Mosh Roaming remote shell

CONCEPTS

SSH only logs in and starts mosh-server; the session itself runs over UDP, so it survives sleep, Wi-Fi changes and roaming.

mosh client local
↓ SSH (TCP 22)
Login starts mosh-server
↓ UDP 60000-61000
mosh-server your shell
↓ roams with you
Session survives IP changes

Only the visible screen is synced, so there is no scrollback. Run tmux or screen on the server for history.

CONNECT

`mosh <host>`
Connect to a host

`mosh <user>@<host>`
Connect as another user

`mosh <host> -- <command>`
Run a command instead of the shell

`mosh --ssh="ssh -p <port>" <host>`
Use a non-default SSH port

`mosh --ssh="ssh -i <keyfile>" <host>`
Pass SSH options such as a key

`mosh <host> -- tmux new -As <name>`
Attach to or create a tmux session

`mosh --server=<path> <host>`
Path to mosh-server on the remote

`mosh -4 <host>`
IPv4 only

`mosh -6 <host>`
IPv6 only

PORTS AND FIREWALL

`mosh -p <port> <host>`
Use one server UDP port

`mosh -p <low>:<high> <host>`
Use a UDP port range

`sudo ufw allow 60000:61000/udp`
Open the mosh range in ufw

PORTS AND FIREWALL (cont.)

`sudo firewall-cmd --add-port=60000-61000/udp --permanent`
Open the range in firewalld

ESCAPE KEY

`Ctrl+^ .`
Kill the connection

`Ctrl+^ Ctrl+Z`
Suspend the client

`MOSH_ESCAPE_KEY=<char> mosh <host>`
Change the escape character

LOCAL ECHO

`mosh --predict=adaptive <host>`
Echo locally only on slow links (default)

`mosh -a <host>`
Always predict typing

`mosh -n <host>`
Never predict typing

SERVER

`sudo apt install mosh`
Install on Debian or Ubuntu

`sudo dnf install mosh`
Install on Fedora

`sudo pacman -S mosh`
Install on Arch

`brew install mosh`
Install on macOS

`mosh-server --version`
Check mosh-server is found

`locale`
Check a UTF-8 locale is set

`export LC_ALL=en_US.UTF-8`
Set a UTF-8 locale

`pgrep -a mosh-server`
List running sessions on the server

TROUBLESHOOTING

`mosh-server new`
Test it starts and prints a port and key

No UDP on the network (some hotels, corporate Wi-Fi) means no mosh. Fall back to plain SSH inside tmux.