

Лабораторная №4

Основы информационной безопасности

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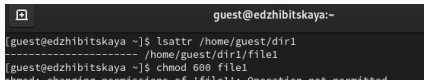
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Цель

- Получение навыков работы в консоли с расширенными атрибутами на ОС Linux Rocky

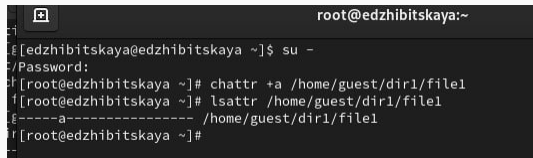
Ход работы

Сменяем сразу пользователя на guest и определяем расширенные атрибуты файла file1 и устанавливаем на него права на чтение и запись.

A terminal window with a dark background. The title bar shows a window icon and the text 'guest@edzhibitskaya:~'. The terminal content shows two commands and their outputs. The first command is 'lsattr /home/guest/dir1' which outputs '----- /home/guest/dir1/file1'. The second command is 'chmod 600 file1' which outputs 'chmod: changing permissions of '/file1': Operation not permitted'.

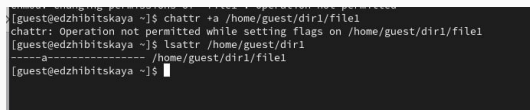
```
guest@edzhibitskaya:~  
[guest@edzhibitskaya ~]$ lsattr /home/guest/dir1  
----- /home/guest/dir1/file1  
[guest@edzhibitskaya ~]$ chmod 600 file1  
chmod: changing permissions of '/file1': Operation not permitted
```

Рис. 1: Атрибуты файла



```
root@edzhbitskaya:~  
[edzhbitskaya@edzhbitskaya ~]$ su -  
/Password:  
[root@edzhbitskaya ~]# chattr +a /home/guest/dir1/file1  
[root@edzhbitskaya ~]# lsattr /home/guest/dir1/file1  
-----a----- /home/guest/dir1/file1  
[root@edzhbitskaya ~]#
```

Рис. 2: Атрибут +a от администратора



```
[guest@edzhbitskaya ~]$ chattr +a /home/guest/dir1/file1  
chattr: Operation not permitted while setting flags on /home/guest/dir1/file1  
[guest@edzhbitskaya ~]$ lsattr /home/guest/dir1  
-----a----- /home/guest/dir1/file1  
[guest@edzhbitskaya ~]$
```

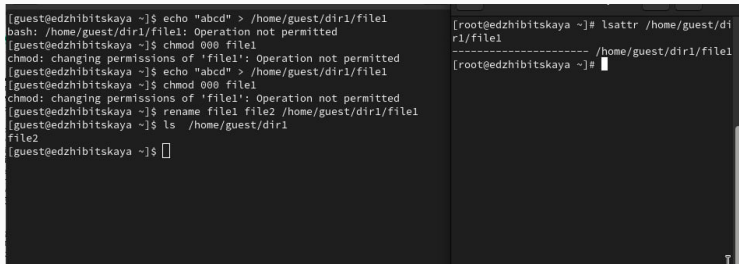
Рис. 3: Атрибут +a от guest

```
[guest@edzhbitskaya ~]$ echo "test" >> /home/guest/dir1/file1  
[guest@edzhbitskaya ~]$ cat /home/guest/dir1/file1  
test  
[guest@edzhbitskaya ~]$
```

Рис. 4: Дозапись в файл

```
[guest@edzhbitskaya ~]$ echo "abcd" > /home/guest/dir1/file1  
bash: /home/guest/dir1/file1: Operation not permitted  
[guest@edzhbitskaya ~]$ chmod 000 file1  
chmod: changing permissions of 'file1': Operation not permitted  
[guest@edzhbitskaya ~]$
```

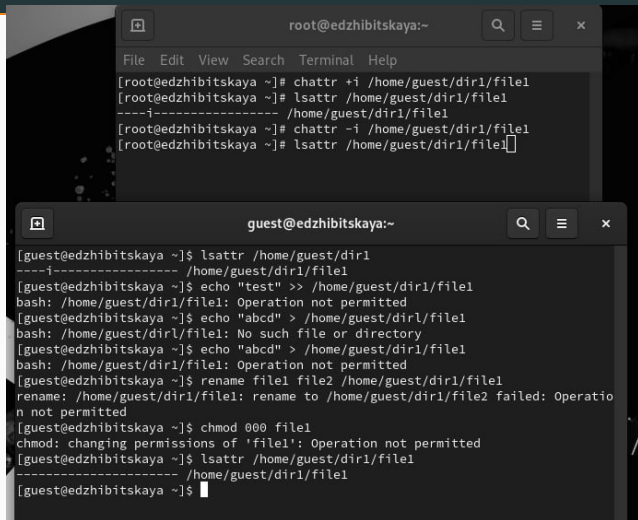
Рис. 5: Попытка удаления и изменения прав



```
[guest@edzhbitskaya ~]$ echo "abcd" > /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Operation not permitted
[guest@edzhbitskaya ~]$ chmod 000 file1
chmod: changing permissions of 'file1': Operation not permitted
[guest@edzhbitskaya ~]$ echo "abcd" > /home/guest/dir1/file1
[guest@edzhbitskaya ~]$ chmod 000 file1
chmod: changing permissions of 'file1': Operation not permitted
[guest@edzhbitskaya ~]$ rename file1 file2 /home/guest/dir1/file1
[guest@edzhbitskaya ~]$ ls /home/guest/dir1
file2
[guest@edzhbitskaya ~]$
```

```
[root@edzhbitskaya ~]# lsattr /home/guest/dir1/file1
----- /home/guest/dir1/file1
[root@edzhbitskaya ~]#
```

Рис. 6: Снятие атрибута, повторное выполнение команд



The image displays two terminal windows. The top window is titled 'root@edzhibitskaya:~' and shows the following commands and output:

```
File Edit View Search Terminal Help
[root@edzhibitskaya ~]# chattr +i /home/guest/dir1/file1
[root@edzhibitskaya ~]# lsattr /home/guest/dir1/file1
----i----- /home/guest/dir1/file1
[root@edzhibitskaya ~]# chattr -i /home/guest/dir1/file1
[root@edzhibitskaya ~]# lsattr /home/guest/dir1/file1
```

The bottom window is titled 'guest@edzhibitskaya:~' and shows the following commands and output:

```
[guest@edzhibitskaya ~]$ lsattr /home/guest/dir1
----i----- /home/guest/dir1/file1
[guest@edzhibitskaya ~]$ echo "test" >> /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Operation not permitted
[guest@edzhibitskaya ~]$ echo "abcd" > /home/guest/dir1/file1
bash: /home/guest/dir1/file1: No such file or directory
[guest@edzhibitskaya ~]$ echo "abcd" > /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Operation not permitted
[guest@edzhibitskaya ~]$ rename file1 file2 /home/guest/dir1/file1
rename: /home/guest/dir1/file1: rename to /home/guest/dir1/file2 failed: Operatio
n not permitted
[guest@edzhibitskaya ~]$ chmod 000 file1
chmod: changing permissions of 'file1': Operation not permitted
[guest@edzhibitskaya ~]$ lsattr /home/guest/dir1/file1
----i----- /home/guest/dir1/file1
[guest@edzhibitskaya ~]$
```

Рис. 7: Атрибут +i

Выводы

- В ходе работы были повышены навыки использования консоли при работе с атрибутами(основными и расширенными) при разграничении доступа