

ULI101

Week 06a

Week Overview

- Running Live Linux
- Sending email from command line
- scp and sftp utilities

Live Linux

- Most major Linux distributions offer a Live version, which allows users to run the OS without installing it
 - Most often, the Live OS is in a form of a CD or DVD, but it is possible to have Live USB Linux as well
- Users can boot the OS without affecting the existing OS which can be very useful
 - Troubleshooting
 - Hardware compatibility testing before install
 - Virus removal
 - Trying out a new/unknown distribution
- Although any files created and changed during a live session are not saved after restart, you can save files on portable storage (such as a USB memory stick) or on the local hard drive after manual mount

Live Linux

- You will be asked to use a Live CD version of the Fedora Linux during this week's lab
 - You can download the image from the Fedora Project website - <http://fedoraproject.org> or use the Freedom Toaster in the Open Lan
- Make sure to download and burn the CD image BEFORE you arrive on the lab date
- Spend some time using the OS before the lab
 - Fedora uses the Gnome Window Manager by default, which is different than KDE (used on Matrix)

mail

- Send or receive electronic email
- Mail as a set of own commands, similar to ftp in concept
- Some systems may have an updated version called **mailx**
 - Using mail will call mailx transparently

Sending messages

- Steps when sending email:
 - Type: `mail recipient@hostname` *[press Enter]*
 - Enter subject *[press Enter]*
 - Type the body of the message
 - *[Press Ctrl+D]* when finished typing message
- Alternatively, you can use a previously composed message (in a file)
`mail recipient@hostname -s "Subject" < file`

Copying Files Over Network

- Linux command-line utility `scp`, copies files securely across a network
 - Files can be transferred between local and remote host as well as between two remote hosts
 - Transmission is encrypted using SSL
- Usage is similar to the `cp` command with the addition of host names, for example:
 - `scp local.file user@host:/destination`
 - The user name in the command can be omitted if it's the same as on the local host
 - Multiple file and recursive directory copy is supported

sftp

- A secure version of the legacy ftp utility
 - Usage: sftp **user@host**
 - Similarly to scp, The user name in the command can be omitted if it's the same as on the local host
- Provides some level of interaction with the remote file system - listing files, changing directories etc.
- Linux offers many GUI tools simplifying the process, including gFTP
 - Be careful, as not all tools support SSL encryption
- Unlike scp, sftp cannot connect between two remote hosts

sftp Command

- When you are connected to a server the following terms apply:

Local Server – Your current machine

Remote Server – Server that you are connected to

Note: If your local machine has access to a USB storage device, you can transfer files for backup purposes from the server!

sftp Command

- Commands to navigate throughout your remote server:

ls

List files

pwd

Display current directory

cd

Change remote directory

sftp Command

- Commands to navigate throughout your local server:

!ls

List files

!pwd

Display current directory

lcd

Change local directory

sftp Command

- Commands to transfer files between local and remote server:

remote -> local Server:

get filename

local -> remote Server:

put filename

Note:

It is advised to set your local and remote directories before you transfer.

The commands **mget** and **mput** can be used to copy multiple files using wildcard characters like *

sftp Command

- After transferring a file between servers, always verify that the transfer has been successfully completed (refer to commands to navigate throughout local and remote servers).
- To exit the sftp shell, you can enter the commands:
bye
exit
Ctrl+d

Linux GUI and remote files

- Linux GUI file managers such as Nautilus have the ability to access remote file-systems
 - Various protocols are supported, but the typical choice for remote Linux hosts is the SSH
 - You get the security of SSH with the convenience of the GUI interface
- Use the “File...Connect to Server...” menu choice
 - You can do this from the Live Linux disc or your own Linux system to access your files on Matrix
- Once connected, the remote file system will appear as a directory/folder for all GUI applications – this is how **cloud storage** is implemented