

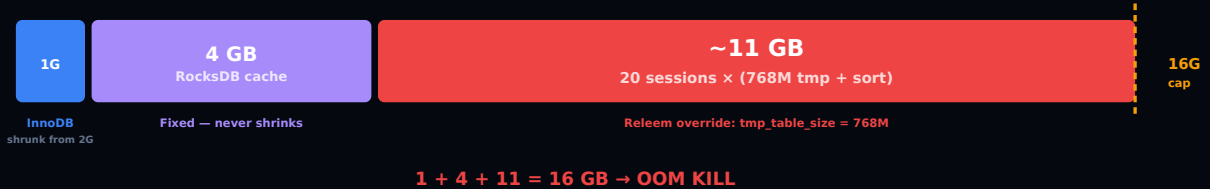
OOM Killer 768MB 16GB

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MARIADB OOM-KILLER PERFORMANCE-TUNING SYSTEMD MEMORY-MANAGEMENT

MEMORY STACK AT OOM KILL

16 GB systemd cap — what fills it up



1 + 4 + 11 = 16 GB → OOM KILL

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

MySQL

MariaDB Galera 5.6.48 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 Pressure

MariaDB 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 1 GB

OOM

100

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

20 768 MB BY ORDER BY 16 GB

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

ProxySQL

OOM MariaDB 103 ProxySQL

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

MySQL = MariaDB = RocksDB

MySQL

MySQL

1. MySQL

```
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
```

MySQL

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

MySQL

MySQL

- MySQL
- Galera MySQL
- MySQL
- MySQL

