

Лабораторная работа №6

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11.10.2022, Moscow

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Мандатное разграничение прав в Linux

Развитие навыков администрирования ОС Linux. Получение первого практического знакомства с технологией SELinux1.

Проверка работы SELinx на практике совместно с веб-сервером Apache.

Теоретические сведения

SELinux (англ. Security-Enhanced Linux — Linux с улучшенной безопасностью) — реализация системы принудительного контроля доступа, которая может работать параллельно с классической избирательной системой контроля доступа.

Выполнение лабораторной работы

Подготовка лабораторного стенда

```
[mskondrashina@mskondrashina ~]$ su root
Password:
[root@mskondrashina mskondrashina]# sudo dnf install httpd
Rocky Linux 9 - BaseOS                4.9 kB/s | 3.6 kB      00:00
Rocky Linux 9 - BaseOS                1.4 MB/s | 1.7 MB      00:01
Rocky Linux 9 - AppStream             5.4 kB/s | 3.6 kB      00:00
Rocky Linux 9 - AppStream             3.3 MB/s | 6.0 MB      00:01
Rocky Linux 9 - Extras                4.2 kB/s | 2.9 kB      00:00
Dependencies resolved.
=====
Package                                Arch      Version                Repository              Size
=====
Installing:
httpd                                  x86_64    2.4.51-7.el9_0         appstream               1.4 M
Installing dependencies:
apr                                    x86_64    1.7.0-11.el9           appstream               123 k
apr-util                              x86_64    1.6.1-20.el9           appstream               94 k
apr-util-bdb                          x86_64    1.6.1-20.el9           appstream               13 k
httpd-filesystem                      noarch    2.4.51-7.el9_0         appstream               14 k
httpd-tools                           x86_64    2.4.51-7.el9_0         appstream               81 k
rocky-logos-httpd                    noarch    90.11-1.el9            appstream               24 k
Installing weak dependencies:
apr-util-openssl                      x86_64    1.6.1-20.el9           appstream               15 k
mod_http2                             x86_64    1.15.19-2.el9          appstream               149 k
mod_lua                               x86_64    2.4.51-7.el9_0         appstream               61 k

Transaction Summary
=====
Install 10 Packages

Total download size: 1.9 M
Installed size: 5.9 M
Is this ok [y/N]: y
```

Подготовка лабораторного стенда

```
Downloading Packages:
(1/10): rocky-logos-httpd-90.11-1.el9.noarch.rpm 50 kB/s | 24 kB 00:00
(2/10): mod_lua-2.4.51-7.el9_0.x86_64.rpm 125 kB/s | 61 kB 00:00
(3/10): httpd-tools-2.4.51-7.el9_0.x86_64.rpm 163 kB/s | 81 kB 00:00
(4/10): httpd-filesystem-2.4.51-7.el9_0.noarch. 280 kB/s | 14 kB 00:00
(5/10): apr-util-openssl-1.6.1-20.el9.x86_64.rp 309 kB/s | 15 kB 00:00
(6/10): apr-util-bdb-1.6.1-20.el9.x86_64.rpm 246 kB/s | 13 kB 00:00
(7/10): apr-util-1.6.1-20.el9.x86_64.rpm 1.3 MB/s | 94 kB 00:00
(8/10): mod_http2-1.15.19-2.el9.x86_64.rpm 1.6 MB/s | 149 kB 00:00
(9/10): apr-1.7.0-11.el9.x86_64.rpm 1.8 MB/s | 123 kB 00:00
(10/10): httpd-2.4.51-7.el9_0.x86_64.rpm 6.2 MB/s | 1.4 MB 00:00
-----
Total 1.7 MB/s | 1.9 MB 00:01
Rocky Linux 9 - AppStream 1.7 MB/s | 1.7 kB 00:00
Importing GPG key 0x350D275D:
  Userid : "Rocky Enterprise Software Foundation - Release key 2022 <releng@rock
ylinux.org>"
  Fingerprint: 21CB 256A E16F C54C 6E65 2949 702D 426D 350D 275D
  From : /etc/pki/rpm-gpg/RPM-GPG-KEY-Rocky-9
Is this ok [y/N]: y
Key imported successfully
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing : 1/1
  Installing : apr-1.7.0-11.el9.x86_64 1/10
  Installing : apr-util-bdb-1.6.1-20.el9.x86_64 2/10
  Installing : apr-util-1.6.1-20.el9.x86_64 3/10
  Installing : apr-util-openssl-1.6.1-20.el9.x86_64 4/10
  Installing : httpd-tools-2.4.51-7.el9_0.x86_64 5/10
  Running scriptlet: httpd-filesystem-2.4.51-7.el9_0.noarch 6/10
```


Подготовка лабораторного стенда

```
Running scriptlet: httpd-filesystem-2.4.51-7.el9_0.noarch 6/10
useradd warning: apache's uid 48 outside of the SYS_UID_MIN 201 and SYS_UID_MAX 999
range.

Installing      : httpd-filesystem-2.4.51-7.el9_0.noarch 6/10
Installing      : rocky-logos-httpd-90.11-1.el9.noarch 7/10
Installing      : mod_lua-2.4.51-7.el9_0.x86_64 8/10
Installing      : mod_http2-1.15.19-2.el9.x86_64 9/10
Installing      : httpd-2.4.51-7.el9_0.x86_64 10/10
Running scriptlet: httpd-2.4.51-7.el9_0.x86_64 10/10
Verifying       : rocky-logos-httpd-90.11-1.el9.noarch 1/10
Verifying       : mod_lua-2.4.51-7.el9_0.x86_64 2/10
Verifying       : httpd-tools-2.4.51-7.el9_0.x86_64 3/10
Verifying       : httpd-2.4.51-7.el9_0.x86_64 4/10
Verifying       : httpd-filesystem-2.4.51-7.el9_0.noarch 5/10
Verifying       : apr-util-openssl-1.6.1-20.el9.x86_64 6/10
Verifying       : apr-util-bdb-1.6.1-20.el9.x86_64 7/10
Verifying       : apr-util-1.6.1-20.el9.x86_64 8/10
Verifying       : mod_http2-1.15.19-2.el9.x86_64 9/10
Verifying       : apr-1.7.0-11.el9.x86_64 10/10

Installed:
  apr-1.7.0-11.el9.x86_64          apr-util-1.6.1-20.el9.x86_64
  apr-util-bdb-1.6.1-20.el9.x86_64 apr-util-openssl-1.6.1-20.el9.x86_64
  httpd-2.4.51-7.el9_0.x86_64      httpd-filesystem-2.4.51-7.el9_0.noarch
  httpd-tools-2.4.51-7.el9_0.x86_64 mod_http2-1.15.19-2.el9.x86_64
  mod_lua-2.4.51-7.el9_0.x86_64    rocky-logos-httpd-90.11-1.el9.noarch

Complete!
[root@mskondrashina mskondrashina]# sudo service httpd start
Redirecting to /bin/systemctl start httpd.service
```

```
96 # it explicitly to prevent problems during startup.
97 #
98 # If your host doesn't have a registered DNS name, enter its IP address here.
99 #
100 #ServerName test.ru
101
102 ..
```

```
root@mskondrashina mskondrashina]# chmod 777 /etc/httpd/conf/httpd.conf
```

Подготовка лабораторного стенда

```
[root@mskondrashina mskondrashina]# chmod 777 /etc/httpd/conf/httpd.conf
[root@mskondrashina mskondrashina]# iptables -F
[root@mskondrashina mskondrashina]# iptables -P INPUT ACCEPT iptables -P OUTPUT ACCEPT
Bad argument `iptables'
Try `iptables -h' or 'iptables --help' for more information.
[root@mskondrashina mskondrashina]# iptables -P INPUT ACCEPT
[root@mskondrashina mskondrashina]# iptables -P OUTPUT ACCEPT
iptables: Bad policy name. Run `dmesg' for more information.
[root@mskondrashina mskondrashina]# iptables -P OUTPUT ACCEPT
```

Вошла в систему с полученными учётными данными и убедилась, что SELinux работает в режиме enforcing политики targeted с помощью команд `getenforce` и `sestatus`

```
[root@mskondrashina mskondrashina]# getenforce
Enforcing
[root@mskondrashina mskondrashina]# sestatus
SELinux status:                enabled
SELinuxfs mount:              /sys/fs/selinux
SELinux root directory:       /etc/selinux
Loaded policy name:            targeted
Current mode:                  enforcing
Mode from config file:         enforcing
Policy MLS status:             enabled
Policy deny_unknown status:    allowed
Memory protection checking:    actual (secure)
Max kernel policy version:     33
```

Обратилась с помощью браузера к веб-серверу, запущенному на компьютере

```
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: active (running) since Sun 2022-10-09 21:10:40 MSK; 13min ago
     Docs: man:httpd.service(8)
  Main PID: 3260 (httpd)
    Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0"
      Tasks: 213 (limit: 12212)
     Memory: 23.0M
        CPU: 472ms
    CGroup: /system.slice/httpd.service
            └─3260 /usr/sbin/httpd -DFOREGROUND
              └─3261 /usr/sbin/httpd -DFOREGROUND
                └─3265 /usr/sbin/httpd -DFOREGROUND
                  └─3266 /usr/sbin/httpd -DFOREGROUND
                    └─3268 /usr/sbin/httpd -DFOREGROUND

Oct 09 21:10:39 mskondrashina.localdomain systemd[1]: Starting The Apache HTTP Server...
Oct 09 21:10:40 mskondrashina.localdomain systemd[1]: Started The Apache HTTP Server.
Oct 09 21:10:40 mskondrashina.localdomain httpd[3260]: Server configured, listening on: port 80
~
~
[root@mskondrashina mskondrashina]#
```

Веб-сервер Apache в списке процессов, его контекст безопасности

```
[root@mskondrashina mskondrashina]# ps auxZ | grep httpd
system_u:system_r:httpd_t:s0 root 3260 0.0 0.5 20248 11728 ? Ss 21:10 0:00 /usr/s
bin/httpd -DFOREGROUND
system_u:system_r:httpd_t:s0 apache 3261 0.0 0.3 21572 7540 ? S 21:10 0:00 /usr/s
bin/httpd -DFOREGROUND
system_u:system_r:httpd_t:s0 apache 3265 0.0 0.6 1210512 13072 ? Sl 21:10 0:00 /usr/s
bin/httpd -DFOREGROUND
system_u:system_r:httpd_t:s0 apache 3266 0.0 0.5 1079376 11024 ? Sl 21:10 0:00 /usr/s
bin/httpd -DFOREGROUND
system_u:system_r:httpd_t:s0 apache 3268 0.0 0.5 1079376 11024 ? Sl 21:10 0:00 /usr/s
bin/httpd -DFOREGROUND
unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023 root 3887 0.0 0.1 221668 2300 pts/0 S+ 21:25 0:0
0 grep --color=auto httpd
[root@mskondrashina mskondrashina]# ps -eZ | grep httpd
system_u:system_r:httpd_t:s0 3260 ? 00:00:00 httpd
system_u:system_r:httpd_t:s0 3261 ? 00:00:00 httpd
system_u:system_r:httpd_t:s0 3265 ? 00:00:00 httpd
system_u:system_r:httpd_t:s0 3266 ? 00:00:00 httpd
system_u:system_r:httpd_t:s0 3268 ? 00:00:00 httpd
[root@mskondrashina mskondrashina]#
```

Текущее состояние переключателей SELinux для Apache

```
[root@mskondrashina mskondrashina]# sestatus -b | grep httpd
httpd_anon_write off
httpd_builtin_scripting on
httpd_can_check_spam off
httpd_can_connect_ftp off
httpd_can_connect_ldap off
httpd_can_connect_mythtv off
httpd_can_connect_zabbix off
httpd_can_manage_courier_spool off
httpd_can_network_connect off
httpd_can_network_connect_cobbler off
httpd_can_network_connect_db off
httpd_can_network_memcache off
httpd_can_network_relay off
httpd_can_sendmail off
httpd_dbus_avahi off
httpd_dbus_sssd off
httpd_dontaudit_search_dirs off
httpd_enable_cgi on
httpd_enable_ftp_server off
httpd_enable_homedirs off
httpd_execmem off
httpd_graceful_shutdown off
httpd_manage_ipa off
httpd_mod_auth_ntlm_winbind off
httpd_mod_auth_pam off
httpd_read_user_content off
httpd_run_ipa off
httpd_run_preupgrade off
httpd_run_stickshift off
httpd_serve_cobbler_files off
httpd_setrlimit off
httpd_ssi_exec off
```


Статистика по политике с помощью команды seinfo

```
[root@mskondrashina mskondrashina]# seinfo
Statistics for policy file: /sys/fs/selinux/policy
Policy Version:          33 (MLS enabled)
Target Policy:           selinux
Handle unknown classes:  allow

Classes:          133      Permissions:          454
Sensitivities:    1        Categories:           1024
Types:            5002     Attributes:           254
Users:            8        Roles:                14
Booleans:         347     Cond. Expr.:         381
Allow:            63996    Neverallow:           0
Auditallow:       168     Dontaudit:            8417
Type_trans:       258486   Type_change:          87
Type_member:      35       Range_trans:          5960
Role_allow:       38       Role_trans:           420
Constraints:      72       Validatetrans:        0
MLS Constrains:   72       MLS Val. Tran:        0
Permissives:      0        Polcap:               5
Defaults:         7        Typebounds:           0
Allowxperm:       0        Neverallowxperm:      0
Auditallowxperm:  0        Dontauditxperm:       0
Ibendportcon:     0        Ibpkeycon:            0
Initial SIDs:     27       Fs_use:               33
Genfscon:         106     Portcon:              651
Netifcon:         0        Nodecon:              0
```

```
[root@mskondrashina mskondrashina]#
```

Тип файлов и поддиректорий, находящихся в директории /var/www и /var/www/html

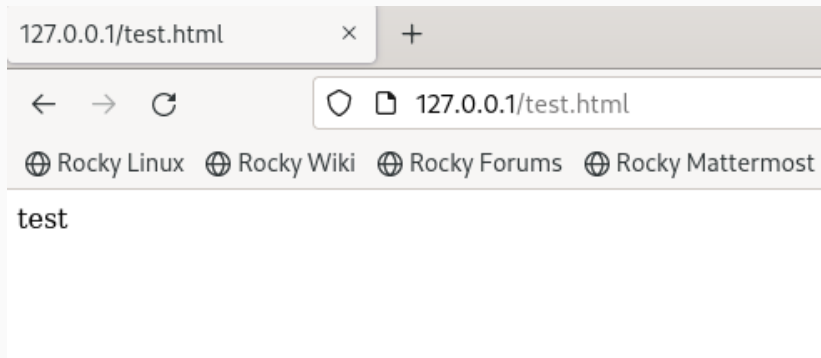
```
Netircon: 0 Nodecon: 0
[root@mskondrashina mskondrashina]# ls -lZ /var/www
total 0
drwxr-xr-x. 2 root root system_u:object_r:httpd_sys_script_exec_t:s0 6 May 16 15:10 c
drwxr-xr-x. 2 root root system_u:object_r:httpd_sys_content_t:s0 6 May 16 15:10 h
[root@mskondrashina mskondrashina]# ls -lZ /var/www/html
total 0
[root@mskondrashina mskondrashina]#
```

Создание от имени суперпользователя html-файл
/var/www/html/test.html

```
[root@mskondrashina mskondrashina]# touch /var/www/html/test.html
[root@mskondrashina mskondrashina]# vim
[root@mskondrashina mskondrashina]# vim /var/www/html/test.html
[root@mskondrashina mskondrashina]# cat /var/www/html/test.html
<html>
    <body>
        test
    </body>
</html>
```

```
[root@mskondrashina mskondrashina]# ls -lZ /var/www/html
total 4
-rw-r--r--. 1 root root unconfined_u:object_r:httpd_sys_content_t:s0 39 Oct  9 21:45 test.html
[root@mskondrashina mskondrashina]#
```

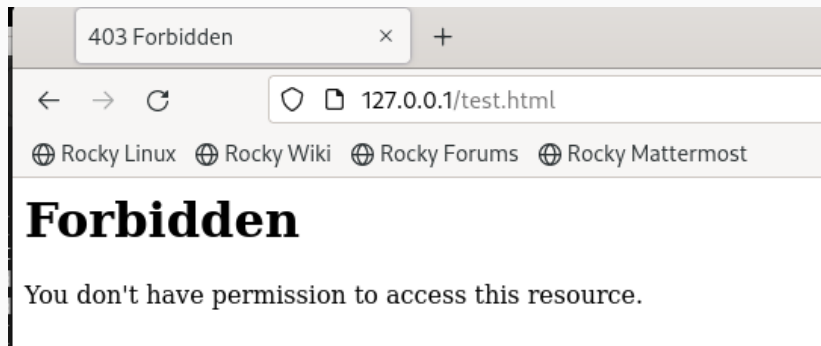
Обратилась к файлу через веб-сервер, введя в браузере адрес
`http://127.0.0.1/test.html`



```
[root@mskondrashina mskondrashina]# ls -Z /var/www/html/test.html  
unconfined_u:object_r:httpd_sys_content_t:s0 /var/www/html/test.html
```

Изменила контекст файла test.html с httpd_sys_content_t на samba_share_t

```
[root@mskondrashina mskondrashina]# chcon -t samba_share_t /var/www/html/test.html
[root@mskondrashina mskondrashina]# ls -Z /var/www/html/test.html
unconfined_u:object_r:samba_share_t:s0 /var/www/html/test.html
```



Просмотрела log-файлы веб-сервера Apache. Также просмотрела системный лог-файл

```
[root@mskondrashina mskondrashina]# ls -l /var/www/html/test.html
-rw-r--r--. 1 root root 39 Oct  9 21:45 /var/www/html/test.html
[root@mskondrashina mskondrashina]# tail /var/log/messages
Oct  9 21:56:02 mskondrashina systemd[1]: Starting dnf makecache...
Oct  9 21:56:04 mskondrashina dnf[4776]: Rocky Linux 9 - BaseOS                               3.9 kB/s | 3
.6 kB      00:00
Oct  9 21:56:05 mskondrashina dnf[4776]: Rocky Linux 9 - AppStream                         4.7 kB/s | 3
.6 kB      00:00
Oct  9 21:56:06 mskondrashina dnf[4776]: Rocky Linux 9 - Extras                         4.0 kB/s | 2
.9 kB      00:00
Oct  9 21:56:06 mskondrashina dnf[4776]: Metadata cache created.
Oct  9 21:56:06 mskondrashina systemd[1]: dnf-makecache.service: Deactivated successfully.
Oct  9 21:56:06 mskondrashina systemd[1]: Finished dnf makecache.
Oct  9 21:56:06 mskondrashina systemd[1]: dnf-makecache.service: Consumed 1.914s CPU time.
Oct  9 21:56:50 mskondrashina gnome-shell[1628]: libinput error: event2 - AT Translated Set 2 keyboa
rd: client bug: event processing lagging behind by 885ms, your system is too slow
Oct  9 21:57:00 mskondrashina kernel: sched: RT throttling activated
[root@mskondrashina mskondrashina]#
```

В файле `/etc/httpd/httpd.conf` нашла строчку `Listen 80` и заменила её на `Listen 81`

```
45 #
46 #Listen 12.34.56.78:80
47 Listen 81|
48
49 #
50 # Dynamic Shared Object (DSO) Support
```

Проанализирова лог-файлы /var/log/messages

```
[root@mskondrashina mskondrashina]# apachectl restart
[root@mskondrashina mskondrashina]# tail /var/log/messages
Oct  9 22:02:55 mskondrashina systemd[1]: httpd.service: Consumed 1.782s CPU time.
Oct  9 22:02:55 mskondrashina systemd[1]: Starting The Apache HTTP Server...
Oct  9 22:02:56 mskondrashina systemd[1]: Started The Apache HTTP Server.
Oct  9 22:02:56 mskondrashina httpd[4918]: Server configured, listening on: port 81
Oct  9 22:03:10 mskondrashina systemd[1531]: Started dbus-:1.2-org.gnome.gedit@4.service.
Oct  9 22:03:11 mskondrashina journal[1628]: meta_window_set_stack_position_no_sync: assertion 'window->stack_position >= 0' failed
Oct  9 22:03:20 mskondrashina systemd[1531]: dbus-:1.2-org.gnome.gedit@4.service: Consumed 3.060s CPU time.
Oct  9 22:03:38 mskondrashina systemd[1531]: Started dbus-:1.2-org.gnome.gedit@5.service.
Oct  9 22:03:38 mskondrashina journal[1628]: meta_window_set_stack_position_no_sync: assertion 'window->stack_position >= 0' failed
Oct  9 22:03:45 mskondrashina systemd[1531]: dbus-:1.2-org.gnome.gedit@5.service: Consumed 1.863s CPU time.
```

Просмотрела файлы /var/log/http/error_log, /var/log/http/access_log и /var/log/audit/audit.log

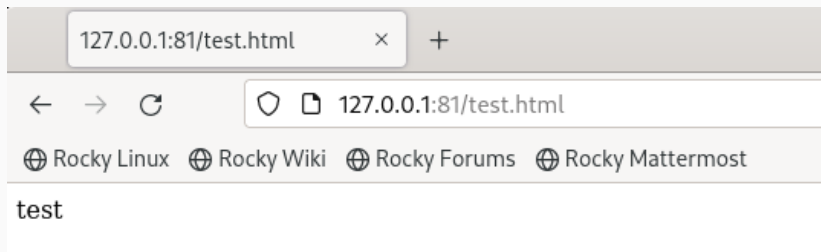
```
[root@mskondrashina mskondrashina]# tail /var/log/http/error_log
tail: cannot open '/var/log/http/error_log' for reading: No such file or directory
[root@mskondrashina mskondrashina]# cat /var/log/http/error_log
cat: /var/log/http/error_log: No such file or directory
[root@mskondrashina mskondrashina]# tail /var/log/http/access_log
tail: cannot open '/var/log/http/access_log' for reading: No such file or directory
[root@mskondrashina mskondrashina]# tail /var/log/audit/audit.log
type=SYSCALL msg=audit(1665341737.565:205): arch=c000003e syscall=262 success=no exit=-13 a0=ffffffffc a1=7f779803de30 a2=7f7796ffcf03 a3=100 items=0 ppid=3260 p
id=3268 auid=4294967295 uid=48 gid=48 suid=48 fsuid=48 euid=48 fsuid=48 tty=(none) ses=4294967295 comm="httpd" exe="/usr/sbin/httpd" subj=system
_u:system_r:httpd_t:s0 key=(null)ARCH=x86_64 SYSCALL=newfstatat AUID="unset" UID="apache" GID="apache" EUID="apache" FSUID="apache" EGID="apache"
SGID="apache" FSGID="apache"
type=PROCTITLE msg=audit(1665341737.565:205): proctitle=2F7573722F7362696E2F6874747064002D44664F524547524F554E44
type=SERVICE_START msg=audit(1665341737.603:206): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dbus-1.10-org.fedorapro
ject.Setroubleshootd00 comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
type=SERVICE_START msg=audit(1665341739.884:207): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dbus-1.10-org.fedorapro
ject.SetroubleshootPrivileged00 comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
type=SERVICE_STOP msg=audit(1665341752.256:208): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dbus-1.10-org.fedoraproj
ect.SetroubleshootPrivileged00 comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=failed'UID="root" AUID="unset"
type=SERVICE_STOP msg=audit(1665341752.292:209): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dbus-1.10-org.fedoraproj
ect.Setroubleshootd00 comm="systemd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=failed'UID="root" AUID="unset"
type=SERVICE_START msg=audit(1665341766.326:210): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dnf-makecache comm="syst
emd" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
type=SERVICE_STOP msg=audit(1665341766.327:211): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=dnf-makecache comm="syste
md" exe="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
type=SERVICE_STOP msg=audit(1665342175.517:212): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=httpd comm="systemd" exe=
"/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
type=SERVICE_START msg=audit(1665342176.035:213): pid=1 uid=0 auid=4294967295 ses=4294967295 subj=system_u:system_r:init t:s0 msg='unit=httpd comm="systemd" exe
="/usr/lib/systemd/systemd" hostname=? addr=? terminal=? res=success'UID="root" AUID="unset"
```

```
[root@mskondrashina mskondrashina]# semanage port -a -t http_port_t -p tcp 81
ValueError: Port tcp/81 already defined
[root@mskondrashina mskondrashina]# semanage port -l | grep http_port_t
http_port_t          tcp      80, 81, 443, 488, 8008, 8009, 8443, 9000
pegasus_http_port_t  tcp      5988
```

Запуск веб-сервера Apache ещё раз и возвращение контекста `httpd_sys_content_t` к файлу `test.html`

```
[root@mskondrashina mskondrashina]# apachectl restart  
[root@mskondrashina mskondrashina]# chcon -t httpd_sys_content_t /var/www/html/test.html  
[root@mskondrashina mskondrashina]#
```

Попытка получить доступ к файлу через веб-сервер, введя в браузере адрес `http://127.0.0.1:81/test.html`



```
45 #  
46 #Listen 12.34.56.78:80  
47 Listen 80  
48  
49 #  
50 #
```


Попытка удалить привязку http_port_t к 81 порту и удаление файла test.html

```
[root@mskondrashina mskondrashina]# semanage port -d -t http_port_t -p tcp 81
ValueError: Port tcp/81 is defined in policy, cannot be deleted
[root@mskondrashina mskondrashina]# rm /var/www/html/test.html
rm: remove regular file '/var/www/html/test.html'? y
[root@mskondrashina mskondrashina]# ls -l /var/www/html
total 0
[root@mskondrashina mskondrashina]#
```

- Выполнила лабораторную работу №6.
- Развила навыки администрирования ОС Linux. Получила первое практическое знакомство с технологией SELinux1.
- Проверила работу SELinx на практике совместно с веб-сервером Apache.

1. Методические материалы курса. “Информационная безопасность компьютерных сетей” Кулябов Д. С., Королькова А. В., Геворкян М. Н.
2. <https://ru.wikipedia.org/wiki/SELinux>