presented by

The UEFI Mini-Summit

Linux Community's Guide to UEFI

Introduction by:

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Jeff Bobzin – Insyde Software

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Agenda

- UEFI Introduction
- UEFI Mini-Summit Schedule
- Panel Discussion
- Q&A

The UEFI Forum Background

- Non-profit industry forum
- Founded in 2005 with 11 promoter members
- Currently at 250+ member companies
- Formed to standardize EFI and extend to x64
- Forum maintains all spec development

The UEFI Forum

Membership Profiles

- PC manufacturers
- Server manufacturers
- Computer peripheral
- Hardware vendors
- Software vendors
- Operating system developers
- Industry advisors
- Best practices stewards
- Academics

Membership Levels

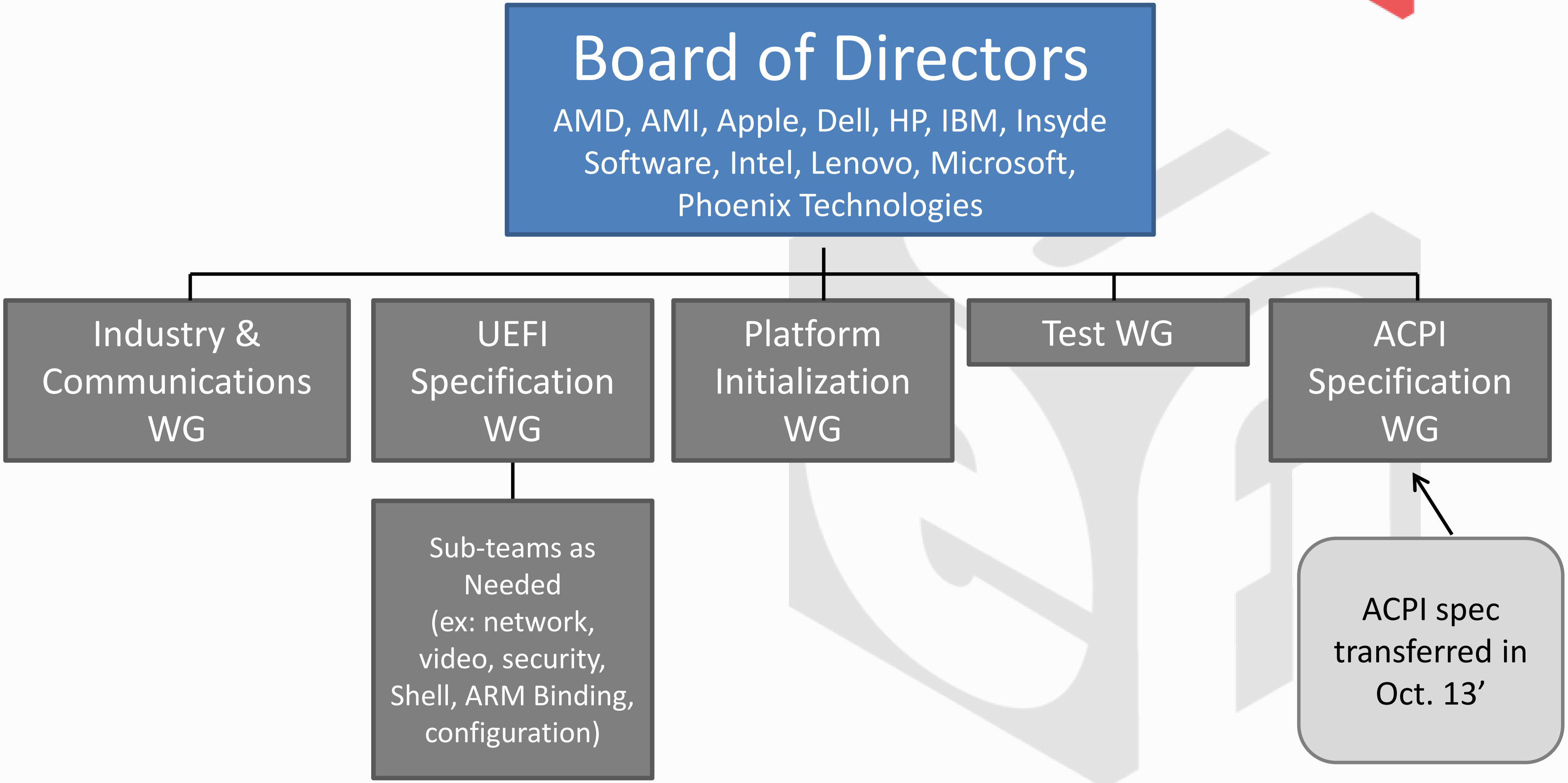
Adopter (complimentary)

- Forum's members-only site access
- Plugfest/event invitations
- Tools and design guides access

Contributor ($2500 annual fee)

- Adopter benefits, plus…
- Opportunity to participate in UEFI Working Groups via invitation
- Email reflector participation
- Preview of draft spec revisions

The UEFI Forum



Board of Directors

AMD, AMI, Apple, Dell, HP, IBM, Insyde Software, Intel, Lenovo, Microsoft, Phoenix Technologies

Industry & Communications WG

UEFI Specification WG

Sub-teams as Needed (ex: network, video, security, Shell, ARM Binding, configuration)

Platform Initialization WG

Test WG

ACPI Specification WG

ACPI spec transferred in Oct. 13’

UEFI & ACPI Specifications

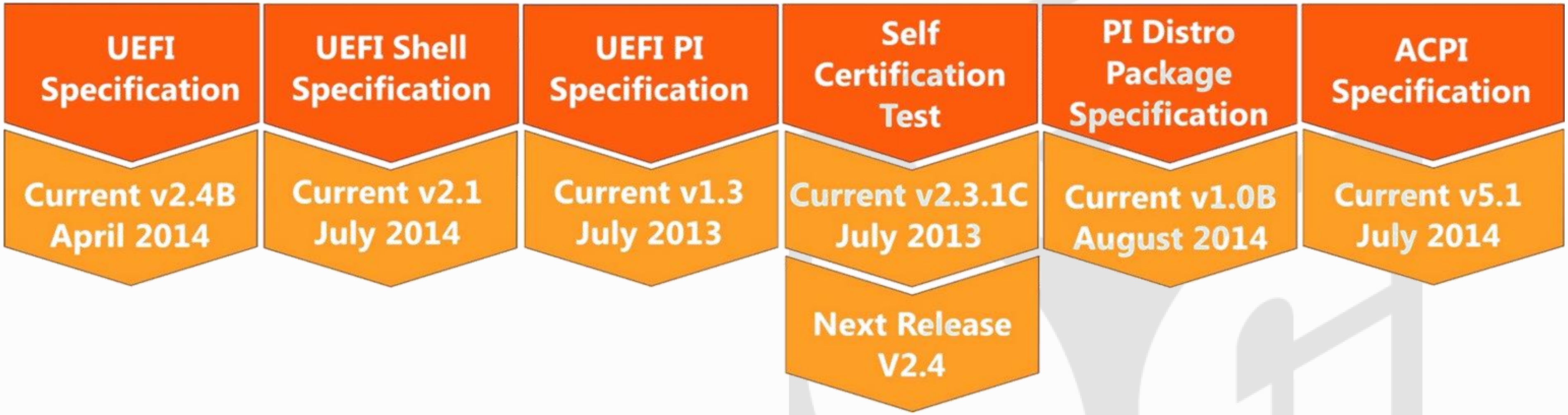
Unified Extensible Firmware Interface (UEFI)

- Defines firmware interface in pre-OS space
- Standardizes platform interfaces for interoperability
- Extensible across all platforms
- Architecture-agnostic
- Supports x64, ia32, IA64, ARM AArch32 and ARM AArch64

Advanced Configuration and power Interface (ACPI)

- Key element in OS-directed configuration and Power Management (OSPM)
- Flexible mechanisms for device discovery, thermal management and reliability, availability and supportability (RAS) features
- Enables platform technologies to evolve independently in the operating system and hardware

Specification Milestones



UEFI Specification
Current v2.4B
April 2014

UEFI Shell Specification
Current v2.1
July 2014

UEFI PI Specification
Current v1.3
July 2013

Self Certification Test
Current v2.3.1C
July 2013
Next Release
V2.4

PI Distro Package Specification
Current v1.0B
August 2014

ACPI Specification
Current v5.1
July 2014

Top Misconceptions

UEFI vs. Legacy BIOS

- Legacy BIOS rooted in IBM PC design
- UEFI defines a standard interface for transferring control to an OS

UEFI Secure Boot

- Optional spec protocol for most general purpose systems
- Can be disabled on most systems; up to system vendors which policies are implemented
- Designed to protect system from malware and unauthenticated binaries

Why Are We Here Today?

- On the rise:
  - Open source implementations
  - Usage of mobile and non-PC devices
  - Integration of mobile and non-PC devices with traditional computing devices
  - …security vulnerabilities
- Value proposition: UEFI Forum specifications support…
  - Cross-functionality between devices, software and operating systems
  - Enhanced security options and data protection
  - Faster boot-times (including dual-boot) with better configuration control
  - Faster recovery in cases of system outages
  - Flexibility regarding specifications' features used and disabled

Why Are We Here Today?

- Increased usage of UEFI Forum specifications (UEFI & ACPI) in Linux OSes (Fedora 18, OpenSUSE 12.3, Ubuntu 12.10)
- Opportunities for Linux Community & UEFI Forum
  - Continued and increased involvement of Linux-related companies and leadership groups
  - Strengthened collaboration between firmware and OS communities; ensures the right stakeholders are brainstorming, sharing and developing valuable industry advancements
    - Example of current project idea: automation of platform-based, self-managed key stores

Panelists

- Zach Bobroff, AMI
- Brian Richardson, Intel
- Matthew Garrett, Nebula
- Roy Franz, Linaro/Cavium
- Dong Wei, HP

Questions & Answers

Mini-Summit Schedule

Time	Session	Presenters
10:45 a.m.	Intro, panel and Q&A	Dong Wei, HP Jeff Bobzin, Insyde
11:45 a.m.	UEFI Secure Boot – Strengthening the Chain of Trust	Jeff Bobzin, Insyde Kevin Lane, HP
	Lunch 12:35 p.m. – 2:30 p.m.	
2:30 p.m.	UEFI Test Tools for Linux Developers	Brian Richardson, Intel Alex Hung, Canonical
3:30 p.m.	Building ARM Servers with UEFI and ACPI	Dong Wei, HP Roy Franz, Linaro
4:30 p.m.	Self-signing the Linux Kernel (the hobbyist approach)	Zach Bobroff, AMI

Resources

Upcoming Events

- IEEE Conference on Security and Privacy – November 2014
- Fall UEFI Plugfest – 10/13 – 10/17 (member-only)

Helpful Links

- UEFI Primer – uefi.org/primer
- UEFI FAQ – uefi.org/faq
- Top Misconceptions White Paper – uefi.org/top10
- ACPI press release – uefi.org/ACPIv5.1

Become a member

- Visit uefi.org/join to learn more

For more information,
visit http://www.uefi.org

Thank you.