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Tuning MariaDB on a VPS: the few settings worth changing, and how to measure

Databases

CODE

RLX-MZ-KB-1920

VERSION

v2026.10.15

COUNTRY · LANGUAGE

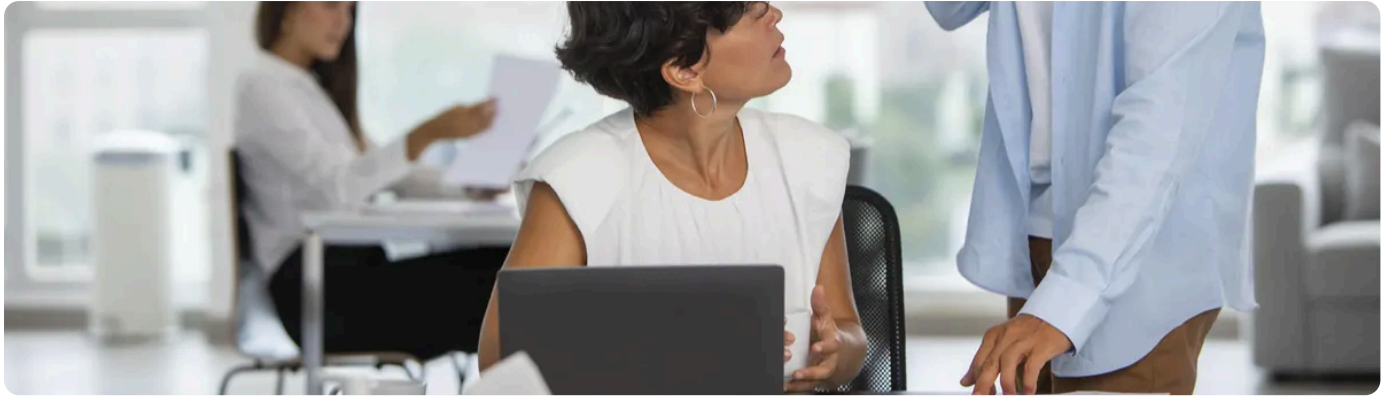
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The short answer: MariaDB already comes with reasonable values. Tuning only pays when you have **measured** that the database is the bottleneck. Then nearly all the gain comes from **one** setting (the memory the database uses to keep data), and the rest is not breaking things. Change one thing at a time and measure.

The settings that matter

Setting	What it does
<code>innodb_buffer_pool_size</code>	The memory where InnoDB keeps the data and indexes it has read. This is the one that weighs most. Bigger helps, but it must fit in RAM alongside PHP and the web server, or the server runs out of memory.
<code>max_connections</code>	How many connections at once. Raise it only if you see “Too many connections”; each connection costs memory.
<code>slow_query_log</code> and <code>long_query_time</code>	They record slow queries. They speed nothing up; they show where the problem is: Slow queries .
Per-connection buffers	Leave them at the default. Large values multiply by every connection and blow the memory.
The query cache	Do not switch it on for a site that writes a lot: it usually makes things worse.

Step by step

1

Measure first: switch on the slow query log and watch the load with **Seeing what uses CPU, memory and disk**. A badly written query or a missing index is not fixed by more memory.

2

Back up the configuration and the database: **Backing up with mysqldump.**

3

Create a file of your own in the configuration folder (on Ubuntu or Debian, in /etc/mysql/mariadb.conf.d/, for example 99-local.cnf) instead of editing the system's. Put in it only the setting you change.

4

Pick a prudent value for the buffer pool, without leaving the server short of memory for the rest. If in doubt, start low and go up.

5

Restart (`sudo systemctl restart mariadb`) and confirm the value with `SHOW VARIABLES LIKE 'innodb_buffer_pool_size';` . Measure again, under the same conditions.

If MariaDB does not start after the change, it was almost always a value that does not fit or a typo in the file. Take your file out, start it, and read the error: **Reading systemctl status**. And do not change five things at once: you will not know which one helped.

“MySQL server has gone away” often points to something else (a big packet, a timeout), not a lack of tuning: **The causes, in order**. If the server runs out of memory, see **Out of memory on a VPS**.

Want an opinion on your server's numbers? Open a ticket with the VPS plan and what you measured.

[Open a support ticket](#)

SEE ALSO

[Slow queries: how to find them and the fixes that work most often](#)

[MySQL or MariaDB: which one runs here, and does it matter](#)

[MySQL server has gone away: the causes, in order of likelihood](#)

[CPU, RAM and disk I/O in plain words: what each one limits on your site](#)

[Out of memory on a VPS: what the OOM killer is and what to do](#)



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TAX ID (NUIT)	401 191 607
LEGAL ENTITY NO. (NUEL)	105 045 974
ECONOMIC ACTIVITY CODE (CAE)	62022
REGISTERED OFFICE	Bairro 7 de Setembro Vilankulo 1304 • CEP 0411-02, Inhambane, Mozambique
CONTACT	info@interweb.co.mz • +258 84 635 1111 • +258 86 635 1111 • www.interweb.co.mz
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