

在Catalyst 8300線上（自治）模式下安裝HSEC許可證

目錄

[簡介](#)

[必要條件](#)

[背景資訊](#)

[採用元件](#)

[概念](#)

[智慧授權碼\(SLAC\)](#)

[思科軟體智慧管理員\(CSSM\)](#)

[步驟](#)

[步驟1.確保裝置具有Cisco DNA引導級別](#)

[步驟2.定義智慧傳輸和預設URL](#)

[步驟3.定義代理（如果需要）](#)

[步驟4.確保註冊使用的令牌允許匯出控制功能](#)

[步驟5.在裝置中配置令牌](#)

[步驟6.使用show license status命令驗證是否已安裝信任代碼並已收到ACK](#)

[步驟7.使用show license authorization命令驗證現有授權](#)

[步驟8.請求SLAC](#)

[步驟9.驗證授權](#)

[更改吞吐量](#)

簡介

本文說明如何在聯機模式下在Catalyst 8300路由器中安裝HSEC許可證。

必要條件

有關以下主題的知識：

- 智慧許可知識
- Cisco IOS® XE知識
- HSEC許可證知識。此許可證也稱為出口管制許可證。

路由器前提條件：

- 在自治模式下運行的路由器。使用show version指令進行驗證。
- 路由器需要預先載入和配置Cisco DNA許可證引導級別。請參閱[設定Catalyst 8000系列實體平台的授權和輸送量](#)
- 路由器需要已經與思科軟體智慧管理員(CSSM)通話，並且收到其確認訊息。請參閱直接連線

到CSSM的路由器部分，[在Cisco IOS XE路由器上使用策略配置智慧許可。](#)

背景資訊

[Configure Licenses and Throughput for Catalyst 8000 Series Physical Platforms](#) (為Catalyst 8000系列物理平台配置許可證和吞吐量) 中有官方指南，但它描述了不同Catalyst 8000路由器平台之間混合的許可功能。

本指南僅針對例項直接連線到思科智慧軟體管理器(CSSM)時以自主模式運行的8300。

採用元件

在本文中，使用以下元素：

- C8300-1N1S-4T2X路由器。但是所述的步驟適用於任何8300 catalyst路由器
- Cisco IOS XE版本17.15.03a
- 在自治模式下運行的路由器



附註：確保您擁有最新版本的軟體，該軟體是穩定的golden star或推薦的版本。

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。

概念

智慧授權碼(SLAC)

智慧許可證授權碼是需要安裝到裝置才能使用HSEC許可證的代碼。

此代碼需要由裝置請求並安裝在其上。然後，它允許您為加密流量配置更高的吞吐量級別。

請參閱[為Catalyst 8000系列物理平台配置許可證和吞吐量](#)的官方文檔指南的HSECK9許可證使用指南。

有關章節的更多[資訊：使用策略進行智慧許可的任務庫](#)。

思科軟體智慧管理員(CSSM)

這是管理許可證的雲中的遠端伺服器實體。

CSSM可在[思科軟體中心](#)(可訪問舊版[Smart Software Manager](#))訪問，也可在[思科許可證中心\(Cisco License Central\)](#)訪問更新的網頁版本。



附註：確保為您的域擁有智慧帳戶。請參閱[如何建立智慧帳戶？](#)。

步驟

步驟1.確保裝置具有Cisco DNA引導級別

請參閱[陣Cisco DNA軟體、SD-WAN和路由矩陣](#)，瞭解Cisco DNA引導級別和功能。

使用命令show version確保您的裝置具有啟動級別

```
Router#show version
```

Technology Package License Information:

Technology	Type	Technology-package Current	Technology-package Next Reboot

Smart License	Perpetual	network-advantage	network-advantage
Smart License	Subscription	dna-advantage	dna-advantage

步驟2.定義智慧傳輸和預設URL

```
Router(config)#license smart transport smart
Router(config)#license smart url default
```

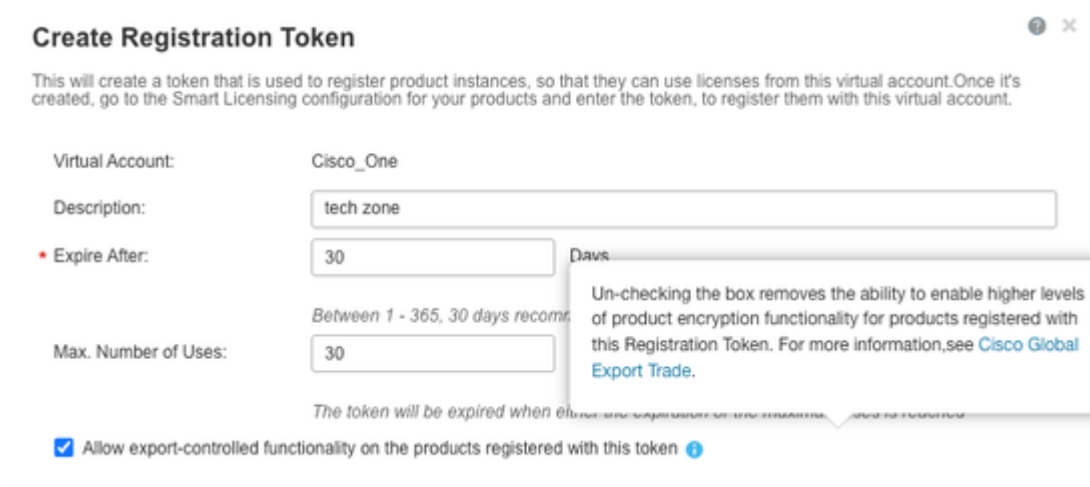
步驟3.定義代理 (如果需要)

```
Router(config)#license smart proxy address
```

```
Router(config)#license smart proxy port
```

步驟4.確保註冊使用的令牌允許匯出控制功能

當裝置註冊到CSSM時，請確保允許匯出控制功能的令牌被允許，如下螢幕截圖所示：



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: Cisco_One

Description: tech zone

* Expire After: 30 Days

Max. Number of Uses: 30

Between 1 - 365, 30 days recommended.

Un-checking the box removes the ability to enable higher levels of product encryption functionality for products registered with this Registration Token. For more information, see [Cisco Global Export Trade](#).

The token will be expired when either the expiration date or the maximum number of uses is reached.

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

步驟5.在裝置中配置令牌

```
Router#license smart trust idtoken
```

```
all force
```

您可以在show log中看到與CSSM的通訊已恢復，並且信任代碼已安裝

```
*Dec 1 23:42:28.633: %SMART_LIC-5-COMM_RESTORED: Communications with Cisco Smart Software Manager (CSSM) have been restored.
*Dec 1 23:42:28.656: %SMART_LIC-6-POLICY_INSTALL_SUCCESS: A new licensing policy was successfully installed.
*Dec 1 23:42:28.720: %SMART_LIC-6-TRUST_INSTALL_SUCCESS: A new licensing trust code was successfully installed.
.
```

步驟6.使用show license status命令驗證是否已安裝信任代碼並已收到ACK

```
Router#show license status
Utility:
```

Status: DISABLED

Smart Licensing Using Policy:

Status: ENABLED

Account Information:

Smart Account:

As of Dec 01 23:41:50 2025 UTC

Virtual Account:

Data Privacy:

Sending Hostname: yes

Callhome hostname privacy: DISABLED

Smart Licensing hostname privacy: DISABLED

Version privacy: DISABLED

Transport:

Type: Smart

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

Proxy:

Address:

Port:

Username:

Password:

VRF:

Policy:

Policy in use: Installed On Dec 01 23:42:28 2025 UTC

Policy name: SLE Policy

Reporting ACK required: yes (Customer Policy)

Unenforced/Non-Export Perpetual Attributes:

First report requirement (days): 30 (Customer Policy)

Reporting frequency (days): 60 (Customer Policy)

Report on change (days): 60 (Customer Policy)

Unenforced/Non-Export Subscription Attributes:
First report requirement (days): 120 (Customer Policy)
Reporting frequency (days): 111 (Customer Policy)
Report on change (days): 111 (Customer Policy)
Enforced (Perpetual/Subscription) License Attributes:
First report requirement (days): 30 (Customer Policy)
Reporting frequency (days): 90 (Customer Policy)
Report on change (days): 60 (Customer Policy)
Export (Perpetual/Subscription) License Attributes:
First report requirement (days): 30 (Customer Policy)
Reporting frequency (days): 30 (Customer Policy)
Report on change (days): 30 (Customer Policy)

Miscellaneous:
Custom Id:

Usage Reporting:
Last ACK received: Dec 01 23:48:00 2025 UTC<<<<<<<< ACK
Next ACK deadline: Jan 30 23:48:00 2026 UTC
Reporting push interval: 30 days
Next ACK push check:

Next report push: Dec 31 23:43:03 2025 UTC
Last report push: Dec 01 23:43:03 2025 UTC
Last report file write:

Trust Code Installed: Dec 01 23:42:28 2025 UTC<<<<<<<<<

Device Telemetry Report Summary:
=====

Data Channel: AVAILABLE
Reports on disk: 1

步驟7.使用show license authorization命令驗證現有授權

Show license authorization顯示是否已安裝HSEC或匯出控制的授權代碼。



附註：某些裝置已在工廠安裝此智慧許可證授權代碼(SLAC) (如果訂單中包含此代碼)。

```
Router#show license authorization
Last Data Push:
```

```
Last File Export:
```

```
Overall status:
  Active: PID:C8300-1N1S-4T2X,SN:
```

```
    Status: NOT INSTALLED
```

```
Purchased Licenses:
  No Purchase Information Available
```

```
Router#
```

如果未安裝，請繼續執行下一步。

步驟8.請求SLAC

如果尚未安裝授權碼，請從產品例項 (即裝置) 請求SLAC代碼。

要請求SLAC，請使用命令license feature hsec9:

```
Router(config)#license feature hsec9
```

之後，您可以看到已成功匯入SLAC代碼：

```
Router(config)#
```

```
*Dec  1 23:55:06.978: %SMART_LIC-6-AUTHORIZATION_INSTALL_SUCCESS: A new licensing authorization code wa
```

```
*Dec  1 23:55:07.004: %SMART_LIC-6-EXPORT_CONTROLLED: Usage of export controlled features is allowed fo
```

步驟9.驗證授權

請求SLAC後，您可以通過運行show license authorization來驗證是否已正確安裝了授權代碼：

```
Router#show license authorization
```

```
Last Data Push: Dec 01 23:55:06 2025 UTC via Smart
```

```
Last File Export:
```

```
Overall status:
```

```
Active: PID:C8300-1N1S-4T2X,SN:
```

```
Status: SMART AUTHORIZATION INSTALLED on Dec 01 23:55:06 2025 UTC
```

```
Last Confirmation code:
```

```
Authorizations:
```

```
Router US Export Lic. for DNA (DNA_HSEC):
```

```
Description: U.S. Export Restriction Compliance license for DNA based Routers
```

```
Total available count: 1
```

```
Enforcement type: EXPORT RESTRICTED
```

```
Term information:
```

```
Active: PID:C8300-1N1S-4T2X,SN:
```

```
Authorization type: SMART AUTHORIZATION INSTALLED
```

```
License type: PERPETUAL
```

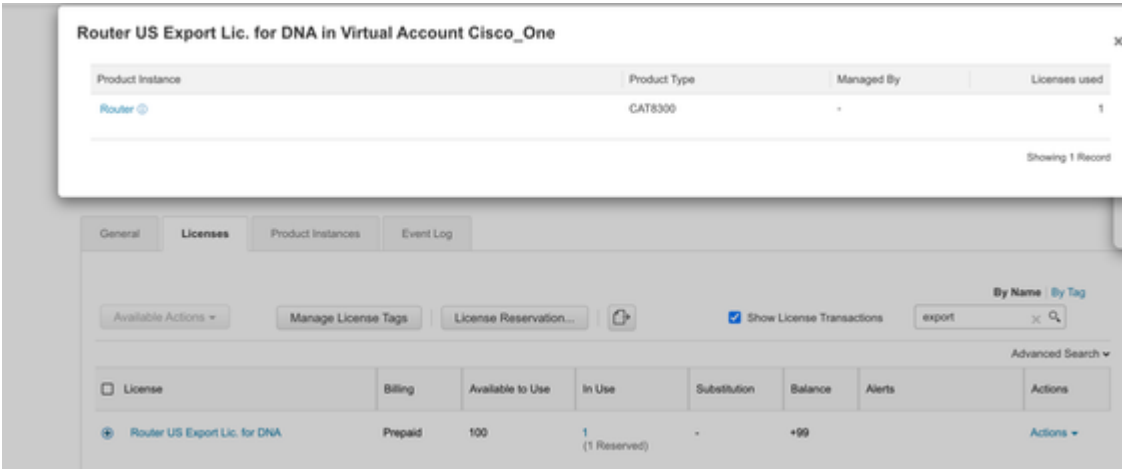
```
Term Count: 1
```

```
Purchased Licenses:
```

No Purchase Information Available

Router#

在門戶中，驗證許可證已使用且已保留：



更改吞吐量

成功安裝SLAC後，相應地更改吞吐量：

```
Router(config)#platform hardware throughput crypto 2.5G
% These values don't take effect until the next reboot. Please save the configuration.
Router(config)#
*Dec  2 00:01:19.108: %CRYPTO_SL_TP_LEVELS-6-SAVE_CONFIG_AND_RELOAD: New throughput level not applied u
Router(config)#do wr
Building configuration...
[OK]
Router(config)#
*Dec  2 00:01:28.776: %SYS-6-PRIVCFG_ENCRYPT_SUCCESS: Successfully encrypted private config file
Router(config)#do reload
WARNING:
Boot variable either does not exist or buffer is too small
This may impact autoboot of the router. Proceed with caution
Do you wish to proceed with reload anyway[confirm]
Proceed with reload? [confirm]
```



附註：預設情況下，未加密流量不受限制。

通過show platform hardware throughput crypto命令驗證當前的加密吞吐量：

```
Router#show platform hardware throughput crypto  
Current configured crypto throughput level: 2.5G
```

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）。