

Extract from the IONOS cloud Service Catalog

2.9 IONOS cloud Block Storage

IONOS cloud Block Storage, also called volume, allows the customer to make use of a dual-redundant storage system.

Each block storage created by the customer is stored on two storage servers, providing active-active redundancy. For additional data protection, every storage server is based either on a hardware RAID system or on a software RAID system.

Access to the volumes requested by the customer is achieved via the internal InfiniBand (RDMA) network.

For Solid State Drive volumes, IONOS cloud offers two performance classes that can be selected at time of ordering the volume. SSD Premium is optimized for high performance while SSD Standard is recommended for fast data access with general-purpose scenarios.

HDD volumes deliver a static performance profile independent of the volume size. In comparison, SSD volumes deliver higher performance depending on the volume size and get capped at a specific size.

| Hard drive | Hard Disk Drive (HDD) |
|--------------------------------|--|
| Use | Shared |
| Minimum and maximum size | 1 GiB – 4 TiB per volume* (up to 24 HDD per VM supported) |
| Read / write speed, sequential | 200 MB/s at 1 MiB block size |
| Read / write speed, random | 1,100 IOPS at 4 KiB block size |

**Larger volumes available on request.*

| Hard drive | Solid State Drive (SSD) - Premium |
|-------------------------------------|---|
| Use | Shared |
| Minimum and maximum size | 1 GiB – 4 TiB per volume (up to 4 SSD per VM supported) |
| Read / write speed, sequential | 1 MB/s per GiB at 1 MiB block size |
| Max. read / write speed, sequential | 600 MB/s per VM at 1 MiB block size and min. 4 Cores, 4 GB RAM per volume |
| Read speed, random | 75 IOPS per GiB at 4 KiB block size |
| Max. read speed, random | 45,000 IOPS per VM at 4 KiB block size and min. 4 Cores, 4 GB RAM per volume |
| Write speed, random | 50 IOPS per GiB at 4 KiB block size |
| Max. write speed, random | 30,000 IOPS per VM at 4 KiB block size and min. 4 Cores, 4 GB RAM per volume |

| Hard drive | Solid State Drive (SSD) - Standard |
|-------------------------------------|---|
| Use | Shared |
| Minimum and maximum size | 1 GiB – 4 TiB per volume (up to 24 SSD per VM supported) |
| Read / write speed, sequential | 0.5 MB/s per GiB at 1 MiB block size |
| Max. read / write speed, sequential | 300 MB/s per VM at 1 MiB block size and min. 2 Cores, 2 GB RAM per volume |
| Read speed, random | 40 IOPS per GiB at 4 KiB block size |
| Max. read speed, random | 24,000 IOPS per VM at 4 KiB block size and min. 2 Cores, 2 GB RAM per volume |
| Write speed, random | 30 IOPS per GiB at 4 KiB block size |
| Max. write speed, random | 18,000 IOPS per VM at 4 KiB block size and min. 2 Cores, 2 GB RAM per volume |