BookKeeperPerfPage

BookKeeper Performance Figures

The numbers we present in this page have been obtained in a cluster of machines with the following characteristics: one Xeon dual-core 2.1GHz processor, 4GB of RAM, gigabit ethernet, and two SATA hard drives. Each one of the values below correspond to the average over 10 different runs, and in each run a client writes 400k times.

Single-client experiments (writes)

We run one client writing to an ensemble of bookies. We use *x-y* to the denote the configuration used, where *x* is the total number of bookies and *y* is the quorum size.

	128 bytes per entry written	1024 bytes written per entry
3-2	20.57 Kops/s	20.52 Kops/s
4-2	28.99 Kops/s	22.51 Kops/s
5-2	39.02 Kops/s	23.54 Kops/s
6-2	41.70 Kops/s	23.79 Kops/s

	128 bytes per entry written	1024 bytes written per entry
4-3	23.52 Kops/s	16.56 Kops/s
5-3	30.01 Kops/s	18.64 Kops/s
6-3	30.11 Kops/s	20.82 Kops/s

Multi-client experiments

16 clients writing to bookies simultaneously. The values displayed correspond to aggregate throughput over all 16 clients.

	128 bytes per entry written	1024 bytes written per entry
4-2	196.61 Kops/s	76.17 Kops/s
6-2	232.44 Kops/s	80.75 Kops/s
4-3	128.97 Kops/s	53.25 Kops/s
6-3	146.72 Kops/s	56.22 Kops/s

Single-client experiments (reads)

We create a ledger, write 10M 1024-byte entries (10G bytes), and read from the ledger.

	1024 bytes written per entry
3-2	51.64 Kops/s
4-2	56.78 Kops/s
5-2	53.45 Kops/s
6-2	52.44 Kops/s

4-3	50.37 Kops/s
5-3	52.96 Kops/s
6-3	55.39 Kops/s
5-4	54.97 Kops/s
6-4	59.81 Kops/s