

virtio-scsi benchmarking

Create an image with the following metadata

- hw_scsi_model=virtio-scsi
- hw_disk_bus=scsi

Benchmark utilities

dd
bonnie++

Testing steps

1. Deploy instance (8CPU, 2GB RAM, 50GB disk) on a quiet host
2. Run dd test to balloon instance and fill the disk. This prepares the disk for normalized testing
 - a. dd if=/dev/zero of=/root/testfile bs=1G count=48 oflag=direct
3. Run dd write test x3
 - a. dd if=/dev/zero of=/root/testfile bs=1G count=30 oflag=direct
 - b. sync
4. Run dd read test x3
 - a. dd if=/dev/zero of=/root/testfile.ram bs=1G count=5 oflag=direct (flushing memory)
 - b. dd if=/root/testfile of=/dev/null bs=1G
5. Run bonnie++ test x3
 - a. bonnie -u root -d /root -r 2048

DD Results

	virtio	virtio-scsi	Difference
dd write warmup	213 MB/s	148 MB/s	-30.52%
dd write 1	225 MB/s	197 MB/s	-12.44%
dd write 2	221 MB/s	193 MB/s	-12.67%
dd write 3	224 MB/s	192 MB/s	-14.29%
dd read 1	1.1 GB/s	1.2 GB/s	9.09%
dd read 2	1.4 GB/s	1.2 GB/s	-14.29%
dd read 3	1.6 GB/s	1.5 GB/s	-6.25%
Write average	219.66 MB/s	194 MB/s	-11.68%
Read average	1.366 GB/s	1.3 GB/s	-4.83%

Bonnie++ Results

[virtio-scsi-bonnie.txt](#)

[virtio-bonnie.txt](#)

[Deciphering bonnie++ results](#)