

# Лабораторная работа 10

---

Генералов Даниил, НПИбд-01-21, 1032202280

2023

<sup>1</sup>RUDN University, Moscow, Russian Federation

## Задача

---

1. Настройте Dovecot для работы с LMTP (см. раздел 10.4.1).

1. Настройте Dovecot для работы с LMTP (см. раздел 10.4.1).
2. Настройте аутентификацию посредством SASL на SMTP-сервере (см. раздел 10.4.2).

1. Настройте Dovecot для работы с LMTP (см. раздел 10.4.1).
2. Настройте аутентификацию посредством SASL на SMTP-сервере (см. раздел 10.4.2).
3. Настройте работу SMTP-сервера поверх TLS (см. раздел 10.4.3).

1. Настройте Dovecot для работы с LMTP (см. раздел 10.4.1).
2. Настройте аутентификацию посредством SASL на SMTP-сервере (см. раздел 10.4.2).
3. Настройте работу SMTP-сервера поверх TLS (см. раздел 10.4.3).
4. Скорректируйте скрипт для Vagrant, фиксирующий действия расширенной настройки SMTP-сервера во внутреннем окружении виртуальной машины server (см. раздел 10.4.4).

## Выполнение

---

```

root@server:~# cat /etc/dovecot/dovecot.conf
# Most (but not all) settings can be overridden by different protocols and/or
# user/driver/destination. For replacing the settings inside sections, for example:
# protocol imap { ..., local 127.0.0.1:1, remote 10.0.0.0/8:1 ... }

# Default values are shown for each setting. It's not required to uncomment
# these, 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 --localstatedir=/var
# --sysconfdir=/etc --localstatedir=/var

# Protocols we want to be serving.
protocols = imap pop3 lmtp

# A comma separated list of IPs or hosts where to listen 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 = *, ::

# Help      Write Out  Where Is  Cut      Execute  Location
# Exit      Read File  Replace  Paste    Justify   Go To Line

root@server:~# cat /etc/dovecot/conf.d/10-master.conf
service submission-login {
  inet_listener submission {
    port = 387
  }
}

service lmtp {
  inet_listener /var/spool/postfix/private/dovecot-lmtp {
    mode = 0600
    group = postfix
    user = postfix
  }
}

# Create the listener only if you can't use the above UNIX socket
inet_listener lmtp {
  # Avoid making LMTP visible for the entire Internet
  address =
  port =
}

# If you want to allow master users to log in by specifying the master
# List of allowed characters in username. If the user gives username contain
# a character not listed in here, the login automatically fails. This is ju
# an extra check to make sure you can't exploit any potential quote escap
# vulnerabilities with SQL/IDMP databases. If you want to allow all charac
# set this value to empty.
auth_username_chars = abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789_-+.!

# Username character translations before it's looked up from databases. The
# value contains series of from -> to characters, for example "aBcD" means
# that 'a' and 'c' characters are translated to 'e'.
auth_username_translation =

# Username formatting before it's looked up from databases. You can use
# the standard variables here, eg. %u would lowercase the username, %n wo
# drop away the domain if it was given, or %n-at-%d would change the '@'
# to '-at-'. This translation is done after auth_username_translation changes
auth_username_format = %u%

# If you want to allow master users to log in by specifying the master

```

Рис. 1: mail



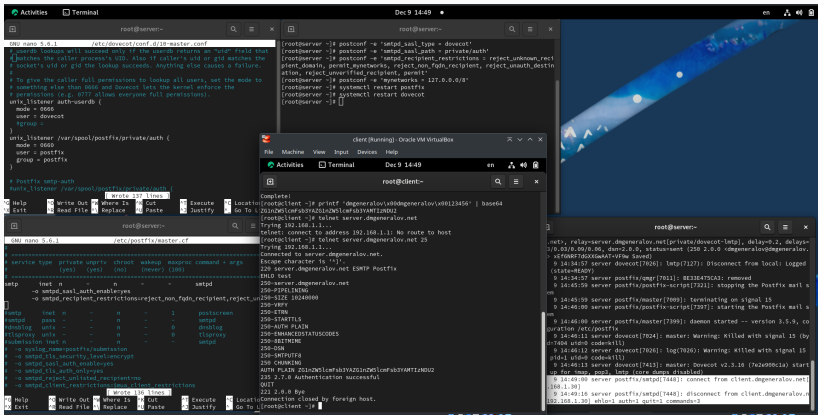


Рис. 2: mail

The image displays a Kali Linux desktop with three terminal windows open, illustrating the setup of a mail server and client.

**Top-Left Terminal (root@server:~):** Shows the installation of Postfix mail server. The user runs `sudo apt-get install postfix`, selects 'mail' as the delivery method, and 'Internet Site' as the domain type. The configuration file `/etc/postfix/master.cf` is shown, and the service is started with `systemctl restart postfix`.

**Top-Right Terminal (root@server:~):** Shows the configuration of Dovecot mail client. The user runs `sudo apt-get install dovecot`, selects 'dovecot' as the package, and generates certificates with `sudo dpkg-reconfigure dovecot`. The service is started with `systemctl restart dovecot`.

**Bottom Terminal (root@client:~):** Shows the output of the Postfix mail server logs. The logs indicate that the server is listening on port 25, and a connection was established from the client. The logs show the following details:

```

Dec 9 15:02:30 server postfix/postfix-script[7744]: stopping the Postfix mail system
Dec 9 15:02:30 server postfix/master[7722]: terminating on signal 15
Dec 9 15:02:31 server postfix/postfix-script[7820]: starting the Postfix mail system
Dec 9 15:02:31 server postfix/master[7822]: daemon started -- version 3.5.9, config file /etc/postfix
Dec 9 15:02:57 server postfix/smtpd[7825]: connect from client.dmgeneralov.net[192.168.1.30]
Dec 9 15:03:31 server postfix/smtpd[7825]: lost connection after AUTH from client.dmgeneralov.net[192.168.1.30]
Dec 9 15:03:31 server postfix/smtpd[7825]: disconnect from client.dmgeneralov.net[192.168.1.30] ehlo=2 starttls=1 auth=1 commands=4

```

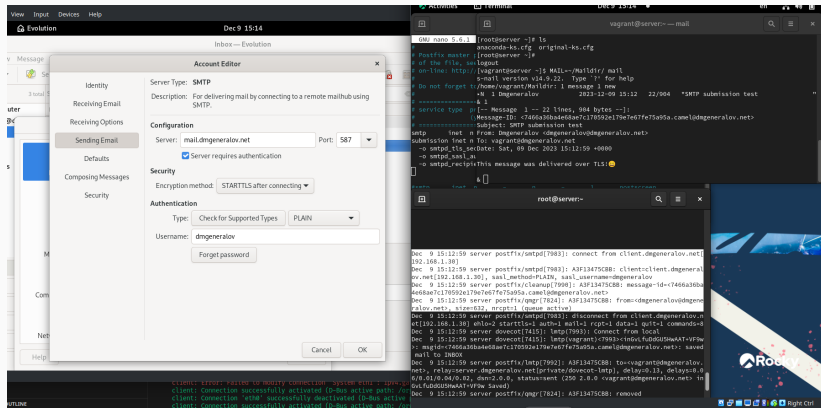
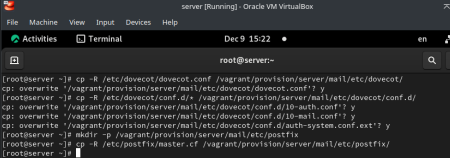


Рис. 4: mail

```
work > dmgeneralov > vagrant > provision > server > mail.sh
17 postconf -e 'myhostname = server.dmgeneralov.net'
18 postconf -e 'mydestination = $myhostname, localhost.$mydomain,
localhost, $mydomain'
19 postconf -e 'mynetworks = 127.0.0.0/8'
20 postconf -e 'home_mailbox = Maildir/'
21 postconf -e 'smtpd_recipient_restrictions =
reject_unknown_recipient_domain, permit_mynetworks,
reject_non_fqdn_recipient, reject_unauth_destination,
reject_unverified_recipient, permit'
22
23
24 echo 'Setup dovecot'
25 dnf -y install dovecot telnet
26 cp -R /vagrant/provision/server/mail/etc /
27 firewall-cmd --add-service=pop3
28 firewall-cmd --add-service=pop3s
29 firewall-cmd --add-service=imap
30 firewall-cmd --add-service=imaps
31 firewall-cmd --add-service=smtp-submission
32 firewall-cmd --runtime-to-permanent
33 systemctl enable --now dovecot
34
35 echo 'Configure SMTP over TLS'
36 cp /etc/pki/dovecot/certs/dovecot.pem /etc/pki/tls/certs
37 cp /etc/pki/dovecot/private/dovecot.pem /etc/pki/tls/private
38
39 postconf -e 'smtpd_tls_cert_file=/etc/pki/tls/certs/dovecot.pem'
40 postconf -e 'smtpd_tls_key_file=/etc/pki/tls/private/dovecot.pem'
41 postconf -e 'smtpd_tls_session_cache_database = btree:/var/lib/
postfix/smtpd_cache'
42 postconf -e 'smtpd_tls_security_level = may'
43 postconf -e 'smtp_tls_security_level = may'
44
45 postfix set-permissions
46 restorecon -vR /etc
47 systemctl restart postfix
48 systemctl restart dovecot
49

work > dmgeneralov > vagrant > provision > client > mail.sh
1 #!/bin/bash
2 echo "Provisioning script $0"
3 echo "Install needed packages"
4 dnf -y install postfix
5 dnf -y install s-mail
6 echo "Configure postfix"
7 postconf -e 'inet_protocols = ipv4'
8 postconf -e 'myhostname = client.dmgeneralov.net'
9 postconf -e 'mydomain = dmgeneralov.net'
10 echo "Start postfix service"
11 systemctl enable postfix
12 systemctl start postfix
13
14 dnf -y install evolution telnet
```



```
[root@server ~]# cp -R /etc/dovecot/dovecot.conf /vagrant/provision/server/mail/etc/dovecot/
cp: overwrite '/vagrant/provision/server/mail/etc/dovecot/dovecot.conf'? y
[root@server ~]# cp -R /etc/dovecot/conf.d/* /vagrant/provision/server/mail/etc/dovecot/conf.d/
cp: overwrite '/vagrant/provision/server/mail/etc/dovecot/conf.d/10-auth.conf'? y
cp: overwrite '/vagrant/provision/server/mail/etc/dovecot/conf.d/10-mail.conf'? y
cp: overwrite '/vagrant/provision/server/mail/etc/dovecot/conf.d/auth-system.conf.ext'? y
[root@server ~]# mkdir -p /vagrant/provision/server/mail/etc/postfix
[root@server ~]# cp -R /etc/postfix/master.cf /vagrant/provision/server/mail/etc/postfix/
[root@server ~]#
```

Рис. 5: vagrant

Я получил опыт работы с настройкой продвинутых свойств Postfix+Dovecot, в том числе SASL и SMTP поверх TLS.