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ЛАБОРАТОРНАЯ РАБОТА № 5

«Организация администрирования КС Linux»

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Ход работы.

1) Создаем 2 директории (рис.1).

```
root@ErikKocharuan:~# mkdir /etc/test
root@ErikKocharuan:~# mkdir /etc/back
```

Рис.1-Команда Mkdir.

2) Создаем bash скрипт в каталоге /etc/ с командой создания архива tar

-с – Создание нового архива

-z – Пропуск архива через gzip

-v – Подробный листинг обрабатываемых файлов.

-f – Говорим о том что у нас не магнитная лента.

Каталога /etc/test архивируем в etc/back/backup.tar.gz (рис.2)

```
GNU nano 2.7.4                                Файл: /etc/backup.sh
#!/bin/bash
tar -czvf /etc/back/backup.tar.gz /etc/test
```

Рис.2-Скрипт.

3) Разархивируем и выведем содержание текстового файла (Рис.3).

Рис.3-

```
root@ErikKocharuan:~# tar -xzf /etc/back/backup.tar.gz
etc/test/
etc/test/test.txt
root@ErikKocharuan:~# cd /etc/back
root@ErikKocharuan:/etc/back# ls
backup.tar.gz
root@ErikKocharuan:/etc/back# cd
root@ErikKocharuan:~# ls
etc
root@ErikKocharuan:~# cd etc/
root@ErikKocharuan:~/etc# ls
test
root@ErikKocharuan:~/etc# cd test
root@ErikKocharuan:~/etc/test# ls
test.txt
root@ErikKocharuan:~/etc/test# cat test.txt
nqe;gioe
```

Разархивирование.

4) Создадим следующий скрипт (рис.4).

```
GNU nano 2.7.4                                Файл: backup.sh
#!/bin/bash
a="test massege"
echo $a > /dev/tty1
```

Рис.4-Скрипт.

5) После вводим команду crontab -e и добавляем условия чтоб скрипт срабатывал каждую минуту.(рис.5)

```

GNU nano 2.7.4                                Файл: /tmp/crontab.B0xuD0/crontab
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command
SHELL=/bin/bash
* * * * * bash /etc/backup.sh

```

Рис.5-Crontab -e.

б)Результат (рис.6).

```

root@ErikKocharuan:~# test massege
test massege
test massege
test massege
test massege
test massege
test massege
test massege
test massege
test massege

```

Рис.6-Результат.

Тз.

- 1) Каждый день в 12 ночи чистить syslog (файл сислога не удалять)
- 2) Запускать текстовый браузер с виртуальными хостами в 10.10 утра

```

SHELL=/bin/bash
0 0 * * * bash cat /dev/null > /var/log/syslog
10 10 * * * bash links2 http://12.10
#* * * * * bash /etc/backup.sh

```

Рис.7-Crontab.

7) Задание на бэккуп. Создаем публичные ключи на 2-х машинах (Рис.8) командой ssh-keygen.

```

erik@192.168.1.15:22 - Bitvise xterm - erik@ErikKocharuan: ~
root@ErikKocharuan:/home/erik# ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
/root/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:Ux4iI0F5egVi1zHAYoWYweSyJXmFWqBGZWHimbT6PPQ root@ErikKocharuan
The key's randomart image is:
+---[RSA 2048]-----+
|X=%%+..|
|O+&*.o..|
|=@+.o.o.o|
|==. .o.o+|
|o. .S. |
|+. .|
|+ E |
|..|
+-----[SHA256]-----+
root@ErikKocharuan:/home/erik#

erik@192.168.1.10:22 - Bitvise xterm - erik@ErikKocharuan: ~
root@ErikKocharuan:/home/erik# ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
/root/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:USFLTtTKIBXIsRyCw6+s4iVZgKCD0YbKS1TZrAG5iQoE root@ErikKocharuan
The key's randomart image is:
+---[RSA 2048]-----+
|+=o.o+=+++++o|
|E+o.=oo..++|
|B.o = o .|
|@* o .|
|=. .S|
|. .|
|.o.|
|=.|
|++|
+-----[SHA256]-----+
root@ErikKocharuan:/home/erik#

```

Рис.8-Создание публичных ключей.

8) Командой ssh-copy-id -i ~/.ssh/id_e.pub erik@192.168.1.10 обмениваемся ключом с второй машиной. Командой ssh-copy-id -i ~/.ssh/id_e.pub erik@192.168.1.15 обмениваемся ключом с первой машиной (Рис.9).

```

erik@192.168.1.15:22 - Bitvise xterm - erik@ErikKocharuan: ~
root@ErikKocharuan:/home/erik# ssh-copy-id -i ~/.ssh/id_rsa.pub erik@192.168.1.10
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/root/.ssh/id_rsa.pub"
The authenticity of host '192.168.1.10 (192.168.1.10)' can't be established.
ECDSA key fingerprint is SHA256:izjKHvTbLrLZFh04qzYsRRgTpp9z0ijjZx8aBFONoc.
Are you sure you want to continue connecting (yes/no)? y
Please type 'yes' or 'no': yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
erik@192.168.1.10's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'erik@192.168.1.10'"
and check to make sure that only the key(s) you wanted were added.

root@ErikKocharuan:/home/erik#

erik@192.168.1.10:22 - Bitvise xterm - erik@ErikKocharuan: ~
root@ErikKocharuan:/home/erik# ssh-copy-id -i ~/.ssh/id_rsa.pub erik@192.168.1.15
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/root/.ssh/id_rsa.pub"
The authenticity of host '192.168.1.15 (192.168.1.15)' can't be established.
ECDSA key fingerprint is SHA256:izjKHvTbLrLZFh04qzYsRRgTpp9z0ijjZx8aBFONoc.
Are you sure you want to continue connecting (yes/no)? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
erik@192.168.1.15's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'erik@192.168.1.15'"
and check to make sure that only the key(s) you wanted were added.

root@ErikKocharuan:/home/erik#

```

Рис.9-обмен.

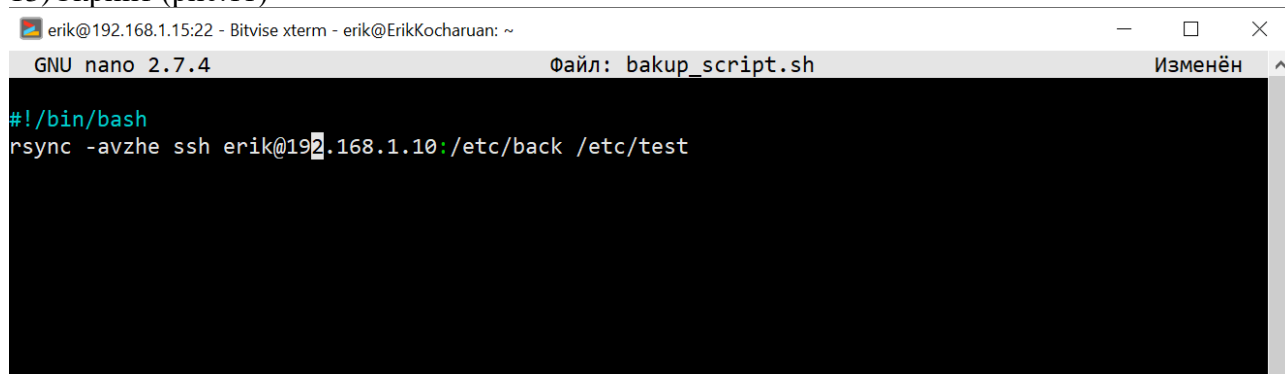
12) Команда `rsync -avzhe ssh erik@192.168.1.10:/etc/back /etc/test` синхронизирует папку `/etc/back` на ip 192.168.1.15 с папкой `/etc/test`. (рис.10)

```
root@ErikKocharuan:/home/erik# rsync -avzhe ssh erik@192.168.1.10:/etc/back /etc/test
receiving incremental file list
back/
back/backup.tar.gz

sent 47 bytes  received 286 bytes  222.00 bytes/sec
total size is 162  speedup is 0.49
root@ErikKocharuan:/home/erik#
```

Рис.10-backup.

13)Скрипт (рис.11)



```
erik@192.168.1.15:22 - Bitvise xterm - erik@ErikKocharuan: ~
GNU nano 2.7.4                                Файл: backup_script.sh                Изменён
#!/bin/bash
rsync -avzhe ssh erik@192.168.1.10:/etc/back /etc/test
```

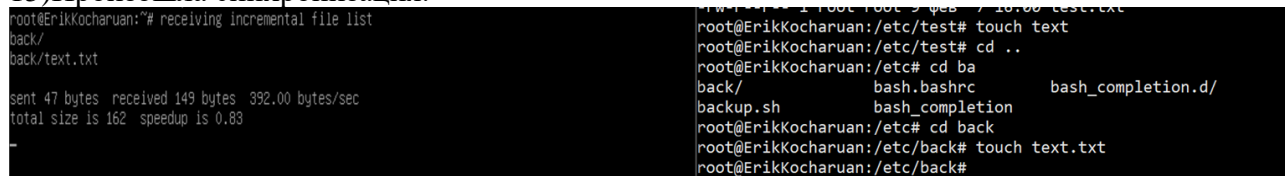
Рис.11-Скрипт.

14)Crontab. (рис.12)

```
SHELL=/bin/bash
*/5 * * * * bash /etc/scripts/bakup_script.sh > /dev/tty1
#0 0 * * * bash cat /dev/null > /var/log/syslog
#10 10 * * * bash links2 http://12.loc
#* * * * * bash /etc/backup.sh
```

Рис.12-Crontab.

15)Произошла синхронизация.



```
root@ErikKocharuan:~# receiving incremental file list
back/
back/text.txt

sent 47 bytes  received 149 bytes  392.00 bytes/sec
total size is 162  speedup is 0.83

root@ErikKocharuan:/etc/test# touch text
root@ErikKocharuan:/etc/test# cd ..
root@ErikKocharuan:/etc# cd ba
back/          bash.bashrc          bash_completion.d/
backup.sh      bash_completion
root@ErikKocharuan:/etc# cd back
root@ErikKocharuan:/etc/back# touch text.txt
root@ErikKocharuan:/etc/back#
```

Рис.13-синхронизация.