



TEXAS ADVANCED COMPUTING CENTER

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TEXAS

The University of Texas at Austin

Intro to Secure Shell

Connecting to remote computers using
an SSH client

PRESENTED BY:

Texas Advanced Computing Center

What is a Secure SHell (SSH) Client?

- The “Secure” part of SSH means the connection utilizes some form of cryptographic method to shield the plain text traffic, encrypting it to outside viewers.
- The “SHell” part of SSH is the interface (e.g. blinking cursor) to the remote computer.
- The client is an application used to create the SSH connection to a remote computer over a given network.

Some Sample SSH Clients

Note: We don't care what SSH client you use as long as you can log into the class server.

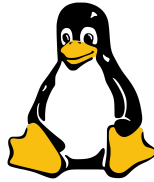
Windows



-PuTTY

-MobaXTerm

Linux



-Terminal

Chromium



-Secure Shell

Android



-JuiceSSH

MacOS



-Terminal

-iTerm

iOS

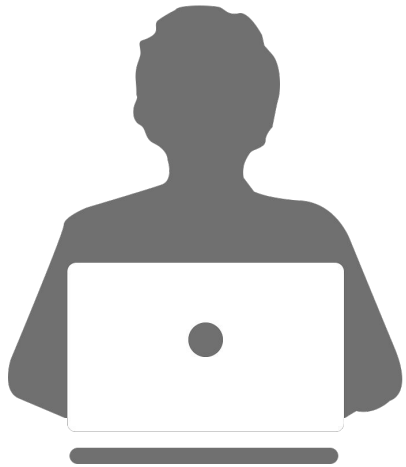


- SSH Term

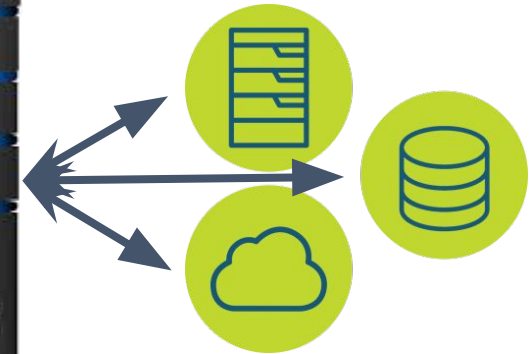


What happens during a SSH connection

Local



Remote



```
OpenSSH_7.6p1, LibreSSL
2.6.2
debug1: Reading
configuration data
/Users/slindsey/.ssh/config
debug1: Connecting to
isp.tacc.utexas.edu port 22.
debug1: Connection
established....
```

```
local$ ssh slindsey@isp.tacc.utexas.edu
```

```
[slindsey@isp02 ~]$ do remote work
```

Example from MacOS Terminal App

```
slindsey-mbpr19$ ssh slindsey@isp.tacc.utexas.edu
```

```
Password:
```

```
TACC_Token:
```

```
Last login: Thu Aug 26 11:51:21 2021 from  
cpe-70-114-210-212.austin.res.rr.com
```

```
-----  
---
```

```
Welcome to the Texas Advanced Computing Center  
    at The University of Texas at Austin
```

```
.  
.
```

```
[slindsey@isp02 ~]$ <1001> hostname
```

```
isp02.tacc.utexas.edu
```

```
[slindsey@isp02 ~]$ <1002> exit
```

```
logout
```

```
Connection to isp.tacc.utexas.edu closed.
```

```
$ hostname
```

```
slindsey-mbpr19.local
```

```
$ exit
```

```
exit
```

Secure Copy Utility `scp`

The `scp` utility securely copies files between computers. Most likely you will want to upload files to your ISP account as well as download your ISP files to your own computer. Do this with `scp` command.

Because your local computer does not have a fixed IP address, initiate transfers from your local computer to the remote computer.

- **To copy a file from your computer to ISP:**

```
local$ scp mylaptopfile slindsey@isp.tacc.utexas.edu:
```

- **To copy a file from ISP to your computer:**

```
local$ scp slindsey@isp.tacc.utexas.edu:myISPfile .
```

Initiate a Session

- Initiate ssh session on COE 322 class computer

```
mylaptop$ ssh username@isp.tacc.utexas.edu
```

- Type your TACC password to login, and then authenticate. Yes, you have to authenticate and type in a token each time you log in.
- If you're having trouble setting up Multi-Factor authentication, [submit a support ticket](#) via the TACC User Portal and cc one of the instructors.