best-reb-config-256MB

**Eviction Algorithm-Slab Rebalancing Algorithm** (y-axis) vs **Miss Ratios** (x-axis)

| Eviction Algorithm-Slab Rebalancing Algorithm | Config |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:100,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:1,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-HitsPerSlab | minDiff:50,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:1,minLruTailAge:0,maxLruTailAge:0 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:1,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-MarginalHits | movingAverageParam: 0.300000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.150000,minTailAgeDifference:20,minSlabs:1,numSlabsFreeMem:1,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.200000,minTailAgeDifference:15,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.200000,minTailAgeDifference:15,minSlabs:1,numSlabsFreeMem:2,slabProjectionLength:1 |

**best-reb-config-512MB**

| Eviction Algorithm-Slab Rebalancing Algorithm | Config |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:1082002144 |
| Lru2Q-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:3409828576 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.200000,minSlabs:1,numSlabsFreeMem:3,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-MarginalHits | movingAverageParam: 0.200000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.250000,minTailAgeDifference:20,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.200000,minTailAgeDifference:15,minSlabs:1,numSlabsFreeMem:2,slabProjectionLength:1 |

Miss Ratios

best-reb-config-1GB

Eviction Algorithm-Slab Rebalancing Algorithm (y-axis)
Miss Ratios (x-axis)

- TinyLFU — None
- Lru2Q — None
- Lru — None
- TinyLFU-HitsPerSlab — minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:855014112
- Lru2Q-HitsPerSlab — minDiff:50,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:2,minLruTailAge:0,maxLruTailAge:0
- Lru-HitsPerSlab — minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:1086020320
- Lru2Q-MarginalHits — movingAverageParam: 0.200000,minSlabs:1,maxFreeMemSlabs:1
- TinyLFU-FreeMem — minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000
- Lru2Q-FreeMem — minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000
- Lru-FreeMem — minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000
- TinyLFU-LruTailAge — tailAgeDifferenceRatio: 0.150000,minTailAgeDifference:15,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1
- Lru2Q-LruTailAge — tailAgeDifferenceRatio: 0.200000,minTailAgeDifference:20,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1
- Lru-LruTailAge — tailAgeDifferenceRatio: 0.250000,minTailAgeDifference:20,minSlabs:1,numSlabsFreeMem:2,slabProjectionLength:1

best-reb-config-2GB

| Eviction Algorithm-Slab Rebalancing Algorithm | Config |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:20,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:1,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:1647917792 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:1983347424 |
| Lru2Q-MarginalHits | movingAverageParam: 0.300000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:0,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.250000,minTailAgeDifference:20,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |

Miss Ratios

best-reb-config-4GB

| Eviction Algorithm-Slab Rebalancing Algorithm | Configuration |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:100,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:2,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:3243502304 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:2436926176 |
| Lru2Q-MarginalHits | movingAverageParam: 0.300000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.250000,minTailAgeDifference:15,minSlabs:1,numSlabsFreeMem:1,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |

Miss Ratios

best-reb-config-8GB

Chart showing Miss Ratios by Eviction Algorithm-Slab Rebalancing Algorithm:

| Eviction Algorithm-Slab Rebalancing Algorithm | Configuration |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:1368324832 |
| Lru2Q-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:3993537248 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:3444488928 |
| Lru2Q-MarginalHits | movingAverageParam: 0.300000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |

X-axis: Miss Ratios (0.00 to 0.05)

best-reb-config-16GB

| Eviction Algorithm-Slab Rebalancing Algorithm | Config |
|---|---|
| TinyLFU | None |
| Lru2Q | None |
| Lru | None |
| TinyLFU-HitsPerSlab | minDiff:20,diffRatio:0.050000,minSlabs:1,numSlabsFreeMem:3,minLruTailAge:0,maxLruTailAge:0 |
| Lru2Q-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:3778259680 |
| Lru-HitsPerSlab | minDiff:100,diffRatio:0.100000,minSlabs:3,numSlabsFreeMem:0,minLruTailAge:0,maxLruTailAge:2121657056 |
| Lru2Q-MarginalHits | movingAverageParam: 0.300000,minSlabs:1,maxFreeMemSlabs:1 |
| TinyLFU-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru2Q-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| Lru-FreeMem | minSlabs:0,numFreeSlabs:3,maxUnAllocatedSlabs:1000 |
| TinyLFU-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru2Q-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |
| Lru-LruTailAge | tailAgeDifferenceRatio: 0.100000,minTailAgeDifference:100,minSlabs:1,numSlabsFreeMem:3,slabProjectionLength:1 |

Miss Ratios

best-reb-config-all

Legend:
- Lru-LruTailAge
- Lru2Q-LruTailAge
- TinyLFU-LruTailAge
- Lru-FreeMem
- Lru2Q-FreeMem
- TinyLFU-FreeMem
- Lru2Q-MarginalHits
- Lru-HitsPerSlab
- Lru2Q-HitsPerSlab
- TinyLFU-HitsPerSlab
- Lru
- Lru2Q
- TinyLFU

X-axis: miss ratios
Y-axis: Cache Sizes (256MB, 512MB, 1GB, 2GB, 4GB, 8GB, 16GB)