

Администрирование сетевых подсистем

Настройка POP3/IMAP сервера (Лабораторная работа №9)

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Цели и задачи работы

Приобретение практических навыков по установке и конфигурированию POP3/IMAP-сервера на базе Postfix и Dovecot.

Выполнение лабораторной работы

Установка Dovecot

```
root@server:~ -- sudo -i

Package      Architecture Version      Repository      Size
-----
Installing:
dovecot      x86_64      1:2.3.21-16.el10      appstream      4.9 M
telnet       x86_64      1:0.17-94.el10       appstream      62 k

Transaction Summary
-----
Install 2 Packages

Total download size: 5.0 M
Installed size: 18 M
Downloading Packages:
(1/2): telnet-0.17-94.el10.x86_64.rpm      1.9 MB/s | 62 kB      00:00
(2/2): dovecot-2.3.21-16.el10.x86_64.rpm  14 MB/s | 4.9 MB      00:00
-----
Total                                      8.5 MB/s | 5.0 MB      00:00

Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Installing     : telnet-1:0.17-94.el10.x86_64  1/2
  Running scriptlet: dovecot-1:2.3.21-16.el10.x86_64  2/2
  Installing     : dovecot-1:2.3.21-16.el10.x86_64  2/2
  Running scriptlet: dovecot-1:2.3.21-16.el10.x86_64  2/2

Installed:
  dovecot-1:2.3.21-16.el10.x86_64      telnet-1:0.17-94.el10.x86_64

Complete!
[root@server.zmustafaev.net ~]#
```

Настройка протоколов

```
root@server:~ - sudo -i
dovecot.conf [----] 21 L:[ 1+24 25/103] *(1177/4317b) 0010 0x00A [*][X]
## Dovecot configuration file

# If you're in a hurry, see http://wiki2.dovecot.org/QuickConfiguration

# "doveconf -n" command gives a clean output of the changed settings. Use it
# instead of copy&pasting files when posting to the Dovecot mailing list.

# '#' character and everything after it is treated as comments. Extra spaces
# and tabs are ignored. If you want to use either of these explicitly, put the
# value inside quotes, eg.: key = "# char and trailing whitespace "

# Most (but not all) settings can be overridden by different protocols and/or
# source/destination IPs by placing the settings inside sections, for example:
# protocol imap { }, local 127.0.0.1 { }, remote 10.0.0.0/8 { }

# Default values are shown for each setting, it's not required to uncomment
# those. These are exceptions to this though: No sections (e.g. namespace {})
# or plugin settings are added by default, they're listed only as examples.
# Paths are also just examples with the real defaults being based on configure
# options. The paths listed here are for configure --prefix=/usr
# --sysconfdir=/etc --localstatedir=/var

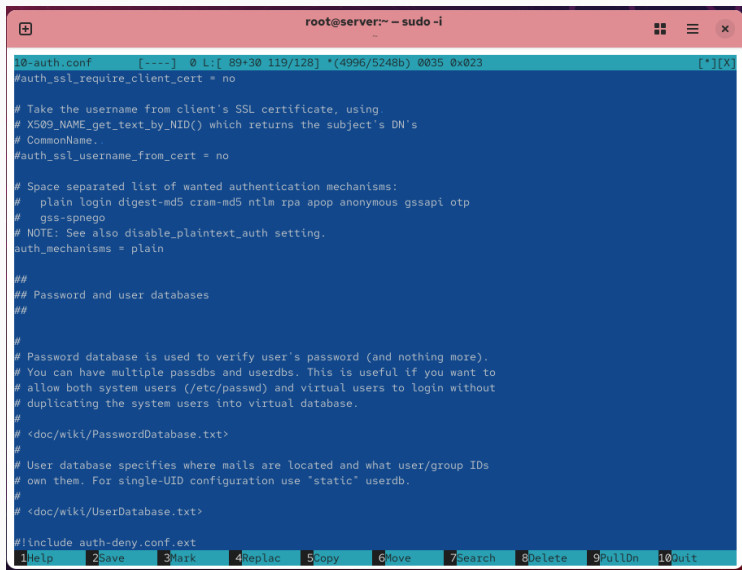
# Protocols we want to be serving.

protocols = imap pop3

# A comma separated list of IPs or hosts where to listen in for connections..
# "*" listens in all IPv4 interfaces, ":::" listens in all IPv6 interfaces.
# If you want to specify non-default ports or anything more complex,
# edit conf.d/master.conf.

#listen = *, :::
```

Настройка аутентификации



```
root@server:~ - sudo -i
10-auth.conf      [----] 0 L:[ 89+30 119/128] *(4996/5248b) 0035 0x023      [*][X]
#auth_ssl_require_client_cert = no

# Take the username from client's SSL certificate, using
# X509_NAME_get_text_by_NID() which returns the subject's DN's
# CommonName.
#auth_ssl_username_from_cert = no

# Space separated list of wanted authentication mechanisms:
#  plain login digest-md5 cram-md5 ntlm rpa apop anonymous gssapi otp
#  gss-spnego
# NOTE: See also disable_plaintext_auth setting.
auth_mechanisms = plain

##
## Password and user databases
##

#
# Password database is used to verify user's password (and nothing more).
# You can have multiple passwdbs and userdbs. This is useful if you want to
# allow both system users (/etc/passwd) and virtual users to login without
# duplicating the system users into virtual database.
#
# <doc/wiki/PasswordDatabase.txt>
#
# User database specifies where mails are located and what user/group IDs
# own them. For single-UID configuration use "static" userdb.
#
# <doc/wiki/UserDatabase.txt>

#!include auth-deny.conf.ext
1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Настройка PAM и passwd

```
root@server:~ - sudo -i
auth-system.conf.ext  [----]  0 L:[ 1+16 17/ 35] *(446 /1127b) 0125 0x07D
# Authentication for system users. Included from 10-auth.conf.
#
# <doc/wiki/PasswordDatabase.txt>
# <doc/wiki/UserDatabase.txt>

# PAM authentication. Preferred nowadays by most systems.
# PAM is typically used with either userdb passwd or userdb static.
# REMEMBER: You'll need /etc/pam.d/dovecot file created for PAM
# authentication to actually work. <doc/wiki/PasswordDatabase.PAM.txt>

passdb {
    driver = pam
}

userdb {
    driver = passwd
}

# Static settings generated from template <doc/wiki/UserDatabase.Static.txt>
#userdb {
#    #driver = static
#    # Can return anything a userdb could normally return. For example:
#    #
#    #  args = uid=500 gid=500 home=/var/mail/%u
#    #
#    # LDA and LMTP needs to look up users only from the userdb. This of course
#    # doesn't work with static userdb because there is no list of users.
#    # Normally static userdb handles this by doing a passdb lookup. This works
#    # with most passdbs, with PAM being the most notable exception. If you do
#    # the user verification another way, you can add allow_all_users=yes to
#    # the args in which case the passdb lookup is skipped.
```


Настройка почтового хранилища

```
root@server:~ -- sudo -i
10-mail.conf [-M--] 0 L:[ 1+26 27/419] *(888 /17793b) 0035 0x023 [*][X]
##
## Mailbox locations and namespaces
##
# Location for users' mailboxes. The default is empty, which means that Dovecot
# tries to find the mailboxes automatically. This won't work if the user
# doesn't yet have any mail, so you should explicitly tell Dovecot the full
# location.
#
# If you're using mbox, giving a path to the INBOX file (eg. /var/mail/%u)
# isn't enough. You'll also need to tell Dovecot where the other mailboxes are
# kept. This is called the "root mail directory", and it must be the first
# path given in the mail_location setting.
#
# There are a few special variables you can use, eg.:
#
# %u - username
# %n - user part in user@domain, same as %u if there's no domain
# %d - domain part in user@domain, empty if there's no domain
# %h - home directory
#
# See doc/wiki/Variables.txt for full list. Some examples:
#
mail_location = maildir:~/Maildir
#
# mail_location = mbox:~/mail:INBOX=/var/mail/%u
# mail_location = mbox:/var/mail/%d/%n%n:INDEX=/var/indexes/%d/%n%n
#
# <doc/wiki/MailLocation.txt>
#
1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

```
[root@server.zmustafaev.net ~]#  
[root@server.zmustafaev.net ~]# firewall-cmd --add-service=pop3 --permanent  
success  
[root@server.zmustafaev.net ~]# firewall-cmd --add-service=pop3s --permanent  
success  
[root@server.zmustafaev.net ~]# firewall-cmd --add-service=imap --permanent  
success  
[root@server.zmustafaev.net ~]# firewall-cmd --add-service=imaps --permanent  
success  
[root@server.zmustafaev.net ~]# firewall-cmd --reload  
success  
[root@server.zmustafaev.net ~]# firewall-cmd --list-services  
cockpit dhcp dhcpv6-client dns http imap imaps pop3 pop3s smtp ssh ssh-custom  
[root@server.zmustafaev.net ~]# systemctl restart postfix  
[root@server.zmustafaev.net ~]# systemctl enable dovecot  
Created symlink '/etc/systemd/system/multi-user.target.wants/dovecot.service' → '/usr/lib/systemd/system/dovecot.service'.  
[root@server.zmustafaev.net ~]# systemctl start dovecot  
[root@server.zmustafaev.net ~]#
```

Рис. 6: Настройка правил firewall для POP3 и IMAP

Проверка работы Dovecot

vagrant_client_1759921377443_54563 [Работает] - Oracle VirtualBox

Файл Машина Вид Ввод Устройства Справка

Oct 29 2:59 PM en

Cancel Back Identity Next

Welcome

Restore from Backup

Identity

Receiving Email

Sending Email

Account Summary

Done

Please enter your name and email address below. The "optional" fields below do not need to be filled in, unless you wish to include this information in email you send.

Required Information

Full Name: zmustafaev

Email Address: zmustafaev@zmustafaev.net

Optional Information

Reply-To:

Organization:

Signature: None Add New Signature...

Aliases:

Add

Edit

Remove

☒ Look up mail server details based on the entered e-mail address

Настройка клиента Evolution

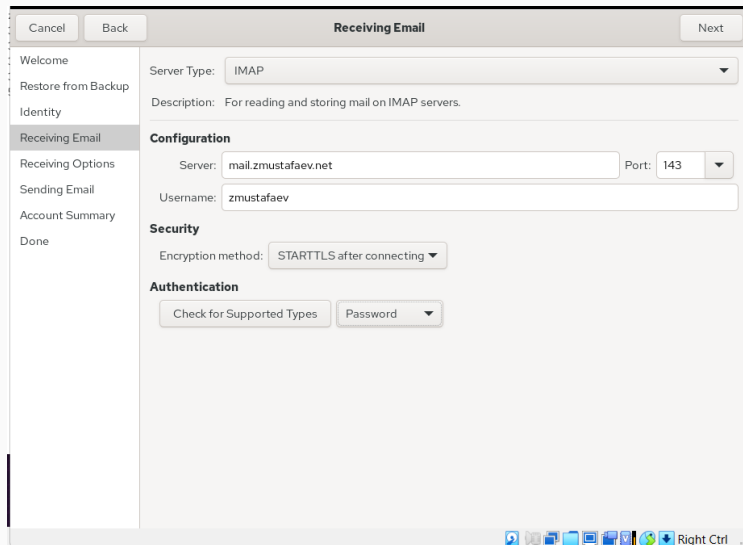


Рис. 8: Настройка личных данных пользователя в Evolution

Настройка входящей почты IMAP

Cancel

Back

Sending Email

Next

Finish

Welcome

Restore from Backup

Identity

Receiving Email

Receiving Options

Sending Email

Account Summary

Done

Server Type: SMTP

Description: For delivering mail by connecting to a remote mailhub using SMTP.

Configuration

Server: mail.zmustafaev.net

Port: 25

☐ Server requires authentication

Security

Encryption method: No encryption

Authentication

Type: Check for Supported Types

PLAIN

Username: zmustafaev

Send Options

☐ Re-encode message before send

Настройка исходящей почты SMTP

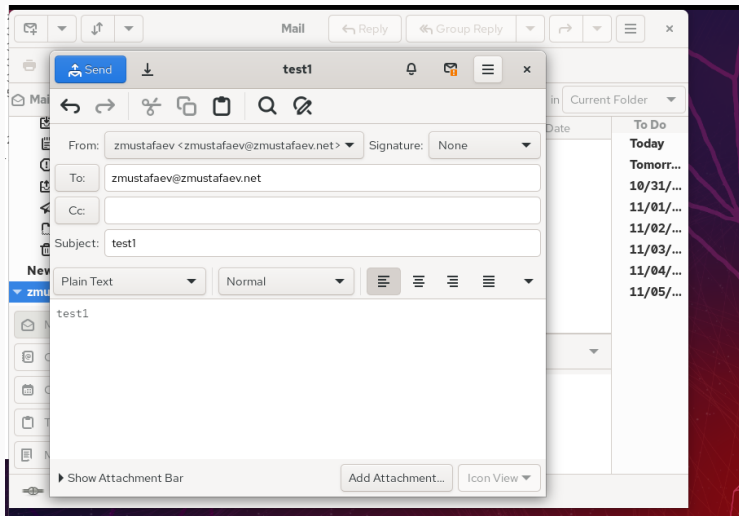
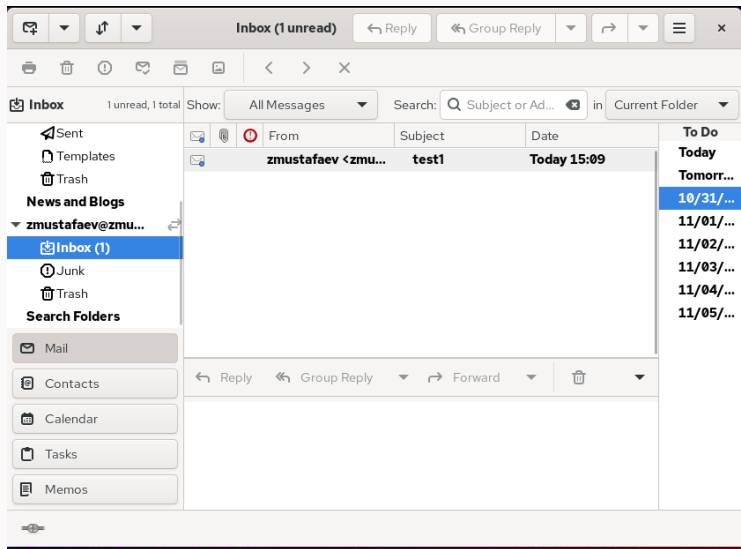


Рис. 10: Настройка исходящей почты SMTP

Отправка тестового письма




```
Oct 29 15:09:05 server postfix/smtpd[13659]: connect from client.zmustafaev.net[192.168.1.30]
Oct 29 15:09:05 server postfix/smtpd[13659]: A68DC20F6B87: client=client.zmustafaev.net[192.168.1.30]
Oct 29 15:09:05 server postfix/cleanup[13663]: A68DC20F6B87: message-id=<70e3dde61326c295eb101db970fa065fee68af5e.camel@zmustafaev.net>
Oct 29 15:09:05 server postfix/qmgr[13397]: A68DC20F6B87: from=<zmustafaev@zmustafaev.net>, size=559, nrcpt=1 (queue active)
Oct 29 15:09:05 server postfix/smtpd[13659]: disconnect from client.zmustafaev.net[192.168.1.30] ehlo=1 mail=1 rcpt=1 data=1 quit=1 commands=5
Oct 29 15:09:05 server postfix/local[13664]: A68DC20F6B87: to=<zmustafaev@zmustafaev.net>, relay=local, delay=0.01, delays=0/0/0/0, dsn=2.0.0, status=sent (delivered to maildir)
Oct 29 15:09:05 server postfix/qmgr[13397]: A68DC20F6B87: removed
Oct 29 15:09:09 server dovecot[13580]: imap-login: Login: user=<zmustafaev>, method=PLAIN, rip=192.168.1.30, lip=192.168.1.1, mpid=13672, TLS, session=<r0eog01CBojAqAEe>
```

Рис. 12: Получение тестового письма во входящих

Лог успешной доставки

```
zmustafaev@server:~  
root@server:~ - sudo -i | root@server:~ - sudo -i | zmustafaev@s  
+OK  
pass 123456  
+OK Logged in.  
list  
+OK 2 messages:  
1 684  
2 684  
.  
retr 1  
+OK 684 octets  
Return-Path: <zmustafaev@zmustafaev.net>  
X-Original-To: zmustafaev@zmustafaev.net  
Delivered-To: zmustafaev@zmustafaev.net  
Received: from client.zmustafaev.net (client.zmustafaev.net [192.168.1.30])  
    by server.zmustafaev.net (Postfix) with ESMTP id A68DC20F6B87  
    for <zmustafaev@zmustafaev.net>; Wed, 29 Oct 2025 15:09:05 +0000 (UTC)  
Message-ID: <70e3dde61326c295eb101db970fa065fee68af5e.camel@zmustafaev.net>  
Subject: test1  
From: zmustafaev <zmustafaev@zmustafaev.net>  
To: zmustafaev@zmustafaev.net  
Date: Wed, 29 Oct 2025 15:09:05 +0000  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit  
User-Agent: Evolution 3.52.4 (3.52.4-2.el10_0)  
MIME-Version: 1.0  
  
test1  
.  
dele 2  
+OK Marked to be deleted.  
quit
```

Выводы по проделанной работе

В ходе лабораторной работы был установлен и настроен почтовый сервер на базе **Postfix** и **Dovecot**.

Реализованы протоколы **SMTP**, **IMAP** и **POP3**, выполнена проверка передачи и приёма писем с помощью **Evolution** и **telnet**.

Настроены межсетевой экран и автоматизация конфигурации в **Vagrant**.