# IBM System Storage hard drive refresh for DS3500 and DS3950 systems

## Overview

Next-generation 10K hard disk drive features are now available for entry and midrange Storage systems. For DS3500 systems, new Storage Manager version 10.86 and Controller FirmWare level (CFW) version 7.86 are available and include a new HDD functionality, T10 Protection Information (T10 PI). These new drives are T10 PI capable, and the new Storage Manager and CFW enable T10 PI on other DS3500 drive options previously announced without that capability.

## Key prerequisites

```
                                      SEO/Part
                              FC      number    Prerequisites

DS3524:
300GB 10K 2.5-inch SAS HDD    5211    00W1156   CFW 7.77, or later, 7.86
                                                for PI
300GB 10K 2.5-inch SAS SED HDD 5251   00W1164   CFW 7.77, or later, 7.86
                                                for PI
600GB 10K 2.5-inch SAS HDD    5221    00W1160   CFW 7.77, or later, 7.86
                                                for PI
900GB 10K 2.5-inch SAS HDD    5229    00W1236   CFW 7.77, or later, 7.86
                                                for PI


DS3950, EXP395:
300GB 10,000 rpm FC-SAS DDM Gen2 6151 46W6925   CFW 7.77, or later
600GB 10,000 rpm FC-SAS DDM Gen2 6154 46W6928   CFW 7.77, or later
900GB 10,000 rpm FC-SAS DDM Gen2 6155 46W6931   CFW 7.77, or later
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## Planned availability date

- May 10, 2013: DS3500 products (1746)
- May 22, 2013: DS3950 products (1814)

## Description

New Storage Manager v10.86, in conjunction with new CFW v7.86, adds the major disk integrity protocol T10 PI for the DS3500 controllers. T10 PI is an industry-standard extension to the SCSI standard that incorporates eight additional bytes of integrity metadata on each block of data to help ensure that block is being transferred without error between the storage controller and the PI-formatted disk drives. The new Storage Manager and CFW also include feature enhancements improving ease of use, such as data capture for key operational

statistics, Performance Monitor enhancements, a view-only role for administrative management, and other performance improvements.

These new disk drives have improved performance over the 10 K rpm drives they are replacing. For the DS3500, the new drives are formatted for the 520-byte blocks for T10 PI function. The following drive features previously announced for DS3500 without T10 PI capability, are now T10 PI capable.

| Description | Machine type | Model number | Feature number | SEO/Part number |
|---|---|---|---|---|
| DS3524: | | | | |
| 2TB 7,200 rpm 3.5-inch 6Gb NL SAS HDD | 1746 | C2A,E2A | 5176 | 00W1152 |
| 3TB 7,200 rpm 3.5-inch 6Gb NL SAS HDD | 1746 | C4A,E2A | 5185 | 81Y9886 |
| 300 GB 15,000 rpm 6Gb SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5206 | 81Y9891 |
| 1TB 7,200 rpm 6Gb SAS NL | 1746 | C4A,C4T E4A,E4T | 5270 | 81Y9872 |

## Product number

| Description | Machine type | Model number | Feature number | SEO/Part number |
|---|---|---|---|---|
| DS3524: | | | | |
| 300GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5211 | 00W1156 |
| 300GB 10K 2.5-inch SAS SED HDD | 1746 | C4A,C4T, E4A,E4T | 5251 | 00W1164 |
| 600GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5221 | 00W1160 |
| 900GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5229 | 00W1236 |

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https://www.ibm.com/partnerworld/mem/sla.jsp?num=113-058

## Publications

No publications are shipped with this option. Refer to the publications that shipped with your base system for information.

Publications and product documentation are available at the IBM System Storage® Support site

http://www.ibm.com/systems/support/storage/

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## Technical information

### Planning information

You are responsible for downloading or obtaining from IBM , and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet website or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

### *Cable orders*

No cables required.

### *Direct customer support*

Direct customer support for DS3000 Disk Systems is provided by IBM Operational Support Services--Support Line. This fee service provides voice and electronic access into the IBM support organization. IBM Operational Support Services--Support Line helps answer questions pertaining to product and feature usage (how to), configuration, and product compatibility for eligible products. For a list of the products supported via Support Line, visit

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### *Supplies*

This product uses the security and auditability features of host hardware.

### Security, auditability, and control

This product uses the security and auditability features of host hardware, host software, and application software.

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## Benefits

***Increased uptime:*** The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

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http://www.ibm.com/support/electronic

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent . Reports are available for any system associated with the customer's IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledge base. Using Premium Search and the Electronic Service Agent information that has been collected from your system, customers are able to see search results that apply specifically to their systems.

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## Terms and conditions

### MES discount applicable

Equal to the volume commitment discount

### Field installable feature

Yes

### Warranty period

Three years

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature which replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature is the same as the machine it is installed.

### Customer setup

Yes

### Machine code

Same license terms and conditions as base machine

## Prices

| Description | Machine type | Model number | Feature number |
|---|---|---|---|
| DS3524: | | | |
| 300GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5211 |
| 300GB 10K 2.5-inch SAS SED HDD | 1746 | C4A,C4T, E4A,E4T | 5251 |
| 600GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5221 |
| 900GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5229 |

| Description | Machine type | Model number | Feature number | SEO/Part number | Install type* |
|---|---|---|---|---|---|
| DS3524: | | | | | |
| 300GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5211 | 00W1156 | Both |
| 300GB 10K 2.5-inch SAS SED HDD | 1746 | C4A,C4T, E4A,E4T | 5251 | 00W1164 | Both |
| 600GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5221 | 00W1160 | Both |
| 900GB 10K 2.5-inch SAS HDD | 1746 | C4A,C4T, E4A,E4T | 5229 | 00W1236 | Both |

* Install type:
  - "Plant" denotes plant installation only.
  - "Field" denotes field installation only.
  - "Both" denotes both plant and field installation.

## Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

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