



Release Notes

Seagate® Nytro™ WarpDrive® and Nytro XP6000 Application  
Acceleration Card r112.00.51.00

XP6209-4A1024  
XP6210-4A2048  
NWD-BLP4-800  
NWD-BLP4-1600  
NWD-BFH6-1200  
NWD-BFH8-1600  
NWD-BFH8-3200

DB07-000108-16  
August 2014

## Document Revision History

Revision	Date	Description of Change
NA	August 2014	Updated product version release.

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# Seagate® Nytro™ WarpDrive® and Nytro XP6000 Application Acceleration Card Release Notes

These release notes correspond to the current release of the firmware, drivers, and utilities for the Seagate® Nytro™ WarpDrive® and Nytro XP6000 Application Acceleration cards release r112.00.51.00.

## 1.0 SUPPORTED PRODUCTS

The following products use the Seagate Nytro WarpDrive and Nytro XP6000 firmware.

**Table 1** *Nytro WarpDrive and Nytro XP6000 Products*

DEVICE NAMES	MODEL NAMES	USABLE CAPACITY
Seagate Nytro XP6209	XP6209-4A1024	930 GB
Seagate Nytro XP6210	XP6210-4A2048	1860 GB
Seagate Nytro WarpDrive 6203	NWD-BLP4-800	800 GB
Seagate Nytro WarpDrive 6203	NWD-BLP4-1600	1600 GB
Seagate Nytro WarpDrive 6301	NWD-BFH6-1200	1200 GB
Seagate Nytro WarpDrive 6301	NWD-BFH8-1600	1600 GB
Seagate Nytro WarpDrive 6301	NWD-BFH8-3200	3200 GB

## 2.0 SOFTWARE COMPONENTS AND DRIVERS

The following table lists the current versions of the software components for the Nytro WarpDrive and Nytro XP6000 cards.

**Table 2** *Nytro WarpDrive and Nytro XP6000 Cards Software Components*

SEAGATE DRIVER	VERSION
Windows® Server® 2012 R2 x64 and x32	Version 2.10.68.00
Windows Server 2008 R2 SP1 x64	Version 2.10.68.00
Windows Server 2008 R2 SP2 x64 and x32	Version 2.10.68.00
Windows 8 R2 x64 and 32	Version 2.10.68.00
Windows 7 SP1 x64 and x32	Version 2.10.68.00
Windows Server 2003 R2 SP2 x64 and x32	Version 2.10.68.00
Windows Vista® SP2 x64 and x32	Version 2.10.68.00
Windows XP SP2 x64	Version 2.10.68.00
SUSE® Linux® Enterprise Server (SLES™) 10 SP0 to SP4 x64 and x32 and 11 SP0 to SP3 x64 and x32	Version 18.00.01.00-1
Oracle® Solaris® x86 and SPARC 10 U10/11	Operating system built-in driver
CentOS® 5.5 to 5.10 x64 and x32 and 6.0 to 6.4 x64 and x32 (RPM binary is available only from CentOS 6.3, for other versions, use Red Hat® Enterprise Linux (RHEL) RPMs)	Version 18.00.01.00-1
Ubuntu® 10.04, 11.1, and 12.04 x64 and x32	Version 18.00.01.00-1
Debian® 6.0.5 and 6.0.7	Version 18.00.01.00-1
Fedora® 17 and 18	Version 18.00.01.00-1
RHEL 5.1/5.4 to 5.9 x64 and x32	Version 18.00.01.00-1
RHEL 6.0 to 6.4 x64 and x32	Version 18.00.01.00-1

**Table 2 Nytro WarpDrive and Nytro XP6000 Cards Software Components (continued)**

Oracle Enterprise Linux (OEL™) 5.5 to 5.9 x64 and x32	Version 18.00.01.00-1
OEL 6.0 to 6.4 x64 and x32	Version 18.00.01.00-1
VMware® 4.0U4ESX/4.0U4 ESX i/4.1U2ESX/4.1U2ESX i x64	Version 18.00.00.00.1VMW
VMware 5.0 U1(ESXi)/5.1/5.5, ESXi x64	Version 18.00.00.00.1VMW
FreeBSD® 7.2 and 7.4 x64 and x32	Version 18.00.00.00
FreeBSD 8.2 and 8.3 x64 and x32	Version 18.00.00.00
FreeBSD 9 x64 and x32	Version 18.00.00.00
Oracle VM (OVM) Server 3.0 x64 and x32	Version 18.00.01.00-1
<b>NYTRO WARPDRIVE AND NYTRO XP6000 FIRMWARE/BIOS</b>	<b>FIRMWARE PACKAGE VERSION</b>
Nytro WarpDrive and Nytro XP6000 firmware revision	112.00.51.00
Nytro WarpDrive and Nytro XP6000 BIOS revision	110.00.00.00
Nytro WarpDrive and Nytro XP6000 UEFI BIOS	7.18.05.03
<b>NYTRO FLASH MODULE</b>	<b>VERSION</b>
2E512-TS2	I.6.3
2E256-TS2	I.6.3
1M512	I.6.3
1M256	I.6.3
<b>SEAGATE UTILITY</b>	<b>VERSION</b>
Nytro Storage Manager™ for Windows	Version 13.04.03.01MSMW
Nytro Storage Manager for Linux	Version 13.04.03.01MSMLinux
ddcli for Linux, Windows, VMware, FreeBSD, and Solaris	Version 112.00.01.00

Download the latest software components and drivers, from the Seagate website: <http://www.seagate.com/about/contact-us/technical-support/>.

## 3.0 NEW FEATURE

This section lists new features included with the current release of the Nytro WarpDrive and Nytro XP6000 firmware.

For more information about these features, refer to the *Seagate® Nytro™ WarpDrive® Application Acceleration Card Management Utility User Guide*.

- **Health reporting of multiple Nytro WarpDrive and Nytro XP6000 cards in a server** – In the CLI mode, you can use the -all option with the -health command to show the complete health information about all of the WarpDrives in the system.

## 4.0 RESOLVED FIRMWARE ISSUES

- **I/O Performance Outliers:** In the 112.00.00.00 Nytro controller firmware version, when sustained I/Os are run, an impact in the I/O performance was noticed for a very short duration (1 to 2 seconds), every hour. Your applications might have experienced lower IOPs or lower bandwidth for up to two seconds every hour. This does not cause I/O failure or data loss. This only degrades the performance for a fraction of the duration.  
**Resolution:** In the 112.00.51.00 Nytro controller firmware version, the I/O performance outliers issue is resolved.
- Validated the latest release of Seagate-SandForce® flash storage processor firmware. Improvements include the following:
  - Optimized 8 K block size, 100 percent random read performance in four-lane configurations.
  - Resolved locking issue observed during extensive power cycling test with previous firmware.



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