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## Highlights

- Meet diverse and changing needs. Consolidate diverse data sets onto a unified storage platform that provides simultaneous block and file services
  - Perform when your applications need it most. Outstanding performance with high bandwidth, 64-bit architecture and the latest input/output (I/O) technologies
  - Maximise your resources. Highly efficient storage utilisation makes it possible for you to dramatically reduce power, cooling and space demands
  - Respond to growth. Preserve investments in staff expertise and capital equipment with data-in-place upgrades to more powerful N series systems
  - Improve your business efficiency. Take advantage of the N6000 series Gateway capabilities to reduce data management complexity in heterogeneous storage environments.
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# IBM System Storage N6000 series

*Expanding the possibilities for your business with a storage system*

Today's business environment demands innovation and increasingly flawless execution. You have to manage and protect valuable data to enable business growth and success. Your IT operations have to evolve with the business while meeting budget, staffing and infrastructure limits. Virtualised computing requires networked storage systems supporting diverse data sets to unlock the full potential of virtualised servers.

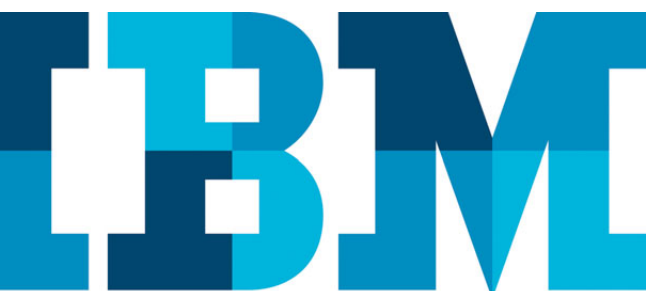
With IBM N6000 series systems, you can simultaneously meet your diverse needs – Storage Area Network (SAN) and Network Attached Storage (NAS), primary and secondary storage. And you get outstanding value: our flexible systems offer excellent performance and impressive scalability at a low total cost of ownership (TCO).

IBM N series systems enable easy provisioning, managing and upgrading so you can quickly adapt your storage infrastructure to meet your changing business and technical needs. To help you maximise staff productivity, all IBM N series systems use the Data ONTAP operating system and the same suite of application-aware management software.

## Versatility for your diverse business needs

The IBM N6000 series systems offer a versatile storage platform for handling the large amounts of diverse data moving through your business. With an N6000 series system, you can consolidate varied data sets simultaneously—block or file based – onto a single storage platform.

With IBM N6000 series, you can unlock the full potential of your growing virtualised server environment by enabling virtual machine mobility and offloading the work of data protection. The N6000 systems enable you to connect your heterogeneous server environment (including Windows®, UNIX® and Linux® servers) and clients to one storage system by using standard storage protocols and interfaces.



## Increase data and application availability

IBM N6000 series systems can help you spend less time on backup and recovery, so you can focus on growing your business. Our full range of enterprise-class, high-availability (HA) and disaster-recovery (DR) products provide affordable software for data protection to help safeguard your business-critical application's data. IBM N series Snapshot technology helps reduce backup times to minutes; SnapRestore software enables recovery of point-in-time data, also in minutes.

IBM N series SnapManager software can quickly return applications to the same point in time as recovered data. All of this built on the solid foundation of our low-overhead, dual-parity Redundant Array of Independent Disk Double Parity (RAID-DP) – the IBM N series implementation of high-performance RAID 6 for data protection and capacity utilisation.

## Performance when your applications and users need it

The IBM N6000 series offers extraordinary performance to help you meet demanding service levels and get your products and services to market faster. The high-bandwidth, 64-bit controller architecture with large memory cache and the latest I/O technologies help provide data at the rates you need to keep your demanding business and technical applications running smoothly. Your critical applications can take priority under peak load conditions with our FlexShare quality of service software. The Performance Acceleration Module – an intelligent read cache – improves throughput and reduces latency to optimise the performance of your storage system.

## Respond to your data growth challenges

In today's business environment, it seems the data your systems collect grows relentlessly, regardless of your company's size. With versatile IBM N6000 series systems, you can combine high-performance Fibre Channel (FC) and large-capacity Serial Advanced Technology Attachment (SATA) disk drives in storage tiers to help optimise performance and cost. And you can seamlessly consolidate block and file storage on the same system. IBM N series makes this possible by providing native support of the FC Protocol (FCP), SCSI over IP (iSCSI), Network File System (NFS) and Common Internet File System (CIFS) storage protocols through both FC and Ethernet interfaces.



IBM N series offers an innovative thin provisioning capability to help you eliminate stranded storage by expanding or contracting Logical Unit Numbers (LUNs) and volumes by using a common pool of spare capacity without IT staff intervention. When more performance or scalability is required, you can preserve your investment by installing a more powerful N series controller that enables you to keep your data in place and use the same management tools.

## Maximise your resources

IBM N6000 series systems can help you reduce costs in many aspects of your storage environment by simplifying data management and maximising storage utilisation to conserve raw storage, power, cooling and data centre space. N6000 systems can help you spend less time waiting and more time innovating, thanks to high system performance, fast backup and recovery, as well as rapid cloning of data sets.

## Improve your business efficiency

You can now take advantage of the N6000 series Gateway capabilities in heterogeneous storage environments to help improve business efficiency and reduce data management complexity. IBM N6000 series systems ordered under Gateway structure are able to support attachment to IBM XIV Storage System, IBM System Storage DS8000, DS5000 and DS4000 series and a broad range of IBM, EMC, Hitachi, Fujitsu, 3PAR and HP storage subsystems.

## Software

<b>Operating system</b>	Data ONTAP
<b>Operating systems supported</b>	Windows 2000, Windows Server 2003, Windows XP, Linux, Sun Solaris, IBM AIX, HP-UX, Mac OS, VMware ESX
<b>Software features</b>	See <a href="http://ibm.com/systems/uk/storage/network/software/">ibm.com/systems/uk/storage/network/software/</a> for a full list of software features

## Specifications

	N6040	N6040	N6060	N6070
Machine Type Model	<b>2858-A10</b>	<b>2858-A20</b>	<b>2858-A22</b>	<b>2858-A21</b>
Controller Configuration	Single	Dual (active/active)	Dual (active/active)	Dual (active/active)
Processors Speed and Type	2.4 GHz AMD Dual-core 64-bit Opteron			
Number of Processors	One	Two	Four	Four
Random Access Memory (RAM)	4 GB	8 GB	16 GB	32 GB
Non-volatile Memory	512 MB	1 GB	4 GB	4 GB

### Integrated I/O Ports

FC Ports (Speed)	Four (4-Gigabits per second (Gbps))	Eight (4-Gbps)	Eight (4-Gbps)	Eight (4-Gbps)
Ethernet Ports (Speed)	Two (1-Gbps)	Four (1-Gbps)	Four (1-Gbps)	Four (1-Gbps)

### Storage Scalability

Maximum Number of FC Loops	10	10	10	10
Maximum Raw Capacity	420 TB	420 TB	672 TB	840 TB
Maximum Number of Disk Drives	420	420	672	840
Maximum Volume Size	16 TB	16 TB	16 TB	16 TB
Maximum Size of Volumes/LUNs	2048	2048	2048	2048
Maximum Number of Storage Enclosures	30	30	48	60
Maximum Number of FC or iSCSI SAN connected servers (per controller and per active/active configuration)	256			

### I/O Scalability

PCI-e Expansion Slots	Four	Eight	Eight	Eight
Maximum number of FC Ports	20	40	40	40
Maximum number of Ethernet Ports	18	36	36	36
Maximum Number of Optional Adapters	Four	Eight	Eight	Eight

### Storage Expansion Unit Disk Drive Support

EXN4000 – 4-Gbps FC Disk Storage Expansion Unit (MTM 2863-004)	4-Gbps FC: 300 GB, 450 GB, 600 GB, 15,000 revolutions per minute (rpm) 2-Gbps FC: 300 GB, 450 GB, 600 GB, 15,000 rpm
EXN3000 – Serial Attached SCSI (SAS) Disk Storage Expansion Unit (MTM 2857-003)	SAS: 300 GB, 450 GB, 600 GB, 15,000 rpm SATA: 500 GB, 7,200 rpm; 1 TB, 2 TB
EXN1000 SATA Disk Storage Expansion Unit (MTM 2861-001)	SATA: 500 GB, 7,200 rpm; 1 TB, 2 TB

## For more information

To learn more about the [IBM System Storage N6000 series systems](#), please contact your IBM representative or IBM Business Partner, or visit:  
[ibm.com/systems/uk/storage/network](http://ibm.com/systems/uk/storage/network)

For N6000 series modular disk storage system technical specifications and optional adapter cards, visit:  
[ibm.com/systems/uk/storage/network/n6000/appliance](http://ibm.com/systems/uk/storage/network/n6000/appliance)

For N6000 series interoperability and tape drive support, visit: [ibm.com/systems/storage/network/interophome.html](http://ibm.com/systems/storage/network/interophome.html)

Additionally, IBM Global Financing can tailor financing solutions to your specific IT needs. For more information on great rates, flexible payment plans and loans, as well as asset buyback and disposal, visit: [ibm.com/financing/uk](http://ibm.com/financing/uk)



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