

Лабораторная работа №11

Презентация

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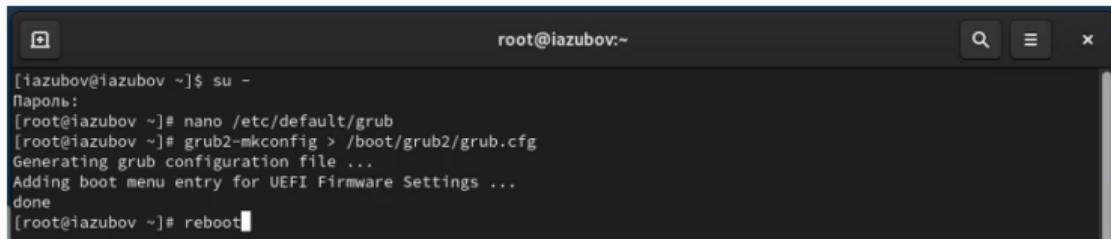
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Информация

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Выполнение лабораторной работы

Модификация параметров GRUB2



The screenshot shows a terminal window titled "root@iazubov:~". The terminal displays the following command sequence:

```
[iazubov@iazubov ~]$ su -
Пароль:
[root@iazubov ~]# nano /etc/default/grub
[root@iazubov ~]# grub2-mkconfig > /boot/grub2/grub.cfg
Generating grub configuration file ...
Adding boot menu entry for UEFI Firmware Settings ...
done
[root@iazubov ~]# reboot
```

Меню редактирования GRUB

GRUB version 2.06

```
load_video
set gfxpayload=keep
insmod gzio
linux ($root)/vmlinuz-5.14.0-570.55.1.e19_6.x86_64 root=/dev/mapper/r1-root\
ro resume=/dev/mapper/r1-swap rd.lvm.lv=r1/root rd.lvm.lv=r1/swap crashker\
nel=1G-4G:192M,4G-64G:256M,64G-:512M systemd.unit=rescue.target
initrd ($root)/initramfs-5.14.0-570.55.1.e19_6.x86_64.img $tuned_initrd
```

Minimum Emacs-like screen editing is supported. TAB lists
completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for
a command-line or ESC to discard edits and return to the GRUB menu.

Список всех файлов модулей

dracut-shutdown.service	loaded	active	exited	Rest
kmod-static-nodes.service	loaded	active	exited	Create
lvm2-monitor.service	loaded	active	exited	Moni
nis-domainname.service	loaded	active	exited	Read
plymouth-read-write.service	loaded	active	exited	Tell
plymouth-start.service	loaded	active	exited	Show
rescue.service	loaded	active	running	Resc
systemd-boot-update.service	loaded	active	exited	Auto
systemd-journal-flush.service	loaded	active	exited	Flus
systemd-journald.service	loaded	active	running	Jour
systemd-modules-load.service	loaded	active	exited	Load
systemd-network-generator.service	loaded	active	exited	Gene
systemd-random-seed.service	loaded	active	exited	Load
systemd-remount-fs.service	loaded	active	exited	Remo
systemd-sysctl.service	loaded	active	exited	Appl
systemd-tmpfiles-setup-dev.service	loaded	active	exited	Creat
systemd-tmpfiles-setup.service	loaded	active	exited	Crea
systemd-udev-settle.service	loaded	active	exited	Wait
systemd-udev-trigger.service	loaded	active	exited	Cold
systemd-udevd.service	loaded	active	running	Rule
systemd-update-utmp.service	loaded	active	exited	Reco
systemd-vconsole-setup.service	loaded	active	exited	Setu
-slice	loaded	active	active	Root
system-modprobe.slice	loaded	active	active	Slic
system-systemd\x2dhibernate\x2dresume.slice	loaded	active	active	Slic
system.slice	loaded	active	active	Syst
dm-event.socket	loaded	active	listening	DevI
lvm2-lvmpolld.socket	loaded	active	listening	LVM2
systemd-journald-dev-log.socket	loaded	active	running	Jour
systemd-journald.socket	loaded	active	running	Jour
systemd-udevd-control.socket	loaded	active	running	udev
systemd-udevd-kernel.socket	loaded	active	running	udev
dev-mapper-rlv\x2dswap.swap	loaded	active	active	/dev
cryptsetup.target	loaded	active	active	Loca
integritysetup.target	loaded	active	active	Loca
local-fs-pre.target	loaded	active	active	Prep
local-fs.target	loaded	active	active	Loca
network-pre.target	loaded	active	active	Prep
rescue.target	loaded	active	active	Resc
sound.target	loaded	active	active	Sound
swap.target	loaded	active	active	Swap
sysinit.target	loaded	active	active	Syst
veritysetup.target	loaded	active	active	Loca

LOAD = Reflects whether the unit definition was properly loaded.

ACTIVE = The high-level unit activation state, i.e. generalization of SUB.

SUB = The low-level unit activation state, values depend on unit type.

'3 loaded units listed. Pass --all to see loaded but inactive units, too.

To show all installed unit files use 'systemctl list-unit-files'.

lines 32-98/98 (END)

Задействованные переменные среды оболочки

```
[root@iazubov ~]# systemctl show-environment  
LANG=ru_RU.UTF-8  
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin  
[root@iazubov ~]# systemctl reboot
```

Меню редактирования GRUB

GRUB version 2.06

```
load_video
set gfxpayload=keep
insmod gzio
linux ($root)/vmlinuz-5.14.0-570.55.1.e19_6.x86_64 root=/dev/mapper/r1-root\
    ro resume=/dev/mapper/r1-swap rd.lvm.lv=r1/root rd.lvm.lv=r1/swap crashker\
    nel=1G-4G:192M,4G-64G:256M,64G-:512M systemd.unit=emergency.target
initrd ($root)/initramfs-5.14.0-570.55.1.e19_6.x86_64.img $tuned_initrd
```

Minimum Emacs-like screen editing is supported. TAB lists
completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for
a command-line or ESC to discard edits and return to the GRUB menu.

Список всех загруженных файлов модулей

dev-disk-by\x2dpath-pc1\x2d0000:00:01.1\x2data\x2d2.8.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:01.1\x2data\x2d2.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1.0.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1.8\x2dpart1.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1.8\x2dpart2.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1\x2dpart1.device	loaded	activating	tentative
dev-disk-by\x2dpath-pc1\x2d0000:00:0d.8\x2data\x2d1\x2dpart2.device	loaded	activating	tentative
dev-disk-by\x2duuid-1007ef10\x2db76b\x2d4b6a\x2d9220\x2dd04c806c33c8.device	loaded	activating	tentative
dev-disk-by\x2duuid-2025\x2d00\x2d13\x2d28\x2d40\x2d09\x2d62.device	loaded	activating	tentative
dev-sda.device	loaded	activating	tentative
dev-sd1.device	loaded	activating	tentative
dev-sd2.device	loaded	activating	tentative
dev-sr0.device	loaded	activating	tentative
dev-ttyS0.device	loaded	activating	tentative
dev-ttyS1.device	loaded	activating	tentative
dev-ttyS2.device	loaded	activating	tentative
dev-ttyS3.device	loaded	activating	tentative
sys-devices-pc10000:00-0000:00:01.1-ata2-host1-target1:0:0-1:0:0:0-block-sr0.device	loaded	activating	tentative
sys-devices-pc10000:00-0000:00:03.0-net-ens3.device	loaded	activating	tentative
sys-devices-pc10000:00-0000:00:0d.0-ata3-host2-target2:0:0-2:0:0:0-block-sda-sda1.device	loaded	activating	tentative
sys-devices-pc10000:00-0000:00:0d.0-ata3-host2-target2:0:0-2:0:0:0-block-sda-sda2.device	loaded	activating	tentative
sys-devices-pc10000:00-0000:00:0d.0-ata3-host2-target2:0:0-2:0:0:0-block-sda.device	loaded	activating	tentative
sys-devices-platform-serial10250-tty-ttyS0.device	loaded	activating	tentative
sys-devices-platform-serial10250-tty-ttyS1.device	loaded	activating	tentative
sys-devices-platform-serial10250-tty-ttyS2.device	loaded	activating	tentative
sys-devices-platform-serial10250-tty-ttyS3.device	loaded	activating	tentative
sys-devices-virtual-block-dm\x2d0.device	loaded	active	plugged
sys-devices-virtual-block-dm\x2d1.device	loaded	active	plugged
sys-module-configs.device	loaded	activating	tentative
sys-module-fuse.device	loaded	activating	tentative
sys-subsystem-net-devices-ens3.device	loaded	activating	tentative
-.mount	loaded	active	mounted
init.scope	loaded	active	running
emergency.service	loaded	active	running
plymouth-start.service	loaded	active	exited
systemd-journald.service	loaded	active	running
-.slice	loaded	active	active
systemd-systemd\x2dhibernate\x2dresume.slice	loaded	active	active
system.slice	loaded	active	active
systemd-journald-dev-log.socket	loaded	active	running
systemd-journald.socket	loaded	active	running
emergency.target	loaded	active	active

LOAD = Reflects whether the unit definition was properly loaded.
ACTIVE = The high-level unit activation state, i.e. generalization of SUB.
SUB = The low-level unit activation state, values depend on unit type.
53 loaded units listed. Pass --all to see loaded but inactive units, too.
To show all installed unit files use 'systemctl list-unit-files'.
lines 12-60/60 (END)

Меню редактирования GRUB

```
GRUB version 2.06

load_video
set gfxpayload=keep
insmod gzio
linux ($root)/vmlinuz-5.14.0-570.55.1.el9_6.x86_64 root=/dev/mapper/rl-root\
    ro resume=/dev/mapper/rl-swap rd.lvm.lv=rl/root rd.lvm.lv=rl/swap crashker\
    nel=1G-4G:192M,4G-64G:256M,64G-:512M rd.break
initrd ($root)/initramfs-5.14.0-570.55.1.el9_6.x86_64.img $tuned_initrd


```

Получаем доступ

```
Entering emergency mode. Exit the shell to continue.  
Type "journalctl" to view system logs.  
You might want to save "/run/initramfs/rdsosreport.txt" to a USB stick or /boot  
after mounting them and attach it to a bug report.  
  
switch_root:/# mount -o remount,rw /sysroot  
switch_root:/# chroot /sysroot
```

Устанавливаем новый пароль.

```
[root@localhost ~]# passwd
sh-5.1# passwd
Изменение пароля пользователя root.
Новый пароль:
Повторите ввод нового пароля:
passwd: данные аутентификации успешно обновлены.
sh-5.1# load_policy -i
[ 198.394813] audit: type=1404 audit(1763215818.254:2): enforcing=1 old_enforcing=0 auid=4294967295 ses=4294967295 enab
[ 198.597300] SELinux: policy capability network_peer_controls=1
[ 198.598145] SELinux: policy capability open_perms=1
[ 198.599220] SELinux: policy capability extended_socket_class=1
[ 198.600059] SELinux: policy capability always_check_network=0
[ 198.600920] SELinux: policy capability cgroup_seclabel=1
[ 198.601610] SELinux: policy capability nmp_nosuid_transition=1
[ 198.602395] SELinux: policy capability genfs_seclabel_symlinks=1
[ 199.896492] audit: type=1403 audit(1763215818.949:3): auid=4294967295 ses=4294967295 lsm=selinux res=1
sh-5.1# chcon -t shadow_t /etc/shadow
sh-5.1# reboot -f
```