

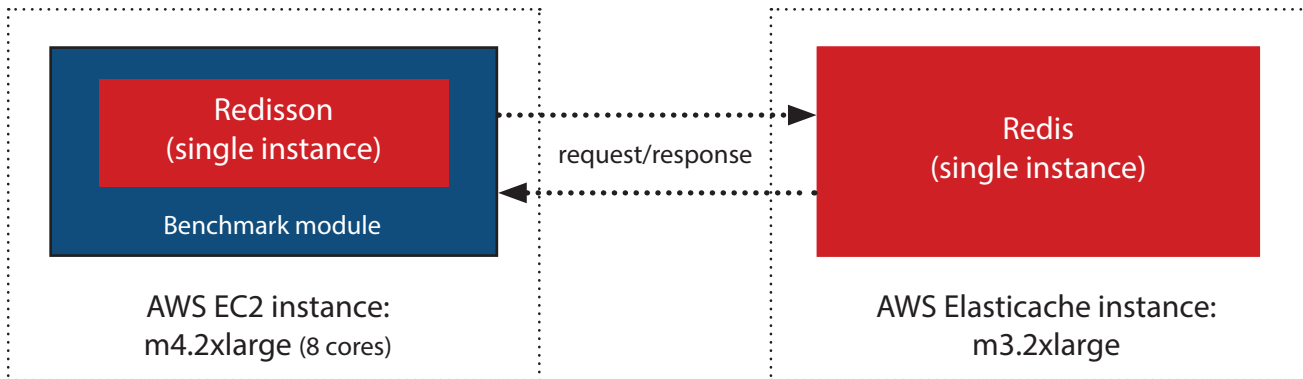


Redisson PRO uses highly optimized Redis-command processing engine with two major properties:

1. **Increased throughput** up to **4x** times
2. **Decreased execution time** up to **3x** times

These properties applied for read/write operations of **all Redisson objects/services**.
(excluding BLPOP, BRPOP and BRPOPLUSH operations only)

Benchmark environment uses two AWS instances:

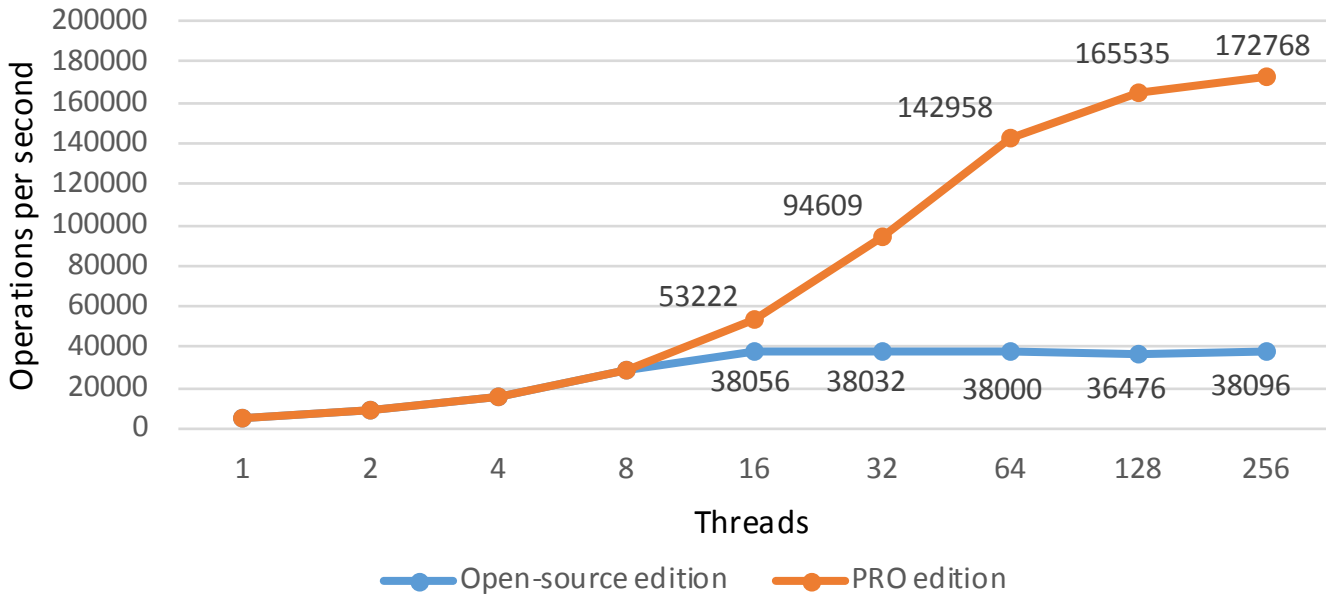


Below are performance charts for the most popular Redisson objects: RMap, RMapCache, RSet, RList, RBucket and RAtomicLong.

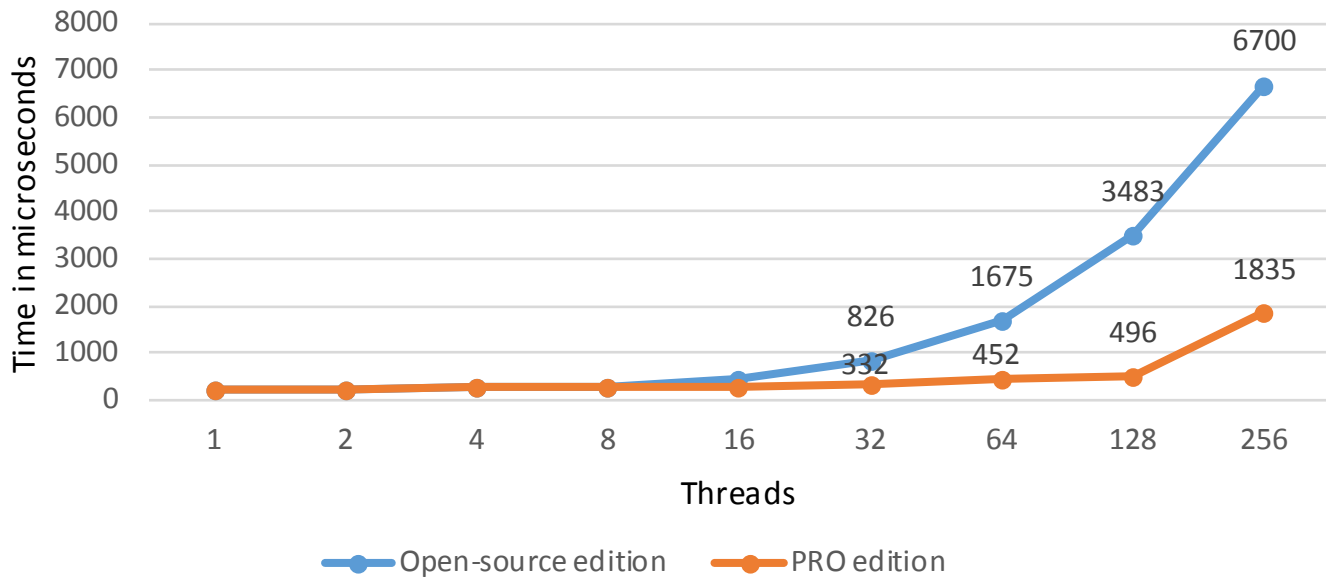
Payload size: 6 bytes.



RMap.put throughput (higher better)



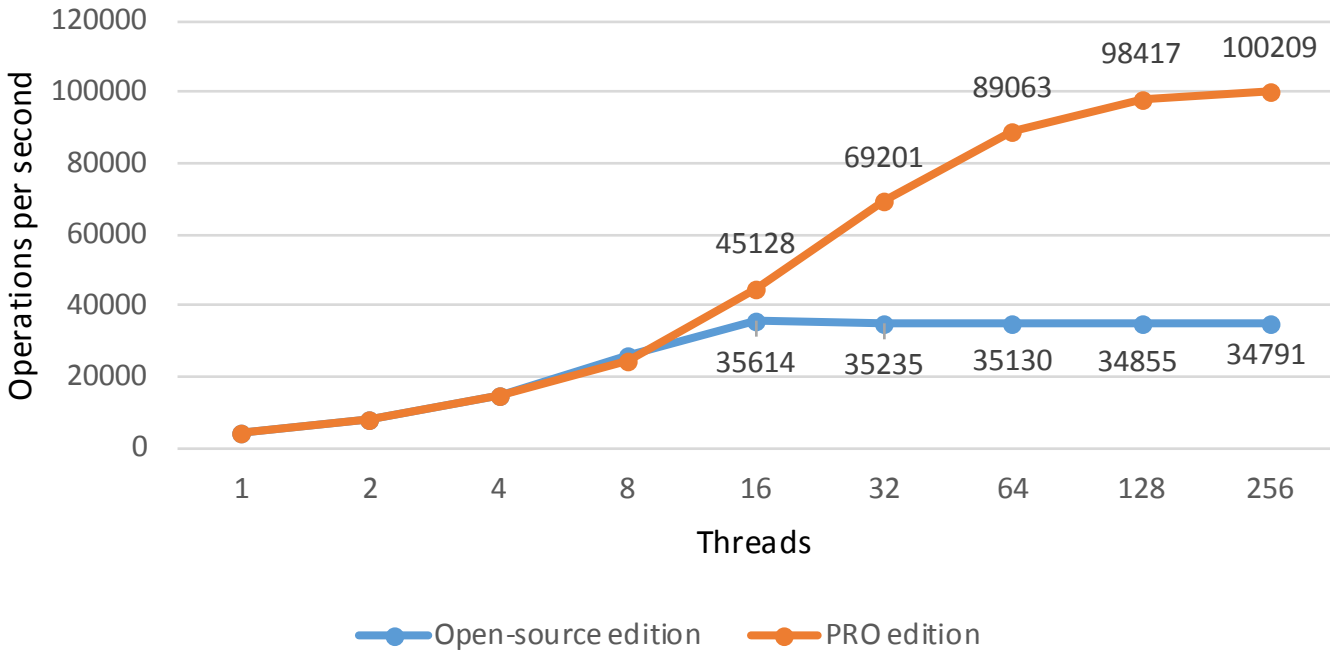
RMap.put execution time (lower better)





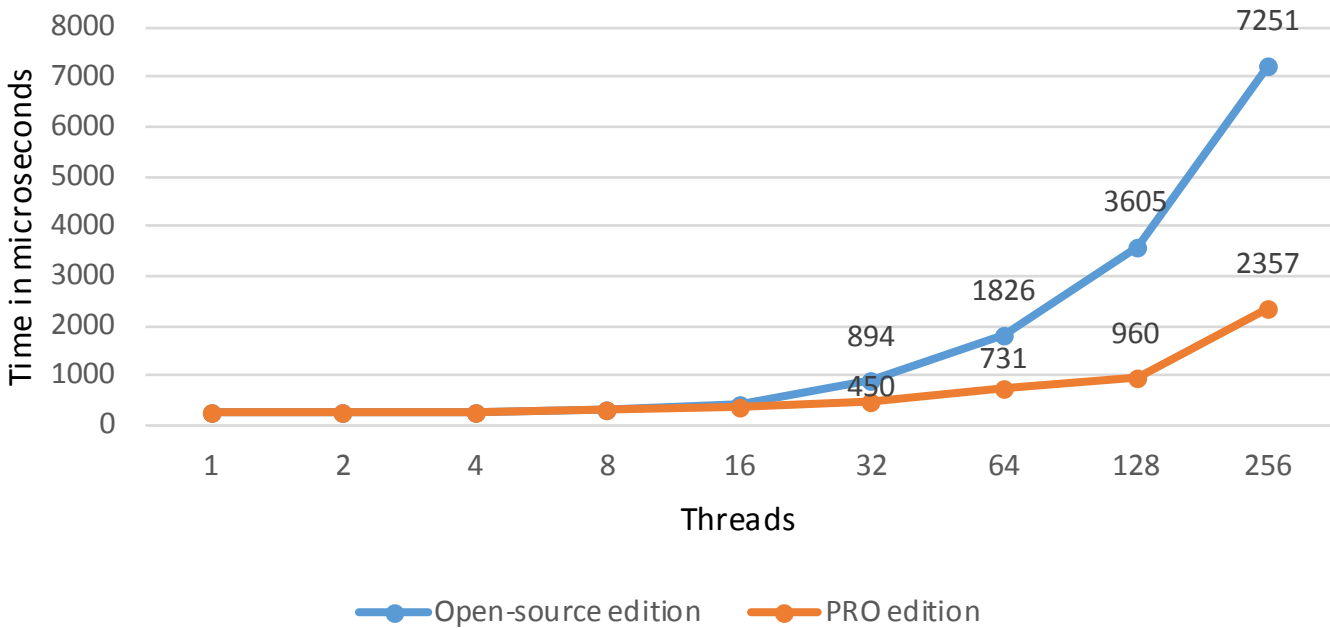
RMapCache.put throughput

(higher better)



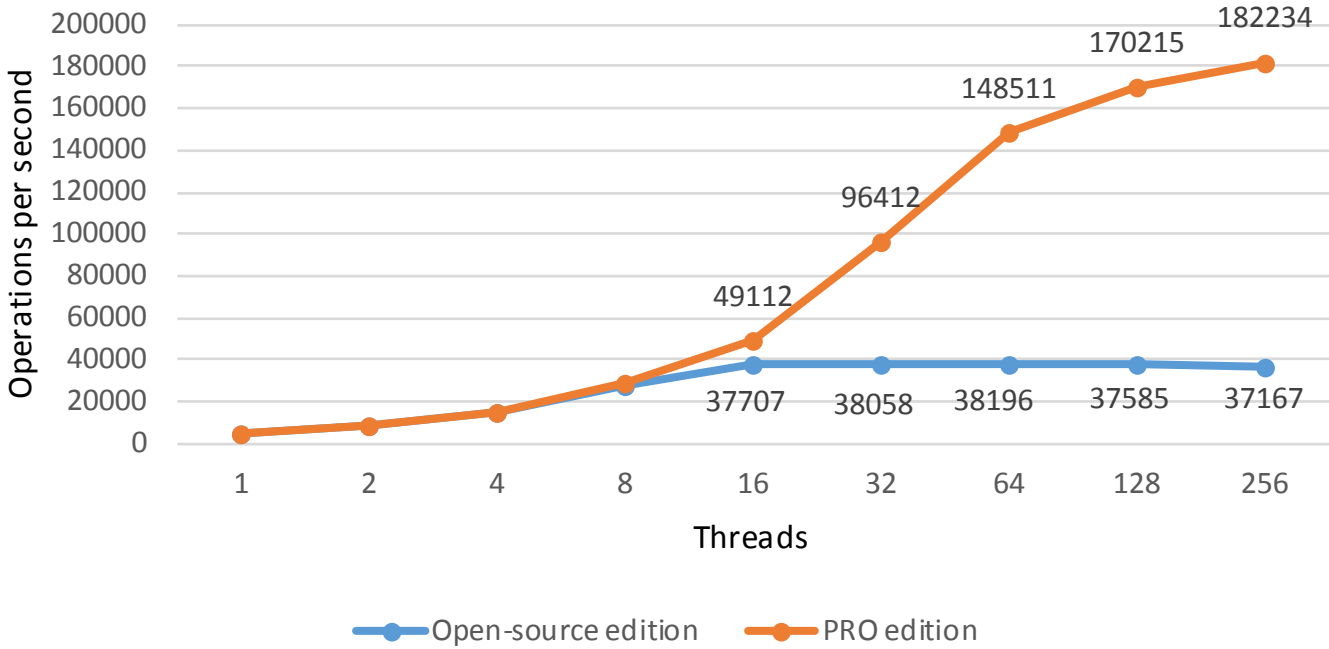
RMapCache.put execution time

(lower better)

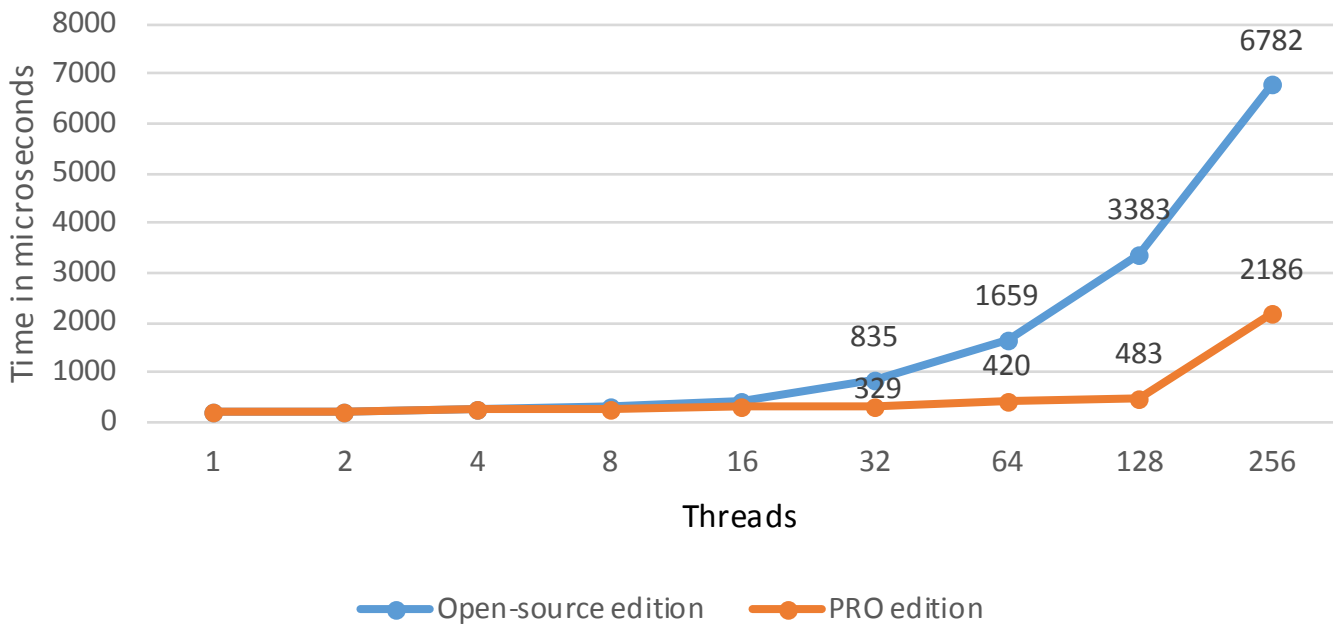




RSet.add throughput (higher better)

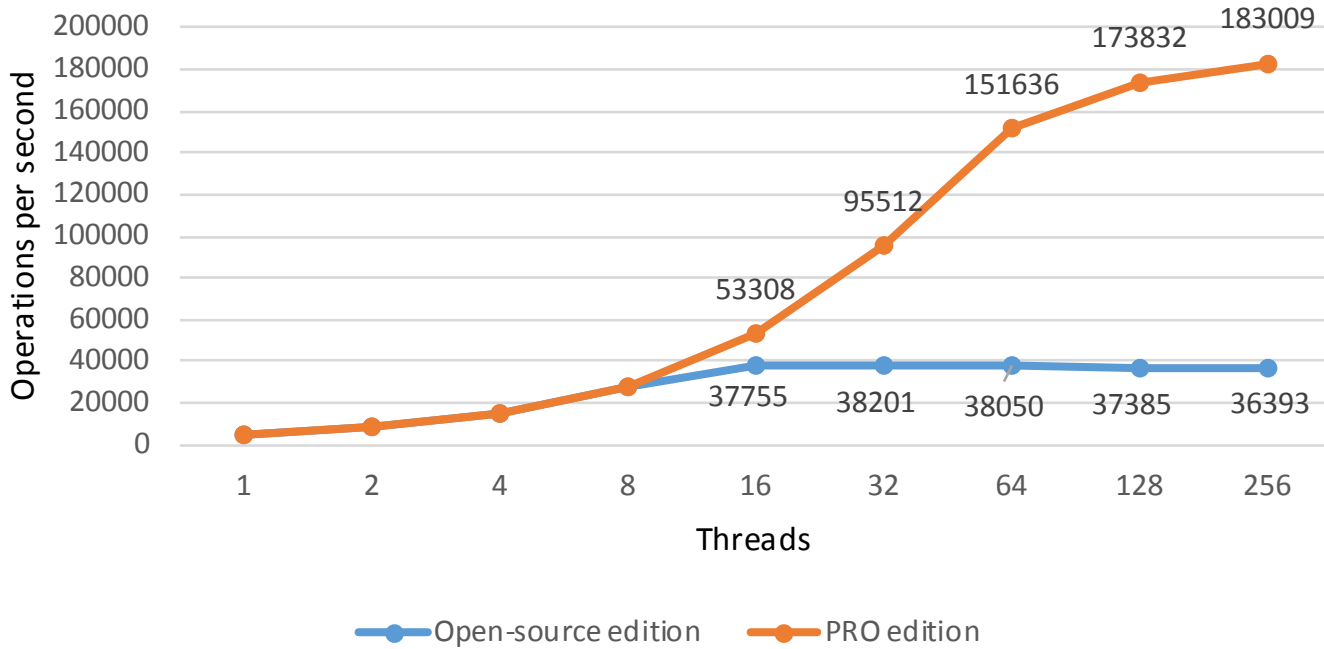


RSet.add execution time (lower better)

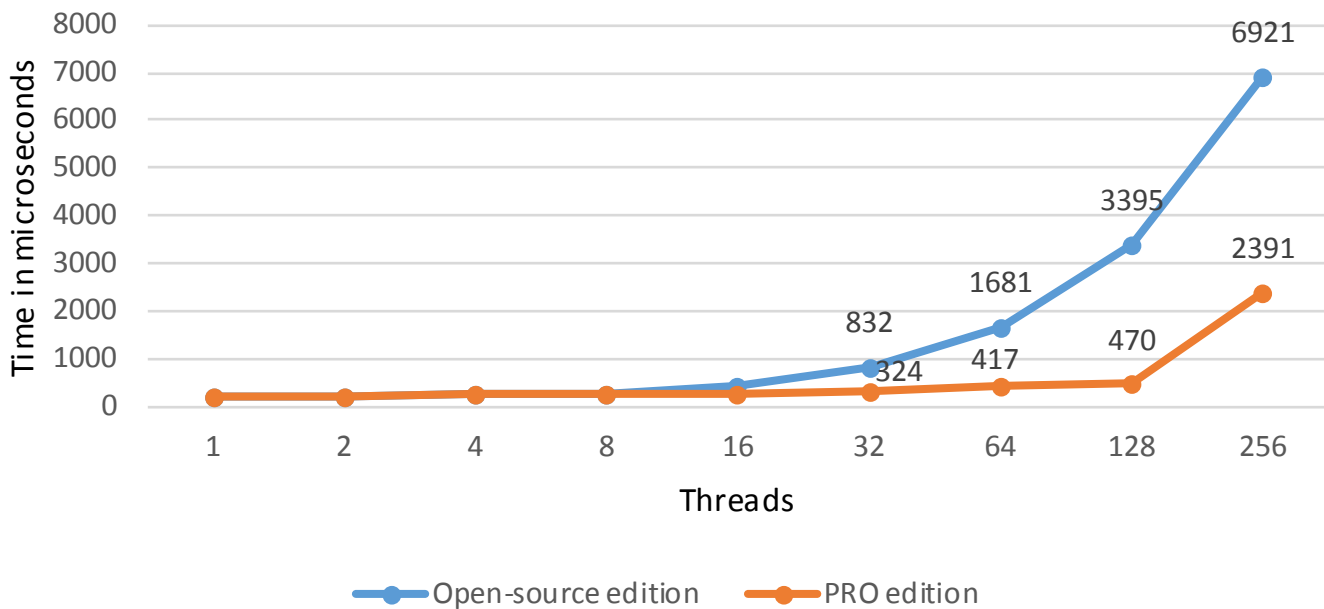




RList.add throughput (higher better)

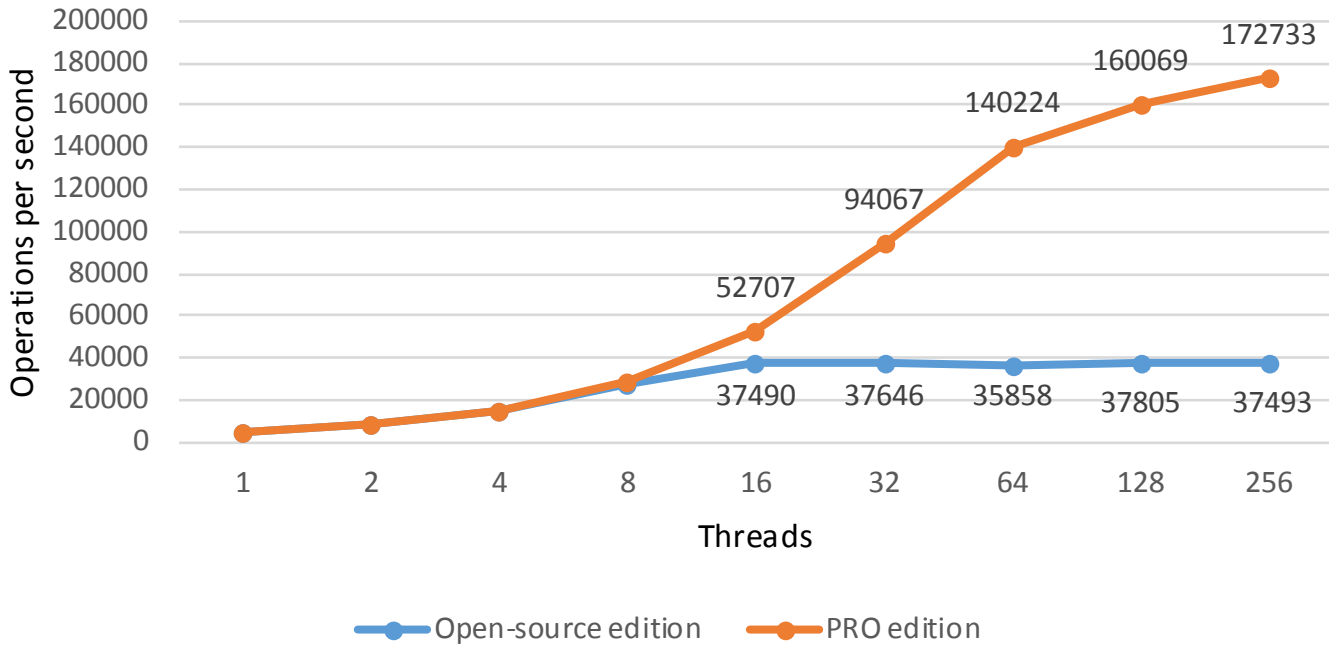


RList.add execution time (lower better)

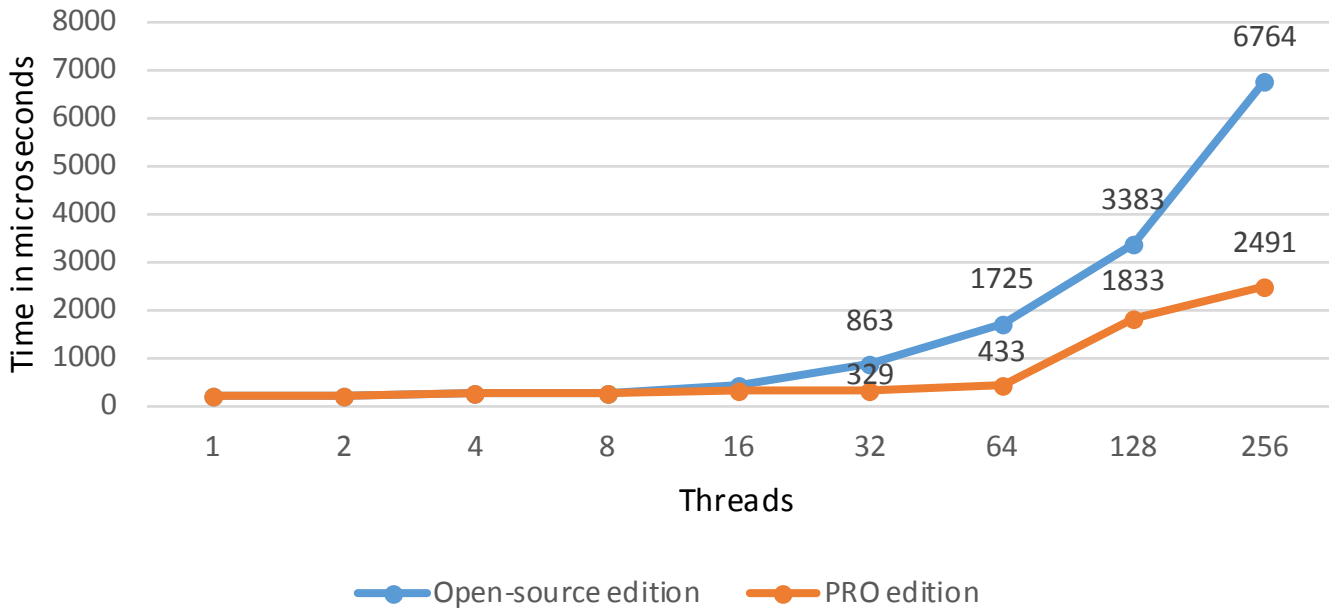




RBucket.set throughput (higher better)



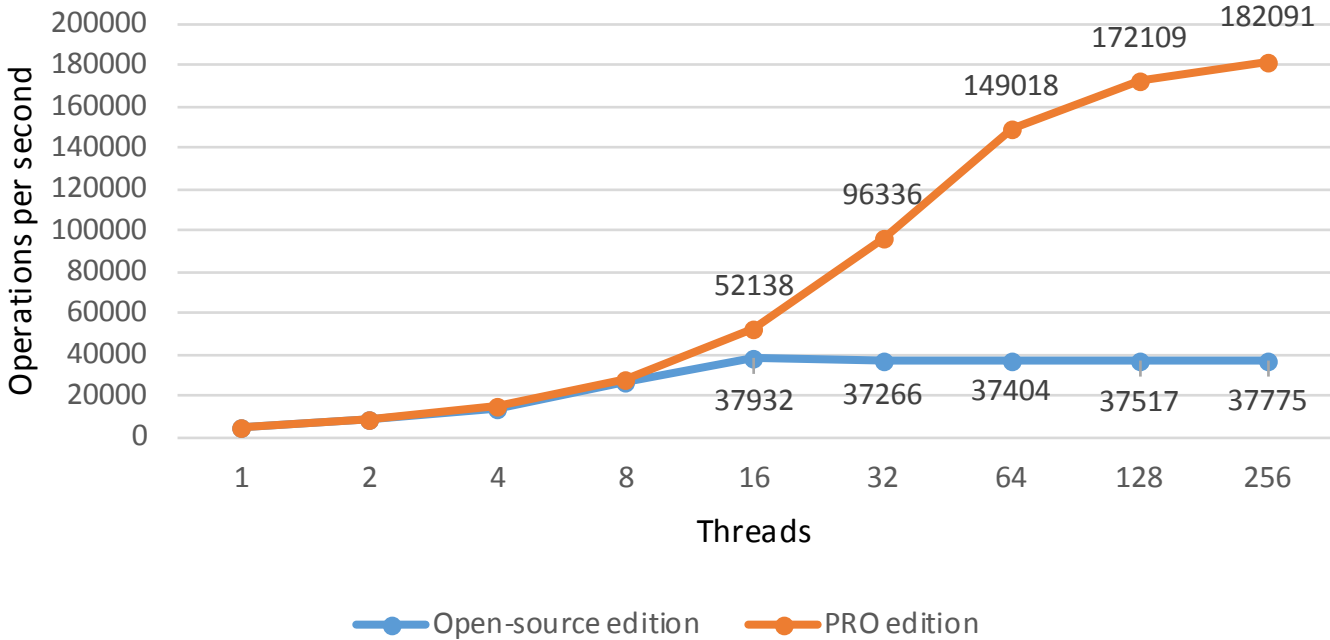
RBucket.set execution time (lower better)





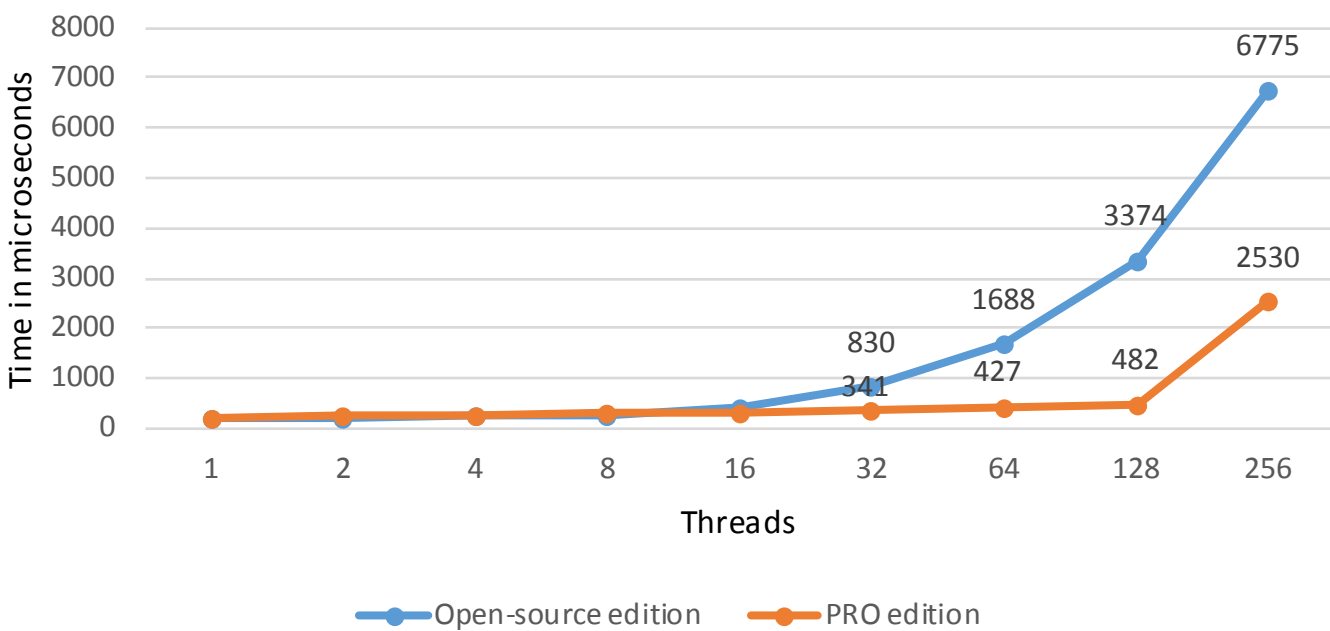
RAtomicLong.incrementAndGet throughput

(higher better)



RAtomicLong.incrementAndGet execution time

(lower better)

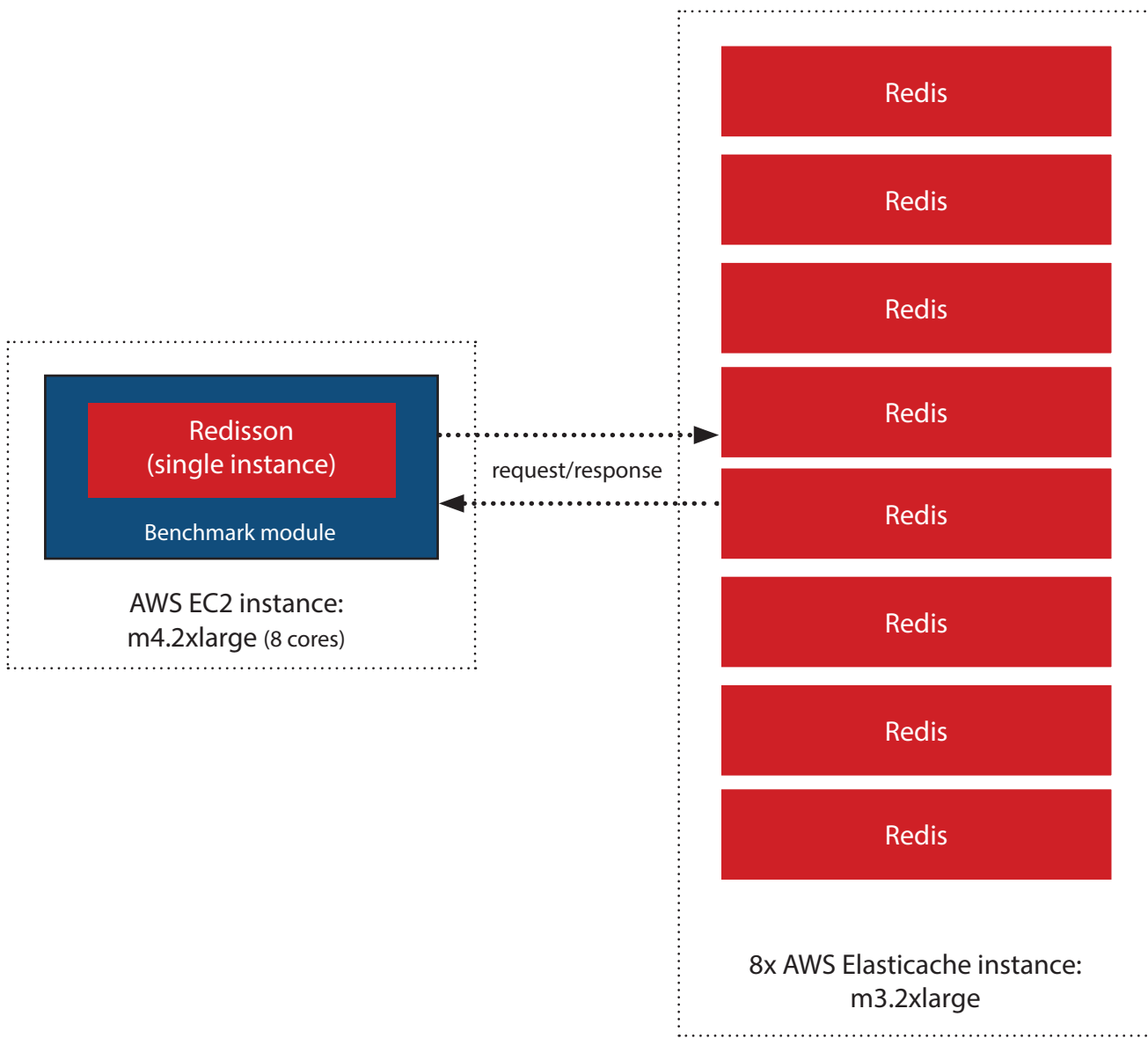




How to reach the same speed using Redisson open-source edition?

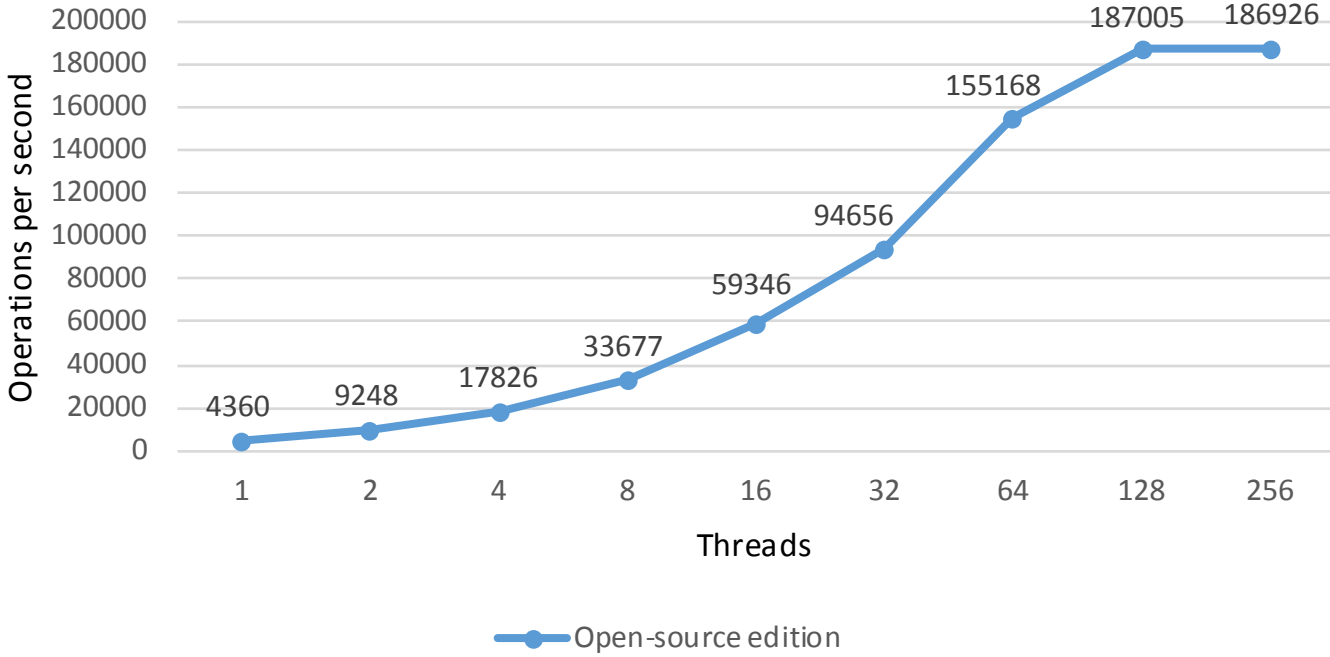
To reach the same speed as Redisson PRO has we have to scale read/write operations using Redis cluster. It required to use **8 AWS Redis nodes** instead of single node.

AWS Elasticache's m3.2xlarge node costs \$7428,48 per year, so **hosting spends increased by $7 * \$7428,48 = \$51999,36$ per year.**

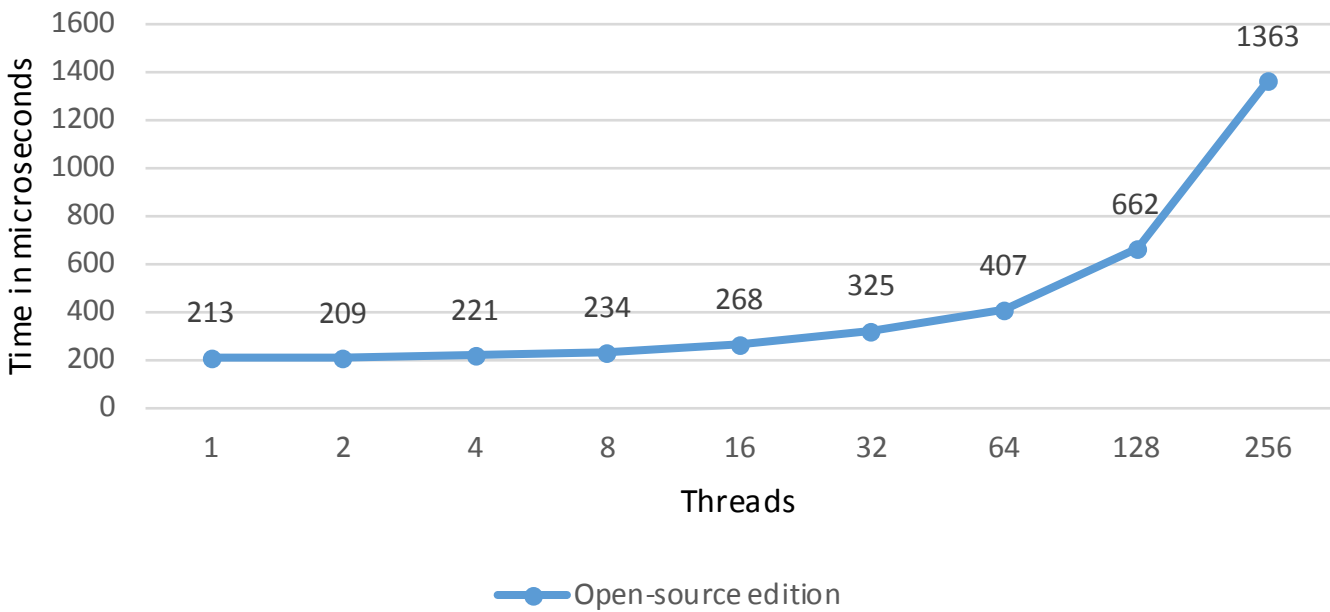




RSet.add throughput (using 8 AWS Redis nodes)



RSet.add execution time (using 8 AWS Redis nodes)





Summary

Provided benchmarks have clearly shown that Redisson PRO is a perfect companion for high throughput and latency sensitive systems. Redisson PRO is able to utilize available application resources in a much more efficient way. It allows to gain economic benefit using less hardware resources. **With Redisson PRO your expenses won't increase!**

AWS ElastiCache node type	Reduced nodes amount	Reduced hosting costs per year
cache.m3.medium	7	\$6315,96
cache.m3.large	7	\$13245,12
cache.m3.xlarge	7	\$26490,24
cache.m3.2xlarge	7	\$51999,36
cache.m4.large	7	\$11405,52
cache.m4.xlarge	7	\$22749,72
cache.m4.2xlarge	7	\$45438,12
cache.m4.4xlarge	7	\$90876,24
cache.m4.10xlarge	7	\$227190,6

UP TO **4X** FASTER

REDUCES HOSTING COSTS UP TO **8X** TIMES

