

Step-by-Step Guide to Install Postfix and Set Up an Email Alert

Deepak kesarkar ([Link](#))

Check the os release of your centos machine

```
[deepakcentos@localhost ~]$ cat /etc/os-release
NAME="CentOS Stream"
VERSION="9"
ID="centos"
ID_LIKE="rhel fedora"
VERSION_ID="9"
PLATFORM_ID="platform:el9"
PRETTY_NAME="CentOS Stream 9"
ANSI_COLOR="0;31"
LOGO="fedora-logo-icon"
CPE_NAME="cpe:/o:centos:centos:9"
HOME_URL="https://centos.org/"
BUG_REPORT_URL="https://issues.redhat.com/"
REDHAT_SUPPORT_PRODUCT="Red Hat Enterprise Linux 9"
REDHAT_SUPPORT_PRODUCT_VERSION="CentOS Stream"
```

Update the packages :

```
[deepakcentos@localhost ~]$ sudo dnf update -y
[sudo] password for deepakcentos:
Last metadata expiration check: 0:00:02 ago on Monday 07 July 2025
07:19:47 PM.
Dependencies resolved.
Nothing to do.
Complete!
```

Installation of Postfix :

```
[deepakcentos@localhost ~]$ sudo dnf install postfix -y
[sudo] password for deepakcentos:
```

Sorry, try again.

[sudo] password for deepakcentos:

Last metadata expiration check: 0:07:39 ago on Monday 07 July 2025

07:19:47 PM.

Dependencies resolved.

```
[deepakcentos@localhost ~]$ sudo dnf install postfix -y
[sudo] password for deepakcentos:
Sorry, try again.
[sudo] password for deepakcentos:
Last metadata expiration check: 0:07:39 ago on Monday 07 July 2025 07:19:47 PM.
Dependencies resolved.

=====
Package                        Architecture      Version           Repository        Size
=====
Installing:
postfix                       x86_64            2:3.5.25-1.el9    appstream         1.5 M
=====
Transaction Summary
=====
Install 1 Package

Total download size: 1.5 M
Installed size: 4.4 M
Downloading Packages:
postfix-3.5.25-1.el9.x86_64.rpm                                1.4 MB/s | 1.5 MB  00:01
-----
Total                                                                1.0 MB/s | 1.5 MB  00:01
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing                : postfix-2:3.5.25-1.el9.x86_64                1/1
  Running scriptlet: postfix-2:3.5.25-1.el9.x86_64                1/1
  Installing          : postfix-2:3.5.25-1.el9.x86_64                1/1
  Running scriptlet: postfix-2:3.5.25-1.el9.x86_64                1/1
  Verifying           : postfix-2:3.5.25-1.el9.x86_64                1/1
Installed:
postfix-2:3.5.25-1.el9.x86_64
```

We have to start the services :

[deepakcentos@localhost ~]\$ **systemctl start postfix.service**

[deepakcentos@localhost ~]\$ **systemctl status postfix.service**

● postfix.service - Postfix Mail Transport Agent

Loaded: loaded (/usr/lib/systemd/system/postfix.service; disabled; preset: disabled)

Active: active (running) since Mon 2025-07-07 19:35:30 IST; 9s ago

Process: 6625 ExecStartPre=/usr/sbin/restorecon -R /var/spool/postfix/pid (code=exited, status=0/SUCCESS)

Process: 6626 ExecStartPre=/usr/libexec/postfix/aliasesdb (code=exited, status=0/SUCCESS)

Process: 6630 ExecStartPre=/usr/libexec/postfix/chroot-update (code=exited, status=0/SUCCESS)

Process: 6631 ExecStart=/usr/sbin/postfix start (code=exited, status=0/SUCCESS)

Main PID: 6699 (master)

Tasks: 3 (limit: 22675)

Memory: 6.0M
CPU: 630ms
CGroup: /system.slice/postfix.service
├─6699 /usr/libexec/postfix/master -w
├─6700 pickup -l -t unix -u
└─6701 qmgr -l -t unix -u

Jul 07 19:35:30 localhost.localdomain systemd[1]: Starting Postfix Mail Transport Agent...
Jul 07 19:35:30 localhost.localdomain postfix/postfix-script[6697]: starting the Postfix mail system
Jul 07 19:35:30 localhost.localdomain postfix/master[6699]: daemon started -- version 3.5.25, configuration /etc/postfix
Jul 07 19:35:30 localhost.localdomain systemd[1]: Started Postfix Mail Transport Agent.

Enabled the service :

```
[root@localhost ~]# systemctl enable postfix.service  
Created symlink /etc/systemd/system/multi-user.target.wants/postfix.service  
→ /usr/lib/systemd/system/postfix.service.
```

So , next step is we have to configure the firewall :

```
[root@localhost ~]# firewall-cmd --permanent --add-service=smtp  
success  
[root@localhost ~]# firewall-cmd --reload  
Success
```

After this, we need to check whether the mailing function is working or not.

Let's try using the command below:

```
[root@localhost ~]# echo "This is Deepak Kesarkar" | mail -s "Test postfix" root  
bash: mail: command not found...  
Install package 's-nail' to provide command 'mail'? [N/y] ^C
```

So we have to install the mailx

We tried by below command but its not working I think:

```
[root@localhost ~]# sudo dnf install -y mailx
```

```
Last metadata expiration check: 2:07:07 ago on Monday 07 July 2025  
07:19:47 PM.
```

```
No match for argument: mailx
```

```
Error: Unable to find a match: mailx
```

So the next step is to add the required field in the [main.cf](#) file

```
cd /etc/postfix
```

```
[root@localhost postfix]# pwd
```

```
/etc/postfix
```

So we have to add the below content the [main.cf](#) file

```
[root@localhost postfix]# ls -lrth main.cf
```

```
-rw-r--r--. 1 root root 29K Jul  7 21:52 main.cf
```

Open the file in vim/vim editor at last add the below content

(so we have lots of lines , just use G , you will redirect to the last line)

```
#
```

```
smtp_tls_security_level = may
```

```
meta_directory = /etc/postfix
```

```
shlib_directory = /usr/lib64/postfix
```

```
relayhost = [smtp.gmail.com]:587
```

```
smtp_use_tls = yes
```

```
smtp_sasl_auth_enable = yes
```

```
smtp_sasl_password_maps = hash:/etc/postfix/sasl_passwd
```

```
smtp_sasl_security_options = noanonymous
```

```
smtp_sasl_tls_security_options = noanonymous
```

Added the the content over there :

```
[root@localhost postfix]# tail -10 main.cf
```

```
#
```

```
smtp_tls_security_level = may
```

```
meta_directory = /etc/postfix
```

```
shlib_directory = /usr/lib64/postfix
```

```
relayhost = [smtp.gmail.com]:587
smtp_use_tls = yes
smtp_sasl_auth_enable = yes
smtp_sasl_password_maps = hash:/etc/postfix/sasl_passwd
smtp_sasl_security_options = noanonymous
smtp_sasl_tls_security_options = noanonymous
```

So, here comes the main part. Since we are using Gmail for sending emails, we need to generate an App Password for authentication.

Go to your gmail account and click on manage your google account.

Security >> in the search bar , type Apps password >>

Create one password , which we can use :

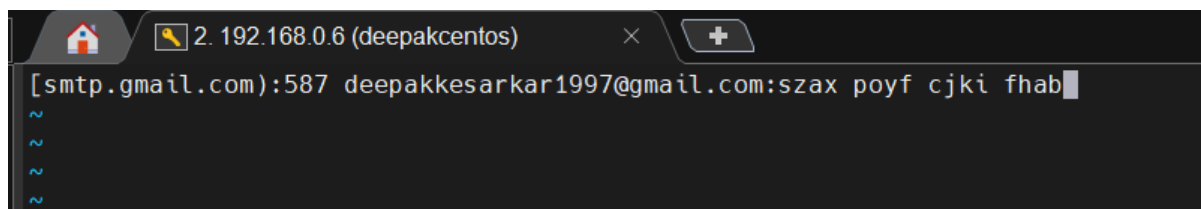
(Keep two factor authentication on, or else , you will not see the option)

Copy the password , keep somewhere else.

On the same directory and create one file.

```
vim /etc/postfix/sasl_passwd
```

Add the following content to the file, replacing it with your Gmail address and the App Password you generated:



```
[root@localhost postfix]# cat sasl_passwd
```

```
[smtp.gmail.com]:587 deepakkesarkar1997@gmail.com:szax poyf cjki fhab
```

```
[root@localhost postfix]# postmap sasl_passwd
```

```
[root@localhost postfix]# ls -lrt sasl_passwd.db →Generated one more file
-rw-r--r--. 1 root root 12288 Jul  7 22:41 sasl_passwd.db
```

Restart the sendmail again

```
[root@localhost postfix]# ^C
```

```
[root@localhost postfix]# systemctl restart postfix.service
[root@localhost postfix]# systemctl status postfix.service
```

So we will do the testing now :

```
[root@localhost postfix]# echo -e "Hello Guys , This is part of Testing 02 " |
sendmail -v deeps9427@gmail.com
Mail Delivery Status Report will be mailed to <root>.
```

I used the above script to send the messages, but I still haven't received any. So, let's check the logs:

Upon checking the logs, it turned out to be an authentication issue, as shown below:

```
[root@localhost ~]# sudo tail -n 5 /var/log/maillog | grep
deeps9427@gmail.com
Jul  7 23:06:10 localhost postfix/smtp[16775]: 52BDB1900DD:
to=<deeps9427@gmail.com>, relay=smtp.gmail.com[74.125.24.109]:587,
delay=32, delays=0.06/0.04/31/0.22, dsn=5.7.0, status=bounced (host
smtp.gmail.com[74.125.24.109] said: 530-5.7.0 Authentication Required.
For more information, go to 530 5.7.0
https://support.google.com/accounts/troubleshooter/2402620.
41be03b00d2f7-b392a0725ccsm492695a12.49 - gsmtpt (in reply to MAIL
FROM command))
Jul  7 23:10:55 localhost postfix/smtp[16975]: 346441900DE:
to=<deeps9427@gmail.com>, relay=smtp.gmail.com[74.125.24.108]:587,
delay=32, delays=0.03/0.04/32/0.21, dsn=5.7.0, status=bounced (host
smtp.gmail.com[74.125.24.108] said: 530-5.7.0 Authentication Required.
For more information, go to 530 5.7.0
https://support.google.com/accounts/troubleshooter/2402620.
41be03b00d2f7-b38ee44fc67sm9308132a12.5 - gsmtpt (in reply to MAIL
FROM command))
```

It was related to an authentication issue. I rechecked the files and also verified with ChatGPT, and found that there was a syntax error in the `sasl_passwd` file. After correcting it, the mail was successfully received.

```
[root@localhost postfix]# echo -e "Hello Guys , This is part of Testing final part" | sendmail -v deeps9427@gmail.com
Mail Delivery Status Report will be mailed to <root>.
You have new mail in /var/spool/mail/root
[root@localhost postfix]# echo -e "Hello Guys , This is part of Testing final part" | sendmail -v deeps9427@gmail.com
Mail Delivery Status Report will be mailed to <root>.
You have new mail in /var/spool/mail/root
[root@localhost postfix]# echo -e "Hello Guys , This is part of Testing final part" | sendmail -v deeps9427@gmail.com
Mail Delivery Status Report will be mailed to <root>.
```

You can check the logs to confirm—since the output shows **status=sent**, the email was successfully delivered.

```
[root@localhost ~]# tail -f /var/log/maillog | grep deeps9427@gmail.com
Jul  7 23:33:06 localhost postfix/smtp[18727]: 292221900DE: to=<deeps9427@gmail.com>, relay=smtp.gmail.com[172.253.118.108]:587, delay=3.3, delays=0.06/0.06/2/1.2, dsn=2.0.0, status=sent (250 2.0.0 OK 1751911966 d2e1a72fcc58-74ce35d086esm9545617b3a.68 - gsmtip)
Jul  7 23:34:11 localhost postfix/smtp[18727]: 61E331900DE: to=<deeps9427@gmail.com>, relay=smtp.gmail.com[172.253.118.108]:587, delay=3, delays=0.01/0/1.9/1.1, dsn=2.0.0, status=sent (250 2.0.0 OK 1751912026 98e67ed59e1d1-31a9cd0ba55sm12942748a91.40 - gsmtip)
Jul  7 23:34:12 localhost postfix/smtp[18811]: 624D61900F3: to=<deeps9427@gmail.com>, relay=smtp.gmail.com[172.253.118.108]:587, delay=3.1, delays=0.03/0.08/1.9/1, dsn=2.0.0, status=sent (250 2.0.0 OK 1751912027 98e67ed59e1d1-31aaae40a75sm10202713a91.3 - gsmtip)
```

As a root :

