

# 在ESXI上本地部署SSM并注册Catalyst 9000交换机

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## 简介

本文档介绍如何在ESXI上部署SSM内部版本并注册Catalyst 9000系列交换机。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

- VMware ESXi的基本配置。
- Cisco Catalyst 9000系列交换机的智能许可使用策略。
- 熟悉内置智能软件管理器。

### 使用的组件

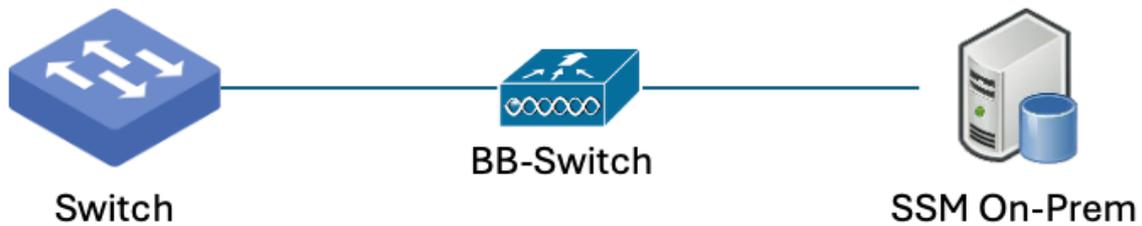
本文档中的信息基于以下软件和硬件版本：

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

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

### 网络图

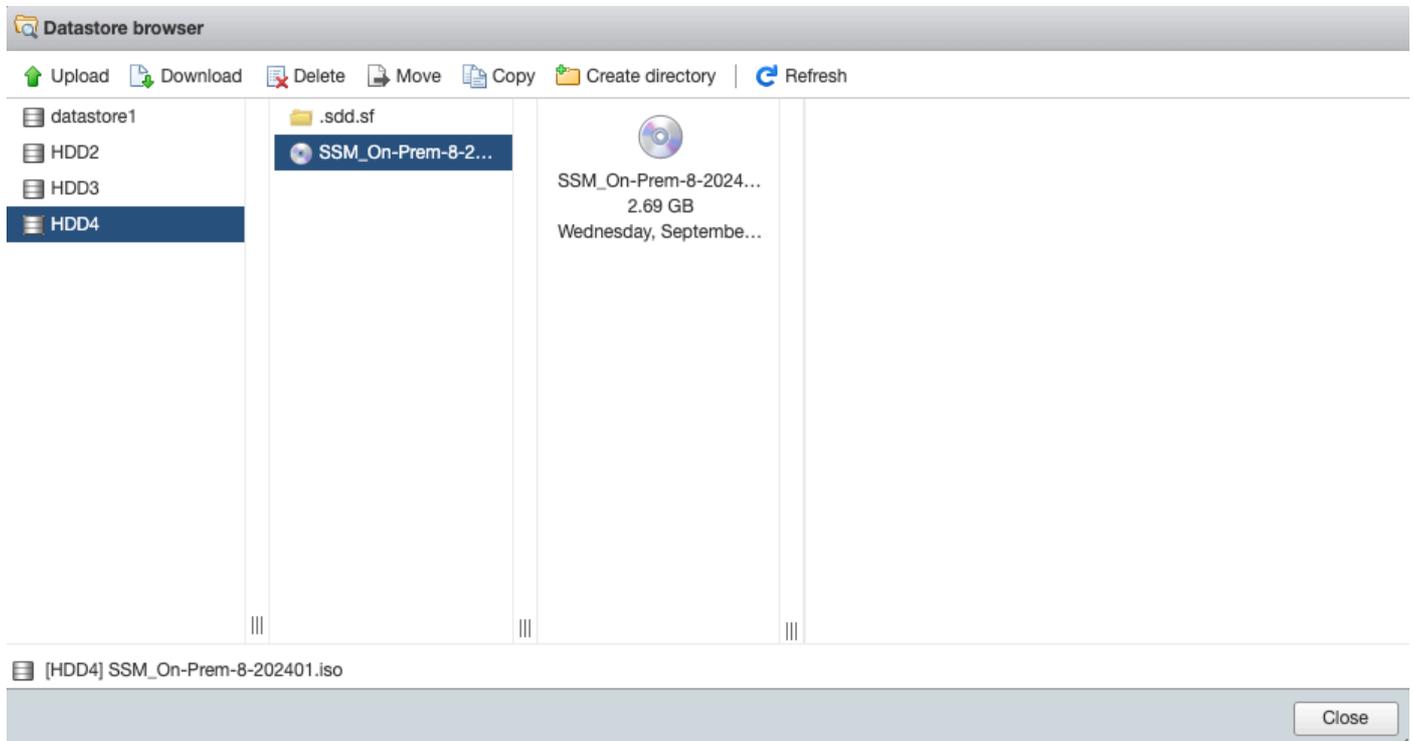


## 配置

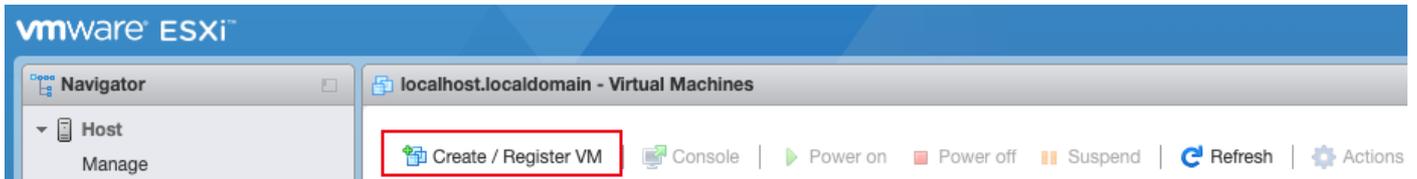
在ESXI上本地部署SSM

1.从CCO下载ISO映像，并将其上传到ESXi数据存储。

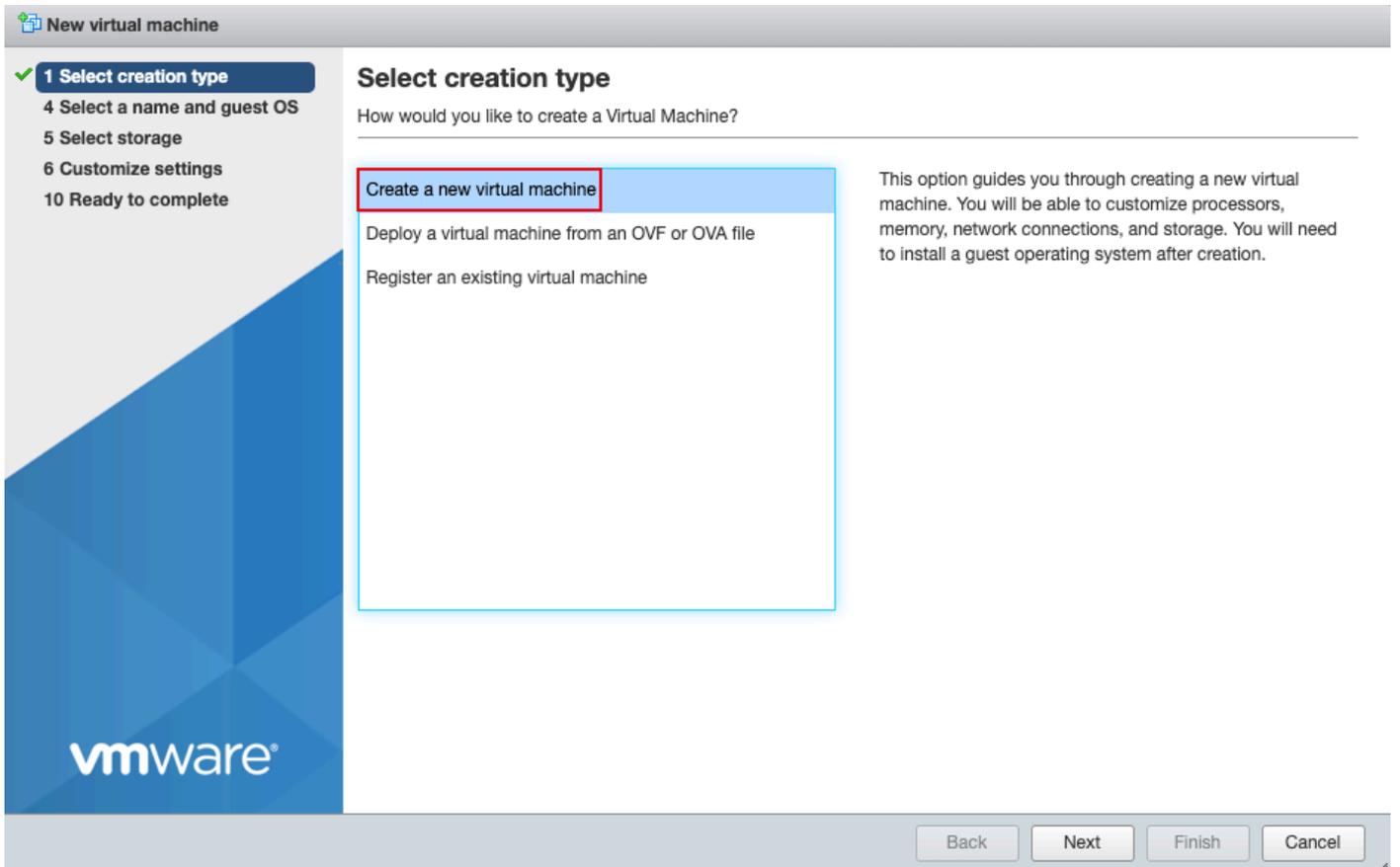
图像链接：[内部智能软件管理器 — 8-202401](#)



2.单击ESXI左上角的创建/注册VM以创建虚拟机。



3. 在选择创建类型页上，选择创建新虚拟机，然后单击下一步继续下一步。



4. 选择VM名称和访客操作系统，确保操作系统类型设置为Linux，并且访客操作系统设置为CentOS 7 64位或Linux Other 64位。

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

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:

Back Next Finish Cancel

5.选择存储进行内部部署。请确保有足够的空间。

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.配置虚拟机硬件和虚拟机其他选项，虚拟机的配置必须满足表中列出的这些配置要求。

|           | 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

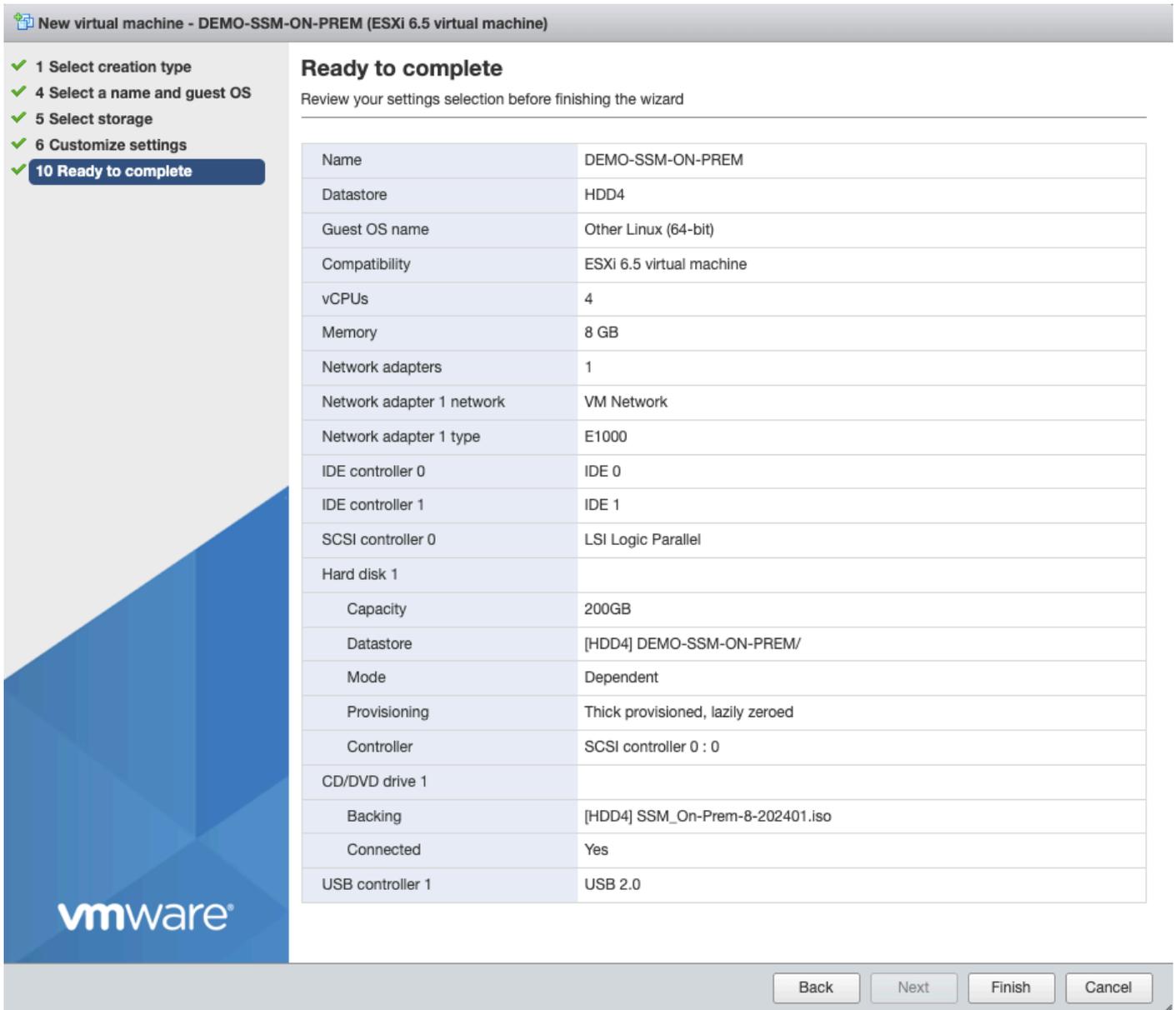
Configure the virtual machine hardware and virtual machine additional options

Virtual Hardware | VM Options

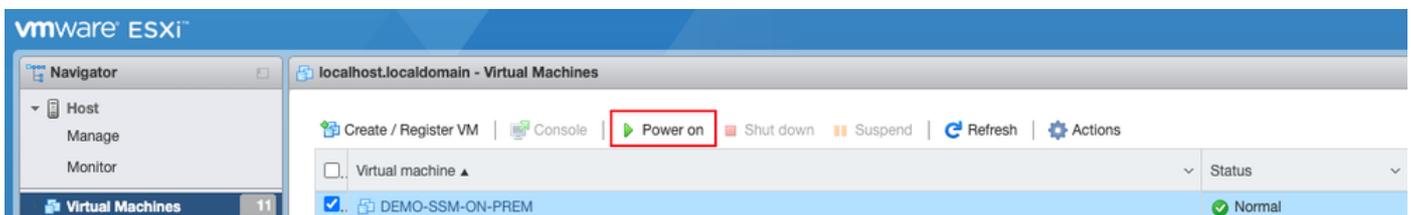
|                     |   |        |   |
|---------------------|---|--------|---|
| CPU                 | 4   |        |   |
| Memory              | 8   | GB     |   |
| Hard disk 1         | 200   | GB     |   |
| SCSI Controller 0   | LSI Logic Parallel                                      |      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

vmware

7.完成向导之前，请查看您的设置选择。确认后，单击Finish按钮完成虚拟机的部署。



8.接下来，请打开新部署的虚拟机以开始安装过程。找到您在ESXI中的虚拟机中刚刚创建的VM，选择它，然后单击打开上面的电源。



9.打开VM的控制台，然后选择Install Cisco SSm On-Prem。此状态保持约1分钟，然后进入基本设置页面。

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: [sdal] 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.在此页上，您需要填写一些SSM内部配置，例如hostname、ip、dns等。

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

### System Settings:

Hostname:

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

### 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:  Enable USB:

### Network Settings:

Network Device:

#### IPv4 Configuration

Method:

Address:

Netmask:

Gateway:

#### IPv6 Configuration

Method:

Address:

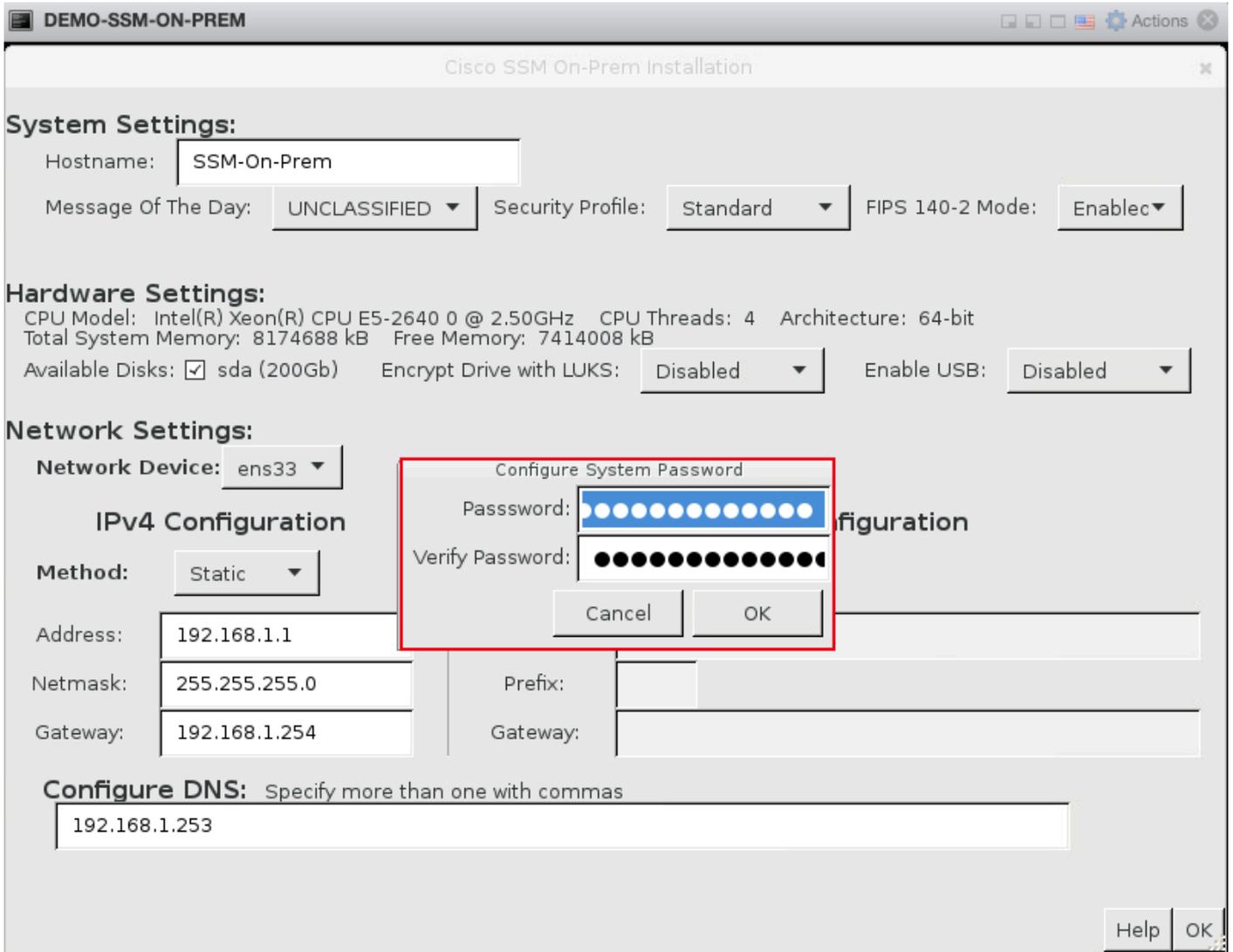
Prefix:

Gateway:

**Configure DNS:** Specify more than one with commas

Help OK

11.单击“确定”后，系统将要求您设置密码。您输入两次的密码必须相同。此密码稍后用于登录CLI。



12.然后，继续安装SSM On-Prem。整个过程大约需要30分钟。完成后，VM将自动启动。然后，SSM内部版本继续安装。

```
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 lvmPV 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.重新启动完成后，您可以登录到CLI进行验证。用户名是admin，密码是您刚设置的密码。

```
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 06:40:51 on tty1
admin@SSM-On-Prem ~1$
```

14.安装完成后，您可以使用浏览器登录https://x.x.x.x:8443，然后继续下一步。当登录屏幕显示时，请使用以下凭证登录 — admin/CiscoAdmin!2345，这是首次登录内部服务器的初始密码。

## 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.单击登录后，内部部署进入下一阶段，从系统语言选择开始。

## Welcome to Cisco Smart Software Manager On-Prem

|  |                                    |                            |                              |
|--|------------------------------------|----------------------------|------------------------------|
| <b>STEP 1</b><br>System Language Selection | STEP 2<br>Temporary Password Reset | STEP 3<br>Host Common Name | STEP 4<br>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.在Temporary Password Reset页面上，此步骤重置GUI密码。

## Welcome to Cisco Smart Software Manager On-Prem

|                                     |   |                            |                              |
|-------------------------------------|---|----------------------------|------------------------------|
| STEP 1<br>System Language Selection | STEP 2<br><b>Temporary Password Reset</b> | STEP 3<br>Host Common Name | STEP 4<br>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.接下来，请设置主机公用名。

## Welcome to Cisco Smart Software Manager On-Prem

|                                     |                                    |                                   |                              |
|-------------------------------------|------------------------------------|-----------------------------------|------------------------------|
| STEP 1<br>System Language Selection | STEP 2<br>Temporary Password Reset | STEP 3<br><b>Host Common Name</b> | STEP 4<br>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.最后，在“审核和确认”页面，请查看刚做的配置。

# 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.单击Apply按钮后，页面将跳转。请使用新密码登录。SSM内部安装现已完成。

## 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.

## 注册Catalyst 9000系列交换机

1.点击右上角的Admin Workspace，进入本地管理工作区。

On-Prem License Workspace |  | [Admin Workspace](#) Hello, Local Admin

Smart Software Manager On-Prem

 License

[Smart Licenses](#)  
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.

2.单击左侧的Accounts，创建一个帐户并激活它，请确保帐户状态为Active。有关如何创建新本地

帐户和重新注册帐户的信息，请参阅《[Cisco Smart Software Manager On-Prem User Guide](#)》第77页至82页。

## On-Prem Admin Workspace

### Smart Software Manager On-Prem

The screenshot displays the 'Accounts' page in the On-Prem Admin Workspace. The page has a blue header with the title 'Accounts' and a close button. Below the header are three tabs: 'Account', 'Account Requests', and 'Event Log'. The 'Account' tab is selected. On the left side, there are three icons: 'Access Management', 'Users', and 'Accounts'. The 'Accounts' icon is highlighted with a red box. Below the icons, there is a 'New Account' button and a search bar labeled 'Search by Account Name'. The main content area shows a table with the following columns: 'Account', 'Requested By', 'Cisco Smart Account', 'Cisco Virtual Account', 'Account Status', and 'Actions'. The 'Account Status' column is highlighted with a red box, and the value 'Active' is visible. The table also shows 'Showing All 1 Records' at the bottom right.

3.确保产品实例启动通信的网络可达性。

```
#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.从智能软件管理器本地>智能许可>资产>常规检索传输URL。



点击CSLU Transport URL后，On-Prem将返回此产品注册URL。

## Product Registration URL



https://192.168.1.1/cslu/v1/pi/xxxxx%xxxx-x

*Press ctrl + c to copy selected text to clipboard.*

5.在Catalyst交换机上设置传输类型、URL。

```
#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.将产品实例与SSM内部版本同步，交换机主动启动与SSM内部版本的同步。

```
#license smart sync all
```

7.检查SSM On-Prem的产品实例，可以观察交换机信息，这意味着交换机已成功与SSM On-Prem同步。

## 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 |
|-------------|--------------|----------------------|------------------------------------|---------|
| C9300-48JXM | C9300        | 2025-Sep-02 07:17:32 | Sync request from product instance | Actions |

8. 接下来，在 Smart Software Manager On-Prem > Smart Licensing > Reports > Usage Schedules 中，将本地 SSM 的使用信息与思科 SSM (CSSM) 同步。

## 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: Hour: 1 Minutes: 1

Save Reset

9. 登录到 [智能软件管理器](#)，并检查与 SSM 本地同步是否成功。

## 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

Authorize License-Enforced Features...

Search by Device or by Product Type

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

## 相关信息

- [思科智能软件管理器内部用户指南](#)
- [Cisco Smart Software Manager On-Prem 快速入门安装指南](#)

- [Cisco Catalyst 9000系列交换机的智能许可使用策略](#)

## 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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