Configure exim to send from remote clients, if authenticated.
joe@mail-thegummibear:~$ sudo apt-get install exim4-daemon-heavy
joe@mail-thegummibear:~$ echo "We need to create a general certificate"
We need to create a general certificate
joe@mail-thegummibear:~$ sudo /usr/share/doc/exim4-base/examples/exim-gencert
This may be sufficient to establish encrypted connections but for secure identification you need to buy a real certificate!

Please enter the hostname of your MTA at the Common Name (CN) prompt!

Generating a 2048 bit RSA private key

writing new private key to '/etc/exim4/exim.key'

You are about to be asked to enter information that will be incorporated into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.

[Country Code (2 letters) [US]]:
[State or Province Name (full name) []:UT
[Locality Name (eg, city) []:St. George
[Organization Name (eg, company; recommended) []:The Gummi Bear
[Organizational Unit Name (eg, section) []:Widgets]
writing new private key to '/etc/exim4/exim.key'

You are about to be asked to enter information that will be incorporated into your certificate request. What you are about to enter is what is called a Distinguished Name or a DN. There are quite a few fields but you can leave some blank. For some fields there will be a default value, If you enter '.', the field will be left blank. 

[Country Code (2 letters) [US]:]
[State or Province Name (full name) []:UT]
[Locality Name (eg, city) []:St. George]
[Organization Name (eg, company; recommended) []:The Gummi Bear]
[Organizational Unit Name (eg, section) []:Widgets]
[Server name (eg. ssl.domain.tld; required!!!) []:mail.thegummibear.com]
[Email Address []:joe@the.gummibear.com]
[*] Done generating self signed certificates for exim! Refer to the documentation and example configuration files over at /usr/share/doc/exim4-base/ for an idea on how to enable TLS support in your mail transfer agent.
Install secure authentication service
joe@mail-thegummibear:~$ echo "Install secure authentication service"
Install secure authentication service
joe@mail-thegummibear:~$ sudo apt-get install sasl2-bin
joe@mail-thegummibear:~$ sudo vi /etc/default/saslauthd
# Settings for saslauthd daemon
# Please read /usr/share/doc/sasl2-bin/README.Debian for details.
#

START=yes

# Description of this saslauthd instance. Recommended.
# (suggestion: SASL Authentication Daemon)
DESC="SASL Authentication Daemon"

# Short name of this saslauthd instance. Strongly recommended.
# (suggestion: saslauthd)
NAME="saslauthd"

# Which authentication mechanisms should saslauthd use? (default: pam)
#
# Available options in this Debian package:
# getpwnent  -- use the getpwnent() library function
# kerberos5  -- use Kerberos 5
# pam        -- use PAM
# rmap       -- use a remote IMAP server

"/etc/default/saslauthd" 62L, 2315C written
# Settings for saslauthd daemon
# Please read /usr/share/doc/sasl2-bin/README.Debian for details.
#
# Should saslauthd run automatically on startup? (default: no)
START=yes

# Description of this saslauthd instance. Recommended.
# (suggestion: SASL Authentication Daemon)
DESC="SASL Authentication Daemon"

# Short name of this saslauthd instance. Strongly recommended.
# (suggestion: saslauthd)
NAME="saslauthd"

# Which authentication mechanisms should saslauthd use? (default: pam)
#
# Available options in this Debian package:
# getpwent  -- use the getpwent() library function
# kerberos5 -- use Kerberos 5
# pam        -- use PAM
# rimap      -- use a remote IMAP server
"/etc/default/saslauthd" 62L, 2315C written
sudo service saslauthd restart
ps aux | grep sasl
root  30655  0.0  0.5  89800  2748 ?  Ss 17:19  0:00 /usr/sbin/saslauthd
uthd -a pam -c -m /var/run/saslauthd -n 5
root  30656  0.0  0.1  89800  972  ?  S  17:19  0:00 /usr/sbin/saslauthd
uthd -a pam -c -m /var/run/saslauthd -n 5
root  30657  0.0  0.1  89800  972  ?  S  17:19  0:00 /usr/sbin/saslauthd
uthd -a pam -c -m /var/run/saslauthd -n 5
root  30658  0.0  0.1  89800  972  ?  S  17:19  0:00 /usr/sbin/saslauthd
uthd -a pam -c -m /var/run/saslauthd -n 5
root  30659  0.0  0.1  89800  972  ?  S  17:19  0:00 /usr/sbin/saslauthd
uthd -a pam -c -m /var/run/saslauthd -n 5
joe   30661  0.0  0.1  12944  944 pts/0  S+ 17:19  0:00 grep --color=auto to sasl
joe@mail-thegummi:~$
joe@mail-thegummibear:~$ echo "Now some detailed edits"
Now some detailed edits
joe@mail-thegummibear:~$
joe@mail-thegummibear:~$ sudo vi /etc/exim4/exim4.conf.template
# ADDED TO ENABLE TLS AUTH
MAIN_TLS_ENABLE = yes
# END ADD

# TLS/SSL configuration for exim as an SMTP server.
# See /usr/share/doc/exim4-base/README.Debian.gz for explanations.

.ifdef MAIN_TLS_ENABLE
  # Defines what hosts to 'advertise' STARTTLS functionality to. The
  # default, *, will advertise to all hosts that connect with EHL0.
  .ifndef MAIN_TLS_ADVERTISE_HOSTS
    MAIN_TLS_ADVERTISE_HOSTS = *
  .endif
  
tls_advertise_hosts = MAIN_TLS_ADVERTISE_HOSTS
endif
```plaintext
# ADDED TO ENABLE TLS AUTH
MAIN_TLS_ENABLE = yes
# END ADD
# ADDED TO ENABLE STANDARD TLS SMTP PORTS
daemon_smtp_ports = 25 : 465 : 587
tls_on_connect_ports = 465
# END ADD

# TLS/SSL configuration for exim as an SMTP server.
# See /usr/share/doc/exim4-base/README.Debian.gz for explanations.

.ifdef MAIN_TLS_ENABLE
# Defines what hosts to 'advertise' STARTTLS functionality to. The
# default, *, will advertise to all hosts that connect with EHL0.
.ifndef MAIN_TLS_ADVERTISE_HOSTS
"/etc/exim4/exim4.conf.template" 2083L, 77805C written
```
### main/03_exim4-config_tlsoptions

---

# ADDED TO ENABLE TLS AUTH
MAIN_TLS_ENABLE = yes
# END ADD

# ADDED TO ENABLE STANDARD TLS SMTP PORTS
daemon_smtp_ports = 25 : 465 : 587
tls_on_connect_ports = 465
# END ADD

# ADDED TO FORCE ENCRYPTION BEFORE ALLOWING AUTH
auth_advertise_hosts = $[if eq{$tls_cipher}{}{}{}[*]}
# END ADD

# TLS/SSL configuration for exim as an SMTP server.
# See /usr/share/doc/exim4-base/README.Debian.gz for explanations.

ifdef MAIN_TLS_ENABLE

--- INSERT ---
Here is an example of CRAM-MD5 authentication against PostgreSQL:

```
psqldb_auth_server:
  driver = cram_md5
  public_name = CRAM-MD5
  server_secret = ${lookup pgsql{SELECT pw FROM users WHERE username = '${quote e_pgsql:$auth1}'}}$value}fail
  server_set_id = $auth1

Authenticate against local passwords using sasl2-bin
Requires exim_uid to be a member of sasl group, see README.Debian.gz
# UNCOMMENTED THE FOLLOWING TO ALLOW LOGIN
plain_saslauthd_server:
  driver = plaintext
  public_name = PLAIN
  server_condition = ${if saslauthd{{$auth2}{$auth3}}{1}{0}}
  server_set_id = $auth2
  server_prompts = :
    .ifndef AUTH_SERVER_ALLOW_NOTLS_PASSWORDS
    server_advertise_condition = ${if eq{tls_in_cipher}{}}{**}
    .endif

# login_saslauthd_server:
"/etc/exim4/exim4.conf.template" 2087L, 77950C written
```
joe@mail-thegummibear:~$ echo "NOW to allow exim to use SASL service"
NOW to allow exim to use SASL service
joe@mail-thegummibear:~$
joe@mail-thegummibear:~$ sudo adduser Debian-exim sasl
Adding user 'Debian-exim' to group 'sasl' ...
Adding user Debian-exim to group sasl
Done.
joe@mail-thegummibear:~$
$ echo "apply the template changes to actual configuration files"
apply the template changes to actual configuration files
$
joe@mail-thegummibear:~$ echo "apply the template changes to actual configuration files"
apply the template changes to actual configuration files
joe@mail-thegummibear:~$ sudo update-exim4.conf
joe@mail-thegummibear:~$
joe@mail-thegummibear:~$ echo "Restart MTA to use these settings"
Restart MTA to use these settings
joe@mail-thegummibear:~$
joe@mail-thegummibear:~$ echo "Check open ports"
Check open ports
joe@mail-thegummibear:~$
<table>
<thead>
<tr>
<th>Proto</th>
<th>Recv-Q</th>
<th>Send-Q</th>
<th>Local Address</th>
<th>Foreign Address</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>tcp</td>
<td>0</td>
<td>0</td>
<td>0.0.0.0:22</td>
<td>0.0.0.0:*</td>
<td>LISTEN</td>
</tr>
<tr>
<td>tcp</td>
<td>0</td>
<td>0</td>
<td>144.38.199.164:25</td>
<td>0.0.0.0:*</td>
<td>LISTEN</td>
</tr>
<tr>
<td>tcp</td>
<td>0</td>
<td>0</td>
<td>127.0.0.1:25</td>
<td>0.0.0.0:*</td>
<td>LISTEN</td>
</tr>
<tr>
<td>tcp6</td>
<td>0</td>
<td>0</td>
<td>0:::993</td>
<td>0:::*</td>
<td>LISTEN</td>
</tr>
<tr>
<td>tcp6</td>
<td>0</td>
<td>0</td>
<td>::1:25</td>
<td>:::*</td>
<td>LISTEN</td>
</tr>
<tr>
<td>tcp6</td>
<td>0</td>
<td>0</td>
<td>:::993</td>
<td>:::*</td>
<td>LISTEN</td>
</tr>
</tbody>
</table>
joe@mail-thegummibear:~$ echo "not there"
not there
joe@mail-thegummibear:~$
joe@mail-thegummibear:~$ sudo service exim4 restart
joe@mail-thegummibear:~$ sudo netstat -ntl
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address        State
tcp   0   0 144.38.199.164:587             0.0.0.0:*               LISTEN
tcp   0   0 127.0.0.1:587                 0.0.0.0:*               LISTEN
tcp   0   0 144.38.199.164:465             0.0.0.0:*               LISTEN
tcp   0   0 127.0.0.1:465                 0.0.0.0:*               LISTEN
tcp   0   0 0.0.0.0:22                    0.0.0.0:*               LISTEN
tcp   0   0 144.38.199.164:25             0.0.0.0:*               LISTEN
tcp   0   0 127.0.0.1:25                  0.0.0.0:*               LISTEN
tcp   0   0 0.0.0.0:993                   0.0.0.0:*               LISTEN
tcp6  0   0 ::1:587                       :::*                   LISTEN
tcp6  0   0 ::1:465                       :::*                   LISTEN
tcp6  0   0 ::1:22                        :::*                   LISTEN
tcp6  0   0 ::1:25                        :::*                   LISTEN
tcp6  0   0 ::993                         :::*                   LISTEN
joe@mail-thegummibear:~$ echo "Yay it is there now"