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

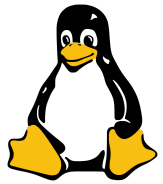
Note: We don't care what SSH client you use as long as you can log into the class server.

Windows

-PuTTY

-MobaXTerm

Linux



-Terminal

iOS

- SSH Term

MacOS

-Terminal

-iTerm

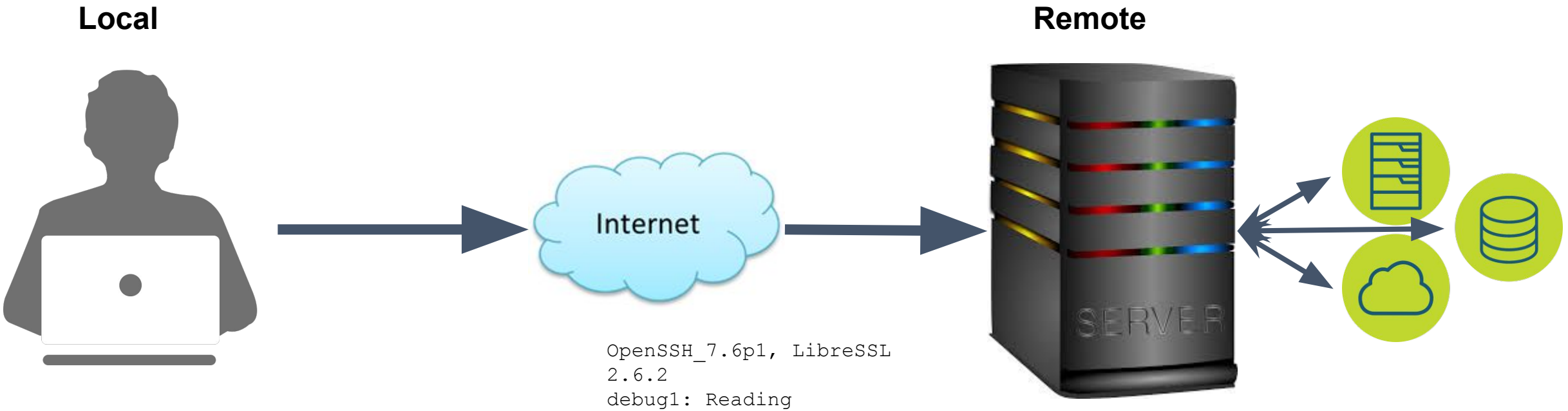
Chromium

-Secure Shell

Android

-JuiceSSH

What happens during a SSH connection




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

```
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….
```

```
[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.

From your local 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.

- Do work: edit, compile, edit again on ISP