

通过Cisco Prime协作部署(PCD)在Callmanager上上传思科IP电话固件

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[背景信息](#)

[配置](#)

[发现群集](#)

[将固件文件上传到PCD](#)

[添加升级任务](#)

[验证](#)

[故障排除](#)

简介

本文档介绍如何通过Prime协作部署(PCD)在Cisco Unified Communications Manager(CUCM)集群的多个节点上传IP电话固件。

先决条件

要求

本文档没有任何特定的要求。

使用的组件

本文档中的信息基于以下软件版本：

- CUCM版本10.5.2.11900-3
- PCD版本11.0.1.20000-2
- IP电话固件78xx.11-5-1-18

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。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

背景信息

Cisco PCD是统一通信应用的迁移/升级应用。通过PCD，您可以升级现有统一通信应用的版本，也可以将整个集群迁移到相同或不同版本的新集群。除此之外，您还可以将设备包、思科选项包

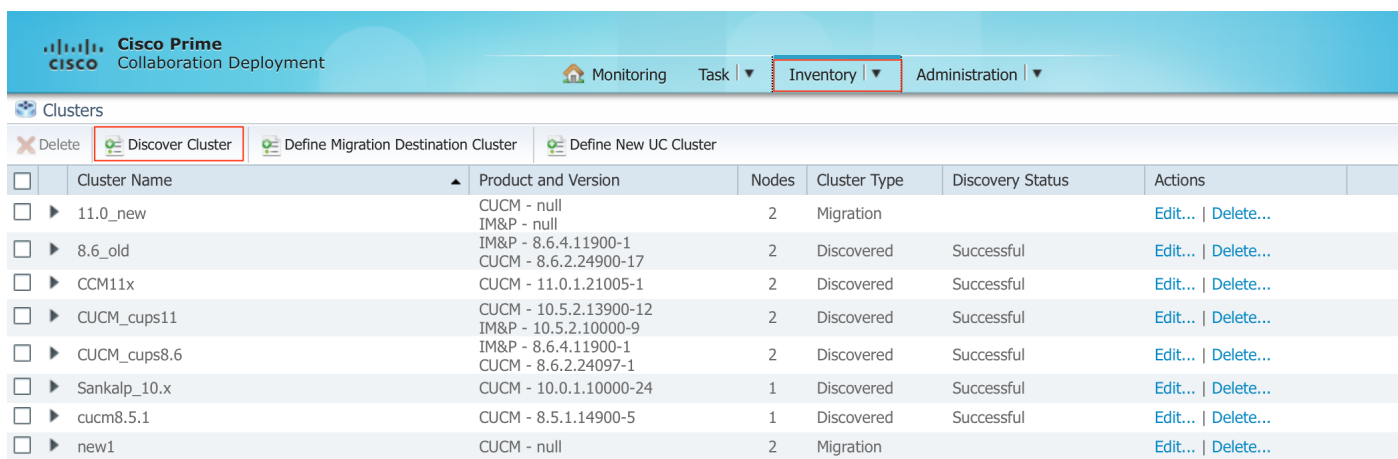
(COP)文件、电话固件文件安装到呼叫管理器。

如果在CallManager上传IP电话固件，特别是在多节点集群中，Cisco PCD非常有用，因为它减少了需要执行的步骤数并删除了对第三方简单文件传输协议(SFTP)服务器的依赖项。它还允许用户根据其维护窗口安排固件文件上传。

配置

发现群集

要发现电话固件文件必须上传到的群集，请导航至Inventory > Clusters > Discover Cluster，如图所示：



Cluster Name	Product and Version	Nodes	Cluster Type	Discovery Status	Actions
11.0_new	CUCM - null IM&P - null	2	Migration		Edit... Delete...
8.6_old	IM&P - 8.6.4.11900-1 CUCM - 8.6.2.24900-17	2	Discovered	Successful	Edit... Delete...
CCM11x	CUCM - 11.0.1.21005-1	2	Discovered	Successful	Edit... Delete...
CUCM_cups11	CUCM - 10.5.2.13900-12 IM&P - 10.5.2.10000-9	2	Discovered	Successful	Edit... Delete...
CUCM_cups8.6	IM&P - 8.6.4.11900-1 CUCM - 8.6.2.24097-1	2	Discovered	Successful	Edit... Delete...
Sankalp_10.x	CUCM - 10.0.1.10000-24	1	Discovered	Successful	Edit... Delete...
cucm8.5.1	CUCM - 8.5.1.14900-5	1	Discovered	Successful	Edit... Delete...
new1	CUCM - null	2	Migration		Edit... Delete...

为要发现的群集指定主机名/IP地址和操作系统管理员凭据。

此群集的呢称不需要与主机名相同。

完成后，单击Next，如图所示：

Discover Cluster

Step 1 of 3

Cluster Access

Provide a unique cluster nickname and the network information for the cluster publisher. If a CUCM/IM&P cluster, use the CUCM Publisher. The node will be contacted to identify the other nodes in the cluster.

Choose a Nickname for this Cluster

Hostname/IP Address of Cluster Publisher

OS Admin Username

OS Admin Password

Enable NAT

Cluster Discovery Progress


Cluster Settings

群集发现可能需要几分钟。它取决于群集的大小和位置。

成功发现群集后，单击“下一步”，如图所示：

Discover Cluster


Step 2 of 3

Cluster Access 

Cluster Discovery Progress

During discovery, the list of cluster nodes will be retrieved, and each of the nodes contacted.


Cluster Name **Megacluster**

Contacting cluster nodes and updating cluster data. The process could take several minutes to complete. 

Cluster Nodes

Hostname	Contact Status	Product	Active Version	Inactive Version	Hardware
labsetup	Contacting...				
labsetup10	Contacting...				
labsetup2	Contacting...				
labsetup3	Contacting...				
labsetup4	Contacting...				
labsetup5	Contacting...				
labsetup6	Contacting...				
labsetup7	Contacting...				
labsetup8	Contacting...				
labsetup9	Contacting...				


Previous **Next** Finish Cancel

Cluster Settings 

在单击“编辑设置”时，根据需要在此处分配服务器角色。完成后，单击“完成”，如图所示：

Discover Cluster

Step 3 of 3

Cluster Access 

Cluster Discovery Progress 

Cluster Settings

Optional - Assign the server role(s) to each cluster node to identify its functional role(s) in the cluster and to help determine the proper sequence of a task performed on the cluster.

Total 10

 Edit Settings

Show All 

Hostname	Product	Functions	SFTP Server	Notes
labsetup4	CUCM		localhost	
labsetup2	CUCM		localhost	
labsetup3			localhost	
labsetup5	CUCM		localhost	
labsetup7	CUCM		localhost	
labsetup6			localhost	
labsetup10	CUCM		localhost	
labsetup9	CUCM		localhost	
labsetup8	CUCM		localhost	
labsetup	CUCM	Publisher	localhost	

Previous Next **Finish** Cancel

将固件文件上传到PCD

在指定升级文件之前，将电话固件文件上传到PCD。

文件应为思科选项包(COP)文件。

为了上传，SFTP使用用户名adminsftp和PCD登录密码将SFTP连接到PCD服务器的IP地址。更改目录以升级并上传文件。

以下是上传示例文件：

```
SANKALJA-M-H02V:sankalja sankalja$ sftp adminsftp@10.127.227.100
adminsftp@10.127.227.100's password:
Connected to 10.127.227.100.
sftp>

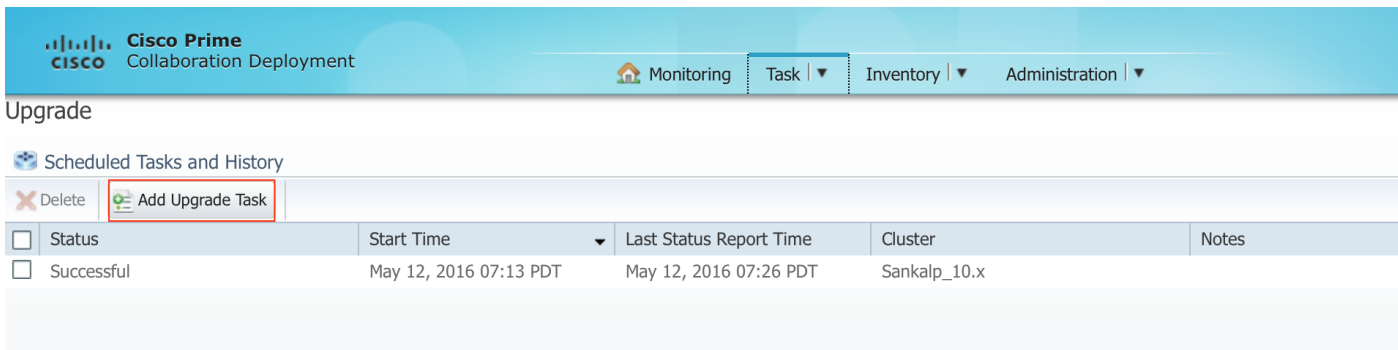
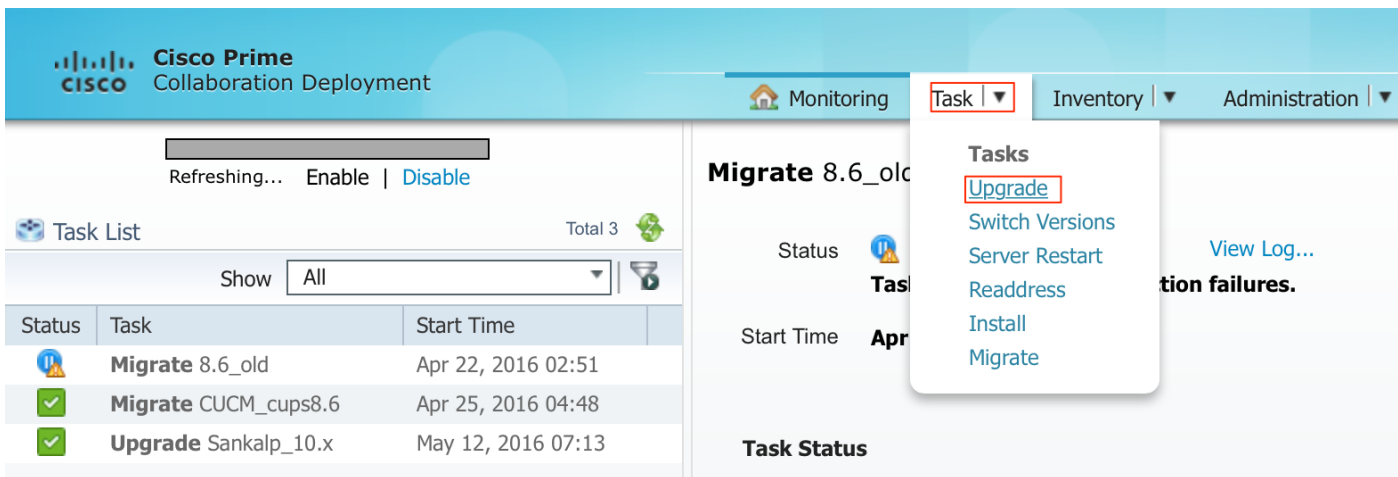
sftp> cd upgrade
sftp> put /sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn
Uploading /sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn to /upgrade/cmterm-78xx.11-5-1-18.k3.cop.sgn
/sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn

100% 68MB 11.4MB/s 00:06
```

添加升级任务

成功发现集群并将电话固件文件上传到PCD的升级目录后，添加升级任务。

导航到任务>升级>添加升级任务，如图所示：



选择需要上传电话固件文件的目标群集。

然后选择要上传电话固件文件的节点。

完成后，单击**Next**，如图所示：

Add Upgrade Task ✕

Step 1 of 5

Choose Cluster

Choose the cluster to be upgraded. The selected version will be installed over inactive version installed on the servers

Cluster:

Product:

Cluster Nodes: Megacluster

<input type="checkbox"/>	Hostname	Active Version	Inactive Version	Product	Function	SFTP Server
<input type="checkbox"/>	labsetup9	10.5.2.11900-3		CUCM		PCD1053_Upgra...
<input checked="" type="checkbox"/>	labsetup10	10.5.2.11900-3		CUCM		PCD1053_Upgra...
<input type="checkbox"/>	labsetup7	10.5.2.11900-3		CUCM		PCD1053_Upgra...
<input checked="" type="checkbox"/>	labsetup5	10.5.2.11900-3		CUCM		PCD1053_Upgra...
<input type="checkbox"/>	labsetup2	10.5.2.11900-3		CUCM		PCD1053_Upgra...

Choose Upgrade File

Set Start Time & Upgrade Options

Specify Run Sequence

Review

单击**Browse**以选择Phone Firmware文件，如图所示：

所需文件应存在于PCD的升级目录中。

Add Upgrade Task



Step 2 of 5

Choose Cluster

Choose Upgrade File

Choose the upgrade file for each product being upgraded.

The .iso and .cop images will need to be uploaded to the SFTP server(s) and related directory being used. To use the Cisco Prime Collaboration Deployment local SFTP server, upload the files to the /upgrade directory using the 'adminsftp' account.

Unified CM Upgrade file

Set Start Time & Upgrade Options

Specify Run Sequence

Review

所需文件应存在于PCD的升级目录中。

选择所需文件，然后单击“选择文件”，如图所示：

Choose Upgrade File



By default, only files that are valid for the selected nodes are displayed. To see the complete list of files, choose Show All from the menu.

File locations :

localhost: /upgrade/

Available Files

Files are retrieved from SFTP server

Show

File Name	Kind	Validity
<input checked="" type="radio"/> cmterm-78xx.11-5-1-18.k3.cop.sgn	cop	true
<input type="radio"/> po-locale-ar_AE-k3-11.5.1.1000-1.cop.sgn	cop	true
<input type="radio"/> po-locale-es_ES-k3-11.5.1.1000-1.cop.sgn	cop	true

单击Next，如图所示：

Add Upgrade Task



Step 2 of 5

Choose Cluster



Choose Upgrade File

Choose the upgrade file for each product being upgraded.

The .iso and .cop images will need to be uploaded to the SFTP server(s) and related directory being used. To use the Cisco Prime Collaboration Deployment local SFTP server, upload the files to the /upgrade directory using the 'adminsftp' account.

Unified CM Upgrade file

Set Start Time & Upgrade Options



Specify Run Sequence



Review



根据要求指定开始时间。您可以在向导完成后立即选择开始任务，或在以后手动或安排文件安装。

指定“开始时间”后，单击“下一步”，如图所示：

Add Upgrade Task

Step 3 of 5

Choose Cluster

Choose Upgrade File

Set Start Time & Upgrade Options

Select a start time for the task and set upgrade options.

The time zone shown here corresponds to the time zone of this Cisco Prime Collaboration Deployment server and not necessarily that of the target servers or cluster.

Start Time

Schedule for a specific time (PDT)

Start task manually

Start task immediately upon completion

Upgrade Options

Automatically switch to new version

S	M	T	W	T	F	S
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Specify Run Sequence

Review

指定服务器处理升级的顺序。

在启动升级任务之前和完成升级过程后，单击“完成”，如图所示：

Add Upgrade Task [Close]

Step 4 of 5

- Choose Cluster ✓
- Choose Upgrade File ✓
- Set Start Time & Upgrade Options ✓

Specify Run Sequence

Specify the sequence in which upgrade is processed by the servers. If there is an error during the process, the task will be stopped. You can optionally also pause the task when a step completes.

Step	Description	Upon Completion	Actions
▶ 1	Upgrade the following node(s): labsetup10, labsetup5, labsetup4	Continue	

Sequence

Previous **Next** Finish Cancel

Review [Close]

在启动升级任务之前，请先查看升级任务。在完成升级任务后，单击**完成**，如图所示：

Add Upgrade Task



Step 5 of 5

- Choose Cluster
- Choose Upgrade File
- Set Start Time & Upgrade Options
- Specify Run Sequence

Review

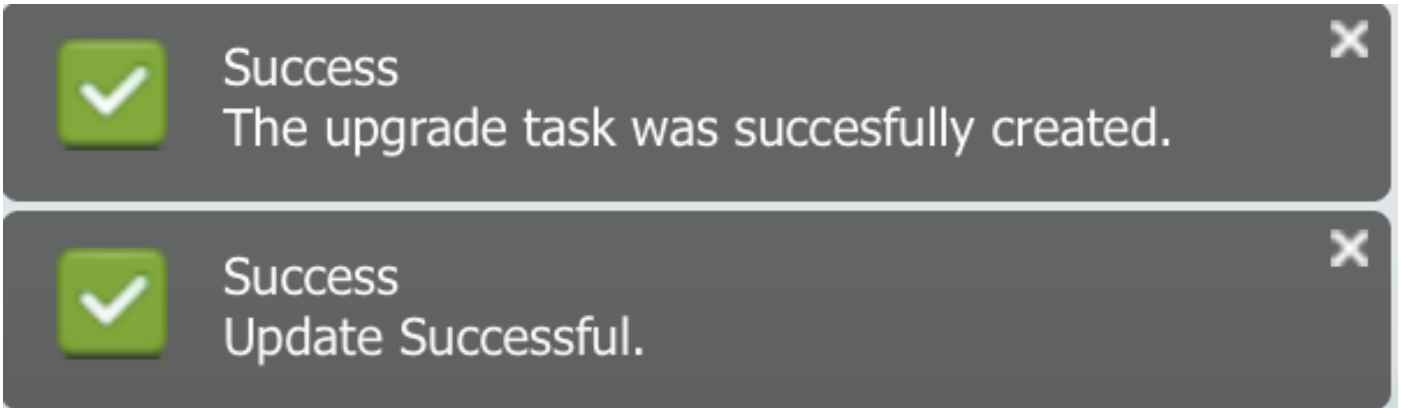
Review the settings summarized below and press Finish to create the task

Task type **Upgrade**
Cluster **Megacluster**
Unified CM upgrade file **cmterm-78xx.11-5-1-18.k3.cop.sgn**
Nodes

Start Time **7/13/2016 14:50 (PDT)**
Switch Versions **False**
Notes

[Previous](#) [Next](#) [Finish](#) [Cancel](#)

这些通知显示在屏幕右下角。



验证

使用本部分可确认配置能否正常运行。

要验证固件文件安装的状态，请导航至任务>升级>计划任务和历史记录>查看详细信息。

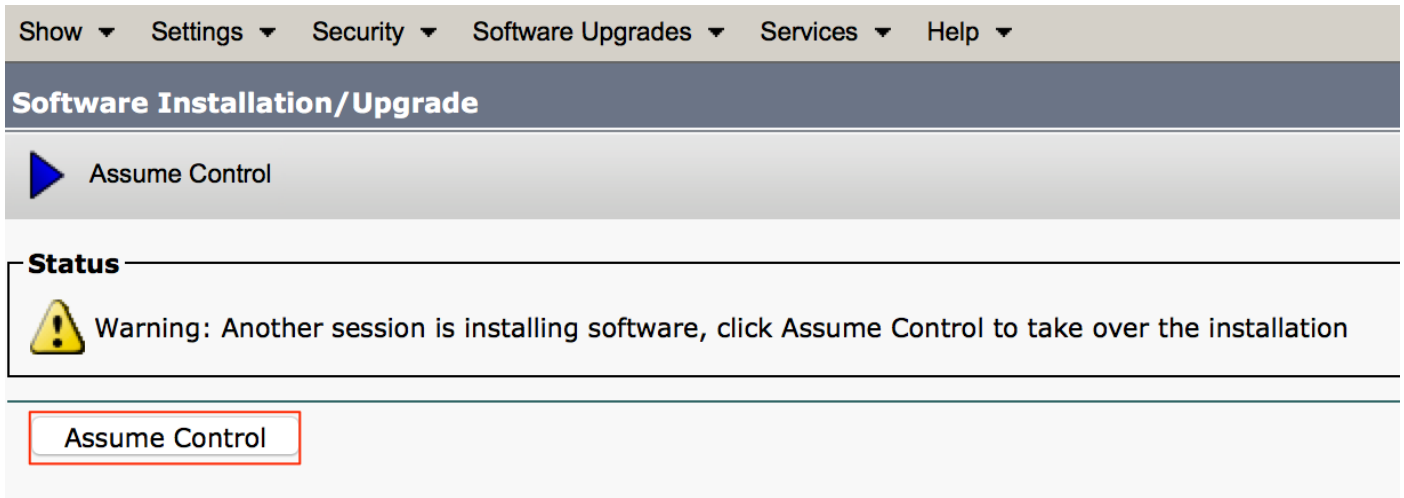
如果需要编辑设置，请单击编辑进行必要的更改，如图所示：

Status	Start Time	Last Status Report Time	Cluster	Notes	Actions
<input type="checkbox"/> Scheduled	Jul 13, 2016 14:50 PDT		Megacluster		View Details... Validate Task... Edit... Cancel... Delete...

根据上述配置，固件文件安装将按照计划时间开始。

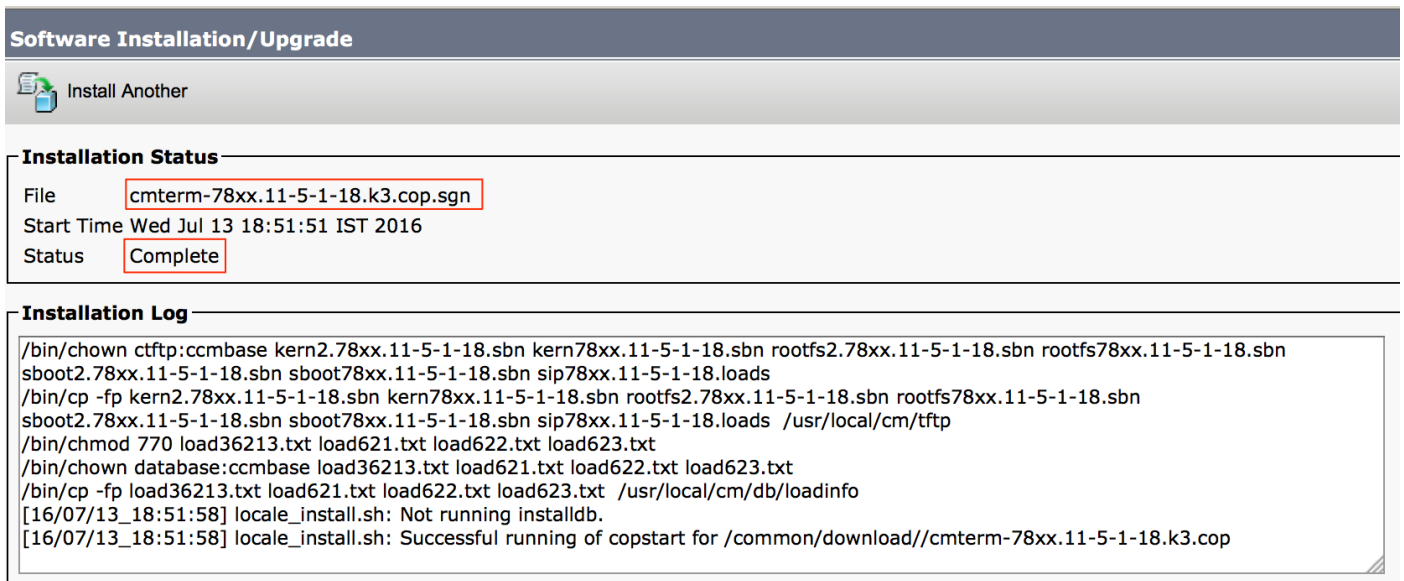
当固件安装开始时，您可以在呼叫管理器上看到如下所示。

导航至OS Administration > Software Upgrade > Software Installation / Upgrade > Assume Control，如图所示：



The screenshot shows a navigation bar with 'Show', 'Settings', 'Security', 'Software Upgrades', 'Services', and 'Help'. Below it is a header 'Software Installation/Upgrade'. A blue play button icon is next to the text 'Assume Control'. A 'Status' section contains a yellow warning icon and the text: 'Warning: Another session is installing software, click Assume Control to take over the installation'. At the bottom, there is a button labeled 'Assume Control' with a red border.

如图所示，安装完成后，状态将反映为 **Complete on call manager**。



The screenshot shows the 'Software Installation/Upgrade' page with an 'Install Another' button. The 'Installation Status' section displays: File: cmterm-78xx.11-5-1-18.k3.cop.sgn, Start Time: Wed Jul 13 18:51:51 IST 2016, Status: Complete. The 'Installation Log' section contains the following text: /bin/chown cftftp:ccmbase kern2.78xx.11-5-1-18.sbn kern78xx.11-5-1-18.sbn rootfs2.78xx.11-5-1-18.sbn rootfs78xx.11-5-1-18.sbn sboot2.78xx.11-5-1-18.sbn sboot78xx.11-5-1-18.sbn sip78xx.11-5-1-18.loads /bin/cp -fp kern2.78xx.11-5-1-18.sbn kern78xx.11-5-1-18.sbn rootfs2.78xx.11-5-1-18.sbn rootfs78xx.11-5-1-18.sbn sboot2.78xx.11-5-1-18.sbn sboot78xx.11-5-1-18.sbn sip78xx.11-5-1-18.loads /usr/local/cm/tftp /bin/chmod 770 load36213.txt load621.txt load622.txt load623.txt /bin/chown database:ccmbase load36213.txt load621.txt load622.txt load623.txt /bin/cp -fp load36213.txt load621.txt load622.txt load623.txt /usr/local/cm/db/loadinfo [16/07/13_18:51:58] locale_install.sh: Not running installdb. [16/07/13_18:51:58] locale_install.sh: Successful running of copstart for /common/download//cmterm-78xx.11-5-1-18.k3.cop

安装后，要查找文件，请导航至OS Administration > Software Upgrade > TFTP File Management。

TFTP Files (1 - 7 of 7)	
Find TFTP Files where	File Name contains 78xx.11-5 Find Clear Filter + -
<input type="checkbox"/>	File Name ^
<input type="checkbox"/>	kern2.78xx.11-5-1-18.sbn
<input type="checkbox"/>	kern78xx.11-5-1-18.sbn
<input type="checkbox"/>	rootfs2.78xx.11-5-1-18.sbn
<input type="checkbox"/>	rootfs78xx.11-5-1-18.sbn
<input type="checkbox"/>	sboot2.78xx.11-5-1-18.sbn
<input type="checkbox"/>	sboot78xx.11-5-1-18.sbn
<input type="checkbox"/>	sip78xx.11-5-1-18.loads

如图所示，在安装完成后的PCD上，状态将反映为**Successful**，如图所示：

The screenshot shows the Cisco Prime Collaboration Deployment interface. The main content area displays the 'Upgrade Megacluster' task with a status of 'Successful'. The task details include the cluster name 'Megacluster' and the upgrade file 'cmterm-78xx.11-5-1-18.k3.cop.sgn'. The start time is 'Jul 13, 2016 06:05 PDT'. A 'Task Status' table shows one step: 'Upgrade the following node(s): labsetup10, labsetup5, labsetup4', which is marked as 'Successful'.

Step	Description	Upon Completion	Status
1	Upgrade the following node(s): labsetup10, labsetup5, labsetup4	Continue	Successful

将固件文件上传到呼叫管理器后，应在新固件的各个服务器上重新启动**TFTP服务**，以反映在**CM Administration > Device > Device Settings > Device Defaults**下。

电话需要重置，以便下载固件文件。

故障排除

目前没有针对此配置的故障排除信息。