



BIG DATA HADOOP



Arranged By:

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PROGRAM STUDI D-IV TEKNIK INFORMATIKA

JURUSAN TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG



1. Installing SSH

```
hadoop-datanode [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Preparing to unpack .../0-openssh-sftp-server_1%3a8.2p1-4ubuntu0.4_amd64.deb ...
Unpacking openssh-sftp-server (1:8.2p1-4ubuntu0.4) ...
Selecting previously unselected package libwrap0:amd64.
Preparing to unpack .../1-libwrap0_7.6.q-30_amd64.deb ...
Unpacking libwrap0:amd64 (7.6.q-30) ...
Selecting previously unselected package openssh-server.
Preparing to unpack .../2-openssh-server_1%3a8.2p1-4ubuntu0.4_amd64.deb ...
Unpacking openssh-server (1:8.2p1-4ubuntu0.4) ...
Selecting previously unselected package ssh.
Preparing to unpack .../3-ssh_1%3a8.2p1-4ubuntu0.4_all.deb ...
Unpacking ssh (1:8.2p1-4ubuntu0.4) ...
Selecting previously unselected package ncurses-term.
Preparing to unpack .../4-ncurses-term_6.2-0ubuntu2_all.deb ...
Unpacking ncurses-term (6.2-0ubuntu2) ...
Selecting previously unselected package ssh-import-id.
Preparing to unpack .../5-ssh-import-id_5.10-0ubuntu1_all.deb ...
Unpacking ssh-import-id (5.10-0ubuntu1) ...
Setting up openssh-sftp-server (1:8.2p1-4ubuntu0.4) ...
Setting up ssh-import-id (5.10-0ubuntu1) ...
Attempting to convert /etc/ssh/ssh_import_id
Setting up libwrap0:amd64 (7.6.q-30) ...
Setting up ncurses-term (6.2-0ubuntu2) ...
Setting up openssh-server (1:8.2p1-4ubuntu0.4) ...

Creating config file /etc/ssh/sshd_config with new version
Created symlink /etc/systemd/system/ssh.service → /lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /lib/systemd/system/ssh.service.
rescue-ssh.target is a disabled or a static unit, not starting it.
Setting up ssh (1:8.2p1-4ubuntu0.4) ...
Processing triggers for ufw (0.36-6ubuntu1) ...
Processing triggers for systemd (245.4-4ubuntu3.15) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
```

2. Inputting SSH-Key to server

```
Suggested packages:
  molly-guard monkeysphere ssh-askpass
The following NEW packages will be installed:
  libwrap0 ncurses-term openssh-server openssh-sftp-server ssh ssh-import-id
0 upgraded, 6 newly installed, 0 to remove and 0 not upgraded.
Need to get 739 kB of archives.
After this operation, 6,241 kB of additional disk space will be used.
Do you want to continue? [Y/n] ^[
Abort.

root@hadoop-datanode:~# ssh
root@hadoop-datanode:~# ssh
root@hadoop-datanode:~# ssh
root@hadoop-datanode:~# ssh
root@hadoop-datanode:~# ssh
root@hadoop-datanode:~# ssh-keygen -t rsa -P ""
Generating public/private rsa key pair.
Enter file in which to save the key (/home/hadoop-datanode/.ssh/id_rsa):
Your identification has been saved in /home/hadoop-datanode/.ssh/id_rsa.
Your public key has been saved in /home/hadoop-datanode/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:/762CDTRYuARR1BAOpREqnUzVJETRdcusG
The key's randomart image is:
+----[RSA 3072]-----+
|.BEX#E|
|oOoO +|
|o = +.*.|
|o . + o o|
|. * . S|
|. + o o|
|. . . .|
|. . . o.|
|. . . o=0|
+----[SHA256]-----+
```

Generate an ssh key so that when you destroy or copy files to the cluster, you don't have to enter a password.
Command used `ssh-keygen -t rsa -P ""`

by inputting the ssh-key the server will be active so we don't have to bother logging in



3. Copy _rsa.pub ke file authorized

```
Generating public/private rsa key pair.  
Enter file in which to save the key (/home/arya/.ssh/id_rsa):  
Your identification has been saved in /home/arya/.ssh/id_rsa.  
Your public key has been saved in /home/arya/.ssh/id_rsa.pub.  
The key fingerprint is:  
SHA256:FMmDhdIb9guyK2VrOKFFdyCUJm+QwtcmhN4tCwHVC ar10-bigdata@ar10-server  
The key's randomart image is:  
---[RSA 3072]-----+  
|.+++=*=B+0.E|  
|.+=+***.=.|  
|.++ ++|  
| + 0 +..|  
| 0 . + .S.|  
| 0 + .|  
| 0 = 0|  
|. + +|  
| +|  
+-----+  
-----[SHA256]-----+  
server:~$ cat ~/.ssh/id_rsa.pub >> ~/.ssh/authorized_keys  
server:~$ _
```

The key has been successfully saved and this is the authorized for public key

Syntax to authorized public ssh keys



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