**How To Add Swap on Linux OS**

### Introduction

One of the easiest ways to make your server more responsive, and guard against out-of-memory errors in your application, is to add some swap space. **Swap** is an area on a storage drive where the operating system can temporarily store data that it can no longer hold in memory.

This gives you the ability to increase the amount of information that your server can keep in its working memory, with some caveats. Reading from and writing to swap is slower than using memory, but it can provide a good safety net for when your server is low on memory.

Without swap, a server that runs out of memory may start killing applications to free up memory, or even crash. This can cause you to lose unsaved data or experience downtime. To ensure reliable data access, some applications require swap to function.

In this guide, we will cover how to create and enable a swap file on a Linux server.

## **Check the System for Swap Information**

#swapon -s

#free -m

#df -h

## **Create a Swap File**

Now that we know our available storage space, we can go about creating a swap file within our filesystem. We will create a file called swapfile in our root (/) directory, though you can name the file something else if you prefer. The file must allocate the amount of space that we want for our swap file.

The fastest and easiest way to create a swap file is by using fallocate. This command creates a file of a preallocated size instantly. We can create a 4 gigabyte file by typing:

#sudo fallocate -l 4G /swapfile

#ls -lh /swapfile

## **Enable a Swap File**

#sudo chmod 600 /swapfile

#sudo mkswap /swapfile

Our swap file is now ready to be used as a swap space. We can begin using it by typing:

#sudo swapon /swapfile

To verify that the procedure was successful, we can check whether our system reports swap space now:

#swapon -s

#free -m

Our swap has been set up successfully, and our operating system will begin to use it as needed.

## **Make the Swap File Permanent**

Our swap file is enabled at the moment, but when we reboot, the server will not automatically enable the file for use. We can change that by modifying the fstab file, which is a table that manages filesystems and partitions.

Edit the file with sudo privileges in your text editor:

#sudo vi /etc/fstab

At the bottom of the file, you need to add a line that will tell the operating system to automatically use the swap file that you created:

/swapfile swap swap sw 0 0

When you are finished adding the line, you can save and close the file. The server will check this file on each bootup, so the swap file will be ready for use from now on.