



UEFI China Plugfest

Nanjing China

UEFI China Plugfest 2007

UEFI Overview

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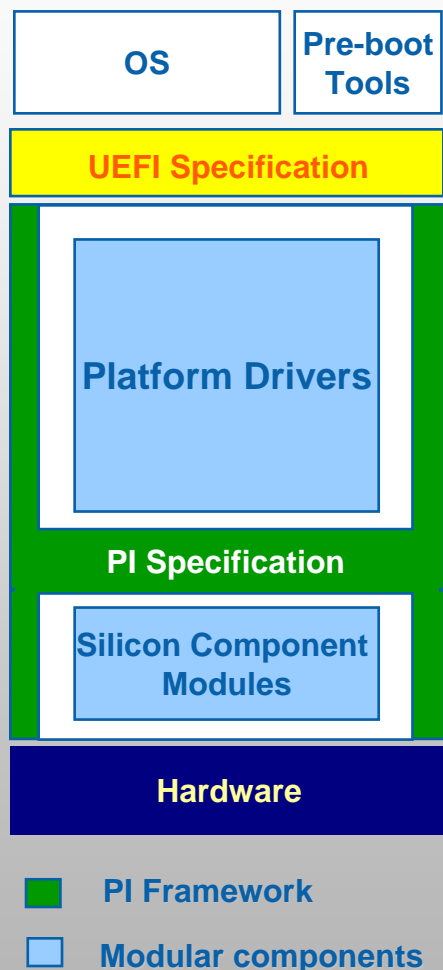


Agenda

- What is UEFI
- Emergence & Evolution of UEFI
- Importance of UEFI



What is UEFI?



- The UEFI Forum is responsible for
 - Unified Extensible Firmware Interface (UEFI) Specification
 - Platform Initialization Interface (PI) Specifications
- UEFI Spec is about interfaces between OS, add-in firmware driver and system firmware
 - Operating systems and other high-level software should only interact with interfaces and services defined by the UEFI Specification
- PI Specs relate to making UEFI implementations
 - Promote interoperability between firmware components providers
 - All interfaces and services produced and consumed by firmware only

UEFI and PI are Independent Interfaces



Emergence/Evolution of UEFI

- Before UEFI, there was EFI (1998)
 - The only way to boot Itanium® Processor-based systems
 - Addressed BIOS Limitations
 - Developed by Intel, ...but designed to be CPU design neutral
- Before PI, there was Intel Framework
 - Enable modularity, extensibility, flexibility in firmware implementation
- Industry agreed on EFI/Framework direction
 - Can be used on IA-32, Itanium and embedded devices
 - Need for broader governance
 - Intel, Microsoft contributed the seed material
- The UEFI Forum, Inc. was formed (2005)
 - UEFI Specification v2.0 and v2.1 published (2006/2007), added support for x64
 - PI Specifications v1.0 published (2006)
 - Ecosystem is maturing



Unified EFI Forum, Inc.

- A Washington non-profit Corporation
 - Develops, promotes and manages evolution of Unified EFI Specification
 - Continue to drive low barrier for adoption
- Promoter members:
 - IBVs: AML, Insyde, Phoenix
 - OEMs: Dell, HP, IBM, Lenovo
 - AMD, Apple, Intel, Microsoft
- Tiered Membership:
 - Promoters, Contributors and Adopters
- More information: www.uefi.org



UEFI Membership

- Promoters: board and corporate officers
- Contributors:
 - Corporations, groups or individuals wanting to participate in UEFI
 - Chance to join work groups and contribute to spec or test development
 - Early access to drafts and work in progress
- Adopters:
 - Any entity wanting to implement the specification



Unified EFI Forum Board

President: Tony Pierce, Microsoft

Vice President: Dong Wei, Hewlett Packard

Secretary/Treasurer: Mark Doran, Intel

Cecil Lockett, IBM

Derrick Carty, Apple

Dick Holmberg, Dell

Gary Simpson, AMD

Jeff Bobzin, Insyde

Randy Springfield, Lenovo

Stefano Righi, American Megatrends Inc.

Tim Lewis, Phoenix



Importance of UEFI

- Customer/User Benefits:
 - enables pre-boot networking stack (e.g., browser for firmware upgrade)
 - provide mfg and diag testing for memory above 4GB (overcome DOS limit)
 - enables better graphical user interface (800x600x32) in the preboot environment
 - enables touchpad pointing device during preboot
 - removes the dependency on VGA device in the embedded systems and the enterprise server environment
 - GPT benefits for large drives (>2TB disk partition)
 - Breaking the UMB(128KB) limit for Option ROMs (3 boot devices)
 - easier support for legacy or new technologies, e.g., tape boot



Importance of UEFI

- Engineering ease:
 - Innovations are much easier without the BIOS limitations
 - BIOS has shown its age
 - Extensibility, modularity and testability changes the ecosystem
- User Visibility
 - BIOS Setup user interface can be retained
 - Windows-like user interface improvements are easy to implement
- Firmware evolution is happening and it is happening in UEFI
 - UEFI is the only place where the pre-boot technologies are defined
- A once every twenty-year opportunity



China Plugfest 2007

- APAC is a significant market segment for the computer industry
- Satisfy increasing demands for hi-tech in APAC
- First ever in China
- Provide a convenient Platform for training and testing in APAC
- Special thanks to the strong support and leadership from
 - Nanjing City Government (XU Huiling)
 - Nanjing New & High Technology Industry Development Zone (QI Lu, SHAO Qiang, WU Jian)
 - Chinese Academy of Sciences (ZHANG Xingzhong, XU Lei, ZHANG Bin)
 - Chinese Academy of Engineering (Ni Guangnan)
 - Byosoft (SHEN Kangkang)
 - Intel (Wen-hann WANG)



Upcoming Plugfest

- Will be US-based
- AMD hosting
- Microsoft will join force with AMD and Intel to co-sponsor the event with the UEFI Forum
- Target: 2H 2007, details will be announced at www.uefi.org in July.
- Testing includes boot/install Windows Vista and Server 2008

- EFI has been the only boot mechanism for Itanium
- UEFI is the industry effort moving EFI to x64
- OSVs supported EFI on Itanium and are moving rapidly to support UEFI on x64
- UEFI technologies are coming soon to systems around you
- UEFI is the only place where the pre-boot technologies are defined

China Plugfest 2007 Starts Now

中国UEFI技术大会现在开始

UEFI China Plugfest 2007