Release Notes for PA0712

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Overview

The Offline Diagnostics Environment (ODE) is a platform that enables you to troubleshoot a system that is not booted to the operating system. ODE can be used to test systems that cannot be tested using the Online Diagnostics tools. The ODE is also useful for some types of testing in which it is not desirable to have to boot the system first, as is often the case in manufacturing applications.

Enhancements

The ODE December 2007 release includes the following enhancements:

IOTEST2, MAPPER2, PCIUTIL

- Added support for AD385A PCI-X 10GbE SR Fiber HBA

Defect Fixes

The ODE December 2007 release includes the following defect fixes:

DISKEXPT2

- JAGag44996
  The DISKEXPT2 tool fails after executing 'modesense' command for A6255A controller. This defect is now fixed.

MOABDIAG

- JAGag40024
  The MOABDIAG tool hangs after executing PCIUTIL. This defect is now fixed.

Known Problems

Following are the known problems that are common to both 32-bit tools and 64-bit tools:

- All ODE programs hangs on the PCX-U and PCX-U+ based workstations (C160, C180, C200, and C240) if the firmware version is earlier than IODC 4.1.
  Workaround: Install the firmware version IODC 4.1 and later.
- After exiting from the TMMGR prompt to the ODE prompt, running any subsequent program may hang the system. The user must use the `exit all` option to exit from the TMMGR prompt to the ISL prompt and reload ODE.

Known Problems for 32-bit Tools

Following are the known problems for 32-bit tools:

- Offline diagnostics may not recognize some SCSI disks attached through HP-GSC and HP-HSC cards. For example, MAPPER may fail to recognize a lone AutoRAID Disk Array Model 12H. This problem will be fixed in a subsequent version of the offline diagnostics.
  Following lists the systems and the cards that are affected:
  - D/R-Class: A4107A (HP-HSC card F/W/Diff SCSI-2)
  - K-Class: A2969A (HP-HSC card F/W/Diff SCSI-2)
  - T-Class: A3644A (HP-HSC card F/W/Diff SCSI-2)
  - A-Class: HP-HSC card F/W/Diff SCSI-2

  Workaround:
  - Run the `search` command from the Boot Console Handler (BCH) prompt.
  - Run the MAPPER tool or other ODE disk tools as desired.

  Workaround for A180 and A180C servers:
  - Boot to the HP-UX prompt.
  - Reboot to ISL.
  - Run the MAPPER tool or other ODE disk tools as desired.

ASTRODIAG

- At least one PCI SCSI card must be placed under each Local Bus Adapter (LBA) on sx1000 systems.
- For B2000, at least one PCI SCSI card must be installed in the system to run all sections on ASTRODIAG.

CLKUTIL

- This version of CLKUTIL will not work on a graphics terminal.

DINOTEST

- If section 9 runs, cards on the secondary PCI bus may loose their configuration. When this happens, users must reset the system before booting the OS.

KEYDIAG

- Tested on Hversion 0x580 K-Class systems and not on Hversion 0x581 K-Class.

LANCONFIG

- Does not support C-class workstations on this version.

LASIDIAG

- The `sect 32 10;run` command returns the following error message although there were no errors found:

`HARDWARE ERROR`
Ignore this error message.

SIODIAG

- The message "Test section completed successfully" means that the test section code is complete and has been tested.
- The message "Test section not yet implemented" means that the test section is either not code complete or not completely tested.

TIMIDIAG

- If the system console path is set to the TIMI serial port, execution of TIMIDIAG SECTION 004 (Timi UART test internal and external loopback) will crash the system.
- If the system is booted from either of the Backplane Networking, Backplane ROM or PCMCIA boot devices, execution of TIMIDIAG will crash the system.

TMMGR

- The TMMGR prompt is currently only supported when ODE is booted from the HP9000 Offline Diagnostics CD-ROM. If ODE is booted from tape, diagnostics can be run from the ODE prompt rather than from the TMMGR prompt.

Known Problems for 64-bit Tools

Following are the known problems for 64-bit tools:

- The LIF-LOAD product is a subset of Offline Diagnostics for the HP-UX 9000 systems. LIF-LOAD is installed to the boot area of the system disk. It contains the following ODE (Offline Diagnostics Environment) programs:
  - MAPPER2
  - IOTEST2
  - PERFVER2

  The LIF-LOAD installation fails on the HPUX 11i v3 systems. After the installation of the LIF-LOAD product, the following message is logged in the /var/adm/sw/swagent.log file:
  `WARNING: Primary boot path variable not a character device. The offline diagnostics were not installed.` This problem will be fixed in the next PA ODE release in March 2008.
- The class license may not work for some rp8400 systems (HVersion 5E4 and 5E6). The work around is to install the class license from the Online Diagnostic tools.

DISKEXPT2, DISKUTIL2

- READLOG on a Quantum FIREBALL1050S disk will return a "Device wants to Transfer More Data then Allocated." error message. This is a bug in the disk driver firmware.

ASTRODIAG2

- Return values for each test section are inconsistent. They can cause the diag to return TM_STATUS_FAILED under the wrong circumstances.
  Important: PCI-TO-PCI devices are not supported on Shared Slots.
- Interrupt tests (Section 6) are not executed.
- PIO transactions (Section 8) are not executed.

CIODIAG

Important: There is no USB coverage implemented for this release and there are no plans to test the RS232 users port. Only the UPS or Aux port in rp8400 is tested on an external loopback test.

IKEDIAG2

- On rp5470 servers, section 3, subtest 1 & 2 are disabled.
- ON rp5470 servers with 875MHz CPUs, Section 8: Subtest 004 DMA Ext. Interrupt Test fails.

IOTEST2

- IOTEST2 runs very slowly on c8000 machines when USB devices are connected.

MAKODIAG

- Section 81 fails after several loops when run with other ODE Tools.
  Workaround: Enter `resume` at the command prompt to continue with the test.
- Section 24 hangs on c8000 machines when run with other ODE tools in a loop when core I/O ethernet card is A7011A or A7012A.

MAPPER2

- Runs very slowly on c8000 machines when USB devices are connected.
- Does not list MSA1500 devices when connected to A6795A Fibre Channel HBA.
- Does not detect EVA3000 and EVA5000 storage array devices when connected to A6795A Fibre channel controller.

MEM2

- Due to a firmware bug in zx1 based systems, MEM2 detects SBE and pauses. However, it does not report the correct location of the faulty DIMM.
- Due to a firmware bug in zx1 based systems, MEM2 works only when run from a disk. If booted from LAN, it will work for the first run as long as the user does not exit to the ISL prompt. If exited, the user needs to reset the server before running MEM2 again.

MOABDIAG

- The MOABDIAG tool hangs after running the ESCDIAG tool.
  Workaround: Run the MOABDIAG tool before running the ESCDIAG tool.
- The MOABDIAG tool hangs intermittently in Section 3 on 32-way HP 9000 SuperDome/sx2000 systems.

PLUTODIAG

- Section 5 does not receive any interrupts on the c8000 system.

REODIAG

- Two CPUs are deconfigured in rp7410 after running section 8. Further investigation in section 8 is needed. Therefore, forwarding of interrupt 0 to the processor in section 8 is temporarily skipped.
- Section 11 is not implemented because the PCI Exerciser card, HP E2928A, is no longer supported.

TOGODIAG

- TOGODIAG takes variable amount of time to load on rp8420 systems. The delay is due to the PDC calls that takes more time to fetch the system information.

Documentation

For latest information on ODE, see the Diagnostics website at:
http://www.hp.com/go/hpux-diagnostics-docs

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