

# **S1 and S2 Flavor stacks: Differences between our two VM categories**

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# S1 and S2 Flavor stacks: Differences between our two VM categories

If you want to start a VM in our OpenStack, you have the choice between two VM categories: S1 and S2.

These differ, apart from hard disk size and compute power (CPU and RAM), mainly in two points: in the IOPS and the bandwidth.

## **IOPS:**

This standard unit of measurement indicates how many input and output commands can be executed per second. The S1- flavors can process 1000 IOPS in normal operation. For a period of 60 seconds, even a peak of 2000 IOPS can be processed before it is then throttled back to the normal value. The S2 flavors can process twice the amount of commands - i.e. 2000 IOPS - in normal operation. They can even be turned up to 4000 IOPS for 60 seconds in peak. After that, they are also turned back down to normal.

## **Bandwidth:**

The second difference concerns the network connection. The S1 and S2 categories differ not only in IOPS, but also in the available bandwidth. The larger the bandwidth, the more data can be transferred simultaneously within a time window.

In the S1 flavor, 1 Gbit per second can be transferred as standard. This corresponds to a data volume of 125,000 KB per second. In peak operation, the amount can double to 250,000 KB/s or 2 Gbit/s for a period of 1 minute. With the S2 Flavor, 2 Gbit/s are available in normal operation. In peak it is even 4 Gbit/s or 500,000 KB/s.

## **Who uses what?**

For all those who have a memory and network-intensive load, it is therefore advisable to fall back on an S2 VM. Examples would be video streams, backup servers (which load a lot of data) or databases. Also AI machines, where large amounts of data need to be processed, should run on s2 flavors.

Here you can find the [overview](#), which helps you to compare all possible flavors in terms of price and conditions.