

通過Cisco Prime合作部署(PCD)在Callmanager上上傳思科IP電話韌體

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簡介

本文檔介紹如何通過Prime合作部署(PCD)在Cisco Unified Communications Manager(CUCM)集群的多個節點上載IP電話韌體。

必要條件

需求

本文件沒有特定需求。

採用元件

本檔案中的資訊是根據以下軟體版本：

- CUCM版本10.5.2.11900-3
- PCD版本11.0.1.20000-2
- IP電話韌體78xx.11-5-1-18

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

背景資訊

Cisco PCD是用於統一通訊應用的遷移/升級應用程式。通過PCD，您可以升級現有統一通訊應用的版本，也可以將整個集群遷移到相同或不同版本的新集群。除此之外，您還可以將裝置包、思科選

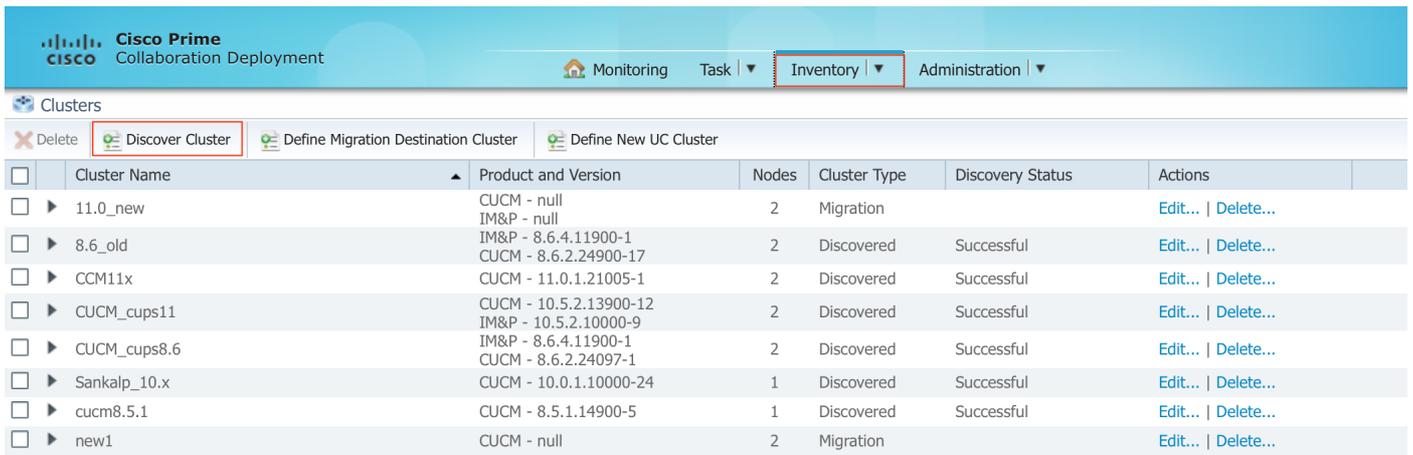
項包(COP)檔案、電話韌體檔案安裝到呼叫管理器。

如果您在callmanager上上傳IP電話韌體（尤其是在多節點群集中），Cisco PCD非常有用，因為它減少了需要執行的步驟數量，並且還刪除了對第三方簡單檔案傳輸協定(SFTP)伺服器的依賴性。它還允許使用者根據維護視窗安排韌體檔案上傳。

設定

發現群集

若要探索必須將Phone Firmware File上傳到的集群，請導覽至Inventory > Clusters > Discover Cluster，如下圖所示：



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...

指定要發現的群集的主機名/IP地址和OS管理員憑據。

此群集的暱稱不必與主機名相同。

完成後，按一下Next，如下圖所示：

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

群集發現可能需要幾分鐘。這取決於群集的大小和位置。

成功發現群集後，按一下下一步，如下圖所示：

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 

如果需要，可以在按一下「編輯設定」時在此處分配伺服器角色。完成後，按一下Finish，如下圖所示：

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

將韌體檔案上傳到PCD

指定升級檔案之前，將電話韌體檔案上傳到PCD。

該檔案應是思科選項包(COP)檔案。

若要上傳，請使用使用者名稱adminsftp和PCD登入密碼將SFTP連線到PCD伺服器的IP位址。將目錄更改為升級並在其中上傳檔案。

以下是檔案上傳範例：

```
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>

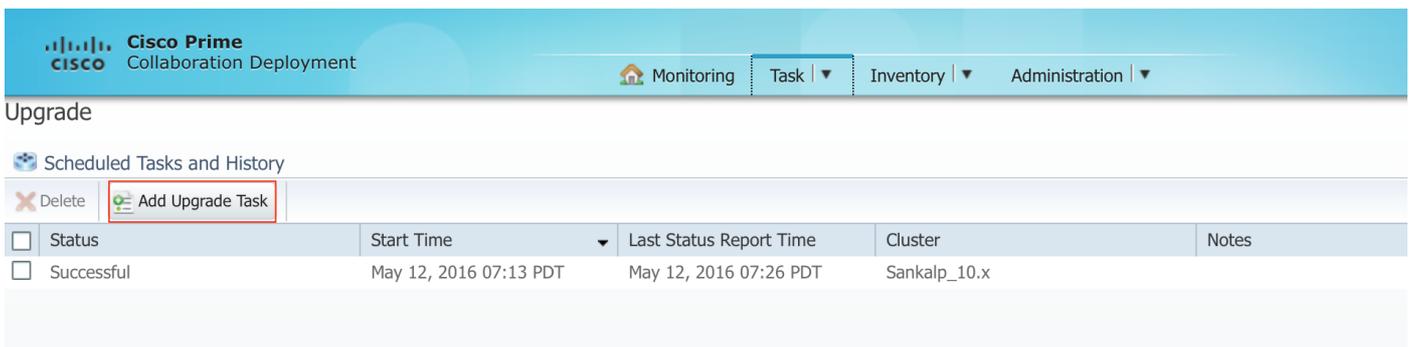
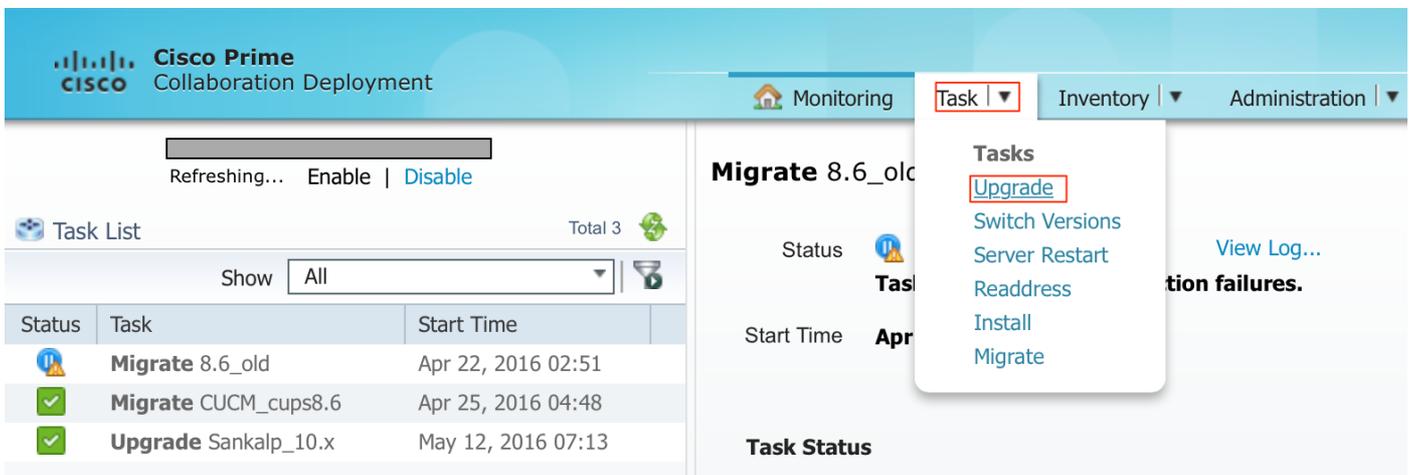
sftp> cd upgrade
sftp> put /sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn
Uploading /sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn to /upgrade/cmterm-78xx.11-5-1-18.k3.cop.sgn
/sankalja/cmterm-78xx.11-5-1-18.k3.cop.sgn

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

新增升級任務

成功發現群集並將電話韌體檔案上傳到PCD的升級目錄後，新增升級任務。

導覽至Task > Upgrade > Add Upgrade Task，如下圖所示：



選擇需要上傳電話韌體檔案的目標群集(Destination cluster)。

然後選擇要上傳電話韌體檔案的節點。

完成後，按一下**Next**，如下圖所示：

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

按一下「**Browse**」以選擇「Phone Firmware」檔案，如下圖所示：

所需的檔案應存在於PCD的升級目錄中。

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

所需的檔案應存在於PCD的升級目錄中。

選擇所需的檔案，然後按一下**Choose File**，如下圖所示：

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

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

按一下「**Next**」，如下圖所示：

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



根據要求指定開始時間。您可以選擇在完成嚮導後立即啟動任務，也可以手動或安排以後安裝檔案。

指定**Start Time**後，按一下**Next**，如下圖所示：

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

指定伺服器處理升級的順序。

在開始升級任務之前和完成升級任務之後，按一下**完成**，如下圖所示：

Add Upgrade Task ✕

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 ✔

在開始升級任務之前先檢視該任務。完成該過程後，按一下**完成**，如下圖所示：

Add Upgrade Task



Step 5 of 5

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

Review

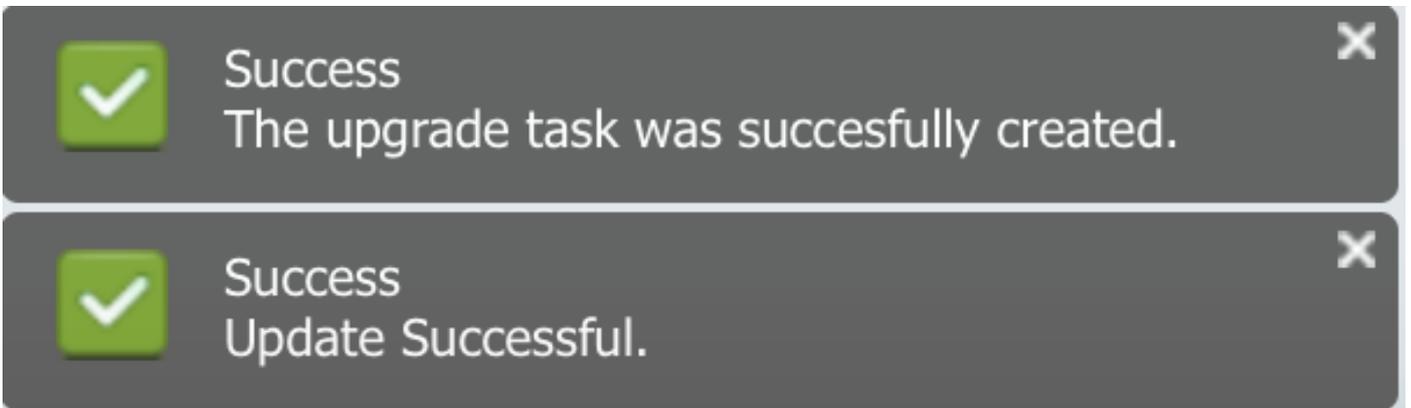
Review the settings summarized below and press Finish to create the task

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](#)

這些通知顯示在螢幕的右下方。



驗證

使用本節內容，確認您的組態是否正常運作。

若要驗證韌體檔案安裝的狀態，請導航到**任務>升級>計畫任務和歷史記錄>檢視詳細資訊**。

如果需要編輯設定，請按一下**編輯**進行必要的更改，如下圖所示：

Jpgrade

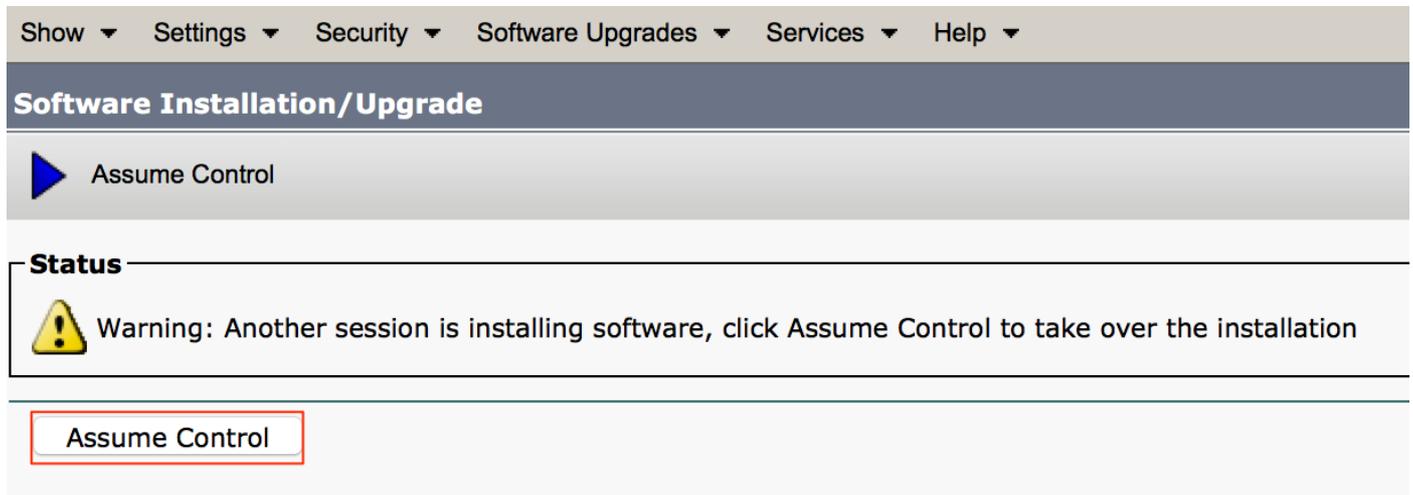
Scheduled Tasks and History Selected 0 | Total 2

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...

基於上述配置，韌體檔案安裝按照計畫時間開始。

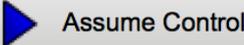
當韌體安裝開始時，您可以在呼叫管理器上看到如下所示的韌體。

導覽至OS Administration > Software Upgrade > Software Installation / Upgrade > Assume Control，如下圖所示：



Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

Software Installation/Upgrade

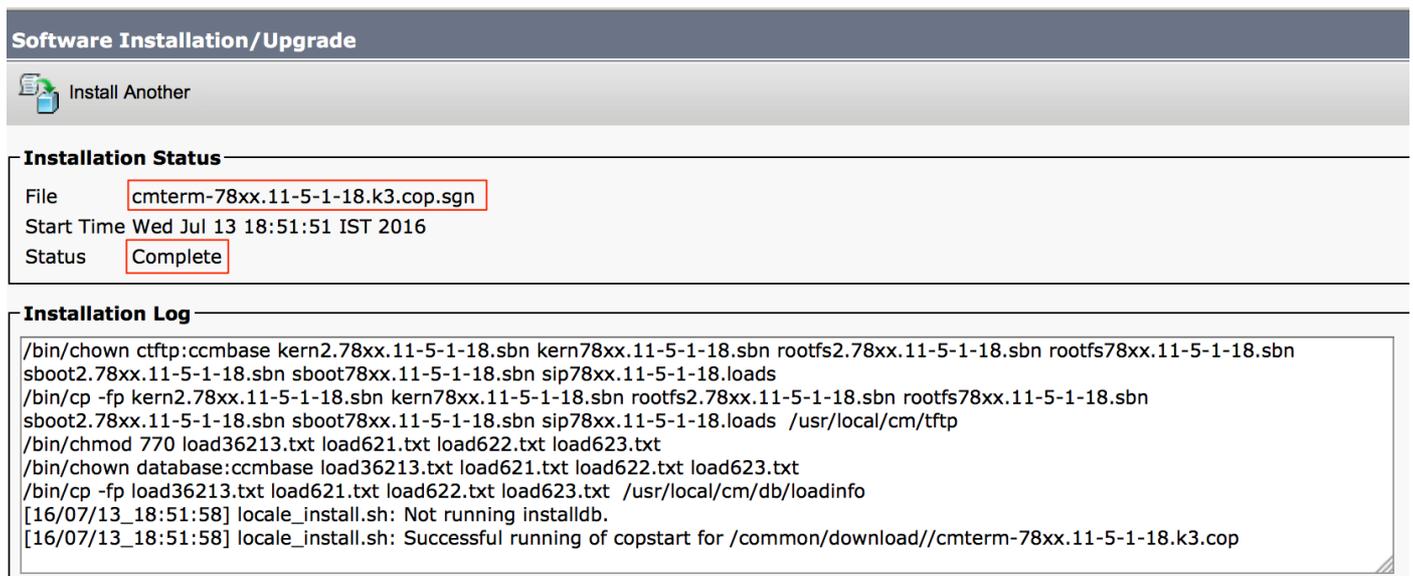


Status

 Warning: Another session is installing software, click Assume Control to take over the installation



如圖所示，安裝完成後，呼叫管理器上的狀態反映為Complete。

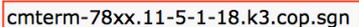


Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

Software Installation/Upgrade



Installation Status

File 
Start Time Wed Jul 13 18:51:51 IST 2016
Status 

Installation Log

```
/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//cmtterm-78xx.11-5-1-18.k3.cop
```

安裝後，若要尋找檔案，請導覽至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

如圖所示，安裝完成後，在PCD上，狀態反映為**成功**，如下圖所示：

The screenshot shows the Cisco Prime Collaboration Deployment interface. The main heading is "Upgrade Megacluster". The status is "Successful" with a green checkmark and the message "The task completed successfully." The cluster name is "Megacluster" and the CUCM Upgrade File is "cmterm-78xx.11-5-1-18.k3.cop.sgn". The start time is "Jul 13, 2016 06:05 PDT".

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

將韌體檔案上傳到呼叫管理器後，應在相應伺服器上重新啟動TFTP服務，以便新韌體在CM管理>裝置>裝置設定>裝置預設值下反映。

電話需要Reset，才能下載韌體檔案。

疑難排解

目前尚無適用於此組態的具體疑難排解資訊。