

Презентация по лабораторной работе №3.

Основы информационной безопасности.

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Информация

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Вводная часть

- Умение работать в консоли с атрибутами файлов, а также знание основ разграничения доступа в современных системах с открытым кодом на базе ОС Linux значительно улучшит и упростит понимание и работу с безопасностью данных.

- Права доступа к каталогам и файлам

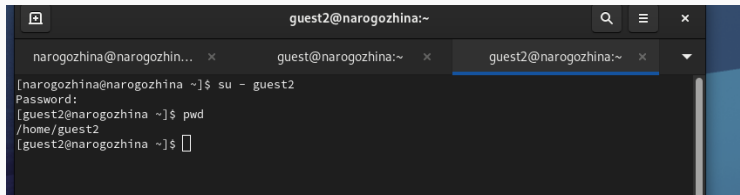
- Научиться работать с правами доступа через консоль
- Понимать разницу между доступом владельца, группы, всех пользователей

Создание нового пользователя

```
[narogozhina@narogozhina ~]$ useradd guest2
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.
[narogozhina@narogozhina ~]$ sudo -i
[sudo] password for narogozhina:
[root@narogozhina ~]# useradd guest2
[root@narogozhina ~]# passwd guest2
Changing password for user guest2.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
[root@narogozhina ~]# passwd guest2
Changing password for user guest2.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
[root@narogozhina ~]# passwd guest2
Changing password for user guest2.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@narogozhina ~]#
```

Рис. 1: Добавление нового пользователя

Сравнение домашних директорий



```
guest2@narogozhina:~  
narogozhina@narogozhin... x guest@narogozhina:~ x guest2@narogozhina:~ x  
[narogozhina@narogozhina ~]$ su - guest2  
Password:  
[guest2@narogozhina ~]$ pwd  
/home/guest2  
[guest2@narogozhina ~]$
```

Рис. 2: guest2:pwd

```
[guest2@narogozhina ~]$ groups guest
guest : guest
[guest2@narogozhina ~]$ groups guest2
guest2 : guest2 guest
[guest2@narogozhina ~]$ id -Gn
guest2 guest
[guest2@narogozhina ~]$ id -G
1002 1001
[guest2@narogozhina ~]$
```

Рис. 3: groups|id

```
vboxdrmipc:x:975:  
guest:x:1001:guest2  
guest2:x:1002:  
[guest@narogozhina ~]$
```

Рис. 4: id

```
[guest@narogozhina ~]$ chmod g+rwX /home/guest
[guest@narogozhina ~]$ chmod 000 dir1
[guest@narogozhina ~]$ ls
dir1
[guest@narogozhina ~]$ ls -l
total 0
d----- . 2 guest guest 6 Mar  1 14:30 dir1
[guest@narogozhina ~]$
```

Рис. 5: chmod 000

```
[guest2@narogozhina dir1]$ ls
ls: cannot open directory '.': Permission denied
[guest2@narogozhina dir1]$ cd ~
[guest2@narogozhina ~]$ ls
[guest2@narogozhina ~]$ cd dir1
bash: cd: dir1: No such file or directory
[guest2@narogozhina ~]$ cd /home/guest
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
[guest2@narogozhina dir1]$ ls
ls: cannot open directory '.': Permission denied
[guest2@narogozhina dir1]$ chmod g+r file1
[guest2@narogozhina dir1]$ touch file2
touch: cannot touch 'file2': Permission denied
[guest2@narogozhina dir1]$ rm file1
rm: cannot remove 'file1': Permission denied
[guest2@narogozhina dir1]$ echo 'hello'>>file1
[guest2@narogozhina dir1]$ cat file1
hello
[guest2@narogozhina dir1]$ chmod g-r file1
[guest2@narogozhina dir1]$ cat file1
hello
[guest2@narogozhina dir1]$ ls -l
ls: cannot open directory '.': Permission denied
[guest2@narogozhina dir1]$
```

```
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
bash: cd: dir1: Permission denied
[guest2@narogozhina guest]$ ls dir1
ls: cannot access 'dir1/file1': Permission denied
file1
[guest2@narogozhina guest]$ touch /home/guest/dir1/ file1
touch: setting times of '/home/guest/dir1/': Permission denied
[guest2@narogozhina guest]$ rm file1
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ rm /home/guest/dir1/file1
rm: cannot remove '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$ echo 'hi' >> /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$ cat /home/guest/dir1/file1
cat: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$ mv /home/guest/dir1/file1 /home/guest/dir1/fil2
mv: failed to access '/home/guest/dir1/fil2': Permission denied
[guest2@narogozhina guest]$ chmod g+wx /home/guest/dir1/file1
chmod: cannot access '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$
```

Рис. 7: d—r—

```
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
bash: cd: dir1: Permission denied
[guest2@narogozhina guest]$ chmod g+wx /home/guest/dir1/file1
chmod: cannot access '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$ mv /home/guest/dir1/file1 /home/guest/dir1/file2
mv: failed to access '/home/guest/dir1/file2': Permission denied
[guest2@narogozhina guest]$ touch /home/guest/dir1/file2
touch: cannot touch '/home/guest/dir1/file2': Permission denied
[guest2@narogozhina guest]$ rm /home/guest/dir1/file1
rm: cannot remove '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$ cat /home/guest/dir1/file1
cat: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$ echo 'hi' >> /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$
```

Рис. 8: d--w--

```
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
bash: cd: dir1: Permission denied
[guest2@narogozhina guest]$ ls dir1
ls: cannot access 'dir1/file1': Permission denied
file1
[guest2@narogozhina guest]$ chmod g-x /home/guest/dir1/file1
chmod: cannot access '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$ mv /home/guest/dir1/file1 /home/guest/dir1/file11
mv: failed to access '/home/guest/dir1/file11': Permission denied
[guest2@narogozhina guest]$ touch /home/guest/dir1/file2
touch: cannot touch '/home/guest/dir1/file2': Permission denied
[guest2@narogozhina guest]$ echo 'hihi' >> /home/guest/dir1/file1
bash: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$ cat /home/guest/dir1/file1
cat: /home/guest/dir1/file1: Permission denied
[guest2@narogozhina guest]$ rm /home/guest/dir1/file1
rm: cannot remove '/home/guest/dir1/file1': Permission denied
[guest2@narogozhina guest]$
```

Рис. 9: d—rw—


```
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
[guest2@narogozhina dir1]$ ls
file1
[guest2@narogozhina dir1]$ ls -l
total 4
-rw----r--. 1 guest2 guest 6 Mar 16 20:08 file1
[guest2@narogozhina dir1]$ chmod g+wx file1
[guest2@narogozhina dir1]$ ls -l
total 4
-rw--wxr--. 1 guest2 guest 6 Mar 16 20:08 file1
[guest2@narogozhina dir1]$ chmod g+rw file1
[guest2@narogozhina dir1]$ ls -l
total 4
-rw-rwxr--. 1 guest2 guest 6 Mar 16 20:08 file1
[guest2@narogozhina dir1]$ touch file2
touch: cannot touch 'file2': Permission denied
[guest2@narogozhina dir1]$ echo 'hi'>>file1
[guest2@narogozhina dir1]$ cat file1
hello
hi
[guest2@narogozhina dir1]$ mv file1 file11
mv: cannot move 'file1' to 'file11': Permission denied
[guest2@narogozhina dir1]$ rm file1
rm: cannot remove 'file1': Permission denied
[guest2@narogozhina dir1]$
```

```
[guest2@narogozhina guest]$ ls
dir1
[guest2@narogozhina guest]$ cd dir1
[guest2@narogozhina dir1]$ ls
ls: cannot open directory '.': Permission denied
[guest2@narogozhina dir1]$ ls -l
ls: cannot open directory '.': Permission denied
[guest2@narogozhina dir1]$ mv file1 file11
[guest2@narogozhina dir1]$ chmod g-x file11
[guest2@narogozhina dir1]$ chmod g+x file11
[guest2@narogozhina dir1]$ touch file2
[guest2@narogozhina dir1]$ echo 'hi' >> file2
[guest2@narogozhina dir1]$ cat file2
hi
[guest2@narogozhina dir1]$ rm file2
[guest2@narogozhina dir1]$
```