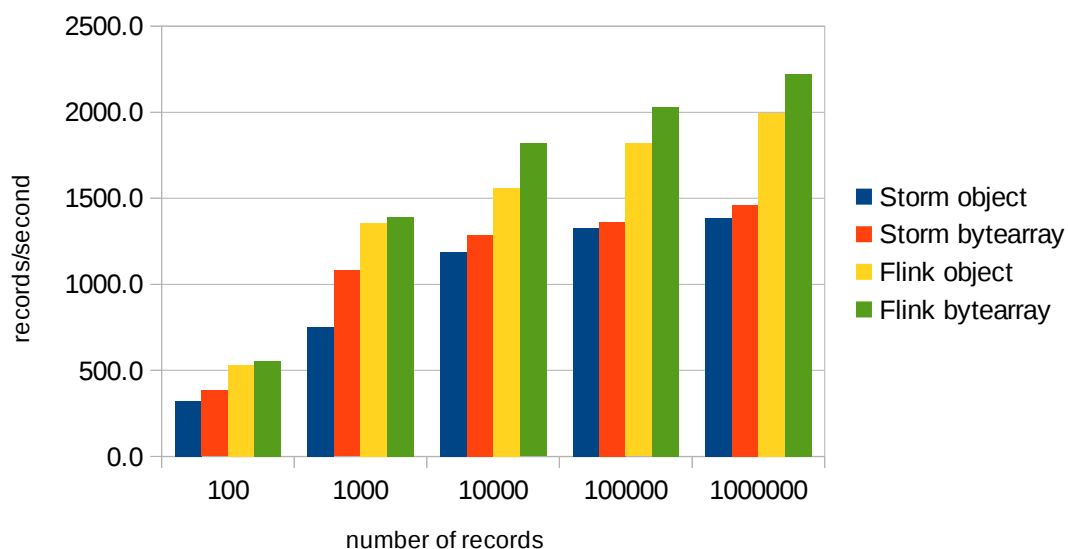


RECORDS-SECOND 4 producers

| RECORDS/SECOND | 1 st run | 2 nd run | 3 rd run | 4 th run | 5 th run | Avg |
|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------|
| Storm object 100 | 298 | 308 | 303 | 362 | 342 | 322.6 |
| Storm object 1000 | 698 | 743 | 805 | 768 | 746 | 752.0 |
| Storm object 10000 | 1014 | 1242 | 1234 | 1238 | 1205 | 1186.6 |
| Storm object 100000 | 1331 | 1336 | 1314 | 1347 | 1325 | 1330.6 |
| Storm object 1000000 | 1344 | 1350 | 1467 | | | 1387.0 |
| Storm bytearray 100 | 462 | 361 | 362 | 338 | 393 | 383.2 |
| Storm bytearray 1000 | 1055 | 1109 | 1076 | 1044 | 1114 | 1079.6 |
| Storm bytearray 10000 | 1271 | 1279 | 1326 | 1287 | 1268 | 1286.2 |
| Storm bytearray 100000 | 1374 | 1331 | 1385 | 1360 | 1368 | 1363.6 |
| Storm bytearray 1000000 | 1393 | 1494 | 1497 | | | 1461.3 |
| Flink object 100 | 544 | 493 | 500 | 486 | 628 | 530.2 |
| Flink object 1000 | 1440 | 1312 | 1339 | 1403 | 1294 | 1357.6 |
| Flink object 10000 | 1617 | 1455 | 1710 | 1456 | 1568 | 1561.2 |
| Flink object 100000 | 1854 | 1797 | 1804 | 1820 | 1814 | 1817.8 |
| Flink object 1000000 | 2022 | 1967 | 2004 | | | 1997.7 |
| Flink bytearray 100 | 505 | 501 | 498 | 745 | 521 | 554.0 |
| Flink bytearray 1000 | 1253 | 1406 | 1392 | 1503 | 1391 | 1389.0 |
| Flink bytearray 10000 | 1809 | 1821 | 1762 | 1832 | 1868 | 1818.4 |
| Flink bytearray 100000 | 2003 | 2080 | 2015 | 2041 | 2011 | 2030.0 |
| Flink bytearray 1000000 | 2220 | 2210 | 2231 | | | 2220.3 |

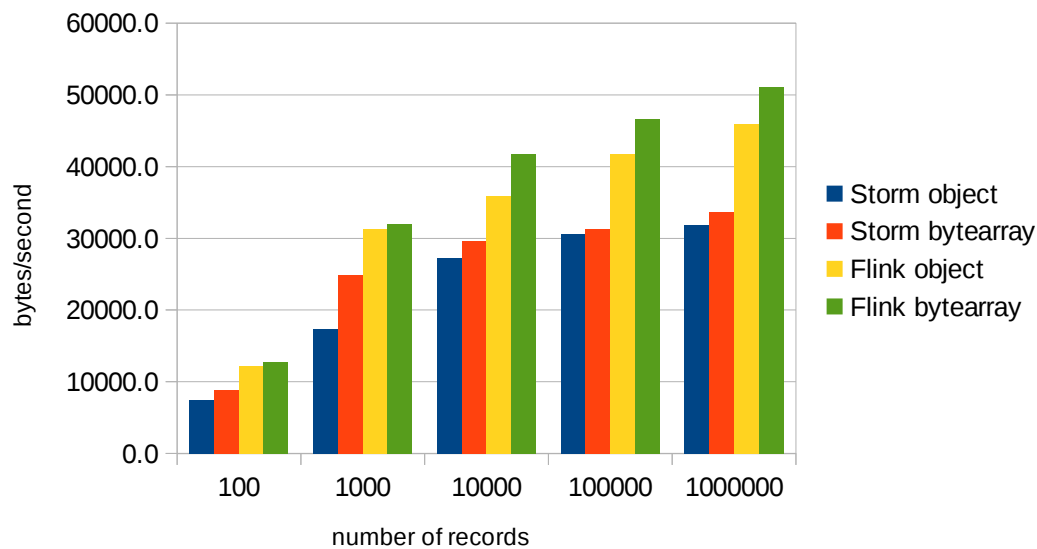
Average throughput



BYTES-SECOND 4 producers

| BYTES/SECOND | 1 st run | 2 nd run | 3 rd run | 4 th run | 5 th run | Avg |
|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------|
| Storm object 100 | 6865 | 7089 | 6973 | 8334 | 7873 | 7426.8 |
| Storm object 1000 | 16017 | 17109 | 18517 | 17678 | 17173 | 17298.8 |
| Storm object 10000 | 23344 | 28586 | 28398 | 28479 | 27724 | 27306.2 |
| Storm object 100000 | 30614 | 30730 | 30229 | 30998 | 30480 | 30610.2 |
| Storm object 1000000 | 30932 | 31052 | 33759 | | | 31914.3 |
| Storm bytearray 100 | 10628 | 8306 | 8330 | 7788 | 9056 | 8821.6 |
| Storm bytearray 1000 | 24279 | 25529 | 24760 | 24018 | 25643 | 24845.8 |
| Storm bytearray 10000 | 29238 | 29436 | 30499 | 29607 | 29174 | 29590.8 |
| Storm bytearray 100000 | 31621 | 30625 | 31877 | 31284 | 31476 | 31376.6 |
| Storm bytearray 1000000 | 32058 | 34375 | 34433 | | | 33622.0 |
| Flink object 100 | 12522 | 11359 | 11503 | 11185 | 14453 | 12204.4 |
| Flink object 1000 | 33135 | 30185 | 30809 | 32279 | 29771 | 31235.8 |
| Flink object 10000 | 37193 | 33468 | 39341 | 33505 | 36081 | 35917.6 |
| Flink object 100000 | 42643 | 41337 | 41514 | 41873 | 41744 | 41822.2 |
| Flink object 1000000 | 46515 | 45256 | 46112 | | | 45961.0 |
| Flink bytearray 100 | 11635 | 11525 | 11459 | 17155 | 11993 | 12753.4 |
| Flink bytearray 1000 | 28831 | 32347 | 32026 | 34570 | 31999 | 31954.6 |
| Flink bytearray 10000 | 41617 | 41884 | 40541 | 42145 | 42977 | 41832.8 |
| Flink bytearray 100000 | 46078 | 47848 | 46363 | 46958 | 46253 | 46700.0 |
| Flink bytearray 1000000 | 51064 | 50841 | 51329 | | | 51078.0 |

Average throughput



RECORDS-SECOND 4 producers only

| RECORDS/SECOND | 1 st run | 2 nd run | 3 rd run | 4 th run | 5 th run | Avg | Avg time |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------|----------|
| 100 | 390.63 | 375.94 | 366.30 | 361.01 | 366.30 | 372.0 | 0.269 |
| 1000 | 1550.39 | 2028.40 | 1912.05 | 1742.16 | 1845.02 | 1815.6 | 0.551 |
| 10000 | 2929.97 | 2585.32 | 2912.90 | 2977.08 | 2990.43 | 2879.1 | 3.473 |
| 100000 | 3237.92 | 3244.54 | 3027.00 | 3012.41 | 3073.71 | 3119.1 | 32.060 |
| 1000000 | 3292.65 | 3221.07 | 3257.82 | | | 3257.2 | 307.014 |

Average throughput

