

Lab 06 Report

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Task 1 - Basic MX

1.1 Configuration

Installing postfix:

```
# apt install postfix
```

There is a prompt which configuration option do we need, we chose “No Configuration”, because we are doing it the hard way.

Configuring manually:

```
# cat <<EOF > /etc/postfix/main.cf
compatibility_level = 2
myhostname = ionagamed.ru
mydomain = ionagamed.ru
myorigin = $mydomain
mydestination = $mydomain
mail_spool_directory = /var/spool/mail
mynetworks = 127.0.0.0/8
inet_protocols = ipv4
EOF
```

Also enabling SSL:

```
# sed -i.bak -e 's/#smtps/smtps/' /etc/postfix/master.cf
# sed -i.bak -e 's/#\s*-o smtpd_tls_wrapper/-o smtpd_tls_wrapper/' /etc/postfix/master.cf
```

This would also enable TLS wrapper mode (which provides us with a port, which would not use starttls, but would rather encrypt everything by default).

Checking that everything is ok, enabling and reloading the service:

```
# postfix check
# systemctl enable postfix
# systemctl start postfix
```

Generating the aliases:

```
# cat <<EOF > /etc/aliases
postmaster: root
EOF
# newaliases
```

1.2 Testing

Testing from a remote machine:

```
$ nc <ip> 25
220 ionagamed.ru ESMTP Postfix
HELO ionagamed.ru
250 ionagamed.ru
MAIL FROM:<ionagamed@gmail.com>
250 2.1.0 Ok
RCPT TO:<postmaster@ionagamed.ru>
250 2.1.5 Ok
DATA
354 End data with <CR><LF>.<CR><LF>
From: "Leonid Lygin" <ionagamed@gmail.com>
To: "Postmaster Rootovich" <postmaster@ionagamed.ru>
Subject: Example Message

Hello, this is an example message.
.
250 2.0.0 Ok: queued as E91BC21F0
QUIT
221 2.0.0 Bye
```

Checking the logs:

```
Oct  1 10:40:54 sna-lab postfix/smtpd[2438]: E91BC21F0: client=unkno
Oct  1 10:41:53 sna-lab postfix/cleanup[2501]: E91BC21F0: message-id:
Oct  1 10:41:53 sna-lab postfix/qmgr[2410]: E91BC21F0: from=<ionagame
```

```
Oct  1 10:41:53 sna-lab postfix/local[2503]: warning: dict_nis_init:
Oct  1 10:41:53 sna-lab postfix/local[2503]: E91BC21F0: to=<root@ion:
Oct  1 10:41:53 sna-lab postfix/qmgr[2410]: E91BC21F0: removed
```

Checking the message:

```
root@sna-lab:/var/spool/mail# cat root
From ionagamed@gmail.com  Tue Oct  1 10:41:53 2019
Return-Path: <ionagamed@gmail.com>
X-Original-To: postmaster@ionagamed.ru
Delivered-To: postmaster@ionagamed.ru
Received: from ionagamed.ru (unknown [192.168.56.1])
        by ionagamed.ru (Postfix) with SMTP id E91BC21F0
        for <postmaster@ionagamed.ru>; Tue,  1 Oct 2019 10:40:45 +0000
From: "Leonid Lygin" <ionagamed@gmail.com>
To: "Postmaster Rootovich" <postmaster@ionagamed.ru>
Subject: Example Message
```

Hello, this is an example message.

The message is delivered correctly!

Task 2 - IMAP

Installing dovecot:

```
# apt install dovecot-imap
```

Dovecot would not allow me to login with root credentials, so let's send another message to another user ionagamed .

```
$ nc <ip> 25
220 ionagamed.ru ESMTP Postfix
HELO ionagamed.ru
250 ionagamed.ru
MAIL FROM:<ionagamed@gmail.com>
250 2.1.0 Ok
RCPT TO:<ionagamed@ionagamed.ru>
250 2.1.5 Ok
DATA
354 End data with <CR><LF>.<CR><LF>
Subject: Hello, fellow user!
```

This is an example message!

```
.  
250 2.0.0 Ok: queued as 53F8721F0  
QUIT  
221 2.0.0 Bye
```

And now we can test (using TLS, because it works out of the box with dovecot):

```
$ openssl s_client -connect <ip>:993  
<certificate data>  
* OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLED  
a001 login ionagamed asipofciderwithasalt  
a001 OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLED  
a002 select inbox  
* FLAGS (\Answered \Flagged \Deleted \Seen \Draft)  
* OK [PERMANENTFLAGS (\Answered \Flagged \Deleted \Seen \Draft \*)] I  
* 1 EXISTS  
* 1 RECENT  
* OK [UNSEEN 1] First unseen.  
* OK [UIDVALIDITY 1569931980] UIDs valid  
* OK [UIDNEXT 2] Predicted next UID  
a002 OK [READ-WRITE] Select completed (0.006 + 0.000 + 0.005 secs).  
a003 fetch 1 full  
* 1 FETCH (FLAGS (\Recent) INTERNALDATE "01-Oct-2019 12:39:22 +0000"  
a003 OK Fetch completed (0.007 + 0.000 + 0.006 secs).  
a004 fetch 1 body[header]  
* 1 FETCH (FLAGS (\Seen \Recent) BODY[HEADER] {320}  
Return-Path: <ionagamed@gmail.com>  
X-Original-To: ionagamed@ionagamed.ru  
Delivered-To: ionagamed@ionagamed.ru  
Received: from ionagamed.ru (unknown [192.168.56.1])  
        by ionagamed.ru (Postfix) with SMTP id 53F8721F0  
        for <ionagamed@ionagamed.ru>; Tue,  1 Oct 2019 12:38:57 +0000  
Subject: Hello, fellow user!  
  
)  
a004 OK Fetch completed (0.006 + 0.000 + 0.005 secs).  
logout  
logout BAD Error in IMAP command : Unknown command (2270653.774 + 0.000  
a005 logout  
* BYE Logging out  
a005 OK Logout completed (0.006 + 0.000 + 0.005 secs).
```

As we can see, the message is truly received.

