Hosting basics

The overview of the hosting basics section: what a server needs to run Exponential, the PHP versions, extensions and settings, the six supported databases in the official order, operating systems, Composer and Git...

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This section is for everyone at a hosting company who needs to know what Exponential asks of a server before an offer is designed, a server is built or a customer is helped: product managers, system administrators and support staff. It answers one question per page: what does the software need, and what does that mean for the way you host it. Every fact on these pages is taken from the repository (the installation book in `doc/eng-us/install/`, the help pages on database support and operating system support, and the shipped settings in `settings/`), and each page links to its sources so you can check them.

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How to read this section

If you are ...	Start with
a product manager designing an offer	What hosting Exponential involves, then Requirements at a glance and Databases in the official order
a system administrator building a server	Requirements at a glance, PHP versions and extensions, PHP settings for Exponential, Writable directories and permissions
support staff answering a customer	Requirements at a glance and the page of the customer's database
planning capacity	Sizing memory, CPU and disk

The pages

Page	What it answers
What hosting Exponential involves	The parts a host provides (PHP, database, web server or Velocity, cron, mail, storage, backups) and who usually does what
Requirements at a glance	One table of everything a server needs, with the minimum, the recommendation and what checks it

Page	What it answers
PHP versions and extensions	PHP 8.0 to 8.5 (PHP 7.4 usable without support), the required and recommended extensions, and the package names per system family
PHP settings for Exponential	`php.ini` values the installer checks, the values to give a pool, OPcache, and the functions not to disable
Databases in the official order	The six supported databases, in order, side by side, and how to choose what to offer
SQLite for hosts	The default database: one file, its permissions, backups and limits
PostgreSQL for hosts	The recommended database server: owner, `pgcrypto`, backups
MongoDB for hosts	The MongoDB adapter: requirements, the user, indexes and limits
MariaDB for hosts	MariaDB on the `mysqli` driver: character set, grants, backups
Oracle for hosts	Oracle 19c and later through `ezoracle`: `oci8`, the user, DRCP
MySQL for hosts	MySQL on the `mysqli` driver: grants, InnoDB, replicas
Microsoft SQL Server status	Why there is no driver in 6.0.x and what it would take
Operating systems for hosts	The four tiers, the reference platform, panels and containers
Composer and Git on servers	How the code arrives, how extensions are packages, what not to run on a live site
Writable directories and permissions	What must be writable, one user or one group, the hardened file modes
Sizing memory, CPU and disk	The figures the repository states, and how to measure the rest
Image processing and media	GD and ImageMagick, image aliases, accepted upload types
Search backends	The built-in search, delayed indexing, and Solr through eZ Find

The short version

- **PHP 8.0 or later** for the kernel, and for Exponential Velocity, the recommended web server, with `sockets` (from Velocity 0.0.4.54; chapter 2).
- **Databases, in the official order:** 1. SQLite 3 (default) · 2. PostgreSQL · 3. MongoDB · 4. MariaDB · 5. Oracle · 6. MySQL. Microsoft SQL Server is known to be possible with additional work at this time (no driver in 6.0.x). See Database support.
- **Writable:** `var/` and `settings/` always; `design/` and `extension/` while packages are installed from the administration (chapter 8).
- **Command line access** matters: Composer, cronjobs, cache clearing and the console all run with the command line PHP.
- **The installer checks the machine for you:** the setup wizard's system check, the kickstarter and `exp:install` run the same critical tests and print the fix for each failure.

Related pages

- Hosting companies: start here
- Hosting models and Control panels
- Web servers and engines and Performance
- Operations, Security and Provisioning
- Chapter 2: Requirements
- Free documentation: this page is free to copy, translate and improve under the GNU FDL 1.3.

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