

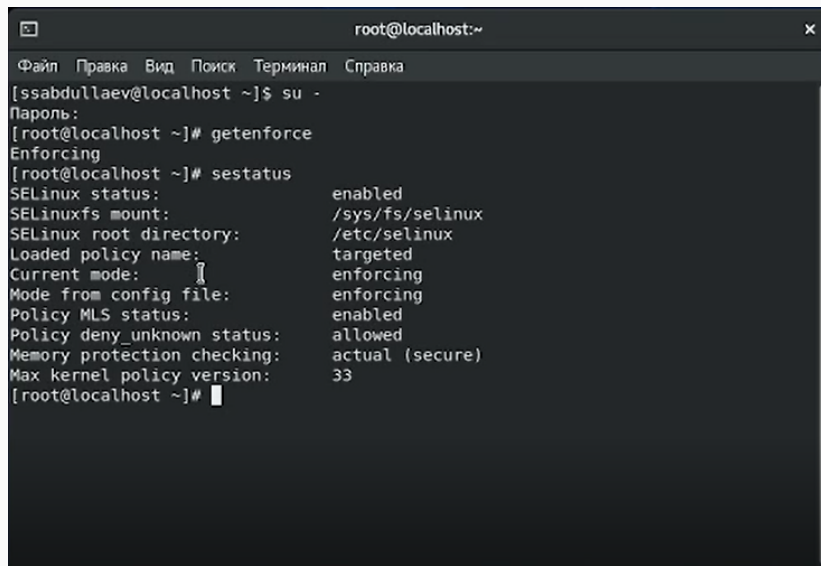
Лабораторная работа № 6

Мандатное разграничение прав в Linux

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Развить навыки администрирования ОС Linux. Проверить работу SELinux на практике совместно с веб-сервером Apache..

Ход работы



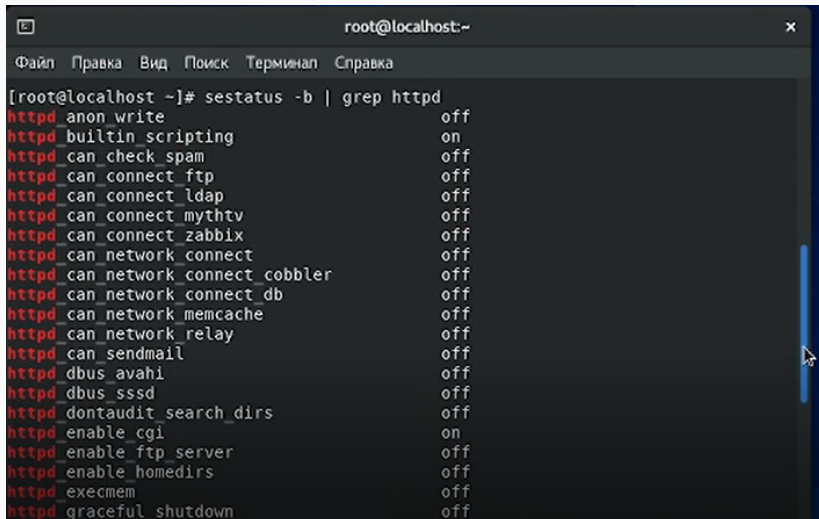
A terminal window titled "root@localhost:~" with a menu bar containing "Файл", "Правка", "Вид", "Поиск", "Терминал", and "Справка". The terminal shows a user switching from ssabdullaev to root and then running the 'getenforce' and 'sestatus' commands to check SELinux status.

```
root@localhost:~  
Файл Правка Вид Поиск Терминал Справка  
[ssabdullaev@localhost ~]$ su -  
Пароль:  
[root@localhost ~]# getenforce  
Enforcing  
[root@localhost ~]# 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  
[root@localhost ~]#
```

Проверка работы веб-сервера

```
root@localhost:~  
Файл Правка Вид Поиск Терминал Справка  
[root@localhost ~]# service httpd status  
Redirecting to /bin/systemctl status httpd.service  
● httpd.service - The Apache HTTP Server  
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: enabled)  
   Active: active (running) since Sat 2022-02-12 09:58:57 MSK; 31min ago  
     Docs: man:httpd.service(8)  
 Main PID: 3937 (httpd)  
    Status: "Running, listening on: port 80"  
   Tasks: 213 (limit: 11233)  
  Memory: 28.9M  
   CGroup: /system.slice/httpd.service  
           └─3937 /usr/sbin/httpd -DFOREGROUND  
             └─3938 /usr/sbin/httpd -DFOREGROUND  
               └─3939 /usr/sbin/httpd -DFOREGROUND  
                 └─3940 /usr/sbin/httpd -DFOREGROUND  
                   └─3941 /usr/sbin/httpd -DFOREGROUND  
фев 12 09:58:57 localhost.localdomain systemd[1]: Starting The Apache HTTP Server:.  
фев 12 09:58:57 localhost.localdomain httpd[3937]: AH00558: httpd: Could not re-  
фев 12 09:58:57 localhost.localdomain systemd[1]: Started The Apache HTTP Server:.  
фев 12 09:58:57 localhost.localdomain httpd[3937]: Server configured, listening on:  
lines 1-19/19 (END)
```

Состояние SELinux переключателей



A terminal window titled 'root@localhost:~' with a menu bar containing 'Файл', 'Правка', 'Вид', 'Поиск', 'Терминал', and 'Справка'. The command '[root@localhost ~]# sestatus -b | grep httpd' has been executed, displaying a list of SELinux booleans for the httpd process. The output shows various booleans and their current states, such as 'anon write' being 'off' and 'builtin scripting' being 'on'. A vertical scrollbar is visible on the right side of the terminal output.

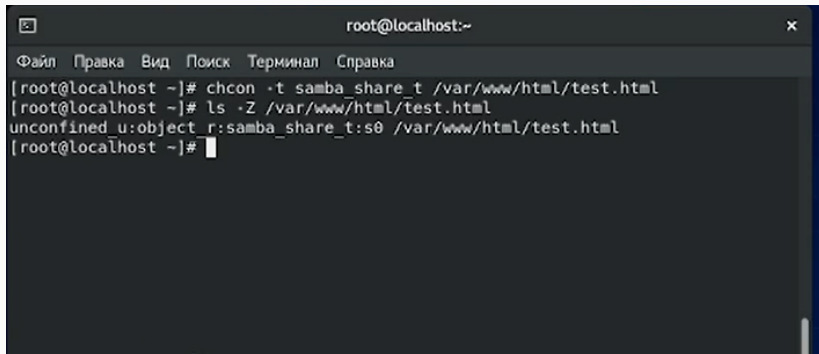
```
[root@localhost ~]# sestatus -b | grep httpd
httpd_anon_write off
httpd_builtin_scripting on
httpd_can_check_spam off
httpd_can_connect_ftp off
httpd_can_connect_ldap off
httpd_can_connect_mythtv off
httpd_can_connect_zabbix off
httpd_can_network_connect off
httpd_can_network_connect_cobbler off
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
```

Создание html-файла

```
root@localhost:/var/www/html
Файл  Правка  Вид  Поиск  Терминал  Справка
GNU nano 2.9.8                                test.html

<html>
<body> test </body>
</html>

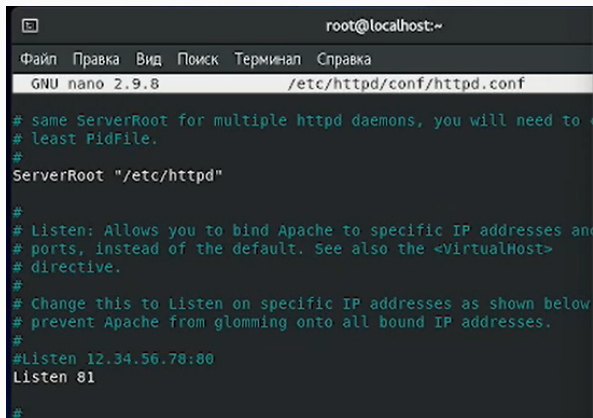
I
Wrote 3 lines
^G Помощь  ^O Записать  ^W Поиск    ^K Вырезать  ^J Выводить  ^C ТекПозиц
^X Выход   ^R ЧитФайл   ^\ Замена   ^U Отмен. выр ^T Словарь   ^_ К строке
```



A terminal window titled "root@localhost:~" with a menu bar containing "Файл", "Правка", "Вид", "Поиск", "Терминал", and "Справка". The terminal shows the following commands and output:

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


Запуск веб-сервера Apache на прослушивание TCP-порта 81



```
root@localhost:~  
Файл  Правка  Вид  Поиск  Терминал  Справка  
GNU nano 2.9.8  /etc/httpd/conf/httpd.conf  
  
# same ServerRoot for multiple httpd daemons, you will need to  
# least PidFile.  
#  
ServerRoot "/etc/httpd"  
  
#  
# Listen: Allows you to bind Apache to specific IP addresses and  
# ports, instead of the default. See also the <VirtualHost>  
# directive.  
#  
# Change this to Listen on specific IP addresses as shown below  
# prevent Apache from glomming onto all bound IP addresses.  
#  
#Listen 12.34.56.78:80  
Listen 81  
  
#
```

```
[root@localhost ~]# systemctl stop httpd.service
[root@localhost ~]# systemctl start httpd.service
[root@localhost ~]# tail -n1 /var/log/messages
Feb 12 11:06:39 localhost httpd[7404]: Server configured, listening on: port 81
[root@localhost ~]#
```

- В результате выполнения данной работы была изучена технология SELinux, а также проверена работа SELinux с веб-сервером Apache.