Opensource.com: Advanced SSH Cheat Sheet

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Most people know SSH as a tool for remote login, which it is, but it can be used in many other ways.

Create a SOCKS proxy to tunnel your web traffic (like when you're traveling)

```
ssh -D <port> <remote_host>
```

Set your web browser to use `localhost:<port>` as the proxy.

Connect to a Windows RDP host behind a bastion server

```
ssh -L <port>:<target_host>:3389 <bastion_server>
```

Set your RDP client to connect to `localhost:<port>`

Connect to a Windows RDP host behind a bastion server

```
ssh -L <port>:<target_host>:3389 <bastion_server>
```

Set your RDP client to connect to `localhost:<port>`

Connect to your remote machine's VNC server without opening the VNC port

```
ssh -L 5901:localhost:5901 <remote_host>
```

Set your VNC client to to connect to `localhost:5901`

You can follow this pattern with other ports you don't want to open to the world: LDAP (381), 631 (CUPS), 8080 (alternate HTTP), and so on.

Generate a new SSH key pair

```
ssh-keygen
```

Update the passphrase on an existing SSH key-pair

```
ssh-keygen -p
```

Copy an SSH private key to a remote host

```
ssh-copy-id -i <identity file> <remote_host>
```

SSH has a lot of command-line options, but if you use the same options for a host regularly, you can put an entry in the SSH configuration file (`${HOME}/.ssh/config`) instead. For example:

```
host myhouse
       User itsme
       HostName house.example.com
```

Then you can type `ssh myhouse` instead of `ssh itsme@house.example.com`.

Here are common command-line options and their configuration file equivalents. Some are simplified for common use cases. See the **ssh(1)** and **ssh_config(5)** manual pages for full details.

Command Line	Configuration File	Description
`-l <login name>`	`User <login name>`	The login name on the remote machine.
`-i <identity file>`	`IdentityFile <identity file>`	The identity file (SSH keypair) to use for authentication.
`-p <remote port>`	`Port <remote port>`	The port on which the remote SSH daemon is listening. (default: 22)
`-C`	`Compression <yes|no>`	Compress traffic between hosts. (default: no)
`-D <port>`	`DynamicForward <port>`	Forward traffic on the local port to the remote machine.
`-X`	`ForwardX11 <yes|no>`	Display X11 graphical programs from your remote host on the local host. (default: no)
`-A`	`ForwardAgent <yes|no>`	Forward the authentication agent to the remote host. This is helpful if you'll then connect to a third host. (default: no)
`-4` (use IPv4 only) `-6` (use IPv6 only)	`AddressFamily <any|inet4|inet6>`	Specify whether to use IPv4 or IPv6 only.
`-L <local port>:<target host>:<target port>`	`LocalForward <local port>:<target host>:<target port>`	Forward local traffic on the specified to port to the remote host and port.