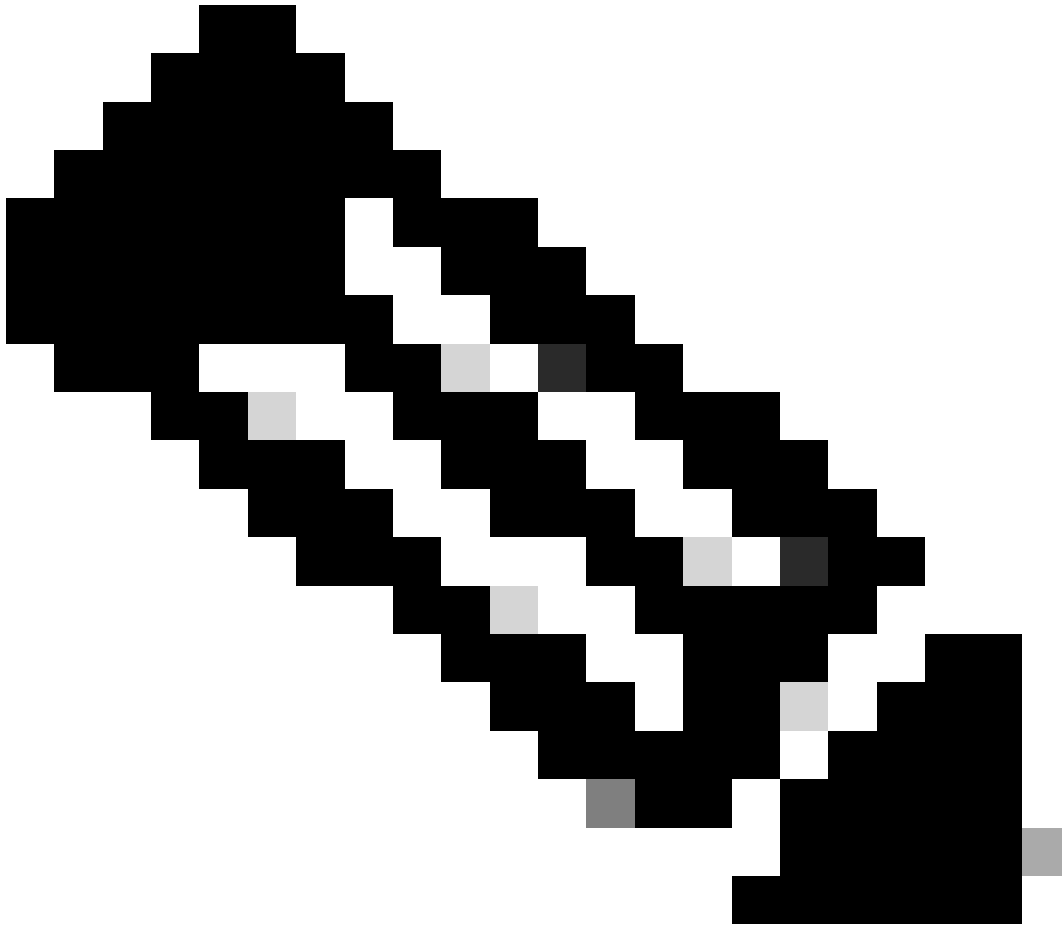
```
Next ACK push check: Jul 22 01:18:02 2023 UTC
```

```
Next report push: Aug 21 01:13:03 2023 UTC
```

```
Last report push: Jul 22 01:13:03 2023 UTC
```

```
Last report file write: <none>
```

```
Trust Code installed: <none>
```



注意：

使用此方法时，系统预期在show license status中会看到Trust Code Installed ( 已安装信任代码 )。

首次与CSSM内部同步时，ACK将如在show license status中一样收到。第一次推送下次报告后，此情况会发生变化。

---

### 方法3：本地许可证服务器

- 内部部署仅支持CSLU传输模式。
- 在NXOS 10.3(2)F之前，CSLU传输模式仅支持管理VRF。从NXOS 10.3(2)F开始，还支持非管理VRF。

步骤1:配置DNS客户端。



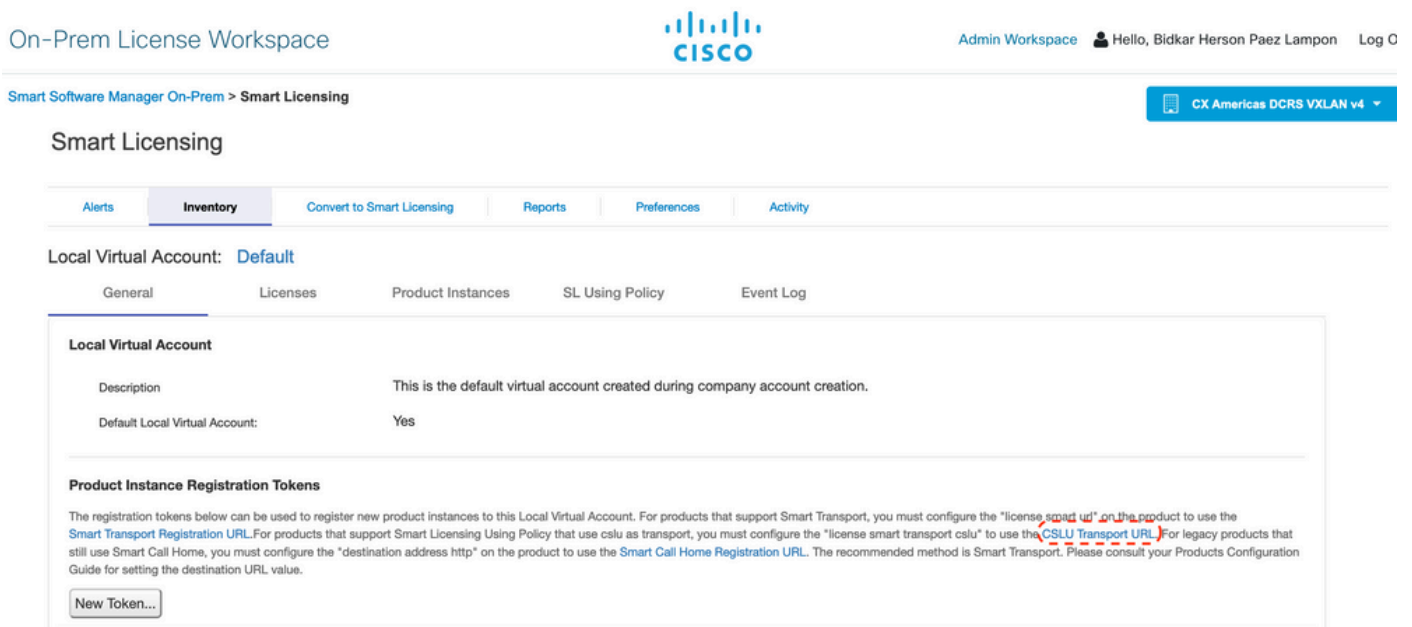
```
Nexus(config)# ip domain-lookup
Nexus(config)# vrf context management
Nexus(config-vrf)# ip name-server <dns server ip>
```

第二步：确保配置了CSLU传输。这是默认配置。

```
Nexus(config)# license smart transport cslu
```

第三步：确定CSLU传输URL。

登录CSSM本地>智能软件管理器本地>选择本地虚拟帐户（右上角）。从下拉菜单中选择资产>常规，然后点击要复制的CSLU传输URL。



第四步：指示CSLU传输URL。

```
Nexus(config)# license smart url cslu https://<on-prem hostname>/cslu/v1/pi/<virtual account>
```

第五步：启用需要您所需许可证的任何功能。在本示例中，启用需要NX-OS LAN企业服务许可证的功能。

---

注意：NX-OS始终要求许可证层次结构中的枝叶节点。

NX-OS始终要求使用基于功能的许可证，而不是基于层的许可证。

---

```
Nexus(config)# feature ospf
```

第六步：确认您使用的是预期的许可证（基于功能）。

```
Nexus# show license summary
```

```
License Usage:
```

License	Entitlement tag	Count	Status
LAN license for Nexus 9... (LAN_ENTERPRISE_SERVICES_PKG)		1	IN USE

```
Nexus# show license usage LAN_ENTERPRISE_SERVICES_PKG
```

```
Feature List:
```

ospf

步骤 7.将RUM报告发送到CSSM。

```
Nexus# license smart sync all  
Initiated sync with backend.
```

步骤 8确保Nexus存在于本地CSSM上。

登录到CSSM本地>智能软件管理器本地>选择本地虚拟帐户（右上角）。从下拉菜单中，选择资产>使用策略的SL。

The screenshot shows the Cisco Smart Licensing interface. At the top, it says "On-Prem License Workspace" and "Admin Workspace Hello, Bidkar Herson Paez Lampon Log Out". Below that, it says "Smart Software Manager On-Prem > Smart Licensing" and "CX Americas DCRS VXLAN v4". The main heading is "Smart Licensing". There are tabs for "Alerts", "Inventory", "Convert to Smart Licensing", "Reports", "Preferences", and "Activity". Under "Inventory", there are sub-tabs for "General", "Licenses", "Product Instances", "SL Using Policy", and "Event Log". The "SL Using Policy" tab is selected. There are buttons for "Add Single Product", "Actions for Selected...", and "Export/Import All...". A search bar "Search by Name" is present. Below the search bar, there is a table with one record. The "Name" field of this record is highlighted with a red dashed box and contains the text "UDI\_PID:N9K-C9336C-FX2:UDI\_SN:FDO2434107N:UDI\_VID:". The "Product Type" is "N9300" and the "Last Contact" is "2023-Jul-20 18:11:29". To the right of the table, there is an "Alerts" section with a green checkmark and the text "Usage report from product instance".

步骤 9验证预期许可证已在CSSM内部本地服务器上使用。

从下拉菜单>资产>许可证登录到CSSM本地>智能软件管理器本地>选择本地虚拟帐户（右上角）。

### Smart Licensing

Alerts **Inventory** Convert to Smart Licensing Reports Preferences Activity

Local Virtual Account: **Default**

General Licenses **Product Instances** SL Using Policy Event Log

Available Actions Manage License Tags...

By Name By Tag

Search by License

10 Showing Page 1 of 1(6 Records)

License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
<b>NXOS LAN for Nexus 9300 10G+ Leaf XF</b>	Prepaid	1	1	-	0	<b>Insufficient Licenses</b>	Actions

10 Showing Page 1 of 1(6 Records)

登录CSSM本地>智能软件管理器本地>选择本地虚拟帐户（右上角）。从下拉菜单中，选择资产>许可证。点击列表中的预期许可证以查看详细信息。

#### NXOS LAN for Nexus 9300 10G+ Leaf XF In Default

LAN license for Nexus 9300-XF

Overview **Product Instances** Event Log Transaction History

Product Instance	Product Type	Licenses Used
UDI_PID:N9K-C9336C-FX2;UDI_SN:FDO2434107N;UDI_VID::	N9300	1

Showing All 4 Records

Transfer License...



注意：使用此方法时，在show license status中会看到以<none>形式安装的信任代码。

在您第一次与本地CSSM同步时，系统预期会看到最后一个ACK接收为show license status。第一次推送下次报告后，此情况会发生变化。

---

#### 方法4：脱机

步骤1:禁用智能传输模式。

```
Nexus(config)# license smart transport off
```

第二步：启用需要您所需许可证的任何功能。在本示例中，启用需要NX-OS LAN企业服务许可证的功能。



注意：NX-OS始终要求许可证层次结构中的枝叶节点。

NX-OS始终要求使用基于功能的许可证，而不是基于层的许可证。

如果没有激活的许可功能，则无法保存RUM报告。RUM报告捕获设备中的许可事务以供上传。在绿地设备上，没有要报告的内容，因此它是空的，不会生成。

```
Nexus(config)# feature bgp
```

第三步：确认您使用的是预期的许可证（基于功能）。

```
Nexus# show license summary
```

```
License Usage:
```

License	Entitlement tag	Count	Status
LAN license for Nexus 9...	(LAN_ENTERPRISE_SERVICES_PKG)	1	IN USE

```
Nexus# show license usage LAN_ENTERPRISE_SERVICES_PKG
Feature List:
bgp
```

第四步：生成并保存RUM报告。

```
Nexus# license smart save usage all bootflash:all_rum.txt
Success: Saved in bootflash:/all_rum.txt.
```

第五步：将步骤4中的文件复制到具有Internet连接的设备。

第六步：将RUM报告（使用数据）上传到CSSM。

登录到思科软件中心>智能软件许可>报告 > 使用数据文件。

步骤6a. 点击上传使用数据。

Cisco Software Central > Smart Software Licensing InternalTestDemoAccount69.cisco.com

## Smart Software Licensing SL Product Details Support Help

Alerts | Inventory | Convert to Smart Licensing | **Reports** | Preferences | On-Prem Accounts | Activity

### Reports

Report | **Usage Data Files** | Reporting Policy | Synch File for Device Controllers

Devices can be configured to report the features that they are using.  
This usage then determines which licenses are needed, in order to be compliant.

Upload Usage Data... Search by File Name, Virtual Account

Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement

第6b步。单击浏览。

## Upload Usage Data

Please select the Usage File you wish to upload.

\* Usage Data File: Browse No File Chosen

Upload Data

Cancel

第6c步。在弹出窗口中选择all\_rum.txt，然后单击Upload Data。

## Upload Usage Data

Please select the Usage File you wish to upload.

\* Usage Data File:

Browse

all\_rum.txt

Upload Data

Cancel

第6d步：从下拉菜单中选择接收已上传文件的虚拟帐户，然后单击Ok。

## Select Virtual Accounts



Some of the usage data files do not include the name of the virtual account that the data refers to, or the virtual account is unrecognized.

Please select an account:

Select one account for all files:

Select a virtual account per file:

Select VA

Ok

Cancel



## Select Virtual Accounts



Some of the usage data files do not include the name of the virtual account that the data refers to, or the virtual account is unrecognized.

Please select an account:

Select one account for all files:

Select a virtual account per file:

Select VA

  
CML - bpaez

OK

Cancel

## Select Virtual Accounts



Some of the usage data files do not include the name of the virtual account that the data refers to, or the virtual account is unrecognized.

Please select an account:

Select one account for all files:

Select a virtual account per file:

CML - bpaez

Ok

Cancel

步骤 7.等待Reporting Status更改为No errors，然后单击Download获取ACK文件。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)

## Reports

Report **Usage Data Files** Reporting Policy Synch File for Device Controllers

Devices can be configured to report the features that they are using.  
This usage then determines which licenses are needed, in order to be compliant.

Upload Usage Data...

Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement
all_rum.txt	2023-Jul-22	CML - bpaez	Data Being Processed	0	Pending

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)

## Reports

Report **Usage Data Files** Reporting Policy Synch File for Device Controllers

Devices can be configured to report the features that they are using.  
This usage then determines which licenses are needed, in order to be compliant.

Upload Usage Data...

Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement
all_rum.txt	2023-Jul-22	CML - bpaez	No Errors	1	Download

步骤 8 确保 Nexus 存在于 CSSM 上。

## Smart Software Licensing

[SL Product Details](#) [Support](#) [Help](#)[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [On-Prem Accounts](#) | [Activity](#)Virtual Account: **CML - bpaez****1** Major | [Hide Alerts](#)

General Licenses **Product Instances** Event Log

Authorize License-Enforced Features...

Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:N9K-C9336C-FX2; UDI_SN:FDO24400PT4;	N9300	2023-Jul-22 01:51:01		Actions

Showing 1 Record

步骤 9 验证在 [思科站点](#) 上是否使用了预期的许可证。

登录到思科软件中心>智能软件许可>资产>许可证。

## Smart Licensing

Alerts **Inventory** Convert to Smart Licensing Reports Preferences Activity

Local Virtual Account: Default

General Licenses Product Instances SL Using Policy Event Log

Available Actions Manage License Tags...

By Name By Tag

Search by License

Showing Page 1 of 1(6 Records)

License	Billing	Available to Use	In Use	Substitution	Balance	Alerts	Actions
<input type="checkbox"/> NXOS LAN for Nexus 9300 10G+ Leaf XF	Prepaid	1	1	-	0	<span style="color: red;">Insufficient Licenses</span>	Actions

Showing Page 1 of 1(6 Records)

登录思科软件中心>智能软件许可>资产>许可证，点击列表中的预期许可证以查看详细信息。

## NXOS LAN for Nexus 9300 10G+ Leaf XF In Default

LAN license for Nexus 9300-XF

Overview Product Instances Event Log Transaction History

Product Instance	Product Type	Licenses Used
UDI_PID:N9K-C9336C-FX2;UDI_SN:FDO2434107N;UDI_VID::	N9300	1

Showing All 4 Records

Transfer License...

步骤 10将步骤7中的ACK文件上传到Nexus交换机。

步骤 11在Nexus交换机中安装ACK文件。

```
Nexus# license smart import bootflash:ACK_all_rum.txt
Done smart import.
```

步骤 12验证ACK是否安装成功。

---

注意：使用此方法，有望在show license status输出中看到以<none>形式安装的信任代码。

---

```
Nexus# show license status
Utility:
  Status: DISABLED

Smart Licensing using Policy:
  Status: ENABLED

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

Transport:
  Type: Off

Policy:
  Policy in use: Merged from multiple sources
```

Reporting ACK required: Yes  
Unenforced/Non-Export:  
    First report requirement (days): 90 (CISCO default)  
    Ongoing reporting frequency (days): 365 (CISCO default)  
    On change reporting (days): 90 (CISCO default)  
Enforced (Perpetual/Subscription):  
    First report requirement (days): 0 (CISCO default)  
    Ongoing reporting frequency (days): 0 (CISCO default)  
    On change reporting (days): 0 (CISCO default)  
Export (Perpetual/Subscription):  
    First report requirement (days): 0 (CISCO default)  
    Ongoing reporting frequency (days): 0 (CISCO default)  
    On change reporting (days): 0 (CISCO default)

Miscellaneous:  
    Custom Id: <empty>

Usage reporting:  
    Last ACK received: Jul 21 20:29:40 2023 UTC  
    Next ACK deadline: Oct 19 20:29:40 2023 UTC  
    Reporting push interval: 30 days  
    Next ACK push check: <none>  
    Next report push: Jul 21 20:02:40 2023 UTC  
    Last report push: <none>  
    Last report file write: <none>

Trust Code installed: <none>

## 相关信息

- [Cisco NX-OS许可选项指南](#)
- [使用策略的Cisco Nexus 9000和3000系列NX-OS智能许可用户指南](#)

## 关于此翻译

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