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HITACHI エンタープライズサーバ EP8000 シリーズ マシンコード更新手順

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LTO Ultrium1 ドライブ Firmware 変更内容と来歴

レビジョン	変更内容
4561	<p>Enhancements:</p> <ul style="list-style-type: none"> ·B884, 3883 fixes in a 3584 library environment ·FC CRC fixes ·Cartridge Memory error handling ·Eliminate Tape run-off condition due to bad tape servo format <p>Fixes:</p> <ul style="list-style-type: none"> ·hang after write ABORT.(no unload) ·ALPA FF when drive is LOOP MASTER ·FC drive disappears from loop after Set Config. ·2147/20a3, STA: further checks, init CM_array" ·False SCD=5 on media errors ·Hang on read/unload ·Drive does not properly fence write failure. ·message id is truncated to one byte for fmr and erase fmr ·FSC 2061 during write filemarks ·fix bad byte in TD due to CM defect ·Drive panic due to WRITES/READs w/ random delay INQUIRYs ·add volser to library capture data area. ·LDI returns zero sense for Unload ·Incorrect Drive LDI status Response to FMR Tape ·Get CRC error when reading dump from tape ·Data Recovery Code Enhancement. ·Read fail when long block read with short length ·Perm Rd er on 1st attempt ·Media Tape Alerts don't clear ·Status flag bit 2 in error. ·Read fail when long block read with short length ·Read Position data incorrect after Locate Immediate ·Incorrect value of write error count returned on logsense ·Special feature for bad CM module ·Selftest 1 passes def drives ·remove KER_PRINTF statement on drive status ·Perm Rd er on 1st attempt ·SCD 3 in Diag 1 & F when CM card connector out ·3CKE code LDI FMR create/erase SCD7

	<ul style="list-style-type: none"> · Unexpected write error corrected counter decrement · Flush after perm error reports good status · "Clean Behavior" is not reset by SCSI Reset. · Read Position CMD reports incorrect data · Multi-Initiator LUN1 commands are being forwarded out of order · Incorrect status translation results in Unload hang · Buffer Overflow because the Pause is ignored · FSC 2147 CM xfer fail (B882 3584 LIB error) · Queue hang for Read abort on EXT · Sense reporting to TUR when hardware error · Library serial number not remaining over set config · FSC 2062 misreporting with SCD 4 instead of 6 · !4 ERROR · LUN1 error mishandling. · Invalid LUN1 command causes LUN1 queue hang · Drive does not properly fence write failure. Modified the write algorithm to take the drive offline when the certain write errors are encountered. · LIB: message id is truncated to one byte for fmr and erase fmr Improved communications to media changer for FMR tape creation and erasure. · Avoid CRC check if resetbc invoked during data xfer · SMNS:FTSTR:hang after write ABORT.(no unload) Improved Write Error recovery algorithm · ALPA FF when drive is LOOP MASTER Improved Fibre Channel negotiation as Loop Master. · FC drive disappears from loop after Set Config. Improved Fibre Channel behavior after Library issues Set Config command · 2147/20a3, STA: further checks, init CM_array. Enhanced updating of Cartridge Memory. · False SCD=5 on media errors. Improved the algorithm that selects Single Character Display shown for problem determination. · Hang on read/unload. Improved error recovery after a Host issued command Abort.
36UG	<p>Fixes:</p> <ul style="list-style-type: none"> · After certain ERP and then certain CM access error, could position to incorrect wrap
36U3	<p>Designed to improve or enhance the following:</p> <ul style="list-style-type: none"> · Ultrium 1 data cartridge initialization in Ultrium 2 drive. · Drive response to commands issued in a multi-initiator environment. · Cartridge handling. · Proper handling of cartridges that deviate from LTO specification. · Management of FC communications under high stress, multi-initiator environment. · Recovery from host induced FC loop events. · FMR tape management. · Algorithm for updating CM. · Better media handling to improve responsiveness. · Algorithm for responding to SCSI commands · Additional format checking of SCSI commands · In a FC environment, confirm setting of variable to compare against. · Parameter setting algorithm. · Error handling of Locate under restricted events. · Error handling caused by host requested aborts <p>Additional timers to improve the following:</p> <ul style="list-style-type: none"> · Response of Error Recovery Procedures. · Unloading a cartridge.

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