

在Prem上配置CSSM並向ISE註冊許可證

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簡介

本文檔介紹如何將CSSM內部部署與思科身份服務引擎(ISE)和思科智慧帳戶整合，從而確保無縫設定。

必要條件

需求

ISE 3.X

思科智慧軟體管理員(CSSM)版本8版本202304 +

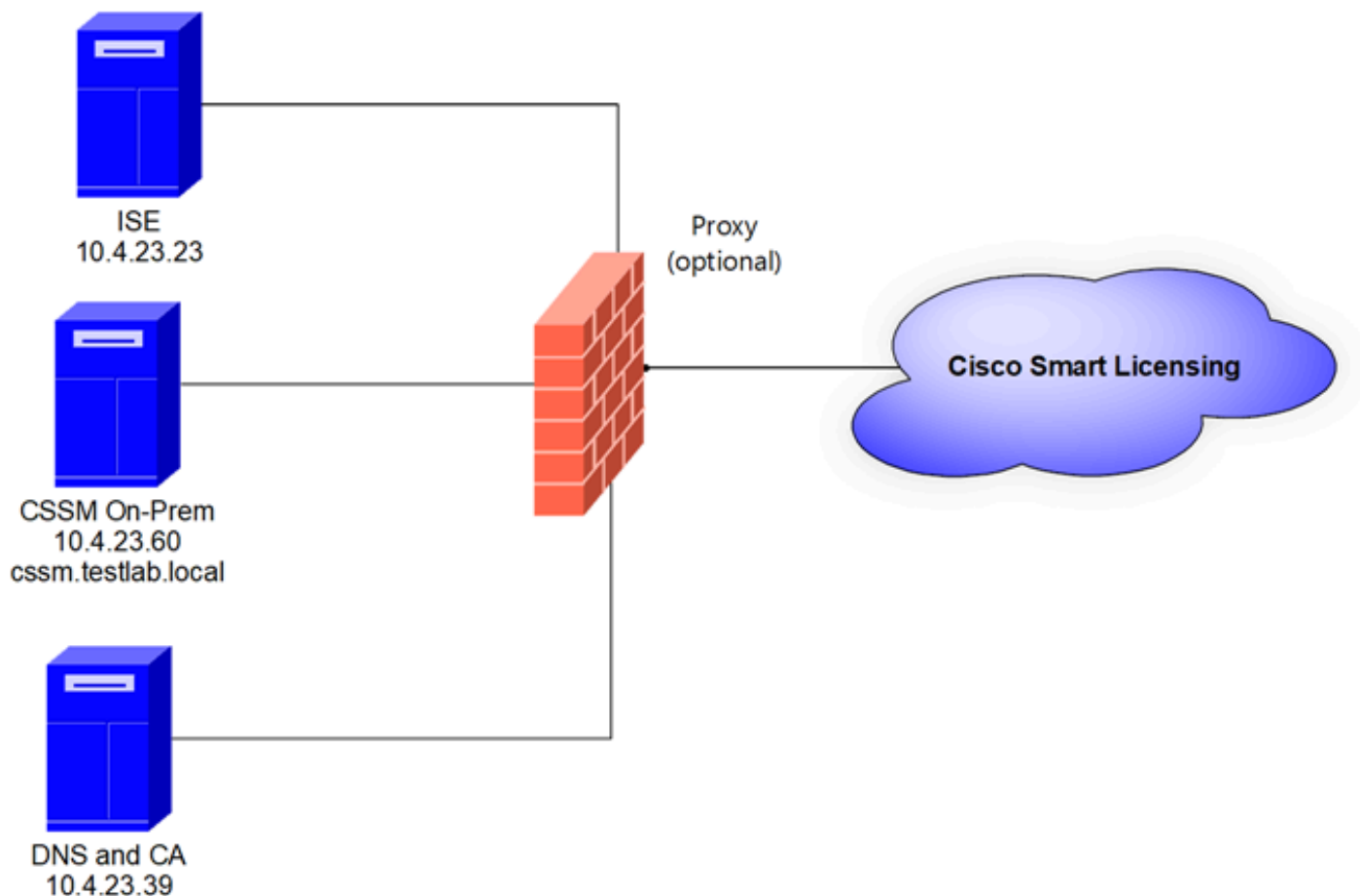
採用元件

- 身份服務引擎3.2修補2
- Prem 8.20234上的SSM
- Windows Active Directory 2016(DNS和證書頒發機構服務)
- VMWare ESXi版本7

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。

設定

網路圖表



一般拓撲

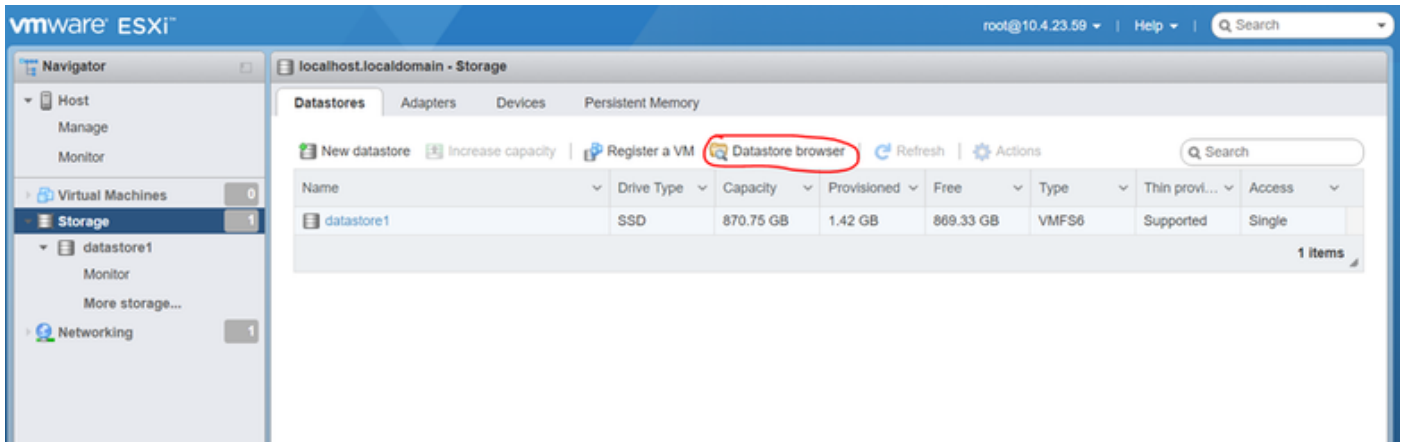
在VMWARE ESXi上安裝CSSM內部版本。

1. 下載Cisco IOS®。您可以使用下一個連結

: <https://software.cisco.com/download/home/286285506/type/286326948/release/8-202304>

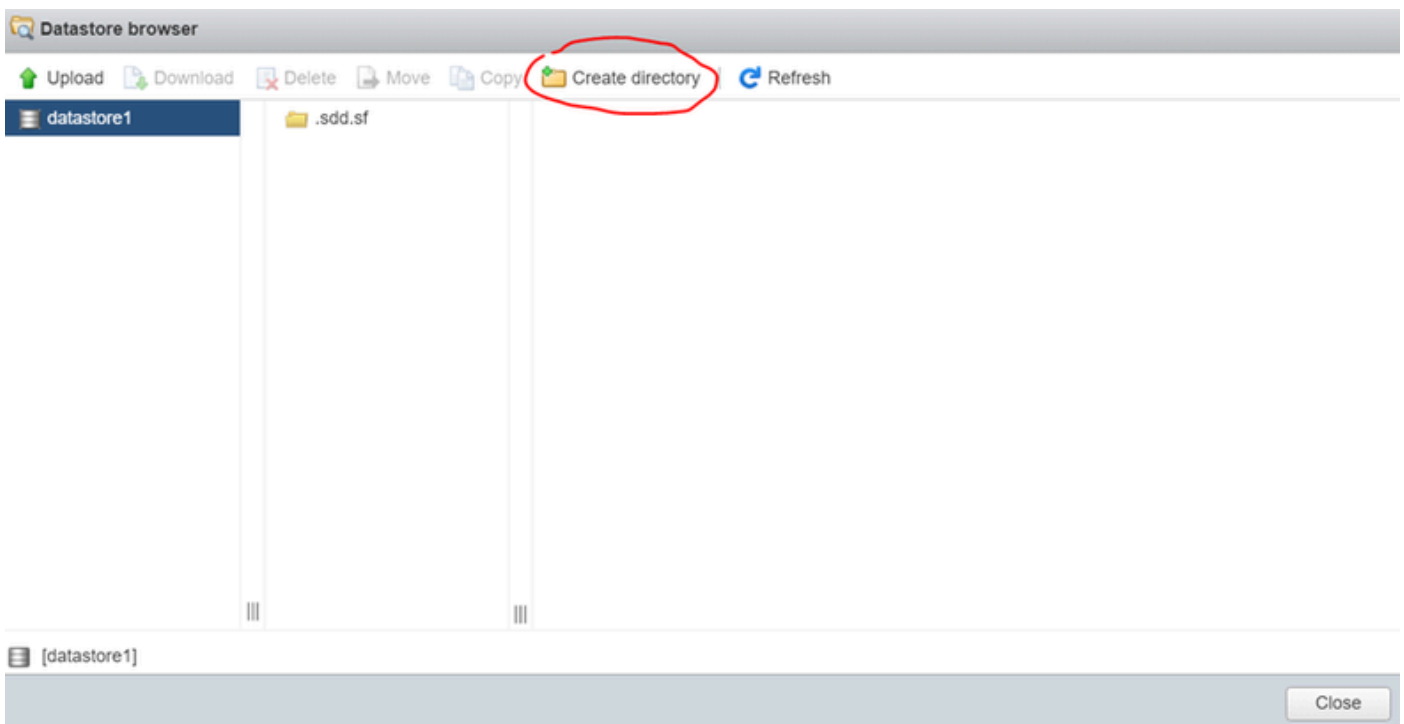
2. 上傳VMWARE ESXi中的ISO。

導航到儲存>資料儲存瀏覽器。



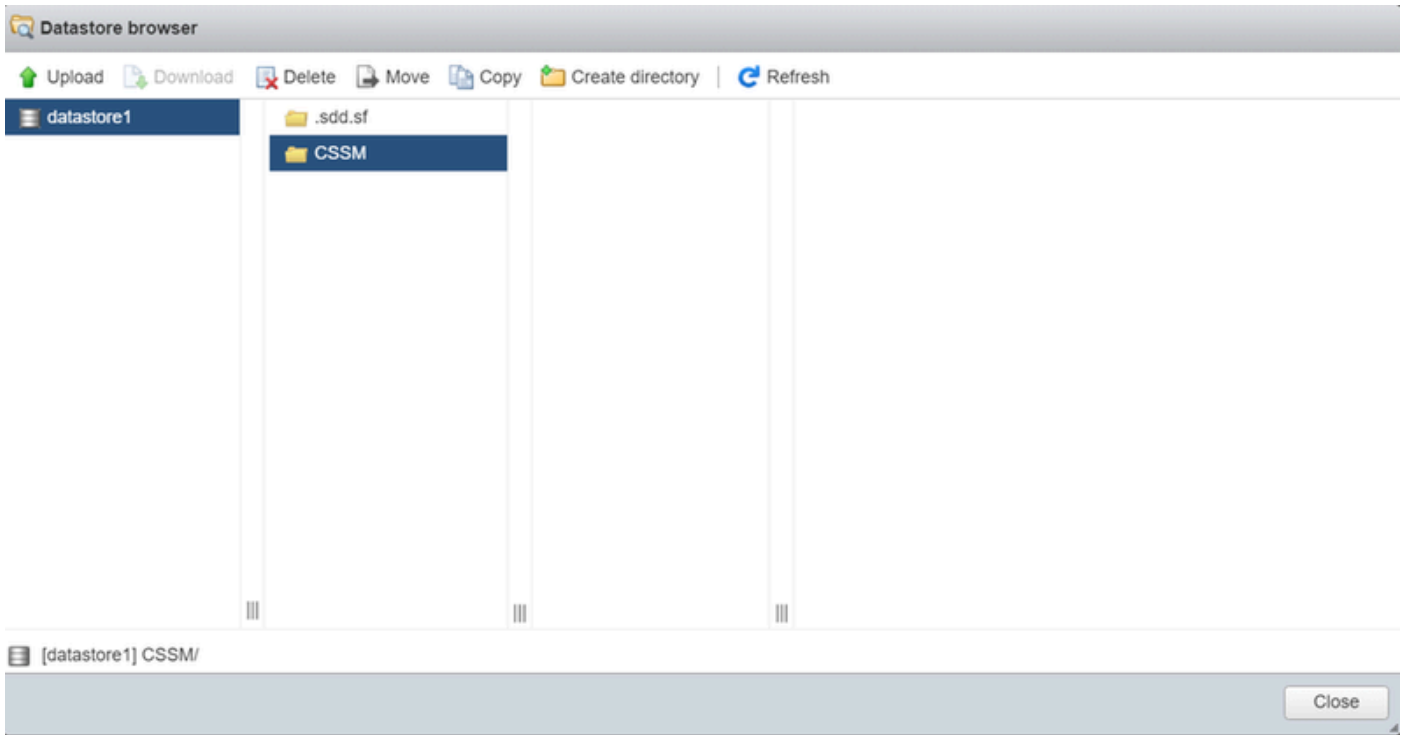
資料瀏覽器區段

3. 按一下建立目錄以建立新資料夾 (可選)。



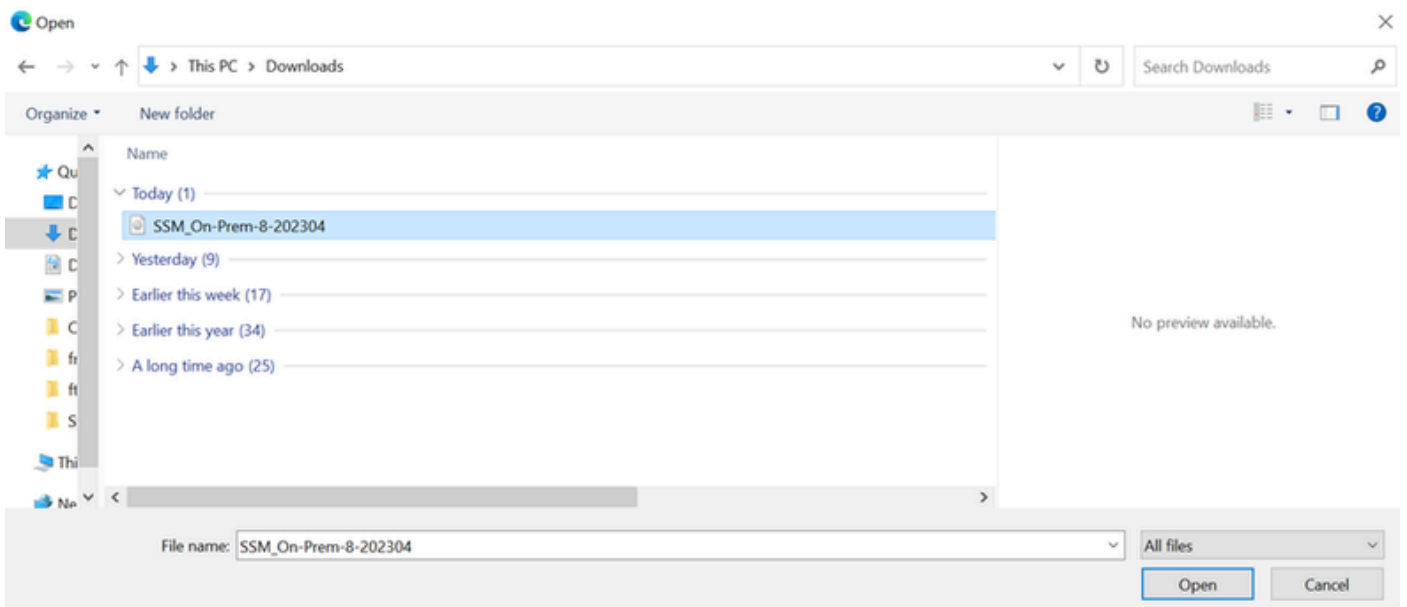
建立目錄

在本示例中，建立了CSSM資料夾：



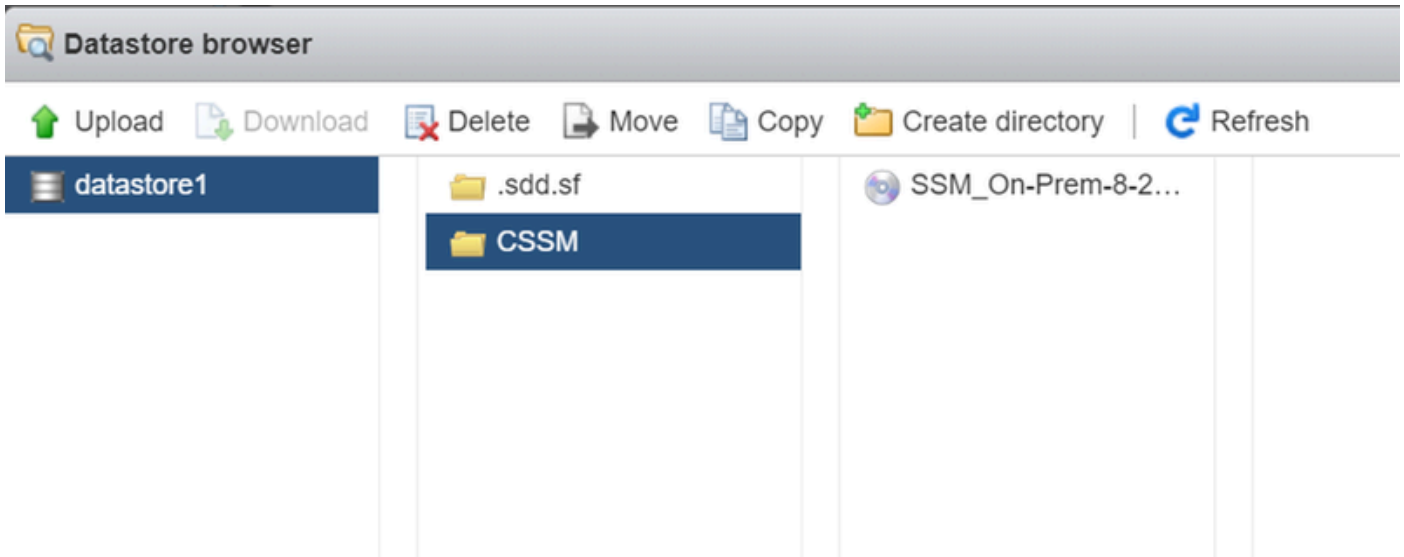
建立資料夾

4. 按一下上傳，然後選擇您的ISO檔案。



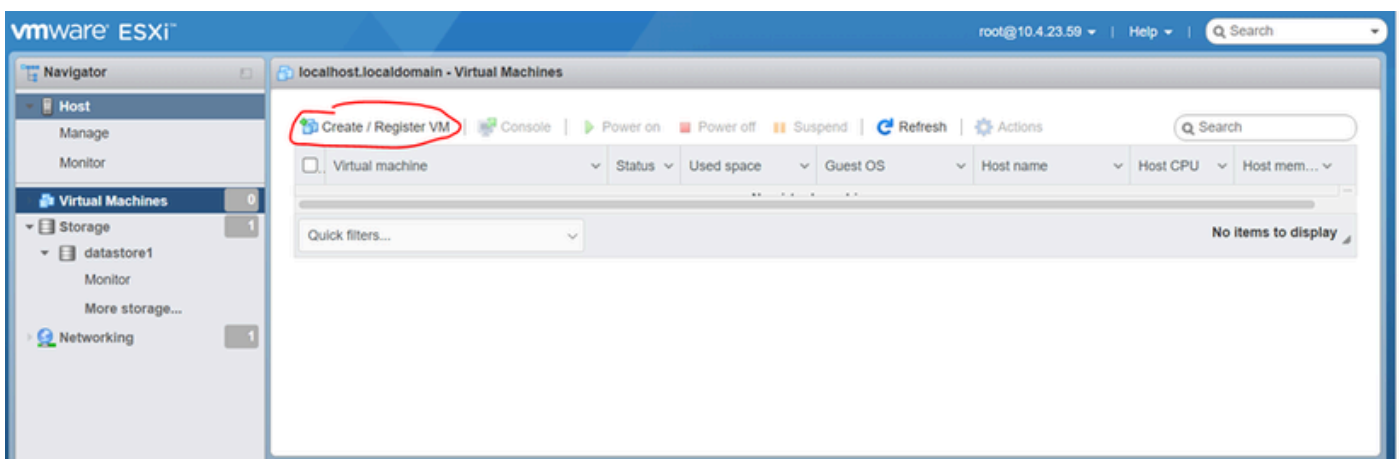
上傳ISO

現在，ISO檔案位於CSSM資料夾中：



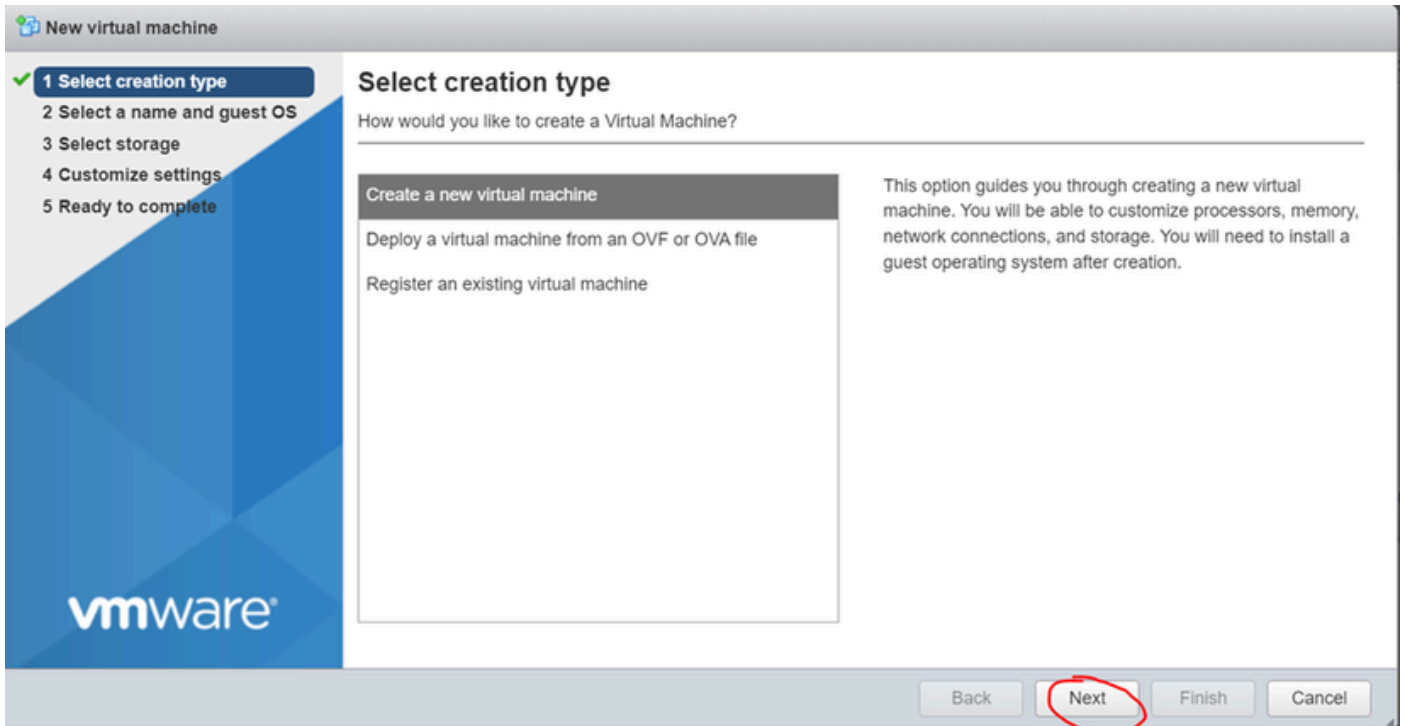
ISO上傳已完成

5. 建立虛擬機器。導航到虛擬機器>建立/註冊VM。



建立新VM第01步

6. 選擇建立新虛擬機器，然後按一下下一步。

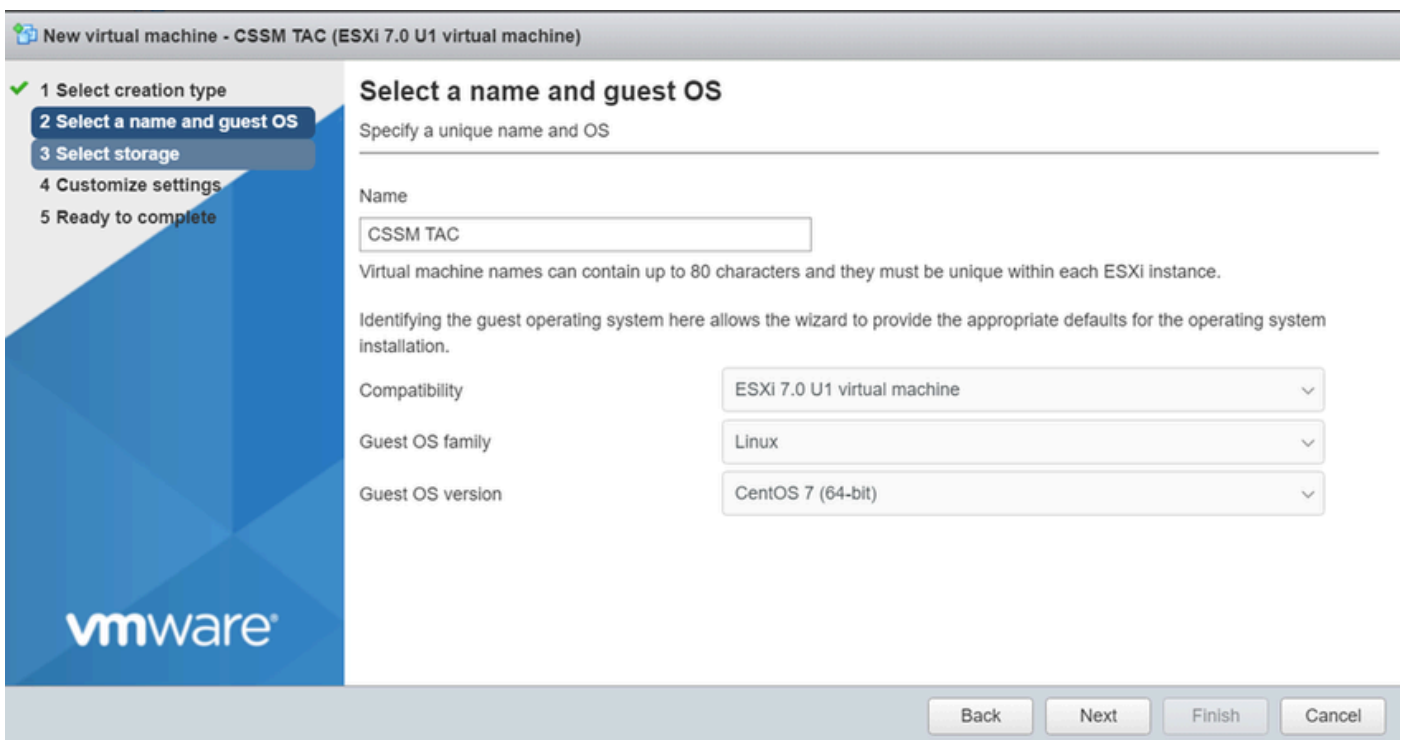


建立新VM第02步

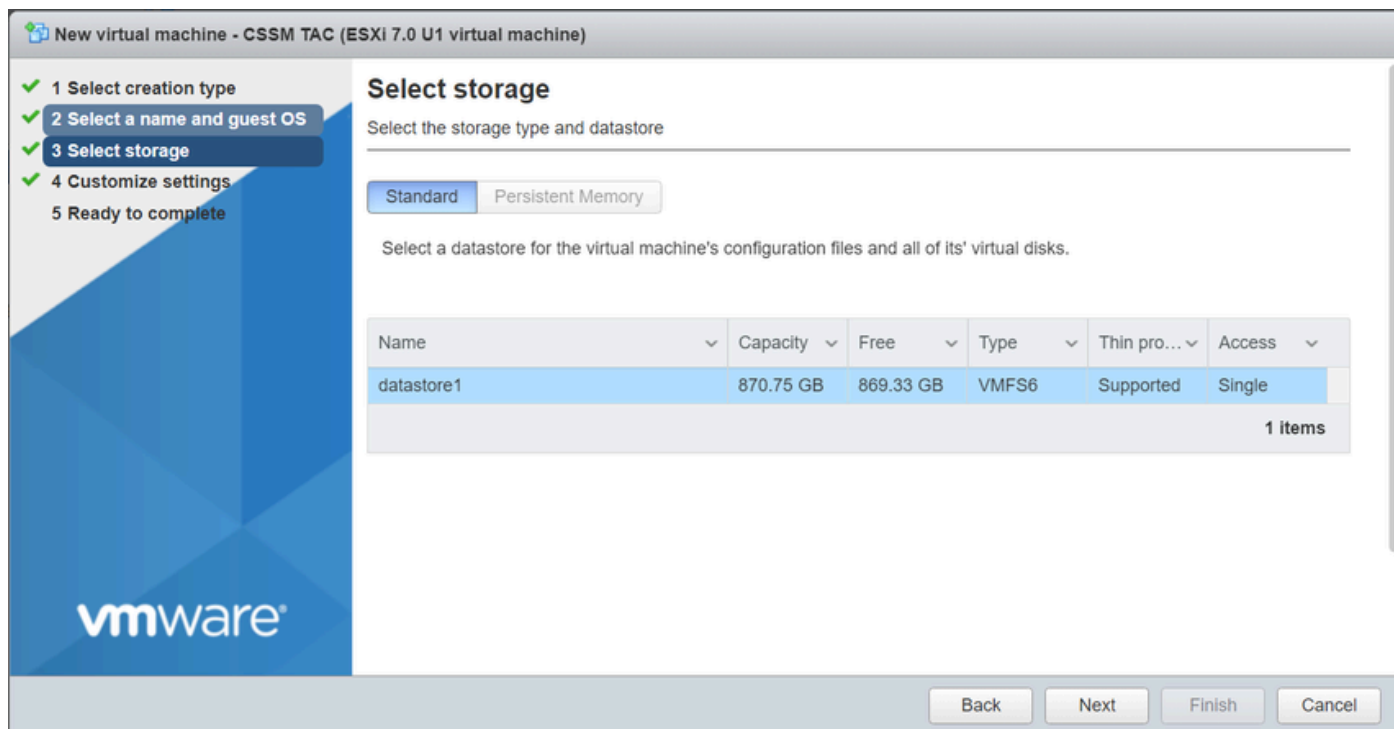
7. 然後設定下列引數：

- 名稱：輸入虛擬機器器的名稱。
- 相容性：選擇ESXi 6.0或更高版本或ESXi 6.5或更高版本。
- 來賓作業系統系列：Linux。
- 來賓作業系統版本：選擇CentOS 7（64位元）或其他2.6x Linux（64位元）

按「Next」（下一步）。



8. 選擇儲存，然後按一下下一步。



儲存清單

9. 設定下列引數：

- CPU：最少4個。實際的vCPU設定取決於您的擴展要求



註：無論選擇的虛擬套接字數量如何，每個套接字的核心數量都需要設定為1。例如，4個vCPU配置需要配置為4個插槽，每個插槽1個核心。

▼ CPU	4	▼	i
Cores per Socket	1	▼	Sockets: 1

核心組態

- 記憶體：8 GB
- 硬碟：200 GB，並確認隨需分配已設為「精簡隨需分配」。

▼ Hard disk 1	200	GB	
Maximum Size	869.33 GB		
Location	[datastore1] CSSM TAC		Browse...
Disk Provisioning	<input checked="" type="radio"/> Thin provisioned <input type="radio"/> Thick provisioned, lazily zeroed <input type="radio"/> Thick provisioned, eagerly zeroed		

磁碟組態

- 網路介面卡：選取E1000介面卡型別，然後選取開機時連線。

▼ Network Adapter 1	VM Network
Status	<input checked="" type="checkbox"/> Connect at power on
Adapter Type	E1000e

設定網路設定

- CD / DVD光碟機：選擇「Data ISO file」，然後選取ISO檔案。

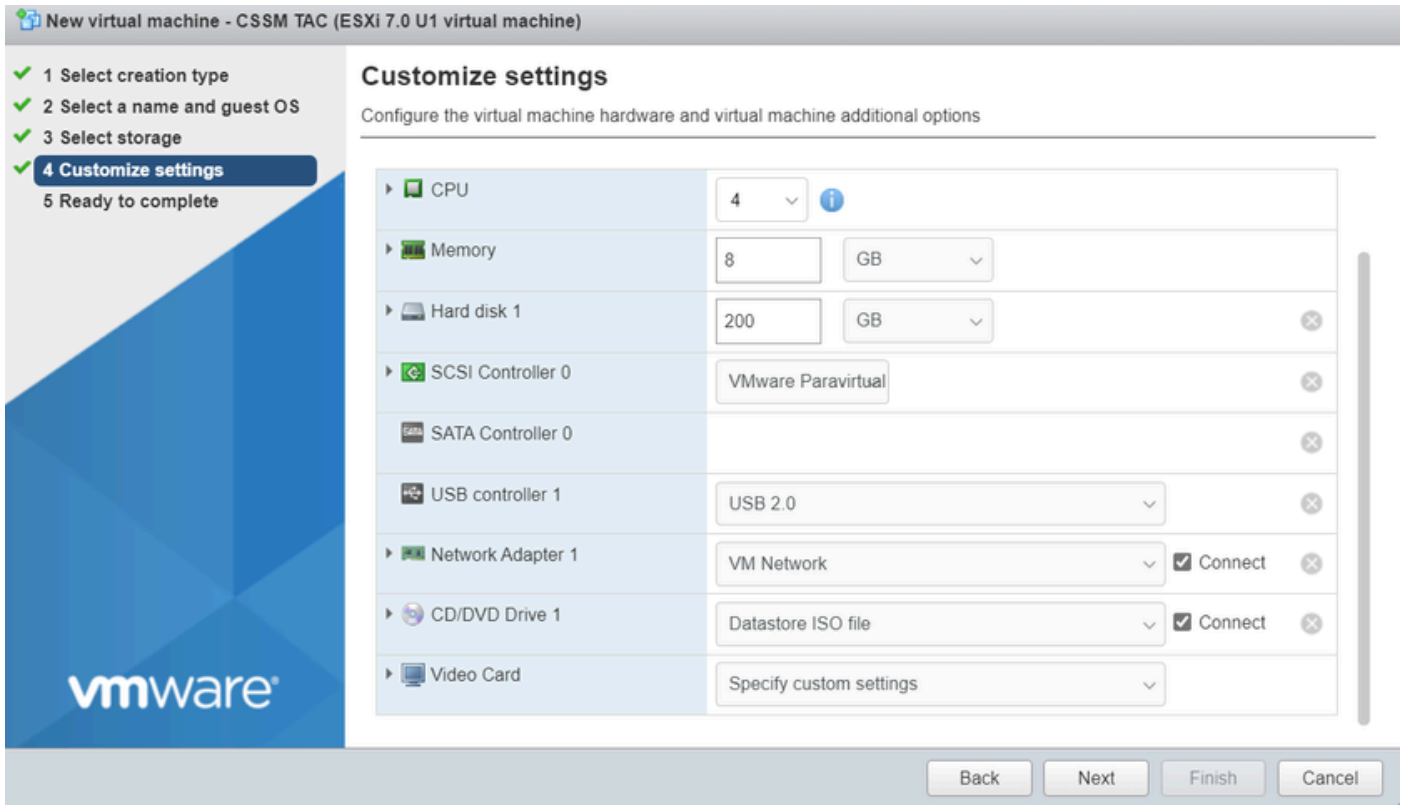
Datastore browser

Upload
 Download
 Delete
 Move
 Copy
 Create directory
 |
 Refresh

<p>datastore1</p> <ul style="list-style-type: none"> vmimages 	<ul style="list-style-type: none"> .sdd.sf CSSM 	<p>SSM_On-Prem-8-2...</p>	<p>SSM_On-Prem-8-2023... 2.92 GB Wednesday, July 26, 2...</p>
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ISO映像

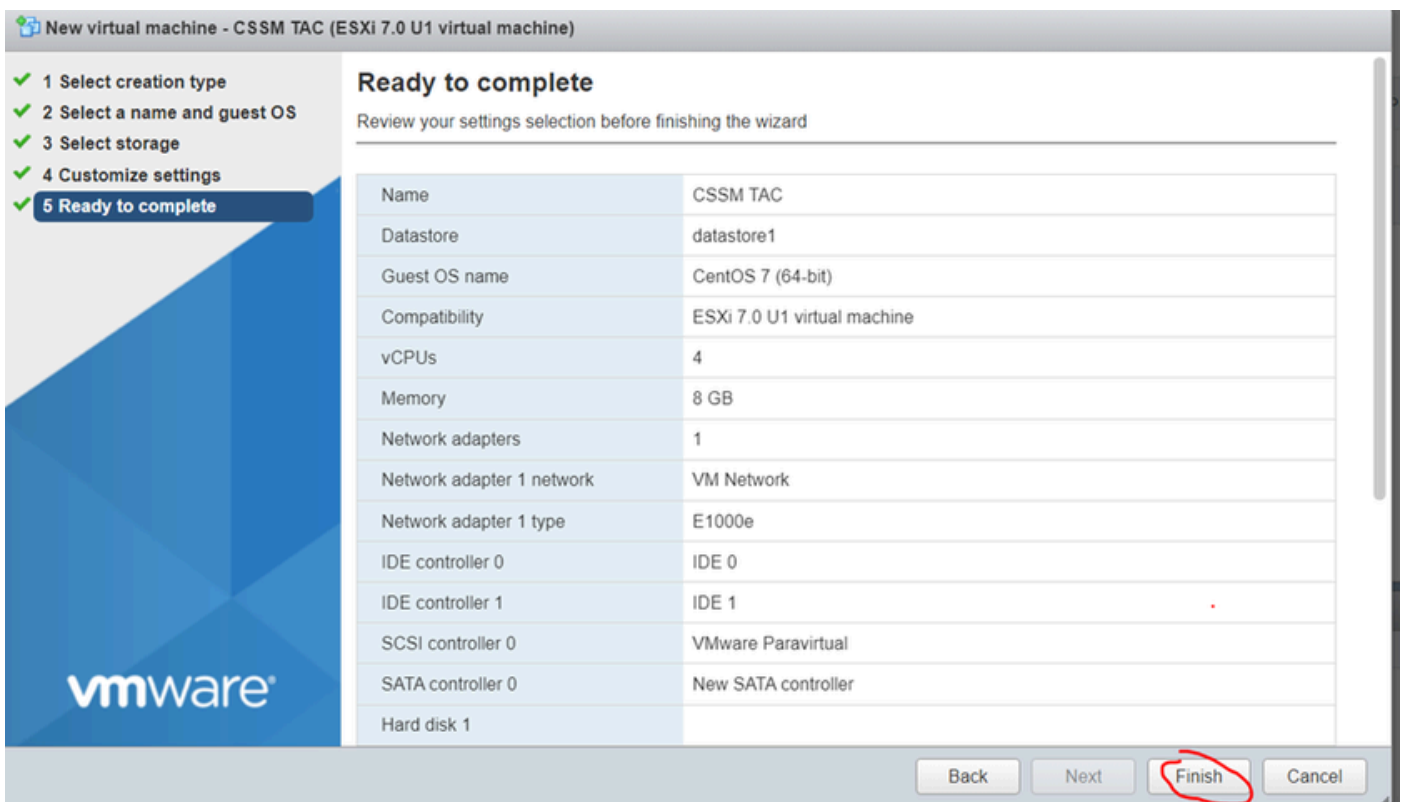
完成前面的步驟後，您可以驗證設定的摘要。



摘要VM配置01

按「Next」(下一步)。

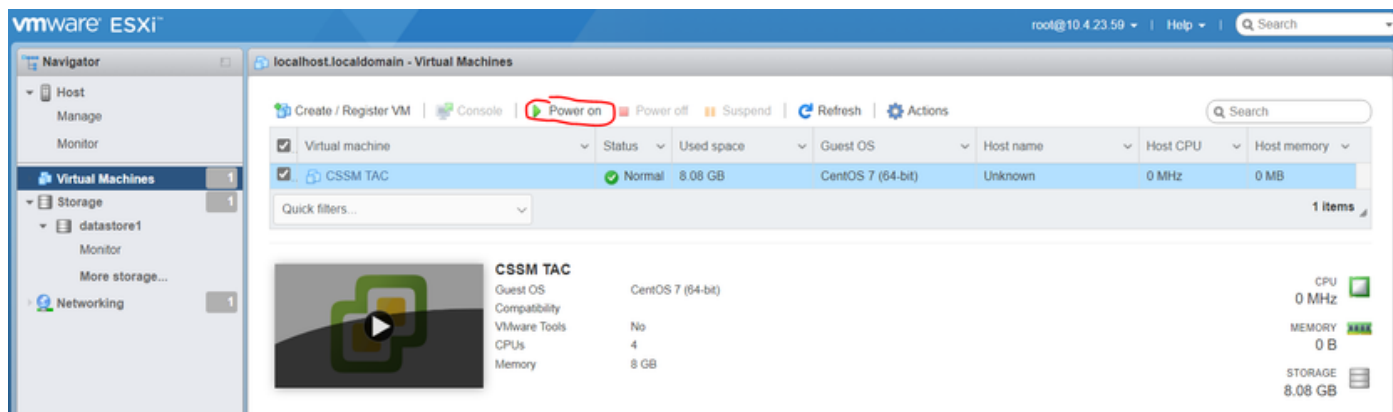
10. 按一下完成。



摘要VM配置02

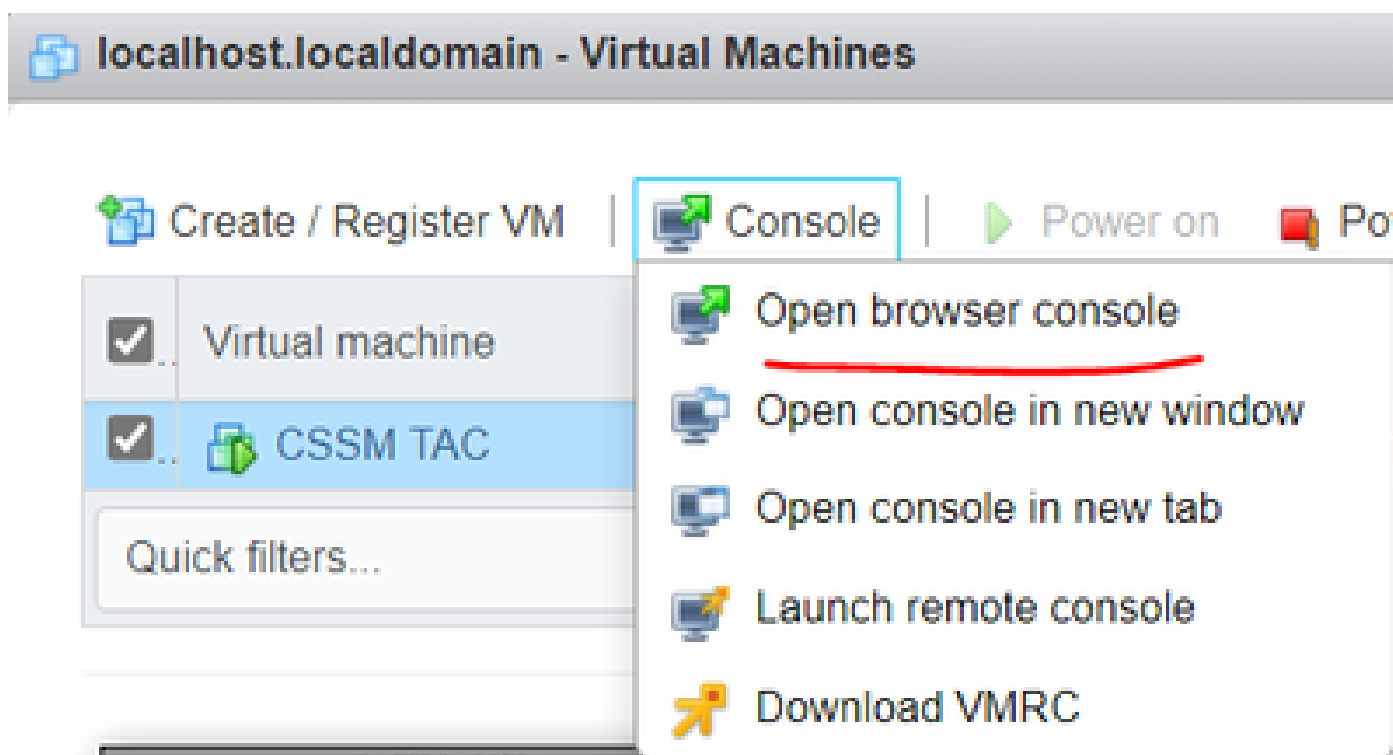
CSSM On-Prem 的初始配置。

1. 在VMWARE ESXi中，導航到虛擬機器並選擇虛擬機器，然後按一下打開。



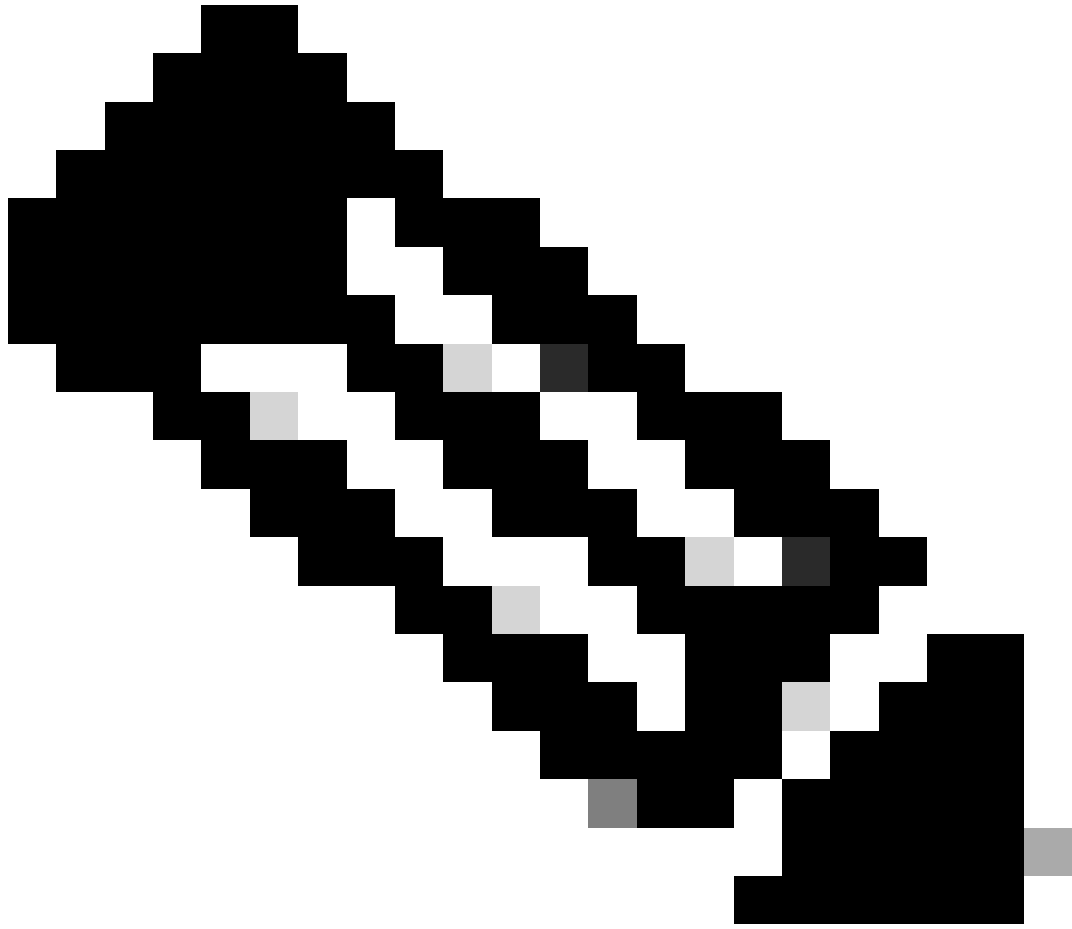
電源開啟選項

2. 您可使用多個選項來管理VM控制檯。選擇Console > Open browser console。

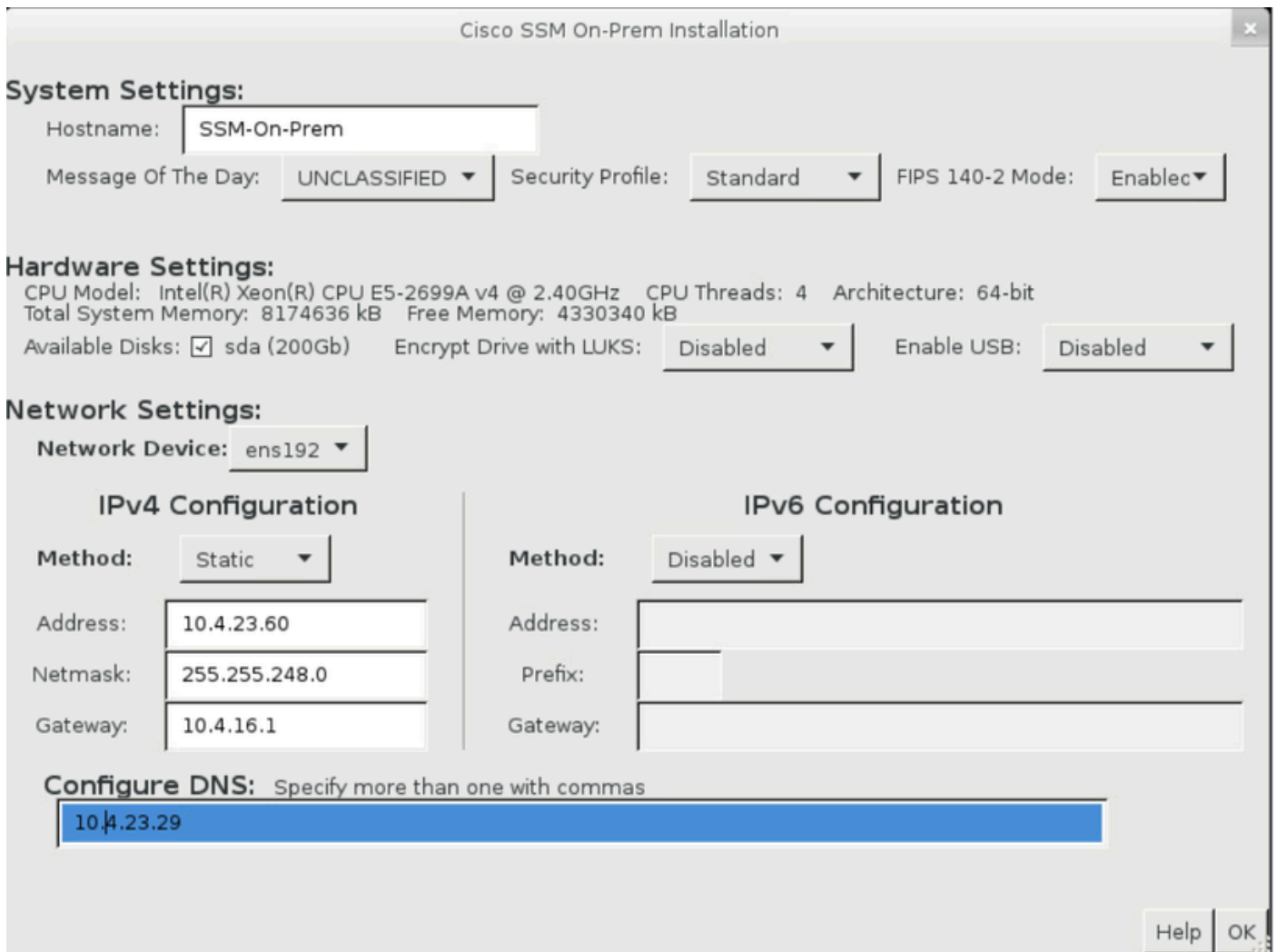


用於管理虛擬機器的選項

3. 配置您的網路設定。



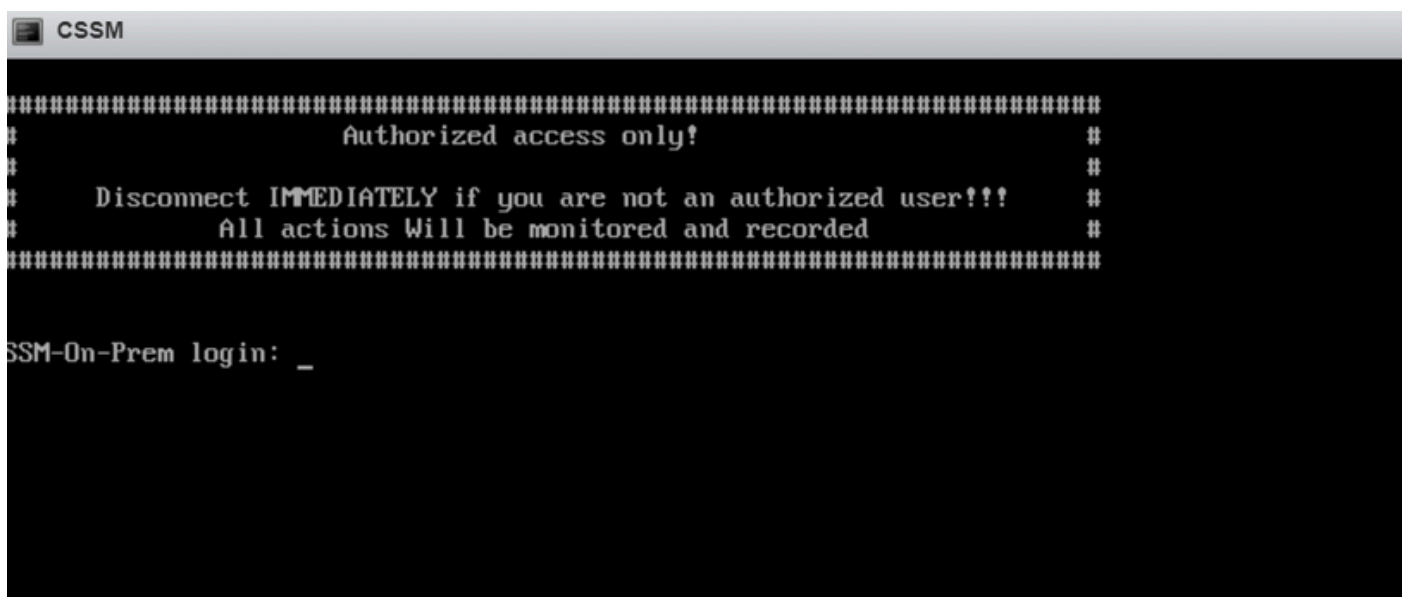
注意：配置解析CSSM FQDN的DNS服务器的IP地址非常重要。



配置CSSM網路設定

按一下Ok 以配置您的新CLI口令。

4. 然後安裝程式開始並完成，直到您看到存取提示為止。



CSSM初始配置已完成

5. 打開瀏覽器並輸入https:// <ip_address_CSSM>。



Log into an Existing Account

User Name

Password

Log In

[Forgot Password](#)

Welcome to Smart Software Manager On-Prem where you can locally manage Smart Licensing and perform local Account Management functions for your organization.

CSSM登入頁面

使用預設證明資料：

使用者名稱：admin

密碼：CiscoAdmin!2345

6. 選擇您的語言。
7. 建立新的GUI密碼。
8. 配置主機公用名。(示例：hostname.yourdomain)。

在這種情況下，cssm.testlab.local被配置為主機公用名。

Welcome to Cisco Smart Software Manager On-Prem

STEP 1 System Language Selection

STEP 2 Temporary Password Reset

STEP 3 Host Common Name

STEP 4 Review and Confirm

Products that support String SSL Cert Checking require the SSM On-Prem's "Host Common Name" to match the "destination" URL address. For example:

- Products using Smart Transport must use both the "license smart url" configuration and the "cssm.testlab.local" value in the URL string.
- Legacy products using Smart Call Home must use both the "destination address http" configuration and the "cssm.testlab.local" value in the URL string.

If the above URLs do not match expectations, refer to the SSM On-Prem AdminWorkspace -> Security Widget to change the Host Common Name to the correct value.

The option to configure alternative names (SAN) is available in Admin Console under Security -> Certificates and can be configured after the initial setup.

* Host Common Name
cssm.testlab.local

Back Next

9. 驗證您的配置，然後按一下Apply。

STEP 1 System Language Selection	STEP 2 Temporary Password Reset	STEP 3 Host Common Name	STEP 4 Review and Confirm
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Once you click "Apply", you will be redirected to the login page where you will need to login with your new password. Please ensure you have securely stored your password for future logins.

Review and Confirm

Language Selected:	English
Password Reset:	Yes
Host Common Name:	sccmtac.ciscotac.com

Back **Apply**

CSSM初始設定已完成。

將CSSM現場管理與智慧帳戶整合

您需要將智慧帳戶與高級伺服器上的CSSM關聯。

1. 使用下一個連結打開您的思科智慧帳戶：

<https://software.cisco.com/>

2. 然後選擇智慧軟體管理器部分下的管理許可證。

	Smart Software Manager Track and manage your licenses. Convert traditional licenses to Smart Licenses. Manage licenses >	Download and Upgrade Download new software or updates to your current software. Access downloads >	Traditional Licenses Generate and manage PAK-based and other device licenses, including demo licenses. Access LRP >
	Manage Smart Account Update your profile information and manage users. Manage account >	EA Workspace Generate and manage licenses purchased through a Cisco Enterprise Agreement. Access EA Workspace >	Manage Entitlements eDelivery, version upgrade, and more management functionality is now available in our new portal. Access MCE >
	管理許可證選項		

3. 導航到資產並複製智慧帳戶名稱和虛擬帳戶的名稱。在本指南中，這是 InternalTestDemoAccount67 和 AAA MEX TEST。

Cisco Software Central

Scheduled Downtime Notification - License Registration Portal (LRP), Manage Smart Account & Account Administration, Plug-N-Play (PnP), Smart Software Manager

Cisco Software Central > Smart Software Licensing

InternalTestDemoAccount67.cisco.com

Smart Software Licensing

SL Product Details Support Help

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

Virtual Account: AAA MEX TEST

General Licenses Product Instances Event Log

Virtual Account

Description:	Only for tests
Default Virtual Account:	No

軟體思科頁面

4. 打開CSSM GUI並選擇Admin Workspace選項。

On-Prem License Workspace

Admin Workspace Hello, Local Admin Log Out

Smart Software Manager On-Prem

License

Smart Licensing
Track and manage Smart Licensing

Administration

Request an Account
Get an Account for your organization. The Account must be approved by your System Administrator or System Operator before it can be used.

Request Access to an Existing Account
Submit a request for access to an existing local Account. Approval must be granted by a Smart Account Administrator for your local Account.

Manage Account
Modify the properties of your Accounts and associate existing User IDs with Accounts.

CSSM主選單。

5. 然後選擇Accounts。

On-Prem Admin Workspace

Smart Software Manager On-Prem



Access
Management



Settings



Accounts



Support
Center



API Toolkit



Synchronization



Network



Users



Security

Generate CSR

Common Name	cssm.testlab.local
Organizational Unit	Testlab
Country	Mexico ▼
State/Province	Mexico City
City/Locality	Mexico City
Organization	SEC AAA
Key Size	2048 ▼
Subject Alternative Name	cssm.testlab.local

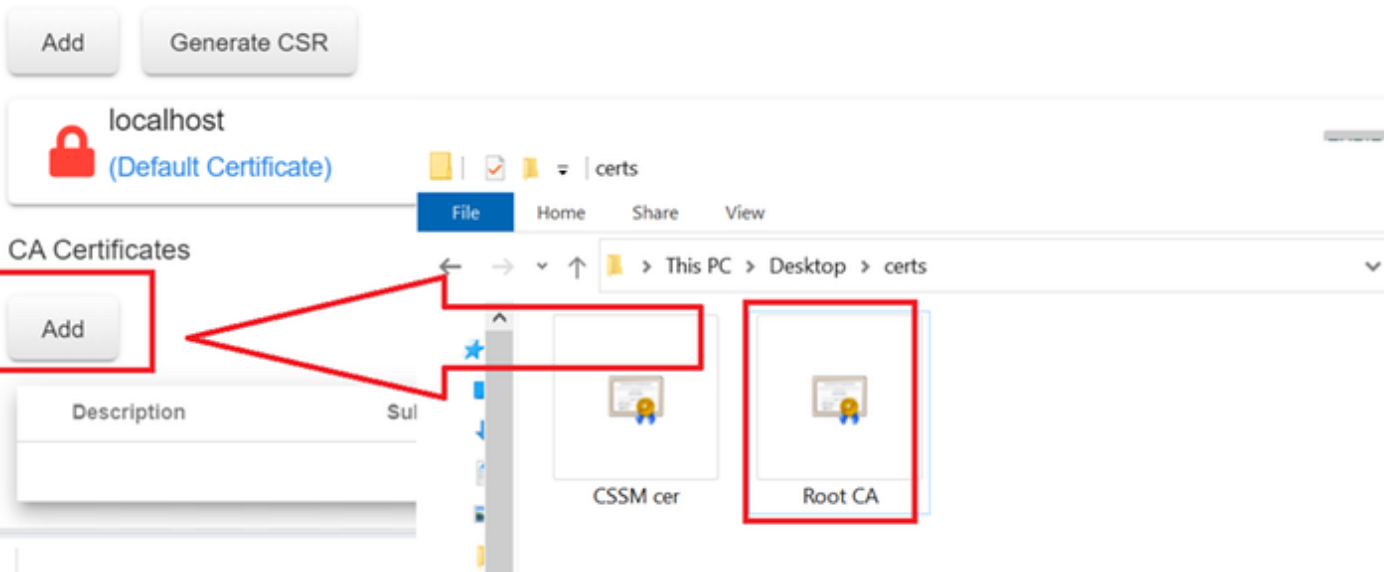
Generate

Cancel

CSR詳細資訊。

4. 簽署CSR：有關詳細資訊，請查閱本文檔中的「[從Windows CA建立證書](#)」。
5. 上傳根CA證書。

Browser Certificate



正在上傳根CA。

按一下Proceed。



Please note that if you are uploading **LDAP Server Certificate**, it is mandatory to reboot your SSM On-Prem server for the certificate to take effect and thus allowing secure communication with the server.

Below are the commands for non-HA(standalone) deployments:

1. Execute "reboot" command in Onprem-console
ssh admin@<IP>
onprem-console
reboot

For HA deployments

1. Execute reboot command on active node in onprem-console. After failover, ensure that DB replication has started. If you wish to restore the previous active node, execute another reboot, after verifying replication has started.

The active node is the node that is serving the virtual IP of the cluster.

Proceed

繼續選項。

6. 輸入說明並選擇根證書，然後按一下確定。

Upload Certificate

• Description:

• Certificate:

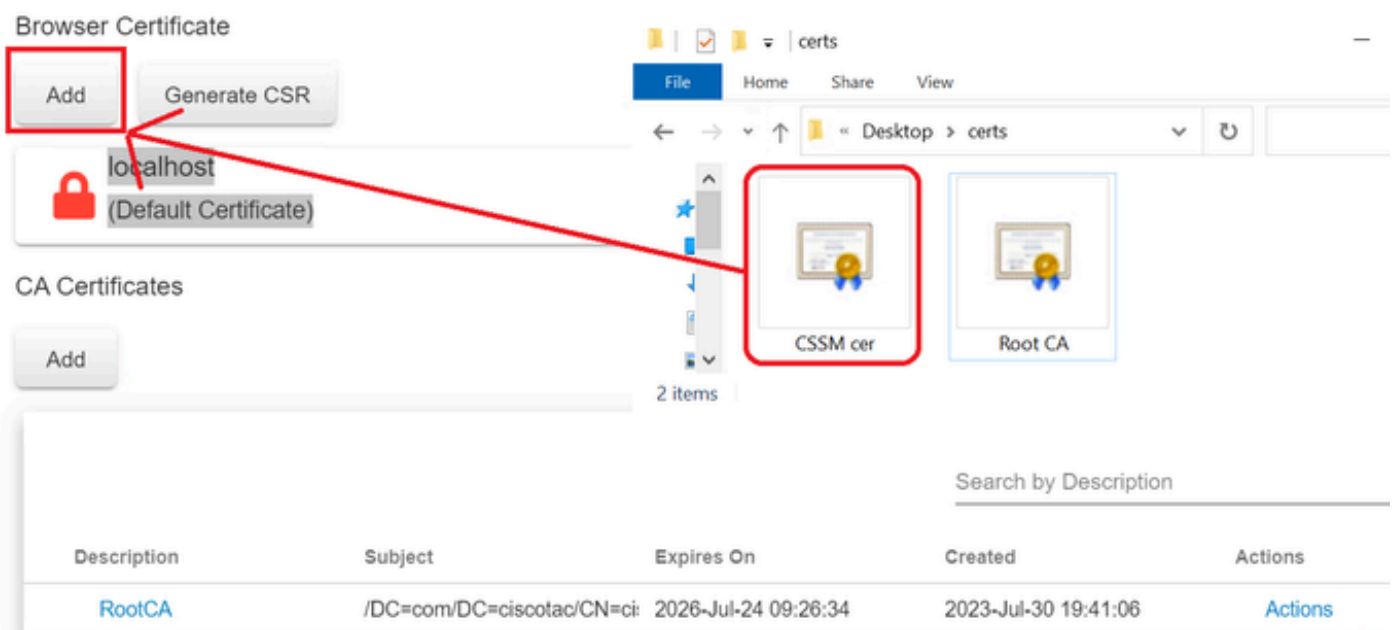
描述根CA。

7. 上傳由CA簽署的CSR(CSSM辨識憑證)。

Browser Certificate

localhost
(Default Certificate)

CA Certificates



Description	Subject	Expires On	Created	Actions
RootCA	/DC=com/DC=ciscotac/CN=ci	2026-Jul-24 09:26:34	2023-Jul-30 19:41:06	Actions

正在上傳CSSM身份證書。

注意：注意：在我們的案例中，中間證書不存在於我們的CA中。但是，如果您在架構中使用中間證書，則中間證書是必需的。

8. 然後，確認兩個證書都已安裝。

Browser Certificate

Add

Generate CSR



cssm.testlab.local

EXPIRATION DATE: 2025-JUL-16

CA Certificates

Add

Search by Description

Description

Subject

Expires On

Created

Actions

RootCA

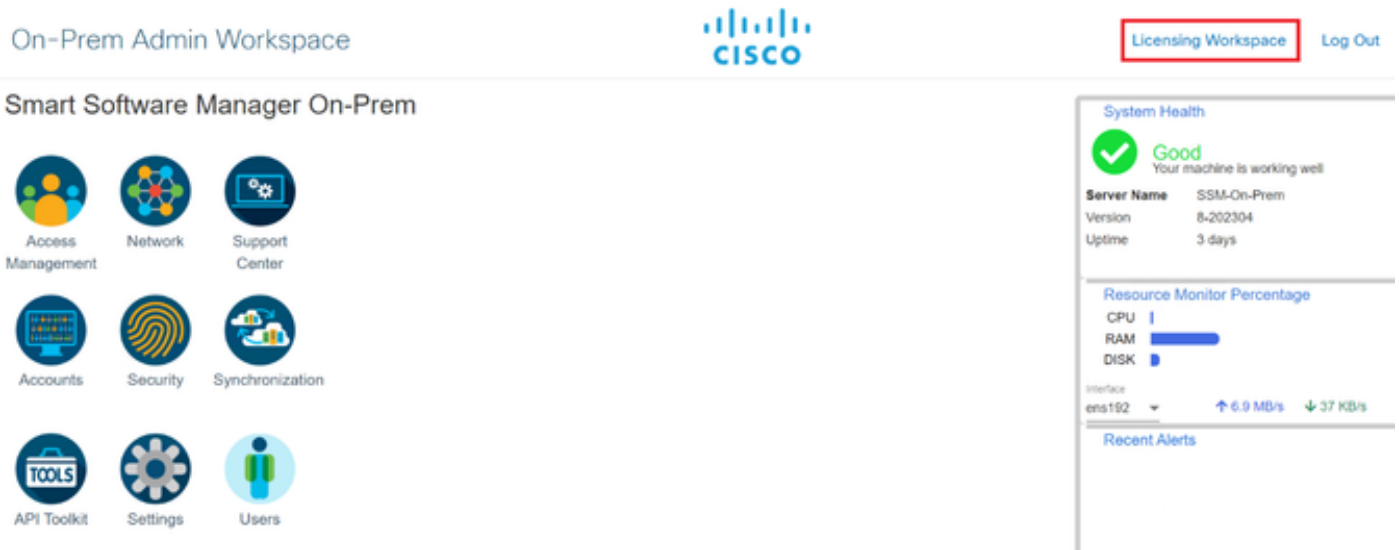
/DC=local/DC=testlab/CN=tes 2027-Apr-14 22:51:26

2024-Jul-16 21:18:52

[Actions](#)

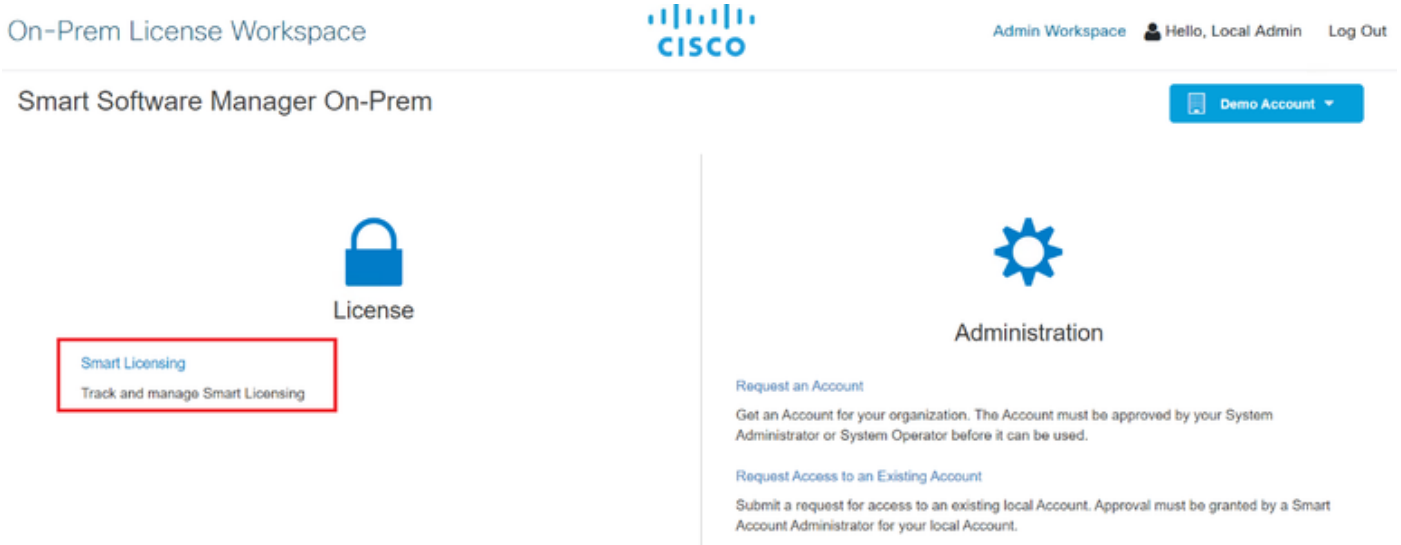
憑證驗證。

9. 在SSM本地建立令牌：選擇許可工作區。



工作區頁面。

10. 導航到智慧許可。



CSSM智慧許可頁面

11. 查詢您的本地虛擬帳戶，然後按一下New Token並按一下Proceed。

Local Virtual Account: [Default](#)

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

Local Virtual Account

Description: This is the default virtual account created during company account creation.
Default Local Virtual Account: Yes

Product Instance Registration Tokens

The registration tokens below can be used to register new product instances to this Local Virtual Account. For products that support Smart Transport, you must configure the "license smart uri" on the product to use the [Smart Transport Registration URL](#). For products that support Smart Licensing Using Policy that use csu as transport, you must configure the "license smart transport csu" to use the [CSLU Transport URL](#). For legacy products that still use Smart Call Home, you must configure the "destination address http" on the product to use the [Smart Call Home Registration URL](#). The recommended method is Smart Transport. Please consult your Products Configuration Guide for setting the destination URL value.

New Token...

新增記號選項。

12. 選擇建立令牌並複製它。

Create Registration Token



This dialog will generate the token required to register your product instances with your Account .

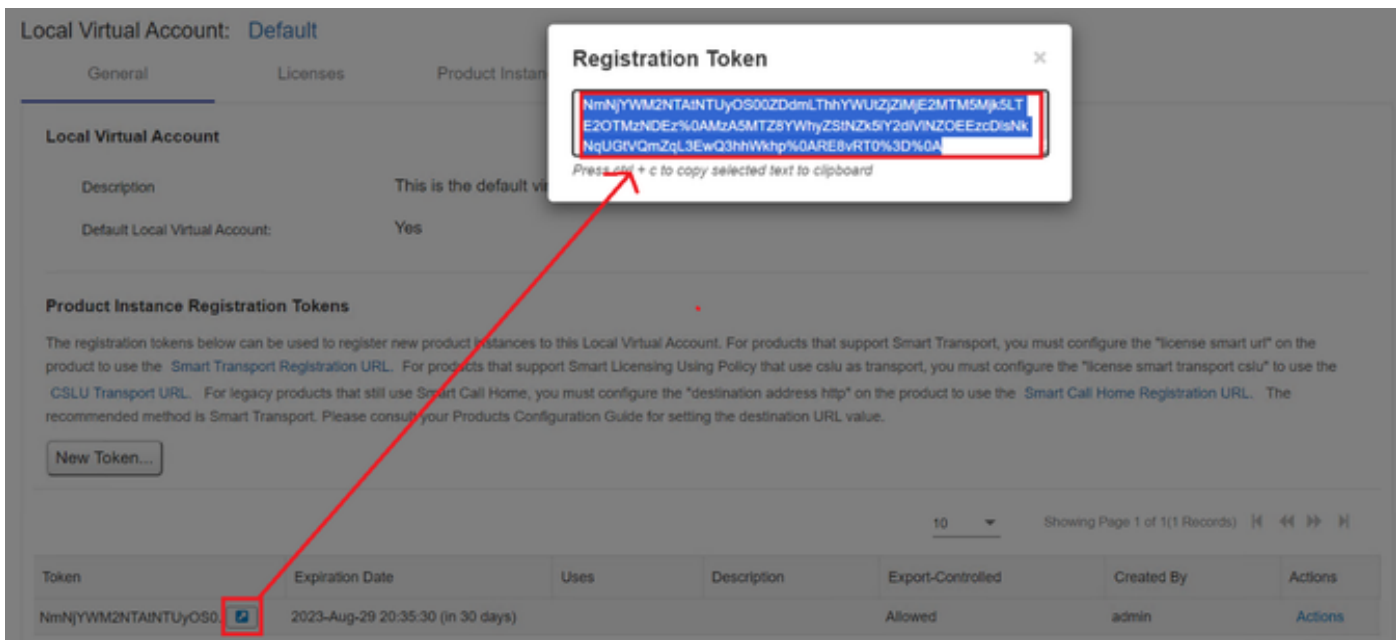
Local Virtual Account	Default
Description	<input type="text"/>
Expire After	<input type="text" value="30"/> Days <i>Enter a value between 1 and 9999, but Cisco recommends a maximum of 30 days</i>
Max. Number of Uses	<input type="text"/> <i>The token will be expired when either the expiration or the maximum uses is reached.</i>

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

Create Token

Cancel

建立新權杖。



令牌詳細資訊。

13. 打開ISE GUI並導航到Administration > Systems > Licensing，然後點選Registration details，選擇SSM On-Prem server Host 方法，然後貼上令牌。

License Type

Choose Registration Details to acquire pre-purchased license entitlements. Choose Permanent License Reservation to enable all Cisco ISE licenses. Enter the required details to enable Cisco ISE licenses. When you click Register, you agree to the terms and conditions detailed in [Smart Licensing Resources](#).

- Smart Licensing Registration
- Permanent License Reservation
- Specific License Reservation

Registration Details

When you register Cisco ISE in the [Cisco Smart Software Manager portal](#), a unique ID called the Registration Token is displayed in the portal. Copy the registration token displayed in the CSSM portal and paste it here.

Registration Token

NmNjYWM2NTAINTUyOS00ZDdmLThhYWU

許可證登記。

14. 在SSM內部伺服器主機上輸入SSM內部伺服器 FQDN，然後按一下註冊。

CSSM configuration

Security

Account Password Certificates Event Log

Product Certificate

Host Common Name
cssm.testlab.local

Subject Alternative Name

Save

NOTE: The Host Common Name is typically composed of Host + Domain Name(FQDN) and will look like "www.yoursite.com" or "yoursite.com". The SSL Server Certificate used for product communications is specific to the Common Name that has been issued at the Host. Therefore, the Common Name must match the Web address you will use to configure the Cisco Product when connecting to SSM On-Prem. The Common name is a part of the Subject Alternative Name by default. If you change the Common Name or add Subject Alternative Name, you must resynchronize your Local Account in order for Cisco to issue a new product certificate(TG cert).

Browser Certificate

Add Generate CSR

cssm.testlab.local EXPIRATION DATE: 2025-JUL-18

ISE configuration

Connection Method
SSM On-Prem server

SSM On-Prem server Host
cssm.testlab.local

Note: Cisco Support Diagnostics will not work with SSM On-Prem server registration.

Tier
 Essential Advantage Premier Device Admin

Virtual Appliance
 ISE VM License

This enables the ISE features for the purchased licenses to be tracked by Cisco Smart Licensing.

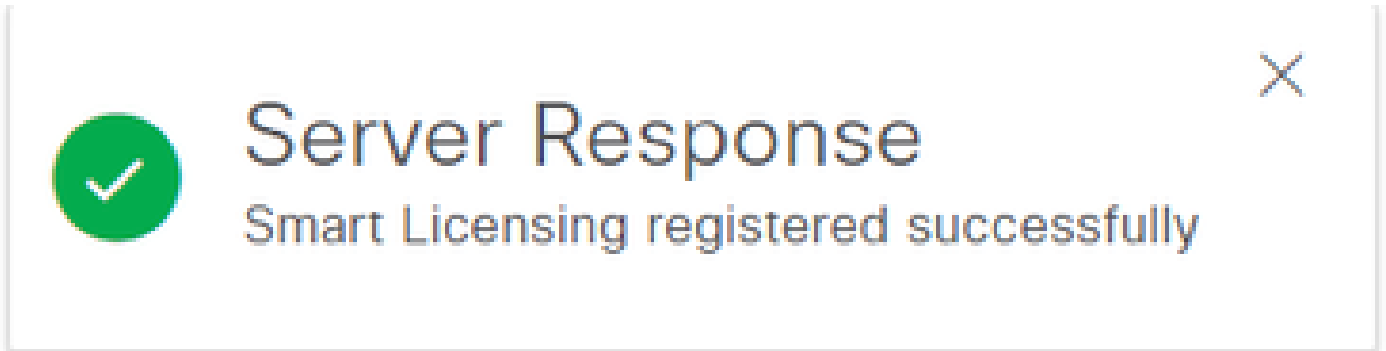
By clicking Register you will agree to the Terms&Conditions. You can download Terms&Conditions on [Smart Licensing Resources](#).

Cancel Register

CSSM和ISE設定。

注意：務必在主機公用名上配置主機名+域，因為ISE使用此引數與CSSM建立連線。您可以使用IP地址代替hostname + domain，但建議使用hostname + domain

15. 最後，註冊完成。

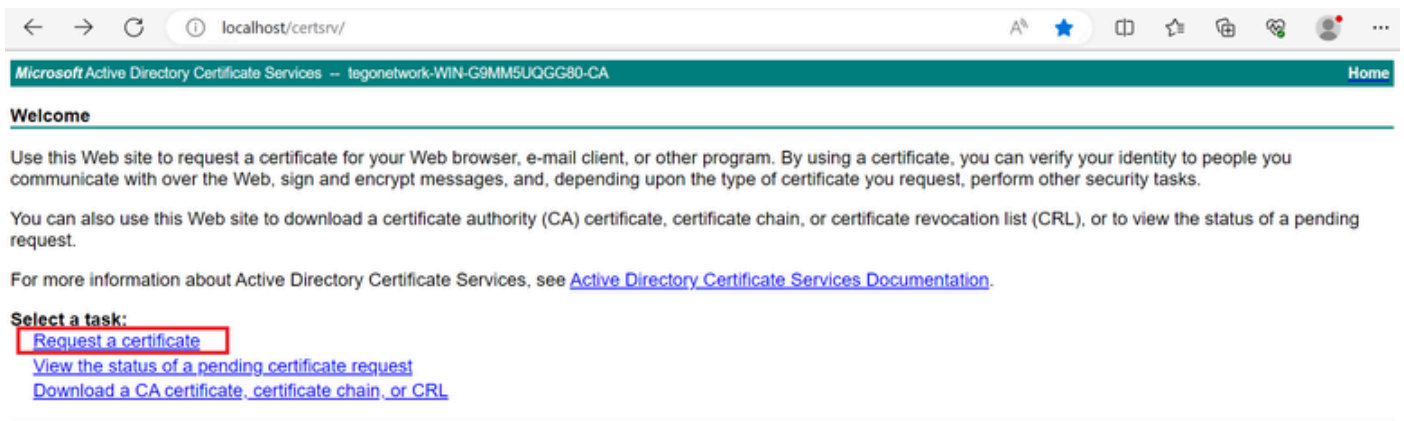


註冊已完成。

從Windows CA建立證書。

如果您是憑證授權單位的管理員，您必須執行下列作業：

1. 打開Web瀏覽器並導航至<http://localhost/certsrv/>
2. 按一下Request a certificate。



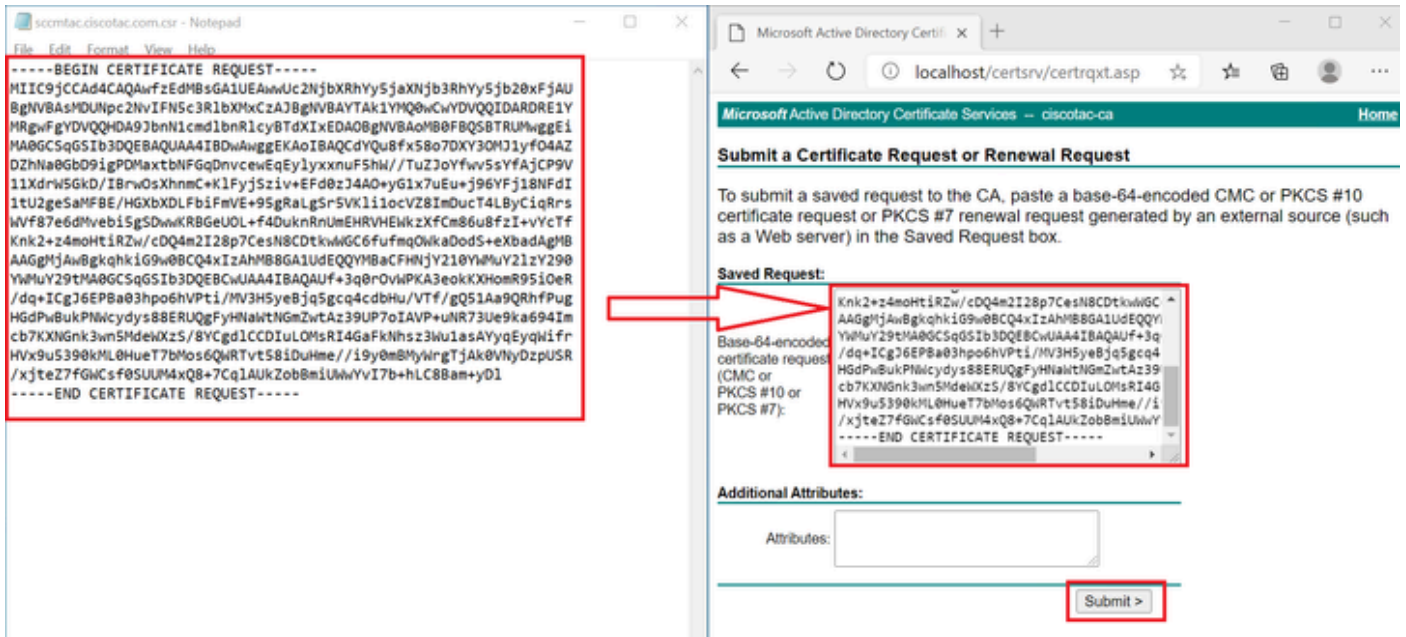
要求憑證。

3. 按一下「advanced certificate request」。



進階憑證要求。

4. 打開之前生成的CSR。 然後複製資訊並貼上到Saved request上。



提交證書。

按一下Submit後，將自動下載證書。

5. 現在下載CA證書根目錄。導航回<http://localhost/certsrv/>並選擇下載CA證書、證書鏈或CRL。

Welcome

Use this Web site to request a certificate for your Web browser, e-mail client, or other program. By using a certificate, you can verify your identity to people you communicate with over the Web, sign and encrypt messages, and, depending upon the type of certificate you request, perform other security tasks.

You can also use this Web site to download a certificate authority (CA) certificate, certificate chain, or certificate revocation list (CRL), or to view the status of a pending request.

For more information about Active Directory Certificate Services, see [Active Directory Certificate Services Documentation](#).

Select a task:

[Request a certificate](#)

[View the status of a pending certificate request](#)

[Download a CA certificate, certificate chain, or CRL](#)

下載根CA。

6. 使用Base64編碼方法下載CA證書。

Download a CA Certificate, Certificate Chain, or CRL

To trust certificates issued from this certification authority, install this CA certificate chain.

To download a CA certificate, certificate chain, or CRL, select the certificate and encoding method.

CA certificate:

Current [ciscotac-ca]

Encoding method:

DER
 Base 64

[Download CA certificate](#)

[Download CA certificate chain](#)

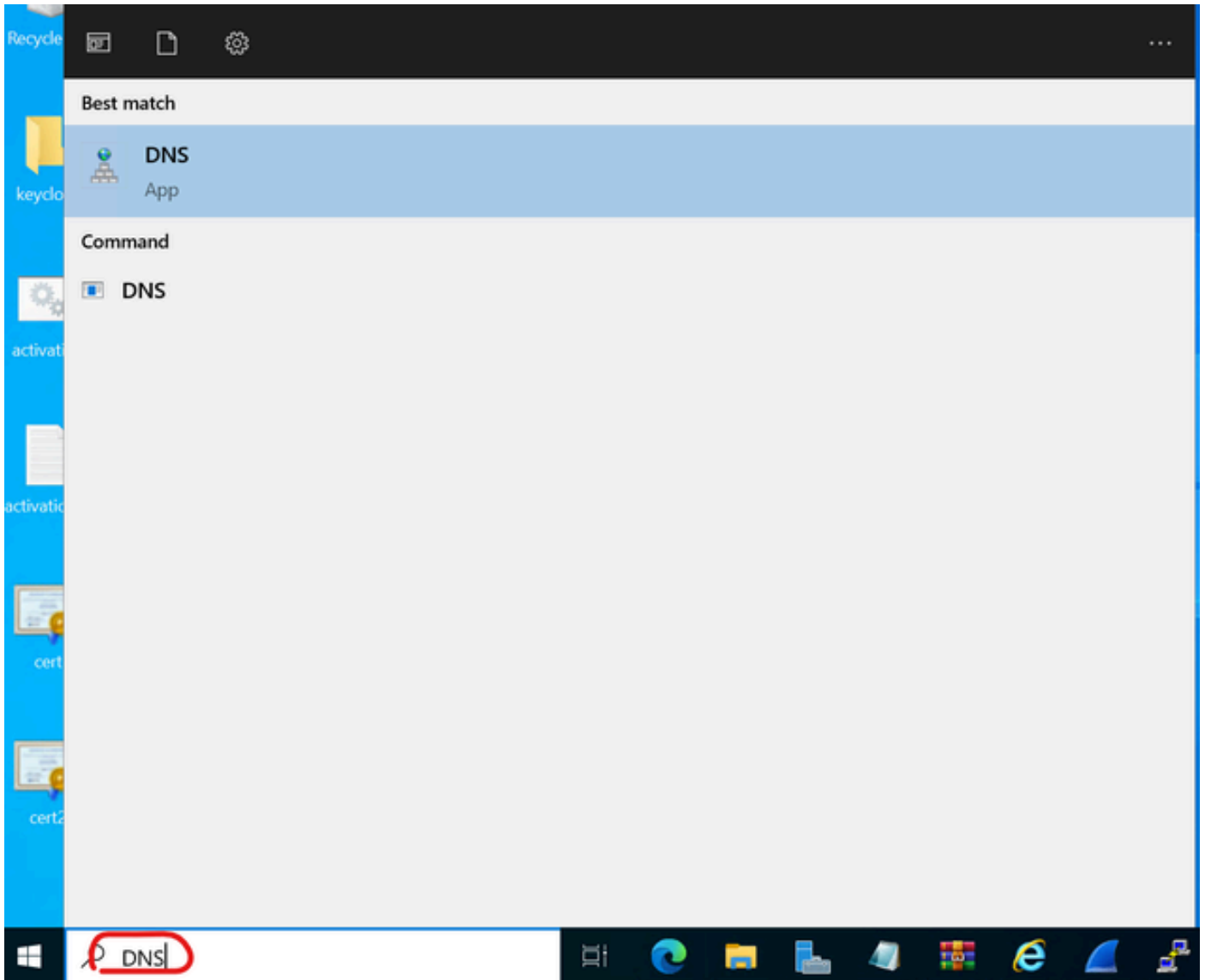
[Download latest base CRL](#)

基本型64選項。

在Windows Server上增加DNS記錄。

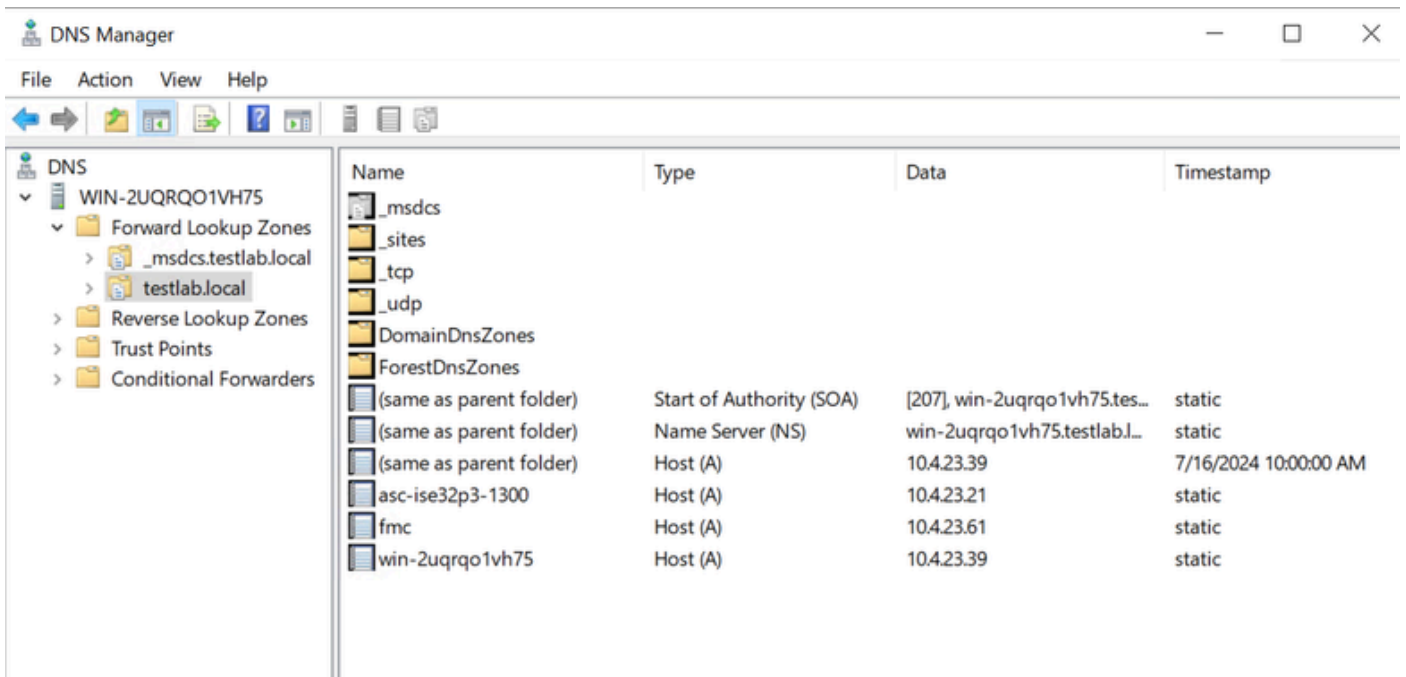
如果您是管理員，請增加ISE和CSSM FQDN。

1. 打開DNS管理器：在Windows查詢器中鍵入「DNS」，然後打開DNS應用。



DNS選項。

2. 導航到正向查詢區域>並選擇您的域。



DNS管理員。

3. 按一下右鍵螢幕上的黑色空白並選擇「New Host (A or AAAA)」

Update Server Data File

Reload

New Host (A or AAAA)...

New Alias (CNAME)...

New Mail Exchanger (MX)...

New Domain...

New Delegation...

Other New Records...

DNSSEC



All Tasks



Refresh

Export List...

View



Arrange Icons



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）。