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**SCP: Secure CoPy**:

* SCP is used to copy files between hosts on a network, providing secure file transfer by using ssh protocol..
* Syntax: scp <file/path of file><username>@<receiver’s IP>:< target directory>

In short, scp <source> <destination>

If username is not specified then the current local user invoking scp is used.

* transfer local files to remote host,

Command: scp /etc/hosts root@vaibhav:/root

Command: scp /etc/hosts vaibhav:/root

* transfer remote files to local host,

Command: scp root@vaibhav:/root /etc/hosts

Command: scp vaibhav:/root /etc/hosts

* Copy entire directory,

Command: scp -r /etc root@vaibhav:/root

# **rsync: remote synchronization**

* rsync is used to securely copy files from one system to another over a network.
* The syntax of rsync is same as scp except some additional options.

Syntax: rsync -av <file/path of file><username>@<receiver’s IP>:< target directory>

In short, rync -av <source> <destination>

* In general, two options -a and -v are used.

|  |  |
| --- | --- |
| Option | Description |
| -a | preserves symbolic links (-r)   permissions (-p)  time stamps (-t)  group ownership (-g)  owner of files (-o)  synchronize device files (-D) |
| -v | verbosity |
| -H | preservers hard links |
| -A | enables synchronization of ACLs |
| -X | preservers SELinux contexts |

* Example:









* Here, logger command is used to generate logs manually.
* Note: In case of /var/log, log directory is copied to /serverlogs/

In case of /var/log/, content log directory is copied to /serverlogs/ without

copying log directory.

# **Difference between scp and rync**

* scp copies files using ssh of selected files from source to destination and when finished, closes scp application.
* rsync copies files from source to destination whenever there is a change in the source files.
* Key authentication is required for rsync.
* In short, scp copies everything whereas rsync copies only changes made.
* scp overwrites data whereas rsync does not overwrite.
* scp is faster than rsync.