

Storage

Questions	AWS	Azure		Google Cloud Platform	IBM Cloud	OTC	OVH
Which kinds of storage are available? - Object / Blob Storage - File Storage - Block Storage	yes (S3 / Glacier) yes (EFS) yes (EBS)	yes (Azure Blob Storage) yes (Azure Disk Storage) yes (Azure Files)		yes (Google Cloud Storage) yes (Google Drive / Persistent Disk) yes (Google Persistent Disk)	yes (IBM Cloud Object Storage) yes (IBM Cloud file storage) yes (IBM Cloud block storage)	yes (Object Storage Service) yes (Scalable File Service) yes (Elastic Volume Service)	yes(Swift) Yes(CephFS) yes(Based on Ceph)
Block - Different tier-classes? SATA, SSD, SAS	yes	yes		yes	yes	yes	yes
Which objects storage-engines are offered?	Amazon S3	Azure Blob Storage		Buckets (like S3)	- S3 - Swift	- S3 - OpenStack Swift	-Swift
File - Accessing file storage via (cluster) file system.	- EFS	- GlusterFS - BeeGFS - Luster		- Google Cloud Storage FUSE - Beta: Google Cloud Filestore	- NFS	- NFS	-CephFS
Storage capacity limits	Overall size: Unlimited 5 TB per S3 object	Overall size: 500 TB per Storage Account 200 Storage Accounts per Subscriptions		Overall size: Unlimited 5 TB per individual object	Overall size: Unlimited 25 GB per month of object storage(Unlimited for standard plan)	50 TB of Object storage 32 TB of Block Storage 10 PB of File Storage	Overall size: Unlimited
Duration of provisioning?	8 sec	47 sec		22 sec	24 sec	8 sec	7 sec
Throughput IOPS (only Block- and File-Storage)	- Random read: - bw = 24.52 MB/s, iops = 3065 - Random write: - bw = 129.00 MB/s, iops = 2015 - Random Read and write: - read: bw = 44.20 MB/s, iops = 2762 - write: bw = 5.04 MB/s, iops = 314 - Sequential read: - bw = 24.55 MB/s, iops = 3068 - Sequential write: - bw = 99.07 MB/s, iops = 3095	- Random read: - bw = 1.95 MB/s, iops = 243 - Random write: - bw = 15.58 MB/s, iops = 243 - Random read and write: - read: bw = 3.50 MB/s, iops = 218 - write: bw = 0.41 MB/s, iops = 25 - Sequential read: - bw = 1.95 MB/s, iops = 243 - Sequential write: - bw = 7.80 MB/s, iops = 243		- Random read - bw = 1.20 MB/s, iops = 149 - Random write - bw = 7.32 MB/s, iops = 114 - Random read and write: - read: bw = 1.05 MB/s, iops = 65 - write: bw = 0.12 MB/s, iops = 7 - Sequential read - bw = 37.59 MB/s, iops = 4699 - Sequential write - bw = 121.87 MB/s, iops = 3808	- Random Read - bw = 145.81 MB/s, iops = 18266 - Random Write - bw = 226.01 MB/s, iops = 3531 - Random Read and write: - read: bw = 165.92 MB/s, iops = 10370 - write: bw = 18.90 MB/s, iops = 1181 Sequential Read bw = 108.30 MB/s, iops = 13538 Sequential Write bw = 119.20 MB/s, iops = 3725	- Random Read - bw = 8.04 MB/s, iops = 1004 - Random Write - bw = 65.03 MB/s, iops = 1017 - Random Read and write: - read: bw = 14.45 MB/s, iops = 903 - write: bw = 1.65 MB/s, iops = 102 Sequential Read bw = 10.90 MB/s, iops = 1362 Sequential Write bw = 57.91 MB/s, iops = 1809	- Random Read - bw = 1.61 MB/s, iops = 201 - Random Write - bw = 12.05 MB/s, iops = 188 - Random Read and write: - read: bw = 3.85 MB/s, iops = 240 - write: bw = 0.45 MB/s, iops = 27 Sequential Read bw = 1.26 MB/s, iops = 156 Sequential Write bw = 6.09 MB/s, iops = 190
Costs per month - total price for 50 GB Disk which is mounted to the VM	€ 5.29 / \$ 5.95	€ 7.65 / \$ 8.58		€ 1.14 / \$ 1.28	€ 8.82 / \$ 9.89	€ 2.30 / \$ 2.58	€ 2.25 / \$ 2.25