

使用数据导出和导入功能安装CUCM集群

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[配置](#)

[配置](#)

[将数据从源群集发布服务器导出到SFTP服务器](#)

[将数据从源群集订阅服务器导出到SFTP服务器](#)

[关闭源群集发布服务器](#)

[关闭源群集订阅服务器](#)

[使用导出的数据安装新的发布者](#)

[使用导出的数据安装新订户](#)

[验证](#)

[相关信息](#)

简介

本文档介绍使用数据导出和导入功能安装CUCM的过程。

先决条件

要求

Cisco建议您了解这些主题。

- CUCM
- IP电话

使用的组件

本文档中的信息是基于这些软件版本的。

- 源CUCM集群版本- 12.5.1.15900-66。
- 目标CUCM集群版本- 15.0.1.11900-23。

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

配置

数据导出在旧源CUCM集群上完成，数据导入在新目标集群上完成。源集群版本必须为10.5或更高版本。如果您的源集群版本不是版本12.5(1) SU5或更高版本，则必须在源系统的每个节点上安装最新版本的[ciscocm.DataExport](#) COP文件。

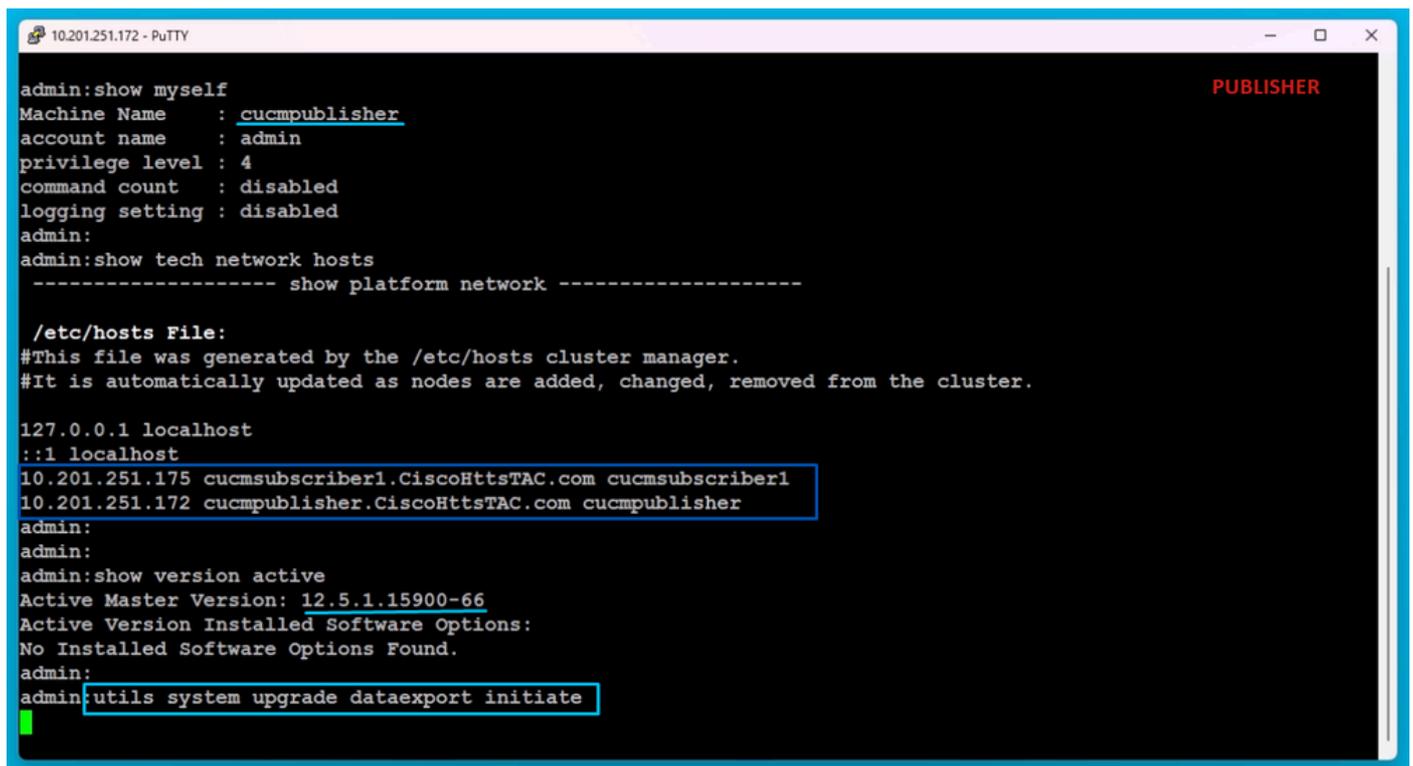
使用数据导出和导入功能安装CUCM的步骤：

- 将数据从源群集发布服务器导出到SFTP服务器。
- 将数据从源群集订阅服务器导出到SFTP服务器。
- 关闭源群集发布服务器。
- 关闭源群集订阅服务器。
- 使用导出的数据安装新的发布服务器。
- 使用导出的数据安装新订户。

将数据从源群集发布服务器导出到SFTP服务器

源集群版本为12.5.1.15900-66。

登录CUCM发布服务器的命令行界面并运行utils system upgrade dataexport initiate命令。



```
10.201.251.172 - PuTTY
admin:show myself
Machine Name      : cucmpublisher
account name     : admin
privilege level  : 4
command count    : disabled
logging setting  : disabled
admin:
admin:show tech network hosts
----- show platform network -----

/etc/hosts File:
#This file was generated by the /etc/hosts cluster manager.
#It is automatically updated as nodes are added, changed, removed from the cluster.

127.0.0.1 localhost
::1 localhost
10.201.251.175 cucmsubscriber1.CiscoHttsTAC.com cucmsubscriber1
10.201.251.172 cucmpublisher.CiscoHttsTAC.com cucmpublisher
admin:
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:utils system upgrade dataexport initiate
```

数据导出命令

提供SFTP服务器详细信息、目标发布服务器主机名和IP地址。



注意：在此，我使用了发布服务器的相同主机名和IP地址。

```
10.201.251.172 - PuTTY
10.201.251.175 cucmsubscriber1.CiscoHttstTAC.com cucmsubscriber1
10.201.251.172 cucmpublisher.CiscoHttstTAC.com cucmpublisher
admin:
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:utils system upgrade dataexport initiate

Warning: Before upgrading the cluster Cisco recommends installing the latest Upgrade Readiness COP file. Refer
to the Upgrade Guide on cisco.com for details.

Warning: The data export process would take anywhere between a few minutes to about 30 minutes to complete. Thi
s export time depends on the data configuration and network speed. Do not close this window without first cancel
ling the system migrate export operation.

Export Data Directory [/]: /
Remote Server Name or IP [10.201.251.189]: 10.201.251.189
Remote Server Login ID [cisco]: cisco
Remote Server Password: ****
Enter details of the destination node that will import the current node's exported data :

New Hostname []: cucmpublisher
New IPAddress []: 10.201.251.172
Would you like to proceed with export (yes/no): yes

Processing data export.....
```

处理数据导出

运行utils system upgrade dataexport status命令以检查数据导出过程是否完成。

```
10.201.251.172 - PuTTY
Processing data export.....
Type          : DATAEXPORT
Status        : RUNNING
Log file      : /var/log/install/static_data_export_2024-05-23-12-36-05.log
Execution date : Thu May 23 12:36:05 2024
Status message : System Static Data Export operation is in progress.

Exporting data to this software location, with these credentials:
Server       : 10.201.251.189
Directory    : /
User         : cisco

admin:
admin:utils system upgrade dataexport status

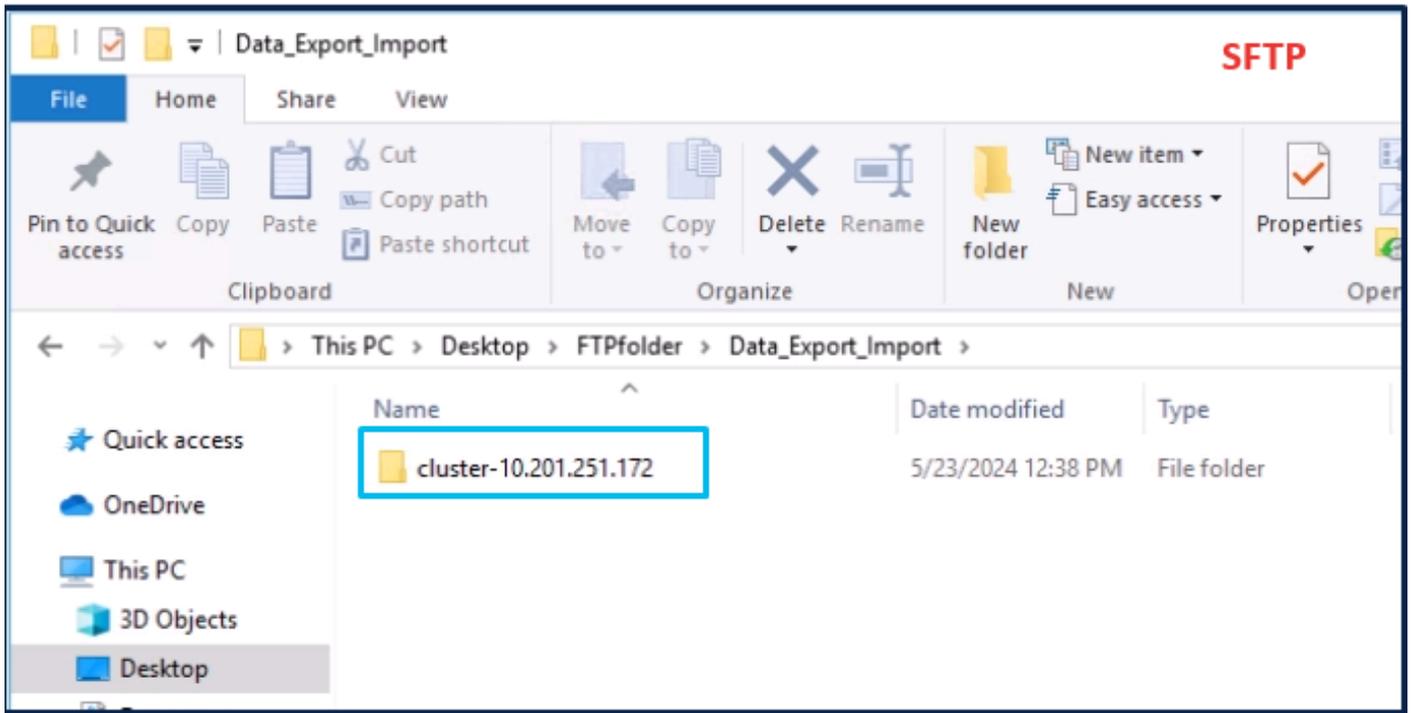
Type          : DATAEXPORT
Status        : RUNNING
Log file      : /var/log/install/static_data_export_2024-05-23-12-36-05.log
Execution date : Thu May 23 12:36:05 2024
Status message : System Static Data Export operation is in progress.

Exporting data to this software location, with these credentials:
Server       : 10.201.251.189
Directory    : /
User         : cisco

admin:
admin:
```

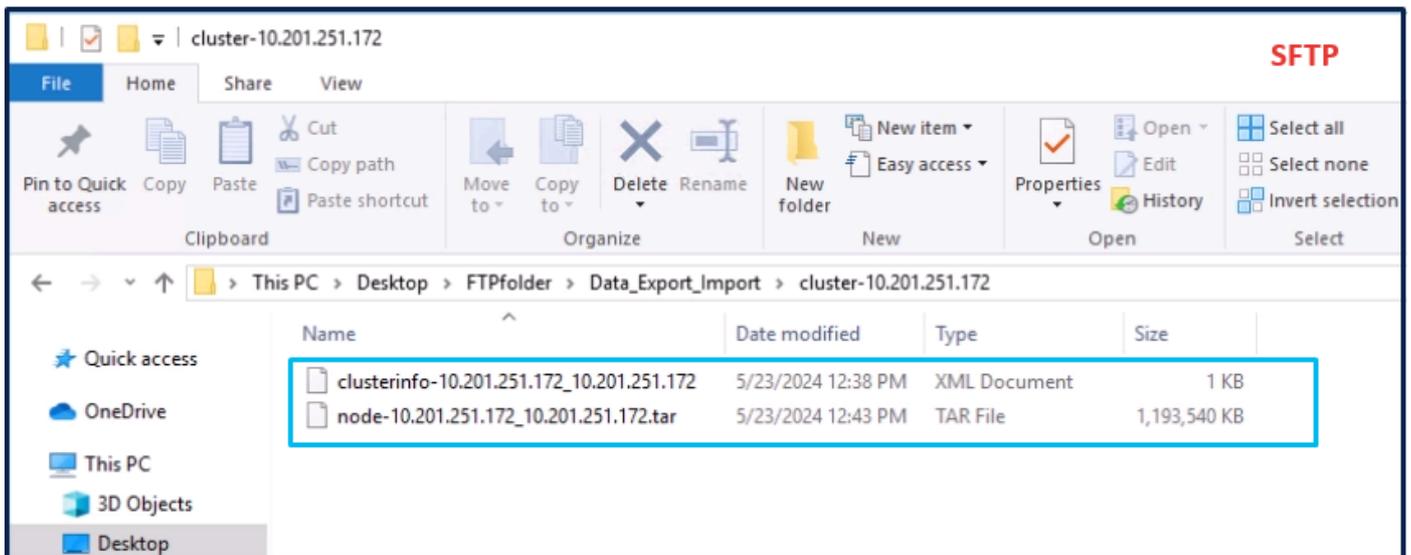
数据导出进度检查

在SFTP服务器中，会自动创建一个名为cluster-Publisher IP Address的新文件夹，并将导出的数据下载到其中。



SFTP服务器中的导出数据位置

完成对发布服务器的导出后，utils system upgrade dataexport status的输出中的状态将显示 completed。



发布服务器的数据导出已完成

```
10.201.251.172 - PuTTY
admin:utils system upgrade dataexport status
PUBLISHER

Type      : DATAEXPORT
Status    : RUNNING
Log file   : /var/log/install/static_data_export_2024-05-23-12-36-05.log
Execution date : Thu May 23 12:36:05 2024
Status message : System Static Data Export operation is in progress.

Exporting data to this software location, with these credentials:
Server    : 10.201.251.189
Directory : /
User      : cisco

admin:
admin:
admin:utils system upgrade dataexport status

Type      : DATAEXPORT
Status    : COMPLETED
Log file   : /var/log/install/static_data_export_2024-05-23-12-36-05.log
Execution date : Thu May 23 12:36:05 2024
Status message : Migrate export completed successfully.

Exporting data to this software location, with these credentials:
Server    : 10.201.251.189
Directory : /
User      : cisco

admin:
```

发布服务器的数据导出已完成

将数据从源群集订阅服务器导出到SFTP服务器

步骤与我们为发布者执行的步骤相同。

运行utils system upgrade dataexport initiate命令。

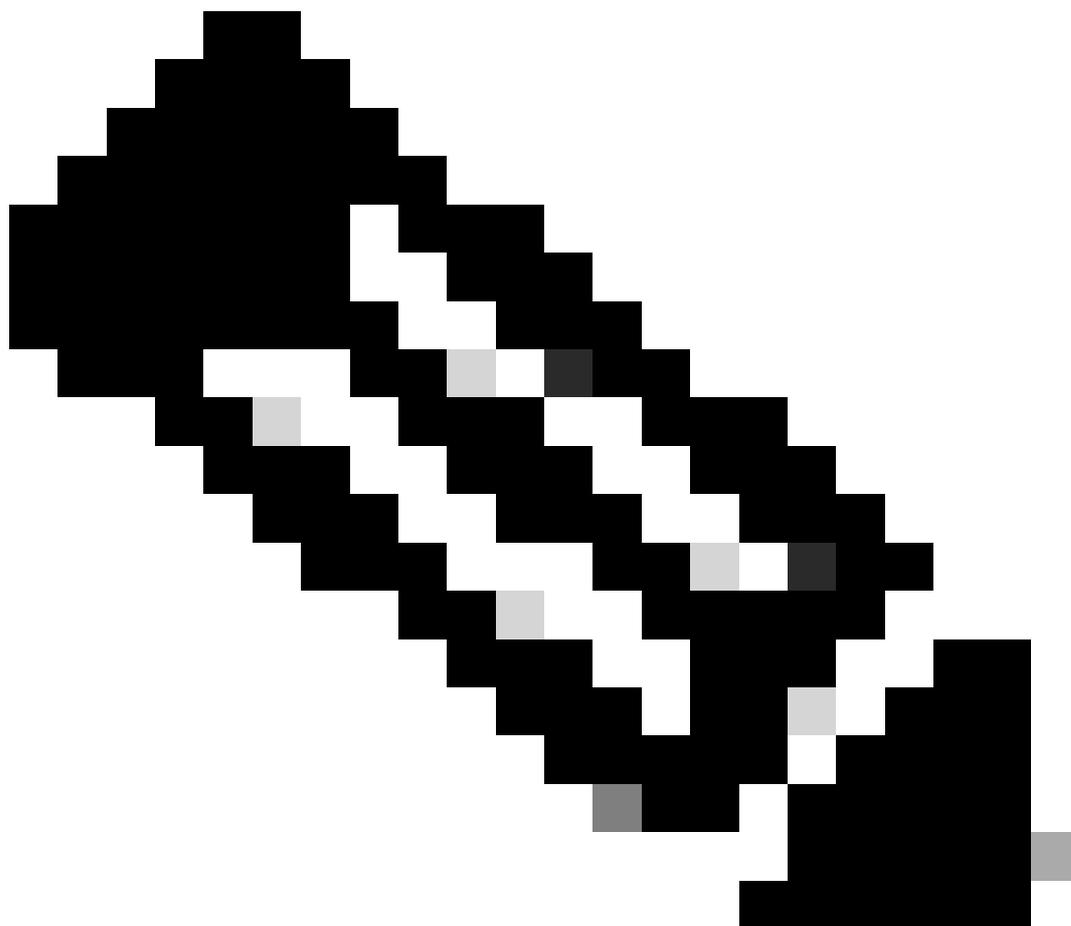
```
10.201.251.175 - PuTTY
admin:show myself
SUBSCRIBER
Machine Name   : cucmssubscriber1
account name   : admin
privilege level : 4
command count  : disabled
logging setting : disabled
admin:
admin:show tech network hosts
----- show platform network -----

/etc/hosts File:
#This file was generated by the /etc/hosts cluster manager.
#It is automatically updated as nodes are added, changed, removed from the cluster.

127.0.0.1 localhost
::1 localhost
10.201.251.175 cucmssubscriber1.CiscoHtsTAC.com cucmssubscriber1
10.201.251.172 cucmpublisher.CiscoHtsTAC.com cucmpublisher
admin:
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:utils system upgrade dataexport initiate
```

用户上的数据导出

提供SFTP服务器详细信息、目标用户主机名和IP地址。



注意：在本实验中，我们使用相同的源集群用户主机名和IP地址。

```
10.201.251.175 - PuTTY
10.201.251.175 cucmssubscriber1.CiscoHttstTAC.com cucmssubscriber1
10.201.251.172 cucmpublisher.CiscoHttstTAC.com cucmpublisher
admin:
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:utils system upgrade dataexport initiate

Warning: Before upgrading the cluster Cisco recommends installing the latest Upgrade Readiness COP file. Refer
to the Upgrade Guide on cisco.com for details.

Warning: The data export process would take anywhere between a few minutes to about 30 minutes to complete. Thi
s export time depends on the data configuration and network speed. Do not close this window without first cance
ling the system migrate export operation.

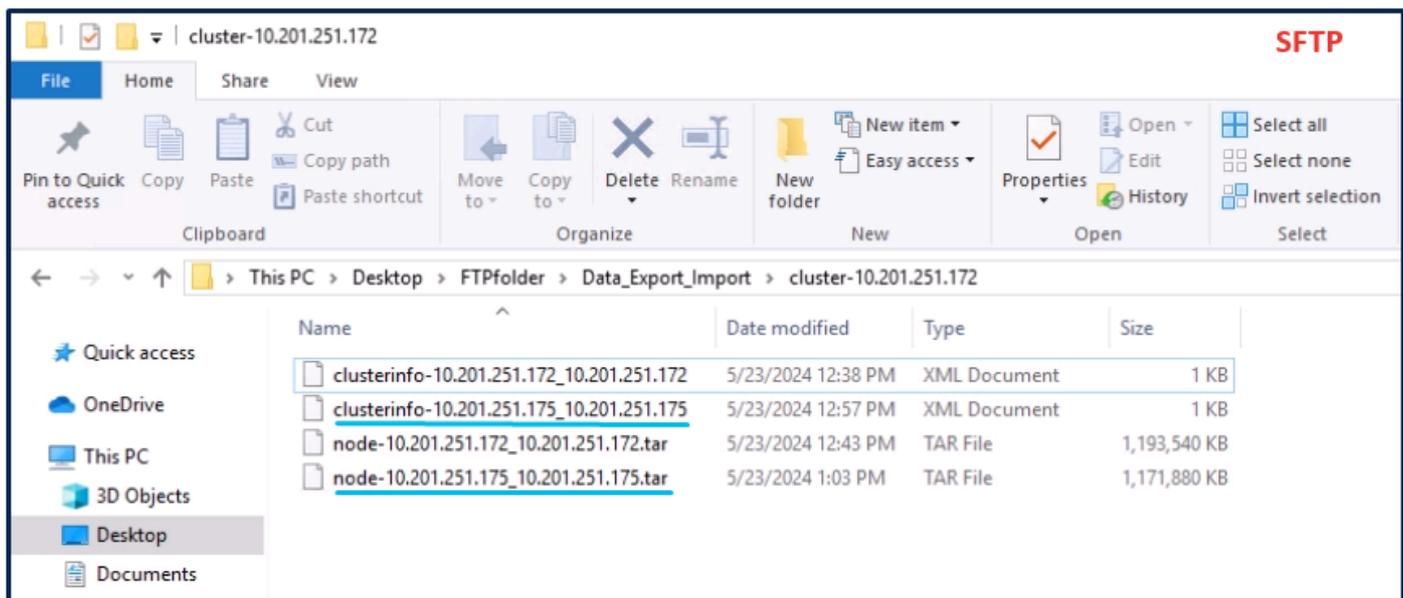
Export Data Directory [/]: /
Remote Server Name or IP [10.201.251.189]: 10.201.251.189
Remote Server Login ID [cisco]: cisco
Remote Server Password: *****
Enter details of the destination node that will import the current node's exported data :

New Hostname []: cucmssubscriber1
New IPAddress []: 10.201.251.175
Would you like to proceed with export (yes/no): yes

Processing data export.....
```

处理数据导出

在SFTP的相同文件夹位置(cluster-Publisher IP Address)中，存在用户导出的数据。



已完成用户的数据导出

为用户完成导出后，在utils system upgrade dataexport status的输出中状态显示为completed。

```
10.201.251.175 - PuTTY
Type : DATAEXPORT
Status : RUNNING
Log file : /var/log/install/static_data_export_2024-05-23-12-56-10.log
Execution date : Thu May 23 12:56:10 2024
Status message : System Static Data Export operation is in progress.

Exporting data to this software location, with these credentials:
Server : 10.201.251.189
Directory : /
User : cisco

admin:
admin:
admin: utils system upgrade dataexport status

Type : DATAEXPORT
Status : COMPLETED
Log file : /var/log/install/static_data_export_2024-05-23-12-56-10.log
Execution date : Thu May 23 12:56:10 2024
Status message : Migrate export completed successfully.

Exporting data to this software location, with these credentials:
Server : 10.201.251.189
Directory : /
User : cisco

admin:
admin:
admin:
```

已完成用户的数据导出

关闭源群集发布服务器

通过执行utils system shutdown命令关闭发布服务器。

```
PuTTY (inactive)
admin:show myself
Machine Name : cucmpublisher
account name : admin
privilege level : 4
command count : disabled
logging setting : disabled
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:
admin: utils system shutdown

Do you really want to shutdown ?

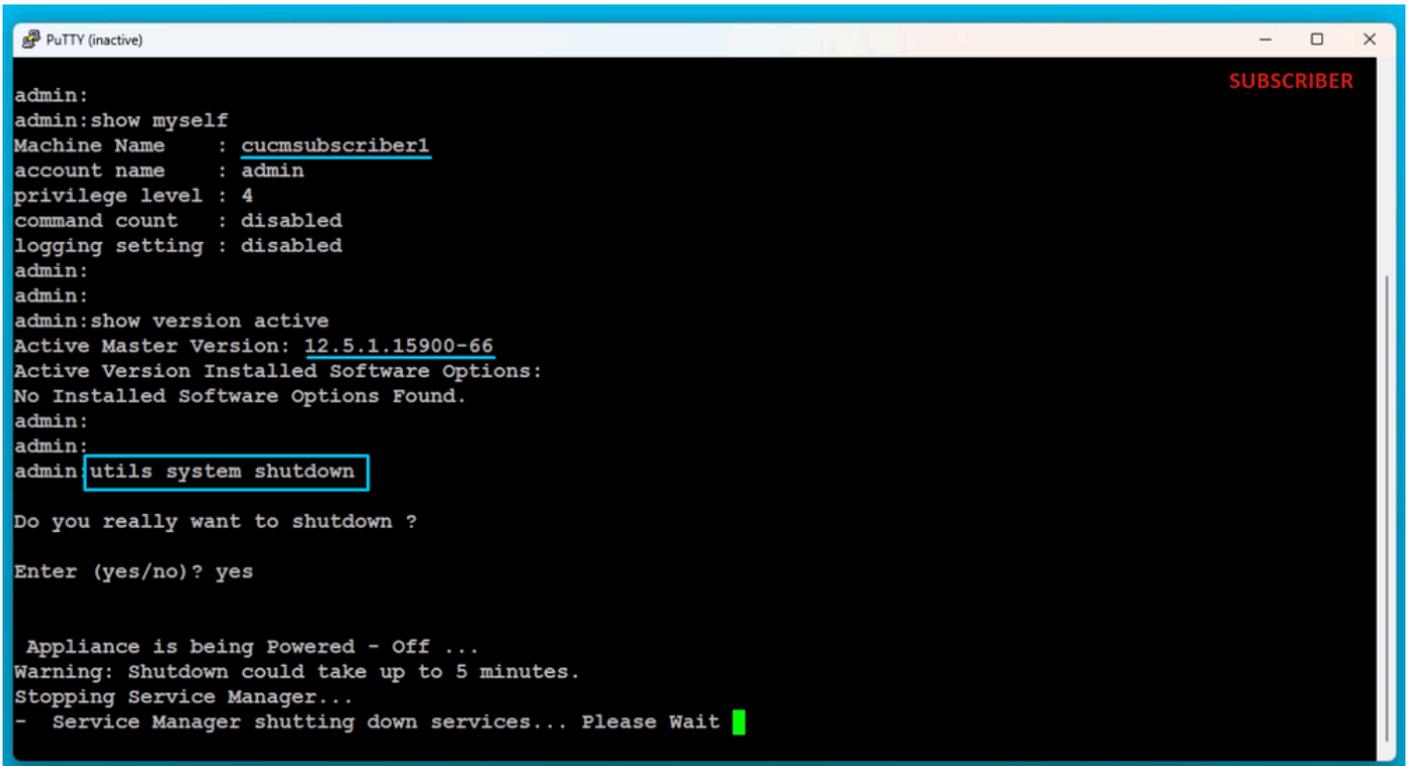
Enter (yes/no)? yes

Appliance is being Powered - Off ...
Warning: Shutdown could take up to 5 minutes.
Stopping Service Manager...
- Service Manager shutting down services... Please Wait Waiting █
```

关闭发布服务器

关闭源群集订阅服务器

通过执行utils system shutdown命令关闭用户。



```
admin:
admin:show myself
Machine Name      : cucmssubscriber1
account name     : admin
privilege level  : 4
command count    : disabled
logging setting  : disabled
admin:
admin:
admin:show version active
Active Master Version: 12.5.1.15900-66
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:
admin: utils system shutdown

Do you really want to shutdown ?

Enter (yes/no)? yes

Appliance is being Powered - Off ...
Warning: Shutdown could take up to 5 minutes.
Stopping Service Manager...
- Service Manager shutting down services... Please Wait █
```

关闭用户

使用导出的数据安装新的发布者

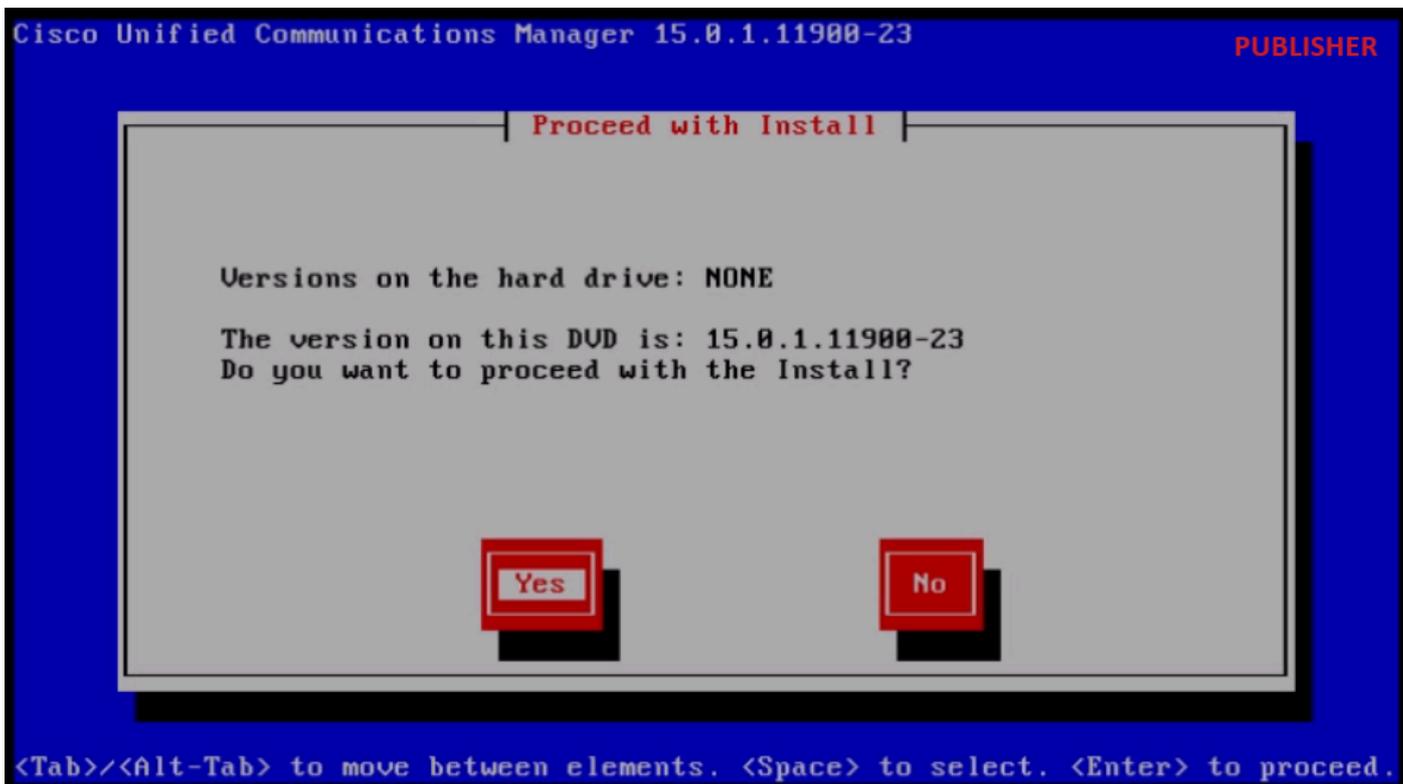
使用适当的OVA模板为发布服务器构建虚拟机。

将15.0.1.11900-23版本的可引导映像装载到虚拟机(VM)并打开VM。

在媒体检查成功后，按OK按钮。

选择Cisco Unified Communication Manager，然后单击OK按钮。

按Yes按钮继续安装15.0.1.11900-23版本。



继续安装

单击平台安装向导中的导入按钮。



平台安装向导

阅读显示的信息后，在Import Upgrade Configuration信息中单击OK按钮。

Import Upgrade Configuration Information

Following screens will configure network IP/hostname for the node and import data from SFTP server.
Please ensure you enter:

1. Same network IP/hostname of destination server as used during data export.
2. Valid SFTP server details and export directory in format- /<export_directory>/cluster-<source_publisherIP>



导入升级配置信息

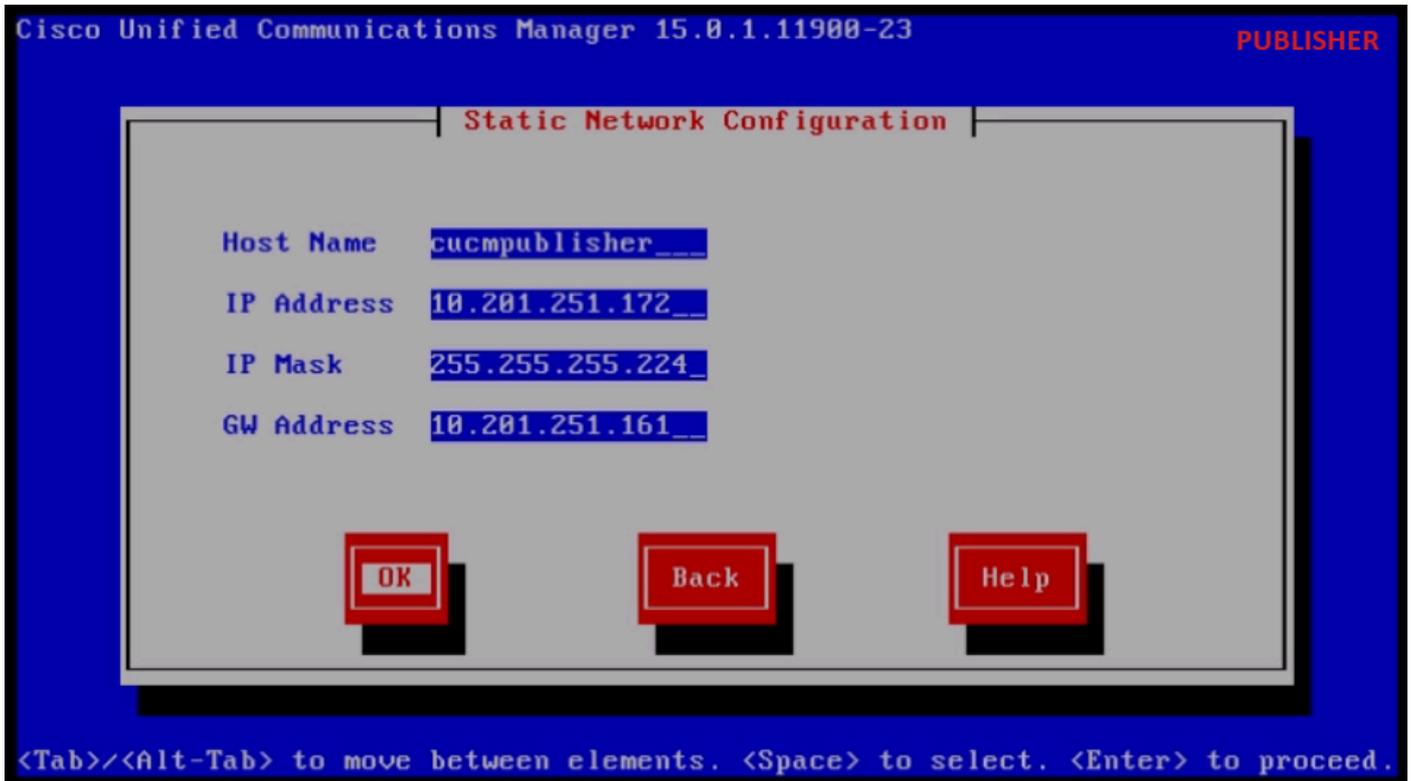
选择适当的时区，然后单击OK按钮。

在自动协商配置中单击Continue按钮。

单击No按钮以设置MTU配置中的默认值。

在“DHCP Configuration”下按No按钮。

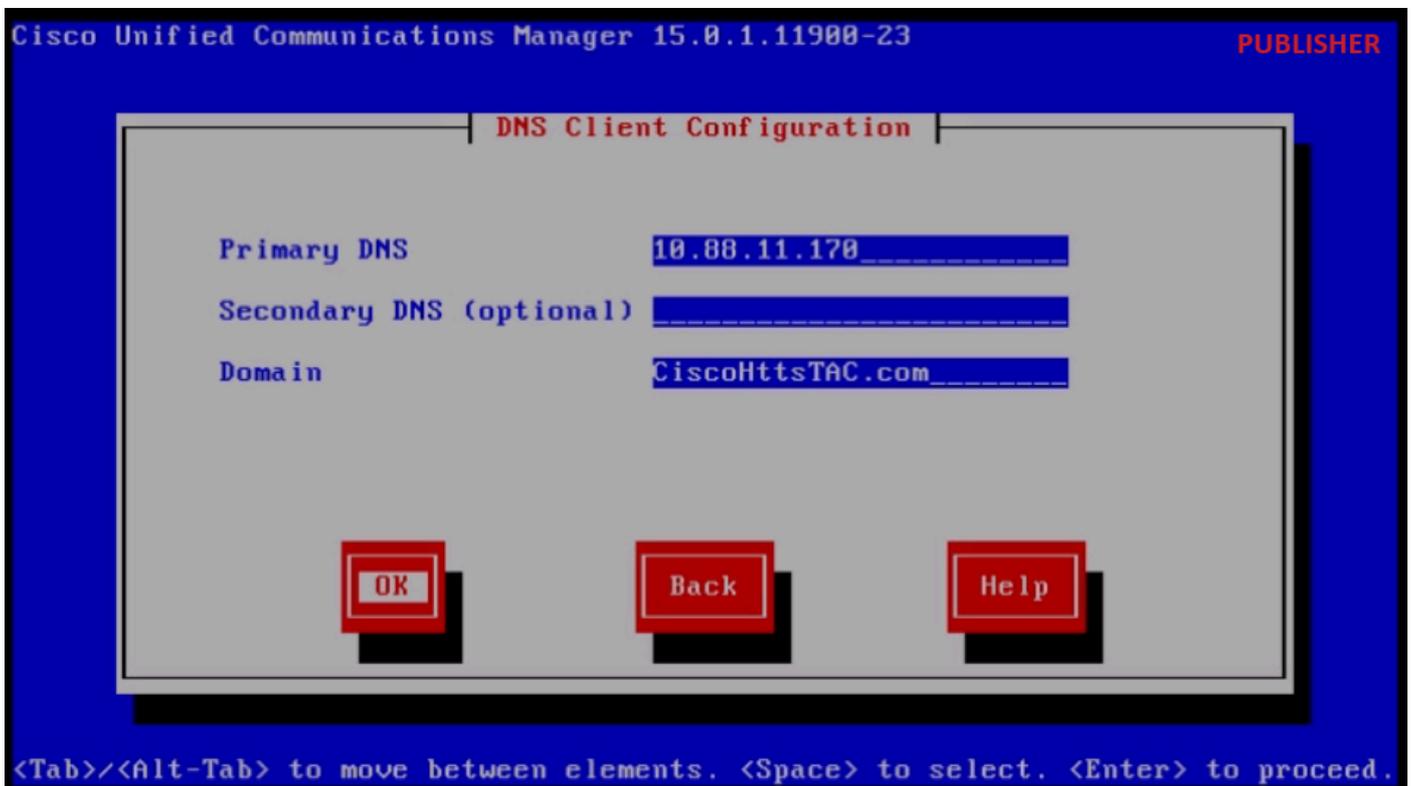
提供主机名、IP地址、IP掩码和网关(GW)地址，然后按确定按钮。



静态网络配置

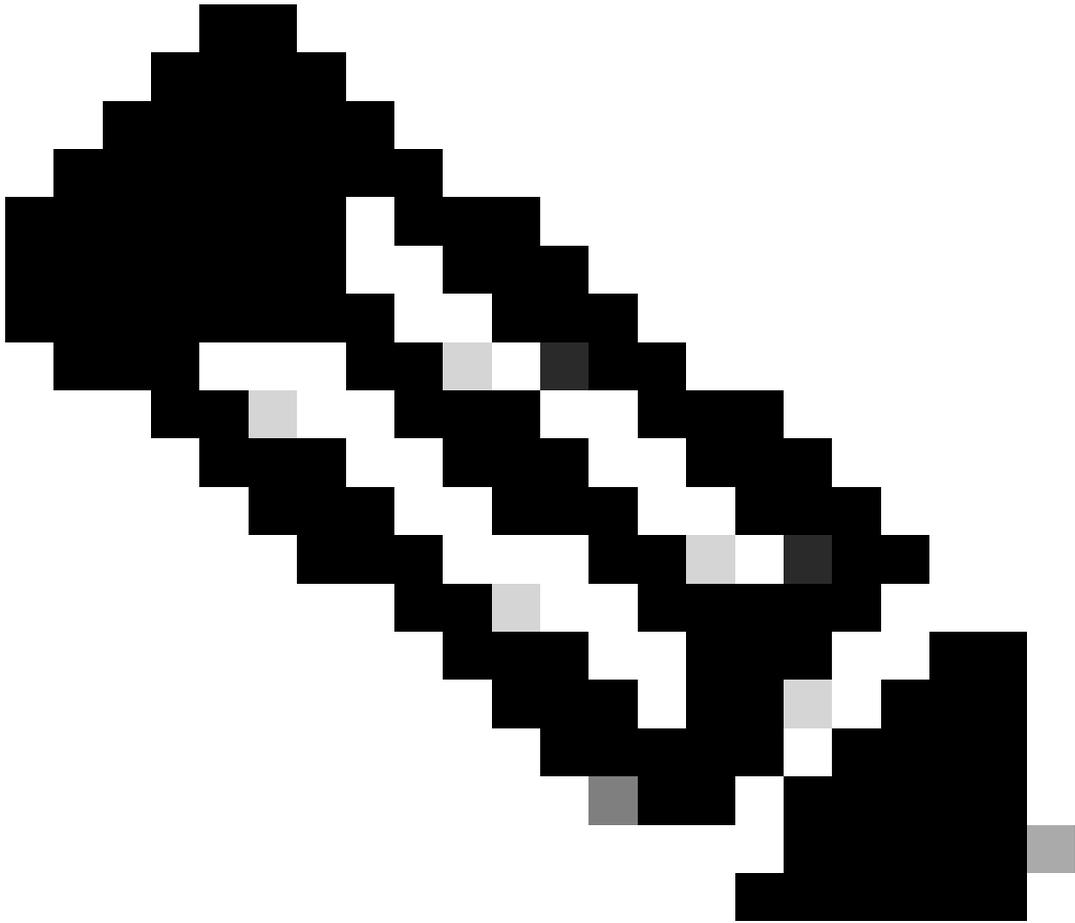
单击“DNS Client Configuration”下的Yes按钮。

提供主DNS服务器IP地址和域，然后单击OK按钮。



DNS客户端配置

提供用于导出源集群数据的SFTP服务器信息（IP、目录、登录ID和密码），然后按确定按钮。

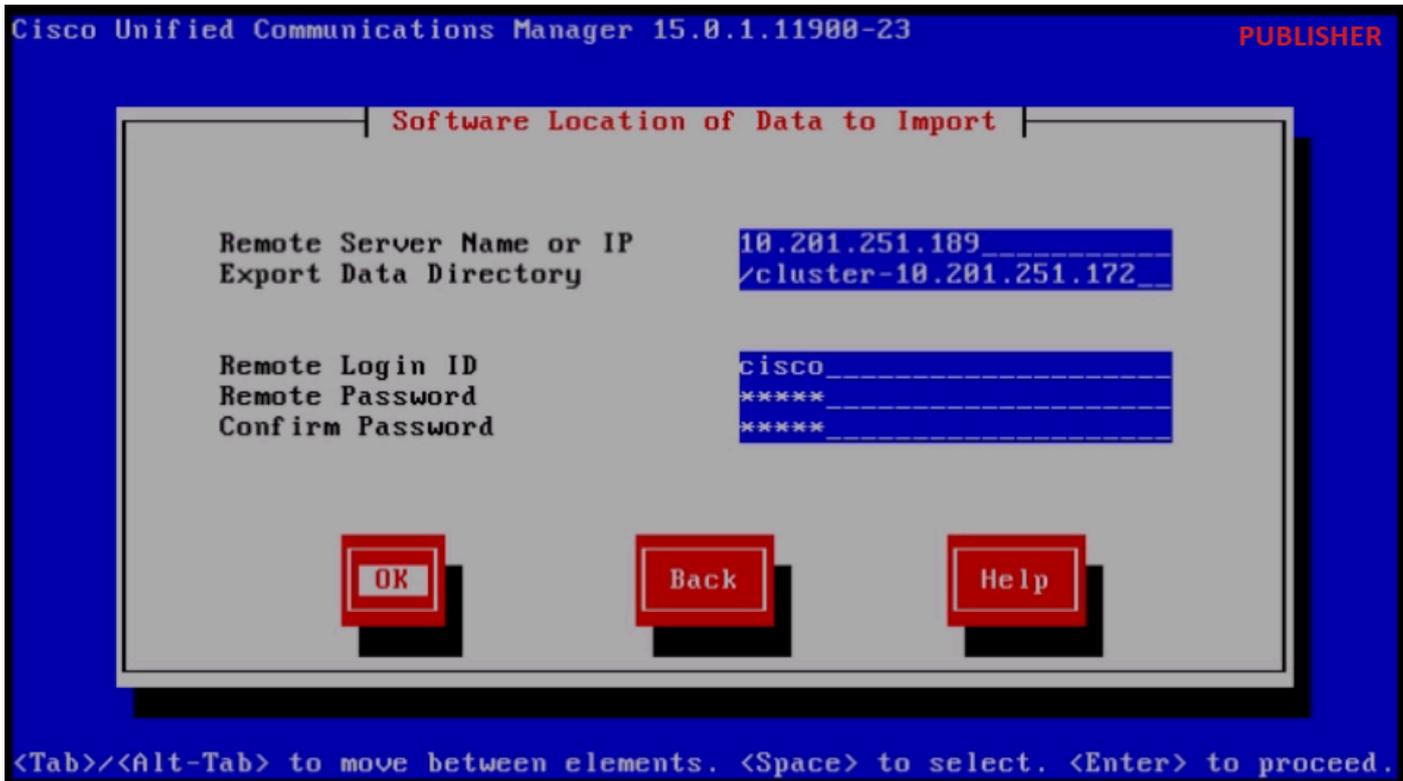


注意：发布服务器导出数据的位置位于文件夹cluster-Publisher_IP_Address中，如屏幕截图所示。

The screenshot shows a Windows File Explorer window with the address bar set to 'C:\Users\agent1\Desktop\FTPfolder\Data_Export_Import\cluster-10.201.251.172'. The window title is 'Clipboard Organize New Open SFTP St'. The main area displays a table of files with the following columns: Name, Date modified, Type, and Size.

Name	Date modified	Type	Size
clusterinfo-10.201.251.172_10.201.251.172	5/23/2024 12:38 PM	XML Document	1 KB
clusterinfo-10.201.251.175_10.201.251.175	5/23/2024 12:57 PM	XML Document	1 KB
node-10.201.251.172_10.201.251.172.tar	5/23/2024 12:43 PM	TAR File	1,193,540 KB
node-10.201.251.175_10.201.251.175.tar	5/23/2024 1:03 PM	TAR File	1,171,880 KB

SFTP服务器中的导出数据位置



要导入数据的软件位置

提供证书信息并单击OK按钮。

按“First Node Configuration”下的Yes按钮。



第一个节点配置

配置NTP（网络时间协议）服务器，然后单击Proceed按钮。

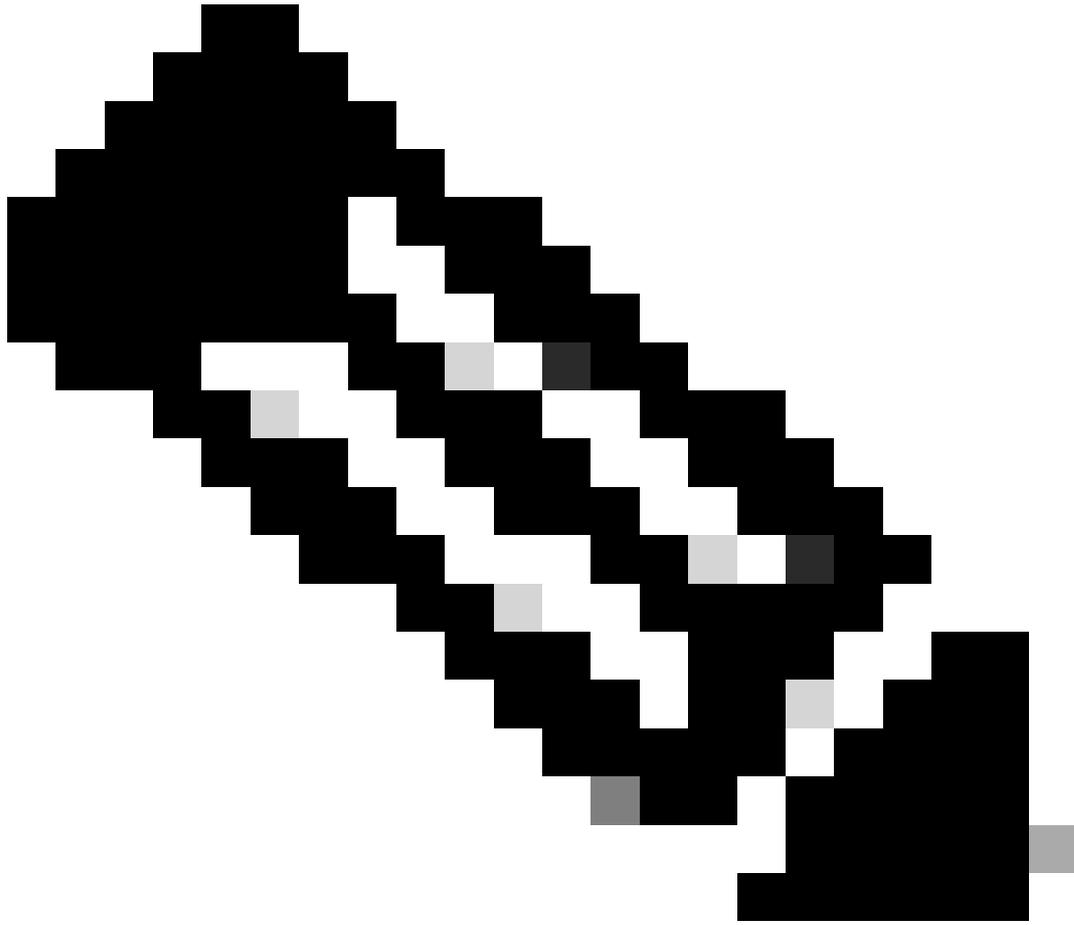
Network Time Protocol Client Configuration

NTP Server 1	<input type="text" value="10.88.7.37"/>
NTP Server 2	<input type="text"/>
NTP Server 3	<input type="text"/>
NTP Server 4	<input type="text"/>
NTP Server 5	<input type="text"/>

<Tab>/<Alt-Tab> to move between elements. <Space> to select. <Enter> to proceed.

NTP客户端配置

单击“SMTP Host Configuration”的No按钮。



注意：如果要配置SMTP，请按“是”按钮并配置SMTP主机。

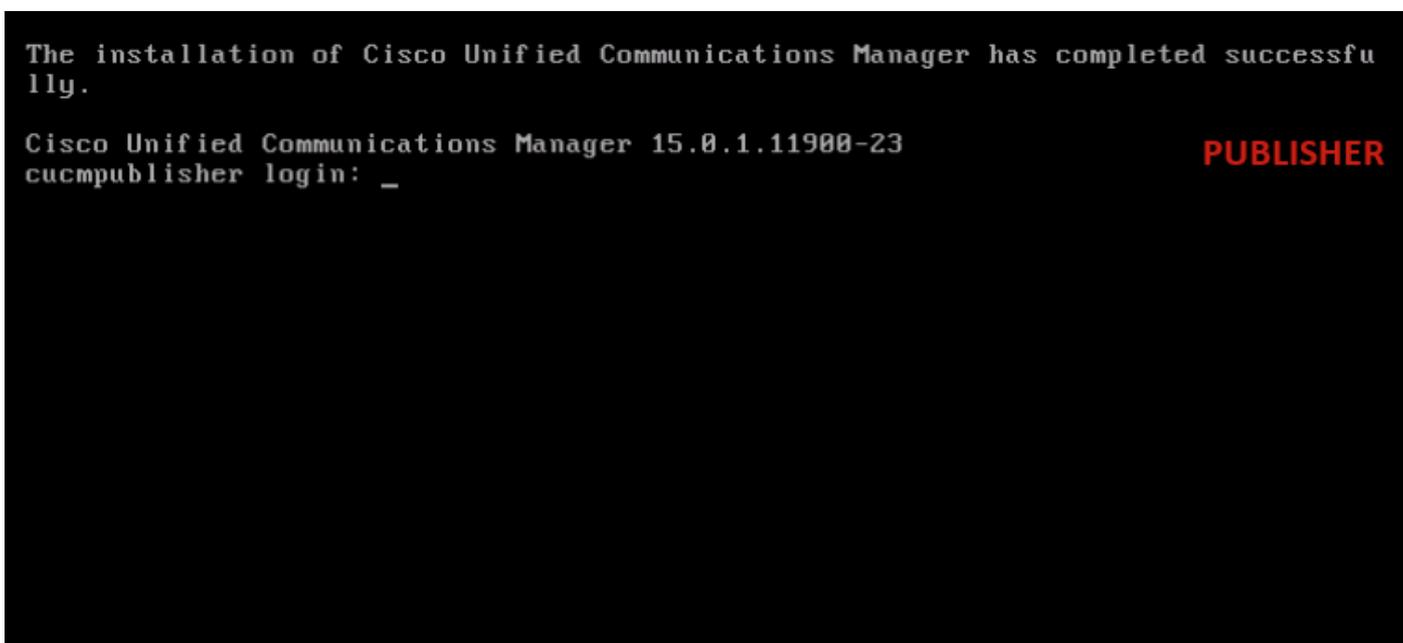
在Smart Call Home Enable Page下选择适当的选项，然后单击OK按钮。

单击“Platform Configuration Confirmation”页下的OK按钮以继续安装。



平台配置确认

几分钟后，使用导入功能完成发布服务器的安装。



发布服务器安装已成功完成

使用导出的数据安装新订户

使用适当的OVA模板为用户构建虚拟机。

将15.0.1.11900-23版本的可引导映像装载到虚拟机(VM)并打开VM。

在媒体检查成功后，按OK按钮。

选择Cisco Unified Communication Manager，然后单击OK按钮。

按Yes按钮继续安装15.0.1.11900-23版本。

单击平台安装向导中的导入按钮。



平台安装向导

阅读显示的信息后，在Import Upgrade Configuration信息中单击OK按钮。

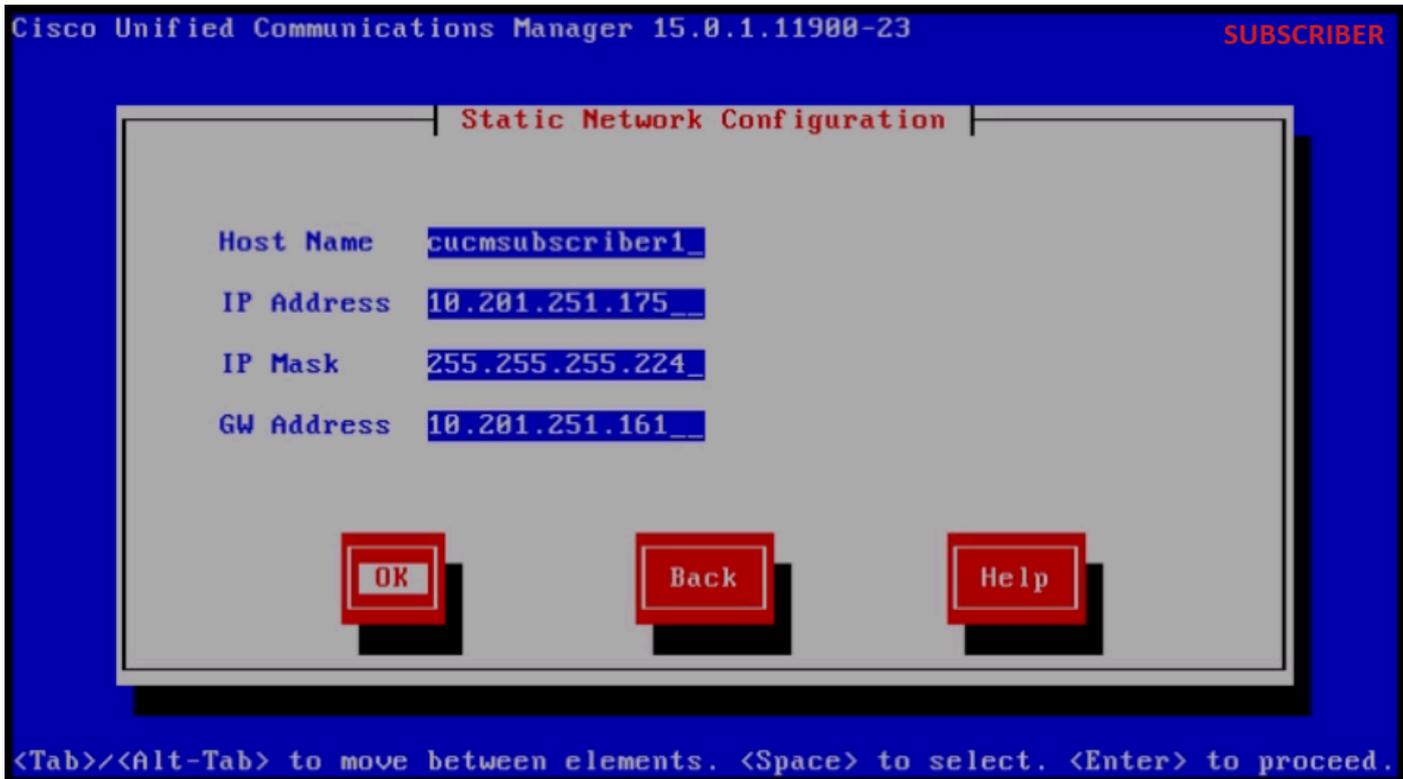
选择适当的时区，然后单击OK按钮。

在自动协商配置中单击Continue按钮。

单击No按钮以设置MTU配置中的默认值。

在“DHCP Configuration”下按No按钮。

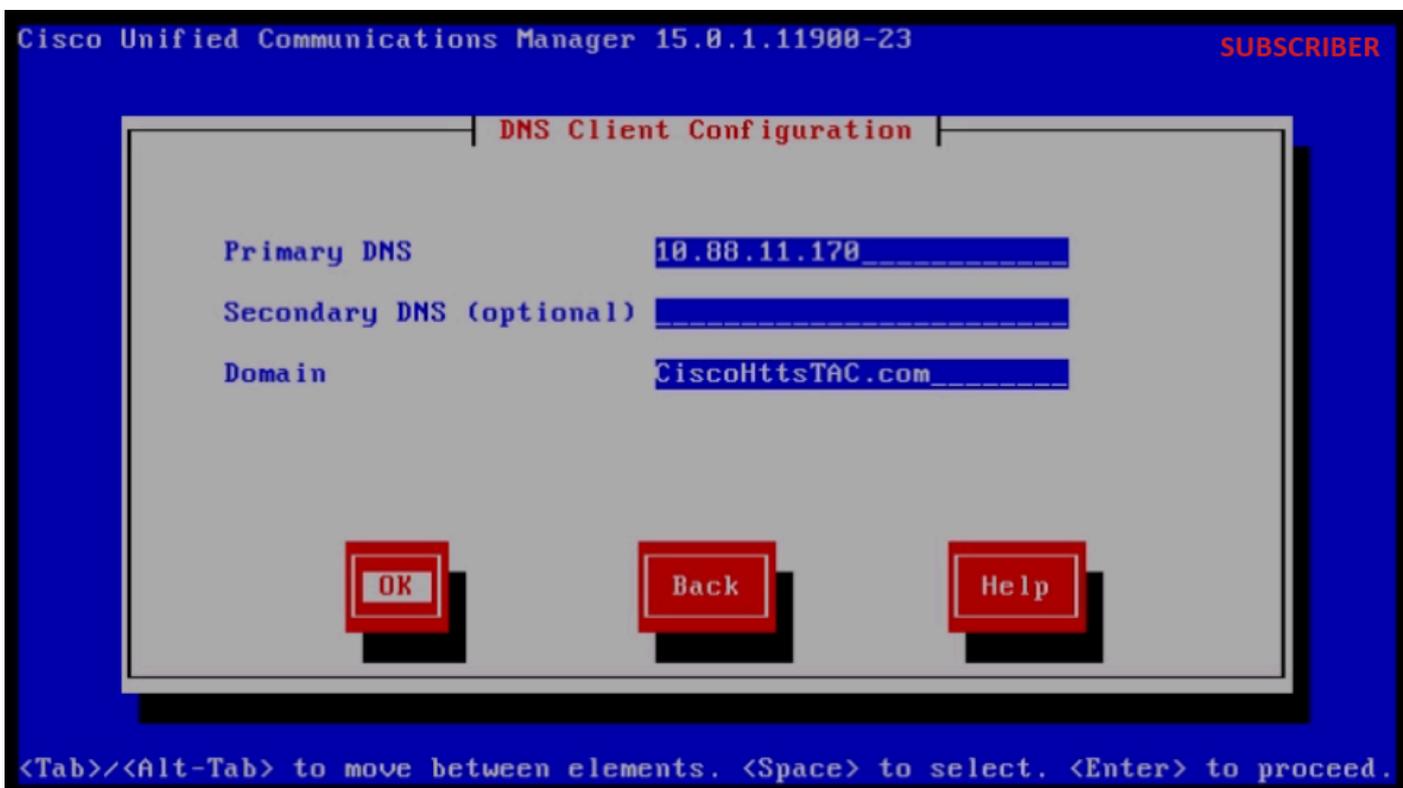
提供用户服务器的主机名、IP地址、IP掩码和网关(GW)地址，然后按确定按钮。



静态网络配置

单击“DNS Client Configuration”下的Yes按钮。

提供主DNS和域，然后单击OK按钮。



DNS客户端配置

提供用于导出源集群数据的SFTP服务器信息（IP、目录、登录ID和密码），然后按确定按钮。

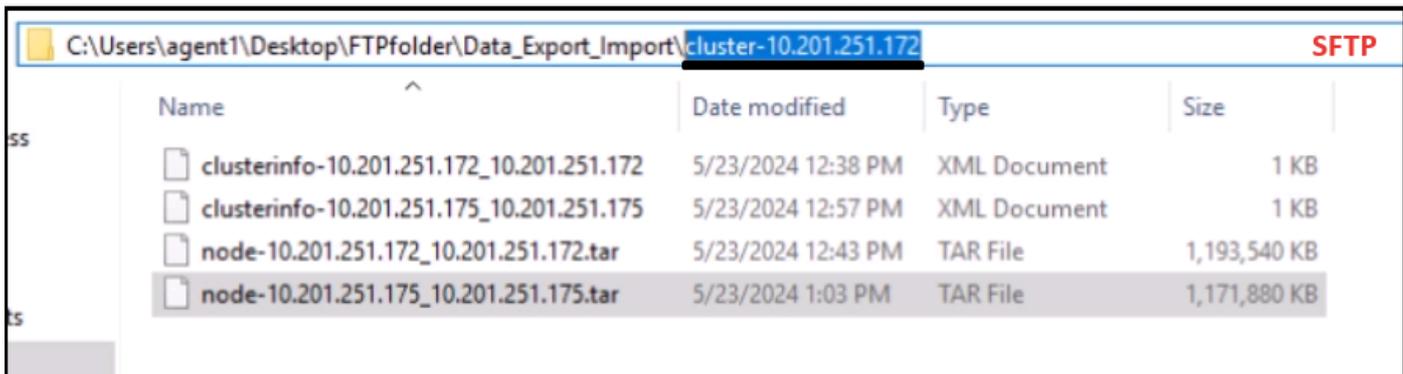
Software Location of Data to Import

Remote Server Name or IP	10.201.251.189
Export Data Directory	/cluster-10.201.251.172__
Remote Login ID	cisco_____
Remote Password	*****
Confirm Password	*****

<Tab>/<Alt-Tab> to move between elements. <Space> to select. <Enter> to proceed.

要导入数据的软件位置

注意：用户导出的数据的位置位于文件夹cluster-Publisher_IP_Address中，如屏幕截图所示。



Name	Date modified	Type	Size
clusterinfo-10.201.251.172_10.201.251.172	5/23/2024 12:38 PM	XML Document	1 KB
clusterinfo-10.201.251.175_10.201.251.175	5/23/2024 12:57 PM	XML Document	1 KB
node-10.201.251.172_10.201.251.172.tar	5/23/2024 12:43 PM	TAR File	1,193,540 KB
node-10.201.251.175_10.201.251.175.tar	5/23/2024 1:03 PM	TAR File	1,171,880 KB

用户在SFTP服务器中导出的数据位置

提供证书信息并单击OK按钮。

按“First Node Configuration”下的No按钮。

First Node Configuration

Is this server the First Node in the cluster?

Yes

No

Back

Help

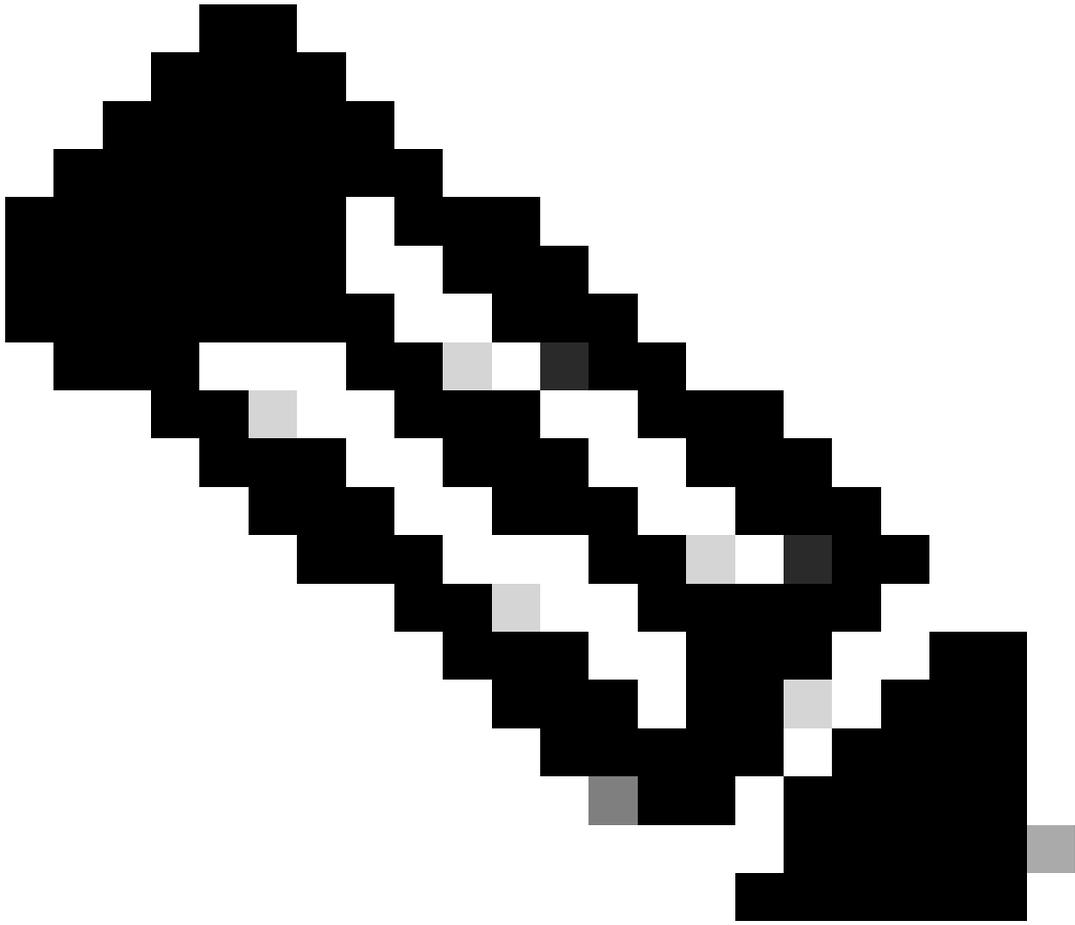
<Tab>/<Alt-Tab> to move between elements. <Space> to select. <Enter> to proceed.

第一个节点配置

在“First Node Configuration”页上，按OK按钮。

单击“Network Connectivity Test Configuration”页下的No按钮。

在“First Node Access Configuration”页中提供发布服务器主机名和IP地址，然后单击OK按钮。



注意：安全密码将通过此页中导入的数据自动填充。

First Node Access Configuration

Connectivity to First Node:

Host Name

IP Address

Security Password

Confirm Password

OK

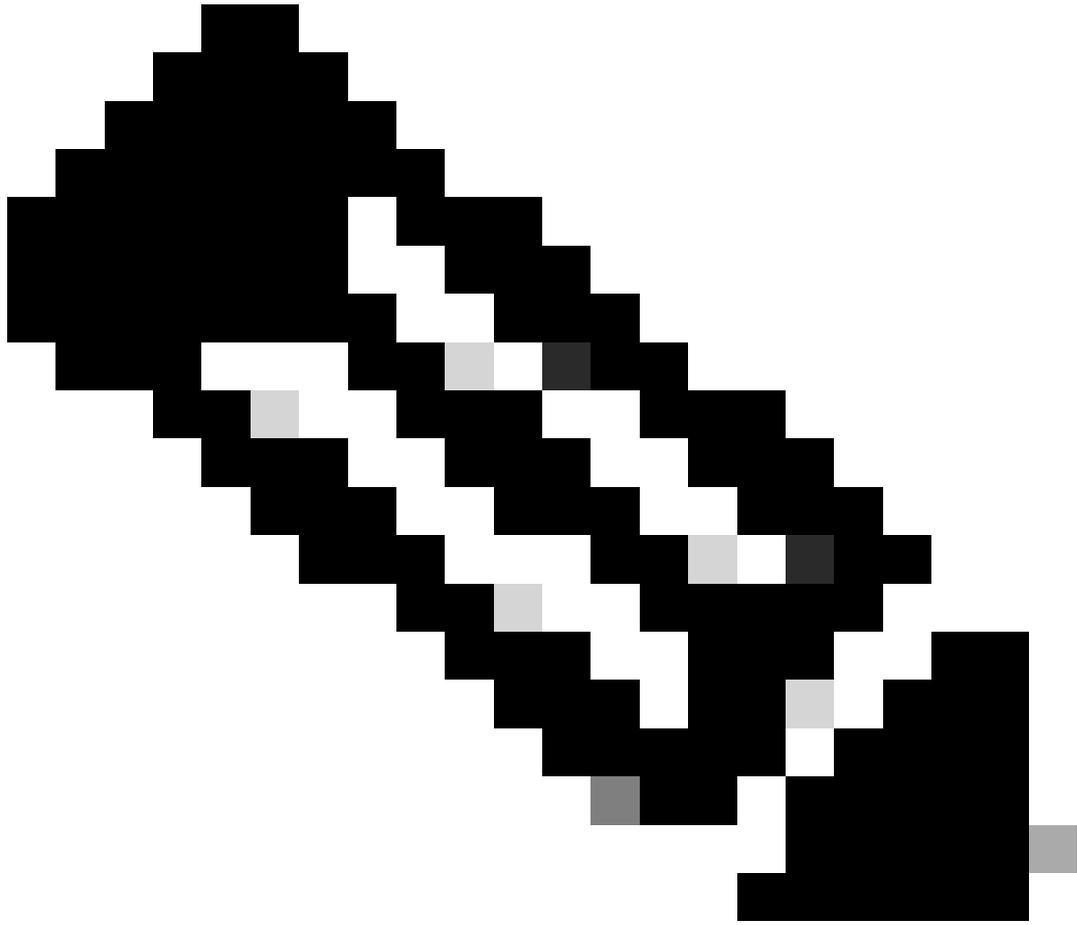
Back

Help

<Tab>/<Alt-Tab> to move between elements. <Space> to select. <Enter> to proceed.

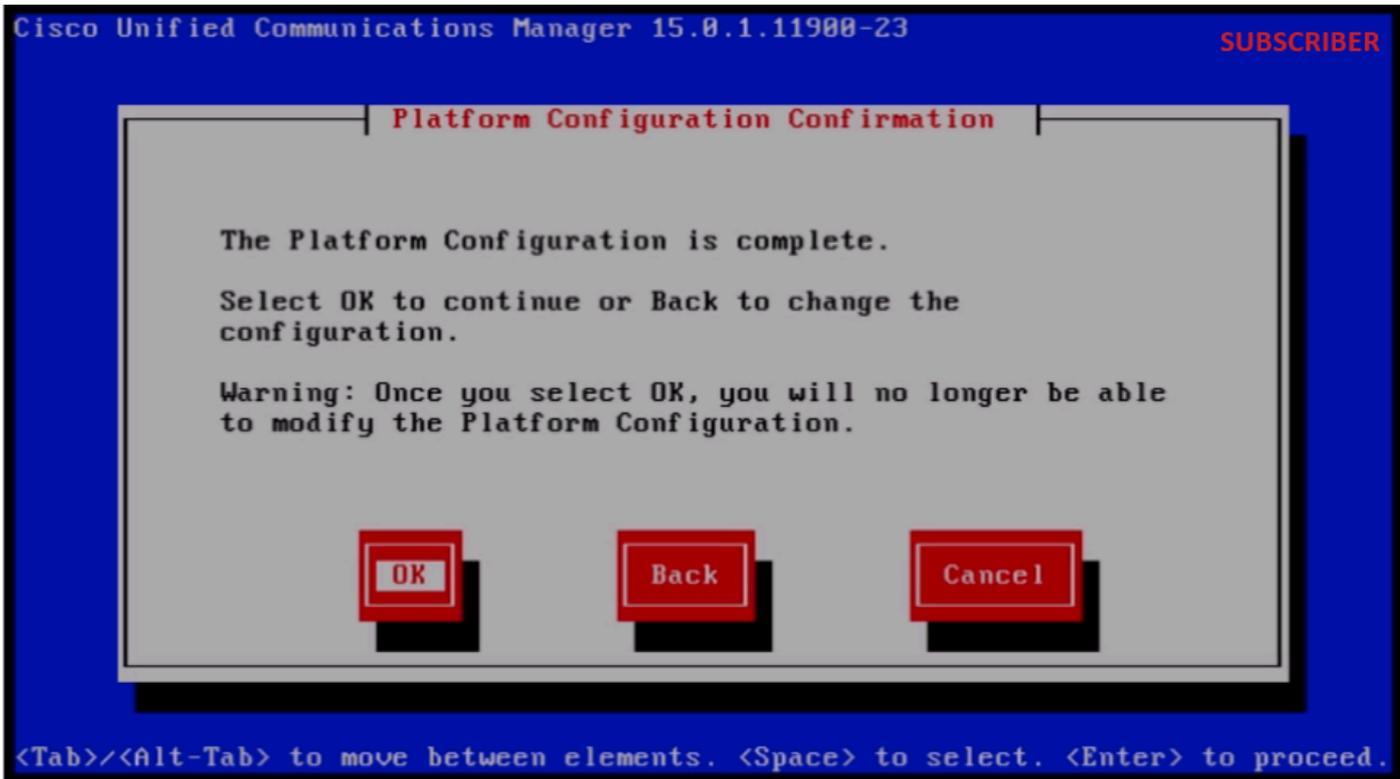
第一个节点访问配置

单击“SMTP Host Configuration”的No按钮。



注意：如果要配置SMTP，请按“是”按钮并配置SMTP主机。

单击“Platform Configuration Confirmation”页下的OK按钮以继续安装。



平台配置确认

几分钟后，使用导入功能成功安装订用服务器。



用户安装成功

验证

成功安装发布服务器和订阅服务器后，运行命令进行验证。

显示自己

show version active

实用程序复制运行时间状态

file view install system-history.log

发布者

```
10.201.251.172 - PuTTY PUBLISHER
admin:show myself
Machine Name      : cucmpublisher
account name     : admin
privilege level  : 4
command count    : disabled
logging setting  : disabled
admin:
admin:
admin:show version active
Active Master Version: 15.0.1.11900-23
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
```

发布服务器验证

```
10.201.251.172 - PuTTY PUBLISHER
admin:utils dbreplication runtimestate

Server Time: Sat Jun 1 08:05:05 PDT 2024

Cluster Replication State: BROADCAST SYNC ended at: 2024-05-26-11-13
  Sync Result: SYNC COMPLETED on 753 tables out of 753
  Sync Status: All Tables are in sync
  Use CLI to see detail: 'file view activelog cm/trace/dbl/20240526_111231_dbl_repl_output_Broadcast.log'

DB Version: ccml5_0_1_11900_23

Repltimeout set to: 300s
PROCESS option set to: 40

Cluster Detailed View from cucmpublisher (2 Servers):

SERVER-NAME      IP ADDRESS      PING      DB/RPC/      REPL.      Replication      REPLICATION SETUP
-----          -
cucmpublisher    10.201.251.172  0.019     Y/Y/Y        0          (g_2)            (2) Setup Completed
cucmsubscriber1  10.201.251.175  0.233     Y/Y/Y        0          (g_3)            (2) Setup Completed

admin:
```

发布服务器验证

```
10.201.251.172 - PuTTY PUBLISHER
admin:
admin:
admin:file view install system-history.log

=====
Product Name - Cisco Unified Communications Manager
Product Version - 15.0.1.11900-23
Kernel Image - 4.18.0-372.16.1.el8_6.x86_64
=====
05/26/2024 06:40:55 | root: Install 15.0.1.11900-23 Start
05/26/2024 06:53:00 | root: Boot 15.0.1.11900-23 Start
05/26/2024 09:18:27 | root: Import during Install 12.5.1.15900-66-to-15.0.1.11900-23 Success
05/26/2024 09:18:27 | root: Product Version 15.0.1.11900-23
05/26/2024 09:18:27 | root: Kernel Image 4.18.0-372.16.1.el8_6.x86_64
05/27/2024 00:00:08 | root: DRS Backup UCMVersion:15.0.1.11900-23 Start
05/27/2024 00:22:01 | root: DRS Backup UCMVersion:15.0.1.11900-23 Success
05/28/2024 00:00:04 | root: DRS Backup UCMVersion:15.0.1.11900-23 Start
05/28/2024 00:22:07 | root: DRS Backup UCMVersion:15.0.1.11900-23 Success
05/29/2024 00:00:02 | root: DRS Backup UCMVersion:15.0.1.11900-23 Start
05/29/2024 00:22:15 | root: DRS Backup UCMVersion:15.0.1.11900-23 Success
05/30/2024 00:00:02 | root: DRS Backup UCMVersion:15.0.1.11900-23 Start
05/30/2024 00:22:06 | root: DRS Backup UCMVersion:15.0.1.11900-23 Success
05/31/2024 00:00:03 | root: DRS Backup UCMVersion:15.0.1.11900-23 Start
05/31/2024 00:22:01 | root: DRS Backup UCMVersion:15.0.1.11900-23 Success

options: q=quit, n=next, p=prev, b=begin, e=end (lines 1 - 20 of 22) :
admin:
admin:█
```

发布服务器验证

订户

```
10.201.251.175 - PuTTY SUBSCRIBER
admin:show myself
Machine Name      : cucmssubscriber1
account name      : admin
privilege level   : 4
command count     : disabled
logging setting   : disabled
admin:
admin:show version active
Active Master Version: 15.0.1.11900-23
Active Version Installed Software Options:
No Installed Software Options Found.
admin:
admin:█
```

用户验证

```
10.201.251.175 - PuTTY
No Installed Software Options Found.
admin:
admin:utils dbreplication runtimestate

Server Time: Sat Jun 1 08:07:21 PDT 2024

Cluster Replication State: Only available on the PUB

DB Version: ccm15_0_1_11900_23

Repltimeout: Only available on the PUB
PROCESS option: Only available on the PUB

Cluster Detailed View from cucmssubscriber1 (2 Servers):

SERVER-NAME          IP ADDRESS          PING          DB/RPC/          REPL.          Replication          REPLICATION SETUP
-----          -----          (msec)          DbMon?          QUEUE          Group ID          (RTMT) & DB Status
-----          -----          -----          -----          -----          -----          -----
cucmpublisher          10.201.251.172          0.202          Y/Y/Y          0          (g_2)          (2) Setup Completed
cucmssubscriber1          10.201.251.175          0.018          Y/Y/Y          0          (g_3)          (2) Setup Completed
```

用户验证

```
10.201.251.175 - PuTTY
PROCESS option: Only available on the PUB
SUBSCRIBER

Cluster Detailed View from cucmssubscriber1 (2 Servers):

SERVER-NAME          IP ADDRESS          PING          DB/RPC/          REPL.          Replication          REPLICATI
-----          -----          (msec)          DbMon?          QUEUE          Group ID          (RTMT) &
-----          -----          -----          -----          -----          -----          -----
cucmpublisher          10.201.251.172          0.202          Y/Y/Y          0          (g_2)          (2) Setup
cucmssubscriber1          10.201.251.175          0.018          Y/Y/Y          0          (g_3)          (2) Setup

admin:
admin:
admin:file view install system-history.log

=====
Product Name -      Cisco Unified Communications Manager
Product Version - 15.0.1.11900-23
Kernel Image -      4.18.0-372.16.1.el8_6.x86_64
=====

05/26/2024 10:09:55 | root: Install 15.0.1.11900-23 Start
05/26/2024 10:21:39 | root: Boot 15.0.1.11900-23 Start
05/26/2024 11:03:57 | root: Import during Install 12.5.1.15900-66-to-15.0.1.11900-23 Success
05/26/2024 11:03:57 | root: Product Version 15.0.1.11900-23
05/26/2024 11:03:57 | root: Kernel Image 4.18.0-372.16.1.el8_6.x86_64

end of the file reached
options: q=quit, n=next, p=prev, b=begin, e=end (lines 1 - 10 of 10) :
```

用户验证

相关信息

[使用数据导入进行安装](#)

关于此翻译

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