

Web Design & Programming

Content Management Systems (CMS)

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Definition

- A Content Management System (CMS) is a tool installed on a web server, allowing to create and update a website.
- Most CMS are user-friendly, with little technical expertise required for regular operations.
- CMS are usually oriented for some specific type of content (blog, e-commerce, wiki, ...).

Requirements

- In order to use a CMS multiple components are required:
 - a web server
 - a server-side scripting language
 - a database (in most cases)
- Specific applications or libraries and minimum versions may also be required.
- Depending on the CMS requirements, hosting options may be limited.

Benefits

- Ease of use
- Graphical consistency (templates)
- Navigation, menus
- Fast deployment

Limitations

- Updates/Upgrades
- Dependence and portability
- Limited customization

Plugins and Extensions

- Some CMS offer ways to add new functions with plugins, extensions or themes.
- Those plugins may have requirements of their own and compatibility may be limited.

Installation

- Depending on your hosting solution, different options may be available to install a CMS:
 - From source
 - Using a Linux distribution package
 - Using a function provided by your hosting company
- It is recommended to keep track of the configuration information, including passwords, in a secure place.

Updates/Upgrades

- Two types of maintenance operations can affect a website powered by a CMS:
 - A system maintenance, bringing a new version of one of the requirements (web server, database, library,...)
 - An update of the CMS itself, breaking compatibility with a plugin or a theme.
- Some maintenance operations can be postponed or scheduled, others may not be under your full control (hosting provider, security vulnerability)