



## New IBM System x 3.5-inch 7.2K 6 Gbps 512e NL SATA HS/SS drives offer highest-density options for optimizing storage and data management for IBM System x configurations

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### At a glance

IBM® 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB 7,200 rpm 6 Gbps 3.5-inch hot-swap and simple-swap NL SATA HDDs can provide the performance required for extensive storage capacity while providing the flexibility of hot-swap or simple-swap versions. These new drives are 512 emulation (512e), a type of Advanced Format drive, which is a new technology for increasing drive capacities while maintaining data integrity. All NL SATA drives are RoHS compliant.

HDD features include:

- 7,200 rpm HDDs deliver NL SATA device reliability and largest capacity performance in the IBM HDD family.
- NL SATA drive-to-host interface supports up to 6.0 Gbps burst rate.
- 3.5-inch, slim-line form factor optimizes storage capacity.
- Software utilities allow for Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.) to alert you of certain impending drive failures so that replacements can be made.
- Hot-swap and simple-swap versions of the IBM NL SATA 3.5-inch HDDs are available.
- One-year warranty is included.
- For optimal performance with 512e drives, the host system software stack must be 512e aware.

### Overview

As the newest additions to the IBM System x® family of 3.5-inch NL SATA HDDs, the 7,200 rpm, 6 Gbps 3.5-inch hot-swap and simple-swap HDDs offer the highest-density drive options and provide a broad selection of choices to satisfy a wide range of applications. The drives are 512 emulation (512e) HDDs, a type of Advanced Format drive that is a new technology for increasing drive capacities while maintaining data integrity. These new drives are positioned at the top of the IBM NL SATA HDD line.

The new 7,200 rpm 6 Gbps NL SATA drives are offered in a 3.5-inch form factor. The NL SATA drives are available in hot-swap and simple-swap versions.

Key features and benefits include:

- Higher density: 512e NL SATA drives meet client requirements for larger capacities
  - up to 6 TB.

- RoHS compliance: 7,200 rpm 3.5-inch NL SATA drives are RoHS compliant.
- Reliability: Outstanding reliability enables operation in RAID environments without compromising application performance or availability.

You can increase your storage and data management effectiveness when you install these new high-density NL SATA drives in your IBM System x configurations.

Performance characteristics for the 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB drives include:

- Formatted capacity of 2,000,000 MB through 6,000,000 MB.
- Drive-to-host interface that supports up to 6.0 Gbps burst rate in NL SATA drives.
- Drive media to buffer interface that supports sustained interface data transfers of up to 194 MB per second average.
- Spindle speed of 7,200 rpm.
- NL SATA hot-swap or simple-swap capability.
- Native SATA interface.

For optimal performance with 512e drives, the host system software stack must be 512e aware. For more information, reference IBM's Advanced Format Redpaper™ at

<http://www.redbooks.ibm.com/abstracts/redp5119.html>

#### Reliability

- NL SATA compliance enables these HDDs to connect directly to selected System x systems.
- S.M.A.R.T. technology allows software utilities to alert you of certain impending drive failures so replacements can be made before a problem occurs.
- Rigorous testing through the ServerProven® program instills confidence that your storage subsystem<sup>1</sup> is compatible and will function reliably.
- These HDDs include a one-year, limited warranty<sup>2</sup>.

<sup>1</sup> Refer to following for supported products

<http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

<sup>2</sup> For information on IBM's Statement of Limited Warranty, contact your local IBM representative. Copies are available upon request.

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#### Key prerequisites

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IBM System x system with SATA capability.

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#### Planned availability date

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August 22, 2014

- IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD (00FN113)
- IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD (00FN118)
- IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD (00FN143)
- IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD (00FN148)
- IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD (00FN158)
- IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD (00FN163)
- IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD (00FN173)
- IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD (00FN178)
- IBM 2TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System (00FN123)

- IBM 4TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System (00FN153)
- IBM 5TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System (00FN168)
- IBM 6TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System (00FN183)

September 30, 2014

- IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD (00FN128)
- IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD (00FN133)
- IBM 3TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System (00FN138)

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## Description

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IBM 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB 7,200 rpm 6 Gbps NL SATA 3.5-inch hot-swap and simple-swap HDDs

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These new 7,200 rpm HDDs provide 3.5-inch form factor options that can be used as hot-swap and simple-swap NL SATA drives. The new HDD offerings for the IBM System x family of 3.5-inch NL SATA HDDs are the highest-density options and provide a wider selection of choices to satisfy a range of applications. These new drives are positioned at the top of the IBM SATA HDD line based on increased capacity.

Some OS limitations have been found to exist when using drives with capacities greater than 2.2 TB in JBOD (just a bunch of disks) configurations on 6 Gbps controllers. With earlier release versions of some OSs, the boot drive must be 2 TB, or smaller. However, those used as data drives may utilize the larger-capacity drives.

Key features and benefits include:

- 7,200 rpm speed to optimize performance
- Outstanding reliability that enables operation in RAID environments without compromising application performance or availability
- A 3.5-inch wide, NL form factor that allows maximum installations in supported System x systems

### Configurator support

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- Configuration and Options Guide (COG)
- Standalone Solutions Configuration Tool (SSCT)
- IBM Advanced Solutions Integration Tool (ASIT)

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## Product positioning

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These high-performance 7,200 rpm 6 Gbps SATA options are positioned at the top of the IBM NL SATA HDD line. The NL SATA drives are available in a hot-swap or simple-swap version.

These HDDs support entry-level server and workstation applications, such as:

- Transaction processing
- Data mining
- Data warehousing
- Professional video and graphics

The following are features already announced for the 3331 machine type:

Description	Type	Model	Feature	SEO	Part number
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VD	00FN113	00FN113
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VE	00FN118	00FN118
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VF	00FN128	00FN128
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VG	00FN133	00FN133
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VH	00FN143	00FN143
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VJ	00FN148	00FN148
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VK	00FN158	00FN158
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VL	00FN163	00FN163
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VM	00FN173	00FN173
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VN	00FN178	00FN178
IBM 2TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VV	00FN123	00FN123
IBM 3TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VW	00FN138	00FN138
IBM 4TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VX	00FN153	00FN153
IBM 5TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VY	00FN168	00FN168
IBM 6TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VZ	00FN183	00FN183

The following are features already announced for the 3331, 5455, 5457, 5458, 5466, 7158, 7160, 7382, 7383, 7912, 7914, and 7915 machine types:

Description	MT	Model	Feature
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VD
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5457	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5458	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5466	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7158	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7160	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7382	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7383	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7914	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7915	AC1	
		MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VE
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5457	AC1	



IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VJ
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5457	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5458	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7158	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7160	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7382	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7383	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7912	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7914	AC1	
		MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7915	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VK
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5457	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5458	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5466	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7158	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7160	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7382	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7383	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7914	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7915	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VL
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5457	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5458	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7158	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7160	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7382	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7383	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7912	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7914	AC1	
		MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7915	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	3331	HC1	A5VM
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5457	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5458	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	5466	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7158	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7160	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7382	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7383	AC1	
		MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7914	AC1	
		MC1	

IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2HS 512e HDD	7915	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	3331	HC1	A5VN
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5457	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	5458	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7158	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7160	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7382	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7383	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7912	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7914	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" G2SS 512e HDD	7915	AC1 MC1	
IBM 2TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VV
IBM 2TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	5455	AC1 MC1	
IBM 3TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VW
IBM 3TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	5455	AC1 MC1	
IBM 4TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VX
IBM 4TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	5455	AC1 MC1	
IBM 5TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VY
IBM 5TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	5455	AC1 MC1	
IBM 6TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	3331	HC1	A5VZ
IBM 6TB 7.2K 6Gbps NL SATA 3.5" 512e HDD for NextScale System	5455	AC1 MC1	

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## Publications

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Publications are shipped with the announced product.

The IBM Systems Information Center provides you with a single information center where you can access product documentation for IBM systems hardware, operating systems, and server software. Through a consistent framework, you can efficiently find information and personalize your access. The IBM Systems Information Center is at

<http://publib14.boulder.ibm.com/infocenter/systems>

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Installation publications ship with HDDs.

Displayable softcopy publications

None

Source file publications

None

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## Services

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### Global Technology Services®

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IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an on-demand business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

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Select your country, and then select the product as the category.

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## Technical information

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### Specified operating environment

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#### Physical specifications

- IBM 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB 7,200 rpm 6 Gbps NL SATA 3.5-inch hot-swap and simple-swap 512e HDDs
- Approximate height: 26.1 mm (1.03 in.)
- Approximate width: 101.6 mm (4.0 in.)
- Approximate depth: 147.0 mm (5.8 in.)
- Approximate weight: 610 g (1.34 lb) – 2 TB, 720 g (1.59 lb) – 3 TB, 680 g (1.50 lb) – 4 TB, 700 g (1.54 lb) – 5 TB, 780 g (1.72 lb) – 6 TB

#### Shipping dimensions

- Approximate height: 95.3 mm (3.75 in.)
- Approximate width: 194 mm (7.64 in.)
- Approximate depth: 257 mm (10.12 in.)
- Approximate weight: 1780 g (3.92 lb) – 2 TB, 1890 g (4.16 lb) – 3 TB, 1850 g (4.07 lb) – 4 TB, 1870 g (4.12 lb) – 5 TB, 1950 g (4.30 lb) – 6 TB
- IBM 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB 6 Gbps NL SATA 3.5-inch 512e HDDs for NextScale System



- Approximate height: 26.1 mm (1.03 in.)
- Approximate width: 101.6 mm (4.00 in.)
- Approximate depth: 147 mm (5.79 in.)
- Approximate weight: 610 g (1.34 lb) – 2 TB, 720 g (1.59 lb) – 3 TB, 680 g (1.50 lb) – 4 TB, 700 g (1.54 lb) – 5 TB, 780 g (1.72 lb) – 6 TB

#### Shipping dimensions

- Approximate height: 95.3 mm (3.75 in.)
- Approximate width: 194 mm (7.64 in.)
- Approximate depth: 257 mm (10.12 in.)
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#### Hardware requirements

The HDDs must be installed in selected System x servers.

Note: Some OS limitations have been found to exist when using drives with capacities greater than 2.2 TB in JBOD configurations on 6 Gbps controllers. With earlier release versions of some OSs, the boot drive must be 2 TB or smaller. However, those used as data drives may utilize the 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB capacities.

#### Standards

None

#### Operating environment

- Temperature: 5° to 55° C (41° to 131° F) at -300 m to 3,048 m (-1000 ft to 10,000 ft)
- Relative humidity: 5% to 90% (noncondensing)
- Maximum altitude: 3,048 m (10,000 ft)

#### Japan Energy Saving Standard

2 TB and 3 TB 3.5-inch 7,200 rpm NL SATA HDDs

- JEL Product Category (2011): B
- Energy efficiency : <0.0022 W/GB

4 TB, 5 TB, and 6 TB 3.5-inch 7,200 rpm NL SATA HDDs

- JEL Product Category (2011): C
- Energy efficiency : <0.0022 W/GB

#### Homologation

This product is not certified for direct connection by any means whatsoever to interfaces of public telecommunications networks. Certification may be required by law prior to making any such connection. Contact an IBM representative or reseller for any questions.

#### Hardware requirements

None

#### Software requirements

The new IBM 7,200 rpm NL SATA 3.5-inch 512e HDDs work with most operating systems.

Some OS limitations have been found to exist when using drives with capacities greater than 2.2 TB in JBOD configurations on 6 Gbps controllers. With earlier release versions of some OSs, the boot drive must be 2 TB, or smaller. However, the larger-size drives may be utilized for data storage capacity.

For further information, contact your IBM representative.

#### Compatibility

For latest compatibility information, visit

<http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

Note: Some configurations may not be compatible.

#### Limitations

Some OS limitations have been found to exist when using drives with capacities greater than 2.2 TB in JBOD (just a bunch of disks) configurations on 6 Gbps controllers. With earlier release versions of some OSs, the boot drive will have to be 2 TB, or smaller. However, those used as data drives may utilize the larger-capacity drives.

#### User group requirements

This announcement satisfies or partially satisfies the requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

#### Planning information

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##### Customer responsibilities

The new IBM 7,200 NL SATA 3.5-inch hot-swap and simple-swap 512e HDD products are designated as customer setup. Customer installation instructions are included in the system pub.

##### Cable orders

None

##### Installability

IBM 2 TB, 3 TB, 4 TB, 5 TB, and 6 TB SATA NL 3.5-inch HDDs are available as either hot-swap or simple-swap and are customer installable. Installation takes approximately 20 minutes.

Installation includes unpacking, attaching customer-provided line cord, setting up, and powering on.

##### Packaging

IBM SATA 3.5-inch NL HDDs

Product	Package description	Boxes
IBM 7,200 rpm NL SATA 3.5-inch HS and SS 512e HDDs	Option Unit Box	1
	Contents:	
	NL SATA hard drive	
	Warranty	

All the NL SATA HDDs are shipped as a single package. Other items are in zipped bags.

#### Security, auditability, and control

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It is a customer's responsibility to ensure that the server is secure to prevent sensitive data from being removed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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#### IBM Electronic Services

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Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support all at no additional cost to you.

Now integrated into the base operating system of AIX® 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type "smitty esa\_main", and select "Configure Electronic Service Agent." In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

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

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

#### Benefits

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**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 24x7 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.

**Security:** The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits via either the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable

only by the customer and IBM. The customer's business applications or business data is never transmitted to IBM.

More accurate reporting: Since system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, customers are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

Customized support: Using the IBM ID entered during activation, customers can view system and support information in the "My Systems" and "Premium Search" sections of the Electronic Support website at

<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 knowledgebase. 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.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

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

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## Terms and conditions

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### Terms and conditions features section

MES discount applicable

No

Field installable feature

Yes

Warranty period

One year

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 that 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 are the same as those for the machine in which it is installed.

Customer setup

Yes

Machine code

No license terms apply

Optional features warranty period

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## Prices

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For all local charges, contact your IBM representative.

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## AP distribution

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Country/Region	Announce	Announce date
AP IOT		
ASEAN *	Yes	07/29/2014
India/South Asia **	Yes	07/29/2014
Australia	Yes	07/29/2014
People's Republic of China	Yes	07/29/2014
Hong Kong S.A.R of the PRC	Yes	07/29/2014
Macao S.A.R of the PRC	Yes	07/29/2014
Taiwan	Yes	07/29/2014
South Korea	Yes	07/29/2014
New Zealand	Yes	07/29/2014
Japan IOT		
Japan	Yes	07/29/2014

\* Brunei Darussalam, Indonesia, Cambodia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, and Vietnam  
\*\* Bangladesh, Bhutan, India, Sri Lanka, Maldives, Nepal, and Afghanistan

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