

Hitachi Adaptable Modular Storage 2000 Series Firmware 0890/B Release Notes

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About This Document

This document provides late-breaking information about the Hitachi Adaptable Modular Storage 2000 Series firmware version 0890/B. It includes information that was not available at the time the technical documentation for this product was published, as well as a list of known problems and solutions.

Intended Audience

This document is intended for customers and Hitachi Data Systems authorized service partners who license and use the Hitachi Adaptable Modular Storage 2000 Series.

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About This Release

These release notes cover the Hitachi Adaptable Modular Storage 2000 Series firmware version 0890/B.

New Features and Important Enhancements

- High Capacity Expansion unit - DF-F800-RKAKX now supports SAS HDDs.
- New hardware support (H/W Rev. 0200) – supports the following features:
 - Embedded Fibre Channel interface in AMS 2100 and AMS 2300.
 - Multi-protocol (FC/iSCSI) support in AMS 2100 and AMS 2300.
 - PGR Key 128 in AMS2100, AMS2300, and AMS2500.
 - Full capacity of quick formatting with 2 TB HDD configuration on version 2 controllers.
 - Full capacity of Dynamic Provisioning LU with 2 TB HDD configuration on version 2 controllers.
- Enhancement of Dynamic Provisioning
 - Model Upgrade Support - supports the Model upgrade without disabling Dynamic Provisioning function.
- Year 2010 Compliance with NIST Minimum Security Strength.
- Support for Forced Reserve Reset by the Hitachi Storage Navigator Modular 2 graphical user interface to avoid unintentional LU reservation.
- Enhanced Performance Monitor to display sequential and random I/O performance.
- Improved SATA performance on RAID 1+0 configurations.
- Support for creating a ShadowImage pair with the LU for DP optimization.
- Improved host I/O response during Dynamic Provisioning LU.
- ShadowImage I/O Switching function support on Dynamic Provisioning LU. With ShadowImage I/O Switching, Dynamic Provisioning LU can now be used for a P-VOL or an S-VOL of ShadowImage.
- The e-mail notifications feature has been improved.
- Illegal subnet mask values in LAN configuration can now be detected.
- Improved I/O performance with Dynamic Provisioning LUs when setting DP optimization priority mode.

New System and Hardware Requirements

- None

Fixed Problems

- A controller block no longer occurs if AMS is used by USP_V/VM's Universal Volume Manager function.
- If a storage system failure occurs while reducing the number of LUs in a RAID group deletion process, the firmware no longer decrements the number of LUs inappropriately when the storage system recovers from the failure.
- A controller failure caused by data transfer check error in 8Gbps Fibre Channel interface no longer occurs with the following WEB message "HD2100 Host transfer DMA error was over the threshold."
- A controller failure no longer occurs when link failures are detected in the backend diagnosis during the array boot up process with the following WEB message "HH9211 Backend diagnosis time-out was detected[code-11]"
- SAS HDD failures are no longer caused by path failures between the ENC and the drive.
- Enabling Copy-on-write Snapshot, ShadowImage in-system replication, TrueCopy remote replication, TrueCopy Modular Distributed, TrueCopy Extended Distance, or Dynamic Provisioning, or the presence of "dirty data in cache, no longer causes a CTL failure when executing a planned shutdown.
- If a CTL failure occurs during DP Pool initialization, the other CTL no longer performs a subsystem-down condition if it detects a "HJ4AC7 Microprogram error was detected[HDP]".
- If more than one spare disk drive is replaced, a subsystem outage no longer occurs with the following message when the subsystem powers on following a power outage: "I6G100 The serial number of the HDU is different from the configuration info," "HH9R00 Two or more HDUs have serial number problem."
- If more than one spare disk drive is replaced, a block of the drive no longer occurs with the following message when the subsystem is powered-on following a power outage: "I6GV00 Move drive (Unit-x1,HDU-y1) to slot (Unit-x2, HDU-y2) because of serial number problem"
- A WEB connection failure no longer occurs on a failed CTL with an iSCSI interface.
- Controller 0 no longer hangs when starting the Maintenance Mode.
- When creating a RAID Group consisting of the maximum number of HDDs supported by the storage subsystem model, the subsystem no longer prevents Navigator 2 from being accessed.

Fixed Problems

- A link-up can now be performed after the storage system boots following a PS-ON, offline firmware exchange, or temporary controller failure.
- When the Enable/Disable setting of a switch port changes in a point-to-point topology, a controller block no longer occurs.
- A WEB connection failure no longer occurs when performing a simple trace following a CTL failure.
- Interface slot number #1 no longer appears as #0.
- When installing or uninstalling a Program Product, the Audit Log now shows "Start/NotStart," not "Enable/Disable."
- When the PS off executes, a controller block no longer occurs even when the PS off completes.
- The appropriate WEB message ("Unit02-ENC1" instead of "Unit02-ENC0") now appears if an ENC cable is connected incorrectly.
- A controller block is no longer generated when AMS2000 is used by USP_V/VM's Universal Volume Manager function.
WEB information message: "[DCTL]The unexpected completion was detected[E_IRQ6](CTL-0)"
- A controller block no longer occurs with the following WEB information message during high periods of host I/O activity:
WEB information message: "HD5Exy Host transfer DMA error was detected(CTL-x,DMA-y)"
- Performance degradation in I/O no longer occurs when sequential writes are issued to LUs on SATA drives.
- A controller block no longer occurs with the following WEB information message when an AMS2500 boots: "HOA500 PCI Configuration access error was detected"
- A controller block no longer occurs with the message "Resource release time-out."
- If the config.txt file contains illegal contents (e.g., MANAGER 123.45.67..89) after installing the SNMP Agent Support Function Program Product key, SNMP can now work normally.
- A controller failure no longer occurs when executing intensive Write operations with data lengths exceeding 256KB.
- A subsystem-down condition for "HF0101 Data transfer check error" no longer occurs during a planned AMS 2500 shutdown.
- During DP Pool initialization, a subsystem-down condition caused by a failure of the CTL not involved with the initialization process no longer occurs.
- A subsystem-down condition caused by route switching (VRRP) with a Level 3 switch during I/O operation has been fixed.
- A subsystem-down condition caused by one controller failing while LUs are formatted or parity correction executes has been fixed.
- A subsystem-down condition no longer occurs when an ENC is removed.

Known Problems

- Inability to access Navigator 2 no longer occurs.
- Link-up failure no longer occurs when the storage system boots or during a CTL recovery, firmware upgrade, or CTL reset process.
- A controller block no longer occurs when a cable in the SAN environment is removed, except for the cable between the storage system and the switch.
- An illegal event log message no longer occurs for interface slot#1 in an AMS 2500 that has multiple interfaces.
- Audit Log contents no longer register as being illegal when installing Program Products.
- When the PS off is executed, the controller block no longer occurs, although the PS off completes.
- An illegal message is no longer displayed if an ENC cable is connected incorrectly.

Known Problems

- None

Notes on Installation

Documentation

Related Documents

None

Documentation Update

MK-97DF8032EN-09 Hitachi AMS 2500 Getting Started Guide

MK-98DF8149EN-09 Hitachi AMS 2000 Family Site Preparation Guide

MK-98DF8152EN-11 Hitachi AMS2100/2300 Getting Started Guide

MK-08DF8188-07 Hitachi AMS 2000 Family iSCSI Host Installation Guide

MK-08DF8189-07 Hitachi AMS 2000 Family Fibre Channel Host Installation Guide

MK-97DF8007EN-12 Hitachi AMS 2500 Storage System Hardware Guide

MK-97DF8008EN-11 Hitachi AMS 2000 Family Storage System Reference Guide

MK-97DF8009EN-10 Hitachi AMS 2000 Family Storage System Service Guide

MK-97DF8010EN-11 Hitachi AMS 2100/2300 Storage System Hardware Guide

MK-97DF8019-01 Hitachi AMS 2000 Data Retention Utility User's Guide

MK-97DF8039-06 Hitachi Storage Navigator 2 Advanced Settings User's Guide

Documentation

MK-97DF8052-07	Hitachi AMS 2000 Family TrueCopy Remote Replication User Guide
MK-97DF8054-07	Hitachi AMS 2000 Family TrueCopy Extended Distance User Guide
MK-97DF8124-08	Hitachi AMS 2000 Family Copy-on-write SnapShot User Guide
MK-97DF8129-08	Hitachi AMS 2000 Family ShadowImage In-system Replication User Guide
MK-09DF8201-03	Hitachi AMS 2000 Family Dynamic Provisioning Configuration Guide
MK-97DF8148-07	Hitachi Storage Navigator 2 Storage Features Reference Guide for AMS
MK-97DF8045-04	Hitachi AMS 2000 Family Power Savings User Guide
MK-97DF8121-08	Hitachi AMS 2000 Family Command Control Interface (CCI) Reference Guide
MK-97DF8122-07	Hitachi AMS 2000 Family Command Control Interface (CCI) Installation Guide
MK-97DF8123-08	Hitachi AMS 2000 Family Command Control Interface (CCI) User's Guide
MK-97DF8089-13	Hitachi Storage Navigator Modular 2 Command Line Interface (CLI) Unified User's Guide
MK-97DF8153-06	Hitachi Storage Navigator 2 Command Line Interface (CLI) Replication Reference Guide for AMS
MK-99DF8208-01	Hitachi Storage Navigator Modular 2 User's Guide

Documentation Errata

None