

# Preparing your CentOS system for MailVault

These are general instructions, meant to serve as a recommended starting step, but may be adapted to specific requirements.

## Assumptions

- Hardware sizing has been done and the appropriate hardware is in place.
- The use of RAID is highly recommended.

## General Setup

- OS and indexes will reside on the server disks.
- Email may be stored on the server disks, or, will be on external storage (mounted over NFS).

## Operating System

In general, the Server versions are recommended. In case a native GUI for the OS is needed, the Desktop variants may be used.

- CentOS 7.x, 64-bit

## Partition Structure

The partitions could be of type **ext4**.

- */boot* - 1 GB
- *Swap* - 4 GB
- */* - 100 GB
- */invdata* - All the remaining space (ensure it is enough to store your email)

## Install Python 3.8.11

### 1. Prerequisites

```
sudo yum -y update
```

```
sudo yum groupinstall -y 'development tools'
```

```
sudo yum install gcc-c++ pkgconfig poppler-cpp-devel python3-devel
sudo yum install openssl-devel openldap-devel readline-devel
sudo yum install gdbm-devel sqlite-devel
sudo yum install libevent-devel libyaml-devel zlib-devel
sudo yum install tk-devel libtiff-devel libjpeg-devel
sudo yum install libtiff-devel gdb bzip2-devel
sudo yum install ncurses-devel sqlite-devel readline-devel
sudo yum install libxml2-devel libxslt1-devel libxslt-devel
sudo yum install python-devel bzip2-devel expat-devel
sudo yum install libdb-cxx-devel.x86_64 libdb-devel.x86_64
```

## 2. Download Python

```
cd /usr/src or cd /opt
sudo wget
https://www.python.org/ftp/python/3.8.11/Python-3.8.11.tgz
sudo tar -xf Python-3.8.11.tgz
```

## 3. Compile the source

```
cd Python-3.8.11
sudo ./configure
sudo make
sudo make altinstall
```

## 4. Check the version

```
Python 3.8.11
# This should show Python 3.8.11
```

## User Creation and File System Structure

- Create a user called 'mailvault', with home directory */home/mailvault*

```
sudo adduser mailvault
```

- Next, change the ownership of */mvdata* to user 'mailvault'

```
sudo chown -R mailvault.mailvault /mvdata
```

Later on, MailVault will be installed in */home/mailvault*, and MailVault related data will reside under */mvdata*.

## Other recommended settings

Edit */etc/sysctl.conf* and add the following line to the end of the file:

```
fs.file-max = 65536
```

Edit */etc/security/limits.conf* and add the following lines to the end of the file:

```
soft nproc 65536
hard nproc 65536
soft nofile 65536
hard nofile 65536
```

Check the settings are in effect with the following command:

```
ulimit -a
```

In the output you should see the following line:

```
open files (-n) 65535
```

## Conclusion

This completes the basic preparation of your Linux system, after which MailVault can be installed and configured.

In case you need any clarifications, feel free to get in touch with us.