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OPSD BIOS ENGINEERING
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SUBJECT: Havre/Winnipeg Standard Production BIOS 14, build 45

About This Release

- HV84510A.86A.0045.P14.0212030814
- PXE–2.0 [Intel Boot Agent Version 4.0.19 (build 83)] for ICH2 LAN Controller

Features/Errata Fixed in This Release

P14-0045
- Updated to latest processor support.

P13-0043
- Added APM support.
- Fixed APM errors with the resume timer.
- Fixed issue with keyboard and mouse not being enabled as wake events in APM suspend.

P12-0041
- Added chassis intrusion support.
- System will now wake from S3 state when it receives a TCPIP ping.

P11-0040
- Added support to scan User Binary code before Video initialization so that resource allocations for this code can be provided by the BIOS.
- Fixed an intermittent POST hang issue with certain processor speeds and memory configurations.
- Disabled functionality of the F8 and F12 POST hotkeys if a supervisor password has been installed and the user access level is not set to "full".

P10-0038
- Created an error message to be displayed when an unsupported processor is installed.
- Added support for additional processors.
- Added support for Express Bios Update (EBU) 1.13.
- Changed several fields and screens to display additional processors.
- Fixed an issue where some PCI devices were not functional on PCI add-in cards that had PCI-bridges on them.

P09-0035
- Added BIOS workaround for Windows 98SE and Millennium issue where the default Microsoft PS/2 mouse driver does not allow the mouse to wake the system from Suspend-to-RAM (S3).
- Changed the INT 19 hook-function so that option ROMS in add-in adapters can use this function for boot support.
- Support for higher speed Processors was added.

P08-0031
- Added new strings translation.

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- Fixed an issue where the system would not boot from a USB CD-ROM that was not attached to the Primary Host Controller.
- Speed up POST time.
- Added a Soft Off Power button option.
- Fixed an issue where certain USB Mass Storage devices would hang the system in POST.
- Add "A" naming suffix to distinguish between processors.
- Added support to disable PXE, which will free up Option ROM space.
- Added 48-bit LBA support.

P07-0029
- Added code that adjusted chipset initialization timings and introduced code that terminates outstanding SMBus events before starting a new SMBus event.
- Added additional processor support.

P06-0024
- Removed memory SPD checksum verification due to speed concerns.
- Fixed issue where PCI devices not functional when a bridge card installed in the system.
- Fixed the cache line size for PCI bus masters.
- Fixed an issue where the PS/2 mouse could not wake the system from the S3 state with some mouse drivers and operating systems.
- Added support for OEM programmable AC'97 Modem SSVID and SSID.
- Disabled the setting of the PCI ISA_EN bit in bridges by default.
- Added a configuration mode setting for ISA Enable and PCI Latency Timers

P05-0022
- Fixed an issue where the PS2 mouse may have a yellow bang in Windows 98*/ Windows Me* device manager.
- Fixed the issue of Reset Config Data question in BIOS setup not being reset to "No" after the config data is reset.
- Added System Locked Pre-installation (SLP) string.
- Added support to skip boot to USB boot devices.
- Moved unused PCI slot clock disabling to occur later in POST.
- Merged in changes from Rev 1.1 of the 845 Memory Reference Code.
- Set the lowest sleep state capability reported to the OS for USB controllers to be S3 and not S4.
- Added a prompt to boot from the network by pressing F12 in the POST screen.
- Optimized bit map splash screen output for speed in VGA mode 12h.
- Added BIOS support for the optional BMI (a.k.a. Heceta 6) component.
- Programmed the USB Hub Vendor ID to 0x8086 and Product ID to 0x1120 in the SIO component.
- Removed the APM function call interface, since APM is not supported in this BIOS.

P04-0018
Initial release