

A "Live CD" is a bootable CD, which contains pre-configured software, which allows the user to be productive without accessing any other hard drives (unless he wants to store information). In fact the term "CD" is a bit confusing, as the operating system can be stored in any bootable media, such as a DVD, a USB flash drive, etc, apart from CDs. The term "live" derives from the fact that it does not reside on a hard drive. Rather, it is "brought to life" upon boot without having to be physically installed onto a hard drive.

A liveCD is somewhat different from an installation CD. An installation CD boots our system into a program that guides us through the installation of some system onto our hard drive. With a LiveCD, we have an entire system contained on the CD and with that, the freedom to do nearly anything that a system installed on our hard drive can.

Unless the user specifically requests it, a liveCD does not alter the current operating system or files. When the LiveCD is ejected and the computer is rebooted, the system returns to its previous state. It does this by placing the files that typically would be stored on a hard drive into temporary memory, such as a ram disk. In fact, a hard drive is not needed at all. However, this does cut down on the RAM available to applications, reducing performance to some level.

Now the important question arises, why would anyone want to carry a CD around, rather than having a laptop or desktop computer, which is fully installed and ready to go? The short answer is - *Security and ease of use*. Once the liveCD is removed from the computer, the data stored in the hard drive becomes useless to anyone as it is encrypted. Also, since the liveCD is read only, it ensures system integrity. LiveCDs provide an easy and convenient way for users to try out multiple operating systems without having to install them.

One of the earliest Live CDs was in the shape and size of a credit card. It was called The Linux Bootable Business Card. A popular current live CD is Knoppix, created by Klaus Knopper. Almost all of today's liveCDs run Linux. Linux Live CDs range from emergency rescue and system diagnostics CDs to multimedia oriented projects that transform a diskless or OS-less computer into a full home theatre. Each live CD has a unique feature, a merit and a niche to fill. For example The Auditor Security Collection includes tools for foot-printing, analysis, scanning, wireless, brute-forcing, and cracking.

References:

<http://www.linuxfromscratch.org/livecd/>
<http://en.wikipedia.org>
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<http://www.netbsd.org/~jschauma/nblivecds.pdf>
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