

An easy, flexible way to expand server storage capacity



PC ServeRAID SCSI Adapter

Highlights

An easy-to-manage solution

New ServeRAID technology offers logical drive migration to let you add or remove disks or redefine arrays – without shutting down your system.

Economical storage for today and tomorrow

With three Ultra SCSI channels capable of supporting 15 devices each, a single PC ServeRAID SCSI Adapter can support up to 45 devices.

A powerful performer

Twice the bandwidth (40MB/sec) of SCSI-2 Fast/Wide means your data can move twice as fast. The adapter's advanced 32-bit high-performance PCI interface helps eliminate bottlenecks.

Plenty of cache on hand

With 4MB of cache, you get superior data hit rates – and improved system performance.

Reliable, fault-tolerant access to your data

Support for RAID levels 0, 1 and 5 assures reliability.¹ Plus, you can change the RAID level of existing configurations "on-the-fly" to meet changing needs. Vital RAID configuration data is stored redundantly for greater system availability.

Solid investment protection

To help protect your hardware and software investments, the PC ServeRAID SCSI Adapter supports four popular network operating systems.

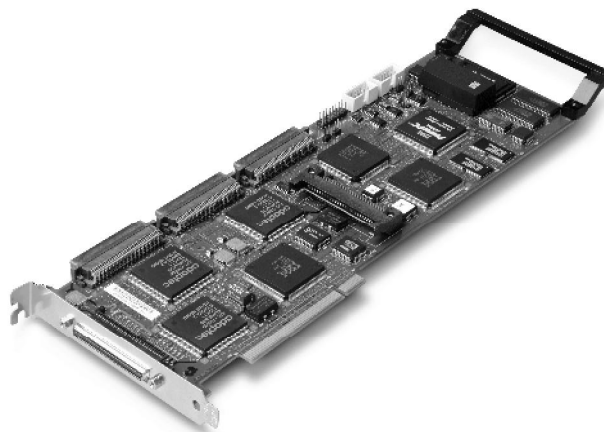
Effective relief from growing pains

Everyone involved in an expanding enterprise seems to end up suffering at least a few growing pains along the way. Especially when it comes to adding storage. But now, IBM offers you an opportunity for relief. Our new PC ServeRAID SCSI Adapter actually makes it easy to expand your storage capacity and increase flexibility at the same time. What's more, it provides you with a simpler, more reliable way to recover from a disaster.

The logical approach keeps your system up and running. Until now, adding drives to an existing configuration meant shutting down your system, backing up your data to tape, adding and/or removing disks, defining a new configuration and finally, restoring your data. It took a lot of time and, because it involved so many steps, it often meant that you took a lot of chances in the process.

Thanks to a technology known as logical drive migration, however, the PC ServeRAID SCSI Adapter lets you make the changes you need – adding or subtracting drives, redefining arrays, even resetting RAID levels – without shutting down your system. It handles capacity changes in background mode while your server continues to operate.²

Plus, because the PC ServeRAID SCSI Adapter stores critical RAID configuration information in three different places, you're assured absolute redundancy for the most crucial portion of your RAID subsystem data. This means you can recover easily and quickly from a disaster, or even migrate to another system. And even if you're not in a critical recovery mode, you can still move disks easily from one server to another. You simply take the disks from one server and install them in another server or expansion unit – in any order. The PC ServeRAID SCSI Adapter will take care of the rest, getting the proper configuration from the disks and remapping them as necessary.



Bigger, faster, smarter

The PC ServeRAID SCSI Adapter takes advantage of the very latest developments in Ultra SCSI technology, offering you three independent SCSI channels – each capable of supporting up to 15 devices. Consequently, you'll be able to handle up to 45 drives with a single adapter. Of course, the PC ServeRAID SCSI Adapter still supports existing SCSI-2 standards, but with Ultra SCSI drives your data can move at up to 40MB/second – twice as fast as with SCSI-2 Fast/Wide.

To keep things moving, the PC ServeRAID SCSI Adapter employs a 32-bit PCI interface, the latest industry standard for high-performance bus technology. And because you're not forcing your data to crawl through a narrow, 16-bit EISA interface, you eliminate a major cause of performance bottlenecks.

The brains behind all this brawn can be found in the PC ServeRAID SCSI Adapter's two integrated RISC-based processors. One is dedicated to performing all the critical RAID functions; the other handles read/write tasks. These two independent processors and buses, coupled with a standard 4MB of cache, let your processor maintain peak performance.

You can also tune your adapter's performance to meet the needs of your applications. By setting the interleaving parameters at different levels (8KB, 16KB, 32KB or 64KB), you control how

much data is written to each drive in a given array. So while multimedia and video applications, for example, would most likely benefit from interleaving set at 32KB or 64KB, commercial applications requiring multiple small transactions would perform better with an 8KB interleave depth.

Adapting to change

As your enterprise grows, so does the need to add flexibility to your system. While performance may have been your only priority in the past, you may now find there are situations where you want to trade in some of that performance for protection. IBM's PC ServeRAID SCSI Adapter supports RAID levels 0, 1 and 5, allowing you to choose the combination of performance and protection that matches your current needs. But what sets the PC ServeRAID SCSI Adapter apart is that it also lets you change RAID levels as your requirements change. What's more, it offers support for four popular network operating systems: OS/2*, Novell NetWare, SCO Open Server and Microsoft Windows NT**. As a result, you end up protecting both your data and your investment in hardware and software. This is one adapter that not only lives up to your expectations, but to its name as well – by helping you adapt to a changing client/server world.

Extending a proud lineage

The PC ServeRAID SCSI Adapter is one of the latest in a long line of successful innovations in storage technology from

IBM. In fact, no other company has been developing storage solutions longer. And because it was designed and built by IBM from the ground up, you can be sure that it meets our high standards for quality and reliability.

Supported by specialists

The IBM PC ServeRAID SCSI Adapter comes with the comprehensive service and support of IBM HelpWare*. This includes our enhanced three-year limited warranty³ with 24-hour, seven-days-a-week⁴ hardware assistance via telephone. You can access server specialists who will provide problem determination and setup assistance at no charge during the warranty period. Plus, with access to IBM experts via bulletin board and commercial online services⁵, you can rest easy knowing that we're here for you every step of the way.

For more information

For more information on the IBM PC ServeRAID SCSI Adapter, or for a demonstration, contact your local IBM representative or authorised reseller.

Or for the latest updates on IBM PC Servers and other IBM products, visit the IBM PC Company home page at <http://www.pc.ibm.com>.

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¹ RAID level 0 maximises performance by offering data striping, which spreads data across each disk in an array in sectors. Unlike RAID levels 1 and 5, however, it does not offer fault tolerance. RAID level 1 employs data mirroring to duplicate data from one disk onto another disk, using a single adapter. And RAID level 5 performs data/parity striping across all disks, interleaving parity with data information rather than storing it on a dedicated drive.

² Different operating systems use different methods for assigning drives and disk space. Some operating systems will require a reboot to access new disk space.

³ Information regarding the terms and conditions of IBM's statement of limited warranty are available upon request.

⁴ Response time will vary depending on the number and nature of calls required.

⁵ Requires a modem.

Hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM warranty terms apply.

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