Use SCP to securely transfer files between two Unix computers

In Unix (agat), you can use SCP (the `scp` command) to securely copy files and directories between remote hosts without starting an FTP (aerg) session or logging into the remote systems explicitly. The `scp` command uses SSH (aelc) to transfer data, so it requires a password or passphrase for authentication (alqk). Unlike `rcp` or FTP, `scp` encrypts both the file and any passwords exchanged so that anyone snooping on the network cannot view them.

Syntax

The syntax for the `scp` command is:

```
scp [options] username1@source_host:directory1/filename1
username2@destination_host:directory2/filename2
```

The location of the source file is specified by `username1@source_host:directory1/filename1`, which includes the:

- Name of the account on the host computer (`username1`)

- Hostname of the computer on which the source file resides (`source_host`)

- Name of the directory containing the source file (`directory1`)

- Filename of the source file (`filename1`)

The location to which the source file will be copied is specified by `username2@destination_host:directory2/filename2`, which includes the:

- Name of the account on the destination computer (`username2`)

- Hostname of the computer to which the source file will be copied (`destination_host`)

- Name of the directory to which the source file will be copied (`directory2`)

- Filename of the copy (`filename2`)

> **Note:**
>
> Be sure to include a space between the source and destination paths. Also, be careful when copying files that share the same name on both hosts; you may accidently overwrite data you intended to keep.

For more about `scp` , consult its [manual page (afjm)](#). At the Unix prompt, enter:

```
man scp
```

At Indiana University, for personal or departmental Linux or Unix systems support, see [At IU, how do I get support for Linux or Unix? (beqc)](#)

Examples

For the following examples, assume your username is `dvader` , and you are logged into your account on the computer `empire.gov` :

- To copy a file called `rebels.txt` from your home directory on `empire.gov` to a directory called `revenge` in your account on the computer `deathstar.com` , enter:

  ```
  scp ~/rebels.txt dvader@deathstar.com:~/revenge
  ```

  You'll be prompted for your password on the destination system (`deathstar.com`). The command won't work unless you enter the correct password.

- To copy a directory (and all the files it contains), use `scp` with the `-r` option. This tells `scp` to recursively copy the source directory and its contents.

  To copy the entire `revenge` directory from your `deathstar.com` account to your `empire.gov` account, enter:

  ```
  scp -r dvader@deathstar.com:~/revenge ~/revenge
  ```

  You'll be prompted for your password on the source system (`deathstar.com`). The command won't work unless you enter the correct password.

- To copy multiple files within a directory, you can use wildcards (e.g., `*` or `?`). However, to use wildcards for copying multiple source files from a remote system, you need to place quotes (`"` `"`) around the path to the source files. This is necessary because the Unix [shell (agvf)](#), not the `scp` command, expands unquoted wildcards.

  Therefore, to copy all the `.txt` files from the `revenge` directory on your `deathstar.com` account to your `revenge` directory on `empire.gov` , enter:

  ```
  scp dvader@deathstar.com:"revenge/*.txt" ~/revenge/
  ```

  You'll be prompted for your password on the source system (`deathstar.com`). The command won't work unless you enter the correct password.

For the following example, assume you (`dvader`) are logged into another computer (i.e., some other computer that's not `empire.gov` or `deathstar.com`). To copy `luke.txt` from your home directory on `empire.gov` to your `revenge` directory on `deathstar.com` , enter:

```
scp dvader@empire.gov:~/luke.txt dvader@deathstar.com:~/revenge
```

You'll be prompted to enter two passwords: one for the source system (`empire.gov`) and one for the destination system (`deathstar.com`). The command won't work unless you correctly enter both passwords.

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Related documents
Set up SSH public-key authentication to connect to a remote system (aews)
About ssh-agent and ssh-add in Unix (aeww)

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