



joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24

...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin

~ — joe@yavin: ~ — ssh ◀ ssh yavin

...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +

```
joe@f21-mail-thegummibear:~$ sudo apt install mailutils exim4 -y
```



joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24

...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin

~ — joe@yavin: ~ — ssh ◀ ssh yavin

...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +

```
joe@f21-mail-thegummibear:~$ sudo dpkg-reconfigure exim4-config
```



## Package configuration

### Mail Server configuration

Please select the mail server configuration type that best meets your needs.

Systems with dynamic IP addresses, including dialup systems, should generally be configured to send outgoing mail to another machine, called a 'smarthost' for delivery because many receiving systems on the Internet block incoming mail from dynamic IP addresses as spam protection.

A system with a dynamic IP address can receive its own mail, or local delivery can be disabled entirely (except mail for root and postmaster).

<Ok>





## Package configuration

### Mail Server configuration

General type of mail configuration:

internet site; mail is sent and received directly using ...

mail sent by smarthost; received via SMTP or fetchmail

mail sent by smarthost; no local mail

local delivery only; not on a network

no configuration at this time

<Ok>

<Cancel>





## Package configuration

### Mail Server configuration

The 'mail name' is the domain name used to 'qualify' mail addresses without a domain name.

This name will also be used by other programs. It should be the single, fully qualified domain name (FQDN).

Thus, if a mail address on the local host is foo@example.org, the correct value for this option would be example.org.

This name won't appear on From: lines of outgoing messages if rewriting is enabled.

System mail name:

mail.thegummibear.com

<Ok>

<Cancel>



## Package configuration

### Mail Server configuration

Please enter a semicolon-separated list of IP addresses. The Exim SMTP listener daemon will listen on all IP addresses listed here.

An empty value will cause Exim to listen for connections on all available network interfaces.

If this system only receives mail directly from local services (and not from other hosts), it is suggested to prohibit external connections to the local Exim daemon. Such services include e-mail programs (MUAs) which talk to localhost only as well as fetchmail. External connections are impossible when 127.0.0.1 is entered here, as this will disable listening on public network interfaces.

<Ok>



# Package configuration

**Mail Server configuration**

IP-addresses to listen on for incoming SMTP connections:

127.0.0.1 ; ::1

<Ok>                      <Cancel>



# Package configuration

**Mail Server configuration**

IP-addresses to listen on for incoming SMTP connections:

127.0.0.1 ; ::1; 144.38.199.52

<Ok>                      <Cancel>



## Package configuration

### Mail Server configuration

Please enter a semicolon-separated list of recipient domains for which this machine should consider itself the final destination. These domains are commonly called 'local domains'. The local hostname (f21-mail-thegummibear) and 'localhost' are always added to the list given here.

By default all local domains will be treated identically. If both a.example and b.example are local domains, acc@a.example and acc@b.example will be delivered to the same final destination. If different domain names should be treated differently, it is necessary to edit the config files afterwards.

Other destinations for which mail is accepted:

mail.thegummibear.com; thegummibear.com

<Ok>

<Cancel>



## Package configuration

### Mail Server configuration

Please enter a semicolon-separated list of IP address ranges for which this system will unconditionally relay mail, functioning as a smarthost.

You should use the standard address/prefix format (e.g. 194.222.242.0/24 or 5f03:1200:836f::/48).

If this system should not be a smarthost for any other host, leave this list blank.

Machines to relay mail for:

<Ok>

<Cancel>





## Package configuration

### Mail Server configuration

Please enter the IP address or the host name of a mail server that this system should use as outgoing smarthost. If the smarthost only accepts your mail on a port different from TCP/25, append two colons and the port number (for example smarthost.example::587 or 192.168.254.254::2525). Colons in IPv6 addresses need to be doubled.

If the smarthost requires authentication, please refer to the Debian-specific README files in /usr/share/doc/exim4-base for notes about setting up SMTP authentication.

IP address or host name of the outgoing smarthost:

stumail.cs.dixie.edu

<Ok>

<Cancel>



## Package configuration

### Mail Server configuration

The headers of outgoing mail can be rewritten to make it appear to have been generated on a different system. If this option is chosen, 'mail.thegummibear.com', 'localhost' and 'mail.thegummibear.com; thegummibear.com' in From, Reply-To, Sender and Return-Path are rewritten.

Hide local mail name in outgoing mail?

<Yes>

<No>





## Package configuration

### Mail Server configuration

In normal mode of operation Exim does DNS lookups at startup, and when receiving or delivering messages. This is for logging purposes and allows keeping down the number of hard-coded values in the configuration.

If this system does not have a DNS full service resolver available at all times (for example if its Internet access is a dial-up line using dial-on-demand), this might have unwanted consequences. For example, starting up Exim or running the queue (even with no messages waiting) might trigger a costly dial-up-event.

This option should be selected if this system is using Dial-on-Demand. If it has always-on Internet access, this option should be disabled.

<Ok>





# Package configuration

## Mail Server configuration

Keep number of DNS-queries minimal (Dial-on-Demand)?

<Yes>

<No>



## Package configuration

### Mail Server configuration

Exim is able to store locally delivered email in different formats. The most commonly used ones are mbox and Maildir. mbox uses a single file for the complete mail folder stored in /var/mail/. With Maildir format every single message is stored in a separate file in ~/Maildir/.

Please note that most mail tools in Debian expect the local delivery method to be mbox in their default.

Delivery method for local mail:

**mbox format in /var/mail/**

Maildir format in home directory

<Ok>

<Cancel>



## Package configuration

### Mail Server configuration

The Debian exim4 packages can either use 'unsplit configuration', a single monolithic file (/etc/exim4/exim4.conf.template) or 'split configuration', where the actual Exim configuration files are built from about 50 smaller files in /etc/exim4/conf.d/.

Unsplit configuration is better suited for large modifications and is generally more stable, whereas split configuration offers a comfortable way to make smaller modifications but is more fragile and might break if modified carelessly.

A more detailed discussion of split and unsplit configuration can be found in the Debian-specific README files in /usr/share/doc/exim4-base.

Split configuration into small files?

<Yes>

<No>





## Package configuration

### Mail Server configuration

Mail for the 'postmaster', 'root', and other system accounts needs to be redirected to the user account of the actual system administrator.

If this value is left empty, such mail will be saved in /var/mail/mail, which is not recommended.

Note that postmaster's mail should be read on the system to which it is directed, rather than being forwarded elsewhere, so (at least one of) the users listed here should not redirect their mail off this machine. A 'real-' prefix can be used to force local delivery.

Multiple user names need to be separated by spaces.

<Ok>



Package configuration

**Mail Server configuration**

Root and postmaster mail recipient:

put your username here

<Ok>                      <Cancel>



Package configuration

Mail Server configuration

Root and postmaster mail recipient:

joe

<Ok>                      <Cancel>



```
joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[joe@f21-mail-thegummibear:~$ echo "Test with some local users"
Test with some local users
[joe@f21-mail-thegummibear:~$ sudo adduser bob
Adding user `bob' ...
Adding new group `bob' (1002) ...
Adding new user `bob' (1002) with group `bob' ...
Creating home directory `/home/bob' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for bob
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
[joe@f21-mail-thegummibear:~$ █
```

```
joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[joe@f21-mail-thegummibear:~$ sudo adduser alice
Adding user `alice' ...
Adding new group `alice' (1003) ...
Adding new user `alice' (1003) with group `alice' ...
Creating home directory `/home/alice' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for alice
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n]
joe@f21-mail-thegummibear:~$ █
```



```
joe — bob@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[joe@f21-mail-thegummibear:~$ echo "Can bob send to alice?"
Can bob send to alice?
[joe@f21-mail-thegummibear:~$ sudo su - bob

*****
This template image will not work until you edit the contents of /etc/netplan/00
-installer-config.yaml, and correctly update the network settings.
*****

[bob@f21-mail-thegummibear:~$ mailx alice
```



```
joe — bob@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[joe@f21-mail-thegummibear:~$ echo "Can bob send to alice?"
Can bob send to alice?
[joe@f21-mail-thegummibear:~$ sudo su - bob

*****
This template image will not work until you edit the contents of /etc/netplan/00
-installer-config.yaml, and correctly update the network settings.
*****

[bob@f21-mail-thegummibear:~$ mailx alice
Cc:
Subject: can u see this
hello
thisis a test message from bob
bye
bob@f21-mail-thegummibear:~$ █
```

```
joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
tion
2021-09-11 18:05:45 1mP7Np-00016C-3d <= bob@f21-mail-thegummibear U=bob P=local
S=458
2021-09-11 18:05:45 Warning: No server certificate defined; will use a selfsigned one.
Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:05:45 1mP7Np-00016C-3d => alice <alice@f21-mail-thegummibear> R=local_user T=mail_spool
2021-09-11 18:05:45 1mP7Np-00016C-3d Completed
2021-09-11 18:05:59 Warning: No server certificate defined; will use a selfsigned one.
Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:05:59 1mP703-00016S-8P <= bob@mail.thegummibear.com U=bob P=local
S=600
2021-09-11 18:05:59 Warning: No server certificate defined; will use a selfsigned one.
Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:05:59 1mP703-00016S-8P => joe <root@mail.thegummibear.com> R=local_user T=mail_spool
2021-09-11 18:05:59 1mP703-00016S-8P Completed
joe@f21-mail-thegummibear:~$
```



```
[joe@f21-mail-thegummibear:~$ sudo su - alice
```

```
*****  
This template image will not work until you edit the contents of /etc/netplan/00  
-installer-config.yaml, and correctly update the network settings.  
*****
```

```
[alice@f21-mail-thegummibear:~$ mailx
```

```
"/var/mail/alice": 1 message 1 unread  
>U 1 bob@f21-mail-thegu Sat Sep 11 18:05 20/631 can u see this  
? █
```



```
Return-path: <bob@f21-mail-thegummibear>
Envelope-to: alice@f21-mail-thegummibear
Delivery-date: Sat, 11 Sep 2021 18:05:45 +0000
Received: from bob by f21-mail-thegummibear with local (Exim 4.93)
        (envelope-from <bob@f21-mail-thegummibear>)
        id 1mP7Np-00016C-3d
        for alice@f21-mail-thegummibear; Sat, 11 Sep 2021 18:05:45 +0000
To: <alice@f21-mail-thegummibear>
Subject: can u see this
X-Mailer: mail (GNU Mailutils 3.7)
Message-Id: <E1mP7Np-00016C-3d@f21-mail-thegummibear>
From: bob@f21-mail-thegummibear
Date: Sat, 11 Sep 2021 18:05:45 +0000
X-IMAPbase: 1631383617 2
Status: 0
X-UID: 1
```

```
hello
thisis a test message from bob
bye
```

```
[? q
```

```
Saved 1 message in /home/alice/mbox
Held 0 messages in /var/mail/alice
```

```
alice@f21-mail-thegummibear:~$ █
```



```
alice@f21-mail-thegummibear:~$ echo "I typed the number one to read the message"
I typed the number one to read the message
[alice@f21-mail-thegummibear:~$ echo "Then I typed q to quit"
Then I typed q to quit
alice@f21-mail-thegummibear:~$ █
```

```
joe — alice@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[alice@f21-mail-thegummibear:~$ echo "Now test to see if you can send remotely" ]
Now test to see if you can send remotely
alice@f21-mail-thegummibear:~$ █
```



```
joe — alice@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ~ — joe@yavin: ~ — ssh ◀ ssh yavin  ...m@ssh.cs.dixie.edu -L 6153:cordelia:6153 +
[alice@f21-mail-thegummibear:~$ mailx dixiejoe2020@gmail.com
[Cc:
[Subject: this is a test
[can you receive this
[this is from alice
[ok bye
[alice@f21-mail-thegummibear:~$ echo "Control+d will end the message"
Control+d will end the message
alice@f21-mail-thegummibear:~$ █
```



```
alice@f21-mail-thegummibear:~$ mailx dixiejoe2020@gmail.com
```

```
Cc:
```

```
Subject: testing
```

```
can you read this
```

```
I hope so
```

```
bye
```

```
alice@f21-mail-thegummibear:~$ █
```



joe — root@f21-mail-thegummibear: /home/joe — ssh ◀ ssh yavin — 80×24

...il-thegummibear: /home/joe — ssh ◀ ssh yavin

...-scripts/ansible/playbooks — ssh ◀ ssh yavin

...2.118:8006 -L 8007:144.38.192.116:8006



```
root@f21-mail-thegummibear:/home/joe# cat /var/log/exim4/mainlog
```



```
joe — root@f21-mail-thegummibear: /home/joe — ssh ◀ ssh yavin — 80x24
...il-thegummibear: /home/joe — ssh ◀ ssh yavin  ...-scripts/ansible/playbooks — ssh ◀ ssh yavin  ...2.118:8006 -L 8007:144.38.192.116:8006  +
tion
2021-09-11 18:29:48 1mP7l5-0001F2-7a => dixiejoe2020@gmail.com R=smarthost T=remote_smtp_smarthost H=stumail.cs.dixie.edu [144.38.192.231] X=TLS1.3:ECDHE_SECP256R1__RSA_PSS_RSAE_SHA256__AES_256_GCM:256 CV=no DN="C=UK,O=Exim Developers,CN=stumail.cs.dixie.edu" K C="250- 464 byte chunk, total 464\\n250 OK id=1mP7l6-0000Pz-7X"
2021-09-11 18:29:48 1mP7l5-0001F2-7a Completed
2021-09-11 18:31:50 Warning: No server certificate defined; will use a selfsigned one.
  Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:31:50 1mP7n4-0001FP-Tf <= alice@f21-mail-thegummibear U=alice P=local S=438
2021-09-11 18:31:50 Warning: No server certificate defined; will use a selfsigned one.
  Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:31:51 1mP7n4-0001FP-Tf => dixiejoe2020@gmail.com R=smarthost T=remote_smtp_smarthost H=stumail.cs.dixie.edu [144.38.192.231] X=TLS1.3:ECDHE_SECP256R1__RSA_PSS_RSAE_SHA256__AES_256_GCM:256 CV=no DN="C=UK,O=Exim Developers,CN=stumail.cs.dixie.edu" K C="250- 452 byte chunk, total 452\\n250 OK id=1mP7n5-0000Uz-N7"
2021-09-11 18:31:51 1mP7n4-0001FP-Tf Completed
root@f21-mail-thegummibear:/home/joe#
```

testing

Inbox ×



**alice@f21-mail-thegummibear**

12:31 PM (0 minutes ago)

to me ▾

can you read this

I hope so

bye

It works!

Yes, I got your email.

No, I didn't get it.

---

of alice@f21-mail-thegummibear) smtp.mailfrom=alice@f21-mail-thegummibear

Return-Path: <alice@f21-mail-thegummibear>

Received: from stumail.cs.dixie.edu (stumail.cs.dixie.edu. [144.38.192.231])

by mx.google.com with ESMTPS id mu16si2880698pih.133.2021.09.11.11.31.53



```
joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
× ...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ...-scripts/ansible/playbooks — ssh ◀ ssh yavin  ...2.118:8006 -L 8007:144.38.192.116:8006 +
[joe@f21-mail-thegummibear:~$ echo "Cannot reply to that address, need to fix /etc/hosts"
Cannot reply to that address, need to fix /etc/hosts
joe@f21-mail-thegummibear:~$ █
```

```
127.0.0.1 localhost
127.0.1.1 template
```

```
# The following lines are desirable for IPv6 capable hosts
```

```
::1          ip6-localhost ip6-loopback
fe00::0      ip6-localnet
ff00::0      ip6-mcastprefix
ff02::1      ip6-allnodes
ff02::2      ip6-allrouters
```

```
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
```

```
127.0.0.1 localhost
127.0.1.1 template
```

```
#you only really need the ip address and FQDN
#I put some short names in here for convenience
144.38.199.52 mail.thegummibear.com mail f21-mail-thegummibear
```

```
# The following lines are desirable for IPv6 capable hosts
```

```
::1          ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

```
~
~
~
~
~
~
~
~
~
~
~
~
```



```
[joe@f21-mail-thegummibear:~$ echo "Test email again"  
Test email again  
joe@f21-mail-thegummibear:~$ █
```

```
joe — alice@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ...-scripts/ansible/playbooks — ssh ◀ ssh yavin  ...2.118:8006 -L 8007:144.38.192.116:8006 +
[alice@f21-mail-thegummibear:~$ mailx dixiejoe2020@gmail.com
[Cc:
[Subject: another message
[I hope you can see my correct return address now
[bye
[alice@f21-mail-thegummibear:~$ echo "Don't forget control+d to end your message"
Don't forget control+d to end your message
alice@f21-mail-thegummibear:~$ █
```



```
joe — joe@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ...-scripts/ansible/playbooks — ssh ◀ ssh yavin  ...2.118:8006 -L 8007:144.38.192.116:8006  +
tion
2021-09-11 18:31:51 1mP7n4-0001FP-Tf => dixiejoe2020@gmail.com R=smarthost T=remote_smtp_smarthost H=stumail.cs.dixie.edu [144.38.192.231] X=TLS1.3:ECDHE_SECP256R1__RSA_PSS_RSAE_SHA256__AES_256_GCM:256 CV=no DN="C=UK,O=Exim Developers,CN=stumail.cs.dixie.edu" K C="250- 452 byte chunk, total 452\\n250 OK id=1mP7n5-0000Uz-N7"
2021-09-11 18:31:51 1mP7n4-0001FP-Tf Completed
2021-09-11 18:35:41 Warning: No server certificate defined; will use a selfsigned one.
  Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:35:41 1mP7qn-0001G0-9n <= alice@mail.thegummibear.com U=alice P=local S=468
2021-09-11 18:35:41 Warning: No server certificate defined; will use a selfsigned one.
  Suggested action: either install a certificate or change tls_advertise_hosts option
2021-09-11 18:35:42 1mP7qn-0001G0-9n => dixiejoe2020@gmail.com R=smarthost T=remote_smtp_smarthost H=stumail.cs.dixie.edu [144.38.192.231] X=TLS1.3:ECDHE_SECP256R1__RSA_PSS_RSAE_SHA256__AES_256_GCM:256 CV=no DN="C=UK,O=Exim Developers,CN=stumail.cs.dixie.edu" K C="250- 482 byte chunk, total 482\\n250 OK id=1mP7qo-0000V9-6R"
2021-09-11 18:35:42 1mP7qn-0001G0-9n Completed
joe@f21-mail-thegummibear:~$
```



another message Inbox ×

 **alice@mail.thegummibear.com**

12:3

to me ▾

I hope you can see my correct return address now

bye

[Yes, I got it](#)

[Yes, I got your email](#)

[No, I didn't get it](#)

of alice@mail.thegummibear.com) smtp.mailfrom=alice@mail.thegummibear.com

Return-Path: <alice@mail.thegummibear.com>

Received: from stumail.cs.dixie.edu (stumail.cs.dixie.edu. [144.38.192.231])

by mx.google.com with ESMTPS id k12si3012542pfa.188.2021.09.11.11.37.52



↩️ ▾ alice@mail.thegummibear.com

Ok. Here is my response! I hope you get this.



Send ▾





To: alice@mail.thegummibear.com

Content-Type: multipart/alternative; boundary="0000000000000520f7505cbbc8f81"

--0000000000000520f7505cbbc8f81

Content-Type: text/plain; charset="UTF-8"

Ok. Here is my response! I hope you get this.

On Sat, Sep 11, 2021 at 12:37 PM <alice@mail.thegummibear.com>

> I hope you can see my correct return address now

>

> bye

```
[alice@f21-mail-thegummibear:~$ mail
```

```
"/var/mail/alice": 1 message 1 new
```

```
>N 1 Dixie joe Sat Sep 11 18:40 75/3547 Re: another message
```

```
[? 1
```

```
joe — alice@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin — 80x24
...@f21-mail-thegummibear: ~ — ssh ◀ ssh yavin  ...-scripts/ansible/playbooks — ssh ◀ ssh yavin  ...2.118:8006 -L 8007:144.38.192.116:8006 +
[alice@f21-mail-thegummibear:~$ echo "It appears to work, yay"
It appears to work, yay
alice@f21-mail-thegummibear:~$ █
```