



# IBM Storage Area Network Data Gateway for Serial Disk

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## Highlights

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**Provides Ultra SCSI connectivity for UNIX\*\* and Windows NT\*\* servers**

**Provides host-independent disk mirroring for high availability, disk concatenation for large-volume groups, and Instant Copy, which creates a separate copy of data for tape backup**

**Supports multiple gateways with the IBM StorWatch\* SAN Data Gateway S20 Specialist**

**Scales up to enable as many as eight host attachments for each serial loop**

**Can maximize Ultra SCSI host adapter bandwidth potential**

## Flexible Ultra SCSI host attachment

The IBM Storage Area Network (SAN) Data Gateway for Serial Disk enables IBM 7133, 7131, and 3527 serial disk systems to attach to host systems by using Ultra SCSI and SCSI host adapters and drivers. All 7133 models are supported, including 36.4, 18.2, 9.1, and 4.5 GB capacities.

## Powerful host-independent functions

Host-independent RAID 1 disk mirroring can improve performance and data availability while simplifying operations. The SAN Data Gateway replicates data across or within serial disk systems—simultaneously mirroring two or three copies of data without host involvement. With global hot disk sparing, data is automatically rebuilt if a mirrored disk fails. With SSA fibre optic extenders, mirrored 7133 Advanced Models D40 or T40 can be separated by up to 10 km, and the SAN Data Gateway and any 7133 model can be separated by up to 2.4 km.

With 36.4 GB disks, logical volume groups or partitions up to 580 GB can be created for Windows NT servers, which have limited volume addressing. The SAN Data Gateway can create composite drives by concatenating up to 16 physical disks.

Instant Copy can create a separately addressable copy of mirrored data that can be used for tape backup. After the backup has completed, the SAN Data

Gateway re-synchronizes the data with the primary copy.

To protect serial disk storage investments, the SAN Data Gateway disk controller can be replaced by the IBM Versatile Storage Server\* if requirements change.

## Simplified management

The StorWatch SAN Data Gateway S20 Specialist is a Windows NT-based management tool that provides configuration and service functions—including mirror group definition, creation of composite drives, and Instant Copy disk management—and can also manage multiple SAN Data Gateways across the enterprise.

## A highly scalable solution

The SAN Data Gateway supports up to 64 serial disk drives in a single loop and provides the capability to grow disk capacity in a non-disruptive manner from 18.2 GB to 2.3 TB as requirements change. As many as eight UNIX and Windows NT



*IBM SAN Data Gateway for Serial Disk*

host systems can be attached to a single loop. Performance scales up as more SAN Data Gateways are added to the serial loop.

A stand-alone table-top SAN Data Gateway unit provides one Ultra SCSI differential port and two Serial Storage Architecture (SSA) ports. Both fast/wide SCSI-2 differential and fast/wide Ultra SCSI differential interfaces are supported. An optional rack-mounted enclosure can

hold up to four SAN Data Gateways in a compact 2U-high space in an IBM Seascope\* Solution Rack (2101-100) or an industry-standard 19-inch rack.

### **Fully utilized Ultra SCSI bandwidth potential**

The SAN Data Gateway enables Ultra SCSI servers to benefit from high-performance, non-arbitrated SSA disk

technology. The Ultra SCSI host-based adapter views the SAN Data Gateway as a single SCSI target, which minimizes SCSI arbitration overhead.

### **For more information**

For more information, contact your IBM representative or IBM Business Partner. Or visit [www.ibm.com/storage/SANGateway](http://www.ibm.com/storage/SANGateway).



[www.ibm.com/storage](http://www.ibm.com/storage)

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## **IBM SAN Data Gateway for Serial Disk at a glance**

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### **Product numbers and feature codes**

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2108 Model S20 (IBM Storage Area Network Data Gateway for Serial Disk)  
FC 2000 (Rack-Mount Enclosure)

### **Supported servers and operating systems<sup>1</sup>**

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Intel-based Netfinity\* and Compaq servers with Windows NT 4.0 Server or Enterprise Server Edition  
Sun Microsystems SPARCserver and Enterprise Server Edition with Sun Solaris 2.5.1, 2.6, or 2.7  
Hewlett-Packard 9000 Series servers with HP/UX 10.10, 10.20, or 11.0  
Compaq (Digital) AlphaServers with Tru64 UNIX 4.0

### **Storage systems**

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Attaches to IBM 7133 Serial Disk System Advanced Models D40 and T40 (SSA 160) and all SSA 80 models; the IBM 7131 Model 405 Multi-Storage Tower; and the IBM 3527 SSA Storage Subsystem

### **Physical characteristics**

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Stand-alone unit dimensions 76.0 mm H x 107.0 mm W x 279.4 mm D (3.00" x 4.26" x 11.00")

Stand-alone unit weight 1.9 kg (4.2 lb)

Drawer option dimensions 88.9 mm H x 483.0 mm W x 507.0 mm D (3.50" x 19.00" x 19.95")

Drawer option weight 10.0 kg (22.0 lb)

### **Operating environment**

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Temperature 50° to 104° F (10° to 40° C)

Relative humidity 8% to 80% (non-condensing)

Electrical power requirements 60 Watts

<sup>1</sup> For specific details about supported platforms, operating system releases, adapters, and configurations, visit [www.ibm.com/storage/SANGateway](http://www.ibm.com/storage/SANGateway).