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Howto Linux / UNIX setup SSH with DSA public key authentication (password less login)

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Q. How do you set-up SSH with DSA public key authentication? I have Linux laptop called tom and remote Linux server called jerry. How do I setup DSA based authentication so I don't have to type password?

A. DSA public key authentication can only be established on a per system / user basis only i.e. it is not system wide. You will be setting up ssh with DSA public key authentication for SSH version 2 on two machines:

#1 machine : your laptop called tom

#2 machine : your remote server called jerry



[1]

Command to type on your laptop/desktop (local computer)

First login to local computer called tom and type the following command.

Step #1: Generate DSA Key Pair

Use ssh-keygen command as follows:

```
$ ssh-keygen -t dsa
```

Output:

```
Enter file in which to save the key (/home/vivek/.ssh/id_dsa): Press [Enter] key
Enter passphrase (empty for no passphrase): myPassword
Enter same passphrase again: myPassword
Your identification has been saved in /home/vivek/.ssh/id_dsa.
Your public key has been saved in /home/vivek/.ssh/id_dsa.pub.
The key fingerprint is:
04:be:15:ca:1d:0a:1e:e2:a7:e5:de:98:4f:b1:a6:01 vivek@vivek-desktop
```

Caution: a) Please enter a passphrase different from your account password and confirm the same.

b) The public key is written to /home/you/.ssh/id_dsa.pub.

c) The private key is written to /home/you/.ssh/id_dsa.

d) It is important you **never-ever** give out your private key.

Step #2: Set directory permission

Next make sure you have correct permission on .ssh directory:

```
$ cd
$ chmod 755 .ssh
```

Step #3: Copy public key

Now copy file ~/.ssh/id_dsa.pub on Machine #1 (tom) to remote server jerry as ~/.ssh/authorized_keys:

```
$ scp ~/.ssh/id_dsa.pub user@jerry:~/.ssh/authorized_keys
```

Command to type on your remote server called jerry

Login to your remote server and make sure permissions are set correct:

```
$ chmod 600 ~/.ssh/authorized_keys
```

Task: How do I login from client to server with DSA key?

Use scp or ssh as follows from your local computer:

```
$ ssh user@jerry
$ ssh user@remote-server.com
$ scp file user@jerry:/tmp
```

You will still be asked for the passphrase for the DSA key file each time you connect to remote server called jerry, unless you either did not enter a passphrase when generating the DSA key pair.

Task: How do I login from client to server with DSA key but without typing a passphrase i.e. password-less login?

Type the following command at shell prompt:

```
$ exec /usr/bin/ssh-agent $SHELL
$ ssh-add
```

Output:

```
Enter passphrase for /home/vivek/.ssh/id_dsa: myPassword
Identity added: /home/vivek/.ssh/id_dsa (/home/vivek/.ssh/id_dsa)
```

Type your passphrase once. Now, you should not be prompted for a password whenever you use ssh, scp, or sftp command.

If you are using GUI such as Gnome use the command:

```
$ ssh-askpass
```

OR

```
$ /usr/lib/openssh/gnome-ssh-askpass
```

To save your passphrase during your GNOME session under Debian / Ubuntu, do as follows:

- a) Click on System
- b) Select Preferences
- c) Select Session
- d) Click on New
- e) Enter "OpenSSH Password Management" in the Name text area
- f) Enter `/usr/lib/openssh/gnome-ssh-askpass` in the command text area.



- g) Click on close to save the changes
- h) Log out and then log back into GNOME. After GNOME is started, a dialog box will appear prompting you for your passphrase. Enter the passphrase requested. From this point on, you should not be prompted for a password by ssh, scp, or sftp.

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