

SSM On-Prem op ESXI implementeren en Catalyst 9000-Switches registreren

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Inleiding

In dit document wordt beschreven hoe SSM On-Prem op ESXI kan worden geïmplementeerd en hoe Switches uit de Catalyst 9000-reeks kunnen worden geregistreerd.

Voorwaarden

Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- Basisconfiguratie van VMware ESXi.
- Smart Licensing met behulp van beleid voor Cisco Catalyst 9000 Series-Switches.
- Kennis van Smart Software Manager On-Prem.

Gebruikte componenten

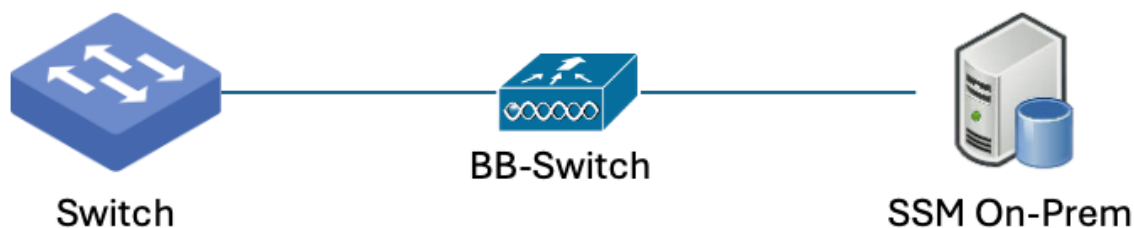
De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- C9200
- C9300
- C9400
- C9500
- C9600
- Cisco IOS® XE & 17.X-software

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

Configureren

Netwerkdigram

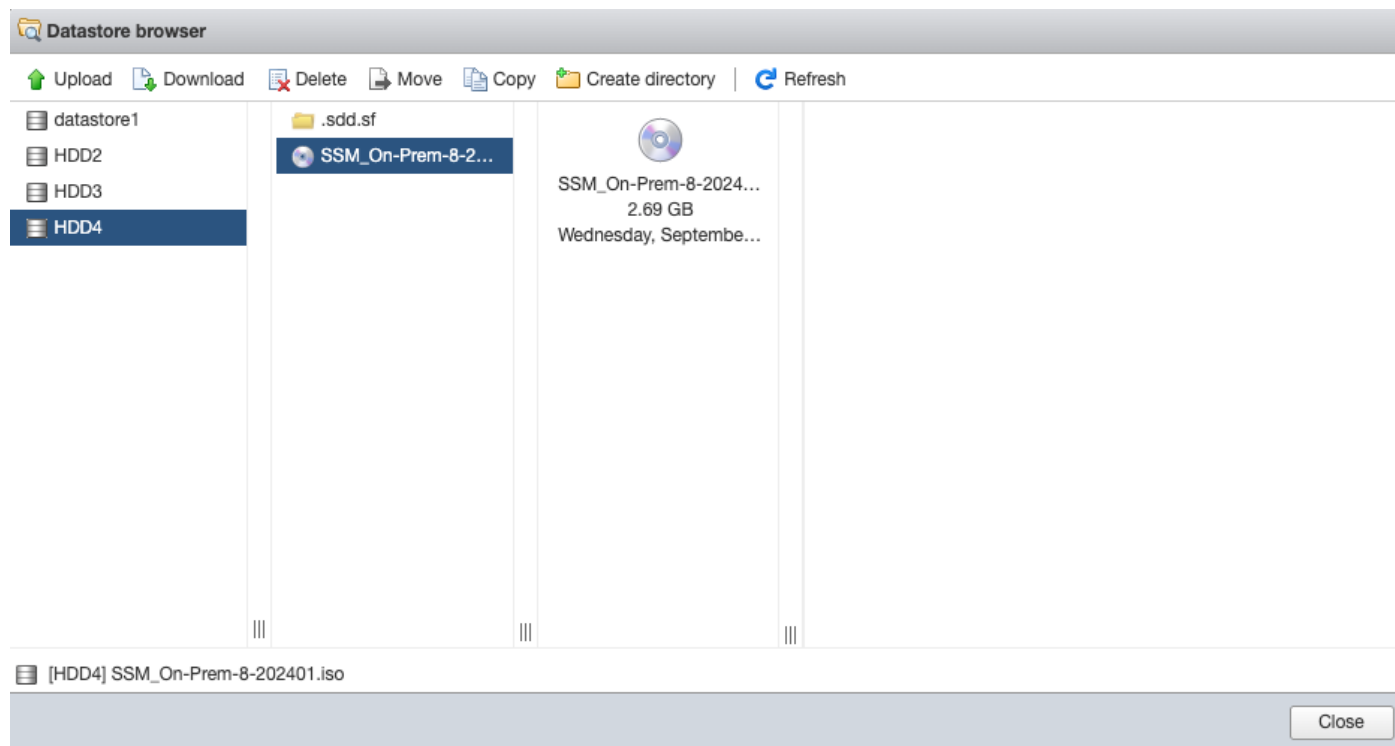


Configuraties

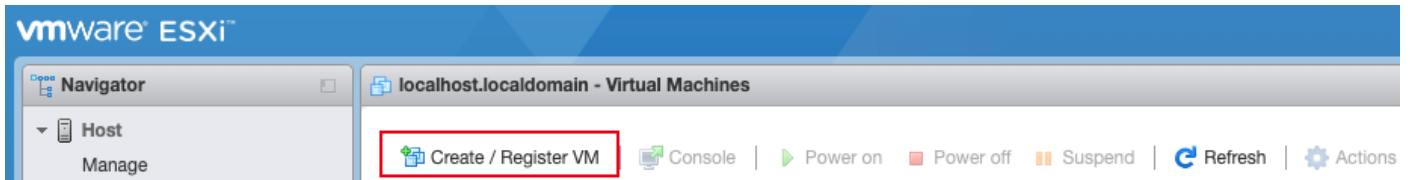
SSM On-Prem implementeren op ESXI

1. Download de ISO-afbeelding van CCO en upload deze naar de ESXi-datastore.

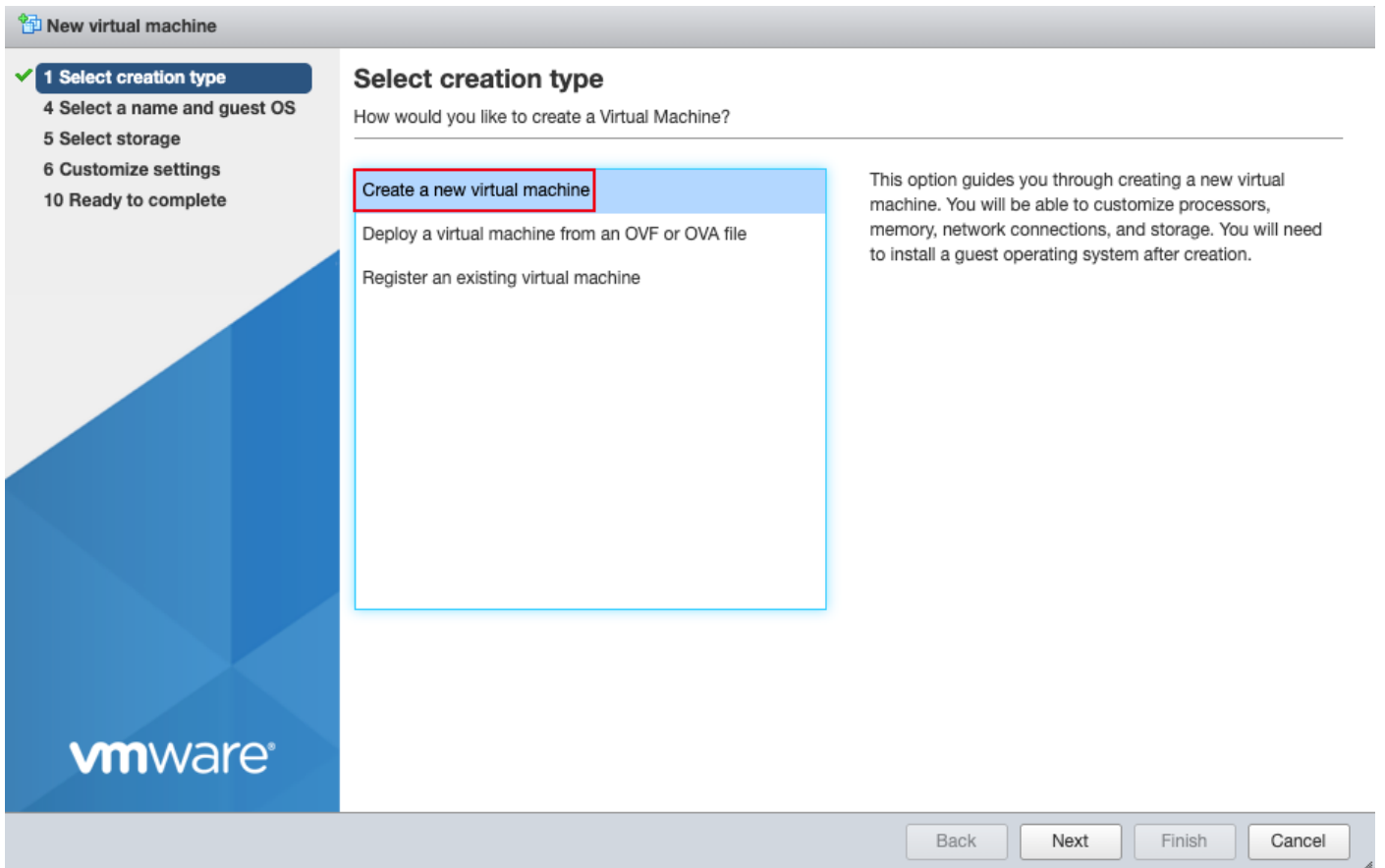
Image Link: [Smart Software Manager On-Prem - 8-202401](#)



2. Klik op VM maken/registreren in de linkerbovenhoek van ESXI om een virtuele machine te maken.



3. Selecteer op de pagina Selecteer het aanmaaktype de optie Een nieuwe virtuele machine maken en klik op Volgende om door te gaan naar de volgende stap.



4. Selecteer een VM-naam en gastbesturingssysteem, zorg ervoor dat het besturingssysteem is ingesteld op Linux en het gastbesturingssysteem is ingesteld op CentOS 7 64-bits of Linux Other 64-bits.

New virtual machine - DEMO-SSM-ON-PREM (ESXi 6.5 virtual machine)

1 Select creation type

4 Select a name and guest OS

5 Select storage

6 Customize settings

10 Ready to complete

Select a name and guest OS

Specify a unique name and OS

Name

DEMO-SSM-ON-PREM

Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Compatibility

Guest OS family

Guest OS version

ESXi 6.5 virtual machine

Linux

Other Linux (64-bit)

Back Next Finish Cancel

5. Selecteer opslag voor On-Prem-implementatie. Zorg ervoor dat er voldoende ruimte is.

New virtual machine - DEMO-SSM-ON-PREM (ESXi 6.5 virtual machine)

1 Select creation type

4 Select a name and guest OS

5 Select storage

6 Customize settings

10 Ready to complete

Select storage

Select the datastore in which to store the configuration and disk files.

The following datastores are accessible from the destination resource that you selected. Select the destination datastore for the virtual machine configuration files and all of the virtual disks.

Name	Capacity	Free	Type	Thin pro...	Access
datastore1	922.75 GB	918.34 GB	VMFS5	Supported	Single
HDD2	930.25 GB	67.65 GB	VMFS6	Supported	Single
HDD3	930.25 GB	284.38 GB	VMFS6	Supported	Single
HDD4	930.25 GB	928.83 GB	VMFS6	Supported	Single

4 items

Back Next Finish Cancel

6. Als u de hardware en aanvullende opties voor de virtuele machine configureert, moet de

configuratie van de virtuele machine voldoen aan de configuratievereisten zoals vermeld in de tabel.

	Small	Medium	Large	Maximum
Products	4000	50,000	100,000	300,000
Hard Disk	200 Gig	200 Gig	200 Gig	200 Gig
Memory	8 Gigabyte	8 Gigabyte	16 Gigabyte	16 Gigabyte
vCPU	2 vCPU	4 vCPU	6 vCPU	8 vCPU

New virtual machine - DEMO-SSM-ON-PREM (ESXi 6.5 virtual machine)

- 1 Select creation type
- 4 Select a name and guest OS
- 5 Select storage
- 6 Customize settings**
- 10 Ready to complete

Customize settings

Configure the virtual machine hardware and virtual machine additional options

Virtual Hardware VM Options

Add hard disk
 Add network adapter
 Add other device

CPU	4		
Memory	8	GB	
Hard disk 1	200	GB	
SCSI Controller 0	LSI Logic Parallel		
USB controller 1	USB 2.0		
Network Adapter 1	VM Network		☒ Connect
CD/DVD Drive 1	Datastore ISO file		
Status	☒ Connect at power on		
CD/DVD Media	[HDD4] SSM_On-Prem-8-202401.iso		Browse...
Virtual Device Node	IDE controller 0	Master	
Video Card	Specify custom settings		

Back Next Finish Cancel

7. Controleer de selectie van de instellingen voordat u de wizard voltooit. Klik na bevestiging op de knop Voltooien om de implementatie van de virtuele machine te voltooien.

New virtual machine - DEMO-SSM-ON-PREM (ESXi 6.5 virtual machine)

✓ 1 Select creation type
 ✓ 4 Select a name and guest OS
 ✓ 5 Select storage
 ✓ 6 Customize settings
 ✓ 10 Ready to complete

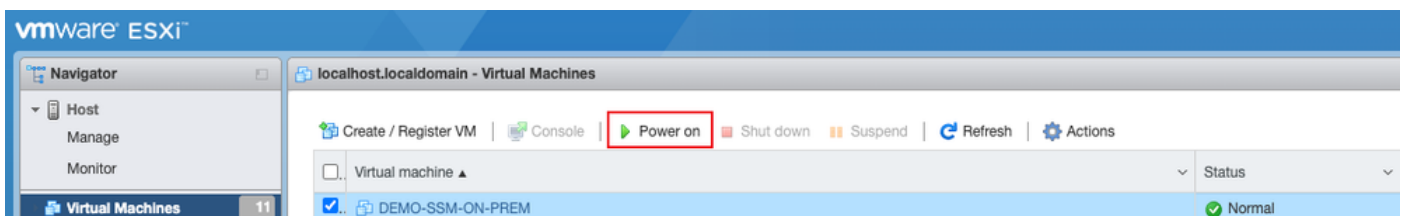
Ready to complete

Review your settings selection before finishing the wizard

Name	DEMO-SSM-ON-PREM
Datastore	HDD4
Guest OS name	Other Linux (64-bit)
Compatibility	ESXi 6.5 virtual machine
vCPUs	4
Memory	8 GB
Network adapters	1
Network adapter 1 network	VM Network
Network adapter 1 type	E1000
IDE controller 0	IDE 0
IDE controller 1	IDE 1
SCSI controller 0	LSI Logic Parallel
Hard disk 1	
Capacity	200GB
Datastore	[HDD4] DEMO-SSM-ON-PREM/
Mode	Dependent
Provisioning	Thick provisioned, lazily zeroed
Controller	SCSI controller 0 : 0
CD/DVD drive 1	
Backing	[HDD4] SSM_On-Prem-8-202401.iso
Connected	Yes
USB controller 1	USB 2.0

Back Next Finish Cancel

8. Schakel vervolgens de nieuw geïmplementeerde virtuele machine in om het installatieproces te starten. Zoek de VM die u zojuist hebt gemaakt in Virtuele machines in ESXI, selecteer deze en klik op Power On hierboven.



9. Open console voor VM en kies Install Cisco SM On-Prem. Deze status blijft ongeveer 1 minuut staan en gaat vervolgens naar de pagina Basisinstellingen.

Cisco Smart Software Manager On-Prem

Install Cisco SSM On-Prem

Test this media & install Cisco SSM On-Prem

Troubleshooting



Press Tab for full configuration options on menu items.

Automatic boot in 44 seconds...

```
DEMO-SSM-ON-PREM Actions X
```

```
- Press the <ENTER> key to begin the installation process.
```

```
[ 8.404971] dracut-pre-udev[342]: modprobe: ERROR: could not insert 'floppy':  
No such device  
[ OK ] Started Device-Mapper Multipath Device Controller.  
Starting Open-iSCSI...  
[ OK ] Started Show Plymouth Boot Screen.  
[ OK ] Reached target Paths.  
[ OK ] Reached target Basic System.  
[ OK ] Started Open-iSCSI.  
Starting dracut initqueue hook...  
[ 9.693637] sd 2:0:0:0: [sda] Assuming drive cache: write through  
[ 12.293693] dracut-initqueue[693]: mount: /dev/sr0 is write-protected, mounting read-only  
[ OK ] Started Device-Mapper Multipath Device Controller.  
Starting Open-iSCSI...  
[ OK ] Started Show Plymouth Boot Screen.  
[ OK ] Reached target Paths.  
[ OK ] Reached target Basic System.  
[ OK ] Started Open-iSCSI.  
Starting dracut initqueue hook...  
[ 12.293693] dracut-initqueue[693]: mount: /dev/sr0 is write-protected, mounting read-only  
[ OK ] Created slice system-checkisomd5.slice.  
Starting Media check on /dev/sr0...  
/dev/sr0: 291881cc07d4c6c648635e41e57a0dc5  
Fragment sums: 11fef97cf5478a6814e7cbb2aeb8d8c5cf9cc145d61362bd82d24826b23d  
Fragment count: 20  
Press [Esc] to abort check.  
Checking: 013.3%_
```

10. Op deze pagina moet u enkele SSM On-Prem-configuraties invullen, zoals hostnaam, ip, dns enzovoort.

DEMO-SSM-ON-PREM Cisco SSM On-Prem Installation

System Settings:

Hostname: **SSM-On-Prem**

Message Of The Day: UNCLASSIFIED Security Profile: Standard FIPS 140-2 Mode: Enable

Hardware Settings:

CPU Model: Intel(R) Xeon(R) CPU E5-2640 0 @ 2.50GHz CPU Threads: 4 Architecture: 64-bit
Total System Memory: 8174688 kB Free Memory: 7414008 kB
Available Disks: ☒ sda (200Gb) Encrypt Drive with LUKS: Disabled Enable USB: Disabled

Network Settings:

Network Device: ens33

IPv4 Configuration

Method: Static

Address:

Netmask:

Gateway:

IPv6 Configuration

Method: Disabled

Address:

Prefix:

Gateway:

Configure DNS: Specify more than one with commas

Help OK

11. Nadat u op OK hebt geklikt, wordt u gevraagd een wachtwoord in te stellen. De wachtwoorden die u twee keer invoert, moeten hetzelfde zijn. Dit wachtwoord wordt gebruikt om later in te loggen op de CLI.

DEMO-SSM-ON-PREM Cisco SSM On-Prem Installation

System Settings:

Hostname: SSM-On-Prem

Message Of The Day: UNCLASSIFIED Security Profile: Standard FIPS 140-2 Mode: Enablec

Hardware Settings:

CPU Model: Intel(R) Xeon(R) CPU E5-2640 0 @ 2.50GHz CPU Threads: 4 Architecture: 64-bit
Total System Memory: 8174688 kB Free Memory: 7414008 kB

Available Disks: ☒ sda (200Gb) Encrypt Drive with LUKS: Disabled Enable USB: Disabled

Network Settings:

Network Device: ens33

IPv4 Configuration

Method: Static

Address: 192.168.1.1

Netmask: 255.255.255.0 Prefix:

Gateway: 192.168.1.254 Gateway:

Configure System Password

Password: configuration

Verify Password:

Cancel OK

Configure DNS: Specify more than one with commas

192.168.1.253

Help OK

12. Vervolgens wordt SSM On-Prem verder geïnstalleerd. Het hele proces duurt ongeveer 30 minuten. Na voltooiing wordt de VM automatisch gestart. SSM On-Prem blijft vervolgens installeren.

```
DEMO-SSM-ON-PREM
Starting automated install.....
Checking software selection
Generating updated storage configuration
Checking storage configuration...

=====
Installation

1) [x] Language settings                2) [x] Time settings
   (English (United States))           (Etc/UTC timezone)
3) [x] Installation source              4) [x] Software selection
   (Local media)                       (Custom software selected)
5) [x] Installation Destination         6) [x] Kdump
   (Custom partitioning selected)       (Kdump is enabled)
7) [x] Network configuration
   (Wired (ens32) connected)

=====
Progress
Setting up the installation environment
.
Creating disklabel on /dev/sda
.
Creating xfs on /dev/sda1
.
Creating lvm pv on /dev/sda2
.
Creating xfs on /dev/mapper/vg1-lv_home
.
Creating xfs on /dev/mapper/vg1-lv_audit
.
Creating xfs on /dev/mapper/vg1-lv_log
.
Creating xfs on /dev/mapper/vg1-lv_var
.
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log  Switch tab: Alt+Tab | Help: F1
```

13. Nadat de herstart is voltooid, kunt u zich aanmelden bij de CLI om te controleren. De gebruikersnaam is admin en het wachtwoord is het wachtwoord dat u zojuist hebt ingesteld.

```
SSM-On-Prem login:

#####
#                               Authorized access only?                               #
#                               #                                                       #
# Disconnect IMMEDIATELY if you are not an authorized user!!!                       #
# All actions Will be monitored and recorded                                         #
#####

SSM-On-Prem login: admin
Password:
Last login: Tue Sep  2 06:24:16 UTC 2025 on tty1
Last login: Tue Sep  2 06:48:51 on tty1
admin@SSM-On-Prem ~1$
```

14. Nadat de installatie is voltooid, kunt u uw browser gebruiken om in te loggen op <https://x.x.x.x:8443> en door te gaan naar de volgende stap. Wanneer het aanmeldingsscherm wordt weergegeven, logt u in met deze aanmeldingsreferenties - admin/CiscoAdmin!2345, Dit is

het eerste wachtwoord voor de eerste aanmelding bij On-Prem.



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.

15. Nadat u op Inloggen hebt geklikt, gaat de On-Prem-implementatie de volgende fase in, te beginnen met Systeeltaalselectie.

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

Please select your preferred system wide language from the list of supported languages here. Your language selection may be changed latter in the Settings widget under the Language tab.

After you select and save a language, refresh the screen by navigating to another screen and then return to your original screen. The screen will now open in your selected language.

Select the default language

English

Next

16. Op de pagina Temporary Password Reset wordt met deze stap het GUI-wachtwoord opnieuw ingesteld.

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

The one-time temporary password has been provided to allow for initial access to Cisco SSM On-Prem installation. For your security, the temporary password may only be used once, and must now be changed in order to continue the configuration procedure.

The new password may not be the same as the default, and must be at least 15 characters. It should include at least 1 uppercase letter, 1 lowercase letter, and 1 number. Passwords are case-sensitive. It may include symbols, but not these: = ? < > () ' * / \ &. When all requirements are met, you will be able to change the password. Securely store the password as it will be needed each time the admin user logs in.

Once you have successfully changed the temporary password, you will be directed back the Login Screen.

Password *

Reenter Password *

Back

Next

17. Stel vervolgens de gemeenschappelijke hostnaam in.

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 "10.124.38.112" value in the URL string.
- Legacy products using Smart Call Home must use both the "destination address http" configuration and the "10.124.38.112" 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

10.124.38.112

Back

Next

18. Controleer ten slotte de zojuist gemaakte configuratie op de pagina Controleren en bevestigen.

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
-------------------------------------	------------------------------------	----------------------------	------------------------------

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: 10.124.38.112

Back

Apply

19. Zodra u op de knop Toepassen klikt, springt de pagina. Log in met uw nieuwe wachtwoord. De installatie van SSM On-Prem is nu voltooid.

Log into an Existing Account

User Name
admin

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.

Catalyst 9000 serie Switches registreren

1. Klik op Admin Workspace in de rechterbovenhoek om de On-Prem Admin Workspace te openen.

On-Prem License Workspace

Smart Software Manager On-Prem

[Smart Licensing](#)
Track and manage Smart Licensing

 License

 CISCO

[Admin Workspace](#)  Hello, Local Admin

 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.

2. Klik links op Accounts, maak een account aan en activeer het, zorg ervoor dat de accountstatus Actief is. Voor informatie over het maken van een nieuw lokaal account en het opnieuw registreren van een account, raadpleegt u de pagina's 77 tot en met 82 van de [Cisco Smart Software Manager On-Prem User Guide](#).

On-Prem Admin Workspace

Smart Software Manager On-Prem

Access Management Users

Accounts

Account Account Requests Event Log

New Account Search by Account Name

Accounts

Account Account Requests Event Log

New Account Search by Account Name

Showing All 1 Records

Account	Requested By	Cisco Smart Account	Cisco Virtual Account	Account Status	Actions
		Cisco Systems,...		Active	Actions

Showing All 1 Records

3. Zorgen voor de bereikbaarheid van het netwerk voor communicatie via productinitiatie.

```
#conf t
(config)#ip http server
(config)#ip http secure-server
(config)#ip http secure-trustpoint SLA-TrustPoint
(config)#ip http client source-interface g x/x/x
(config)#ip name-server x.x.x.x
(config)#ip domain lookup source-interface g x/x/x
(config)#ip domain name xxx

(config)#crypto pki trustpoint SLA-TrustPoint
(ca-trustpoint)#enrollment terminal
(ca-trustpoint)#revocation-check none

(config)#exit
#copy running-config startup-config
```

4. Haal de URL Transport op uit Smart Software Manager On-Prem > Smart Licensing > Inventory

> General.



Wanneer u op de URL CSLU Transport klikt, retourneert On-Prem deze URL voor productregistratie.

Product Registration URL



https://10.1.1.1/cslu/v1/pi/xxxxx%xxxx-x

Press ctrl + c to copy selected text to clipboard.

5. Het transporttype instellen, URL op Catalyst switch.

```
#conf t
(config)#license smart transport cslu
(config)#license smart url cslu https://x.x.x.x/cslu/v1/pi/xxxxx%xxxx-x
(config)#exit
#copy running-config startup-config
```

6. Synchroniseer de productinstantie met SSM On-Prem, de switch initieert actief synchronisatie met SSM On-Prem.

```
#license smart sync all
```

7. Controleer de productinstanties voor SSM On-Prem. De informatie over de switch kan worden waargenomen, wat betekent dat de switch met succes is gesynchroniseerd met SSM On-Prem.

Smart Licensing

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

Local Virtual Account: Default

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

Name	Product Type	Last Contact	Alerts	Actions
C9300-48UXM	C9300	2025-Sep-02 07:17:32	Sync request from product instance	Actions

8. Synchroniseer vervolgens de gebruiksinformatie op de SSM On-Prem met de Cisco SSM (CSSM) in Smart Software Manager On-Prem > Smart Licensing > Reports > Usage Schedules.

On-Prem License Workspace



Smart Licensing

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

Reports

Reports | **Usage Schedules**

Synchronization schedule with Cisco | Synchronization pull schedule with the devices

Synchronization schedule with Cisco

Schedule synchronization for specified times

Synchronize now with Cisco

Frequency: 1
Days: 1
Time Of Day: 1 Hour 1 Minutes
Save Reset

9. Meld u aan bij [Smart Software Manager](#) en controleer of de synchronisatie met SSM On-Prem succesvol is.

Smart Software Licensing

SL Product Details | Support | Help

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

Virtual Account: ▼

2 Major | Hide Alerts

On-Prem Virtual Account ()

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

Name	Product Type	Managed By	Install Site ID	Last Contact	Alerts	Actions
C9300-48UXM ⓘ	C9300	-	-	2025-Sep-02 07:33:54		

Gerelateerde informatie

- [Gebruikershandleiding Cisco Smart Software Manager On-Prem](#)

- [Installatiehandleiding voor on-premise Cisco Smart Software Manager Quick Start](#)
- [Slim licentiebeleid voor Switches uit de Cisco Catalyst 9000-reeks](#)

Over deze vertaling

Cisco heeft dit document vertaald via een combinatie van machine- en menselijke technologie om onze gebruikers wereldwijd ondersteuningscontent te bieden in hun eigen taal. Houd er rekening mee dat zelfs de beste machinevertaling niet net zo nauwkeurig is als die van een professionele vertaler. Cisco Systems, Inc. is niet aansprakelijk voor de nauwkeurigheid van deze vertalingen en raadt aan altijd het oorspronkelijke Engelstalige document ([link](#)) te raadplegen.