Boot Technology Working Group

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This Presentation

- Discuss changes to Embedded space
- Discuss changes to the working group
- Go over Phoenix Technologies new direction
- How to get involved
- Get out early, It's late

Why the New Name

- Was: Bootup Time Working Group
- Now: Boot Technology Working Group
- Why the Change
  - Reduced focus too narrow
  - Kernel boot up time not as much an issue
  - More focus on the global booting issues
  - Restart the Workgroup
- Changes in the Embedded market.

Changes in Embedded Space

- The face of embedded devices are changing
- Today more then before generic PC can be used as an embedded platform
  - Commodity pricing
  - Increased demand for features in the Embedded space
  - Storage requirements
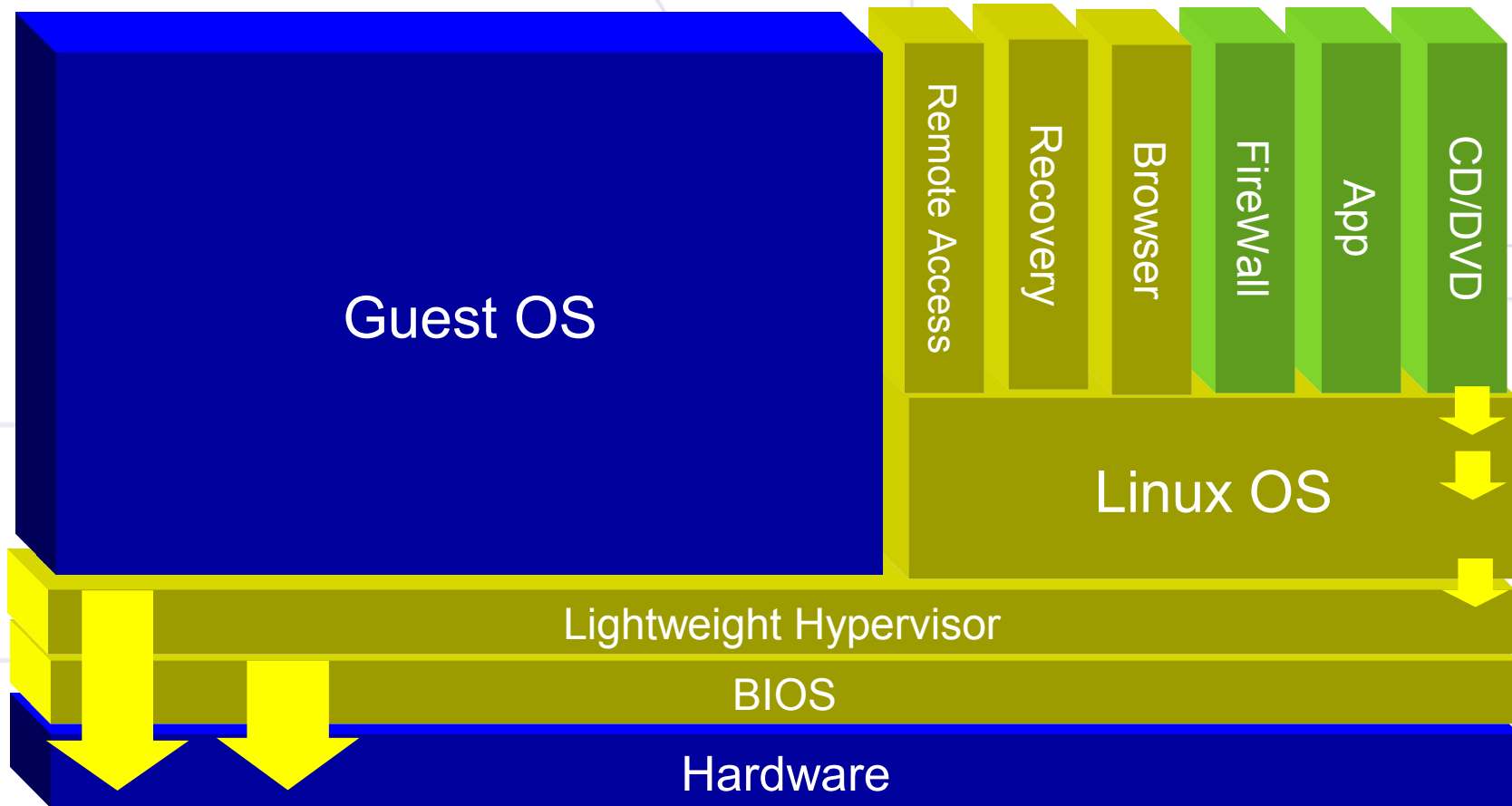- Consistent boot environment saves bring up time

New Areas to Investigate

- Still look at boot time, kernel and apps
- Investigate boot loaders, standardize
- Development/Debug/Profile tools during boot
- Post boot applications

Phoenix Vision

Guest OS

Remote Access

Recovery

Browser

FireWall

App

CD/DVD

Linux OS

Lightweight Hypervisor

BIOS

Hardware

What Phoenix is Doing

- Easier to use: configured to perform simple functions which work more like a wireless email device or MP3 player or DVD

- More reliable: malware checking can be moved outside of Guest OS to provide bulletproof essential functionality

- More secure: confidential information can be encrypted and kept secure outside of Guest OS processes free from "phishing"

What Phoenix is Doing

- Faster: applications will be small and built with a standard of immediate availability to users with the press of a single key

- Easily maintained and repaired by remote technicians: Tech's can easily access, tune and repair the PC hardware and software with the users permission. The entire disk can be corrupted and the tech can completely rebuild the system

Boot Time

- Boot Chart
- Non intrusive profiling and logging
- Kernel XIP/Apps XIP
- Linux Trace Toolkit

- see BootupTimeWorkingGroup page for detail.

Boot Loaders

- Standardize/Reduce Development
  - PC BIOS
  - U-Boot (u-boot.sourceforge.net)
  - Gujin (gujin.sourceforge.net)
  - Lilo/Grub
  - k-boot
  - MBootPack

Applications

- HD Recovery/optimization
  - Preboot HD recovery
- Remote Administration
- Backup/Restore
- Safe Upgrade/Downloading updates
- Multimedia apps
- SDK design
- Graphics environment

Goals

- Renew interest in the Boot Tech group

- Determine areas of core importance

- Review currently available open source tools.

- Develop custom tools

Getting Involved

- Check the Main Wiki for information
- Add yourself to the BTWG mailing list
- BootTechnologyWorkingGroup link added
- Check the link for conference calls
- Calls are on the 3rd Thursday of every month