SSH: THE SECURE SHELL

What is ssh:

SSH is a cryptographic network protocol for secure network services

uses:

→ It is used for the remote login
→ Secure File Transfer (SFTP/SCP)
→ Port Forwarding
→ SOCKS protocols for web browsing through encrypted proxy
→ Secure remote file mounting via SSHFS

login with ssh using password:

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requirements:

→ we have two server
1) server1, ip:192.168.0.10/24
2) server2, ip :192.168.0.11/24

1) step1

we need to install the openssh-server in server2[in centos server its actually pre-installed]

=>yum update -y

=>yum install sshd -y

2) from server1 use the command and give the password

=>ssh root@192.168.0.11

password: <server2 password>

now you are logged in in server 2

login with ssh without password(more secure way):

using password to login with ssh is one way but it is not very secure the other way is to use a private and public key pair. we use a public private key pair for login rather than a password.

Step 1:

see if there is an existing key
=> **ls -l ~/.ssh**

Step 2:

Create the key pair from server1

[syntax:ssh-keygen -t <algorithm> -b <size>]

=>ssh-keygen -t rsa -b 4096

[it will ask you for a passphrase for now we skip it we will discuss it later]

Step 3:

we need to send the public key to ther server2.we can do it manually or we can do it using this command

=>ssh-copy-id server2@192.168.0.11

Step 3:

login with

=>ssh root@192.168.0.11

and this time no password will be asked.

[
what is passphrase:
sometime the ssh connectivity is used by you sometimes not. for example you can make a cron job to connect automatically to a server for data backup. when you are going to use the ssh only its a good idea to use a passphrase .but for automation you should not use it cause there will be no one to type the passphrase .when you use a script to automatically connect to a server don't use any passphrase.
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copy file with SCP(Secure copy and paste):

syntax:

scp <local_file> <destination>

we are going to send a file name '**test.txt**' from server1 to server2

=>scp test.txt 192.168.0.11/test.txt

copy file with SFTP(Secure File Transfer Protocol):

its a interactive process for sending file over SSH

=>sftp 192.168.0.10
sftp> cd /etc [go to etc directory]
sftp> get redhat-release [download the file]