Record Nr.	UNINA9910466247403321
Autore	Zimmer Vincent
Titolo	Beyond BIOS : developing with the Unified Extensible Firmware Interface // Vincent Zimmer, Suresh Marisetty, Michael Rothman
Pubbl/distr/stampa	Boston, [Massachusetts] ; ; Berlin, [Germany] : , : De G Press, , 2017 ©2017
ISBN	1-5015-0569-6 1-5015-0583-1
Edizione	[Third edition.]
Descrizione fisica	1 online resource (324 pages) : illustrations
Disciplina	005.3
Soggetti	Computer firmware
	Open source software
	Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Frontmatter Acknowledgements Preface Contents Chapter 1 - Introduction Chapter 2 - Basic UEFI Architecture Chapter 3 - UEFI Driver Model Chapter 4 - Protocols You Should Know Chapter 5 - UEFI Runtime Chapter 6 - UEFI Console Services Chapter 7 - Different Types of Platforms Chapter 8 - DXE Basics: Core, Dispatching, and Drivers Chapter 9 - Some Common UEFI and PI Functions Chapter 10 - Platform Security and Trust Chapter 11 - Boot Device Selection Chapter 12 - Boot Flows Chapter 13 - Pre-EFI Initialization (PEI) Chapter 14 - Putting It All Together- Firmware Emulation Chapter 15 - Reducing Platform Boot Times Chapter 16 - Embedded Boot Solution Chapter 17 - Manageability Appendix A - Data Types Appendix B - Status Codes Index
Sommario/riassunto	This book provides an overview of modern boot firmware, including the Unified Extensible Firmware Interface (UEFI) and its associated EFI Developer Kit II (EDKII) firmware. The authors have each made significant contributions to developments in these areas. The reader will learn to use the latest developments in UEFI on modern hardware, including open source firmware and open hardware designs. The book begins with an exploration of interfaces exposed to higher-level

1.

software and operating systems, and commences to the left of the boot timeline, describing the flow of typical systems, beginning with the machine restart event. Software engineers working with UEFI will benefit greatly from this book, while specific sections of the book address topics relevant for a general audience: system architects, preoperating-system application developers, operating system vendors (loader, kernel), independent hardware vendors (such as for plug-in adapters), and developers of end-user applications. As a secondary audience, project technical leaders or managers may be interested in this book to get a feel for what their engineers are doing. The reader will find: An overview of UEFI and underlying Platform Initialization (PI) specifications How to create UEFI applications and drivers Workflow to design the firmware solution for a modern platform Advanced usages of UEFI firmware for security and manageability