Configure and Troubleshoot Cisco Unified Communication Manager (CUCM) Backups

Contents

Introduction

This document describes the procedure to add a backup device to Cisco Unified Communication Manager (CUCM).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Unified Communication Manager (CUCM)
- Secure File Transfer Protocol (SFTP) server administration

Components Used

- Cisco Unified Communications Manager 11.5
- Linux SFTP server

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

The goal of backups available in your environment with any software is to be able to recover in case of disaster. Backups are important in order to prevent loss of data when software is corrupted, hardware fails, or natural disasters occur.
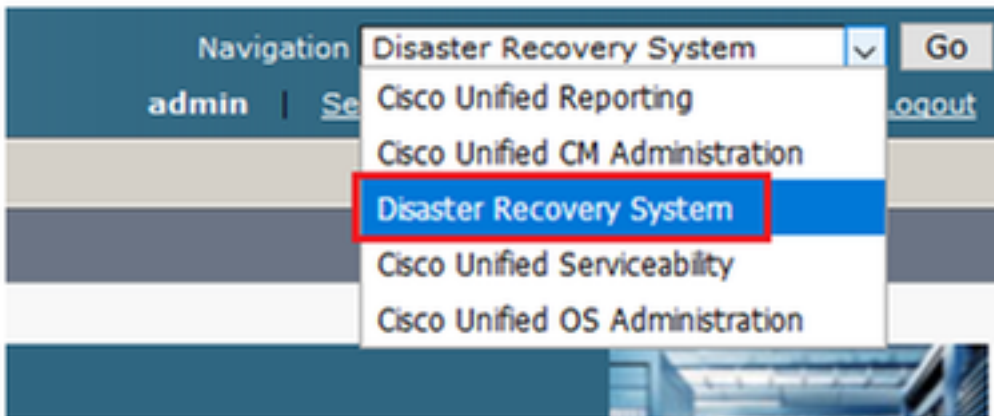
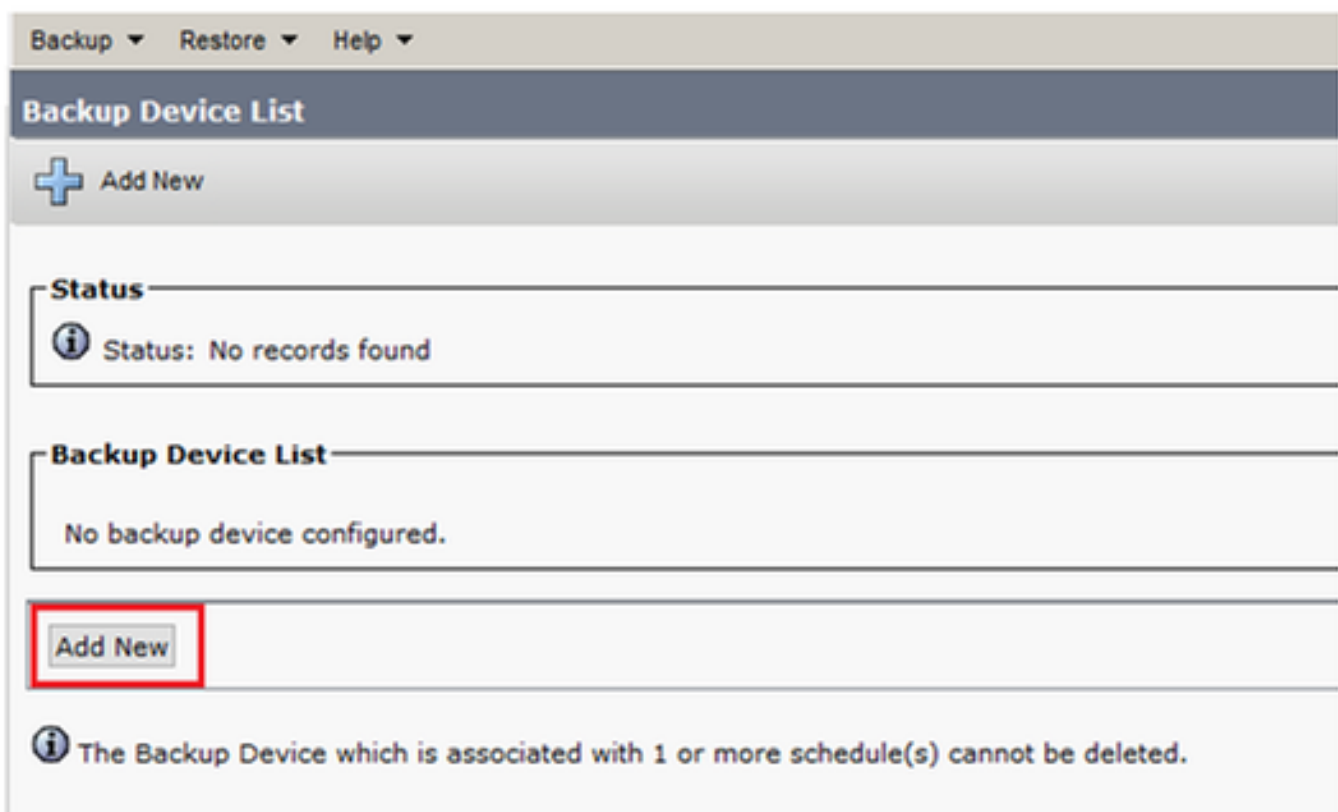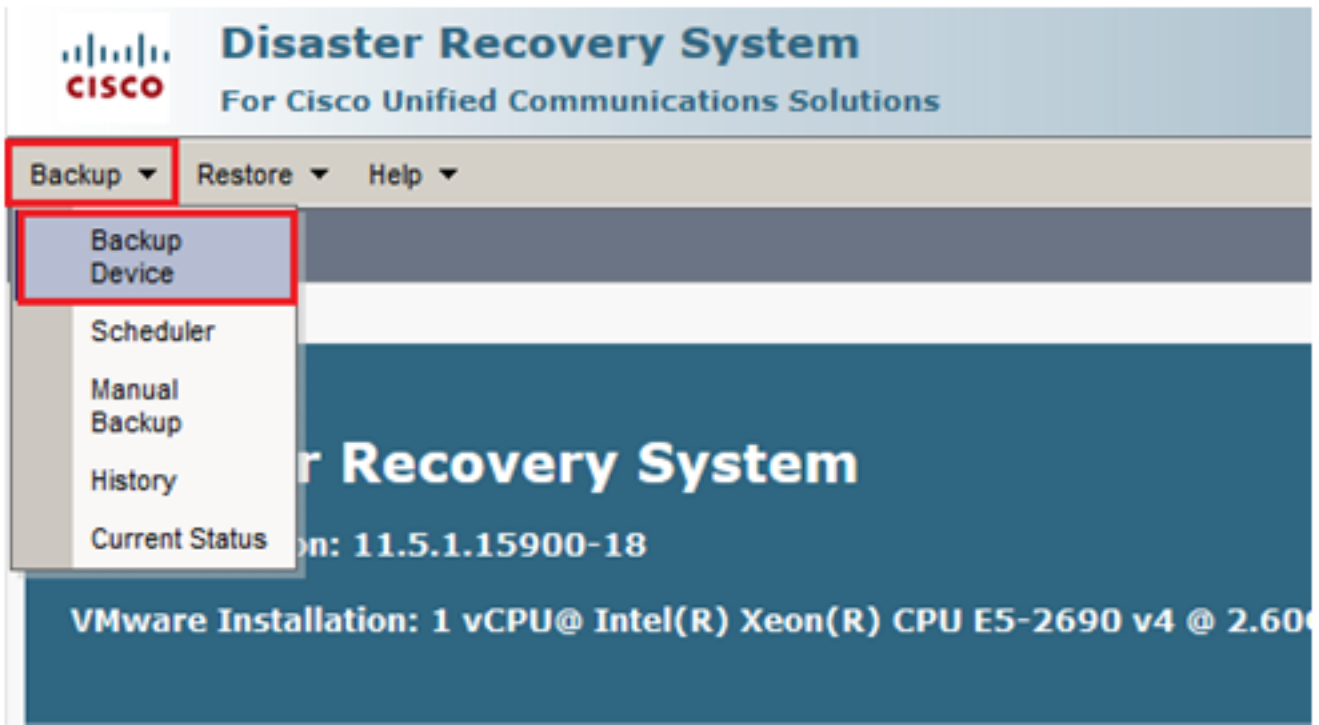CUCM and SFTP topology as shown in the image:
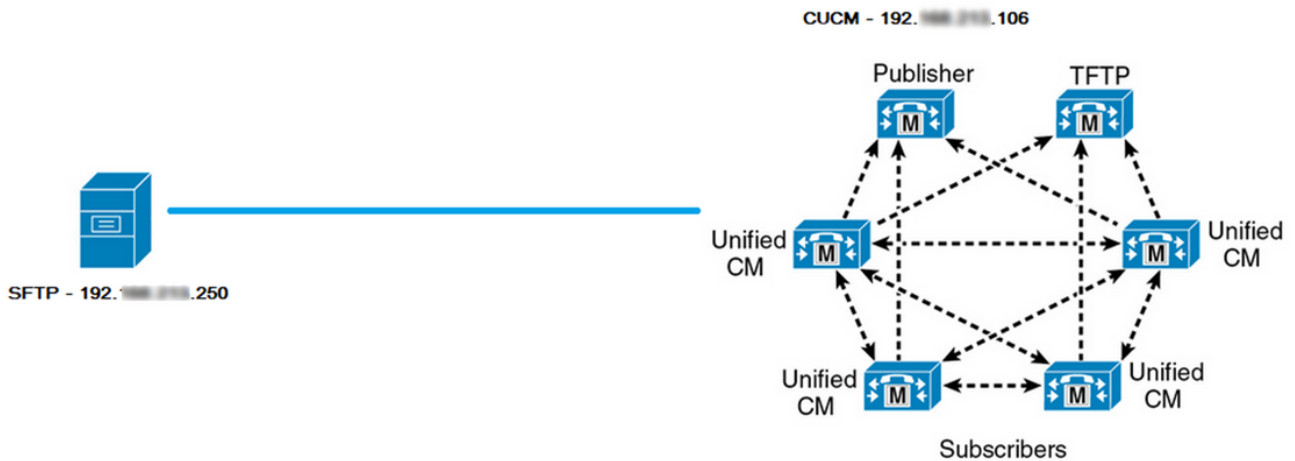
Configure

Add Backup Device via GUI Procedure

Step 1. Navigate to **CUCM > Disaster Recovery System > Backup > Backup Device** and click on **Add New** as shown in the images:

Step 2. **Add a Backup Device name, IP address, Path name, User name and Password** as shown in the images:

- The IP Address must be the destination SFTP server where backups are stored.
- The Path name is the directory within the SFTP System where backups are stored.
- User name and Password must exist within the SFTP server for authentication purposes.
- The Number of backups to store in the Network Directory must be set to the number of backups that need to be kept within the SFTP directory.

When finished, click **Save**.

Confirm **Update successful** as shown in the image:

Add Backup Device via CLI Procedure

Step 1. Secure Shell (SSH) into the IP address of the CUCM Publisher and authenticate with the Operating System (OS) username and password as shown in the images:
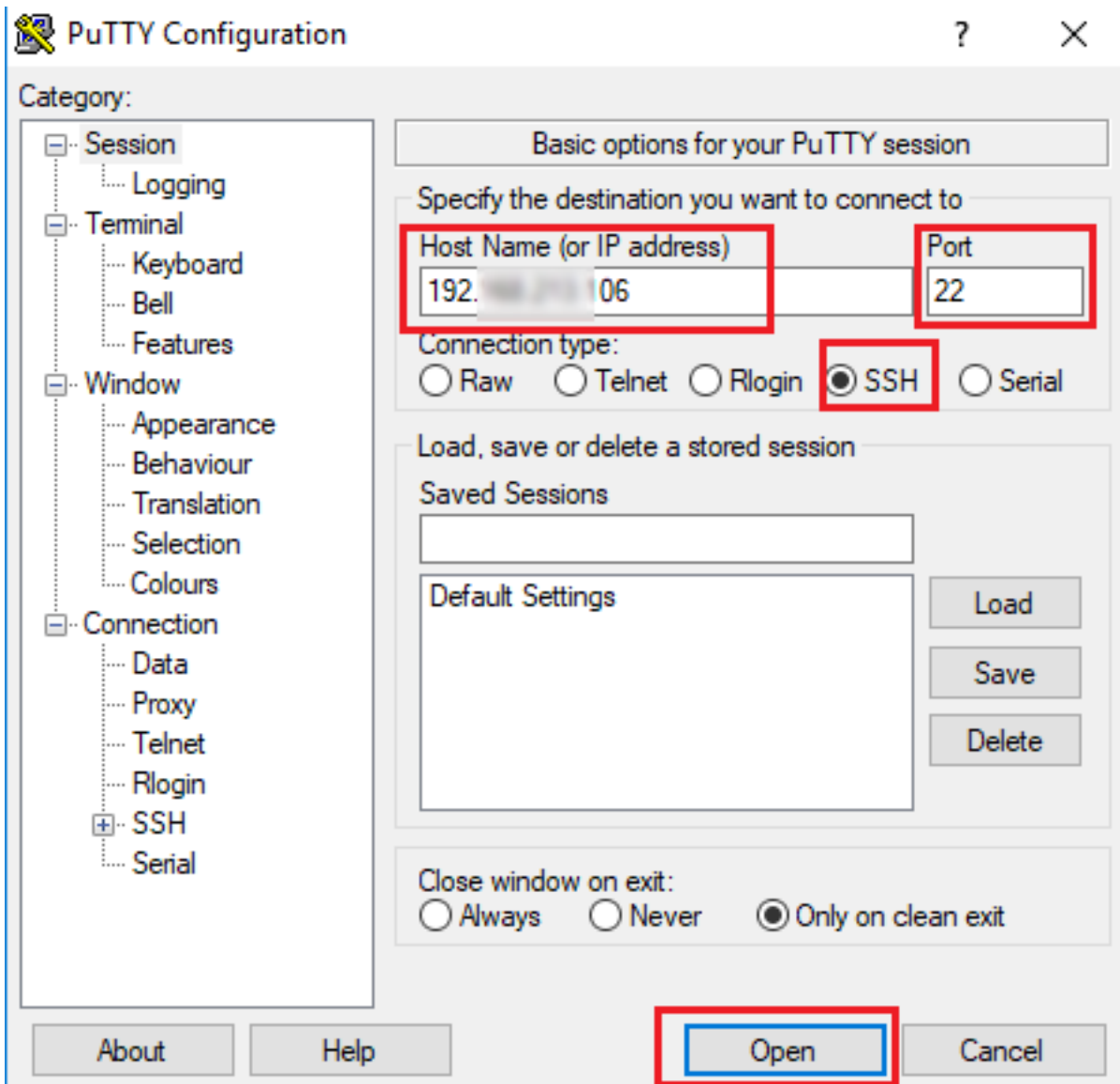
Step 2. Add the backup device with the syntax: **utils disaster_recovery device add network**
<backup device name> <path> <ip-address of remote server> <username> [number of backups]
as shown in the image:

```
admin:utils disaster_recovery device add network TAC-Backup /UCM/Backups/ 192.███.███.250 cisco 1
Please enter password to connect to network server 192.███.███.250:*****
drfCliMsg: Backup Device has been saved successfully.
admin:
```

At the time of this Add Backup Device procedure, these steps take place in CUCM:

1. Contact the SFTP server and authenticate
2. Transfer a test file to the directory
3. Disconnect from the SFTP server
4. Contact the SFTP server and authenticate
5. Delete the test file in the directory
6. Disconnect from the SFTP server

    Note: If any of these steps fail, CUCM is unable to add the backup device.

Log Analysis of Add a Backup Device

```
+++++++++++++++++++++++++++++++++++++++++++++++++++++
UpdateDestination request is sent to add new backup destination
+++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:22,494 DEBUG [NetMessageDispatch] - drfMessageValidator.validateMessage():
Starting introspection for Message ID = 3200 Message Body =
    ========== BEGIN msgSubUpdateDestination_REQ ==========
    devicepath     : /UCM/Backups/
    devicetype     : NETWORK
    hostname  : 192.X.X.250
    m_iBackupSetCount : 1
    password : 8f5fcb108a798014abff9ab4fc006f2a83027d6c858f0ac9b2720a32ba1b8d3c
    storagelocationname  : TAC-Backup
    username   : cisco
    version : 1.0.0
    schedules : []
    ========== END msgSubUpdateDestination_REQ ==========
```

```
+++++++++++++++++++++++++++++++++++++++++++
CUCM attempts to connect to the SFTP server
+++++++++++++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:23,168 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection: Trying to
connect to the SFTP server.

2018-12-24 11:39:23,171 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection:
Connecting SFTP server...
```

```
+++++++++++++++++++++++++++++++++
Authentication Completed Successfully
+++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:23,373 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection:
Authentication Completed Successfully, connected to remote server. Now opening a SFTP channel.

2018-12-24 11:39:23,580 DEBUG [NetMessageDispatch] - drfUtils:sftpPutFile: SSH Authentication
success for user cisco on 192.X.X.250
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
CUCM transfers files from: /common/drf/d3-sb-11pub_dUmmI_Drf to the server: 192.X.X.250
/UCM/Backups/d3-sb-11pub_dUmmI_Drf
This is done to confirm if CUCM has read/write privileges.
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:23,581 DEBUG [NetMessageDispatch] - drfUtils:sftpPutFile: Transferring files
from: /common/drf/d3-sb-11pub_dUmmI_Drf to the server: 192.X.X.250 /UCM/Backups/d3-sb-
11pub_dUmmI_Drf

2018-12-24 11:39:23,581 DEBUG [NetMessageDispatch] - drfSftpProgressMonitor:: STARTING: 0
/common/drf/d3-sb-11pub_dUmmI_Drf -> /UCM/Backups/d3-sb-11pub_dUmmI_Drf total: 0
```

```
+++++++++++++++++++
File Transfer Completed
+++++++++++++++++++
```

```
2018-12-24 11:39:23,585 DEBUG [NetMessageDispatch] - drfSftpProgressMonitor:: ...File Transfer
Completed
```

```
++++++++++++++++++++++
CUCM closes ChannelSftp...
++++++++++++++++++++++
```

```
2018-12-24 11:39:23,586 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections: Closing
ChannelSftp...
2018-12-24 11:39:23,586 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections:
Disconnecting Channel...
2018-12-24 11:39:23,586 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections: Closing
Session...
```

```
++++++++++++++++++++++++++++++++++++++
CUCM attempts to connect to the SFTP server
++++++++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:23,586 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection: Trying to
connect to the SFTP server.

2018-12-24 11:39:23,587 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection:
Connecting SFTP server...
```

```
++++++++++++++++++++++++++++++++
Authentication Completed Successfully
++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:23,733 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection:
Authentication Completed Successfully, connected to remote server. Now opening a SFTP channel.
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
CUCM deletes files /UCM/Backups/d3-sb-11pub_dUmmI_Drf from the server: 192.X.X.250
This is done to confirm if CUCM has read/write privileges.
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
2018-12-24 11:39:24,277 DEBUG [NetMessageDispatch] - drfUtils:sftpDeleteFile: Deleting files
/UCM/Backups/d3-sb-11pub_dUmmI_Drf from the server: 192.X.X.250
```

```
+++++++++++++++++
```

Successfully deleted
++++++++++++++++

```
2018-12-24 11:39:24,277 INFO [NetMessageDispatch] - drfutils.sftpDeleteFiles: Successfully
deleted /UCM/Backups/d3-sb-11pub_dUmmI_Drf on the Server 192.X.X.250
```

++++++++++++++++++++++
CUCM closes ChannelSftp...
++++++++++++++++++++++

```
2018-12-24 11:39:24,278 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections: Closing
ChannelSftp...
2018-12-24 11:39:24,278 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections:
Disconnecting Channel...
2018-12-24 11:39:24,278 DEBUG [NetMessageDispatch] - drfUtils:closeSFTPConnections: Closing
Session...
2018-12-24 11:39:24,278 DEBUG [NetMessageDispatch] - drfUtils:isSftpLocationAccessible: Closing
SFTP Client...
```

Start a Manual Backup via GUI Procedure

Step 1. Navigate to **CUCM > Disaster Recovery System > Backup > Manual Backup** as shown in the images**:**
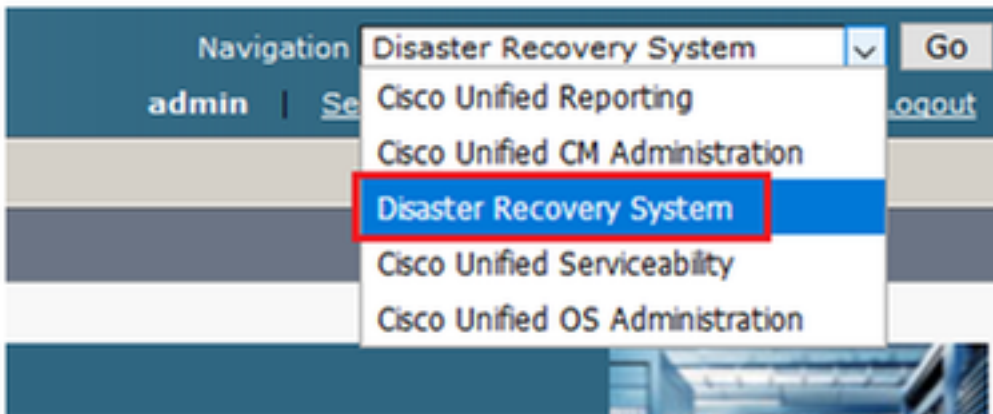
Step 2. **Select the Backup Device, the features to be backed up** and **click Start**. For this example, only the UCM feature is backed up as shown in the image:

- When the backup is in progress, you see a status indication as shown in the image:

Backup ▼ Restore ▼ Help ▼

Backup Status

Refresh ● Cancel

─ Status ─
ⓘ Backup operation in progress for server [D3-SB-11PUB], please wait... ↗

─ Backup details ─

Tar Filename: 2018-12-24-13-04-38.tar
Backup Device: NETWORK
Operation: BACKUP
Percentage Complete: 26%

Feature	Server	Component	Status	Result **	Start Time	Log File *
UCM	D3-SB-11PUB	CDPAGT	100	SUCCESS	Mon Dec 24 13:04:38 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_cdpagt.log
UCM	D3-SB-11PUB	SYSLOGAGT	100	SUCCESS	Mon Dec 24 13:04:40 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_syslogagt.log
UCM	D3-SB-11PUB	PLATFORM	100	SUCCESS	Mon Dec 24 13:04:41 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_platform.log
UCM	D3-SB-11PUB	CLM	100	SUCCESS	Mon Dec 24 13:04:44 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_clm.log
UCM	D3-SB-11PUB	CCMDB	0	Active	Mon Dec 24 13:04:44 PST 2018	
UCM	D3-SB-11PUB	TCT	0	---	---	
UCM	D3-SB-11PUB	CCMPREFS	0	---	---	
UCM	D3-SB-11PUB	TFTP	0	---	---	
UCM	D3-SB-11PUB	MOH	0	---	---	
UCM	D3-SB-11PUB	ANN	0	---	---	
UCM	D3-SB-11PUB	BAT	0	---	---	
UCM	D3-SB-11PUB	CEF	0	---	---	
UCM	D3-SB-11PUB	REPORTER	0	---	---	
UCM	D3-SB-11PUB	DNALIASLOOKUP	0	---	---	
UCM	D3-SB-11PUB	DNALIASSYNC	0	---	---	

[Refresh]   [Cancel Backup]

- When the backup is complete, you see a **SUCCESS** message that indicates the **Backup Completed** in CUCM as shown in the image:

Backup ▼ Restore ▼ Help ▼

Backup Status

Refresh ○ Cancel

─ Status ─
ⓘ SUCCESS: Backup Completed...

─ Backup details ─

Tar Filename: 2018-12-24-13-04-38.tar
Backup Device: NETWORK
Operation: BACKUP
Percentage Complete: 100%

| Feature	Server	Component	Status	Result **	Start Time	Log File *
UCM	D3-SB-11PUB	CDPAGT	100	SUCCESS	Mon Dec 24 13:04:38 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_cdpagt.log
UCM	D3-SB-11PUB	SYSLOGAGT	100	SUCCESS	Mon Dec 24 13:04:40 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_syslogagt.log
UCM	D3-SB-11PUB	PLATFORM	100	SUCCESS	Mon Dec 24 13:04:41 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_platform.log
UCM	D3-SB-11PUB	CLM	100	SUCCESS	Mon Dec 24 13:04:44 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_clm.log
UCM	D3-SB-11PUB	CCMDB	100	SUCCESS	Mon Dec 24 13:04:44 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_ccmdb.log
UCM	D3-SB-11PUB	TCT	100	SUCCESS	Mon Dec 24 13:04:59 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_tct.log
UCM	D3-SB-11PUB	CCMPREFS	100	SUCCESS	Mon Dec 24 13:05:00 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_ccmprefs.log
UCM	D3-SB-11PUB	TFTP	100	SUCCESS	Mon Dec 24 13:05:03 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_tftp.log
UCM	D3-SB-11PUB	MOH	100	SUCCESS	Mon Dec 24 13:08:57 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_moh.log
UCM	D3-SB-11PUB	ANN	100	SUCCESS	Mon Dec 24 13:09:00 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_ann.log
UCM	D3-SB-11PUB	BAT	100	SUCCESS	Mon Dec 24 13:09:00 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_bat.log
UCM	D3-SB-11PUB	CEF	100	SUCCESS	Mon Dec 24 13:09:02 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_cef.log
UCM	D3-SB-11PUB	REPORTER	100	SUCCESS	Mon Dec 24 13:09:03 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_reporter.log
UCM	D3-SB-11PUB	DNALIASLOOKUP	100	SUCCESS	Mon Dec 24 13:09:04 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_dnaliaslookup.log
UCM	D3-SB-11PUB	DNALIASSYNC	100	SUCCESS	Mon Dec 24 13:09:05 PST 2018	2018-12-24-13-04-38_b_d3-sb-11pub_ucm_dnaliassync.log

[Refresh]   [Cancel Backup]

- When the backup is complete, you see the .TAR files in the SFTP directory as shown in the image. These files are used later one, if a restore is required:

```
root@CM-SFTP:/home/cisco/UCM/Backups# ll
total 2232628
drwxr-xr-x  2 cisco cisco      20480 Dec 24 13:31 ./
drwxr-xr-x 71 cisco cisco      12288 Dec 21 13:33 ../
-rw-rw-r--  1 cisco cisco      23792 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_drfComponent.xml
-rw-rw-r--  1 cisco cisco      10272 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_ANN.tar
-rw-rw-r--  1 cisco cisco    3123405 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_BAT.tar
-rw-rw-r--  1 cisco cisco   37990432 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_CCMDB.tar
-rw-rw-r--  1 cisco cisco   13015072 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_CCMPREFS.tar
-rw-rw-r--  1 cisco cisco      20538 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_CDPAGT.tar
-rw-rw-r--  1 cisco cisco      10360 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_CEF.tar
-rw-rw-r--  1 cisco cisco      10335 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_CLM.tar
-rw-rw-r--  1 cisco cisco      20512 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_DNALIASLOOKUP.tar
-rw-rw-r--  1 cisco cisco      10272 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_DNALIASSYNC.tar
-rw-rw-r--  1 cisco cisco   27904032 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_MOH.tar
-rw-rw-r--  1 cisco cisco    1597472 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_PLATFORM.tar
-rw-rw-r--  1 cisco cisco      20577 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_REPORTER.tar
-rw-rw-r--  1 cisco cisco      10298 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_SYSLOGAGT.tar
-rw-rw-r--  1 cisco cisco      10360 Dec 24 13:27 2018-12-24-13-04-38_D3-SB-11PUB_UCM_TCT.tar
-rw-rw-r--  1 cisco cisco 2202353616 Dec 24 13:31 2018-12-24-13-04-38_D3-SB-11PUB_UCM_TFTP.tar
root@CM-SFTP:/home/cisco/UCM/Backups#
```

Start a Manual Backup via CLI Procedure

Step 1. Secure Shell (SSH) into the IP address of the CUCM Publisher and authenticate with the OS username and password as shown in the image:
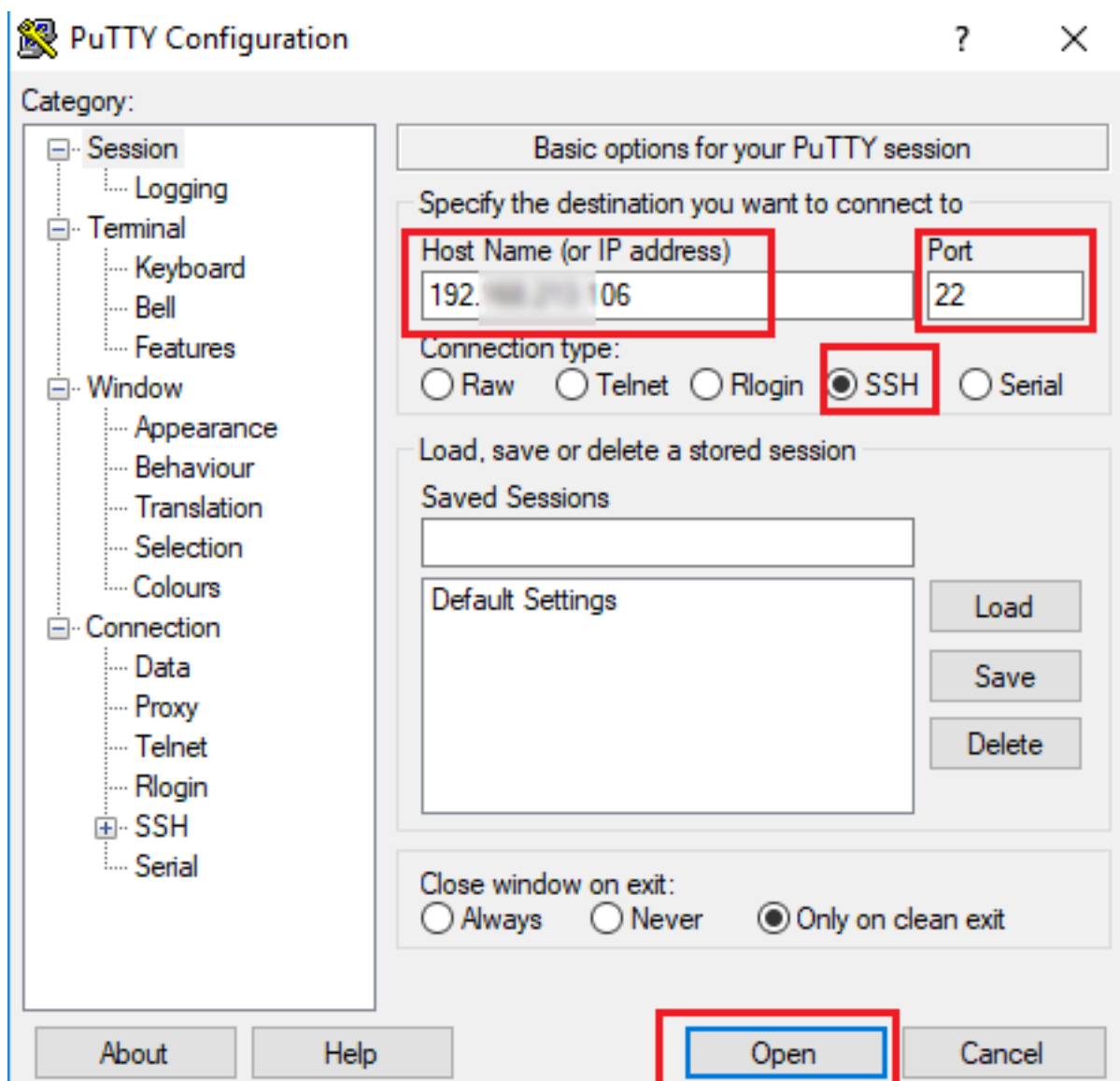
Step 2. Start a Manual backup with the command syntax: **utils disaster_recovery backup**

network <featurelist> <backup device name> as shown in the image:


```
admin:utils disaster_recovery backup network UCM TAC-Backup
drfCliMsg: Backup initiated successfully. Please run 'utils disaster_recovery status backup' command to see the status
```

- When the backup is in progress, you see a status indication with the command syntax: **utils disaster_recovery status backup** as shown in the image:



```
admin:utils disaster_recovery status backup
Status: Backup operation in progress for server [D3-SB-11PUB], please wait...
Tar Filename: 2018-12-24-13-21-17.tar
Storage Location: NETWORK
Operation: backup
Percentage Complete: 46
UCM   D3-SB-11PUB   CDPAGT    SUCCESS   Mon Dec 24 13:21:17 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_cdpagt.log
UCM   D3-SB-11PUB   SYSLOGAGT   SUCCESS   Mon Dec 24 13:21:18 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_syslogagt.log
UCM   D3-SB-11PUB   PLATFORM   SUCCESS   Mon Dec 24 13:21:19 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_platform.log
UCM   D3-SB-11PUB   CLM   SUCCESS   Mon Dec 24 13:21:22 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_clm.log
UCM   D3-SB-11PUB   CCMDB    SUCCESS   Mon Dec 24 13:21:23 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_ccmdb.log
UCM   D3-SB-11PUB   TCT    SUCCESS   Mon Dec 24 13:21:36 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_tct.log
UCM   D3-SB-11PUB   CCMPREFS   SUCCESS   Mon Dec 24 13:21:36 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_ccmprefs.log
UCM   D3-SB-11PUB   TFTP    Active    Mon Dec 24 13:21:39 PST 2018
UCM   D3-SB-11PUB   MOH    ---    ---
UCM   D3-SB-11PUB   ANN    ---    ---
UCM   D3-SB-11PUB   BAT    ---    ---
UCM   D3-SB-11PUB   CEF    ---    ---
UCM   D3-SB-11PUB   REPORTER    ---    ---
UCM   D3-SB-11PUB   DNALIASLOOKUP    ---    ---
UCM   D3-SB-11PUB   DNALIASSYNC    ---    ---
```

- When the backup is complete, you see a success message with the command syntax: **utils disaster_recovery status backup** as shown in the image:


```
admin:utils disaster_recovery status backup
Status: SUCCESS :Backup Completed...
Tar Filename: 2018-12-24-13-21-17.tar
Storage Location: NETWORK
Operation: backup
Percentage Complete: 100
UCM   D3-SB-11PUB   CDPAGT    SUCCESS   Mon Dec 24 13:21:17 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_cdpagt.log
UCM   D3-SB-11PUB   SYSLOGAGT   SUCCESS   Mon Dec 24 13:21:18 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_syslogagt.log
UCM   D3-SB-11PUB   PLATFORM   SUCCESS   Mon Dec 24 13:21:19 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_platform.log
UCM   D3-SB-11PUB   CLM   SUCCESS   Mon Dec 24 13:21:22 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_clm.log
UCM   D3-SB-11PUB   CCMDB    SUCCESS   Mon Dec 24 13:21:23 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_ccmdb.log
UCM   D3-SB-11PUB   TCT    SUCCESS   Mon Dec 24 13:21:36 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_tct.log
UCM   D3-SB-11PUB   CCMPREFS   SUCCESS   Mon Dec 24 13:21:36 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_ccmprefs.log
UCM   D3-SB-11PUB   TFTP   SUCCESS   Mon Dec 24 13:21:39 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_tftp.log
UCM   D3-SB-11PUB   MOH   SUCCESS   Mon Dec 24 13:25:25 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_moh.log
UCM   D3-SB-11PUB   ANN   SUCCESS   Mon Dec 24 13:25:27 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_ann.log
UCM   D3-SB-11PUB   BAT   SUCCESS   Mon Dec 24 13:25:28 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_bat.log
UCM   D3-SB-11PUB   CEF   SUCCESS   Mon Dec 24 13:25:29 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_cef.log
UCM   D3-SB-11PUB   REPORTER   SUCCESS   Mon Dec 24 13:25:30 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_reporter.log
UCM   D3-SB-11PUB   DNALIASLOOKUP   SUCCESS   Mon Dec 24 13:25:31 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_dnaliaslookup.log
UCM   D3-SB-11PUB   DNALIASSYNC   SUCCESS   Mon Dec 24 13:25:32 PST 2018   activelog/platform/drf/log/2018-12-24-13-21-17_b_d3-sb-11pub_ucm_dnaliassync.log
admin:
```

Enable Scheduled Backup via GUI Procedure

Step 1. Navigate to **CUCM > Disaster Recovery System > Backup >Scheduler >> Add New** as shown in the images**:**
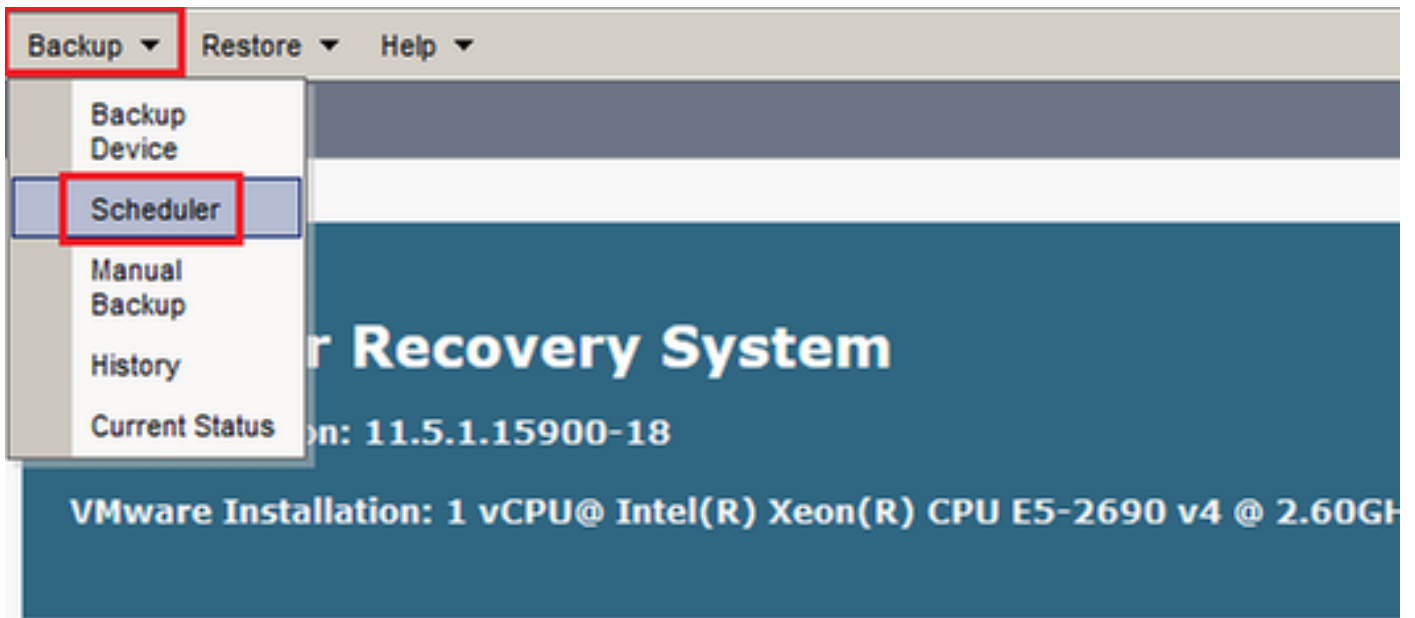
Step 2. **Add a name for the automatic backup task** as shown in the image:

Scheduler

Save   Set Default   Disable Schedule   Enable Schedule   Back

Status

ⓘ Status:Ready

Schedule Name

Schedule Name*   Weekly-Backup

Select Backup Device

Step 3**. Select a backup device**

Scheduler

Save   Set Default   Disable Schedule   Enable Schedule   Back

Status

ⓘ Status:Ready

Schedule Name

Schedule Name*   Weekly-Backup

Select Backup Device

Device Name*   TAC-Backup

Step 4**. Select the features to be backed up**

Select Backup Device

Device Name*   TAC-Backup

Select Features *

☑ UCM   ☐ CDR_CAR   ☐ PLM

The following components are registered with Disaster Recovery System:

Step 5. **Choose a start date** and **choose the frequency**:

Start Backup at*

Date   2018 ˅   Dec ˅   30 ˅   Time   00 ˅ Hour   00 ˅ Minute

Frequency*

○ Once
○ Daily
◉ Weekly

    ☐ Monday   ☐ Tuesday   ☐ Wednesday   ☐ Thursday

    ☐ Friday   ☐ Saturday   ☑ Sunday

○ Monthly

Step 6. **Save**
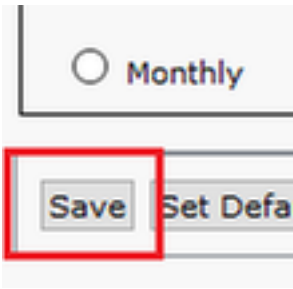
Step 7. **Enable the scheduled backup:**
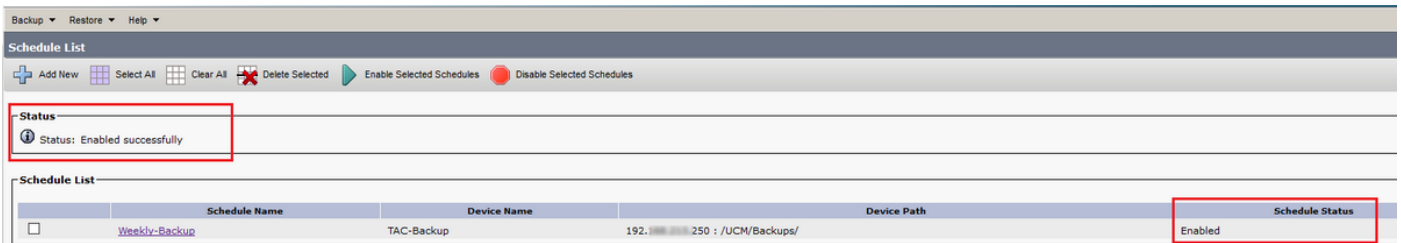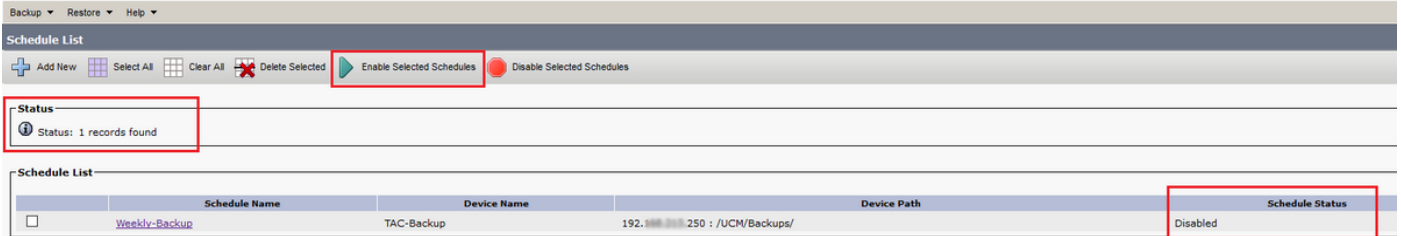
Enable Scheduled Backup via CLI Procedure

Step 1. Secure Shell (SSH) into the IP address of the CUCM Publisher and authenticate with the OS username and password as shown in the image:
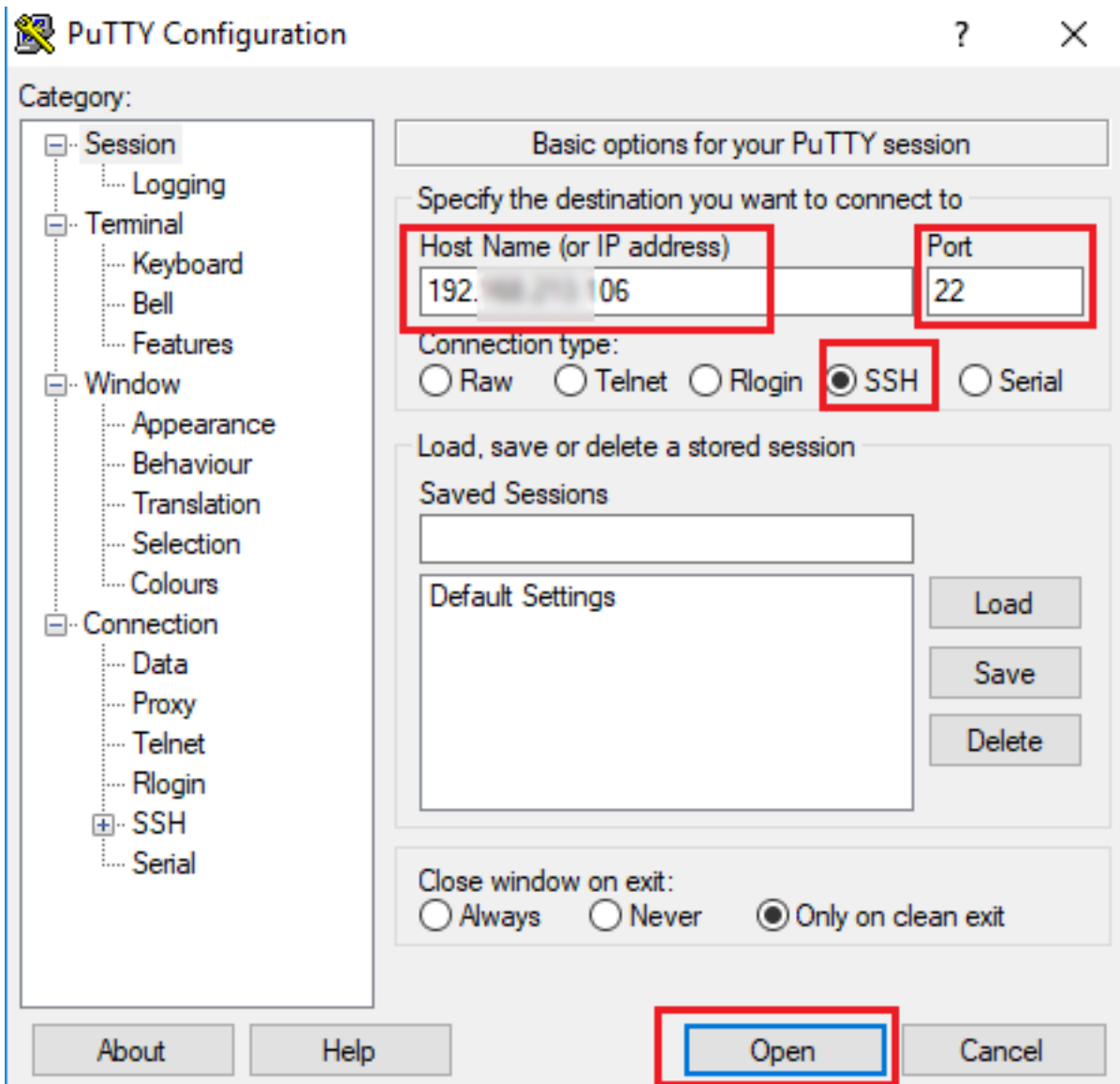
Step 2. Add the scheduled backup with the command syntax: **utils disaster_recovery schedule add** *<schedulename> <devicename> <featurelist> <datetime> <frequency> as shown in the image:*
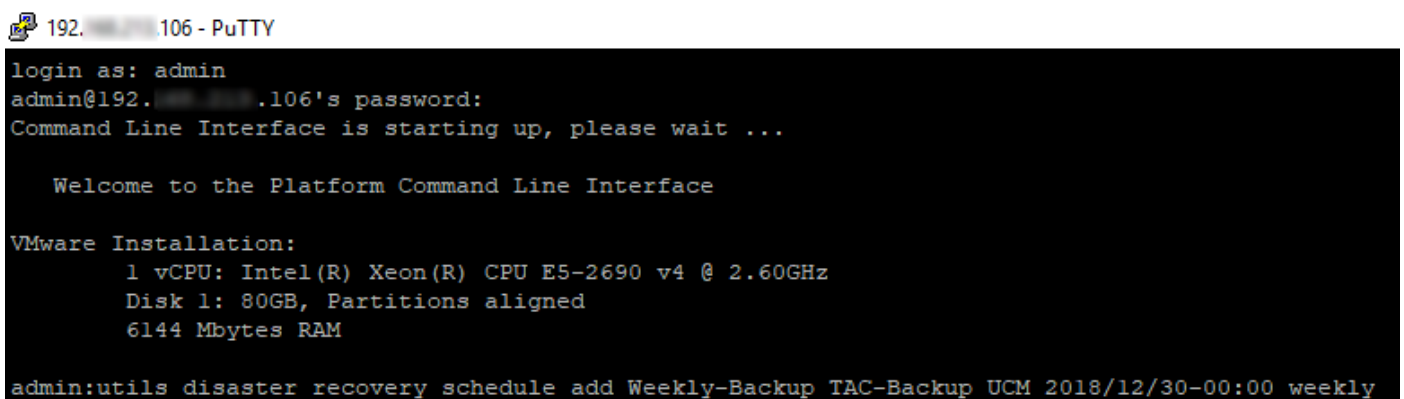
Step 3. **Enable the scheduled backup** with the command syntax: **utils disaster_recovery schedule enable** *<schedulename>* as shown in the image:

```
192.   .106 - PuTTY

admin:utils disaster_recovery schedule enable Weekly-Backup
Schedule Enabled Successfully
admin:
```

CUCM Delete an Old Backup Example

Backup device configuration with Number of Backups set to 1 as shown in the image:

Backup directory with only 1 backup available (16 files) as shown in the image:

CUCM first starts to transfer backup files before it deletes the old backup (Reaches 32 files):

Once the backup is complete, DRS deletes the old backup to be in compliance with the number of backups to store in Network Directory (16 files):

Log Analysis of Successful New Backup Created and Old Backup Deleted

+++++++++++
The message you see when a manual backup is started: BEGIN MANUAL
+++++++++++

```
2018-12-25 11:11:59,486 DEBUG [NetMessageDispatch] - drfMessageValidator.validateMessage():
Starting introspection for Message ID = 1700 Message Body =
    ========== BEGIN msgSubBackup_REQ ==========
    m_bLeaveTempBackupDirectoryInPlace      : false
    destinationId      : TAC-Backup
    backupType : MANUAL
    featuresTobeBackedup : [UCM]
    ========== END msgSubBackup_REQ ==========


+++++++++++++++++++
```

This is the device that was added as a backup device: TAC-Backup
+++++++++++++++++

2018-12-25 11:11:59,486 DEBUG [NetMessageDispatch] - drfMessageHandler:HandleBackup: The backup
is being processed for the device: TAC-Backup

+++++++++++++++++++++++
Ensure SFTP is accessible
+++++++++++++++++++++++

2018-12-25 11:11:59,487 DEBUG [NetMessageDispatch] - drfMessageHandler:HandleBackup: Executing
sftpLsFiles to make sure SFTP is accessible.
2018-12-25 11:11:59,487 INFO [NetMessageDispatch] - drfUtils:sftpLsFiles-: Executing JSCH SFTP
ls command for: User: ciscoHostName: 192.X.X.250 from source :/UCM/Backups/ with pattern -l
2018-12-25 11:11:59,487 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection: Trying to
connect to the SFTP server.

+++++++++++++++++++++++++++++++++
CUCM connects to remote SFTP server
+++++++++++++++++++++++++++++++++

2018-12-25 11:11:59,617 DEBUG [NetMessageDispatch] - drfUtils:establishSftpConnection:
Authentication Completed Successfully, connected to remote server. Now opening a SFTP channel.

+++++++++++++++++++++
Number of features that were selected:
Found 1 features selected
Feature Name: UCM
+++++++++++++++++++++

2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Found 1 features selected for Restore
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: CDPAGTDirectBackup set to : yes
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: SYSLOGAGTDirectBackup set to : yes
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: PLATFORMDirectBackup set to : yes
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: CLMDirectBackup set to : yes
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: CCMDBDirectBackup set to : yes
2018-12-25 11:11:59,834 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: TCTDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: CCMPREFSDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: TFTPDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: MOHDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: ANNDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: BATDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: CEFDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: REPORTERDirectBackup set to : yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: DNALIASLOOKUPDirectBackup set to :

yes
2018-12-25 11:11:59,835 DEBUG [NetMessageDispatch] - drfMessageHandler:setComponentBackupType:
Feature Name: UCM. Server Name: D3-SB-11PUB. Component Name: DNALIASSYNCDirectBackup set to :
yes

++++++++++++++++++++++++
33 files found at the given path
++++++++++++++++++++++++

2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 33 files found at the
given path

2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_PLATFORM.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_drfComponent.xml
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_REPORTER.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CLM.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_DNALIASSYNC.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_REPORTER.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_MOH.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_BAT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_CCMDB.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_SYSLOGAGT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CEF.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CCMPREFS.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_CCMPREFS.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_TCT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_CEF.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_PLATFORM.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CDPAGT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_ANN.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_SYSLOGAGT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_TFTP.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_TFTP.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CCMDB.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_ANN.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_DNALIASSYNC.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_DNALIASLOOKUP.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-

```
SB-11PUB_UCM_CDPAGT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_MOH.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_CLM.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_DNALIASLOOKUP.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_BAT.tar
2018-12-25 11:16:23,886 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-24-13-21-17_D3-
SB-11PUB_UCM_TCT.tar
```

+++++++++++++++++++++++++++++++++
This is used to keep track of number of backups:
DRS gets a list of its previous backup IDs:
2018-12-24-13-21-17
2018-12-25-11-12-03
+++++++++++++++++++++++++++++++++

```
2018-12-25 11:16:23,887 INFO [TarWorkerThread] - drfSftpManager:drfGetListOfBackups: Adding the
backup id after the _pubhostname filtering:2018-12-24-13-21-17
2018-12-25 11:16:23,887 INFO [TarWorkerThread] - drfSftpManager:drfGetListOfBackups: Adding the
backup id after the _pubhostname filtering:2018-12-25-11-12-03
```

+++++++++++++
list size : 1
+++++++++++++

```
2018-12-25 11:16:24,852 INFO [TarWorkerThread] - drfSftpManager.RemoveOldBackupSet: list size :
1
```

++
CUCM removes: /UCM/Backups/2018-12-24-13-21-17_D3-SB-11PUB*
++

```
2018-12-25 11:16:24,852 INFO [TarWorkerThread] - drfSftpManager.RemoveOldBackupSet: Removing:
/UCM/Backups/2018-12-24-13-21-17_D3-SB-11PUB*
```

++++++++++++++++++++++
List now only has 1 backup
++++++++++++++++++++++

```
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 18 files found at the
given path
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_REPORTER.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CLM.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_MOH.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_BAT.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CEF.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CCMPREFS.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_TCT.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
```

```
SB-11PUB_UCM_PLATFORM.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CDPAGT.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_ANN.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_SYSLOGAGT.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_TFTP.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_CCMDB.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_DNALIASSYNC.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_UCM_DNALIASLOOKUP.tar
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: 2018-12-25-11-12-03_D3-
SB-11PUB_drfComponent.xml
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfutils.sftpLsFiles-: Found 16 matching the
search criteria.
```

```
+++++++++++++++++++++
CUCM closes ChannelSftp...
+++++++++++++++++++++
```

```
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfUtils:closeSFTPConnections: Closing
ChannelSftp...
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfUtils:closeSFTPConnections: Disconnecting
Channel...
2018-12-25 11:16:26,405 DEBUG [TarWorkerThread] - drfUtils:closeSFTPConnections: Closing
Session...
```

```
++++++++++++++++++++++++++
BACKUP operation COMPLETED
++++++++++++++++++++++++++
```

```
2018-12-25 11:16:26,572 INFO [TarWorkerThread] - {STATE_IDLE} drfBackup:CompleteBackup(Device=-
): === BACKUP operation COMPLETED ===
```

Verify

In order to verify that the backup was successful, you need to see the status message **SUCCESS: Backup completed** as shown in the image:
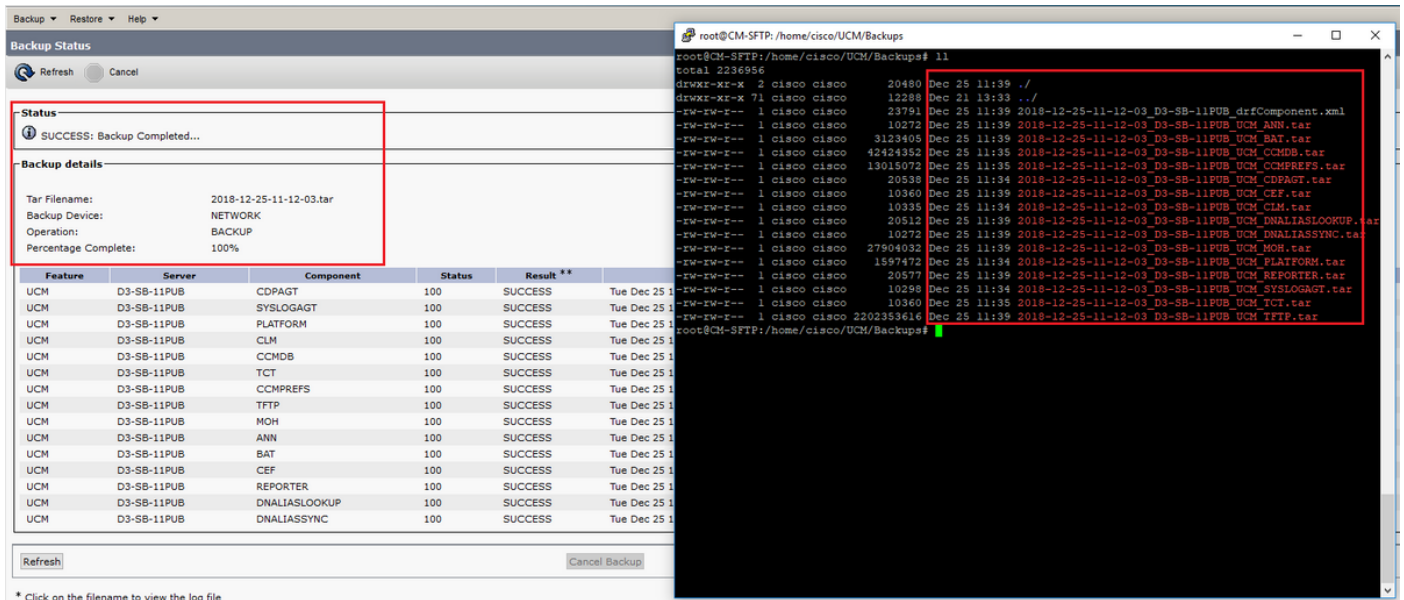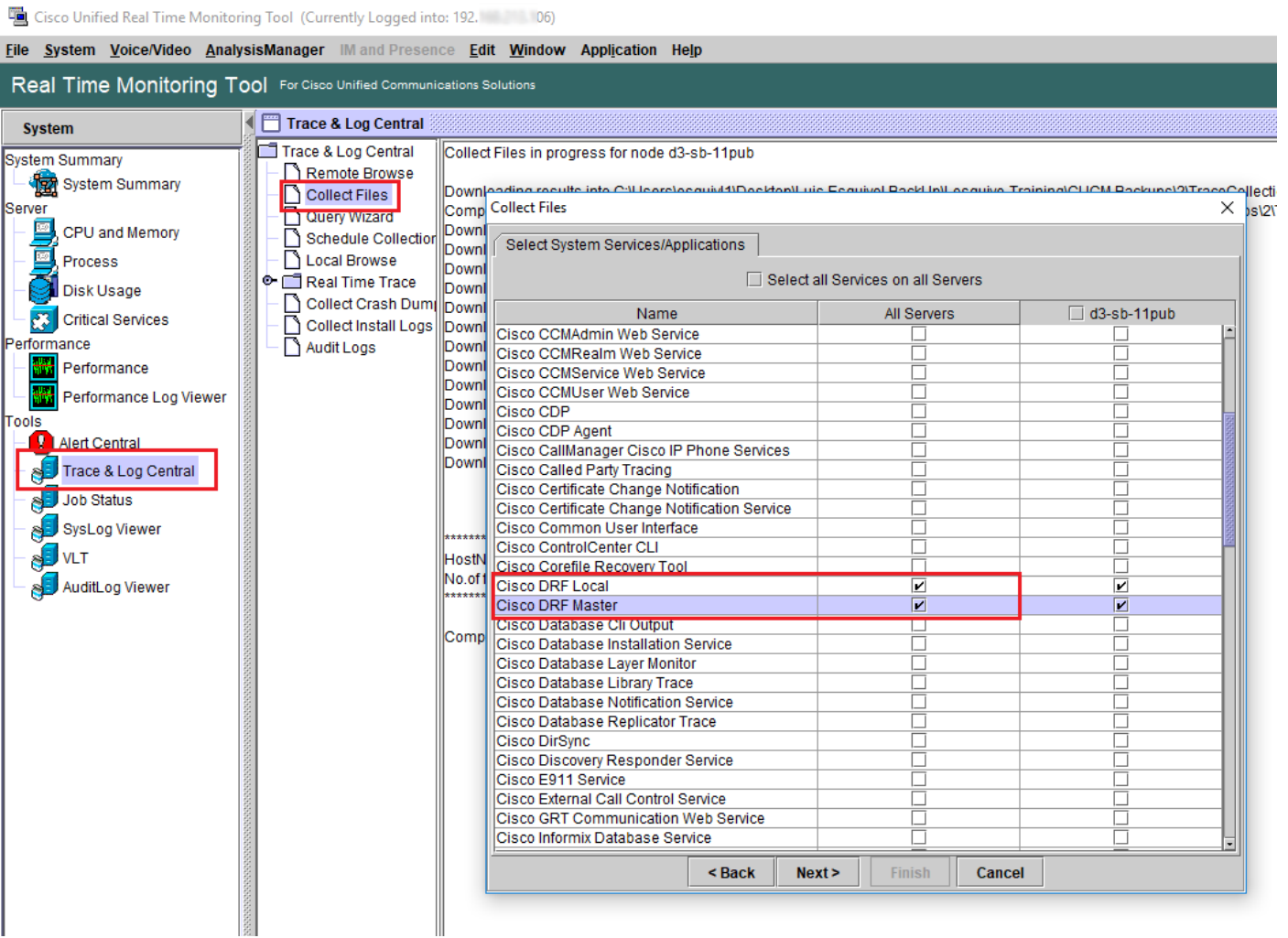
Troubleshoot

In order to troubleshoot Backups in CUCM, you need:

- DRF Local logs
- DRF Master logs

In RTMT, navigate to **Trace and Log Central > Collect Files > Cisco DRF Local & Cisco DRF Master** for all servers as shown in the image:

You can find details in How to Collect Traces for CUCM 9.x or Later

Access to the remote SFTP is recommended.