

14. CUCM 8 – free sftp solution for backup on ubuntu 10.04 server

All application based elements of cisco unified communication platform offer disaster recovery system that enable backup and recovery after failure. Backup can be made to two devices. First option is tape device, second is secure FTP (sftp). Because we need cost saving solution in training environment we decided for open-ssh server on ubuntu server.

Cisco recommended steps for establishing backup on Cisco unified platform are here http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_configuration_example09186a0080ab9fc0.shtml.

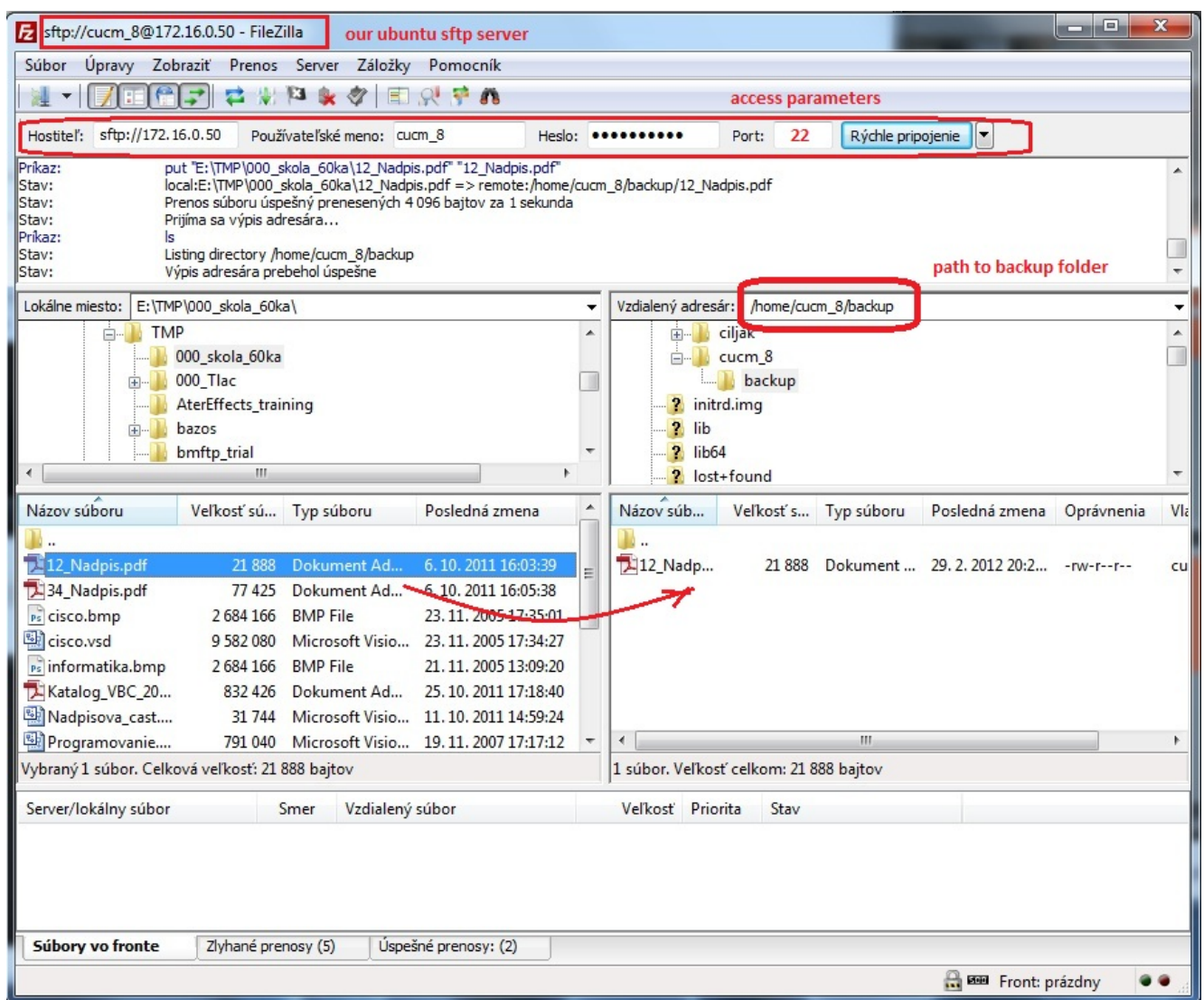
Next steps expect basic unix system administration abilities. From ubuntu.com please obtain ideal LTS version of ubuntu server. At this time it is version 10.04 for 32 or 64 bit platform.

Next steps describe only necessary commands for CUCM backup account creation, open-ssh server install and change ownership and adding permission to modify content of user home directory.

Open-ssh server as sftp server on ubuntu step-by-step:

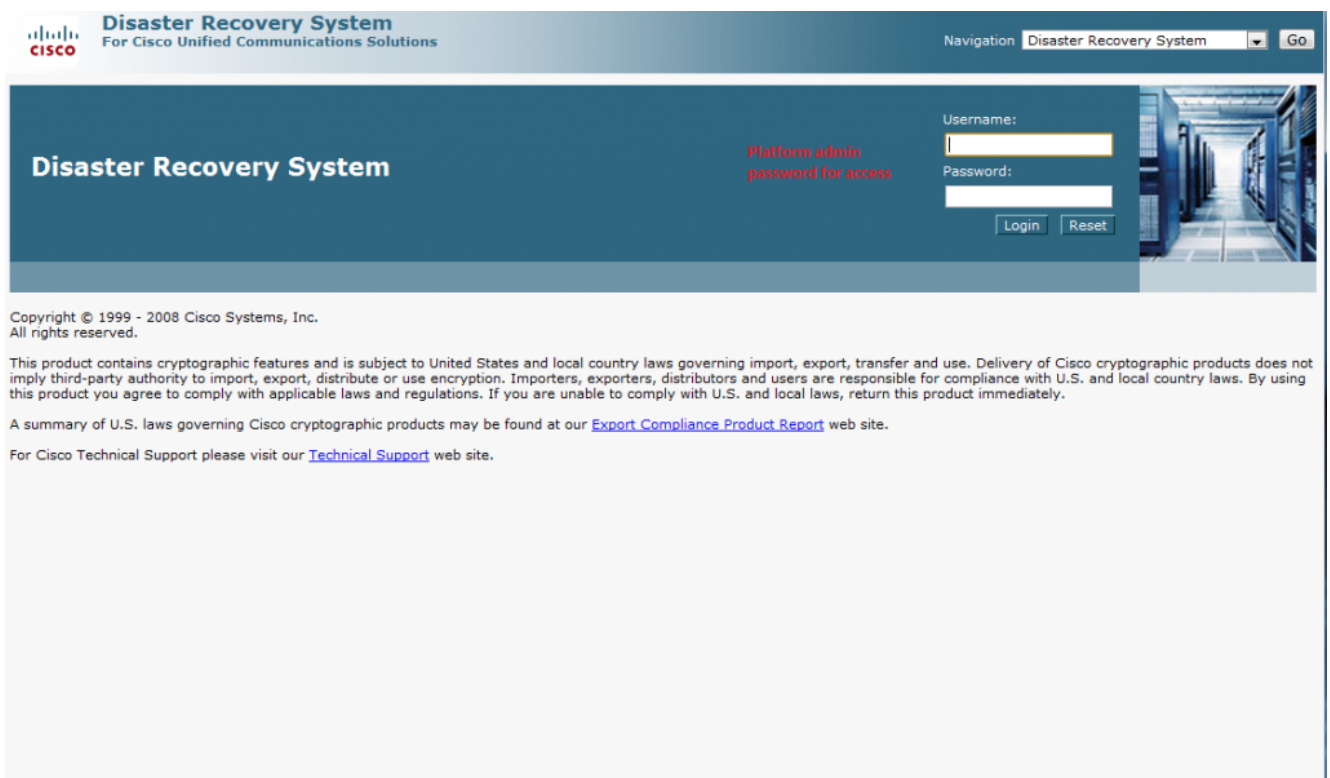
- 1) **Create group for sftp access** (optional) for further platform hardening – `sudo groupadd sftpuser`
- 2) **Create user account for backup** `sudo adduser cucm_8 sftpuser` and make password during user creation dialog
- 3) **Change ownership of home directory** `sudo chown root.root /home/cucm_8`

- 4) Alter permission for read and write to home directory of backup user `sudo chmod 777 /home/cucm_8`
- 5) Install open-ssh server `sudo apt-get install openssh-server`
- 6) Test connectivity to sftp account from FileZilla client (or your preferred supporting secure mode) – transfer and delete file!!!

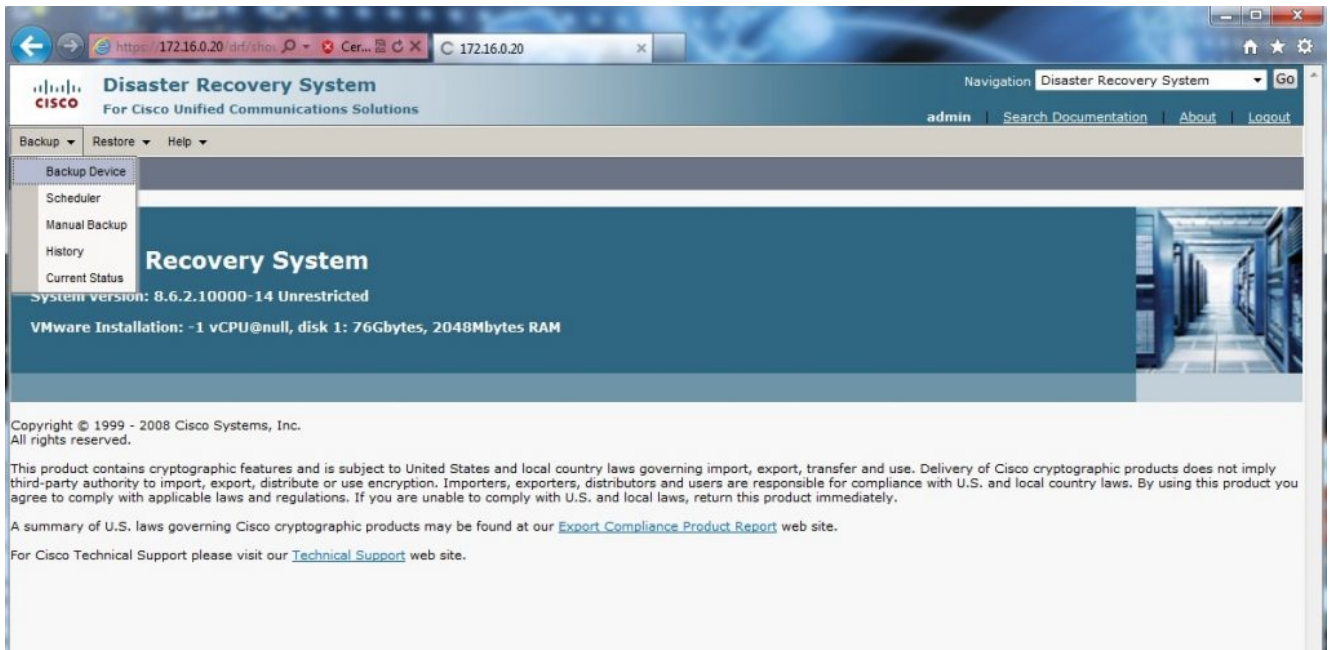


And another way look – from CLI of ubuntu server

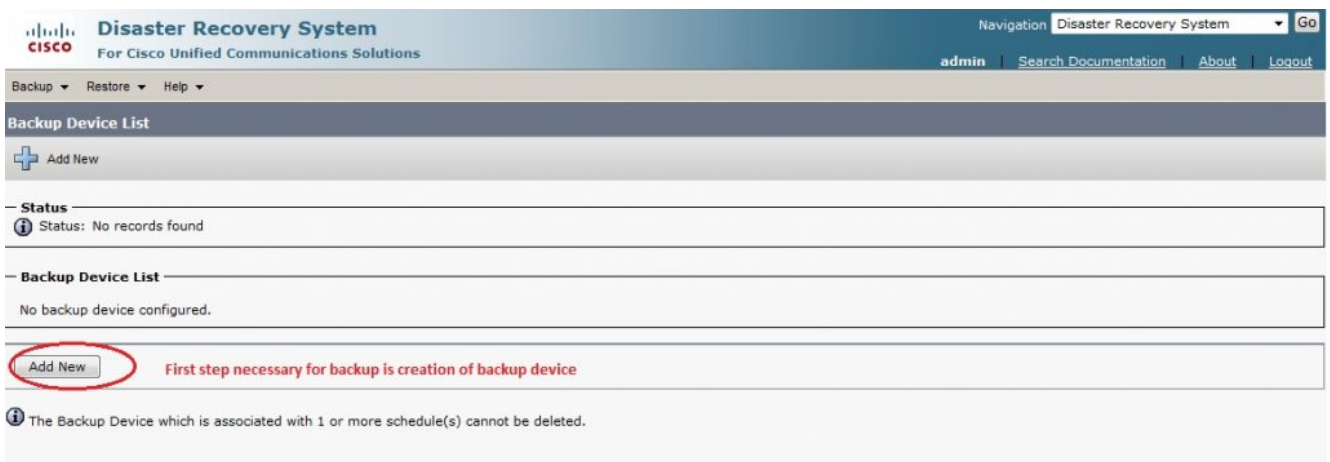
Now is all prepared for CUCM Disaster recovery system setup. From administration menu select Disaster recovery system and type platform administration password.



After successful login we going to next menu



Before first backup disaster recovery system need create a backup device. There are two options, but in training environment is only one options, make a backup to sftp server (that we successfully manage in previews steps).



And in adding dialog properly configure sftp access credentials – user, password and path to backup directory in backup server in our case it is /home/cucm_8/backup

Backup Device

Save Back

Status
Status: Ready

Backup device name
Backup device name* ubuntu_10_04_server

Select Destination*

☐ Tape Device
Device Name -- Not Selected --
Tape drive is not supported on a virtual machine

☒ Network Directory
Host name/IP address 172.16.0.50
Path name /home/cucm_8/backup
User name cucm_8
Password

Number of backups to store on Network Directory 2

Save Back

The settings on this page apply to Scheduled as well as Manual Backups.
* Indicates required items.
If you are not sure of Network Directory Path then try user home directory as "/" in case of linux sftp server or "/" in case of Windows sftp server.

In next step if verification of sftp server was without any errors we obtain this output

Disaster Recovery System
For Cisco Unified Communications Solutions

Backup ▾ Restore ▾ Help ▾

Backup Device

Save Back

Status
Update successful that we need

Backup device name
Backup device name* ubuntu_10_04_server

Select Destination*

☐ Tape Device
Device Name -- Not Selected -- ⓘ Tape drive

☒ Network Directory
Host name/IP address 172.16.0.50
Path name /home/cucm_8/backup
User name cucm_8
Password
Number of backups to store on Network Directory 2 ▾

Save Back

Our backup device have been successfully created and now it is right time make first disaster (our training of course :-)) backup. To backup dialog as you can guess lead this way

Disaster Recovery System
For Cisco Unified Communications Solutions

Backup ▾ Restore ▾ Help ▾

- Backup Device
- Scheduler
- Manual Backup**
- History
- Current Status

Backup device name
Backup device name*

Select Destination*

This choice open dialog for manual backup

For Cisco Unified Communications Solutions admin

Backup ▾ Restore ▾ Help ▾

Manual Backup

☒ Start Backup
 ☒ Estimate Size
 ☐ Select All
 ☐ Clear All

Status

Status: Ready

Select Backup Device

Device Name* ubuntu_10_04_server ▾

-- Not Selected --
 ubuntu_10_04_server

Select Features *

☐ CDR_CAR
☒ UCM

The following components are registered with Disaster Recovery System:

Feature	Server	
CDR_CAR	COMMMANAGER8	CAR
UCM	COMMMANAGER8	CDPAGT
UCM	COMMMANAGER8	SYSLOGAGT
UCM	COMMMANAGER8	CCMPREFS
UCM	COMMMANAGER8	PLATFORM
UCM	COMMMANAGER8	CCMDB
UCM	COMMMANAGER8	CLM
UCM	COMMMANAGER8	TCT
UCM	COMMMANAGER8	TFTP

Before backup begin we obtain warning about password for access of backup content like this

Backup ▾ Restore ▾ Help ▾

Manual Backup

☒ Start Backup
 ☒ Estimate Size
 ☐ Select All
 ☐ Clear All

Status

Failed to estimate size: Unable to estimate backup size from history as no successful backup history exist for one or more of the selected features.

Select Backup Device

Device Name* ubuntu_10_04_server ▾

Select Features *

☐ CDR_CAR
☒ UCM

The following components are registered with Disaster Recovery System:

Feature	Server	
CDR_CAR	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	
UCM	COMMMANAGER8	TCT
UCM	COMMMANAGER8	TFTP



Our data now moving to sftp server in encrypted form (are not

so easy to read in case of their interception).

The screenshot displays the Cisco Disaster Recovery System web interface and a terminal window. The interface shows a backup operation in progress for server [COMMMANAGER8]. The backup details table lists the following information:

Feature	Server	Component	Status	Result **	Start Time	Log File *
UCM	COMMMANAGER8	CDPAGT	100	SUCCESS	Fri Mar 02 18:19:33 CET 2012	2012-03-02-18-19-33_b_commmanager8_ucm_cdpagt.log
UCM	COMMMANAGER8	SYSLOGAGT	100	SUCCESS	Fri Mar 02 18:19:46 CET 2012	2012-03-02-18-19-33_b_commmanager8_ucm_syslogagt.log
UCM	COMMMANAGER8	CCMPREFS	100	SUCCESS	Fri Mar 02 18:19:57 CET 2012	2012-03-02-18-19-33_b_commmanager8_ucm_ccmprefs.log
UCM	COMMMANAGER8	PLATFORM	100	SUCCESS	Fri Mar 02 18:20:08 CET 2012	2012-03-02-18-19-33_b_commmanager8_ucm_platform.log
UCM	COMMMANAGER8	CCMDB	0	Active	Fri Mar 02 18:20:18 CET 2012	

The terminal window shows the following commands and output:

```
ciljak@ubuntuServer1004LTSx64:~$ cd /home
ciljak@ubuntuServer1004LTSx64:/home$ ls /
ls: cannot access /: No such file or directory
ciljak@ubuntuServer1004LTSx64:/home$ ls -la
total 16
drwxr-xr-x  4 root root 4096 2012-02-29 19:17 .
drwxr-xr-x 22 root root 4096 2012-02-29 16:48 ..
drwxr-xr-x 29 ciljak ciljak 4096 2012-02-29 18:45 ciljak
drwxrwxr-x  3 root root 4096 2012-02-29 20:23 cucm_8
ciljak@ubuntuServer1004LTSx64:/home$ cd cucm_8/
ciljak@ubuntuServer1004LTSx64:/home/cucm_8$ ls -la
total 28
drwxrwxr-x 3 root root 4096 2012-02-29 20:23
drwxr-xr-x 4 root root 4096 2012-02-29 19:17 ..
drwxr-xr-x 2 cucm_8 cucm_8 4096 2012-02-29 20:23 backup
-rw-r--r-- 1 cucm_8 cucm_8 220 2012-02-29 19:17 .bash_logout
-rw-r--r-- 1 cucm_8 cucm_8 3103 2012-02-29 19:17 .bashrc
-rw-r--r-- 1 cucm_8 cucm_8 179 2012-02-29 19:17 examples.desktop
-rw-r--r-- 1 cucm_8 cucm_8 675 2012-02-29 19:17 .profile
ciljak@ubuntuServer1004LTSx64:/home/cucm_8$ cd backup
ciljak@ubuntuServer1004LTSx64:/home/cucm_8/backup$ ls
12_Nadpis.pdf
ciljak@ubuntuServer1004LTSx64:/home/cucm_8/backup$ ls
2012-03-02-18-19-33_COMMMANAGER8_UCM_CDPAGT.tar
ciljak@ubuntuServer1004LTSx64:/home/cucm_8/backup$ ls
2012-03-02-18-19-33_COMMMANAGER8_UCM_CDPAGT.tar
2012-03-02-18-19-33_COMMMANAGER8_UCM_CDPREFS.tar
2012-03-02-18-19-33_COMMMANAGER8_UCM_PLATFORM.tar
2012-03-02-18-19-33_COMMMANAGER8_UCM_SYSLOGAGT.tar
ciljak@ubuntuServer1004LTSx64:/home/cucm_8/backup$
```

When transfer completed ...

Disaster Recovery System
For Cisco Unified Communications Solutions

Navigation: Disaster Recovery System Go

admin | Search Documentation | About | Logout

Backup Restore Help

Backup Status

Refresh Cancel

Status
SUCCESS: Backup Completed...

Backup details

Tar Filename: 2012-03-02-18-19-33.tar
Backup Device: NETWORK
Operation: BACKUP
Percentage Complete: 100%

Feature	Server	Component	Status	Result **	Start Time	Log File *
UCM	COMMMANAGER8	CDPAGT	100	SUCCESS	Fri Mar 02 18:19:33 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm cdpagt.log
UCM	COMMMANAGER8	SYSLOGAGT	100	SUCCESS	Fri Mar 02 18:19:46 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm syslogagt.log
UCM	COMMMANAGER8	CCMPREFS	100	SUCCESS	Fri Mar 02 18:19:57 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm ccmprefs.log
UCM	COMMMANAGER8	PLATFORM	100	SUCCESS	Fri Mar 02 18:20:08 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm platform.log
UCM	COMMMANAGER8	CCMDB	100	SUCCESS	Fri Mar 02 18:20:18 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm ccmdb.log
UCM	COMMMANAGER8	CLM	100	SUCCESS	Fri Mar 02 18:21:11 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm clm.log
UCM	COMMMANAGER8	TCT	100	SUCCESS	Fri Mar 02 18:21:21 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm tct.log
UCM	COMMMANAGER8	TFTP	100	SUCCESS	Fri Mar 02 18:21:32 CET 2012	2012-03-02-18-19-33_b commmanager8 ucm tftp.log

Refresh Cancel Backup

* Click on the filename to view the log file
** Result column indicates results of staging of individual components. Status section indicates the entire Backup Status
The DRS backup has a timeout of 20 hours associated with it. If your backup does not complete within 20 hours, the DRS process will be timed out.

```

CiscoUnity6
CommManager_8.6
CiscoUnifPresence_8
AsteriskNow_with_FreePBX_1_7_1
Win_Server_2008R2_environment
DC_Windows Server 2008 R2 x64
Replica_Windows Server 2008 R2 x64
share_win2k8_standard_x32
PC1-Windows 7x64Ult
PC2-Windows 7x64Ult
Linux_and_unix_servers
Ubuntu Server 10.04 LTS 64-bit
Shared VMs

2012-03-02-18-19-33_COMMANAGER8_UCM_SYSLOGAGT.tar
2012-03-02-18-19-33_COMMANAGER8_UCM_TCT.tar
2012-03-02-18-19-33_COMMANAGER8_UCM_TFTP.tar
cil jak@ubuntuServer1004LTSx64:/home/cucm_8/backup$ ls -la
total 180836
drwxr-xr-x 2 cucm_8 cucm_8      4096 2012-02-29 20:56 .
drwxr-xr-x 3 root   root       4096 2012-02-29 20:23 ..
-rw-r--r-- 1 cucm_8 cucm_8    34672672 2012-02-29 20:55 2012-03-02-18-19-33_COMMANAGER8_UCM_CCMDB.tar
-rw-r--r-- 1 cucm_8 cucm_8    2201632 2012-02-29 20:54 2012-03-02-18-19-33_COMMANAGER8_UCM_CCMREFS.tar
-rw-r--r-- 1 cucm_8 cucm_8     20751 2012-02-29 20:54 2012-03-02-18-19-33_COMMANAGER8_UCM_PLATFORM.tar
-rw-r--r-- 1 cucm_8 cucm_8     10504 2012-02-29 20:55 2012-03-02-18-19-33_COMMANAGER8_UCM_CLM.tar
-rw-r--r-- 1 cucm_8 cucm_8    716832 2012-02-29 20:54 2012-03-02-18-19-33_COMMANAGER8_UCM_TCT.tar
-rw-r--r-- 1 cucm_8 cucm_8     10480 2012-02-29 20:54 2012-03-02-18-19-33_COMMANAGER8_UCM_SYSLOGAGT.tar
-rw-r--r-- 1 cucm_8 cucm_8     10360 2012-02-29 20:56 2012-03-02-18-19-33_COMMANAGER8_UCM_TFTP.tar
cil jak@ubuntuServer1004LTSx64:/home/cucm_8/backup$

```

ect input to this VM, click inside or press Ctrl+G.

Also CUCM Disaster recovery system remember successfully made backup and generate this output in backup history .

Disaster Recovery System
For Cisco Unified Communications Solutions

Navigation: Disaster Recovery System Go

admin | Search Documentation | About | Logout

Backup Restore Help

Backup Device
Scheduler
Manual Backup
History

Current Status	Time	Backup Device	Completed On	Result	Backup Type	Version	Features Backed Up	Failed Features
2012-03-02-18-19-33.tar	NETWORK	Fri Mar 02 18:23:43 CET 2012	SUCCESS	MANUAL	8.6.2.10000-14	UCM	---	

Refresh