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              HITACHI エンタープライズサーバ EP8000 シリーズ　マシンコード来歴
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SAS RAIDカード/ディスク分割機構のファームウェア変更内容と来歴

○：サポート、－：未サポート

ファームサポート情報	SAS RAIDカード					ディスク分割機構	
	FC5679	FC5662	FC5630	FCEJ01	FC5268	FC5631	FCEJ02
0420003f/0422003f	○	○	○	○	○	○	○
04200037/04220037	○	○	○	○	○	○	○
04200033/04220033	○	○	○	○	○	○	○
04200029/04220029	○	○	○	－	○	○	－
04200020/04220020	○	○	○	－	○	○	－
04200010/04220010	○	○	－	－	－	－	－
03200066/03220066	○	－	－	－	－	－	－
03200063/03220063	○	－	－	－	－	－	－
03200059/03220059	○	－	－	－	－	－	－
03200048/03220051	○	－	－	－	－	－	－
02200070/02220070	○	－	－	－	－	－	－
02200065/0222006b	○	－	－	－	－	－	－
02200059/02220060	○	－	－	－	－	－	－
02200050/02220050	○	－	－	－	－	－	－
0220004a/0222004a	○	－	－	－	－	－	－

ファームウェア変更内容と来歴	
0420003f 0422003f	(1) POWER7+搭載モデルにおいて,システム起動時に,ディスクが見えなくなる問題を修正しました。 (2) システム起動時に,誤って IOASC:066B9100 が採取される問題を修正しました。
04200037 04220037	(1) 8205-E6B/E6C で Split カードが搭載された構成において,I2C(シリアルバス)上でバスの競合が発生すると,DASD バックプレーンにある LED が点灯し続ける問題を修正 (2) マルチパス構成において,ミラーリングされた HDD の交換作業中に,システムがハングアップする問題を修正 (3) SAS アダプタに LT05 のドライブが接続された構成において,SISSAS_FABRIC_ERRs が採取される問題を修正。 (4) SAS Port の障害発生時,エラー回復処理を誤り,システムがハングアップする問題を修正。
04200033 04220033	(1) 以下のエラーコードに関する軽微な修正。 IOASC/PRC:06690200/14021403, 07278C00/17034918, 04448200/11050E51, 02048000/17101c15 (2) 9117-MMB, 9179-MHB のオンボード SAS コントローラ(CCIN:572C)向けに新しい設定を追加。
04200029 04220029	(1)Specific to MTM 8202 & 8205: Reduction in I2C bus traffic, eliminating unnecessary communication to PSOC. This change has shown to resolve situations where one Virtual "ses" device would configure as defined in DASD split backplane configurations. Note: This microcode change does not resolve other I2C bus contention issues outside of the SAS architecture. (2)Contains fixes, previously included in 042x001b levels for Power Blade architecture (1 SAS Address per phy) (3)Added Error Code combo 04678000/10440039 to report invalid Dual Controller configurations. Previous undetected invalid configurations included: MTM 8202/8205, High End DASD backplane without CCIN 2BD9 & 2BE1) (4)Fix for SSD drive errors, 0B/4400 in CCIN 57CD configuration. Reduced Overall Command Timeout Value from 16 to 2.

ファームウェア変更内容と来歴
04200020 04220020	SAS I/O adapter error recovery enhancements for device hard media errors to prevent a very slight chance of undetected data corruption. This can only occur when a RAID-5 configuration is being used. The adapter microcode is updated to prevent the problem from occurring. Affected CCINs: All that are RAID 5 capable
04200010 04220010	First customer release in the "04xxxxxx" level.
03200066 03220066	Fixes for (1) All Adapters: IOASC/PRC 04448400/80FF0200, 04448400/80FF0300, 06678400/104212C2 (2) non-RAID (JBOD) only: 04448400/10802033 (3) Dual Controller only: IOASC/PRC 06678400/10440C10 (4) Dual Controller w/ Active/Active only: Changes to quiesce drive ops on drives that are not performing write same commands upon insertion of DASD (RAID and non-RAID) (5) CCIN 57B8 (on Link to Aux Cache): IOASC/PRC 01080000/10272385
03200063 03220063	(1) There was a small possibility that the SAS Controller's VPD update process could be interrupted on the first pairing of a 8204/8203 System Planar & 57B8 SAS RAID Enablement Card. This could leave the 57B8 in an unusable state. See Retain Tip H195958. This microcode moves the VPD update to a place in time to avoid the interruption. (2) Close loophole on microcode update to a SES (split-backplane) which could potentially allow for microcode update both SAS paths to a particular device. If both paths are being updated then no paths would be active to the end device.
03200059 03220059	HIPER: It is of upmost importance to install this fix if Active/Active is enabled in a Dual Controller environment. (1)Active/Active fix: One or more disks could get lost from an array when a Link error occurs. This posed a Data Loss possibility. It is strongly recommended that Active/Active be disabled when installing this microcode! Active/Active can be re-enabled, concurrently, after microcode installation on both adapters. (2)Microcode Download update incomplete fix: The possibility existed where future microcode download attempts will not complete successfully and thus need to be retried. Once this code is successfully flashed that possibility is removed.
03200048 03220051	(1)Add support (GA Level) for CCIN 57B3(SAS Adapter PCIe:THE-7000FC5901) (2)Various Unit Check fixes (3)Dual Controller mode: Enabled Active/Active mode (4)additional fix to address errors in CCIN 57BA, FC 5911 environment. SISSAS_ERR11T w/ error code FFFE SISSAS_FABRIC_ERROR w/ error code 4100 or 4101
02200070 02220070	(1)Fix for 04448400 with 10272212 and other Unit Checks conditions. (2)Corrects a situation where adapter did not enable caching in a specific dual controller scenario.
02200065 0222006b	(1)Fix for out of resources error. The SAS/SCSI controller would previously allow for up to 16 resources per drive. This has been increased to 20 to coincide with the theoretical maximum. (2)Code level 02220065 + 1 additional fix addressing PCI-E training issue affecting 57B7 and 57B9 SAS adapters.

ファームウェア変更内容と来歴	
02200059 02220060	(1)Fix for 57B7 no show on boot. New PCIe driver strength settings and change to the PCIe CORE reset pulse. (2)Fix for 572B in Dual Controller mode. The adapter will no longer log a 9076 error on a boot, if the system contains 572B's that have no FC 5886 SAS drawers attached.
02200050 02220050	Trouble might be caused when the DAT72 SAS tape drive is accessed, And the update of the microcode is recommended strongly
0220004a 0222004a	Fix for TEMP SISSAS_ERR11T logged against CCIN 57B7 during boot or other configuration time. That error decoded further as a REASON FOR FAILURE Timeout‐op started. A microcode update to 57B8 addresses the issue. It is best practice to apply the update to 57B7 when updating 57B8.

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