

参考资料:
<https://www.bilibili.com/video/av3667801?from=search&seid=12741130227307756327>
<https://www.passmoz.com/difference-between-uefi-and-bios.html>
<https://www.intel.com/content/www/us/en/architecture-and-technology/unified-extensible-firmware-interface/efi-homepage-general-technology.html>
https://www.wikwand.com/en/Unified_Extensible_Firmware_Interface
<https://blog.csdn.net/tjorgwei0512/article/details/83211438>

BIOS vs UEFI

UEFI

BIOS

BIOS: MBR, 只能控制小于2TB的分区

UEFI启动速度更快



Advantages

The interface defined by the EFI specification includes data tables that contain platform information, and boot and runtime services that are available to the OS loader and OS. UEFI firmware provides several technical advantages over a traditional BIOS system:^[6]

- Ability to use large disks (over 2 TB) with a GUID Partition Table (GPT)^{[7][8]}
- CPU-independent architecture^[9]
- CPU-independent drivers^[9]
- Flexible pre-OS environment, including network capability
- Modular design
- Backward and forward compatibility

BIOS

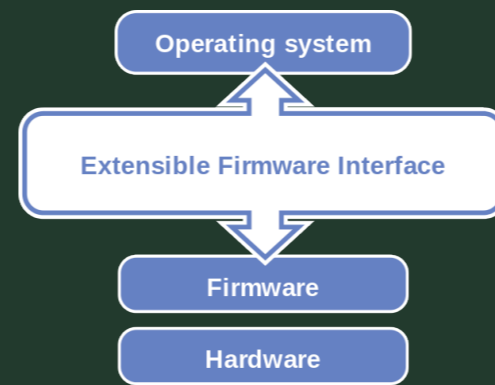
软件和硬件的桥梁

阮一峰的这篇文章介绍的是BIOS的启动方式
<http://www.ruanyifeng.com/blog/2013/02/booting.html>
 For UEFI, it is a different story.

存储在主板上只读芯片或者闪存芯片中的一小段代码

通常称之为**主板的firmware**

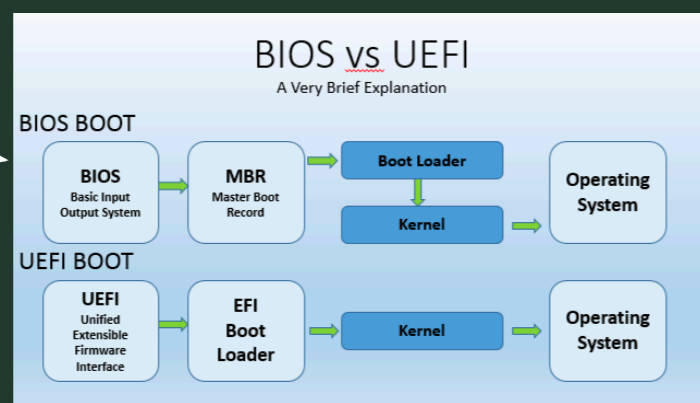
UEFI是操作系统与firmware的中间桥梁
 我们通常会称UEFI firmware称为UEFI



The Unified EFI (UEFI) Specification (previously known as the EFI Specification) defines an interface between an operating system and platform firmware.

The interface consists of data tables that contain platform-related information, boot service calls, and runtime service calls that are available to the operating system and its loader. These provide a standard environment for booting an operating system and running pre-boot applications.

UEFI



Slim Bootloader(SBL)

我司推出的一款Bootloader

What is Slim Bootloader?
 Slim Bootloader is a flexible, light-weight, open source reference boot loader.
 Key benefits include:

- Fast**: Optimized for systems with a critical reliance on boot speed.
- Small**: Small footprint means lower flash sizes requirements, reducing overall BOM cost. Allows fully redundant images for resilient solutions.
- Customizable**: Designed with modularity in mind, allowing for easy addition of differentiating features.
- Secure**: Supports verified boot, measured boot, and secure firmware updates. Build secure boot solutions when paired with Intel® Platform Protection Technology with Boot Guard.

正是由于small, fast等特性, 在IoT场景中得到了许多应用,
 例如Using SBL on UP2 board

https://projectacrn.github.io/latest/tutorials/using_sbl_on_up2.html