

# Лабораторная работа №13

Презентация

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# Информация

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## **Элементы презентации**

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Целью данной лабораторной работы является получение навыков настройки пакетного фильтра в Linux.

# Выполнение лабораторной работы

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# Управление брандмауэром с помощью firewall-cmd

```
[ermimash@ermimash ~]$ su -
Password:
[root@ermimash ~]# firewall-cmd --get-default-zone
public
[root@ermimash ~]# firewall-cmd --get-zones
block dmz drop external home internal nm-shared public trusted work
[root@ermimash ~]# firewall-cmd --get-services
RH-Satellite-6 RH-Satellite-6-capsule afp amanda-client amanda-k5-client amqp amqps apcupsd audit ausweisapp2 bacula
acula-client bareos-director bareos-filedaemon bareos-storage bb bgp bitcoin bitcoin-rpc bitcoin-testnet bitcoin-test
et-rpc bittorrent-lsd ceph ceph-exporter ceph-mon cfengine checkmk-agent cockpit collectd condor-collector cratedb ct
b dds dds-multicast dds-unicast dhcp dhcpv6 dhcpv6-client distcc dns dns-over-tls docker-registry docker-swarm dropbo
-lansync elasticsearch etcd-client etcd-server finger foreman foreman-proxy freeipa-4 freeipa-ldap freeipa-ldaps free
pa-replication freeipa-trust ftp galera ganglia-client ganglia-master git gpsd grafana gre high-availability http htt
3 https ident imap imaps ipfs ipp ipp-client ipsec irc ircs iscsi-target isns jenkins kadmin kdeconnect kerberos kiba
a klogin kpasswd kprop kshell kube-api kube-apiserver kube-control-plane kube-control-plane-secure kube-controller-ma
ager kube-controller-manager-secure kube-nodeport-services kube-scheduler kube-scheduler-secure kube-worker kubelet k
belet-readonly kubelet-worker ldap ldaps libvirt libvirt-tls lightning-network llmnr llmnr-client llmnr-tcp llmnr-udp
managesieve matrix mdns memcache minidlna mongodb mosh mountd mqtt mqtt-tls ms-wbt mssql murmur mysql nbd nebula netb
os-ns netdata-dashboard nfs nfs3 nmea-0183 nrpe ntp nut opentelemetry openvpn ovirt-imageio ovirt-storageconsole ovir
-vmconsole plex pmcd pmproxy pmwebapi pmwebapis pop3 pop3s postgresql privoxy prometheus prometheus-node-exporter pro
y-dhcp ps2link ps3netshr ptp pulseaudio puppetmaster quassel radius rdp redis redis-sentinel rootd rpc-bind rquotad r
h rsyncd rtsp salt-master samba samba-client samba-dc sane sip sipd smtp smtp-submission smtps snmp snmptls snmptr
s-trap snmptrap spideroak-lansync spotify-sync squid ssdp ssh steam-streaming svdrp svn syncthing syncthing-gui synct
ing-relay synergy syslog syslog-tls telnet tentacle tftp tile38 tinc tor-socks transmission-client upnp-client vdsu v
c-server warpinator wbem-http wbem-https wireguard ws-discovery ws-discovery-client ws-discovery-tcp ws-discovery-udp
wsman wsman-xdmc xdmcp xmpp-bosh xmpp-client xmpp-local xmpp-server zabbix-agent zabbix-server zerotier
[root@ermimash ~]# firewall-cmd --list-services
cockpit dhcpv6-client ssh
[root@ermimash ~]# firewall-cmd --list-all
public (active)
target: default
icmp-block-inversion: no
interfaces: enp0s3
sources:
services: cockpit dhcpv6-client ssh
ports:
protocols:
forward: yes
masquerade: no
forward-ports:
source-ports:
```

# Добавление VNC

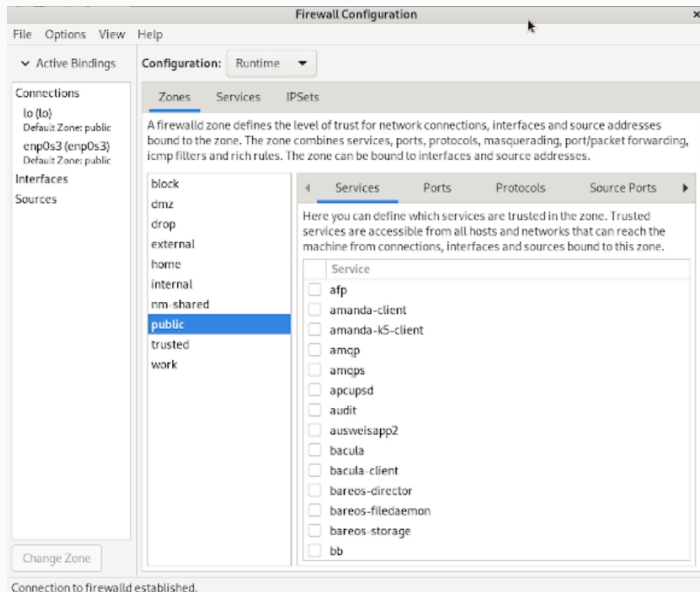
```
[root@ermimash ~]# firewall-cmd --list-all --zone=public
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh
  ports:
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[root@ermimash ~]# firewall-cmd --add-service=vnc-server
success
[root@ermimash ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh vnc-server
  ports:
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[root@ermimash ~]# systemctl restart firewalld
[root@ermimash ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh
  ports:
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
```



# Добавление конфигураций

```
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh
  ports:
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[root@ermimash ~]# firewall-cmd --reload
success
[root@ermimash ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh vnc-server
  ports:
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[root@ermimash ~]# firewall-cmd --add-port=2022/tcp --permanent
success
[root@ermimash ~]# firewall-cmd --reload
success
[root@ermimash ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ssh vnc-server
  ports: 2022/tcp
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
```

# Настройки брандмауэра



# Управление брандмауэром с помощью firewall-config

```
* Waiting in queue...
* Loading list of packages....
The following packages have to be installed:
dbus-x11-1:1.12.20-8.el9.x86_64      X11-requiring add-ons for D-BUS
firewall-config-1.3.4-15.el9.noarch Firewall configuration application
Proceed with changes? [N/y] y
```

```
* Waiting in queue...
* Waiting for authentication...
```

```
* Waiting in queue...
* Downloading packages...
* Requesting data...
* Testing changes...
* Installing packages...
```

```
[ermimash@ermimash ~]$
[ermimash@ermimash ~]$ firewall-cmd --list-all
public (active)
target: default
icmp-block-inversion: no
interfaces: enp0s3
sources:
services: cockpit dhcpv6-client ssh vnc-server
ports: 2022/tcp
protocols:
forward: yes
masquerade: no
forward-ports:
source-ports:
icmp-blocks:
rich rules:
```

```
[ermimash@ermimash ~]$ firewall-cmd --reload
success
```

```
[ermimash@ermimash ~]$ firewall-cmd --list-all
public (active)
target: default
icmp-block-inversion: no
interfaces: enp0s3
sources:
services: cockpit dhcpv6-client ftp http https ssh vnc-server
ports: 2022/tcp 2022/udp
protocols:
forward: yes
masquerade: no
forward-ports:
```

# Самостоятельная работа

```
[ermimash@ermimash ~]$ firewall-cmd --reload
success
[ermimash@ermimash ~]$ firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ftp http https ssh vnc-server
  ports: 2022/tcp 2022/udp
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[ermimash@ermimash ~]$ su -
Password:
[root@ermimash ~]# firewall-cmd --add-service=telnet --permanent
success
[root@ermimash ~]# firewall-config
[root@ermimash ~]# firewall-cmd --reload
success
[root@ermimash ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client ftp http https imap pop3 smtp ssh telnet vnc-server
  ports: 2022/tcp 2022/udp
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
```

Рис. 6: Самостоятельная работа

Получены навыки настройки пакетного фильтра в Linux.