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Autore	Banik Subrata
Titolo	System Firmware : An Essential Guide to Open Source and Embedded Solutions / / by Subrata Banik, Vincent Zimmer
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ISBN	9781484279397 1484279395
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Descrizione fisica	1 online resource (651 pages)
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Soggetti	Computer firmware Computer bootstrapping Open source software Embedded computer systems
Lingua di pubblicazione	Inglese
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Nota di contenuto	Chapter 1: Introduction -- Chapter 2: Knowing Your Hardware -- Chapter 3: Understanding BIOS and Minimalistic Design -- Chapter 4: System Firmware Architecture -- Chapter 5: Hybrid Firmware Architecture -- Chapter 6: Payload -- Chapter 7: Case Studies -- Appendix A: Postcodes -- Appendix B: Data Types.
Sommario/riassunto	Find the right bootloader solution or combination of firmware required to boot a platform considering its security, product features, and optimized boot solutions. This book covers system boot firmware, focusing on real-world firmware migration from closed source to open source adaptation. The book provides an architectural overview of popular boot firmware. This includes both closed sourced and/or open source in nature, such as Unified Extensible Firmware Interface (UEFI), coreboot, and Slim Bootloader and their applicable market segments based on product development and deployment requirements. Traditional system firmware is often complex and closed sourced whereas modern firmware is still a kind of hybrid between closed and open source. But what might a future firmware model look like? The most simplistic boot firmware solution uses open source firmware development. This book helps you decide how to choose the right boot

firmware for your products and develop your own boot firmware using open source. Coverage includes: Why open source firmware is used over closed source The pros and cons of closed and open source firmware A hybrid work model: for faster bring-up activity using closed source, binary integrated with open source firmware What You Will Learn Understand the architecture of standard and popular boot firmware Pick the correct bootloader for your required target hardware Design a hybrid workflow model for the latest chipset platform Understand popular payload architectures and offerings for embedded systems Select the right payload for your bootloader solution to boot to the operating system Optimize the system firmware boot time based on your target hardware requirement Know the product development cycle using open source firmware development.

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