

Лабораторная работа №4 по операционной системе

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Задание

Идея заключается в следующем: вы скачиваете скрипт с именем netcfg.sh (скрипт сбивает настройки сети) и выполняете его. Задача восстановить работу сети. Работа считается выполненной, если сеть работает после перезагрузки системы.

Содержимое скрипта netcfg.sh :

```
#!/usr/bin/bash
# Lab 4 - Network Configuration and Troubleshooting

if [ "$(whoami)" != "root" ]; then
echo "You must be a root" && exit 0
fi

# Who am I? (user_name=$SUDO_USER)
for user in `ls /home` ; do
if [ $user != "lost+found" ]; then
user_name=$user
fi
done

# Create backup folder
backup_dir=/home/$user_name/.backup
/usr/bin/mkdir $backup_dir 2> /dev/null

# Create backups
/usr/bin/cp /etc/sysconfig/network $backup_dir/
/usr/bin/cp /etc/resolv.conf $backup_dir/

# Disable network initialization
grep "NETWORKING" /etc/sysconfig/network &> /dev/null
if [ $? -ne 0 ]; then
echo "NETWORKING=no" >> /etc/sysconfig/network
else
sed -i "s/NETWORKING=.*NETWORKING=no/" /etc/sysconfig/network
fi

# Remove resolver configuration file
/usr/bin/rm -f /etc/resolv.conf

# Some changes in /etc/sysconfig/network-scripts/ifcfg-*
for config in `ls /etc/sysconfig/network-scripts/ifcfg-*` ; do
if [ $config != "/etc/sysconfig/network-scripts/ifcfg-lo" ]; then
ifcfg_file=$config
fi
done

# Create backup
/usr/bin/cp $ifcfg_file $backup_dir/

# Disable DHCP
grep "BOOTPROTO" $ifcfg_file &> /dev/null
if [ $? -ne 0 ]; then
```

```

echo "BOOTPROTO=none" >> $ifcfg_file
else
sed -i "s/BOOTPROTO=.* /BOOTPROTO=none/" $ifcfg_file
fi

# Disable onboot initialization
grep "ONBOOT" $ifcfg_file &> /dev/null
if [ $? -ne 0 ]; then
echo "ONBOOT=no" >> $ifcfg_file
else
sed -i "s/ONBOOT=.* /ONBOOT=no/" $ifcfg_file
fi

# Deny changes with files
/usr/bin/chmod ugo-rw $backup_dir/*
/usr/bin/chattr +i $backup_dir/*

# Restart network service
systemctl restart NetworkManager.service

# Make me invisible (?)
me=`basename $0`
/usr/bin/cp $me .$me
/usr/bin/chmod ugo-rw .$me
/usr/bin/chattr +i .$me
/usr/bin/rm -f $me

# Reboot in 10 seconds
/usr/sbin/shutdown -r 10

```

Решение

Содержимое скрипта recover.sh :

```

#!/usr/bin/bash

if [ "$(whoami)" != "root" ]; then
echo "You must be a root" && exit 0
fi

# Who am I? (user_name=$SUDO_USER)
for user in `ls /home` ; do
if [ $user != "lost+found" ]; then
user_name=$user
fi
done

# Find backup folder
backup_dir=/home/$user_name/.backup

# Revert changes with files
chattr -i $backup_dir/*
chmod ugo+rw $backup_dir/*

```

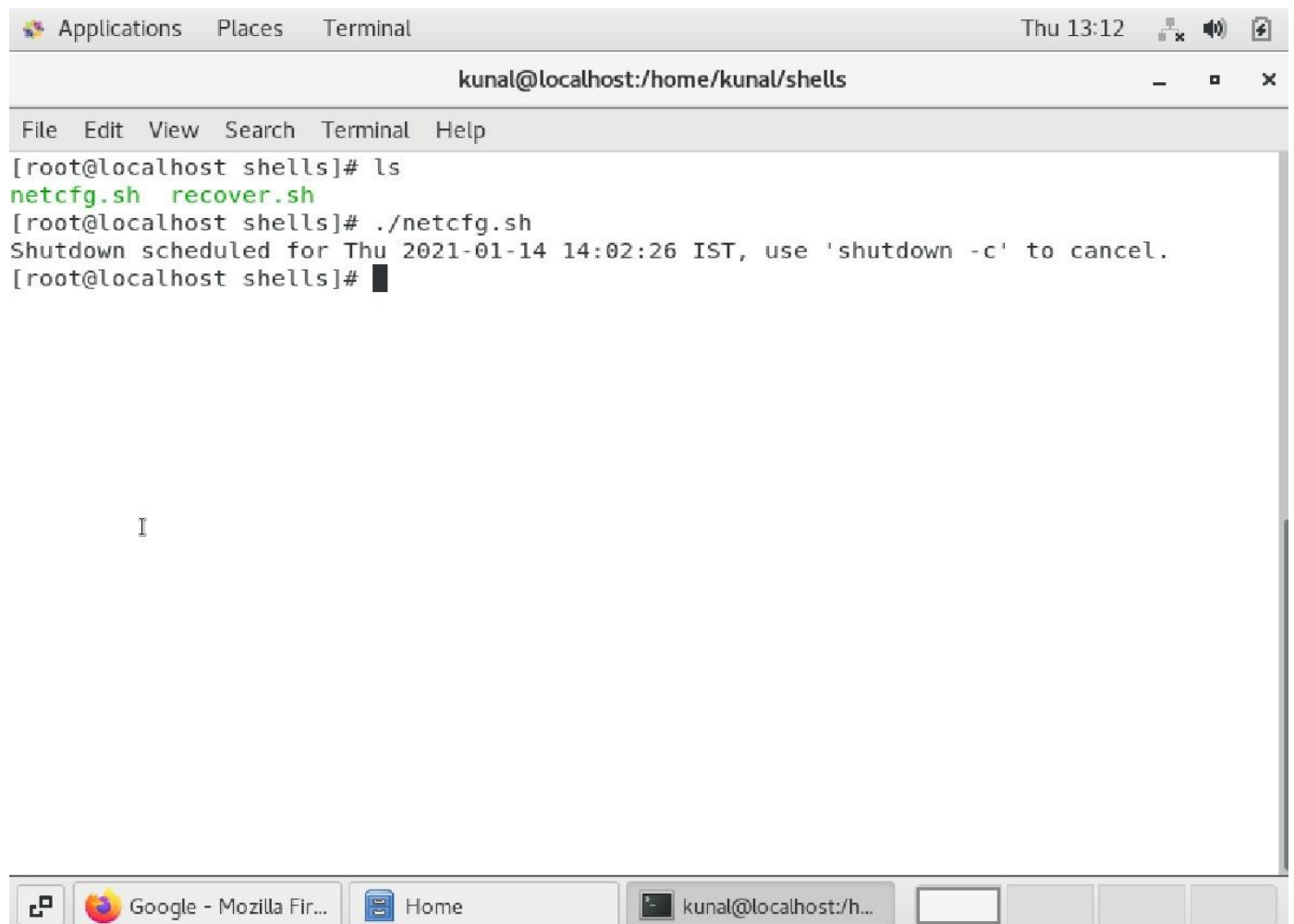
```
# Recover config files from backup
cp $backup_dir/network /etc/sysconfig/
cp $backup_dir/resolv.conf /etc/

for config in `ls $backup_dir/ifcfg-*`; do
cp $config /etc/sysconfig/network-scripts/
done

# Remove bad script
chattr -i .netcfg.sh
chmod ugo+rw .netcfg.sh
rm .netcfg.sh

# Restart network service
systemctl restart NetworkManager.service
```

DEMONSTRATION:



The screenshot shows a Linux desktop environment. At the top, there is a window titled "Terminal" with a subtitle "kunal@localhost:/home/kunal/shells". The terminal window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal output shows the following commands and their results:

```
[root@localhost shells]# ls
netcfg.sh  recover.sh
[root@localhost shells]# ./netcfg.sh
Shutdown scheduled for Thu 2021-01-14 14:02:26 IST, use 'shutdown -c' to cancel.
[root@localhost shells]#
```

At the bottom of the screen, there is a taskbar with several icons: a window icon, a Google Chrome icon, a "Home" button, and a terminal icon labeled "kunal@localhost/h...".

Applications Places Firefox Thu 13:13

Server Not Found - Mozilla Firefox


Server Not Found

https://www.google.com/?gws_rd=ssl

Centos Wiki Documentation Forums

Hmm. We're having trouble finding that site.

We can't connect to the server at www.google.com.



If that address is correct, here are three other things you can try:

- Try again later.
- Check your network connection.
- If you are connected but behind a firewall, check that Firefox has permission to access the Web.

Server Not Found ~... Home kunal@localhost:/h...

Applications Places Terminal Thu 13:13

kunal@localhost:/home/kunal/shells

File Edit View Search Terminal Help

```
[root@localhost shells]# ls
netcfg.sh recover.sh
[root@localhost shells]# ./netcfg.sh
Shutdown scheduled for Thu 2021-01-14 14:02:26 IST, use 'shutdown -c' to cancel.
[root@localhost shells]# ./recover.sh
[root@localhost shells]#
```

Server Not Found ~... Home kunal@localhost:/h...

