

Отчет по лабораторной работе №4

Простейший шаблон

Чилеше . Л

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Информация

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Вводная часть

- Получить навыки управления системными службами операционной системы посредством systemd.

- Получите полномочия администратора su –
- Проверьте статус службы Very Secure FTP: systemctl status vsftpd

```
[lchileshe@chileshelupupa ~]$ su -  
Password:  
[root@chileshelupupa ~]# systemctl status vsftpd  
Unit vsftpd.service could not be found.  
[root@chileshelupupa ~]#
```

dnf -y install vsftpd

```
[root@chilshelupupa ~]# dnf -y install vsftpd
Rocky Linux 9 - BaseOS                               820  B/s | 4.1 kB    00:05
Rocky Linux 9 - BaseOS                               227 kB/s | 2.3 MB   00:10
Rocky Linux 9 - AppStream                             5.3 kB/s | 4.5 kB   00:00
Rocky Linux 9 - AppStream                            395 kB/s | 8.0 MB   00:20
Rocky Linux 9 - Extras                               1.0 kB/s | 2.9 kB   00:02
Dependencies resolved.
=====
Package                Architecture      Version           Repository        Size
=====
Installing:
vsftpd                 x86_64            3.0.5-5.el9      appstream         157 k
=====
Transaction Summary
=====
Install 1 Package

Total download size: 157 k
Installed size: 347 k
Downloading Packages:
vsftpd-3.0.5-5.el9.x86_64.rpm                        349 kB/s | 157 kB    00:00
-----
Total                                                31 kB/s | 157 kB    00:05
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Installing     : vsftpd-3.0.5-5.el9.x86_64      1/1
  Running scriptlet: vsftpd-3.0.5-5.el9.x86_64    1/1
  Verifying      : vsftpd-3.0.5-5.el9.x86_64      1/1
```

systemctl start vsftpd systemctl status vsftpd

Вывод команды должен показать, что служба в настоящее время работает, но не будет активирована при перезапуске операционной системы.

```
[root@chileshelupupa ~]# systemctl start vsftpd
[root@chileshelupupa ~]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; disabled; preset: disabled)
   Active: active (running) since Sat 2024-10-05 18:08:44 MSK; 21s ago
     Process: 3454 ExecStart=/usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf (code=exited, status=0/SUCCESS)
    Main PID: 3455 (vsftpd)
       Tasks: 1 (limit: 24674)
      Memory: 712.0K
         CPU: 6ms
        CGroup: /system.slice/vsftpd.service
                └─3455 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Oct 05 18:08:44 chileshelupupa.localdomain systemd[1]: Starting Vsftpd ftp daemon...
Oct 05 18:08:44 chileshelupupa.localdomain systemd[1]: Started Vsftpd ftp daemon.
[root@chileshelupupa ~]#
```


ls /etc/systemd/system/multi-user.target.wants

- Должно отобразиться, что ссылка на vsftpd.service не существует.

```
[root@chileshepupa ~]# ls /etc/systemd/system/multi-user.target.wants
atd.service          cups.path            libstoragemgmt.service  remote-fs.target      tuned.service
auditd.service       cups.service         mcelog.service         rsyslog.service       vboxadd.service
avahi-daemon.service firewallld.service    mdmonitor.service      smartd.service        vboxadd-service.service
chronyd.service      irqbalance.service  ModemManager.service  sshd.service          vmtoolsd.service
crond.service        kdump.service       NetworkManager.service sssd.service
[root@chileshepupa ~]#
```

systemctl enable vsftpd

```
[root@chilshelupupa ~]# systemctl enable vsftpd
Created symlink /etc/systemd/system/multi-user.target.wants/vsftpd.service → /usr/lib/systemd/system/vsftpd.service.
[root@chilshelupupa ~]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; enabled; preset: disabled)
   Active: active (running) since Sat 2024-10-05 18:08:44 MSK; 2min 34s ago
     Main PID: 3455 (vsftpd)
       Tasks: 1 (limit: 24674)
      Memory: 712.0K
         CPU: 6ms
       CGroup: /system.slice/vsftpd.service
              └─3455 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Oct 05 18:08:44 chilshelupupa.localdomain systemd[1]: Starting Vsftpd ftp daemon...
Oct 05 18:08:44 chilshelupupa.localdomain systemd[1]: Started Vsftpd ftp daemon.
```

Теперь вы увидите, что для файла юнита состояние изменено с disabled на enabled.e'

```
[root@chilshelupupa ~]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; enabled; preset: disabled)
   Active: active (running) since Sat 2024-10-05 18:08:44 MSK; 6min ago
     Main PID: 3455 (vsftpd)
        Tasks: 1 (limit: 24674)
       Memory: 712.0K
          CPU: 6ms
      CGroup: /system.slice/vsftpd.service
              └─3455 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Oct 05 18:08:44 chilshelupupa.localdomain systemd[1]: Starting Vsftpd ftp daemon...
Oct 05 18:08:44 chilshelupupa.localdomain systemd[1]: Started Vsftpd ftp daemon.
[root@chilshelupupa ~]#
```

systemctl list-dependencies vsftpd

```
[root@chileshelepupa ~]# systemctl list-dependencies vsftpd
```

```
vsftpd.service
```

```
● └─system.slice
● └─sysinit.target
●   └─dev-hugepages.mount
●   └─dev-mqueue.mount
●   └─dracut-shutdown.service
○   └─iscsi-onboot.service
○   └─iscsi-starter.service
●   └─kmod-static-nodes.service
○   └─ldconfig.service
●   └─lvm2-lvmpolld.socket
●   └─lvm2-monitor.service
○   └─multipathd.service
●   └─nis-domainname.service
●   └─plymouth-read-write.service
●   └─plymouth-start.service
●   └─proc-sys-fs-binfmt_misc.automount
○   └─selinux-autorelabel-mark.service
●   └─sys-fs-fuse-connections.mount
●   └─sys-kernel-config.mount
●   └─sys-kernel-debug.mount
●   └─sys-kernel-tracing.mount
○   └─systemd-ask-password-console.path
○   └─systemd-binfmt.service
○   └─systemd-boot-random-seed.service
●   └─systemd-boot-update.service
○   └─systemd-firstboot.service
○   └─systemd-hwdb-update.service
○   └─systemd-journal-catalog-update.service
●   └─systemd-journal-flush.service
●   └─systemd-journald.service
○   └─systemd-machine-id-commit.service
●   └─systemd-modules-load.service
●   └─systemd-network-generator.service
```

```
[root@chilshelupupa ~]# systemctl list-dependencies vsftpd --reverse
vsftpd.service
● └─multi-user.target
●   └─graphical.target
[root@chilshelupupa ~]#
```

Конфликты юнитов

dnf -y install iptables*

```
[root@chilesheupupa ~]# dnf -y install iptables*
Last metadata expiration check: 0:11:25 ago on Sat 05 Oct 2024 06:07:46 PM MSK.
Package iptables-libs-1.8.10-2.el9.x86_64 is already installed.
Package iptables-nft-1.8.10-2.el9.x86_64 is already installed.
Dependencies resolved.
=====
Package                                Architecture      Version           Repository        Size
=====
Installing:
iptables-devel                         x86_64            1.8.10-4.el9_4    appstream         14 k
iptables-nft-services                 noarch            1.8.10-4.el9_4    appstream         17 k
iptables-utils                         x86_64            1.8.10-4.el9_4    baseos            40 k
Upgrading:
iptables-libs                         x86_64            1.8.10-4.el9_4    baseos            396 k
iptables-nft                          x86_64            1.8.10-4.el9_4    baseos            186 k
Transaction Summary
=====
Install 3 Packages
Upgrade 2 Packages

Total download size: 654 k
Downloading Packages:
(1/5): iptables-utils-1.8.10-4.el9_4.x86_64.rpm           87 kB/s | 40 kB    00:00
(2/5): iptables-devel-1.8.10-4.el9_4.x86_64.rpm           28 kB/s | 14 kB    00:00
(3/5): iptables-nft-1.8.10-4.el9_4.x86_64.rpm            774 kB/s | 186 kB  00:00
(4/5): iptables-libs-1.8.10-4.el9_4.x86_64.rpm           1.0 MB/s | 396 kB  00:00
(5/5): iptables-nft-services-1.8.10-4.el9_4.noarch.rpm    2.8 kB/s | 17 kB   00:06
-----
Total                                                    50 kB/s | 654 kB   00:13
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Upgrading      : iptables-libs-1.8.10-4.el9_4.x86_64 1/7
  Upgrading      : iptables-nft-1.8.10-4.el9_4.x86_64 2/7
  Running scriptlet: iptables-nft-1.8.10-4.el9_4.x86_64 2/7
```

systemctl status firewalld

```
[root@chileshelepupa ~]# systemctl status firewalld
● firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-10-05 18:01:36 MSK; 18min ago
     Docs: man:firewalld(1)
    Main PID: 786 (firewalld)
      Tasks: 2 (limit: 24674)
     Memory: 44.2M
        CPU: 988ms
    CGroup: /system.slice/firewalld.service
            └─786 /usr/bin/python3 -s /usr/sbin/firewalld --nofork --nopid

Oct 05 18:01:35 chileshelepupa.localdomain systemd[1]: Starting firewalld - dynamic firewall daemon...
Oct 05 18:01:36 chileshelepupa.localdomain systemd[1]: Started firewalld - dynamic firewall daemon.
[root@chileshelepupa ~]# systemctl status iptables
○ iptables.service - IPv4 firewall with iptables
   Loaded: loaded (/usr/lib/systemd/system/iptables.service; disabled; preset: disabled)
   Active: inactive (dead)
[root@chileshelepupa ~]#
```


systemctl status iptables

```
[root@chileshelepupa ~]# systemctl start firewalld
[root@chileshelepupa ~]# systemctl start iptables
[root@chileshelepupa ~]# systemctl status firewalld
○ firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: inactive (dead) since Sat 2024-10-05 18:21:31 MSK; 21s ago
     Duration: 19min 54.957s
       Docs: man:firewalld(1)
    Process: 786 ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS (code=exited, status=0/SUCCESS)
   Main PID: 786 (code=exited, status=0/SUCCESS)
      CPU: 1.052s

Oct 05 18:01:35 chileshelepupa.localdomain systemd[1]: Starting firewalld - dynamic firewall daemon...
Oct 05 18:01:36 chileshelepupa.localdomain systemd[1]: Started firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopping firewalld - dynamic firewall daemon...
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Deactivated successfully.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopped firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Consumed 1.052s CPU time.
[root@chileshelepupa ~]# systemctl status firewalld
○ firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: inactive (dead) since Sat 2024-10-05 18:21:31 MSK; 52s ago
     Duration: 19min 54.957s
       Docs: man:firewalld(1)
    Process: 786 ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS (code=exited, status=0/SUCCESS)
   Main PID: 786 (code=exited, status=0/SUCCESS)
      CPU: 1.052s

Oct 05 18:01:35 chileshelepupa.localdomain systemd[1]: Starting firewalld - dynamic firewall daemon...
Oct 05 18:01:36 chileshelepupa.localdomain systemd[1]: Started firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopping firewalld - dynamic firewall daemon...
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Deactivated successfully.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopped firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Consumed 1.052s CPU time.
[root@chileshelepupa ~]# systemctl status iptables
● iptables.service - IPv4 firewall with iptables
   Loaded: loaded (/usr/lib/systemd/system/iptables.service; disabled; preset: disabled)
   Active: active (exited) since Sat 2024-10-05 18:21:31 MSK; 58s ago
     Process: 3941 ExecStart=/usr/libexec/iptables/iptables.init start (code=exited, status=0/SUCCESS)
   Main PID: 3941 (code=exited, status=0/SUCCESS)
      CPU: 21ms

Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Starting IPv4 firewall with iptables...
Oct 05 18:21:31 chileshelepupa.localdomain iptables.init[3941]: iptables: Applying firewall rules: [ OK ]
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Finished IPv4 firewall with iptables.
[root@chileshelepupa ~]#
```

systemctl start firewalld systemctl start iptables

```
[root@chileshelepupa ~]# systemctl start firewalld
[root@chileshelepupa ~]# systemctl start iptables
[root@chileshelepupa ~]# systemctl status firewalld
○ firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: inactive (dead) since Sat 2024-10-05 18:21:31 MSK; 21s ago
     Duration: 19min 54.957s
       Docs: man:firewalld(1)
    Process: 786 ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS (code=exited, status=0/SUCCESS)
   Main PID: 786 (code=exited, status=0/SUCCESS)
      CPU: 1.052s

Oct 05 18:01:35 chileshelepupa.localdomain systemd[1]: Starting firewalld - dynamic firewall daemon...
Oct 05 18:01:36 chileshelepupa.localdomain systemd[1]: Started firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopping firewalld - dynamic firewall daemon...
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Deactivated successfully.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopped firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Consumed 1.052s CPU time.
[root@chileshelepupa ~]# systemctl status firewalld
○ firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: inactive (dead) since Sat 2024-10-05 18:21:31 MSK; 52s ago
     Duration: 19min 54.957s
       Docs: man:firewalld(1)
    Process: 786 ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS (code=exited, status=0/SUCCESS)
   Main PID: 786 (code=exited, status=0/SUCCESS)
      CPU: 1.052s

Oct 05 18:01:35 chileshelepupa.localdomain systemd[1]: Starting firewalld - dynamic firewall daemon...
Oct 05 18:01:36 chileshelepupa.localdomain systemd[1]: Started firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopping firewalld - dynamic firewall daemon...
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Deactivated successfully.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Stopped firewalld - dynamic firewall daemon.
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: firewalld.service: Consumed 1.052s CPU time.
[root@chileshelepupa ~]# systemctl status iptables
● iptables.service - IPv4 firewall with iptables
   Loaded: loaded (/usr/lib/systemd/system/iptables.service; disabled; preset: disabled)
   Active: active (exited) since Sat 2024-10-05 18:21:31 MSK; 58s ago
     Process: 3941 ExecStart=/usr/libexec/iptables/iptables.init start (code=exited, status=0/SUCCESS)
   Main PID: 3941 (code=exited, status=0/SUCCESS)
      CPU: 21ms

Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Starting IPv4 firewall with iptables...
Oct 05 18:21:31 chileshelepupa.localdomain iptables.init[3941]: iptables: Applying firewall rules: [ OK ]
Oct 05 18:21:31 chileshelepupa.localdomain systemd[1]: Finished IPv4 firewall with iptables.
[root@chileshelepupa ~]#
```

cat /usr/lib/systemd/system/firewalld.service

```
[root@chileshelepupa ~]# cat /usr/lib/systemd/system/firewalld.service
[Unit]
Description=firewalld - dynamic firewall daemon
Before=network-pre.target
Wants=network-pre.target
After=dbus.service
After=polkit.service
Conflicts=iptables.service ip6tables.service ebtables.service ipset.service nftables.service
Documentation=man:firewalld(1)

[Service]
EnvironmentFile=-/etc/sysconfig/firewalld
ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS
ExecReload=/bin/kill -HUP $MAINPID
# supress to log debug and error output also to /var/log/messages
StandardOutput=null
StandardError=null
Type=dbus
BusName=org.fedoraproject.FirewallD1
KillMode=mixed

[Install]
WantedBy=multi-user.target
Alias=dbus-org.fedoraproject.FirewallD1.service
```

cat /usr/lib/systemd/system/iptables.service

```
[root@chileshelepupa ~]# cat /usr/lib/systemd/system/firewalld.service
[Unit]
Description=firewalld - dynamic firewall daemon
Before=network-pre.target
Wants=network-pre.target
After=dbus.service
After=polkit.service
Conflicts=iptables.service ip6tables.service ebtables.service ipset.service nftables.service
Documentation=man:firewalld(1)

[Service]
EnvironmentFile=-/etc/sysconfig/firewalld
ExecStart=/usr/sbin/firewalld --nofork --nopid $FIREWALLD_ARGS
ExecReload=/bin/kill -HUP $MAINPID
# supress to log debug and error output also to /var/log/messages
StandardOutput=null
StandardError=null
Type=dbus
BusName=org.fedoraproject.FirewallD1
KillMode=mixed

[Install]
WantedBy=multi-user.target
Alias=dbus-org.fedoraproject.FirewallD1.service
```

systemctl stop iptables и загрузите службу firewalld systemctl start firewalld

```
[root@chileshelepupa ~]# systemctl stop iptables  
[root@chileshelepupa ~]# systemctl start firewalld  
[root@chileshelepupa ~]#
```

```
[root@chileshelupupa ~]# systemctl mask iptables
Created symlink /etc/systemd/system/iptables.service → /dev/null.
[root@chileshelupupa ~]# systemctl start iptables
Failed to start iptables.service: Unit iptables.service is masked.
[root@chileshelupupa ~]#
```

systemctl enable iptables

```
[root@chileshelupupa ~]# systemctl enable iptables
Failed to enable unit: Unit file /etc/systemd/system/iptables.service is masked.
[root@chileshelupupa ~]#
```