What is CloudLinux and his features.

LVE is a kernel level technology developed by the CloudLinux team. The technology has common roots with container based virtualization and uses cgroups in its latest incarnation. It is lightweight and transparent. The goal of LVE is to make sure that no single web site can bring down your web server.

Today, a single site can consume all CPU, IO, Memory resources or Apache processes - and bring the server to a halt. LVE prevents that. It is done via collaboration of Apache module, PAM module and kernel.

mod_hostinglimits is Apache module that:

• detects VirtualHost from which the request came;
• detects if it was meant for CGI or PHP script;
• puts Apache process used to serve that request into LVE for the user determined via SuexecUserGroup directive for that virtual host;
• lets Apache to serve the request;
• removes Apache process from user's LVE.

The kernel makes sure that all LVEs get fair share of the server's resources, and that no customer can use more then the limits set for that customer.

Today we can limit CPU, Memory (virtual and physical), IO, number of processes as well as the number of entry processes (concurrent connections to apache).

Each LVE limits amount of entry processes (Apache processes entering into LVE) to prevent single site exhausting all Apache processes. If the limit is reached, then mod_hostinglimits will not be able to place Apache process into LVE, and will return error code 508. This way very heavy site would slow down and start returning 508 errors, without affecting other users.

If the site is limited by CPU or IO, then the site will start responding slower.

If the site is limited by memory or number of processes limits, then the user will recieve 500 or 503 errors that server cannot execute the script.

Limits	Units	Default Value	Description
SPEED	% of a core, or HZ	100%	CPU speed limit, relative to a single core, or specified in HZ (portable across CPUs)
PMEM	KB	1024MB	Physical memory limit (RSS field in ps/RES in top). Also includes shared memory and disk cache.
VMEM	KB	1024MB	Virtual memory limit (VSZ field in ps/VIRT in top)
IO	KB/sec	1024KB/sec	IO throughput - combines both read & write operations
IOPS	Operations per second	0	Restricts total number of read/write operations per second.
NPROC	number	100	Max number of processes within LVE
EP	number	20	Limit on entry processes. Usually represents max number of concurrent connections to apache dynamic scripts as well as SSH and cron jobs running simultaneously.

CloudLinux Limits

Bellow you can find recommendations for your typical shared hosting setup.
The recommendations don't depend on the power of your server. They only depend on how "fast" you want your hosting accounts to be.

Typical Hosting Account	High End Hosting Account
SPEED=**100**% PMEM=256MB VMEM=0 IO=1024KB/s NPROC=100 EP=20	SPEED=**200**% PMEM=512MB VMEM=0 IO=1024KB/s NPROC=100 EP=40