

使用数据导出和导入功能安装CUCM集群

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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。

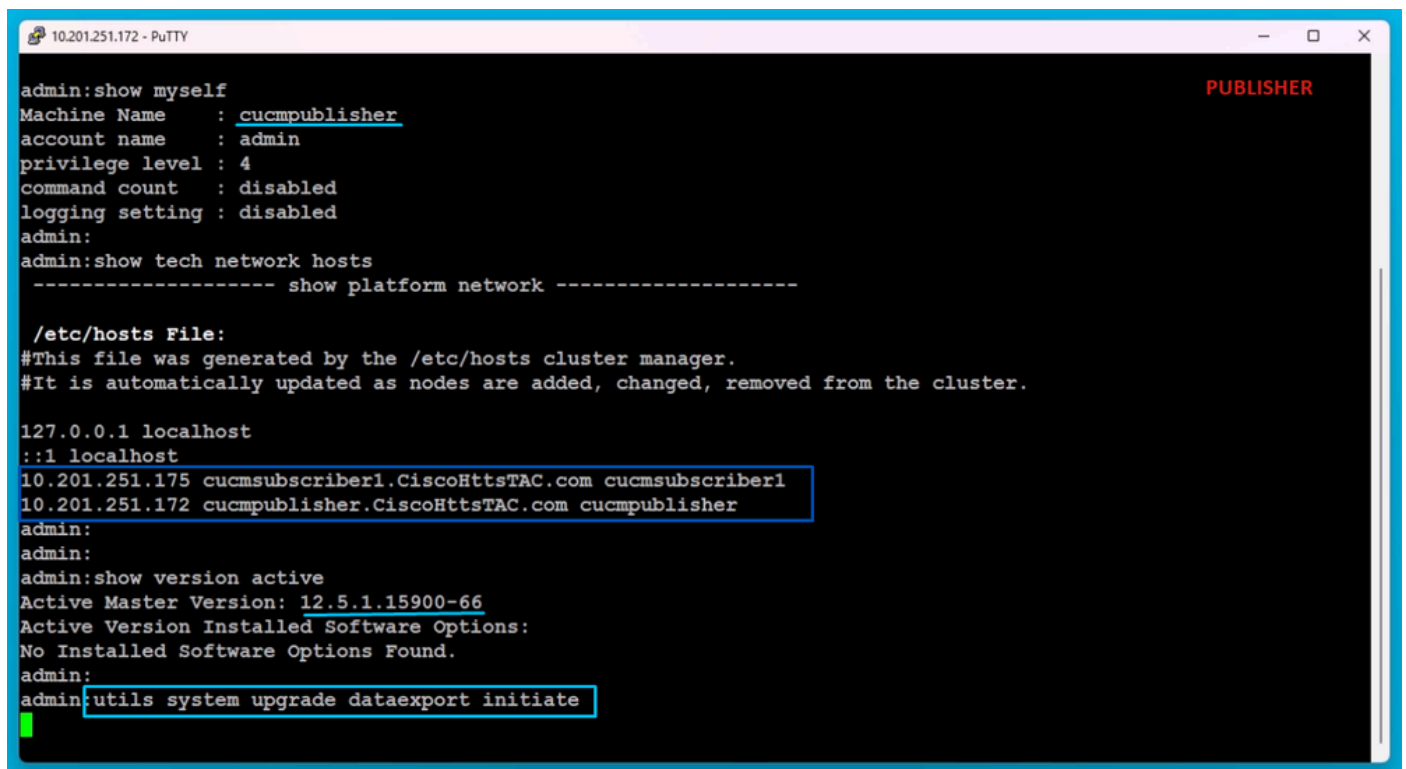
使用数据导出和导入功能安装CUCM的步骤：

- 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。



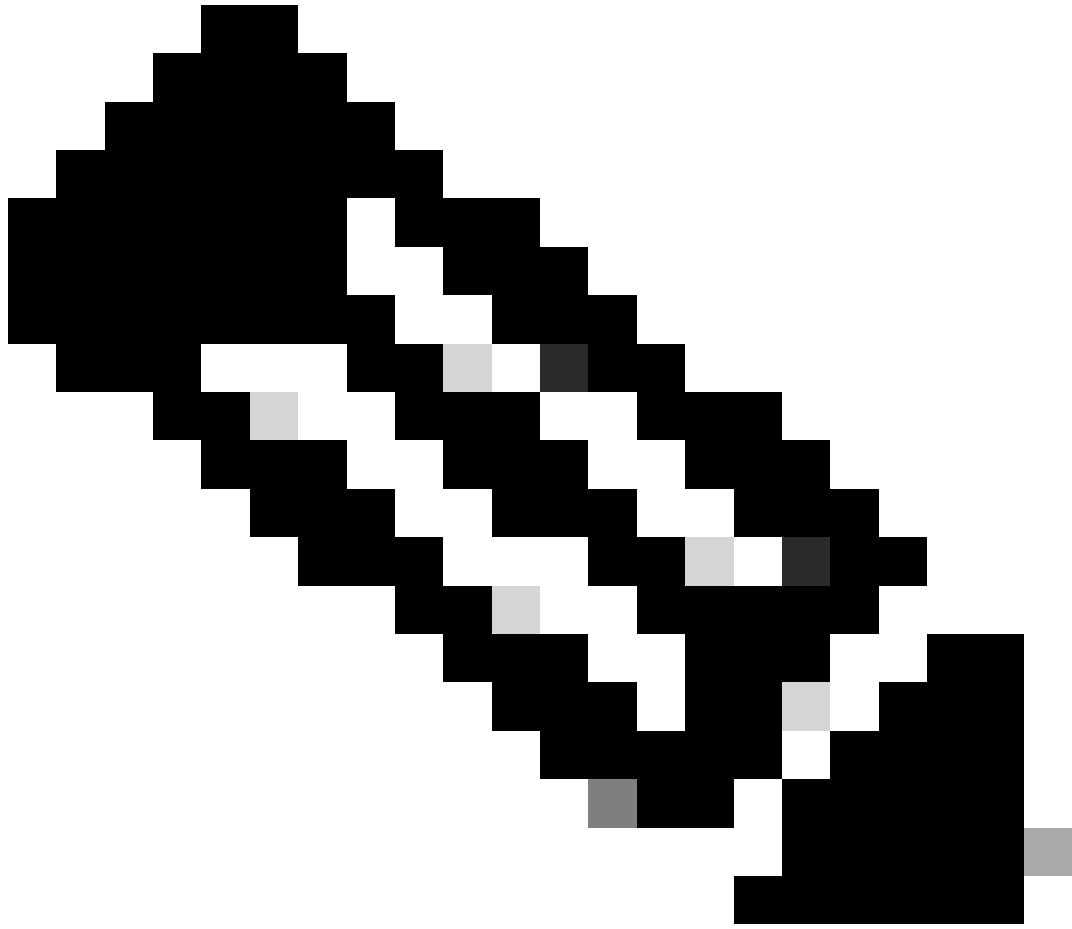
```
10.201.251.172 - PuTTY
admin:show myself
Machine Name      : cucmpublisher
account name     : admin
privilege level  : 4
command count    : disabled
logging setting  : disabled
admin:
admin:show tech network hosts
----- show platform network -----

/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.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

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

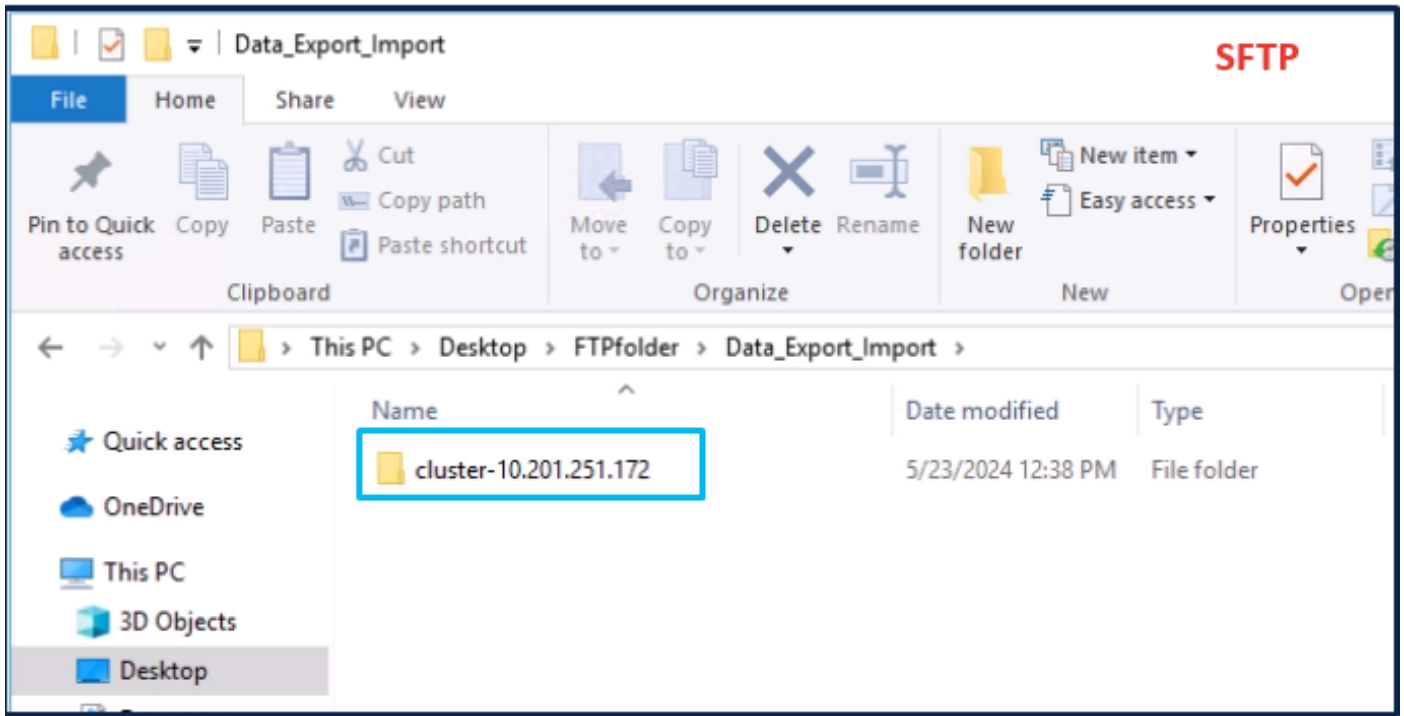
Type          : DATAEXPORT
Status        : RUNNING
Log file      : /var/log/install/static_data_export_2024-05-23-12-36-05.log
Execution date : Thu May 23 12:36:05 2024
Status message : System Static Data Export operation is in progress.

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

admin:
admin:
```

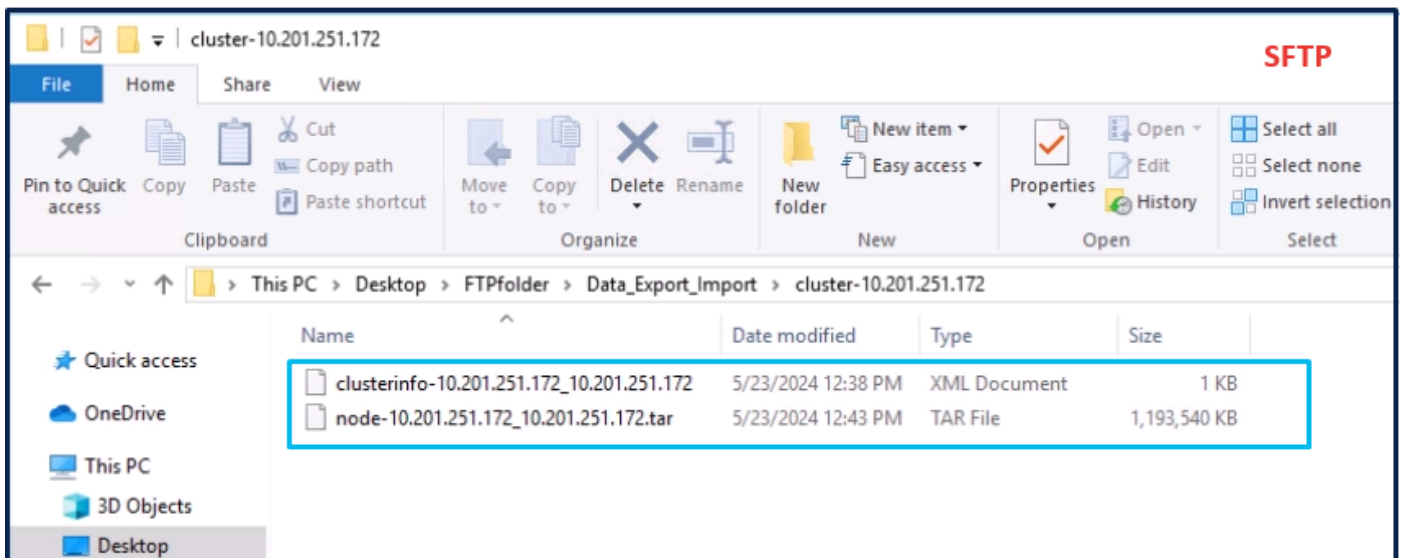
数据导出进度检查

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。

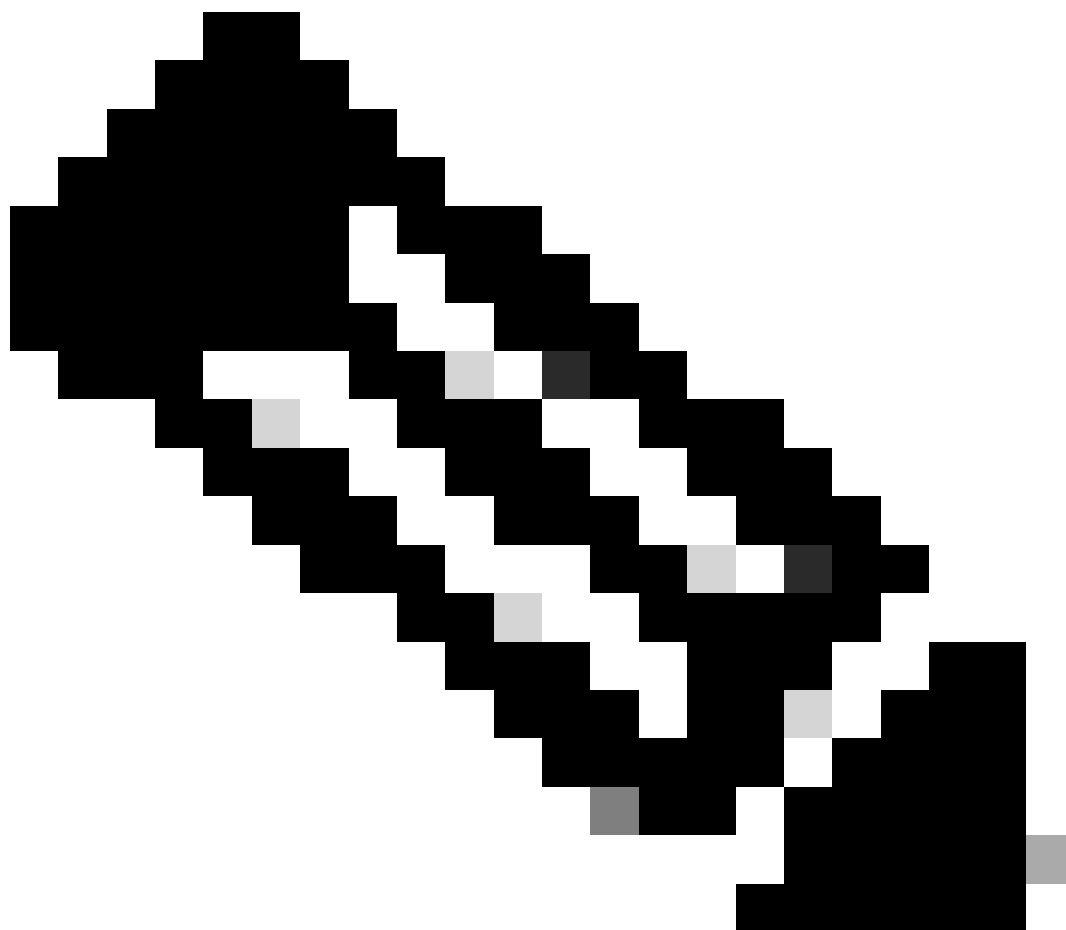
```
10.201.251.175 - PuTTY
admin:show myself
SUBSCRIBER
Machine Name   : cucmssubscriber1
account name   : admin
privilege level : 4
command count  : disabled
logging setting : disabled
admin:
admin:show tech network hosts
----- show platform network -----

/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.CiscoHttstac.com cucmssubscriber1
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
```

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 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 cance
ling the system migrate export operation.

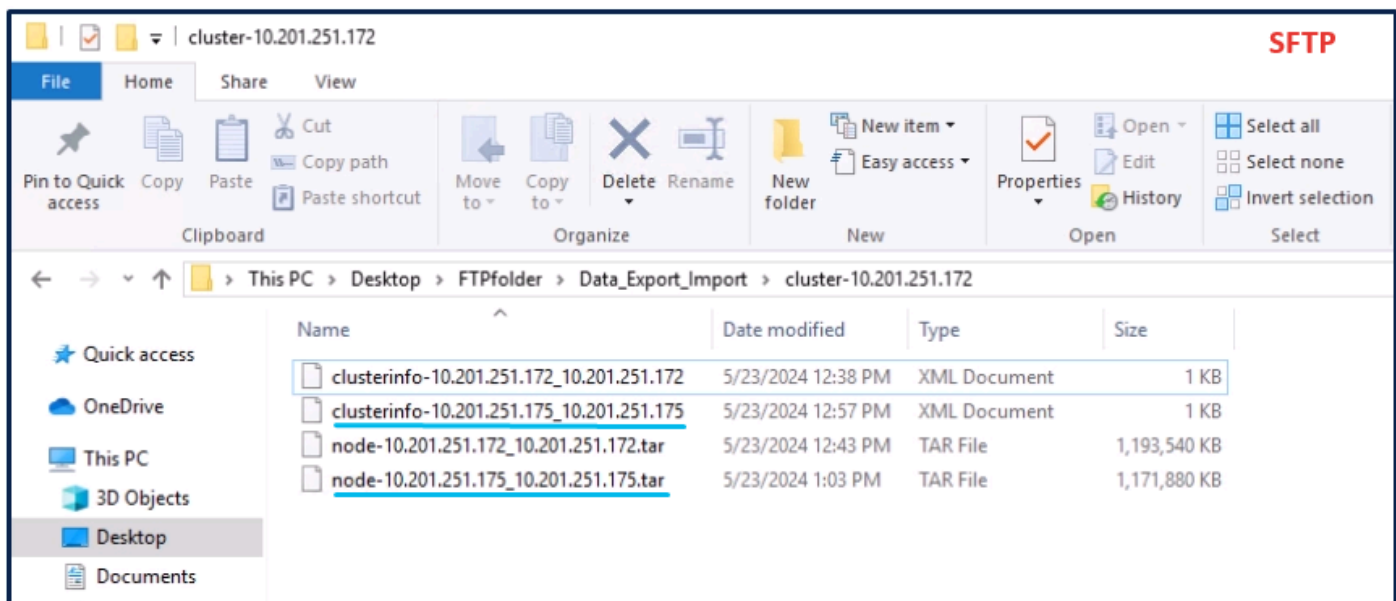
Export Data Directory [/]: /
Remote Server Name or IP [10.201.251.189]: 10.201.251.189
Remote Server Login ID [cisco]: cisco
Remote Server Password: *****
Enter details of the destination node that will import the current node's exported data :

New Hostname []: cucmsubscriber1
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 ?

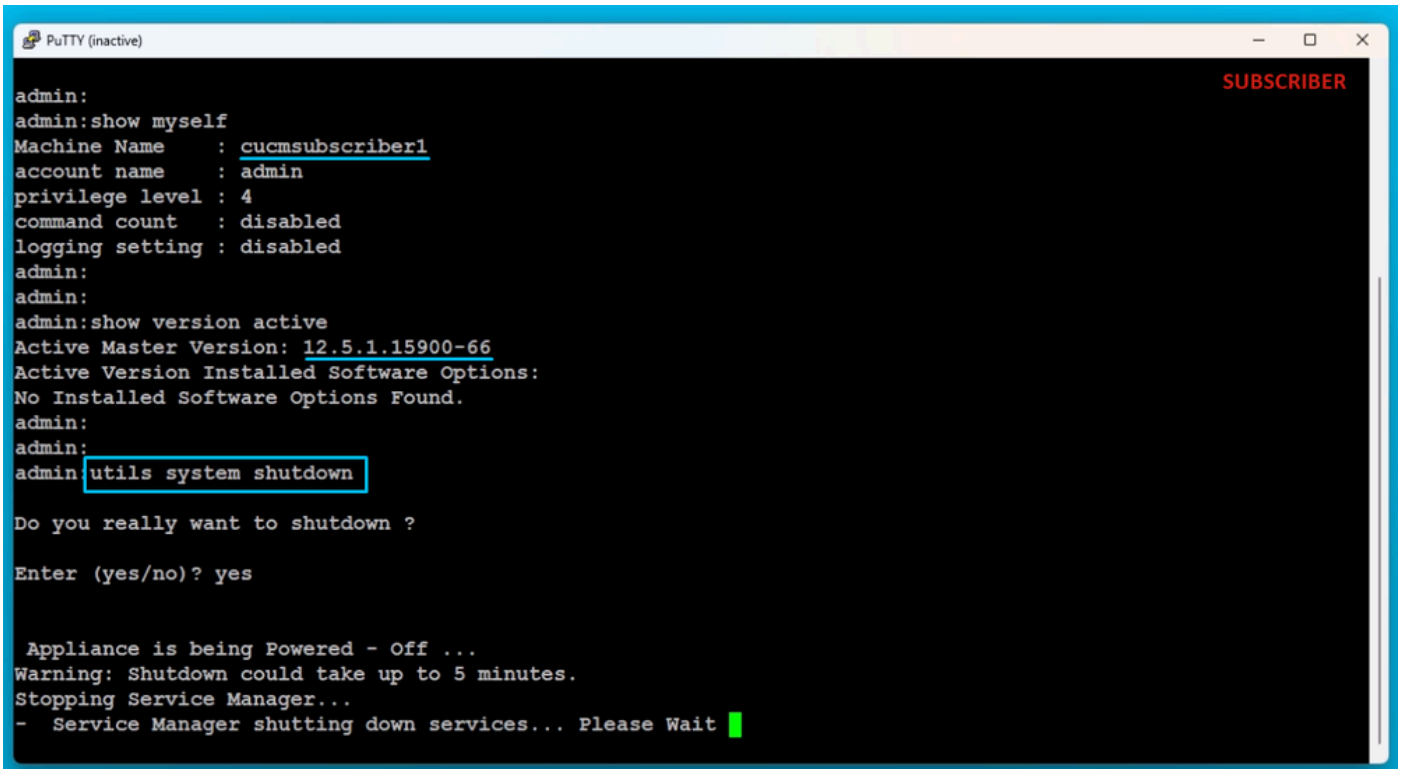
Enter (yes/no)? yes

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

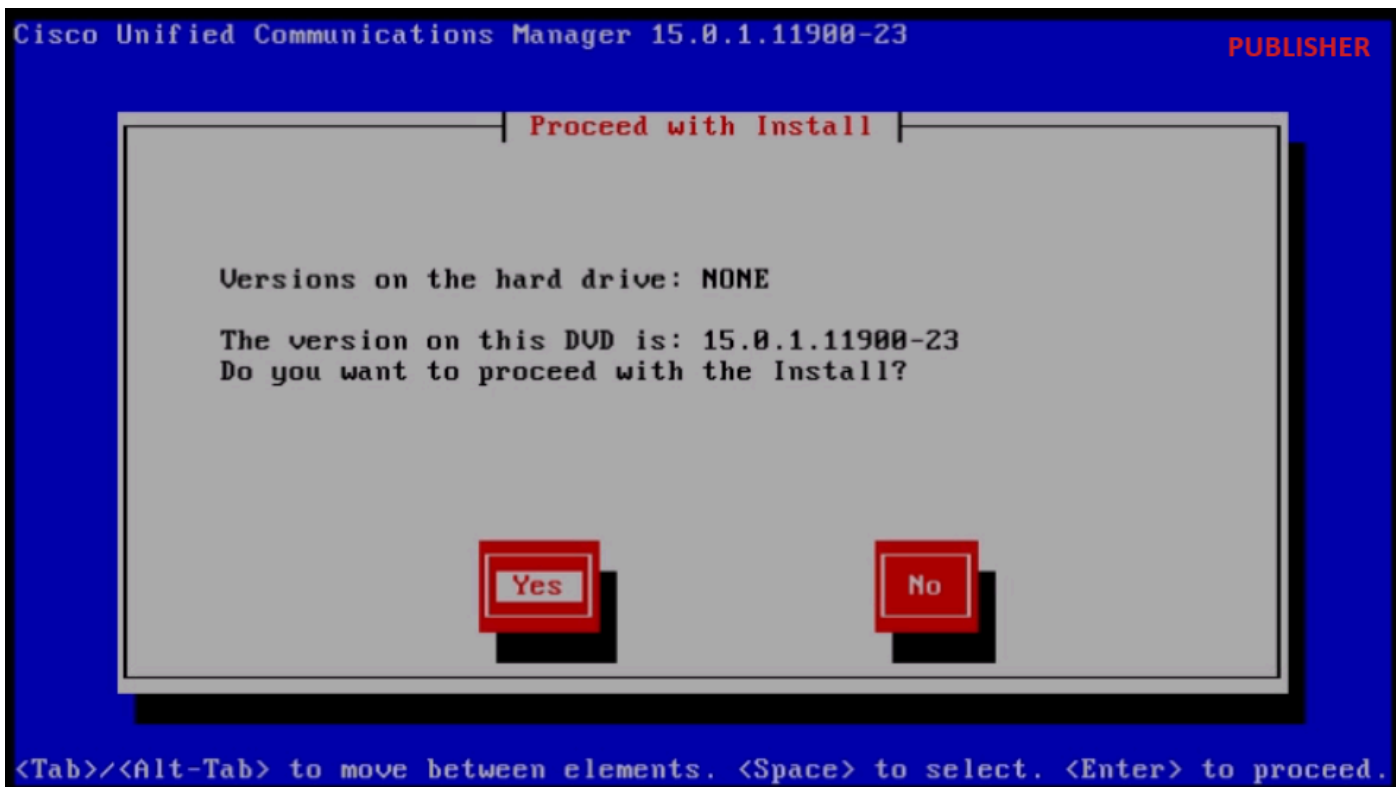
使用适当的OVA模板为发布服务器构建虚拟机。

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。

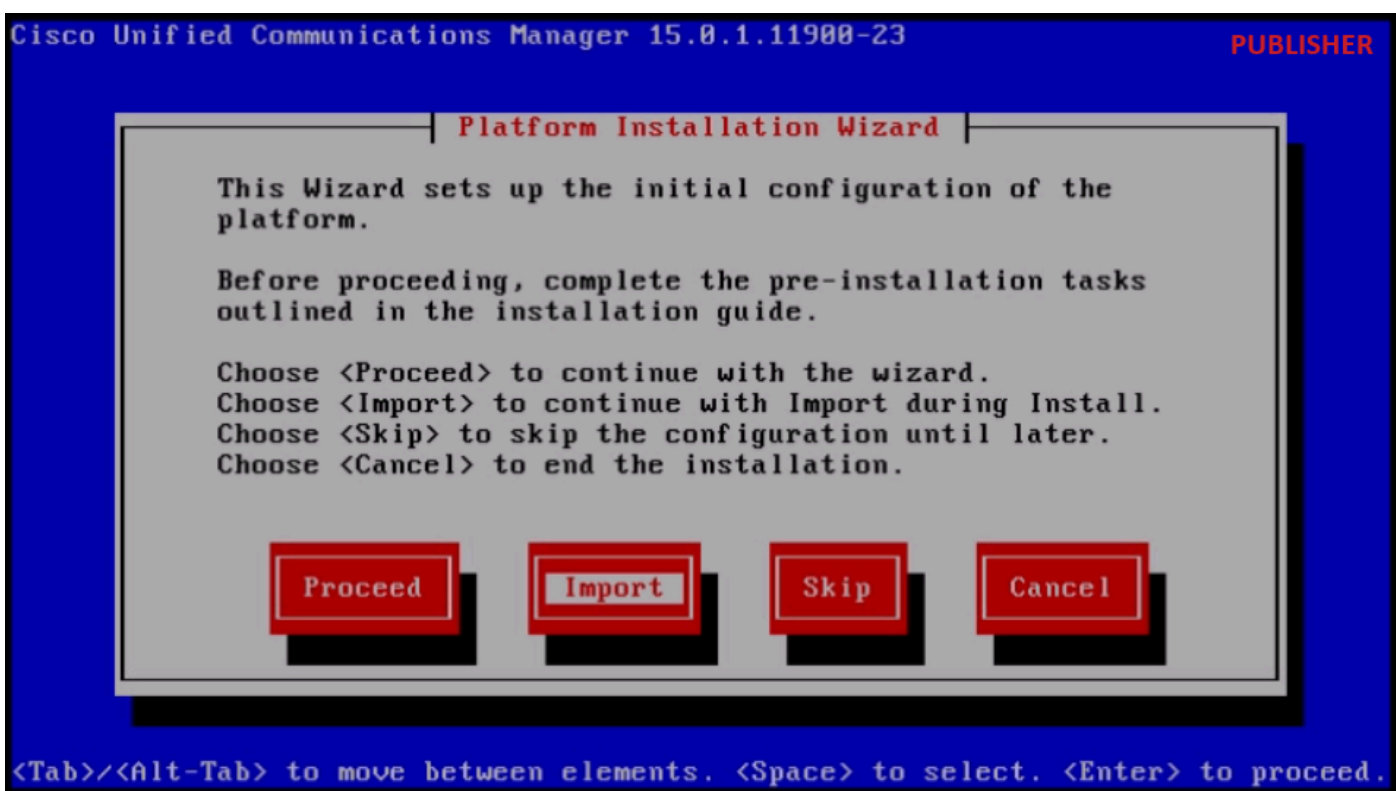
选择Cisco Unified Communication Manager，然后单击OK按钮。

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

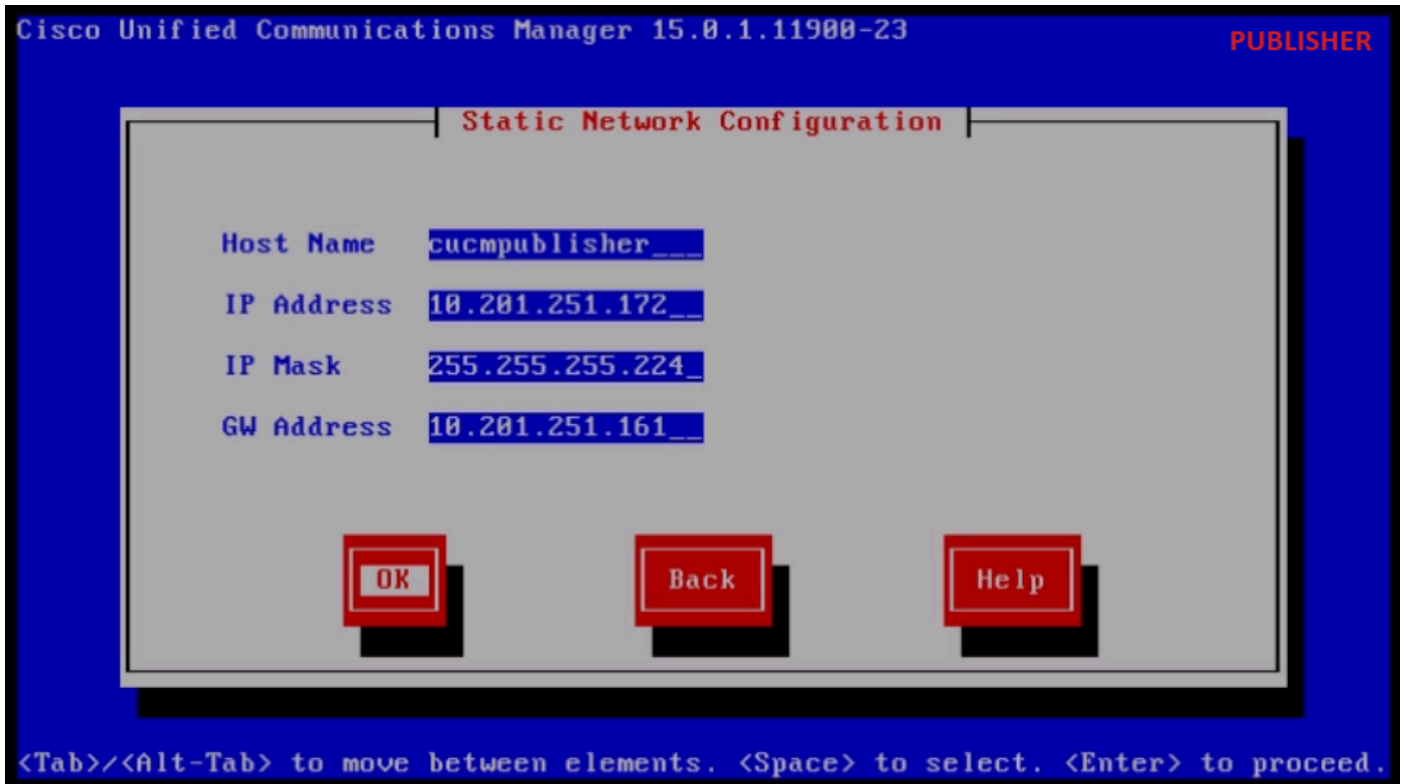
选择适当的时区，然后单击OK按钮。

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。

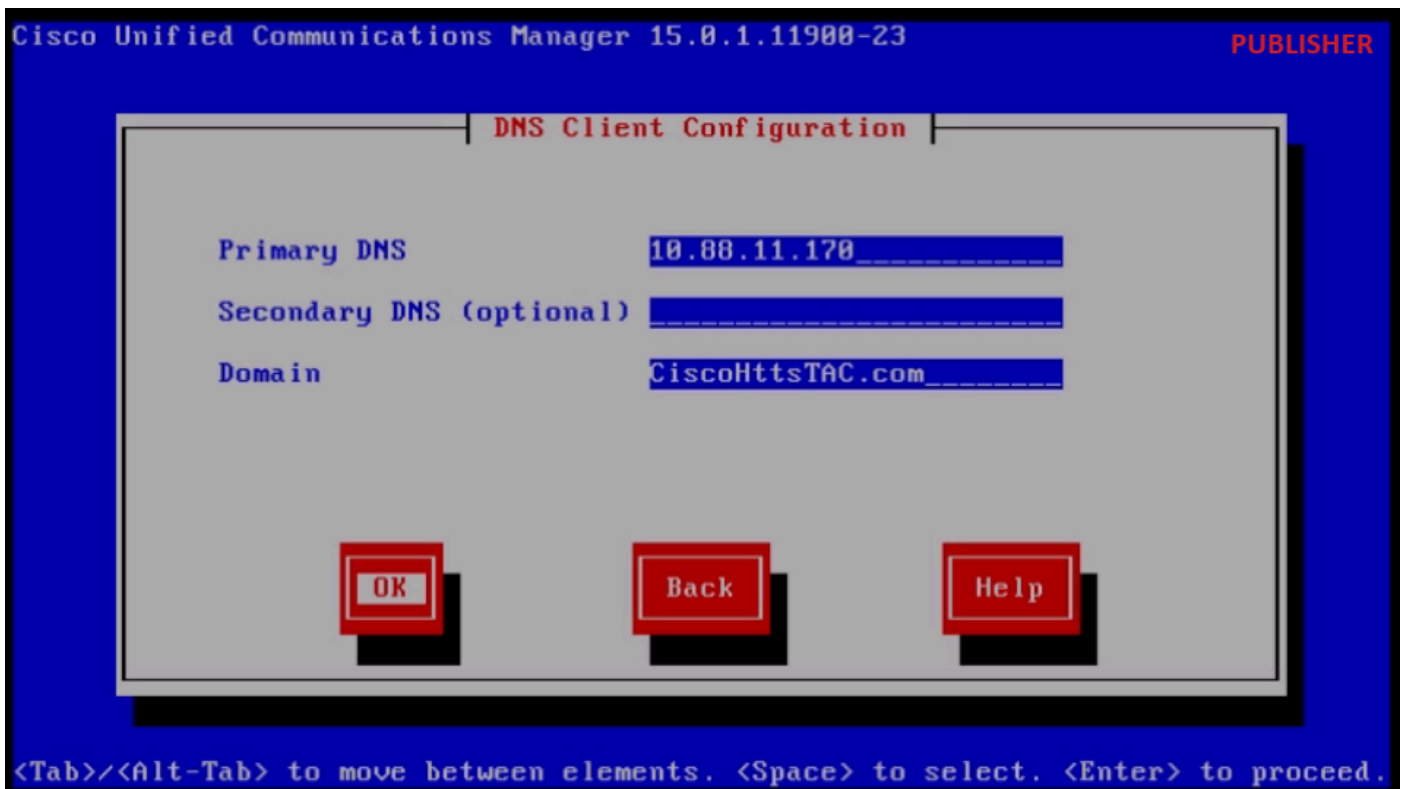
提供主机名、IP地址、IP掩码和网关(GW)地址，然后按确定按钮。



静态网络配置

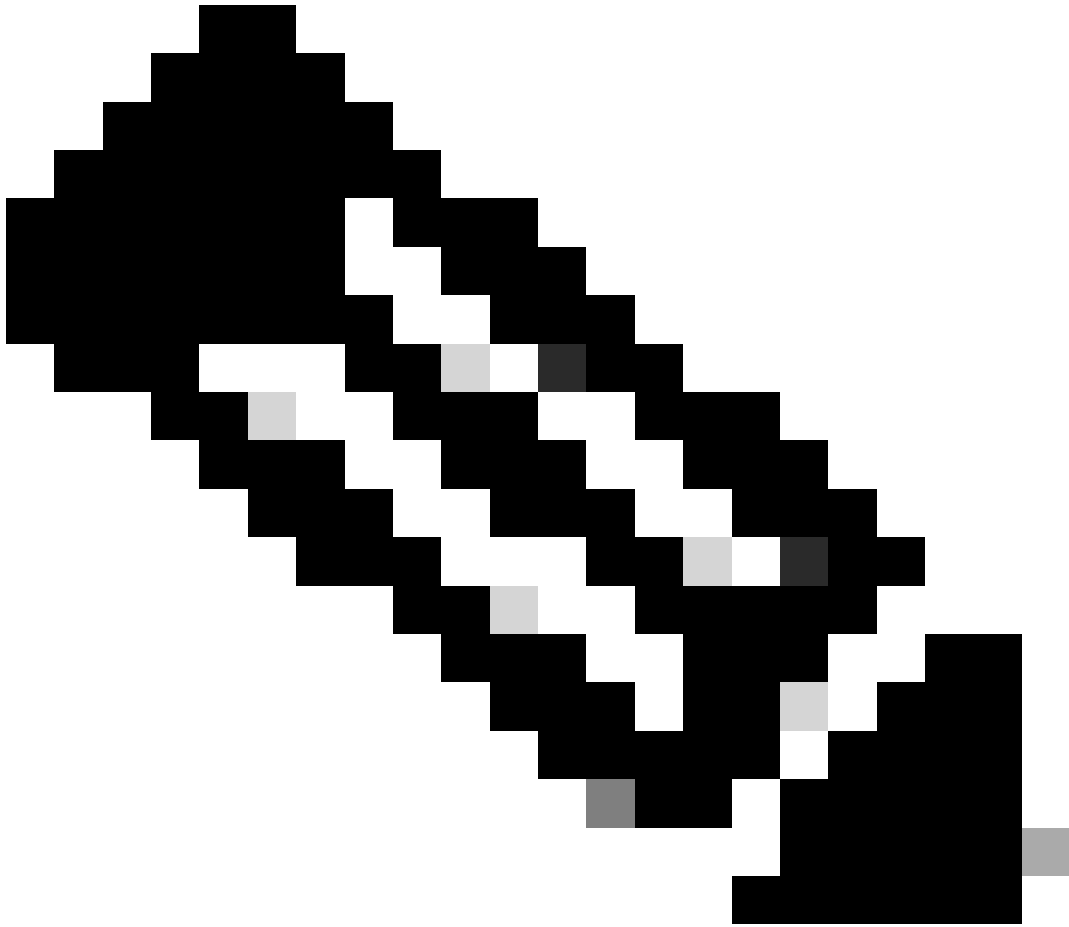
单击“DNS Client Configuration”下的Yes按钮。

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。

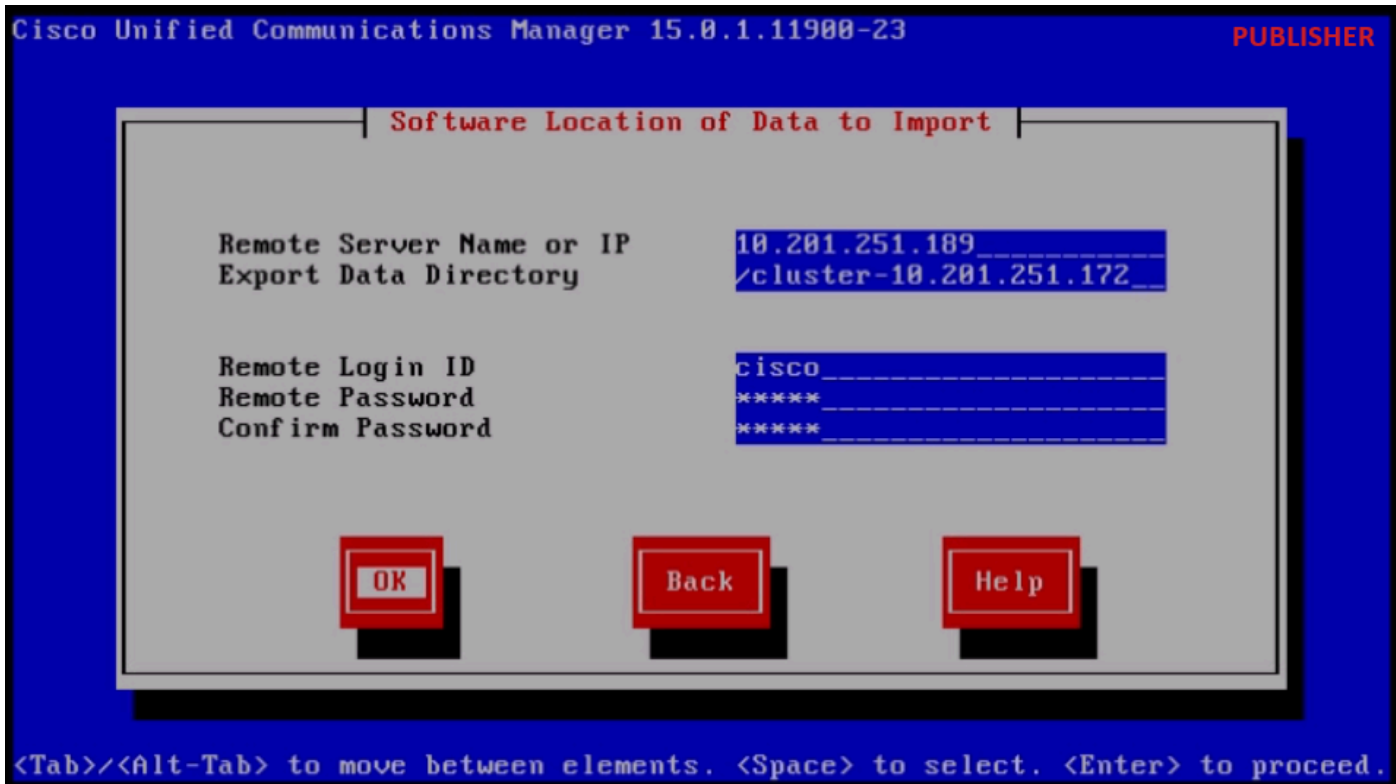


注意：发布服务器导出数据的位置位于文件夹cluster-Publisher_IP_Address中，如屏幕截图所示。

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。

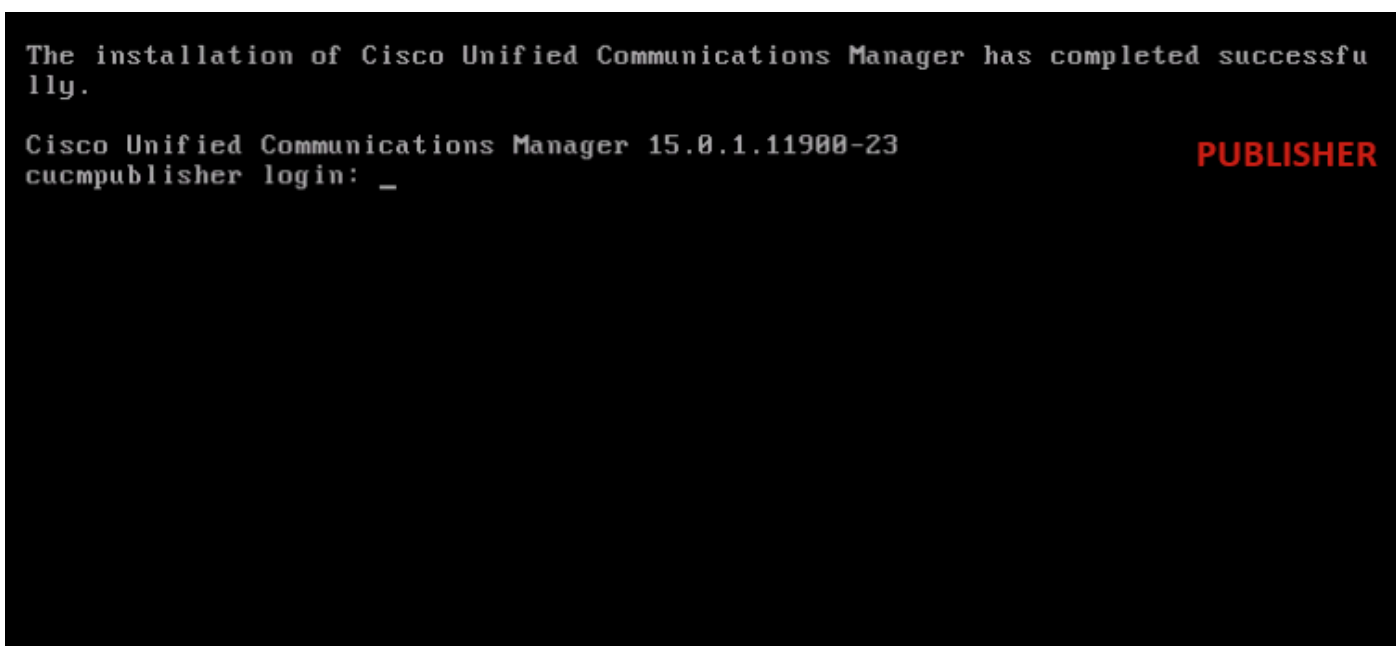
在Smart Call Home Enable Page下选择适当的选项，然后单击OK按钮。

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。

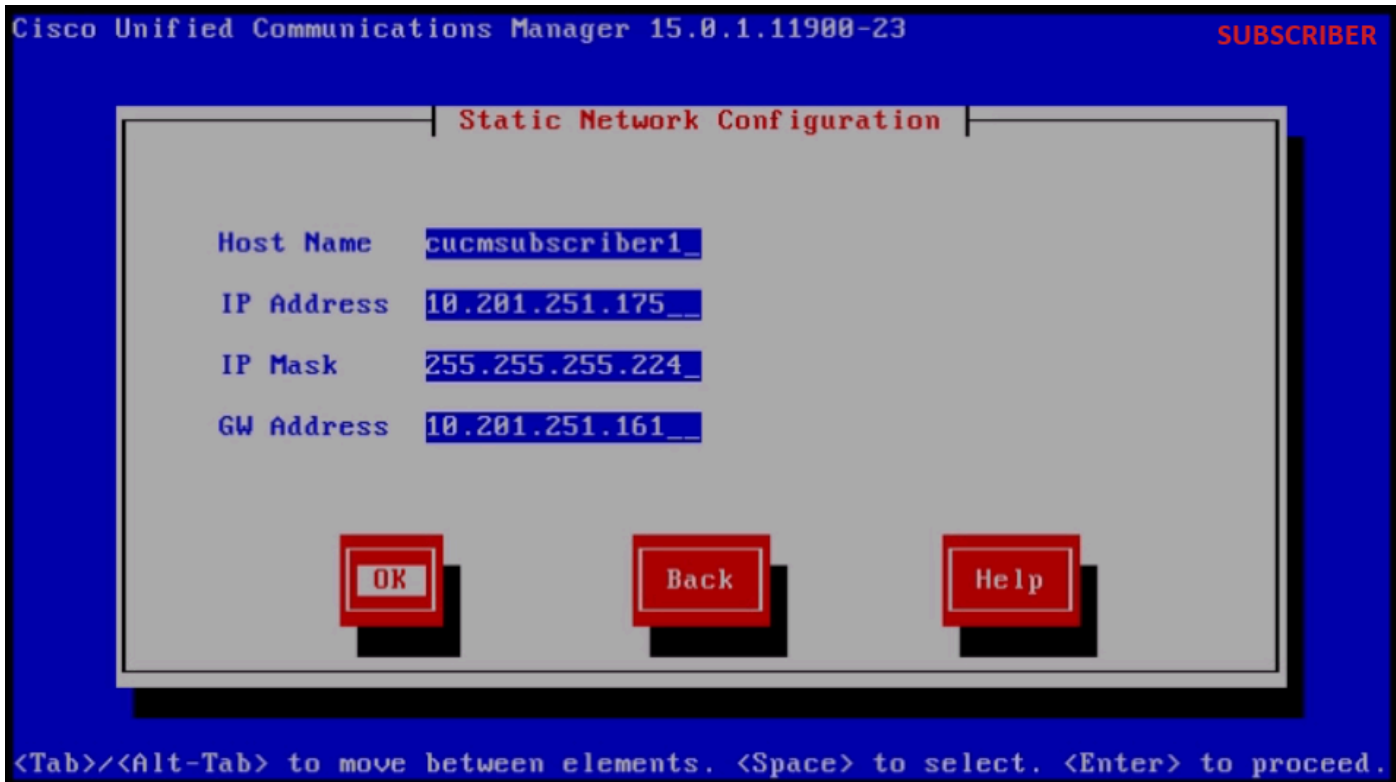
选择适当的时区，然后单击OK按钮。

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。

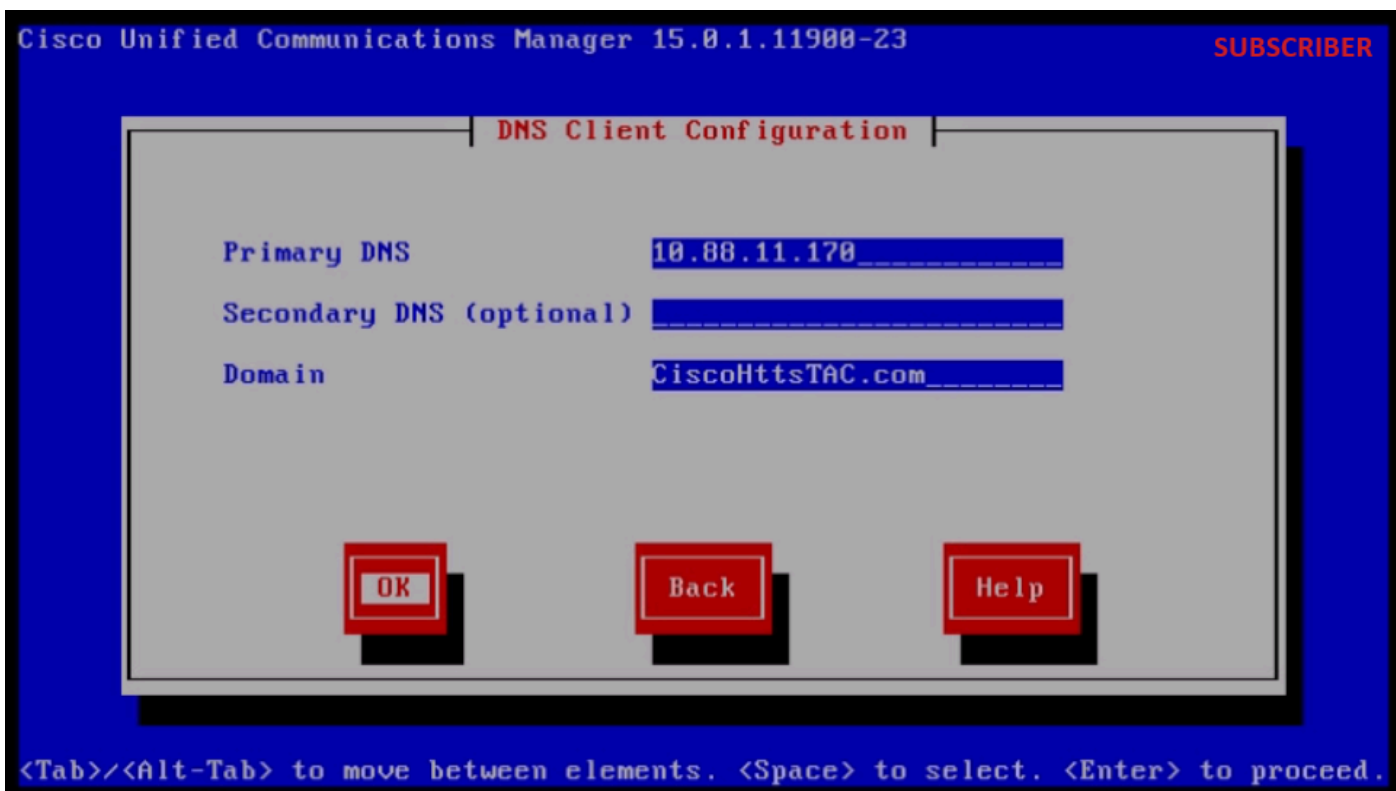
提供用户服务器的主机名、IP地址、IP掩码和网关(GW)地址，然后按确定按钮。



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。

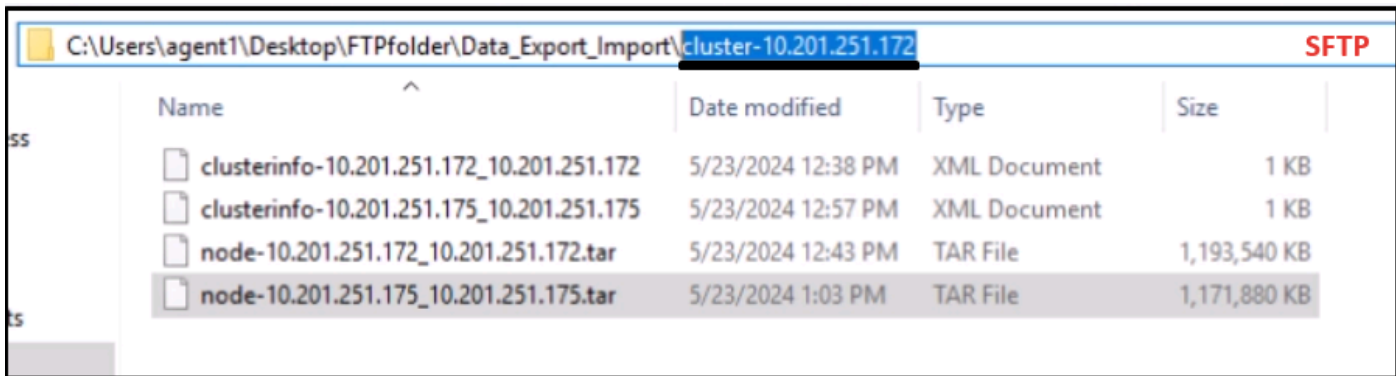
Software Location of Data to Import

| | |
|--------------------------|---------------------------|
| 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。



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 'SFTP'. The main area displays a table of files and folders:

| 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

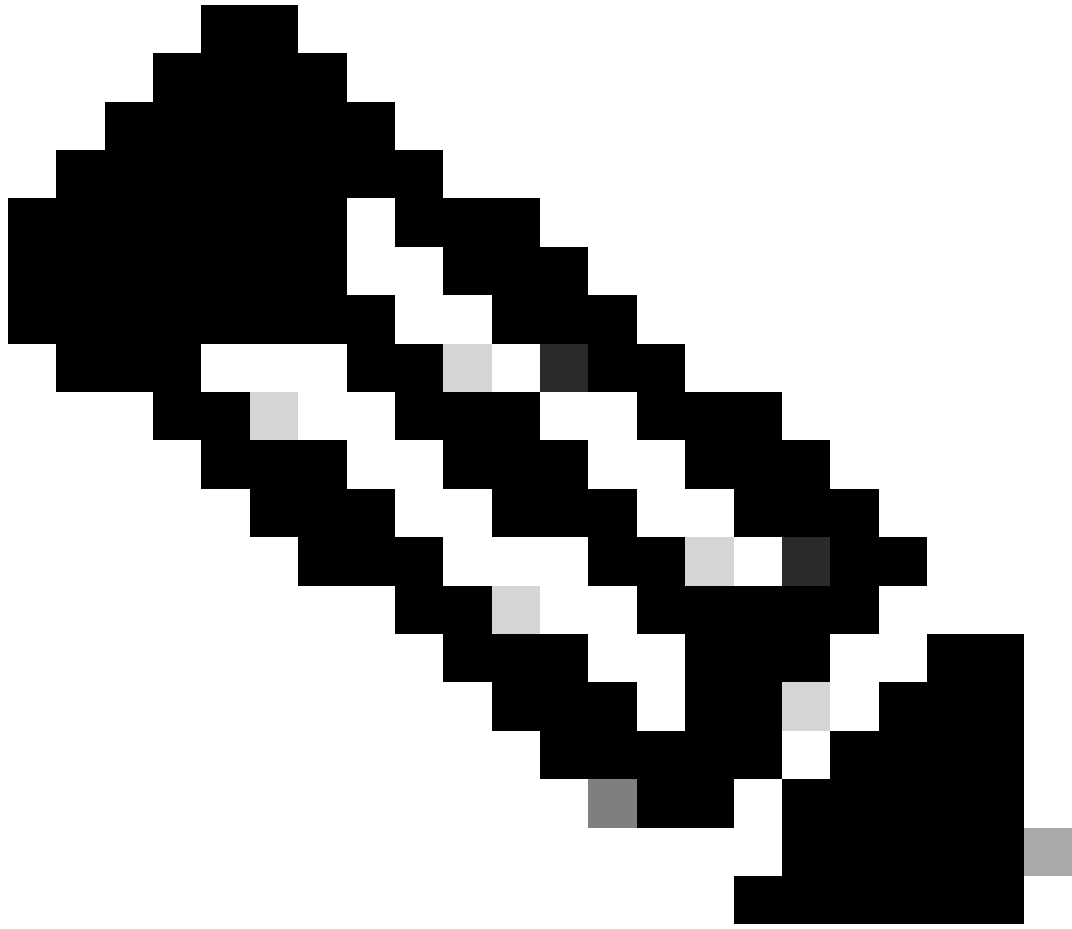
<Tab>/<Alt-Tab> to move between elements. <Space> to select. <Enter> to proceed.

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

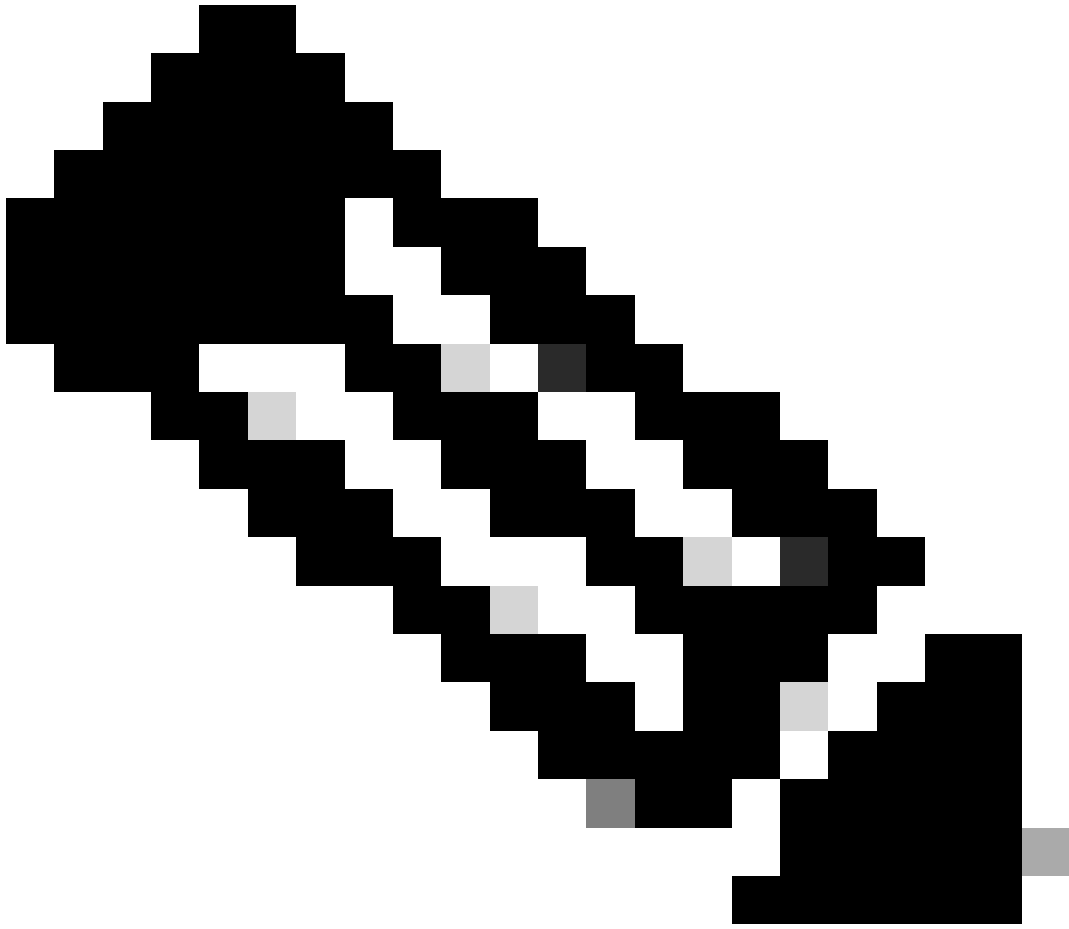
Back

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。



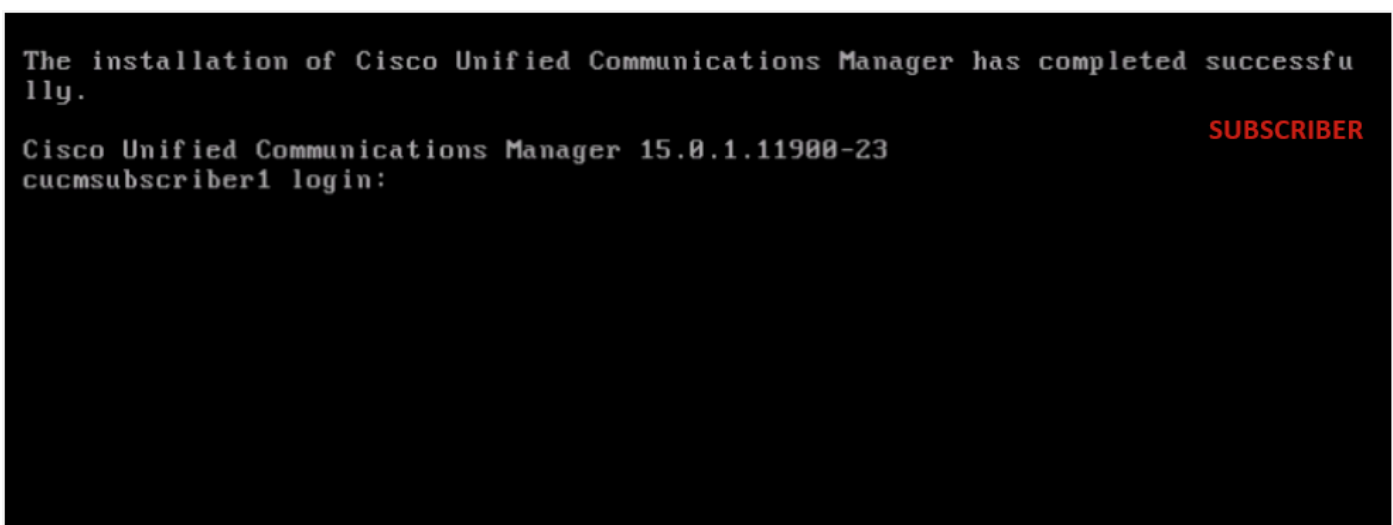
注意：如果要配置SMTP，请按“是”按钮并配置SMTP主机。

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 : cucmsubscriber1
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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