

## v1.18\_ VirtualBOX ( v1.14)

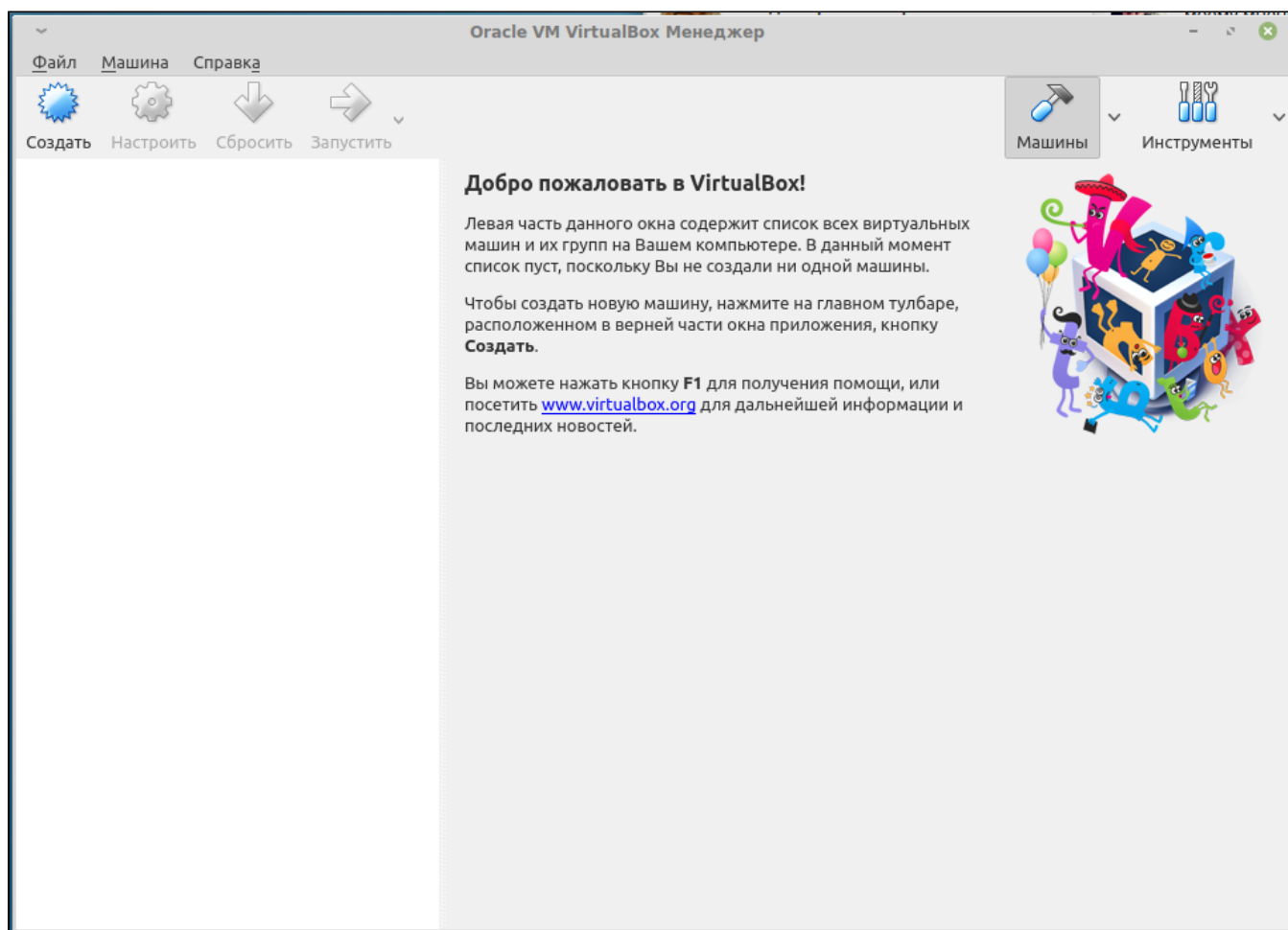
• .ova  
•  
• DHCP-  
•  
•

SoftWLC VirtualBox , .ova. FTP- , SoftWLC.

ftp://ftp.eltex.org  
Login: wifiguest  
Pass: GuestWiFi

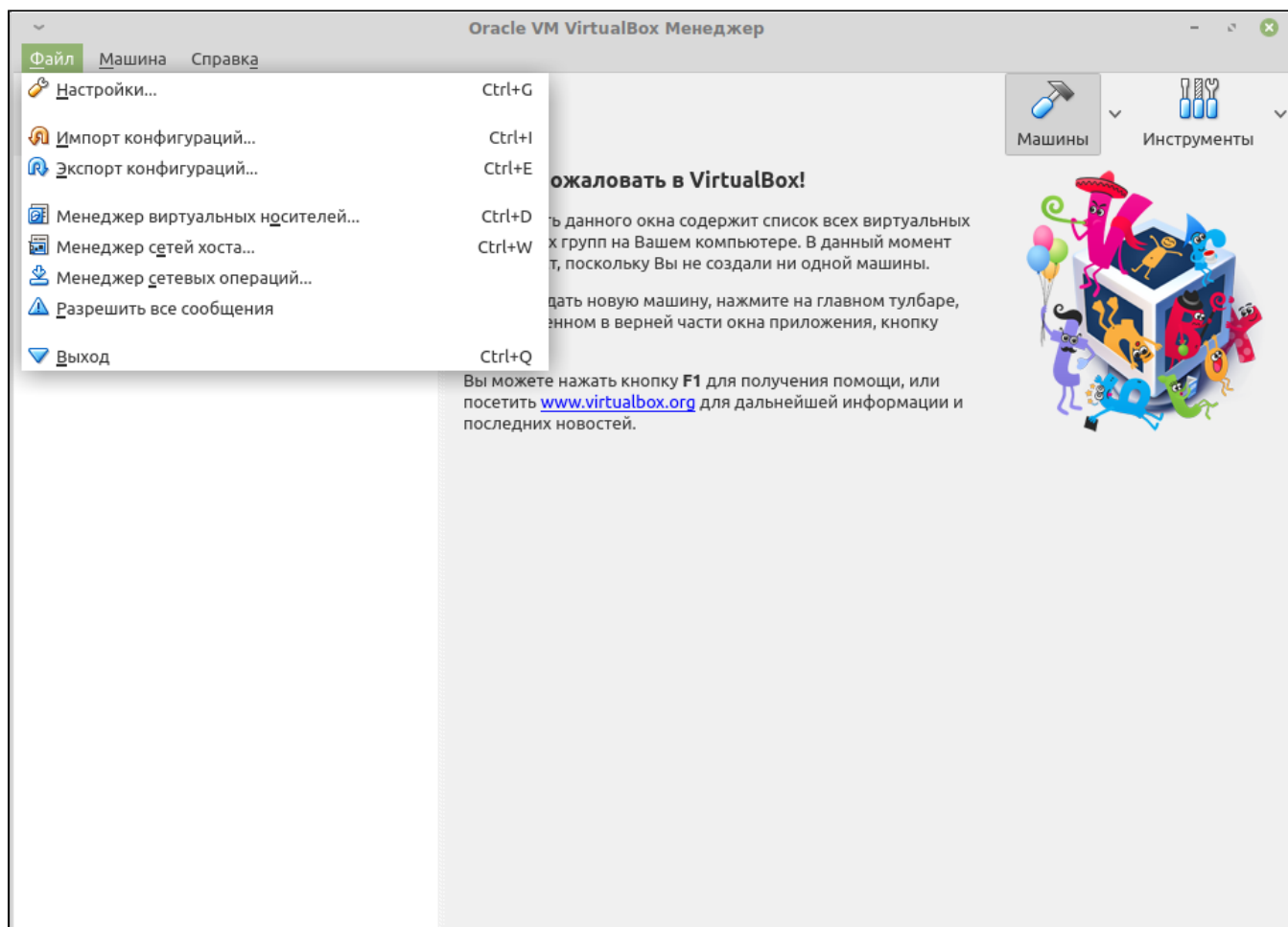
.ova

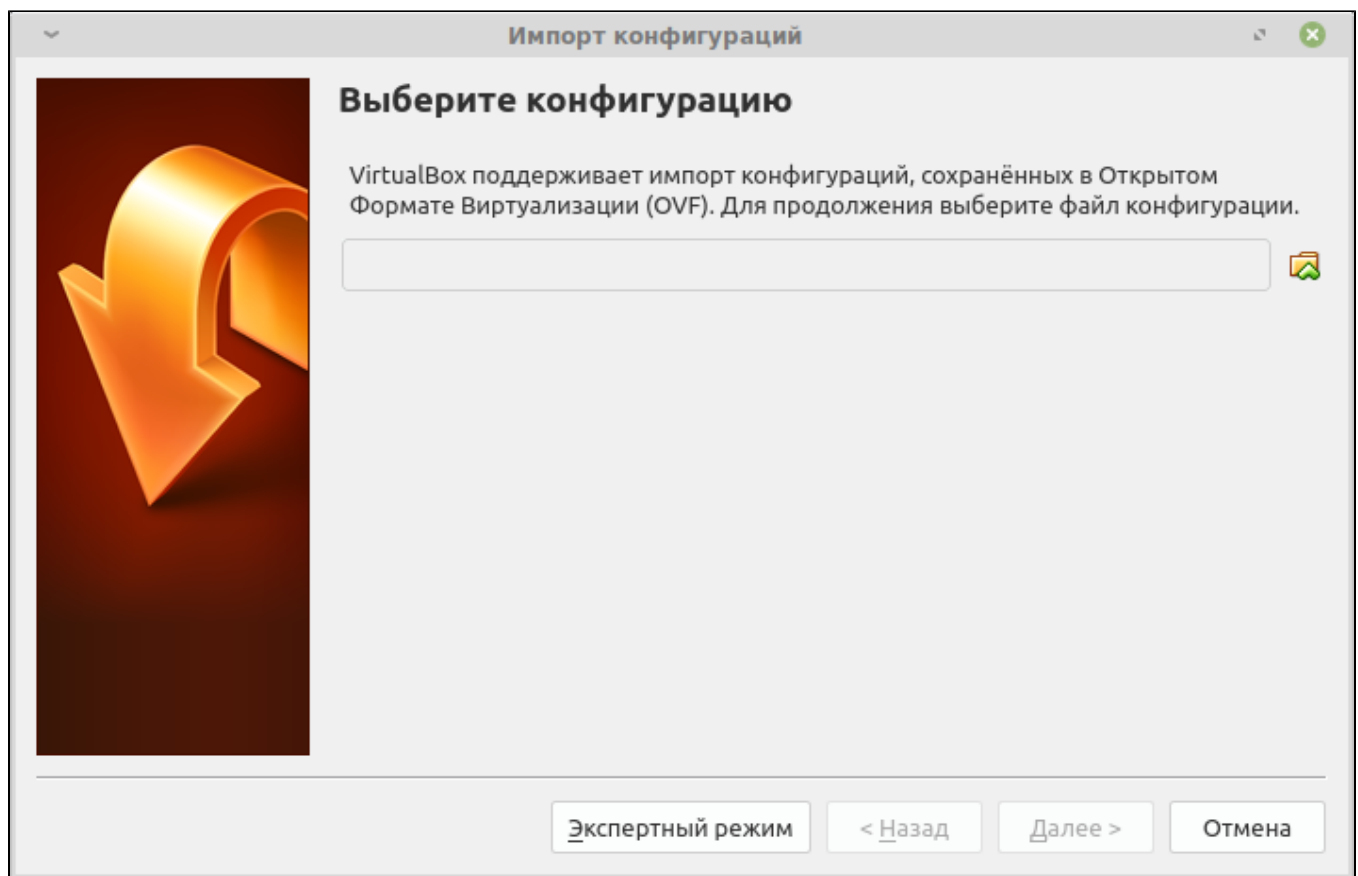
1. Oracle VM VirtualBox.



1 – VirtualBox

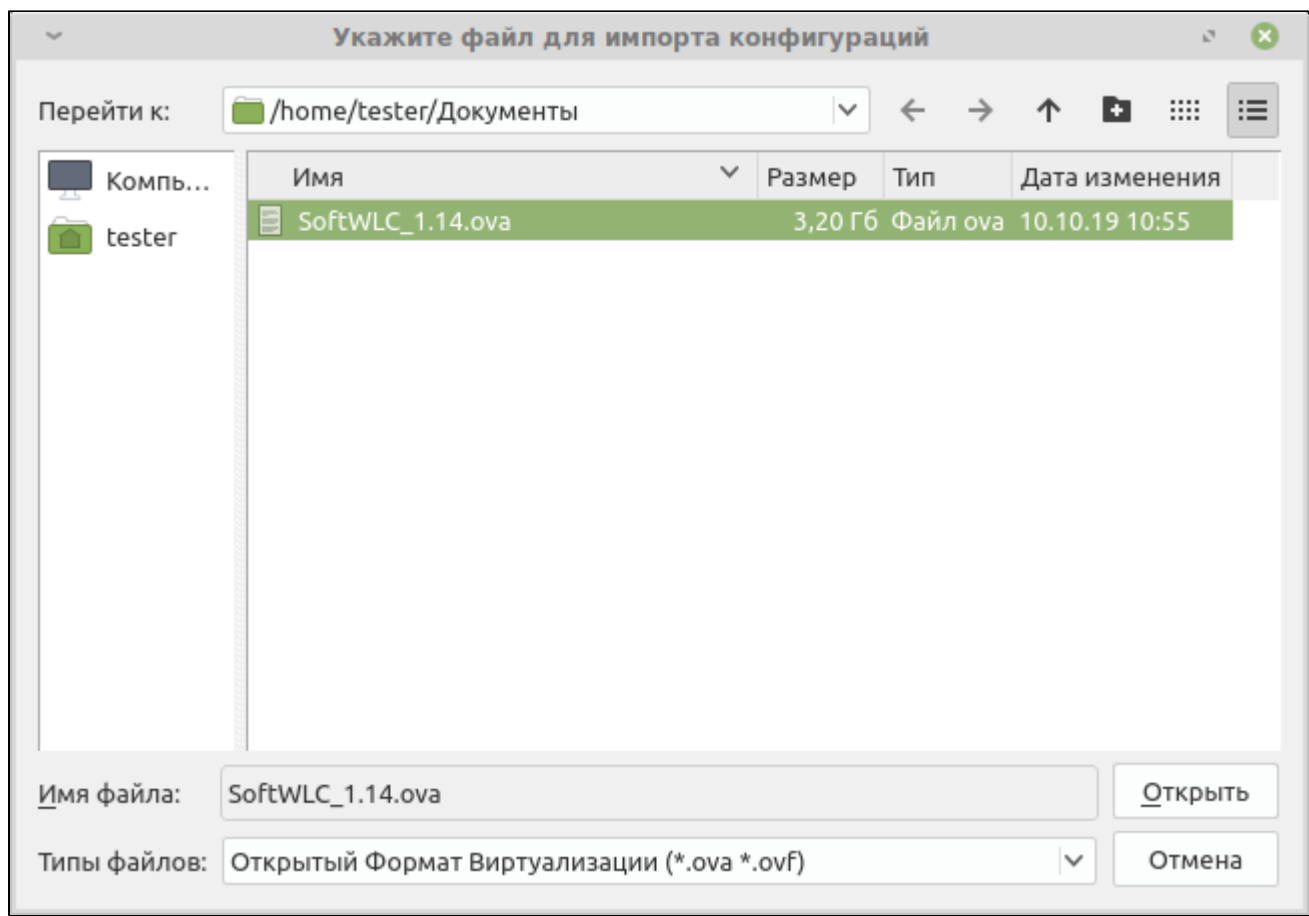
2. «» «...».





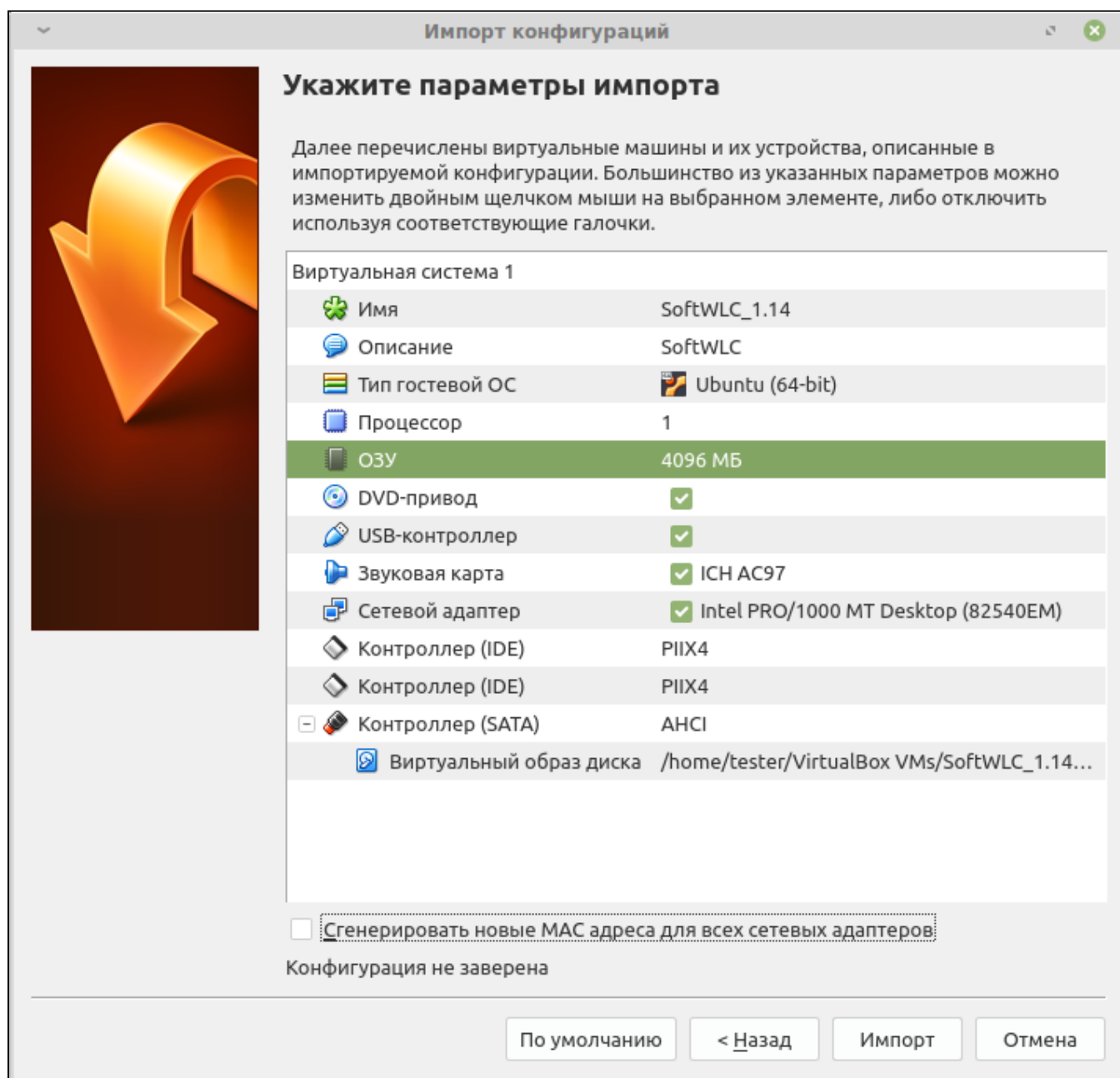
3–

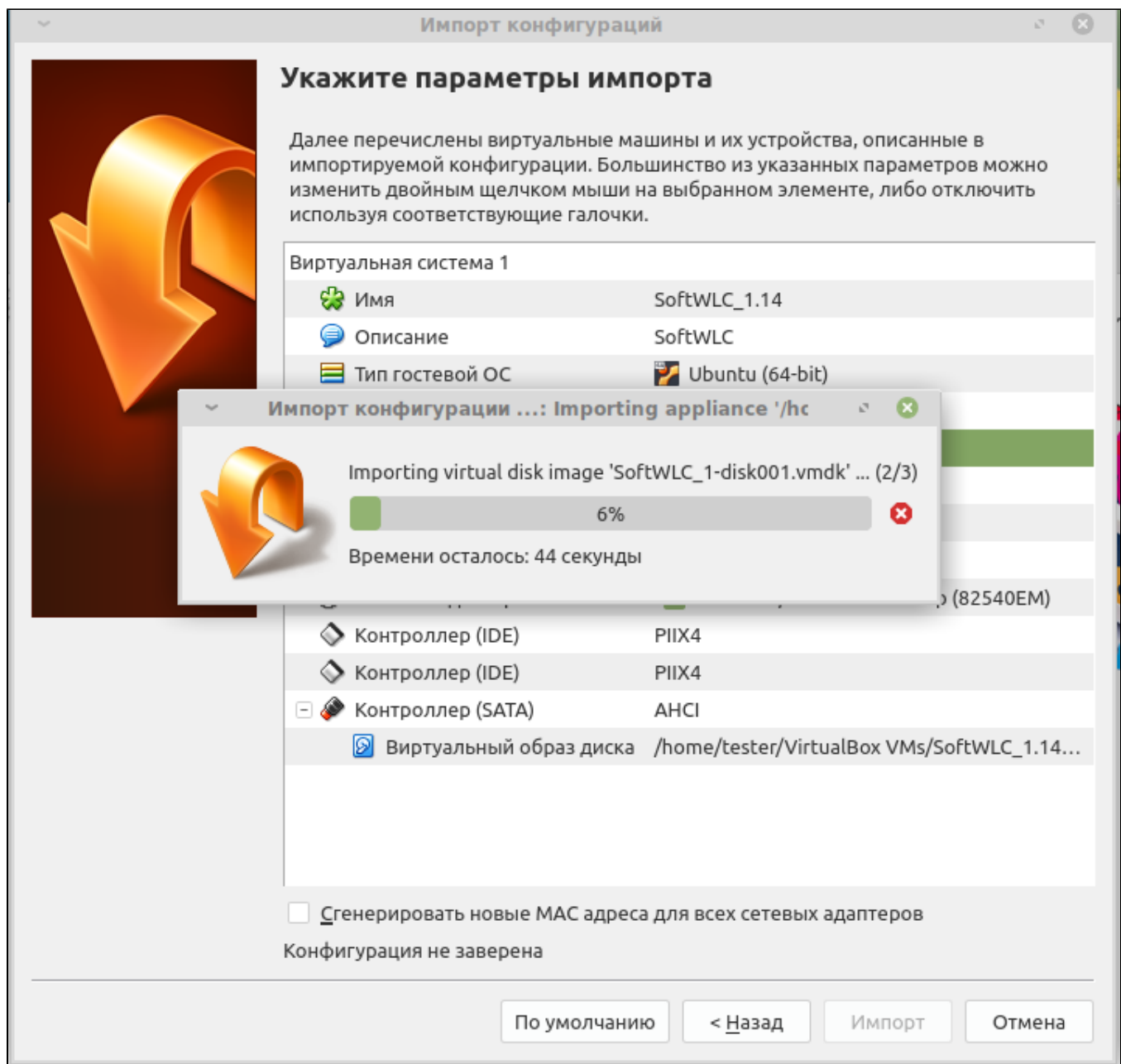
4. .ova, .



4 –

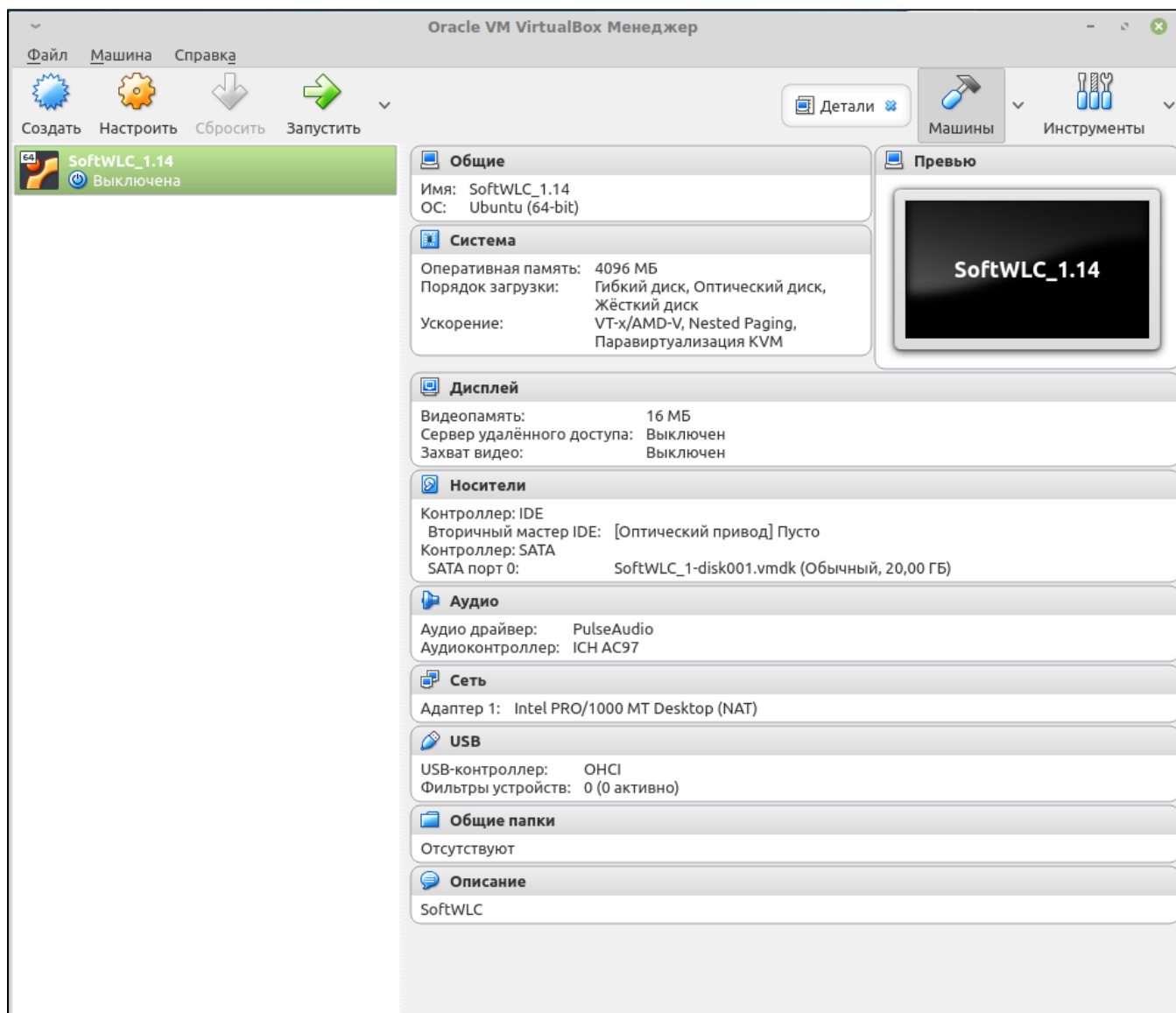
5. «».





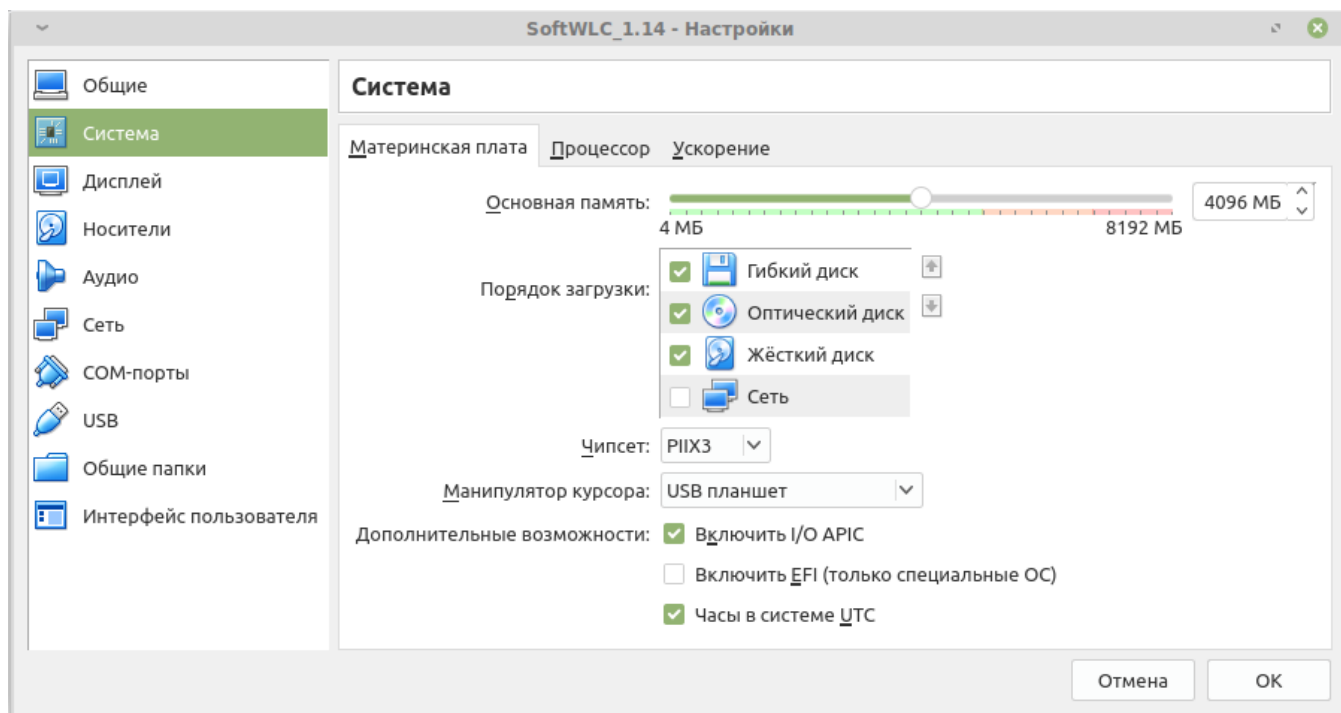
6–

1. VirtualBOX (softwlc\_1.14) «» , «».



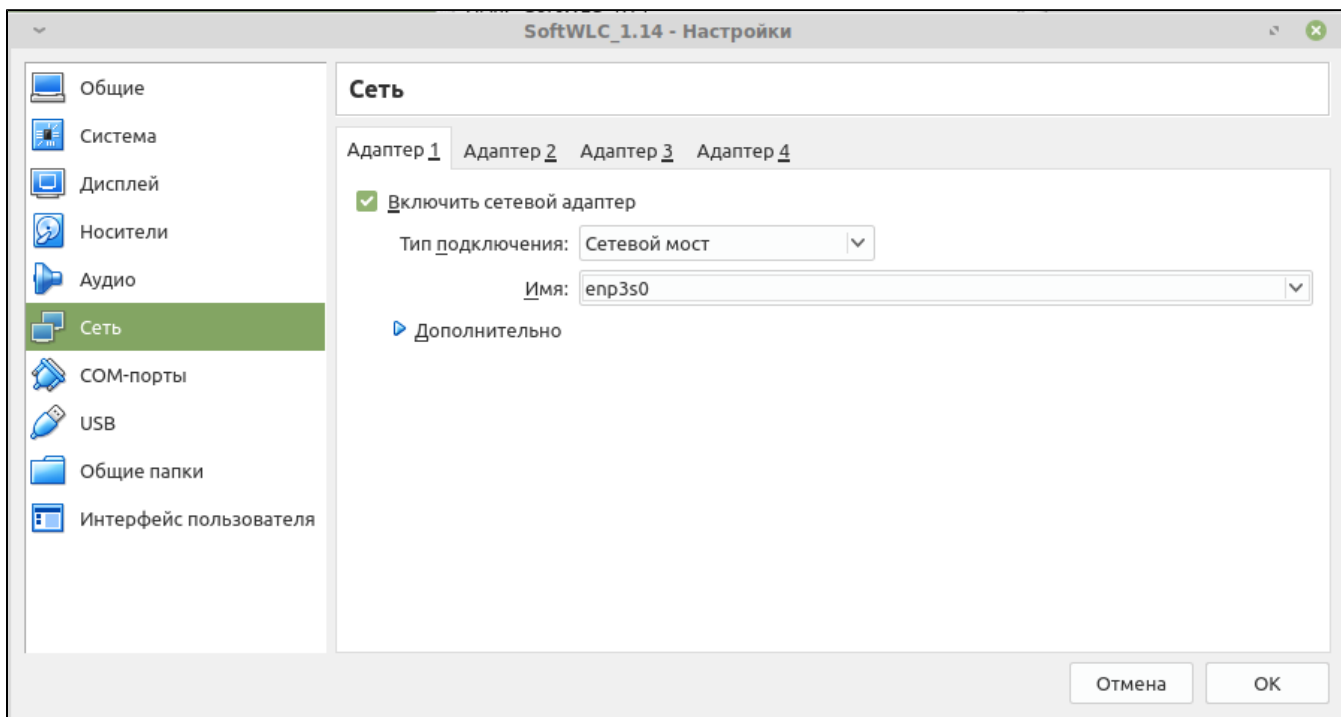
7 – VirtualBox

2. «» , . 4096 . , – .



8 –

3. , «», « ».



9 –

4. «».

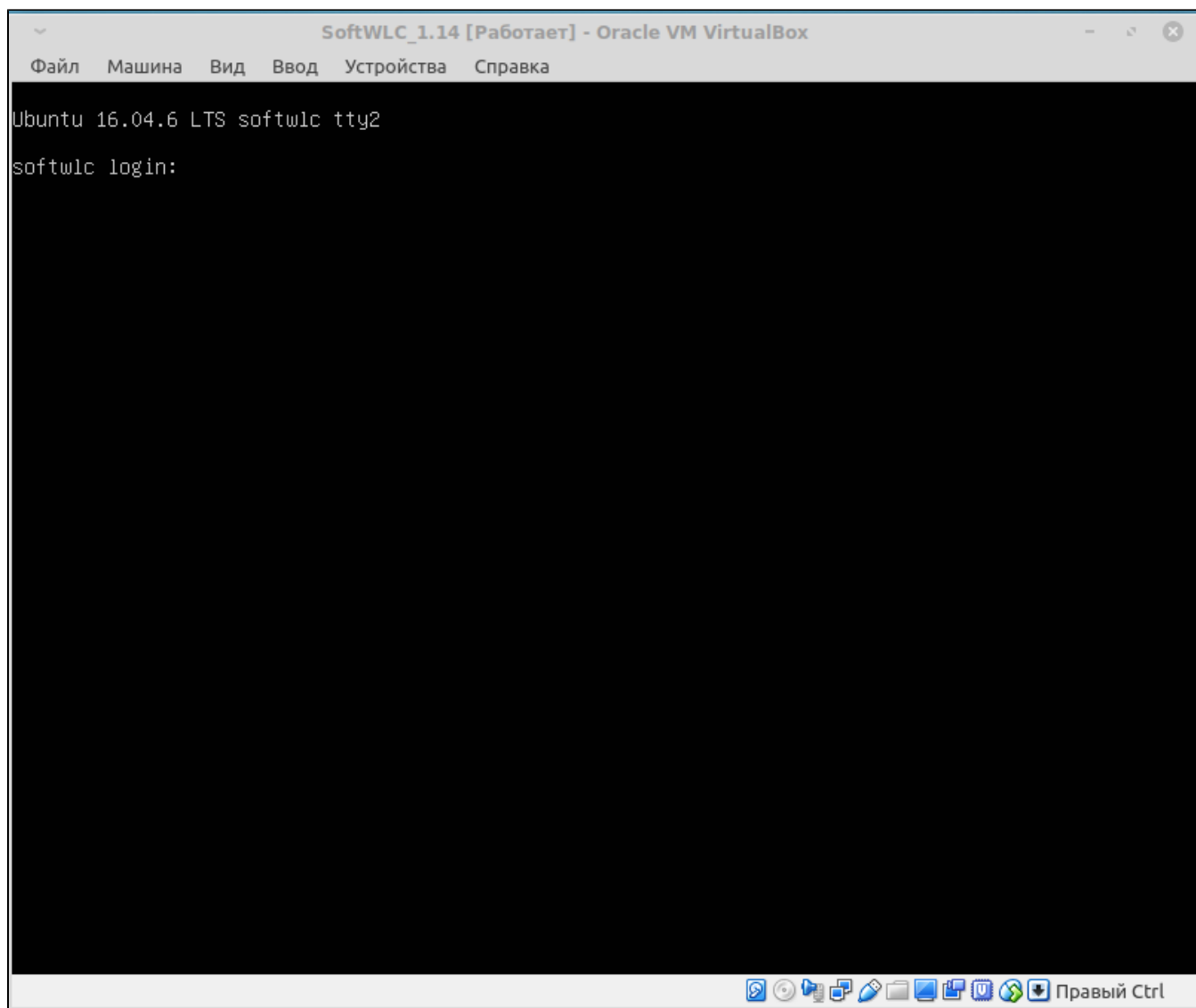


1. VirtualBOX (softwlc\_1.14) «» «».

2. .

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3. :



```
login: tester  
password: tester
```

4. (root). :

```
sudo su
```

:

```
tester
```

"\$" "#".

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка

Ubuntu 16.04.6 LTS softwlc tty2

softwlc login: tester
Password:
Last login: Thu Oct 10 10:11:04 +07 2019 on tty1
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-165-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

Могут быть обновлены 0 пакетов.
0 обновлений касаются безопасности системы.

New release '18.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

tester@softwlc:~$ sudo su
[sudo] пароль для tester:
root@softwlc:/home/tester# _
```

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DHCP-.

## DHCP-

1. :

```
nano /etc/network/interfaces
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
GNU nano 2.5.3          Файл: /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet static
address 192.168.50.1
network 192.168.50.0
netmask 255.255.255.0

[ Записано 15 строк ]
Помощь  Записать  Поиск  Вырезать  Выровнять  ТекПозиц  ПредСтр
Выход   ЧитФайл   Замена  Отмен. выре  Словарь   К строке  СледСтр
Правый Ctrl
```

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2. . . .

#The primary network interface

```
auto enp0s3
iface enp0s3 inet static
address 192.168.50.1
network 192.168.50.0
netmask 255.255.255.0
```

3. «Ctrl+», «Enter». «Ctrl+x».

4. SoftWLC DHCP .

DHCP, :

```
nano /etc/dhcp/dhcpd.conf
```

5. DHCP-. :

```

subnet 192.168.50.0 netmask 255.255.255.0 {
range 192.168.50.10 192.168.50.50;
option routers 192.168.50.1;
option domain-name-servers 8.8.8.8;
option vendor-encapsulated-options 0A:0C:31:39:32:2E:31:36:38:2E:35:30:2E:31;
}

```

SoftWLC\_1.14 [Работает] - Oracle VM VirtualBox

Файл Машина Вид Ввод Устройства Справка

GNU nano 2.5.3 Файл: /etc/dhcp/dhcpd.conf

```

default-lease-time 600;
max-lease-time 7200;
log-facility local7;

subnet 192.168.50.0 netmask 255.255.255.0 {
range 192.168.50.10 192.168.50.50;
option routers 192.168.50.1;
option domain-name-servers 8.8.8.8;
option vendor-encapsulated-options 0A:0C:31:39:32:2E:31:36:38:2E:35:30:2E:31;
}

```

[ Прочитано 10 строк ]

<sup>G</sup> Помощь    <sup>O</sup> Записать    <sup>W</sup> Поиск    <sup>K</sup> Вырезать    <sup>J</sup> Выводить    <sup>C</sup> ТекПозиц    <sup>Y</sup> ПредСтр  
<sup>X</sup> Выход    <sup>R</sup> ЧитФайл    <sup>N</sup> Замена    <sup>U</sup> Отмен. выре    <sup>T</sup> Словарь    <sup>\_</sup> К строке    <sup>V</sup> СледСтр

Правый Ctrl

13 – DHCP

43, IP- SoftWLC. SoftWLC .  
43:

- 0 – . IP- SoftWLC 10 ;
- 0 – IP- SoftWLC;
- 31:39:32:2:31:36:38:2:35:30:2:31 – IP- SoftWLC, ASCII (HEX).

6. «Ctrl +o» .

7. :

```
dhcpd -t
```

---

1. . . :

```
shutdown -r now
```

2. . . .

3. , DHCP , DHCP , . DHCP

```
service isc-dhcp-server start
```

, DHCP , /etc/init/isc-dhcp-server.override

---

, :

```
ifconfig
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ifconfig
enp0s3  Link encap:Ethernet  HWaddr 08:00:27:fa:e7:45
        inet addr:192.168.50.1  Bcast:192.168.50.255  Mask:255.255.255.0
        inet6 addr: fe80::a00:27ff:fefa:e745/64  Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:24 errors:0 dropped:0 overruns:0 frame:0
        TX packets:27 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:6116 (6.1 KB)  TX bytes:5100 (5.1 KB)

lo      Link encap:Локальная петля (Loopback)
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128  Scope:Host
        UP LOOPBACK RUNNING  MTU:65536  Metric:1
        RX packets:6013 errors:0 dropped:0 overruns:0 frame:0
        TX packets:6013 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1
        RX bytes:7954511 (7.9 MB)  TX bytes:7954511 (7.9 MB)

tester@softwlc:~$
```

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( – «eth0» «lo»), IP- «eth0» ( 192.168.50.1). , .

#### 1. DHCP :

```
ps -aux | grep dhcpd
```

:

```
sudo service isc-dhcp-server status
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep dhcpd
dhcpd      993  0.0  0.3 35400 13268 ?        Ss   10:25   0:00 dhcpd -user dhcpd -group dhcpd -f -
4 -pf /run/dhcp-server/dhcpd.pid -cf /etc/dhcp/dhcpd.conf enp0s3
tester    2153  0.0  0.0 15468   980 tty1      S+   10:30   0:00 grep --color=auto dhcpd
tester@softwlc:~$ sudo service isc-dhcp-server status
• isc-dhcp-server.service - ISC DHCP IPv4 server
  Loaded: loaded (/lib/systemd/system/isc-dhcp-server.service; enabled; vendor preset: enabled)
  Active: active (running) since Чт 2019-10-10 10:25:23 +07; 4min 43s ago
    Docs: man:dhcpd(8)
  Main PID: 993 (dhcpd)
    Tasks: 1
  Memory: 11.7M
    CPU: 39ms
  CGroup: /system.slice/isc-dhcp-server.service
          └─993 dhcpd -user dhcpd -group dhcpd -f -4 -pf /run/dhcp-server/dhcpd.pid -cf /etc/dhcp/d

ОКТ 10 10:25:25 softwlc sh[993]: Listening on LPF/enp0s3/08:00:27:fa:e7:45/192.168.50.0/24
ОКТ 10 10:25:25 softwlc dhcpd[993]: Sending on LPF/enp0s3/08:00:27:fa:e7:45/192.168.50.0/24
ОКТ 10 10:25:25 softwlc sh[993]: Sending on LPF/enp0s3/08:00:27:fa:e7:45/192.168.50.0/24
ОКТ 10 10:25:25 softwlc sh[993]: Sending on Socket/fallback/fallback-net
ОКТ 10 10:25:25 softwlc dhcpd[993]: Sending on Socket/fallback/fallback-net
ОКТ 10 10:25:25 softwlc dhcpd[993]: Server starting service.
ОКТ 10 10:25:26 softwlc dhcpd[993]: DHCPDISCOVER from a8:f9:4b:b0:3a:00 via enp0s3
ОКТ 10 10:25:27 softwlc dhcpd[993]: DHCPOFFER on 192.168.50.10 to a8:f9:4b:b0:3a:00 (WEP-12ac) via e
ОКТ 10 10:25:27 softwlc dhcpd[993]: DHCPREQUEST for 192.168.50.10 (192.168.50.1) from a8:f9:4b:b0:3a
ОКТ 10 10:25:27 softwlc dhcpd[993]: DHCPACK on 192.168.50.10 to a8:f9:4b:b0:3a:00 (WEP-12ac) via enp
tester@softwlc:~$
```

## 15 – DHCP

DHCP- :

```
service isc-dhcp-server restart
```

2. eltex-radius. :

```
ps -aux | grep eltex-radius
```

:

```
sudo service eltex-radius status
```

eltex-radius :

```
service eltex-radius restart
```



```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep eltex-radius
authsrv  1488  0.0  0.4 181088 16744 ?        Ssl  10:25   0:00 /usr/sbin/eltex-radius -d /etc/eltex-auth-service
eltxrad  2190  0.0  0.5 238552 22460 ?        Ssl  10:30   0:00 /usr/sbin/eltex-radius
tester   2216  0.0  0.0 15468   936 tty1    S+   10:30   0:00 grep --color=auto eltex-radius
tester@softwlc:~$ sudo service eltex-radius status
• eltex-radius.service - Eltex FreeRADIUS multi-protocol policy server
  Loaded: loaded (/usr/lib/systemd/system/eltex-radius.service; enabled; vendor preset: enabled)
  Active: active (running) since 4т 2019-10-10 10:30:30 +07; 27s ago
    Docs: http://wiki.freeradius.org/
          http://networkradius.com/doc/
  Process: 2186 ExecStart=/usr/sbin/eltex-radius $FREERADIUS_OPTIONS (code=exited, status=0/SUCCESS)
  Process: 2180 ExecStartPre=/usr/sbin/eltex-radius $FREERADIUS_OPTIONS -Cxm -lstdout (code=exited, status=0/SUCCESS)
 Main PID: 2190 (eltex-radius)
    Tasks: 6
   Memory: 11.6M
      CPU: 61ms
  CGroup: /system.slice/eltex-radius.service
          └─2190 /usr/sbin/eltex-radius

ОКТ 10 10:30:30 softwlc radiusd[2190]: # Skipping contents of 'if' as it is always 'false' -- /etc/
ОКТ 10 10:30:30 softwlc radiusd[2190]: # Skipping contents of 'if' as it is always 'false' -- /etc/
ОКТ 10 10:30:30 softwlc radiusd[2190]: # Skipping contents of 'else' as previous 'if' is always 't
ОКТ 10 10:30:30 softwlc radiusd[2190]: # Skipping contents of 'if' as it is always 'false' -- /etc/
ОКТ 10 10:30:30 softwlc radiusd[2190]: Loaded virtual server default
ОКТ 10 10:30:30 softwlc radiusd[2190]: Loaded virtual server dynamic_clients
ОКТ 10 10:30:30 softwlc radiusd[2190]: # Skipping contents of 'if' as it is always 'false' -- /etc/
ОКТ 10 10:30:30 softwlc radiusd[2190]: Loaded virtual server inner-tunnel
ОКТ 10 10:30:30 softwlc systemd[1]: Started Eltex FreeRADIUS multi-protocol policy server.
ОКТ 10 10:30:30 softwlc radiusd[2190]: Ready to process requests
tester@softwlc:~$ _
```

16 – *eltex-radius*

### 3. **eltex-ems** :

```
ps -aux | grep ems
```

:

```
sudo service eltex-ems status
```

:

```
service eltex-ems restart
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep eltex-ems
root      1428  0.0  0.0  21348  188 ?        S    10:25   0:00 /usr/bin/daemon --name=eltex-ems --
inherit --unsafe --pidfile=/var/run/eltex-ems/eltex-ems.pid -- /usr/bin/java -XX:+HeapDumpOnOutOfMem
oryError -XX:HeapDumpPath=/var/log/eltex-ems -Djava.security.egd=file:/dev/./urandom -XX:+UseParalle
lGC -XX:MaxPermSize=512m -XX:PermSize=200m -XX:+PrintGCDateStamps -XX:+PrintGCDetails -XX:+UseGCLogF
ileRotation -XX:NumberOfGCLogFiles=7 -XX:GCLogFileSize=5M -Xloggc:/var/log/eltex-ems/gc.log -Djava.s
ecurity.egd=file:/dev/./urandom -Xms256m -Xmx1024m -Dmodule.home=/usr/lib/eltex-ems -Dlog4j.configur
ationFile=/usr/lib/eltex-ems/conf/log4j2.xml -Dfile.encoding=UTF-8 -jar /usr/lib/eltex-ems/lib/ems_s
erver.jar
root      1430  3.8 15.2 3288220 607916 ?        Sl   10:25   0:17 /usr/bin/java -XX:+HeapDumpOnOutOfMem
oryError -XX:HeapDumpPath=/var/log/eltex-ems -Djava.security.egd=file:/dev/./urandom -XX:+UseParalle
lGC -XX:MaxPermSize=512m -XX:PermSize=200m -XX:+PrintGCDateStamps -XX:+PrintGCDetails -XX:+UseGCLog
gFileRotation -XX:NumberOfGCLogFiles=7 -XX:GCLogFileSize=5M -Xloggc:/var/log/eltex-ems/gc.log -Djava
.security.egd=file:/dev/./urandom -Xms256m -Xmx1024m -Dmodule.home=/usr/lib/eltex-ems -Dlog4j.config
urationFile=/usr/lib/eltex-ems/conf/log4j2.xml -Dfile.encoding=UTF-8 -jar /usr/lib/eltex-ems/lib/ems
_server.jar
tester    2272  0.0  0.0   15468   1012 tty1      S+   10:32   0:00 grep --color=auto eltex-ems
tester@softwlc:~$ sudo service eltex-ems status
• eltex-ems.service - Eltex EMS
   Loaded: loaded (/usr/lib/systemd/system/eltex-ems.service; enabled; vendor preset: enabled)
   Active: active (running) since Чт 2019-10-10 10:25:29 +07; 7min ago
     Process: 1005 ExecStart=/etc/init.d/eltex-ems start (code=exited, status=0/SUCCESS)
    Main PID: 1428 (daemon)
      Tasks: 96
     Memory: 628.6M
        CPU: 17.304s
    CGroup: /system.slice/eltex-ems.service
            └─1428 /usr/bin/daemon --name=eltex-ems --inherit --unsafe --pidfile=/var/run/eltex-ems/e
              └─1430 /usr/bin/java -XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPath=/var/log/eltex-ems

ОКТ 10 10:25:23 softwlc systemd[1]: Starting Eltex EMS...
ОКТ 10 10:25:23 softwlc eltex-ems[1005]: * Starting Eltex.EMS Server eltex-ems
ОКТ 10 10:25:29 softwlc eltex-ems[1005]: ...fail!
ОКТ 10 10:25:29 softwlc systemd[1]: Started Eltex EMS.
tester@softwlc:~$ _
```

#### 4. tomcat :

```
ps -aux | grep tomcat
```

:

```
sudo service tomcat7 status
```

:

```
service tomcat7 restart
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep tomcat
root      1200  0.0  0.0  15180  148 ?        Ss   10:25   0:00 /usr/sbin/in.tftpd --listen --user t
omcat7 --address 0.0.0.0:69 --secure --create /tftpboot
tomcat7   1262  6.4 10.0 3209100 401996 ?        Sl   10:25   0:34 /usr/lib/jvm/java-8-openjdk-amd64/b
in/java -Djava.util.logging.config.file=/var/lib/tomcat7/conf/logging.properties -Djava.util.logging
.manager=org.apache.juli.ClassLoaderLogManager -Djava.awt.headless=true -Xmx1024m -XX:+UseConcMarkSwe
epGC -Djava.security.egd=file:/dev/./urandom -Djava.endorsed.dirs=/usr/share/tomcat7/endorsed -clas
spath /usr/share/tomcat7/bin/bootstrap.jar:/usr/share/tomcat7/bin/tomcat-juli.jar -Dcatalina.base=/v
ar/lib/tomcat7 -Dcatalina.home=/usr/share/tomcat7 -Djava.io.tmpdir=/tmp/tomcat7-tomcat7-tmp org.apac
he.catalina.startup.Bootstrap start
tester    2299  0.0  0.0  15468  1012 tty1      S+   10:34   0:00 grep --color=auto tomcat
tester@softwlc:~$ sudo service tomcat7 status
• tomcat7.service - LSB: Start Tomcat.
   Loaded: loaded (/etc/init.d/tomcat7; bad; vendor preset: enabled)
   Active: active (running) since 4т 2019-10-10 10:25:29 +07; 9min ago
     Docs: man:systemd-sysv-generator(8)
  Process: 1135 ExecStart=/etc/init.d/tomcat7 start (code=exited, status=0/SUCCESS)
    Tasks: 65
   Memory: 607.0M
      CPU: 34.676s
   CGroup: /system.slice/tomcat7.service
           └─1262 /usr/lib/jvm/java-8-openjdk-amd64/bin/java -Djava.util.logging.config.file=/var/li

ОКТ 10 10:25:23 softwlc systemd[1]: Starting LSB: Start Tomcat....
ОКТ 10 10:25:24 softwlc tomcat7[1135]: * Starting Tomcat servlet engine tomcat7
ОКТ 10 10:25:29 softwlc tomcat7[1135]:   ...done.
ОКТ 10 10:25:29 softwlc systemd[1]: Started LSB: Start Tomcat..
tester@softwlc:~$
```

18 – Tomcat7

5. eltex-apb :

```
ps -aux | grep apb
```

:

```
sudo service eltex-apb status
```

:

```
service eltex-apb restart
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep eltex-apb
apbinder  1008  0.8  4.0 4064700 162112 ?        Ssl  10:25   0:04 /usr/bin/java -Xms128m -Xmx2048m -Dlog4j.configurationFile=file:/etc/eltex-apb/log4j2.xml -Dorg.eclipse.jetty.util.log.class=org.eclipse.jetty.util.log.Slf4jLog -jar /usr/share/eltex-apb/apb.jar -p 8090 -q 0 -M524288
tester   2373  0.0  0.0 15468   988 tty1      S+   10:35   0:00 grep --color=auto eltex-apb
tester@softwlc:~$ sudo service eltex-apb status
• eltex-apb.service - Eltex Access Point Binder service
  Loaded: loaded (/lib/systemd/system/eltex-apb.service; enabled; vendor preset: enabled)
  Active: active (running) since 4r 2019-10-10 10:25:23 +07; 10min ago
    Main PID: 1008 (java)
      Tasks: 27
     Memory: 165.2M
        CPU: 4.776s
    CGroup: /system.slice/eltex-apb.service
            └─1008 /usr/bin/java -Xms128m -Xmx2048m -Dlog4j.configurationFile=file:/etc/eltex-apb/log

окт 10 10:25:23 softwlc systemd[1]: Started Eltex Access Point Binder service.
окт 10 10:25:42 softwlc eltex-apb[1008]: ERROR StatusLogger Unknown GELF server hostname:udp:lab3-te
tester@softwlc:~$ _
```

6. eltex-ngw :

```
ps -aux | grep ngw
```

:

```
service eltex-ngw restart
```

:

```
sudo service eltex-ngw status
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep ngw
eltex-n+ 1015  0.6  2.9 2088680 118568 ?        Ssl  10:25   0:04 /usr/bin/java -Dfile.encoding=UTF-8
           -XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPath=/var/log/eltex-ngw -Dlog4j.configurationFile=/etc/
           eltex-ngw/log4j2.xml -Xms16m -Xmx128m -jar /usr/share/eltex-ngw/ngw-service.jar
tester   2444  0.0  0.0 15468 1012 tty1      S+   10:37   0:00 grep --color=auto ngw
tester@softwlc:~$ sudo service eltex-ngw status
• eltex-ngw.service - Eltex Notification Gateway
   Loaded: loaded (/usr/lib/systemd/system/eltex-ngw.service; enabled; vendor preset: enabled)
   Active: active (running) since Чт 2019-10-10 10:25:23 +07; 11min ago
 Main PID: 1015 (java)
    Tasks: 31
   Memory: 119.2M
      CPU: 4.389s
   CGroup: /system.slice/eltex-ngw.service
           └─1015 /usr/bin/java -Dfile.encoding=UTF-8 -XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPa

окт 10 10:25:55 softwlc eltex-ngw[1015]: окт 10, 2019 10:25:55 AM org.springframework.web.servlet.mv
окт 10 10:25:55 softwlc eltex-ngw[1015]: INFO: Looking for @ControllerAdvice: Root WebApplicationCon
окт 10 10:25:56 softwlc eltex-ngw[1015]: окт 10, 2019 10:25:56 AM org.springframework.web.servlet.mv
окт 10 10:25:56 softwlc eltex-ngw[1015]: INFO: Looking for @ControllerAdvice: Root WebApplicationCon
окт 10 10:25:56 softwlc eltex-ngw[1015]: окт 10, 2019 10:25:56 AM org.springframework.web.servlet.mv
окт 10 10:25:56 softwlc eltex-ngw[1015]: INFO: Detected @ExceptionHandler methods in apiExceptionHan
окт 10 10:26:00 softwlc eltex-ngw[1015]: окт 10, 2019 10:26:00 AM org.springframework.web.servlet.Di
окт 10 10:26:00 softwlc eltex-ngw[1015]: INFO: FrameworkServlet 'org.springframework.web.servlet.Di
окт 10 10:26:01 softwlc eltex-ngw[1015]: окт 10, 2019 10:26:00 AM org.springframework.web.servlet.Di
окт 10 10:26:01 softwlc eltex-ngw[1015]: INFO: FrameworkServlet 'org.springframework.web.servlet.Di
tester@softwlc:~$
```

20 – Eltex-NGW

#### 7. eltex-pcrf :

```
ps -aux | grep pcrf
```

:

```
service eltex-pcrf restart
```

:

```
sudo service eltex-pcrf status
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep pcrf
pcrf      985  2.0  9.1 2629272 364468 ?        Ssl  10:25   0:16 /usr/bin/java -XX:+UseParallelGC -XX:+PrintGCDateStamps -XX:+PrintGCDetails -XX:+UseGCLogFileRotation -XX:NumberOfGCLogFiles=7 -XX:GCLogFileSize=5M -Xloggc:/var/log/eltex-pcrf/gc.log -XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPath=/var/log/eltex-pcrf -Xms256m -Xmx512m -Dvertx.cacheDirBase=/var/lib/eltex-pcrf -jar /usr/lib/eltex-pcrf/eltex-pcrf.jar
tester    2495  0.0  0.0 15468 1028 tty1    S+   10:38   0:00 grep --color=auto pcrf
tester@softwlc:~$ sudo service eltex-pcrf status
• eltex-pcrf.service - Eltex PCRF Service
   Loaded: loaded (/lib/systemd/system/eltex-pcrf.service; enabled; vendor preset: enabled)
   Active: active (running) since Чт 2019-10-10 10:25:23 +07; 13min ago
 Main PID: 985 (java)
    Tasks: 88
   Memory: 395.1M
      CPU: 16.343s
   CGroup: /system.slice/eltex-pcrf.service
           └─985 /usr/bin/java -XX:+UseParallelGC -XX:+PrintGCDateStamps -XX:+PrintGCDetails -XX:+Us
окт 10 10:25:50 softwlc eltex-pcrf[985]: 2019-10-10 10:25:50,066 vert.x-worker-thread-0 ERROR Append
окт 10 10:25:50 softwlc eltex-pcrf[985]: 2019-10-10 10:25:50,232 vert.x-worker-thread-0 ERROR Unable
окт 10 10:26:10 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:10 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:26:11 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:11 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:26:11 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:11 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:26:20 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:20 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:26:20 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:20 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:26:22 softwlc eltex-pcrf[985]: Thu Oct 10 10:26:22 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:30:31 softwlc eltex-pcrf[985]: Thu Oct 10 10:30:31 NOVT 2019 WARN: Establishing SSL connec
окт 10 10:30:31 softwlc eltex-pcrf[985]: Thu Oct 10 10:30:31 NOVT 2019 WARN: Establishing SSL connec
tester@softwlc:~$
```

ex-pcrf  
21 – Eltex-PCRF

#### 8. eltex-auth-service :

```
ps -aux | grep auth-service
```

:

```
service eltex-auth-service restart
```

:

```
sudo service eltex-auth-service status
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep auth-service
authsrv  1488  0.0  0.4 181088 16744 ?        Ssl  10:25   0:00 /usr/sbin/eltex-radius -d /etc/eltex-auth-service
tester  2570  0.0  0.0 15468   988 tty1      S+   10:40   0:00 grep --color=auto auth-service
tester@softwlc:~$ sudo service eltex-auth-service status
• eltex-auth-service.service - Eltex FreeRADIUS multi-protocol policy server
   Loaded: loaded (/usr/lib/systemd/system/eltex-auth-service.service; enabled; vendor preset: enabled)
   Active: active (running) since 4т 2019-10-10 10:25:35 +07; 15min ago
     Docs: http://wiki.freeradius.org/
           http://networkradius.com/doc/
   Process: 1484 ExecStart=/usr/sbin/eltex-radius -d /etc/eltex-auth-service $FREERADIUS_OPTIONS (code=exited, status=0/SUCCESS)
   Process: 1465 ExecStartPre=/usr/sbin/eltex-radius -d /etc/eltex-auth-service $FREERADIUS_OPTIONS -s (code=exited, status=0/SUCCESS)
  Main PID: 1488 (eltex-radius)
    Tasks: 6
   Memory: 8.4M
      CPU: 50ms
   CGroup: /system.slice/eltex-auth-service.service
           └─1488 /usr/sbin/eltex-radius -d /etc/eltex-auth-service

ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[293]: The preauth
ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[332]: The account
ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[403]: The session
ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[530]: The pre-p
ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[553]: The post-
ОКТ 10 10:25:35 softwlc radiusd[1488]: /etc/eltex-auth-service/sites-enabled/default[415]: The post-
ОКТ 10 10:25:35 softwlc radiusd[1488]: Loaded virtual server <default>
ОКТ 10 10:25:35 softwlc radiusd[1488]: Loaded virtual server inner-tunnel
ОКТ 10 10:25:35 softwlc systemd[1]: Started Eltex FreeRADIUS multi-protocol policy server.
ОКТ 10 10:25:35 softwlc radiusd[1488]: Ready to process requests
tester@softwlc:~$ _
```

22 – Eltex-AUTH-service

#### 8. nginx :

```
ps -aux | grep nginx
```

:

```
service nginx restart
```

:

```
sudo service nginx status
```

```
SoftWLC_1.14 [Работает] - Oracle VM VirtualBox
Файл  Машина  Вид  Ввод  Устройства  Справка
tester@softwlc:~$ ps -aux | grep nginx
root      1275  0.0  0.0  65360  1004 ?        Ss   10:25   0:00 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
nginx     1276  0.0  0.0  65892  3504 ?        S    10:25   0:00 nginx: worker process
nginx     1277  0.0  0.0  65576  2960 ?        S    10:25   0:00 nginx: cache manager process
tester    2602  0.0  0.0  15468   972 tty1    S+   10:41   0:00 grep --color=auto nginx
tester@softwlc:~$ sudo service nginx status
• nginx.service - nginx - high performance web server
  Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
  Active: active (running) since 4т 2019-10-10 10:25:25 +07; 16min ago
    Docs: http://nginx.org/en/docs/
  Process: 1140 ExecStart=/usr/sbin/nginx -c /etc/nginx/nginx.conf (code=exited, status=0/SUCCESS)
 Main PID: 1275 (nginx)
   Tasks: 3
  Memory: 4.1M
    CPU: 54ms
  CGroup: /system.slice/nginx.service
          └─1275 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
            └─1276 nginx: worker process
              └─1277 nginx: cache manager process

окт 10 10:25:23 softwlc systemd[1]: Starting nginx - high performance web server...
окт 10 10:25:25 softwlc systemd[1]: nginx.service: PID file /var/run/nginx.pid not readable (yet?) a
окт 10 10:25:25 softwlc systemd[1]: Started nginx - high performance web server.
tester@softwlc:~$
```

23 – nginx



, SoftWLC.



SoftWLC ELTEX. DHCP- SoftWLC. root. SSID, SSID SSID wpa personal .