

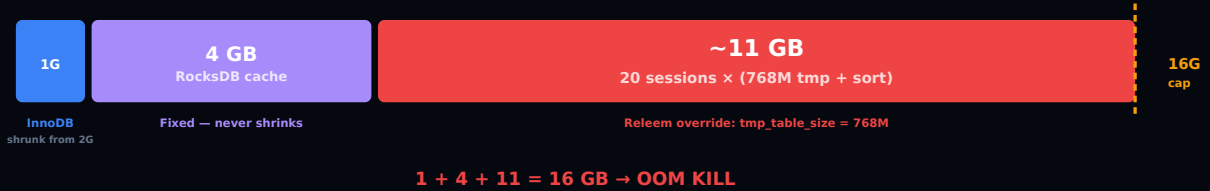
# OOM Killer 768MB 16GB

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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



**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 (mariadb) total-vm:22267612kB, anon-rss:16649820kB
Memory cgroup out of memory: Killed process 1146610 (mariadb)
```

## systemd

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

配置	值
tmp_table_size (Release 10.4.18)	768 MB
max_heap_table_size (Release 10.4.18)	768 MB
sort_buffer_size	32 MB
max_connections	100

## 配置

MariaDB (配置) InnoDB (配置)

```
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 (配置) 1 GB (配置)

## 配置

100 (配置)

$100 \times (768 \text{ MB tmp\_table} + 768 \text{ MB heap} + 32 \text{ MB sort}) = \sim 153 \text{ GB}$

20 (配置) ORDER BY (配置) 16 GB (配置)

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

## ProxySQL (配置)

OOM (配置) MariaDB (配置) 103 (配置) ProxySQL (配置)

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

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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`

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