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# Mobile CPU architecture

## What is a CPU?

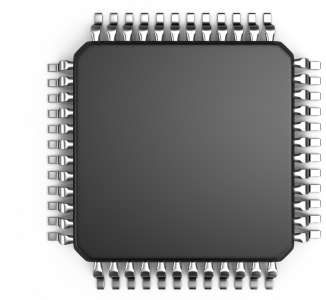
A CPU is like a middleman that enables software to communicate with the hardware of a device. It can take high-level software instructions and translate them into native machine language that a mobile phone can understand and perform specific operations based on. To deliver the best experience to users, what you most likely want is a CPU that's a mix of efficiency and power, and doesn't use a lot of resources—something that will be determined by its architecture. A CPU with great architecture provides mobile users with a seamless user experience without consuming a lot of battery resources.

## What's ARM, ARM64, and x86?

As of now, there are three main CPU architectures used in most smartphones – ARM, ARM64, and x86.

- ARM: ARMv7 or armeabi
- ARM64: AArch64 or arm64
- x86: x86 or x86abi

Of these three, ARM is most used because it is optimized for battery use.



On the other hand, ARM64 is an extension of the original ARM architecture that provides additional support for more powerful computing in the form of 64-bit processing, and it's gradually becoming the standard in many newer devices.

Another piece of architecture noteworthy to mention is the x86. It is slightly more sophisticated than either type of ARM CPU earlier mentioned but not quite as battery-friendly. Due to this drawback, it is the least common of the three in the computing world.

Overall, ARM is more of an embodiment of the mobile-first mentality, with simple sets of instructions, efficiency, and low energy consumption as its main priorities. The fact that it requires fewer transistors and frees up this hardware space more than compensates for the use of RAM in a mobile phone.

To develop and deploy apps for different mobile devices, the CPU architecture must be considered. For example, building a social network app for a large audience requires that most mobile devices are targeted.

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