The term 'SoftMAC' refers to a wireless network interface device (WNIC) which does not implement the MAC layer in hardware, rather it expects the drivers to implement the MAC layer.

'HardMAC' (also called 'FullMAC') describes a WNIC which implements the MAC layer in hardware.

The advantages of SoftMAC are:

* Potentially lower hardware costs
* Possibility to upgrade to newer standards by updating the driver only
* Possibility to correct faults in the MAC implementation by updating the driver only

An additional advantage (in the Linux kernel at least) is that many different drivers for different types of WNIC can all share the same MAC implementation, provided by the kernel itself.

Despite the advantages, not all WNICs use SoftMAC. The main advantages of HardMAC is that since the MAC functions are implemented in hardware, they contribute less CPU load.

[mac80211](https://wireless.wiki.kernel.org/en/developers/documentation/mac80211) is the framework within the Linux kernel for implementing SoftMAC drivers. It implements the cfg80211 callbacks which would otherwise have to be implemented by the driver itself, and also implements the MAC layer functions. As such it goes between cfg80211 and the SoftMAC drivers.

HardMAC drivers have to implement the cfg80211 interfaces fully themselves.