

Лабораторная работа №8

СТУДЕНТ: САХНО

ГРУППА: НФИБД-02-23

Цель

Приобретение практических навыков по установке и конфигурированию SMTP-сервера.

Задания

Установить на виртуальной машине `server` SMTP-сервер postfix.

Сделать первоначальную настройку postfix при помощи утилиты `postconf`, задав отправку писем не на локальный хост, а на сервер в домене.

Проверить отправку почты с сервера и клиента.

Сконфигурировать Postfix для работы в домене. Проверить отправку почты с сервера и клиента.

Написать скрипт для Vagrant, фиксирующий действия по установке и настройке Postfix во внутреннем окружении виртуальной машины `server`. Соответствующим образом внесите изменения в Vagrantfile.

```

Rocky Linux 9 - BaseOS          684 B/s | 4.1 kB    00:06
Rocky Linux 9 - AppStream       8.0 kB/s | 4.5 kB    00:00
Rocky Linux 9 - Extras         10 kB/s | 2.9 kB    00:00
Dependencies resolved.
=====
Package            Architecture Version            Repository        Size
=====
Installing:
 postfix           x86_64         2:3.5.9-24.el9    appstream         1.4 M
Transaction Summary
=====
Install 1 Package

Total download size: 1.4 M
Installed size: 4.4 M
Downloading Packages:
postfix-3.5.9-24.el9.x86_64.rpm 4.9 MB/s | 1.4 MB    00:00
-----
Total                          2.8 MB/s | 1.4 MB    00:00
Running transaction check

```

Задание №1

```
Last metadata expiration check: 0:00:32 ago on Sat 02 Dec 2023 04:17:08 PM UTC.  
Dependencies resolved.
```

```
=====
```

Package	Architecture	Version	Repository	Size
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```
=====
```

Installing:

s-nail	x86_64	14.9.22-6.el9	appstream	621 k
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Transaction Summary

```
=====
```

Install 1 Package

Total download size: 621 k

Installed size: 1.1 M

Downloading Packages:

s-nail-14.9.22-6.el9.x86_64.rpm	2.6 MB/s 621 kB	00:00
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```
-----
```

Total	350 kB/s 621 kB	00:01
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Running transaction check

Transaction check succeeded.

Running transaction test

Transaction test succeeded.

Running transaction

Preparing	:	1/1
-----------	---	-----

Running scriptlet: s-nail-14.9.22-6.el9.x86_64	1/1
--	-----

Installing	: s-nail-14.9.22-6.el9.x86_64	1/1
------------	-------------------------------	-----

Running scriptlet: s-nail-14.9.22-6.el9.x86_64	1/1
--	-----

Verifying	: s-nail-14.9.22-6.el9.x86_64	1/1
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Задание №1

```
[root@vbox ~]# firewall-cmd --add-service=smtp  
success  
[root@vbox ~]# firewall-cmd --add-service=smtp --permanent  
success  
[root@vbox ~]# firewall-cmd --list-services  
cockpit dhcpv6-client https smtp ssh ssh-custom  
[root@vbox ~]#
```

Задание №2

```
2bounce_notice_recipient = postmaster
access_map_defer_code = 450
access_map_reject_code = 554
address_verify_cache_cleanup_interval = 12h
address_verify_default_transport = $default_transport
address_verify_local_transport = $local_transport
address_verify_map = btree:$data_directory/verify_cache
address_verify_negative_cache = yes
address_verify_negative_expire_time = 3d
address_verify_negative_refresh_time = 3h
address_verify_pending_request_limit = 5000
address_verify_poll_count = ${stress?{1}:{3}}
address_verify_poll_delay = 3s
address_verify_positive_expire_time = 31d
address_verify_positive_refresh_time = 7d
address_verify_relay_transport = $relay_transport
address_verify_relayhost = $relayhost
address_verify_sender = $double_bounce_sender
address_verify_sender_dependent_default_transport_maps = $sender_dependent_default_transport_maps
address_verify_sender_dependent_relayhost_maps = $sender_dependent_relayhost_maps
address_verify_sender_ttl = 0s
```

Задание №2

```
[root@vbox ~]# postconf myorigin
myorigin = $myhostname
[root@vbox ~]# postconf medomain
postconf: warning: medomain: unknown parameter
[root@vbox ~]# postconf mydomain
mydomain = localdomain
[root@vbox ~]# postconf -e 'myorigin = $mydomain'
postconf: fatal: missing '=' after attribute name: "???myorigin"
[root@vbox ~]# postconf -e 'myorigin = $mydomain'
postconf: fatal: missing '=' after attribute name: "???myorigin"
[root@vbox ~]# postconf -e 'myorigin = $mydomain'
[root@vbox ~]# postconf myorigin
myorigin = $mydomain
[root@vbox ~]#
```

Задание №2

```
alias_database = hash:/etc/aliases
alias_maps = hash:/etc/aliases
command_directory = /usr/sbin
compatibility_level = 2
daemon_directory = /usr/libexec/postfix
data_directory = /var/lib/postfix
debug_peer_level = 2
debugger_command = PATH=/bin:/usr/bin:/usr/local/bin:/usr/X11R6/bin ddd $daemon_directory/$process_name $process_id & sleep 5
html_directory = no
inet_interfaces = localhost
inet_protocols = all
mail_owner = postfix
mailq_path = /usr/bin/mailq.postfix
manpage_directory = /usr/share/man
meta_directory = /etc/postfix
```

Задание №2

```
[root@vbox ~]# postconf -e 'mydomain = nvsakhno.net'
[root@vbox ~]# postconf inet_protocols
inet_protocols = all
[root@vbox ~]# postconf -e 'inet_protocols = ipv4'
[root@vbox ~]# postfix check
^[[A[root@vbox ~]# postconf -e 'inet_protocols = ipv4'
```

Задание №2

```
[root@vbox ~]# echo .| mail -s test1 nvsakhno@server.nvsakhno.net
[root@vbox ~]# tail -f /var/log/maillog
Feb 12 11:05:10 vbox postfix/cleanup[4280]: 68C2E1037F78: message-id=<20260212080510.68C2E1037F78@vbox.nvsakhno.net>
Feb 12 11:05:10 vbox postfix/qmgr[4264]: 68C2E1037F78: from=<root@nvsakhno.net>, size=330, nrcpt=1 (queue active)
Feb 12 11:05:10 vbox postfix/smtp[4282]: warning: run-time library vs. compile-time header version mismatch: OpenSSL 3.5.0 may not be compatible with OpenSSL 3.2.0
Feb 12 11:05:10 vbox postfix/smtp[4282]: 68C2E1037F78: to=<nvsakhno@server.nvsakhno.net>, relay=none, delay=0.22, delays=0.08/0.08/0.05/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=server.nvsakhno.net type=A: Host not found)
Feb 12 11:05:10 vbox postfix/cleanup[4280]: 9CF311037F79: message-id=<20260212080510.9CF311037F79@vbox.nvsakhno.net>
Feb 12 11:05:10 vbox postfix/qmgr[4264]: 9CF311037F79: from=<>, size=2403, nrcpt=1 (queue active)
Feb 12 11:05:10 vbox postfix/bounce[4284]: 68C2E1037F78: sender non-delivery notification: 9CF311037F79
Feb 12 11:05:10 vbox postfix/qmgr[4264]: 68C2E1037F78: removed
Feb 12 11:05:10 vbox postfix/smtp[4282]: 9CF311037F79: to=<root@nvsakhno.net>, relay=none, delay=0.04, delays=0.01/0/0.02/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=nvsakhno.net type=A: Host not found)
Feb 12 11:05:10 vbox postfix/qmgr[4264]: 9CF311037F79: removed
```

Задание №3

```
[root@vbox ~]# echo . | mail -s test2 nvsakhno@nvsakhno.net
[root@vbox ~]# tail -f /var/log/maillog
Feb 12 11:09:24 vbox postfix/cleanup[4587]: 28EAD1037F74: message-id=<20260212080924.28EAD1037F74@vbox.nvsakhno.net>
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 28EAD1037F74: from=<root@nvsakhno.net>, size=323, nrcpt=1 (queue active)
Feb 12 11:09:24 vbox postfix/smtp[4589]: warning: run-time library vs. compile-time header version mismatch: OpenSSL 3.5.0 may not be compatible with OpenSSL 3.2.0
Feb 12 11:09:24 vbox postfix/smtp[4589]: 28EAD1037F74: to=<nvsakhno@nvsakhno.net>, relay=none, delay=0.17, delays=0.07/0.06/0.03/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=nvsakhno.net type=A: Host not found)
Feb 12 11:09:24 vbox postfix/cleanup[4587]: 51E521037F75: message-id=<20260212080924.51E521037F75@vbox.nvsakhno.net>
Feb 12 11:09:24 vbox postfix/bounce[4591]: 28EAD1037F74: sender non-delivery notification: 51E521037F75
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 51E521037F75: from=<>, size=2366, nrcpt=1 (queue active)
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 28EAD1037F74: removed
Feb 12 11:09:24 vbox postfix/smtp[4589]: 51E521037F75: to=<root@nvsakhno.net>, relay=none, delay=0.03, delays=0.01/0/0.02/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=nvsakhno.net type=A: Host not found)
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 51E521037F75: removed
```

Задание №3

```
postconf inet_interfaces  
  
postconf mynetworks  
  
postconf -e 'inet_interfaces = all'  
postconf -e 'mynetworks = 127.0.0.0/8, 192.168.0.0/16'  
postfix check  
systemctl reload postfix  
systemctl stop postfix  
systemctl start postfix  
█
```

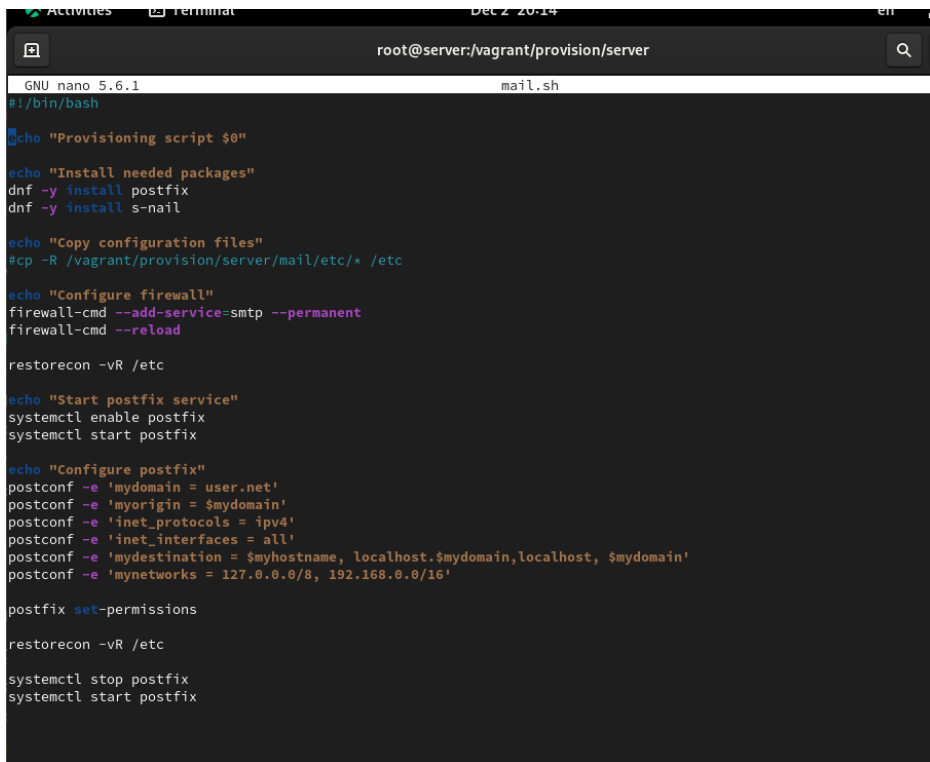
Задание №3

```
Feb 12 11:09:24 vbox postfix/smtp[4589]: 28EAD1037F74: to=<nvsakhno@nvsakhno.net>, relay=none, delay=0.17, delays=0.07/0.06/0.03/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=nvsakhno.net type=A: Host not found)
Feb 12 11:09:24 vbox postfix/cleanup[4587]: 51E521037F75: message-id=<20260212080924.51E521037F75@vbox.nvsakhno.net>
Feb 12 11:09:24 vbox postfix/bounce[4591]: 28EAD1037F74: sender non-delivery notification: 51E521037F75
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 51E521037F75: from=<>, size=2366, nrcpt=1 (queue active)
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 28EAD1037F74: removed
Feb 12 11:09:24 vbox postfix/smtp[4589]: 51E521037F75: to=<root@nvsakhno.net>, relay=none, delay=0.03, delays=0.01/0/0.02/0, dsn=5.4.4, status=bounced (Host or domain name not found. Name service error for name=nvsakhno.net type=A: Host not found)
Feb 12 11:09:24 vbox postfix/qmgr[4573]: 51E521037F75: removed
```

Задание №3

```
postconf -e 'mydestination = $myhostname, localhost.$mydomain,localhost, $mydomain'  
postfix check  
systemctl reload postfix  
restorecon -vR /etc  
restorecon -vR /var/named  
systemctl restart named
```

Задание №3



The screenshot shows a terminal window with a dark background. At the top, the title bar indicates 'Activities', 'Terminal', and the date 'Dec 2, 20:14'. Below the title bar, the prompt is 'root@server:/vagrant/provision/server'. The terminal content shows a script being executed in a nano editor. The script includes commands for installing postfix and s-nail, copying configuration files, configuring the firewall, and managing the postfix service.

```
GNU nano 5.6.1 mail.sh
#!/bin/bash

echo "Provisioning script $0"

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

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

echo "Configure firewall"
firewall-cmd --add-service-smtp --permanent
firewall-cmd --reload

restorecon -vR /etc

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

echo "Configure postfix"
postconf -e 'mydomain = user.net'
postconf -e 'myorigin = $mydomain'
postconf -e 'inet_protocols = ipv4'
postconf -e 'inet_interfaces = all'
postconf -e 'mydestination = $myhostname, localhost.$mydomain,localhost, $mydomain'
postconf -e 'mynetworks = 127.0.0.0/8, 192.168.0.0/16'

postfix set-permissions

restorecon -vR /etc

systemctl stop postfix
systemctl start postfix
```

Задание №4

Вывод:

В процессе выполнения данной лабораторной работы я приобрел практические навыки по установке и конфигурированию SMTP-сервера.