

Лабораторная работа №9

Настройка POP3/IMAP сервера

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Цель работы

Целью данной работы является приобретение практических навыков по установке и простейшему конфигурированию ROP3/IMAP-сервера.

Установка Dovecot

```
root@server:~  
[claudely@server.claudely.net ~]$ sudo -i  
[sudo] password for claudely:  
[root@server.claudely.net ~]# dnf -y install dovecot telnet  
Extra Packages for Enterprise Linux 9 - x86_64      10 kB/s | 36 kB      00:03  
Extra Packages for Enterprise Linux 9 - x86_64      3.1 MB/s | 23 MB      00:07  
Rocky Linux 9 - BaseOS                             626 B/s | 4.1 kB      00:06  
Rocky Linux 9 - BaseOS                             3.1 MB/s | 2.3 MB      00:00  
Rocky Linux 9 - AppStream                          15 kB/s | 4.5 kB      00:00  
Rocky Linux 9 - AppStream                          9.2 MB/s | 8.0 MB      00:00  
Rocky Linux 9 - Extras                             9.0 kB/s | 2.9 kB      00:00  
Dependencies resolved.  
=====
```

Package	Arch	Version	Repository	Size
Installing:				
dovecot	x86_64	1:2.3.16-11.el9_4.1	appstream	4.7 M
telnet	x86_64	1:0.17-85.el9	appstream	63 k
Installing dependencies:				
clucene-core	x86_64	2.3.3.4-42.20130812.e8e3d20git.el9	appstream	585 k
libexttextcat	x86_64	3.4.5-11.el9	appstream	209 k

```
Transaction Summary  
=====
```

Transaction Summary			
Install	4 Packages		
Total download size: 5.6 M			
Installed size: 20 M			
Downloading Packages:			
(1/4): telnet-0.17-85.el9.x86_64.rpm	407 kB/s 63 kB	00:00	
(2/4): clucene-core-2.3.3.4-42.20130812.e8e3d20git.el9.x86_64.rpm	2.8 MB/s 585 kB	00:00	
(3/4): libexttextcat-3.4.5-11.el9.x86_64.rpm	1.0 MB/s 209 kB	00:00	
(4/4): dovecot-2.3.16-11.el9_4.1.x86_64.rpm	13 MB/s 4.7 MB	00:00	
Total	6.5 MB/s 5.6 MB	00:00	

```
Running transaction check  
Transaction check succeeded.  
Running transaction test  
Transaction test succeeded.  
Running transaction
```

Рис. 1. Открытие режима суперпользователя и установка пакета dovecot telnet.

Настройка dovecot

```
[root@server.claudely.net ~]#  
[root@server.claudely.net ~]# postconf -e 'home_mailbox = Maildir/'  
[root@server.claudely.net ~]#
```

Рис. 2.1. Настройка в Postfix каталога для доставки почты.

Настройка dovecot

```
[root@server.claudely.net ~]#  
[root@server.claudely.net ~]# postconf -e 'home_mailbox = Maildir/'  
[root@server.claudely.net ~]#  
[root@server.claudely.net ~]# firewall-cmd --get-services  
RH-Satellite-6 RH-Satellite-6-capsule afp amanda-client amanda-k5-client amqp amqps apcups  
d audit ausweisapp2 bacula bacula-client bareos-director bareos-filedaemon bareos-storage  
bb bgp bitcoin bitcoin-rpc bitcoin-testnet bitcoin-testnet-rpc bittorrent-lsd ceph ceph-ex  
porter ceph-mon cfengine checkmk-agent cockpit collectd condor-collector cratedb ctdb dds  
dds-multicast dds-unicast dhcp dhcpv6 dhcpv6-client distcc dns dns-over-tls docker-registr  
y docker-swarm dropbox-lansync elasticsearch etcd-client etcd-server finger foreman forema  
n-proxy freeipa-4 freeipa-ldap freeipa-ldaps freeipa-replication freeipa-trust ftp galera  
ganglia-client ganglia-master git gpsd grafana gre high-availability http http3 https iden  
t imap imaps ipfs ipp ipp-client ipsec irc ircs iscsi-target isns jenkins kadmin kdeconnec  
t kerberos kibana klogin kpasswd kprop kshell kube-api kube-apiserver kube-control-plane k  
ube-control-plane-secure kube-controller-manager kube-controller-manager-secure kube-nodep  
ort-services kube-scheduler kube-scheduler-secure kube-worker kubelet kubelet-readonly kub  
elet-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-w  
bt mssql murmur mysql nbd nebula netbios-ns netdata-dashboard nfs nfs3 nmea-0183 nrpe ntp  
nut openvpn ovirt-imageio ovirt-storageconsole ovirt-vmconsole plex pmcd pmpoxy pmwebapi  
pmwebapis pop3 pop3s postgresql privoxy prometheus prometheus-node-exporter proxy-dhcp ps2  
link ps3netshr ptp pulseaudio puppetmaster quassel radius rdp redis redis-sentinel rpc-bin  
d rquotad rsh rsyncd rtsp salt-master samba samba-client samba-dc sane sip sips slp smtp s  
mtp-submission smtps snmp snmptls snmptls-trap snmptrap spideroak-lansync spotify-sync squ  
id sssd ssh ssh-custom steam-streaming svdrp svn syncthing syncthing-gui syncthing-relay s  
ynergy syslog syslog-tls telnet tentacle tftp tile38 tinc tor-socks transmission-client up  
np-client vdsms vnc-server warpinator wbem-http wbem-https wireguard ws-discovery ws-discov  
ery-client ws-discovery-tcp ws-discovery-udp wsman wsmans xdmcp xmpp-bosh xmpp-client xmpp  
-local xmpp-server zabbix-agent zabbix-server zerotier  
[root@server.claudely.net ~]# firewall-cmd --add-service=pop3 --permanent  
success  
[root@server.claudely.net ~]# firewall-cmd --add-service=pop3s --permanent  
success  
[root@server.claudely.net ~]# firewall-cmd --add-service=imap --permanent  
success  
[root@server.claudely.net ~]# firewall-cmd --add-service=imaps --permanent  
success  
[root@server.claudely.net ~]# firewall-cmd --reload  
bash: firewall-cmd: command not found...  
[root@server.claudely.net ~]# firewall-cmd --reload  
success  
[root@server.claudely.net ~]# firewall-cmd --list-services  
cockpit dhcp dhcpv6-client dns http https imap imaps pop3 pop3s smtp ssh ssh-custom  
[root@server.claudely.net ~]#
```

Рис. 2.2. Конфигурация межсетевого экрана, разрешив работать службам протоколов POP3 и IMAP.

Настройка dovecot

```
[root@server.claudely.net ~]#  
[root@server.claudely.net ~]# restorecon -vR /etc  
[root@server.claudely.net ~]# systemctl restart postfix  
[root@server.claudely.net ~]# systemctl enable dovecot  
Created symlink /etc/systemd/system/multi-user.target.wants/dovecot.service → /usr/lib/systemd/system/dovecot.service.  
[root@server.claudely.net ~]# systemctl start dovecot  
[root@server.claudely.net ~]#
```

Рис. 2.3. Восстановление контекста безопасности в SELinux. Перезапуск Postfix и запуск Dovecot.

Проверка работы Dovecot

```
[root@server.claudely.net ~]#  
[root@server.claudely.net ~]# MAIL=~/Maildir mail  
s-nail: No mail for root at /root/Maildir  
s-nail: /root/Maildir: No such entry, file or directory  
[root@server.claudely.net ~]# doveadm mailbox list -u claudely  
INBOX  
[root@server.claudely.net ~]#
```

Рис. 3.1. Просмотр на терминале сервера имеющейся почты и mailbox пользователя.

Проверка работы Dovecot

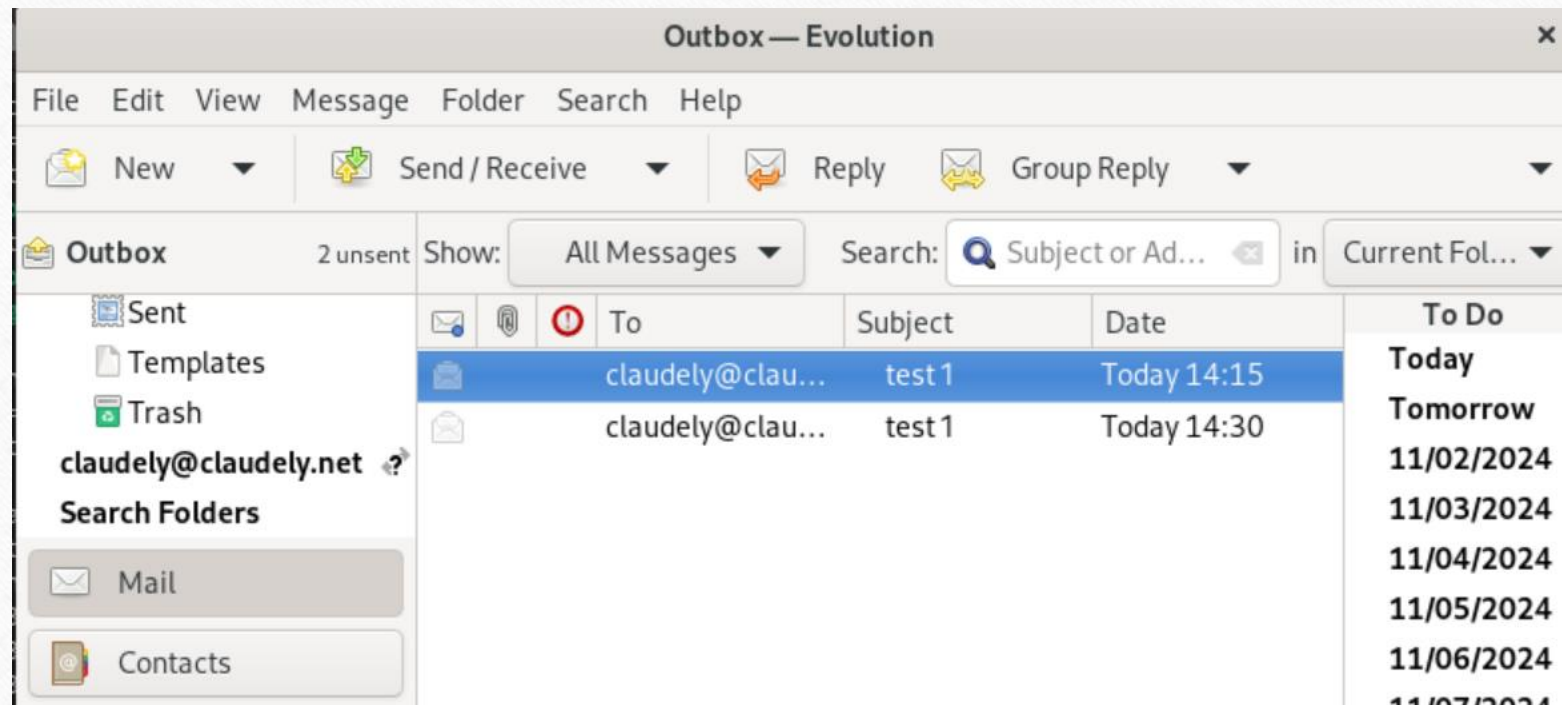


Рис. 3.2. Отправка из почтового клиента нескольких тестовых писем и проверка их доставки.

Проверка работы Dovecot

```
[root@server.claudely.net ~]# tail -f /var/log/maillog
Oct 31 13:16:06 server postfix/qmgr[48550]: 3CEC29252F9: from=<>, status=expired, returned
to sender
Oct 31 13:16:06 server postfix/qmgr[48550]: 3CEC29252F9: removed
Oct 31 13:16:06 server postfix/smtp[49420]: 1F6CD925301: to=<root@client.claudely.net>, re
lay=none, delay=572916, delays=572916/0.13/0/0, dsn=4.4.3, status=deferred (Host or domain
name not found. Name service error for name=client.claudely.net type=MX: Host not found,
try again)
Oct 31 13:16:06 server postfix/qmgr[48550]: 1F6CD925301: from=<>, status=expired, returned
to sender
Oct 31 13:16:06 server postfix/qmgr[48550]: 1F6CD925301: removed
Oct 31 13:41:42 server postfix/postfix-script[50401]: stopping the Postfix mail system
Oct 31 13:41:42 server postfix/master[48173]: terminating on signal 15
Oct 31 13:41:42 server postfix/postfix-script[50477]: starting the Postfix mail system
Oct 31 13:41:42 server postfix/master[50479]: daemon started -- version 3.5.9, configurati
on /etc/postfix
Oct 31 13:42:07 server dovecot[50533]: master: Dovecot v2.3.16 (7e2e900c1a) starting up fo
r imap, pop3 (core dumps disabled)
```

Рис. 3.3. Просмотр сообщений, выдающихся при мониторинге почтовой службы на сервере.

Проверка работы Dovecot

```
log errors|find|reopen|test
mailbox cache|cache|create|delete|list|metadata|mutf7|path|rename|status|subscribe|
unsubscribe|update
move [-u <user>|-A] [-S <socket_path>] <destination> [user <source user>] <search
query>
oldstats dump|reset|top
penalty [-a <anvil socket path>] [<ip/bits>]
process status
proxy kick|list
purge [-u <user>|-A] [-S <socket_path>]
pw [-l] [-p plaintext] [-r rounds] [-s scheme] [-t hash] [-u user] [-V]
rebuild attachments
reload
replicator add|dsync-status|remove|replicate|status
save [-u <user>|-A] [-S <socket_path>] [-m mailbox]
search [-u <user>|-A] [-S <socket_path>] <search query>
service status|stop
sis deduplicate|find
stats dump
stop
sync [-u <user>|-A] [-S <socket_path>] [-lfPRU] [-l <secs>] [-r <rawlog path>] [-m <mailbox>] [-g <mailbox_guid>] [-n <namespace>] [-N] [-x <exclude>] [-s <state>] [-t <start date>] -d|<dest>
user [-a <userdb socket path>] [-x <auth info>] [-f field] [-e <value>] [-u <user mask>] [...]
who [-a <anvil socket path>] [-l] [<user mask>] [<ip/bits>]
zlibconnect <host> [<port>]
[root@server.claudely.net ~]# mail
s-nail: No mail for root at /var/spool/mail/root
s-nail: /var/spool/mail/root: No such entry, file or directory
[root@server.claudely.net ~]#
```

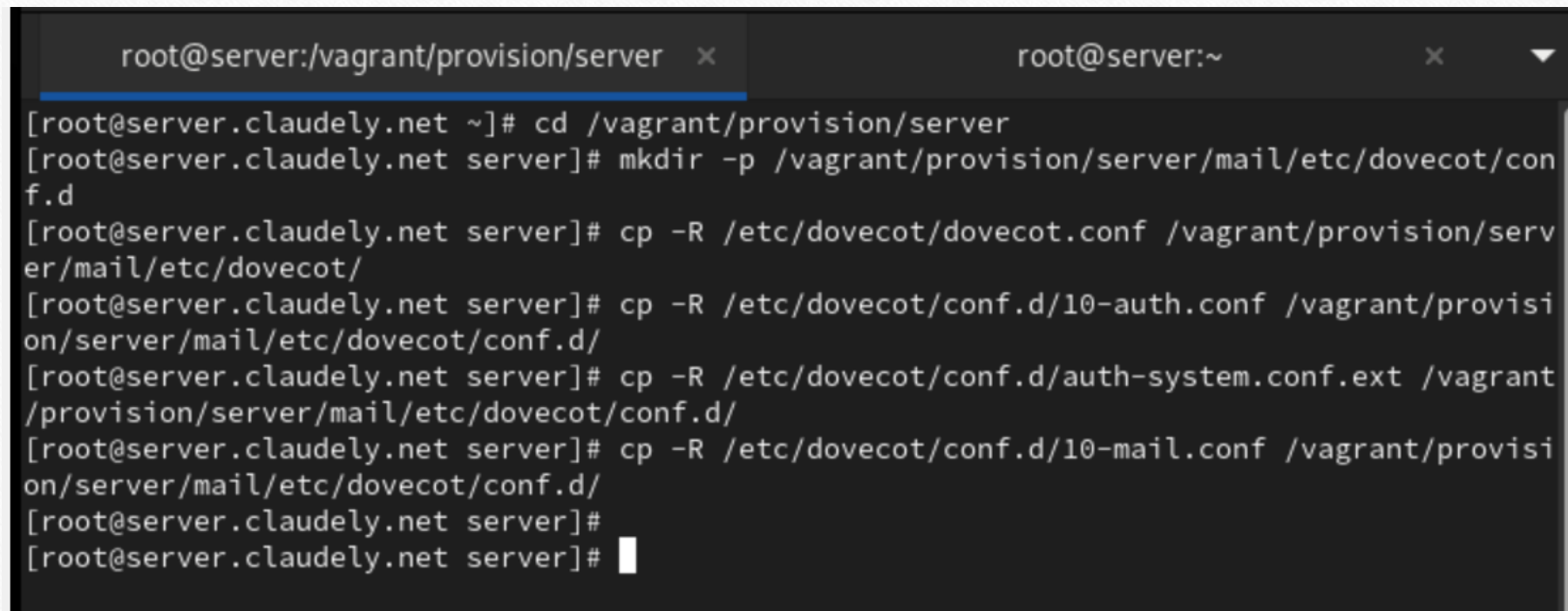
Рис. 3.4. Просмотр сообщений, выдающихся при использовании doveadm и mail.

Проверка работы Dovecot

```
[root@client.claudely.net ~]#  
[root@client.claudely.net ~]# postconf inet_protocols  
inet_protocols = all  
[root@client.claudely.net ~]# postconf -e 'inet_protocols = ipv4'  
[root@client.claudely.net ~]# systemctl enable postfix  
Created symlink /etc/systemd/system/multi-user.target.wants/postfix.service → /usr/lib/systemd/system/postfix.service.  
[root@client.claudely.net ~]# systemctl start postfix  
[root@client.claudely.net ~]#
```

Рис. 3.5. Подключение с помощью протокола Telnet к почтовому серверу по протоколу POP3 (через порт 110), ввод своего логина для подключения и пароля.

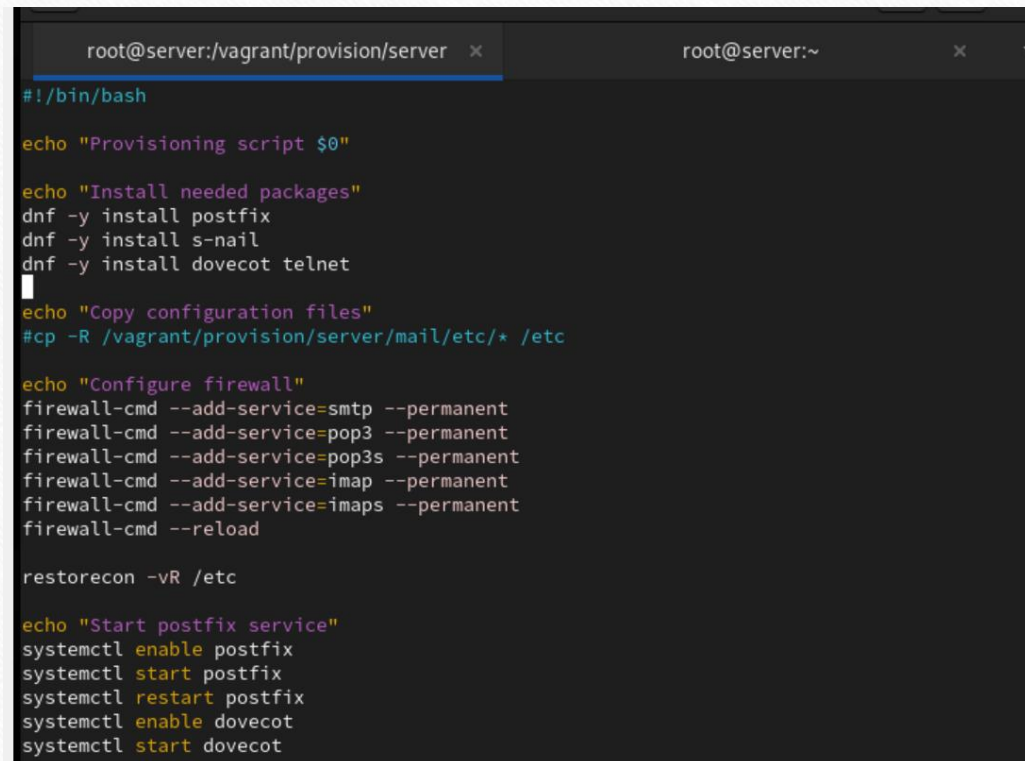
Внесение изменений в настройки внутреннего окружения виртуальной машины



```
root@server:/vagrant/provision/server x root@server:~ x ▼
[root@server.claudely.net ~]# cd /vagrant/provision/server
[root@server.claudely.net server]# mkdir -p /vagrant/provision/server/mail/etc/dovecot/conf.d
[root@server.claudely.net server]# cp -R /etc/dovecot/dovecot.conf /vagrant/provision/server/mail/etc/dovecot/
[root@server.claudely.net server]# cp -R /etc/dovecot/conf.d/10-auth.conf /vagrant/provision/server/mail/etc/dovecot/conf.d/
[root@server.claudely.net server]# cp -R /etc/dovecot/conf.d/auth-system.conf.ext /vagrant/provision/server/mail/etc/dovecot/conf.d/
[root@server.claudely.net server]# cp -R /etc/dovecot/conf.d/10-mail.conf /vagrant/provision/server/mail/etc/dovecot/conf.d/
[root@server.claudely.net server]#
[root@server.claudely.net server]#
```

Рис. 4.1. Переход на виртуальной машине `server` в каталог для внесения изменений в настройки внутреннего окружения `/vagrant/provision/server/`. Помещение в соответствующие подкаталоги конфигурационных файлов Dovecot и замена конфигурационного файла Postfix.

Внесение изменений в настройки внутреннего окружения виртуальной машины



```
root@server:/vagrant/provision/server x root@server:~ x
#!/bin/bash

echo "Provisioning script $0"

echo "Install needed packages"
dnf -y install postfix
dnf -y install s-nail
dnf -y install dovecot telnet

echo "Copy configuration files"
#cp -R /vagrant/provision/server/mail/etc/* /etc

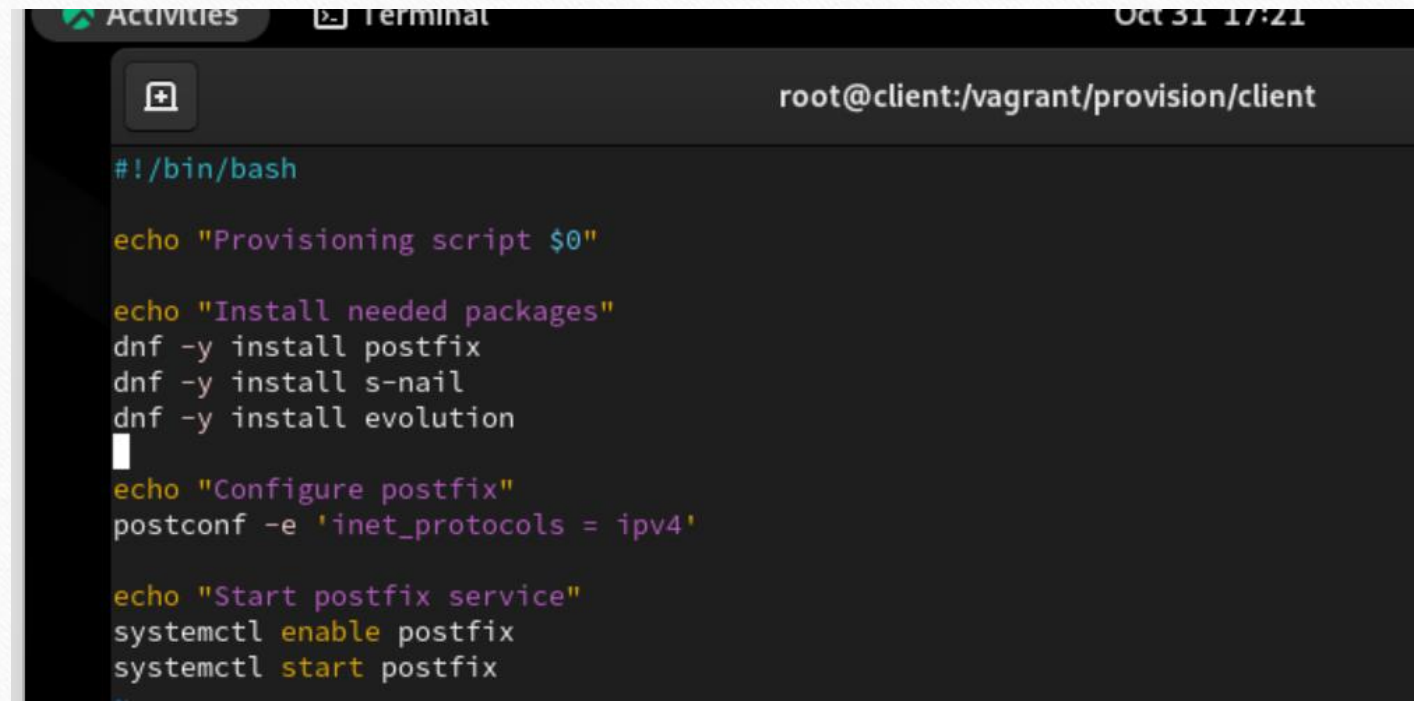
echo "Configure firewall"
firewall-cmd --add-service=smtp --permanent
firewall-cmd --add-service=pop3 --permanent
firewall-cmd --add-service=pop3s --permanent
firewall-cmd --add-service=imap --permanent
firewall-cmd --add-service=imaps --permanent
firewall-cmd --reload

restorecon -vR /etc

echo "Start postfix service"
systemctl enable postfix
systemctl start postfix
systemctl restart postfix
systemctl enable dovecot
systemctl start dovecot
```

Рис. 4.2. Внесение изменений в файл /vagrant/provision/server/mail.sh.

Внесение изменений в настройки внутреннего окружения виртуальной машины



```
Activities Terminal Oct 31 17:21
root@client:/vagrant/provision/client

#!/bin/bash

echo "Provisioning script $0"

echo "Install needed packages"
dnf -y install postfix
dnf -y install s-nail
dnf -y install evolution

echo "Configure postfix"
postconf -e 'inet_protocols = ipv4'

echo "Start postfix service"
systemctl enable postfix
systemctl start postfix
```

Рис. 4.3. Корректирование на виртуальной машине client в каталоге /vagrant/provision/client файла mail.sh.

ВЫВОД

В ходе выполнения лабораторной работы были приобретены практические навыки по установке и простейшему конфигурированию POP3/IMAP-сервера.

Спасибо за внимание !