

SCP Secure Copy Protocol (Easy Steps)

What is SCP?

SCP (Secure Copy Protocol) is a command-line tool used to securely transfer files and folders between computers over a network using SSH encryption.

It works using SSH encryption to keep data safe.

How SCP Works (Step by Step)

Step 1: Open Terminal

Open Linux Terminal or Git Bash.

Step 2: Basic SCP Command

```
scp file.txt user@server_ip:/home/user/
```

Step 3: Command Explanation

- **scp** → Start secure copy
- **file.txt** → File to send
- **user@server_ip** → Remote login user and server
- **/home/user/** → Destination folder

Step 4: Enter Password

Type remote server password when asked.

Step 5: File Copied 

File is securely transferred.

SCP Examples

Copy file to remote system:

```
scp test.txt nishant@192.168.1.10:/home/nishant/
```

Copy file from remote to local:

```
scp nishant@192.168.1.10:/home/nishant/test.txt .
```

Important SCP Options

1. **-r** → Copy directories 

```
scp -r myfolder user@192.168.1.10:/home/user/
```

2. **-i** → Use private key 

```
scp -i mykey.pem file.txt user@server:/home/user/
```

3. **-P** → Custom SSH port 

```
scp -P 2222 file.txt user@192.168.1.10:/home/user/
```

4. **-v** → Verbose mode 

```
scp -v file.txt user@server:/home/user/
```

5. **-C** → *Enable compression* 

```
scp -C file.txt user@server:/home/user/
```

6. **-q** → *Quiet mode* 

```
scp -q file.txt user@server:/home/user/
```

SCP Options Summary Table

Option	Use
-r	= <i>Copy folders</i> 
-i	= <i>Use private key</i> 
-p	= <i>Change port</i> 
-v	= <i>Show details</i> 
-c	= <i>Compress data</i> 
-q	= <i>Quiet mode</i> 

One Line Summary

SCP helps to securely copy files between computers  
