Intro to Linux

1.2.4 Linking and Copying Files Between Systems

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Linking and Copying Files Between Systems

- Linux commands can be used for linking and copying files to efficiently manage and transfer data between different systems
- The commands include
  - **`rsync`**
  - **`scp`**
  - **`nc`**

Copying Files

- Files can be copied between systems in Linux using various methods and tools
- The choice of method depends on specific requirements and the systems being used

SCP (Secure Copy Protocol)

- A secure and widely used method to copy files between Linux systems over SSH

```
ubuntu@ip-10-15-46-215:~$ ssh 10.15.88.93 -p 22
ubuntu@10.15.88.93's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1053-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

  System information as of Wed Apr 10 15:51:31 UTC 2024

  System load:  0.09               Processes:             237
  Usage of /:   51.7% of 15.32GB   Users logged in:       0
  Memory usage: 46%                IPv4 address for ens5: 10.15.88.93
  Swap usage:   0%
```

```
ubuntu@ip-10-15-88-93:/etc/ssh$ sudo nano sshd_config
ubuntu@ip-10-15-88-93:/etc/ssh$ sudo passwd
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-10-15-88-93:/etc/ssh$ sudo service sshd restart
```

rsync

- A powerful tool for efficiently transferring and synchronizing files and directories
- Commonly used for backups and remote file transfers

```
rsync(1)                                                rsync(1)

NAME
       rsync  -  a  fast,  versatile,  remote  (and local)
       file-copying tool

SYNOPSIS
       Local:  rsync [OPTION...] SRC... [DEST]

       Access via remote shell:
         Pull: rsync [OPTION...] [USER@]HOST:SRC... [DEST]
         Push: rsync [OPTION...] SRC... [USER@]HOST:DEST

       Access via rsync daemon:
         Pull: rsync [OPTION...] [USER@]HOST::SRC... [DEST]
               rsync [OPTION...] rsync://[USER@]HOST[:PORT]/SRC... [DEST]
         Push: rsync [OPTION...] SRC... [USER@]HOST::DEST
               rsync [OPTION...] SRC... rsync://[USER@]HOST[:PORT]/DEST

       Usages with just one SRC arg and no DEST  arg  will
       list the source files instead of copying.

DESCRIPTION
```

nc

- Short for netcat
- Often referred to as the *swiss army knife* of networking because of its wide range of functionalities including simple connections for communicating back and forth between machines as shown.

```
ubuntu@ip-10-15-88-93:~$ nc -l 6666
This is an example of using nc
```

```
ubuntu@ip-10-15-88-93:~$ nc 10.15.88.93 6666
This is an example of using nc
```