Data Issue with Ultrastar DC SS200 Drives with SFA OS DCR

ALERT!	HGST Ultrastar DC SS200 SSDs installed on storage platforms running SFA OS 11.8.3 experience T10-PI data errors that may put customer data at risk.

Issue Summary

HGST Ultrastar DC SS200 SSDs may experience T10-PI data errors on storage platforms running SFA OS 11.8.3. The errors occur following virtual disk (VD) creation, or after client/host unmap/trim/discard operations such as those performed by EXAScaler. These errors may put customer data at risk.

ALERT!	If your SFA storage system houses HGST Ultrastar DC SS200 SSDs, **contact DDN Support IMMEDIATELY for assistance.**

Affected Systems and Drives

SFA OS 11.8.3 is affected by this issue. Legacy RAID versions of SFA OS (3.1.x and prior) are not affected.

The T10-PI issue is seen with drive firmware version Y15D/X15D running on HGST SSD models listed in the table below. All **Product IDs** beginning with the prefix SDLL1 in `show pd *` output are vulnerable.

Vendor	Model/Product ID
HGST	SDLL1CLR016TCCA1
HGST	SDLL1CLR016TCDA1
HGST	SDLL1CLR020TCCA1
HGST	SDLL1CLR020TCDA1
HGST	SDLL1DLR400GCCA1
HGST	SDLL1DLR400GCDA1
HGST	SDLL1DLR480GCCA1
HGST	SDLL1DLR480GCDA1
HGST	SDLL1DLR800GCCA1
HGST	SDLL1DLR800GCDA1
HGST	SDLL1DLR960GCCA1
HGST	SDLL1DLR960GCDA1
HGST	SDLL1HLR076TCCA1

Vendor	Model/Product ID
HGST	SDLL1HLR076TCDA1
HGST	SDLL1MLR032TCCA1
HGST	SDLL1MLR032TCDA1
HGST	SDLL1MLR038TCCA1
HGST	SDLL1MLR038TCDA1

Determining Whether You Should Take Action

To determine whether your SFA system has HGST Ultrastar DC SS200 drives installed, enter the following at the SFA command line:

```
show pd *
```

In the command output, drives whose **Product ID** begins with **SDLL1** are subject to the T10-PI issue. For example:

```
*****************************
*     Physical Disk(s)      *
*****************************

Enclosure|                             |S|                                              |Health|     |Block|
Idx|Pos|Slot| Vendor |  Product ID  |Type|E|Capacity  | RPM|Revision| Serial  |Pool|State | Idx|State |Size |
---------------------------------------------------------------------------------------------------------------
  1   1    1 WDC      WUH721414AL5204   SAS     12.6 TiB 7.2K DS04     QGKZGDVT    1   GOOD      86 NORM    4K
  1   1    2 WDC      WUH721414AL5204   SAS     12.6 TiB 7.2K DS04     QBG0JRGT    0   GOOD      65 NORM    4K
                             .
                             .
                             .
  2   2   59 HGST     SDLL1CLR020TCCA1  SAS      1.7 TiB  SSD Y15D     A04FECA1    2   GOOD      12 NORM    4K
  2   2   60 HGST     SDLL1CLR020TCCA1  SAS      1.7 TiB  SSD Y15D     A04FEDC8  UNAS FAILED     14 READY   4K


---------------------------------------------------------------------------------------------------------------
    | NUM| Vendor |    Product ID    |Type|Capacity  | RPM|Revision|Block Size|
---------------------------------------------------------------------------------------------------------------
Found: 102 WDC      WUH721414AL5204   SAS   12.6 TiB 7.2K DS04     4K
Found:  15 HGST     SDLL1CLR020TCCA1  SAS    1.7 TiB  SSD Y15D     4K

Number of distinguished models:  2

Total Physical Disks:      117
Total Assigned Disks:      115
Total Unassigned Disks:    2
  Total Failed Disks:      2
  Total SAS Disks:         117
  Total Member State Normal:   115
```

If you find any of the affected drive models installed, contact DDN Support *immediately* for assistance.

Resolution

A fix to the T10-PI issue with HGST Ultrastar DC SS200 drives is forthcoming in a future release of SFA OS.

Contacting DDN Technical Support

Please contact DDN Technical Support at any time if you have questions or need assistance. Support can be reached by phone, by email, or on the web as listed below.

Web

DDN Community Support Portal   https://community.ddn.com/login
Portal Assistance   webportal.support@ddn.com

Email

Support Email support@ddn.com

Telephone

DDN Support Worldwide Directory https://www.ddn.com/support/global-services-overview/

Bulletins & Notices

Support Bulletins http://www.ddn.com/support/technical-support-bulletins
End-of-Life Notices http://www.ddn.com/support/end-of-life-notices
Release Notes https://community.ddn.com/login
Subscription Requests support-tsb@ddn.com