

Backing Up and Restoring Data

Cisco Unity Express backup and restore functions use an FTP server to store and retrieve data. The backup function copies the files from the Cisco Unity Express application to the FTP server and the restore function copies the files from the FTP server to the Cisco Unity Express application. The FTP server can reside anywhere in the network if the backup and restore functions can access it with an IP address.

We recommend that backups be done daily to preserve voice-mail messages and configuration data.

Backup and restore commands are available in configuration mode and in offline mode.

- In configuration mode, set the following parameters:
 - Number of backup files to keep. The oldest file is deleted.
 - URL of the FTP server where the files will be stored.
- In offline mode, perform the backup or restore procedure. Decide the following:
 - Type of files to be backed up: all files (configuration and data), only configuration files, or only data files. Data files consist of voice-mail messages. Configuration files consist of all other system and application parameters.
 - Backup filename (used for restore procedure)
 - URL of the FTP server where the files will be stored



Caution

Offline mode terminates all existing voice-mail calls and no new voice-mail calls are allowed. Calls to auto attendant are allowed. We recommend doing a backup when telephone users are not active on calls.

In Cisco Unity Express EXEC mode, the startup configuration and running configuration can be saved to various locations, such as the network FTP server, the network TFTP server, and flash memory.

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Restrictions

Cisco Unity Express does not support the following backup and restore capabilities:

- Scheduled backup and restore operations. The backup and restore procedures begin when the appropriate command is entered.
- Centralized message storage arrangement. Cisco Unity Express backup files cannot be used or integrated with other message stores.
- Selective backup and restore. Only full backup and restore functions are available. Individual voice-mail messages or other specific data cannot be stored or retrieved.

Setting Backup Parameters

The backup parameters define the FTP server to use for storing Cisco Unity Express backup files and the number of files that are stored before the system deletes the oldest one.

All Cisco Unity Express backup files are stored on the specified server. You can copy the backup files to other locations or servers, if necessary.

Cisco Unity Express automatically assigns a backup ID to the backup file. Use the backup ID to restore the file.

Prerequisites

The following information is required for setting the backup parameters:

- Number of revisions to save before the oldest file is written over
- FTP server URL
- User ID of the FTP server login
- Password of the FTP server login

SUMMARY STEPS

1. `config t`
2. `backup {revisions number | server url ftp-url username ftp_username password ftp_password}`
3. `exit`
4. `show backup`

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>config t</code>	Enters configuration mode.
Step 2	<code>backup {revisions <i>number</i> server url <i>ftp-url</i> username <i>ftp_username</i> password <i>ftp_password</i>}</code> Example: <pre>se-10-0-0-0(config)# backup revisions 5 se-10-0-0-0(config)# backup server url ftp://main/backups username "admin" password "wxyz" se-10-0-0-0(config)# backup server url ftp://172.168.10.10/backups username "admin" password "wxyz"</pre>	Sets the backup parameters. <ul style="list-style-type: none"> • revisions—The number of backup files that will be stored. When this number is reached, the system deletes the oldest stored file. • server url—The <i>ftp-url</i> value is the URL to the network FTP server where the backup files will be stored. The <i>ftp_username</i> and <i>ftp_password</i> values are the user ID and password for the network FTP server. <p>In the example, main is the hostname of the FTP server and backups is the directory where backup files are stored.</p>

	Command or Action	Purpose
Step 3	<code>exit</code>	Exits configuration mode.
Step 4	<code>show backup</code>	Displays the backup server configuration information, including the FTP server URL and the number of revisions.

Example

The following example configures a backup server and displays the `show backup` output:

```

se-10-0-0-0# config t
se-10-0-0-0#(config)# backup server url ftp://172.16.0.0/backups username "admin" password "voice"
se-10-0-0-0#(config)# backup revisions 10
se-10-0-0-0#(config)# exit
se-10-0-0-0#
se-10-0-0-0# show backup
Server URL:                               ftp://172.16.0.0/backups
User Account on Server:                   admin
Number of Backups to Retain:              10
se-10-0-0-0#

```

Backing Up Files

Backup commands must be entered in EXEC mode while the system is in offline mode. Active calls are terminated and no new calls are accepted. Consider doing the backup procedure at a time when telephone users are least likely to be on the telephone.

**Note**

We recommend that you back up your configuration files whenever changes are made to the system or application files. Data files, which contain voice messages, should be backed up daily to minimize data loss, such as from a hardware failure.

Numbering Scheme for Backup Files

Three types of backup requests are available: data only, configuration only, or all. Cisco Unity Express automatically numbers and dates the backup files and identifies the revision number in a **backupid** field.

Performing different backup types at various times causes different backup IDs for data backups and configuration backups. For example, the last data backup ID might be 3 and the last configuration backup might be 4. Performing an “all” backup might result in a backup ID of 5 for both data and configuration.

When restoring the files, refer to the backup ID for the backup file you want to use. Use the **show backup server** command for a list of backup IDs.

**Caution**

Offline mode terminates all existing voice-mail calls and no new voice-mail calls are allowed. Calls to auto attendant are allowed. We recommend doing a backup when telephone users are not active on calls.

SUMMARY STEPS

1. **offline**
2. **backup category {all | configuration | data}**
3. **continue**
4. **show backup history**
5. **show backup server**

DETAILED STEPS

	Command or Action	Purpose
Step 1	offline Example: se-10-0-0-0# offline	Enters offline mode. All active voice-mail calls are terminated.
Step 2	backup category {all configuration data} Example: se-10-0-0-0(offline)# backup category all se-10-0-0-0(offline)# backup category configuration se-10-0-0-0(offline)# backup category data	Specifies the type of data to be backed up and stored.
Step 3	continue Example: se-10-0-0-0(offline)# reload	Exits offline mode and returns to EXEC mode.
Step 4	show backup history Example: se-10-0-0-0# show backup history	Displays the backup and restore procedures and the success or failure of those attempts.
Step 5	show backup server Example: se-10-0-0-0# show backup server	Displays the backup files available on the backup server, the date of each backup, and backup file ID.

Example

The following example displays the output from the **show backup** commands:

```
se-10-0-0-0# show backup history

Start Operation
Category:      Configuration
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:      1
Restoreid:     -1
Description:   test backup 1
Date:          Sun Jun 13 12:23:38 PDT 1993
Result:        Failure
Reason:        Script execution failed: /bin/BR_VMConfig_backup.sh: returnvalue:1
               ; Server Url:ftp://10.100.10.215/CUE_backup: returnvalue:9 Unable to authenticate
#End Operation

#Start Operation
Category:      Configuration
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:      2
Restoreid:     -1
Description:   CUE test backup
```

```

Date:          Sun Jun 13 12:32:48 PDT 1993
Result:        Success
Reason:
#End Operation

#Start Operation
Category:      Data
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:     2
Restoreid:    -1
Description:   CUE test backup
Date:          Sun Jun 13 12:32:57 PDT 1993
Result:        Success
Reason:
#End Operation

#Start Operation
Category:      Configuration
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Restore
Backupid:     2
Restoreid:    1
Description:
Date:          Sun Jun 13 12:37:52 PDT 1993
Result:        Success
Reason:
#End Operation

```

```
se-10-0-0-0# show backup server
```

```

Category:      Data
Details of last 5 backups
Backupid:     1
Date:          Tue Jul 22 10:55:52 PDT 2003
Description:

Backupid:     2
Date:          Tue Jul 29 18:06:33 PDT 2003
Description:

Backupid:     3
Date:          Tue Jul 29 19:10:32 PDT 2003
Description:

Category:      Configuration
Details of last 5 backups
Backupid:     1
Date:          Tue Jul 22 10:55:48 PDT 2003
Description:

Backupid:     2
Date:          Tue Jul 29 18:06:27 PDT 2003
Description:

Backupid:     3
Date:          Tue Jul 29 19:10:29 PDT 2003
Description:

se-10-0-0-0#

```

Restoring Files

After the backup files are created, you can restore them when needed. Restoring is done in offline mode, which terminates all voice-mail active calls and does not permit new voice-mail calls (auto attendant calls are permitted). You should consider doing the restore when telephone users are least likely to be on the telephone.

Use the **show backup server** command to locate the backup ID of the file you want to restore.

SUMMARY STEPS

1. **show backup server**
2. **offline**
3. **restore id *backupid* category {all | configuration | data}**
4. **reload**
5. **show backup history**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show backup server	Lists the data and configuration backup files. Look at the backup ID field for the revision number of the file you want to restore.
Step 2	offline Example: se-10-0-0-0# offline	Enters offline mode. All active voice-mail calls are terminated.
Step 3	restore id <i>backupid</i> category {all configuration data} Example: se-10-0-0-0(offline)# restore id 22 category all se-10-0-0-0(offline)# restore id 8 category configuration se-10-0-0-0(offline)# restore id 3 category data	Specifies the backup ID <i>backupid</i> value and the file type to be restored.
Step 4	reload Example: se-10-0-0-0(offline)# reload	Resets the Cisco Unity Express module so that the restored values take effect.
Step 5	show backup history Example: se-10-0-0-0# show backup history	Displays the backup and restore procedures and the success or failure of those attempts.

Example

The following example displays the backup server and backup history:

```
se-10-0-0-0# show backup server
```

```

Category:      Data
Details of last 5 backups
Backupid:     1
Date:         Tue Jul 22 10:55:52 PDT 2003
Description:

```

```

Backupid:     2
Date:         Tue Jul 29 18:06:33 PDT 2003
Description:

```

```

Backupid:     3
Date:         Tue Jul 29 19:10:32 PDT 2003
Description:

```

```

Category:      Configuration
Details of last 5 backups
Backupid:     1
Date:         Tue Jul 22 10:55:48 PDT 2003
Description:

```

```

Backupid:     2
Date:         Tue Jul 29 18:06:27 PDT 2003
Description:

```

```

Backupid:     3
Date:         Tue Jul 29 19:10:29 PDT 2003
Description:

```

```
se-10-0-0-0#
```

```
se-10-0-0-0# show backup history
```

```

Start Operation
Category:      Configuration
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:     1
Restoreid:    -1
Description:   test backup 1
Date:         Sun Jun 13 12:23:38 PDT 1993
Result:       Failure
Reason:       Script execution failed: /bin/BR_VMConfig_backup.sh: returnvalue:1
; Server Url:ftp://10.100.10.215/CUE_backup: returnvalue:9 Unable to authenticate
#End Operation

```

```

#Start Operation
Category:      Data
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:     1
Restoreid:    -1
Description:   test backup 1
Date:         Sun Jun 13 12:23:44 PDT 1993
Result:       Failure
Reason:       Script execution failed: /bin/BR_VMDData_backup.sh: returnvalue:1
Voicemail Backup failed; Server Url:ftp://10.100.10.215/CUE_backup: returnvalue:9
Unable to authenticate
#End Operation

```

```
#Start Operation
```

```
Category:      Configuration
S: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:      2
Restoreid:     -1
Description:   CUE test backup
Date:          Sun Jun 13 12:32:48 PDT 1993
Result:        Success
Reason:
#End Operation

#Start Operation
Category:      Data
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Backup
Backupid:      2
Restoreid:     -1
Description:   CUE test backup
Date:          Sun Jun 13 12:32:57 PDT 1993
Result:        Success
Reason:
#End Operation

#Start Operation
Category:      Configuration
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Restore
Backupid:      2
Restoreid:     1
Description:
Date:          Sun Jun 13 12:37:52 PDT 1993
Result:        Success
Reason:
#End Operation

#Start Operation
Category:      Data
Backup Server: ftp://10.100.10.215/CUE_backup
Operation:     Restore
Backupid:      2
Restoreid:     1
Description:
Date:          Sun Jun 13 12:38:00 PDT 1993
Result:        Success
Reason:
#End Operation
```

Copying Configurations

The following Cisco Unity Express EXEC commands are available to copy the startup configuration and running configuration to and from flash memory, the network FTP server, and the network TFTP server.

Copying from Flash Memory to Another Location

Starting in Cisco Unity Express EXEC mode, use the following command to copy the startup configuration in flash memory to another location:

```
se-10-0-0-0# copy startup-config {ftp: userid:password@ftp-server-address/directory |
tftp:tftp-server-address} filename
```

Keyword or Argument	Description
ftp: <i>userid:password@</i>	User ID and password for the FTP server. Include the colon (:) and the at sign (@) in your entry.
<i>ftp-server-address</i>	IP address of the FTP server.
<i>/directory</i>	(Optional) Directory on the FTP server where the copied file will reside. If you use it, precede the name with the forward slash (/).
tftp: <i>tftp-server-address</i>	IP address of the TFTP server.
<i>filename</i>	Name of the destination file that will contain the copied running configuration.

This command is interactive and prompts you for the information. You cannot enter the parameters in one line. The following examples illustrate this process.

In this example, the startup configuration is copied to the FTP server, which requires a user ID and password to transfer files. The IP address of the FTP server is 172.16.231.193. The startup configuration file is saved on the FTP server with the filename start.

```
se-10-0-0-0# copy startup-config ftp
Address or name of remote host? admin:voice@172.16.231.193
Source filename? start
```

The following example shows the startup configuration copied to the TFTP server, which does not require a user ID and password. The IP address of the TFTP server is 172.16.231.190. The startup configuration is saved in the TFTP directory configs as filename temp_start.

```
se-10-0-0-0# copy startup-config tftp
Address or name of remote host? 172.16.231.190 configs
Source filename? temp_start
```

Copying from the Network FTP Server to Another Location

Starting in Cisco Unity Express EXEC mode, use the following command to copy the network FTP server configuration to another location:

```
se-10-0-0-0# copy ftp: {running-config | startup-config}
userid:password@ftp-server-address/directory filename
```

Keyword or Argument	Description
running-config	Active configuration in flash memory.
startup-config	Startup configuration in flash memory.
<i>userid:password@</i>	User ID and password for the FTP server. Include the colon (:) and the at sign (@) in your entry.
<i>ftp-server-address</i>	IP address of the FTP server.
<i>/directory</i>	(Optional) Directory name for retrieving the file. If you use it, precede the name with the forward slash (/).
<i>filename</i>	Name of the source file to be copied.

This command is interactive and prompts you for the information. You cannot enter the parameters in one line. The following example illustrates this process.

In this example, the FTP server requires a user ID and password. The IP address of the FTP server is 10.3.61.16. The file start in the FTP server configs directory is copied to the startup configuration.

```
se-10-0-0-0# copy ftp: startup-config
!!!WARNING!!! This operation will overwrite your startup configuration.
Do you wish to continue[y]? y
Address or name or remote host? admin:voice@10.3.61.16/configs
Source filename? start
```

Copying the Flash Running Configuration to Another Location

Starting in Cisco Unity Express EXEC mode, use the following command to copy the running configuration in flash memory to another location:

```
se-10-0-0-0# copy running-config {ftp: userid:password@ftp-server-address/directory |
startup-config | tftp:ftp-server-address} filename
```

Keyword or Argument	Description
ftp: userid:password@	User ID and password for the FTP server. Include the colon (:) and the at sign (@) in your entry.
<i>ftp-server-address</i>	IP address of the FTP server.
<i>/directory</i>	(Optional) Directory on the FTP server where the copied file will reside. If you use it, precede the name with the forward slash (/).
startup-config	Startup configuration in flash memory.
tftp:ftp-server-address	IP address of the TFTP server.
<i>filename</i>	Name of the destination file that will contain the copied running configuration.

When you copy the running configuration to the startup configuration, enter the command on one line.

When you copy to the FTP or TFTP server, this command becomes interactive and prompts you for the information. You cannot enter the parameters in one line. The following example illustrates this process.

In the following example, the running configuration is copied to the FTP server, which requires a user ID and password. The IP address of the FTP server is 172.16.231.193. The running configuration is copied to the configs directory as file saved_start.

```
se-10-0-0-0# copy running-config ftp:
Address or name of remote host? admin:voice@172.16.231.193/configs
Source filename? saved_start
```

In the following example, the running configuration is copied to the startup configuration as file start. In this instance, enter the command on a single line.

```
se-10-0-0-0# copy running-config startup-config start
```

Copying the Network TFTP Configuration to Another Location

Starting in Cisco Unity Express EXEC mode, use the following command to copy the network TFTP configuration to another location:

```
se-10-0-0-0# copy tftp: {running-config | startup-config} tftp-server-address/directory filename
```

Keyword or Argument	Description
running-config	Active configuration in flash memory.
startup-config	Startup configuration in flash memory.
<i>tftp-server-address</i>	IP address of the TFTP server.
<i>/directory</i>	(Optional) Directory on the FTP server where the copied file will reside. If you use it, precede the name with the forward slash (/).
<i>filename</i>	Name of the source file to be copied.

This command is interactive and prompts you for the information. You cannot enter the parameters in one line. The following example illustrates this process.

In this example, the TFTP server has IP address 10.3.61.16. The file start in directory configs on the TFTP server is copied to the startup configuration.

```
se-10-0-0-0# copy tftp: startup-config
!!!WARNING!!! This operation will overwrite your startup configuration.
Do you wish to continue [y]? y
Address or name of remote host? 10.3.61.16/configs
Source filename? start
```

