

# SFTP (Secure File Transfer Protocol)

## 1. Introduction to SFTP

- SFTP stands for Secure File Transfer Protocol.
- It is a secure way of transferring files between local and remote systems.
- Works over SSH (port 22), unlike FTP which is insecure.
- Ensures encryption of login credentials and data.

## 2. How SFTP Works

- Uses SSH to establish a secure channel.
- Requires authentication (username/password or SSH keys).
- Once connected, user can navigate remote directories and transfer files.

## 3. Common SFTP Commands

- ls - List files on remote server
- pwd - Show remote directory
- lpwd - Show local directory
- cd - Change remote directory
- lcd - Change local directory
- get file.txt - Download file
- put file.txt - Upload file
- mget \*.txt - Download multiple files
- mput \*.txt - Upload multiple files
- bye - Exit SFTP session

## 4. Practice with Public Demo Server

You can practice SFTP using Rebex test server:

- Hostname: test.rebex.net
- Port: 22
- Username: demo
- Password: password
- Upload allowed only in /pub/ folder
- Files reset every 24 hours

## 5. Example Workflow

- 1. Connect: `sftp demo@test.rebex.net`
- 2. Enter password: `password`
- 3. Navigate: `ls`, `cd pub`, `lls`, `lcd`
- 4. Upload: `put myfile.txt`
- 5. Download: `get readme.txt`
- 6. Exit: `bye`

## 6. Automation with Batch Mode

- Create a text file with commands (e.g., `sftp_batch.txt`).
- Run: `sftp -b sftp_batch.txt demo@test.rebex.net`
- Useful for scripts and scheduled backups.