

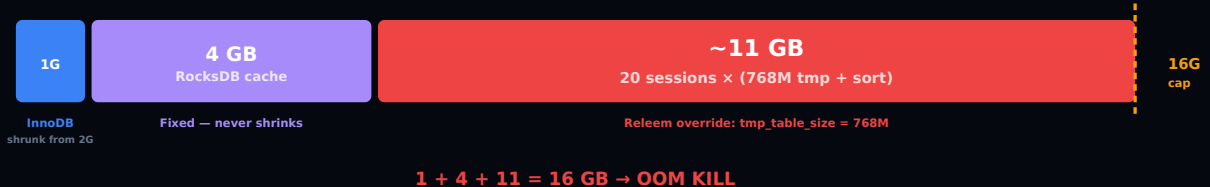
OOM Killer 768MB 16GB

Aurélien LEQUOY · 2026-04-20

MARIADB OOM-KILLER PERFORMANCE-TUNING SYSTEMD MEMORY-MANAGEMENT

MEMORY STACK AT OOM KILL

16 GB systemd cap — what fills it up



Fix: reduce session memory

tmp_table_size 768M → 128M
+rocksdb_block_cache_size 4G → 2G

Aggravating: ProxySQL storm

mass unauthenticated connections
→ more session allocs → faster OOM

Calculate worst case, not average — PmaControl memory monitoring

Galera

MariaDB Galera 5.5.68 Linux

systemd

```
mariadb.service: Failed with result 'oom-kill'  
Out of memory: Killed process 1177 (mariabdb) total-vm:22267612kB, anon-rss:16649820kB  
Memory cgroup out of memory: Killed process 1146610 (mariabdb)
```

systemd

total	19.5 GB
systemd MemoryMax	16 GB
innodb_buffer_pool_size	2 GB → 1 GB
rocksdb_block_cache_size	4 GB

tmp_table_size	768 MB
max_heap_table_size	768 MB
sort_buffer_size	32 MB
max_connections	100

Memory usage

MariaDB (InnoDB) InnoDB (InnoDB)

```
Memory pressure event shrunk innodb_buffer_pool_size=1536m from 2048m
→ 1280m → 1152m → 1088m → 1056m → 1040m → 1032m → 1024m
Memory pressure event disregarded; innodb_buffer_pool_size=1024m,
innodb_buffer_pool_size_auto_min=1024m
```

InnoDB (InnoDB) 1 GB (InnoDB)

Memory usage

100 (InnoDB)

```
100 × (768 MB tmp_table + 768 MB heap + 32 MB sort) = ~153 GB
```

(InnoDB) 20 × 768 MB BY ORDER BY (InnoDB) 16 GB (InnoDB)

```
InnoDB (InnoDB): 1 GB (InnoDB)
RocksDB (InnoDB): 4 GB (InnoDB)
20 (InnoDB) × 768 MB: 15 GB
(InnoDB): 20 GB → (InnoDB)
```

ProxySQL (InnoDB)

OOM (InnoDB) MariaDB (InnoDB) 103 (InnoDB) ProxySQL (InnoDB)

```
Aborted connection ... user: 'unauthenticated' host: '10.68.68.103'  
Too many connections
```

[[[]]] = [[[]]] = [[[]]]

[[[]]]

[[[]]]

1. [[[]]]

```
tmp_table_size = 128M  
max_heap_table_size = 128M  
sort_buffer_size = 8M
```

2. [[**systemd**]]

```
MemoryMax=18G
```

3. [[**RocksDB**]] 4 GB [[[]]]

```
rocksdb_block_cache_size = 2G
```

[[[]]]

- [[Releem]] `mysql/releem.conf.d/z_aiops_mysql.cnf` []
- [[PmaControl]] `memory_mysql` [[[]]]
- [[ProxySQL]] `max_connections` [[MariaDB]] `max_connections`









[[[]]]

[[[]]]

- [[[]]]
- Galera [[[]]]
- [[[]]]
- [[[]]]

MariaDB **active (running)** 



 **Memtable size**  768 MB —  16 GB  systemd  4 GB  RocksDB  ProxySQL 

MariaDB 