

IBM TOTALSTORAGE CUSTOMER SUPPORT PLAN

for North America

CONTENTS

2
3
ļ
ļ
5
7
7
7
3
2
3
ļ

Purpose of Support Plan

Do you need a concise, up-to-date guide to IBM services and support for storage? This Customer Support Plan (US and Canada) distills information about base services/support, e-support for storage hardware and software, problem-reporting procedures (including), plus IBM Global Services offerings for storage. After a helpful overview of the StorWatch product family, the document concludes with IBM TotalStorage URLs and support phone numbers.

NOTE:

To download the latest version of this document, go to http://www.ibm.com/support/ then search under Technical Support using "customer support plan" (quotation marks included) in the search field.

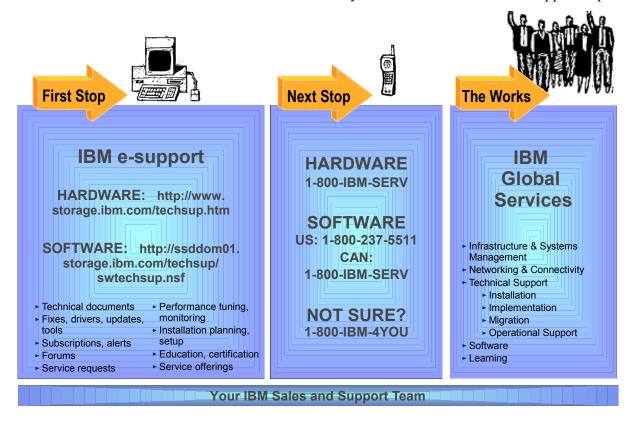
04.09.2002

Support Overview for IBM TotalStorage

From IBM's very largest customer to the individual consumer, the Web (http://www.ibm.com) is key to enabling e-relationships. Customers use the Web to learn about and buy offerings and solutions, to comparison shop, check on order status, and to invoke / receive after-purchase support and services. This is referred to as the *Learn / Shop / Buy / Receive / Use* cycle.

IBM also delivers technical sales support via the Web to allow customers to *Learn/Shop/Buy* in a self-service mode, without requiring assistance from the IBM sales channels or Technical Sales Support organizations. These activities can be end-to-end Web or Web-assisted, where the customer accomplishes some tasks via the web and then engages skilled resources.

As an IBM customer, you have access to a range of technical support unmatched in the industry. IBM TotalStorage offerings and solutions come with the service and support you expect, giving you enhanced value and confidence. Below is a bird's-eye view of IBM's customer support capability:



Base Services and Support

When you buy new IBM systems, you also buy IBM's unique depth of experience and expertise. You buy support from people dedicated to developing systems solutions for your business. As always, you can access a wide variety of technical support for your purchase -- free of charge.

Before you decide on any purchase, you can use a wealth of technical sales support, delivered both via the web and through your sales and technical team. We want to ensure that our solutions and offering address

your business requirements. To help you learn about our offerings and make a purchase decision, we offer the following kinds of support:

- Offering technical content, such as white papers, model comparisons, and specifications
- Trial software downloads
- Offering and solutions demonstrations and seminars (including webinars)
- Identification and selection of appropriate solutions, including:
 - Complex solution design and assistance
 - Offering configurations
 - Basic capacity plans
 - Solution Assurance reviews for new IBM offerings to assure the solution both addresses your business needs and is technically feasible
 - Education and education planning assistance

Once you have decided on a storage offering, you can take advantage of the significant technical support we offer to help you install and implement your solution, including:

- Web self-service such as hints and tips, usage information, fixes, and downloads
- Installation planning assistance for new software licenses
- Physical planning and installation planning assistance
- Warranty support of IBM hardware
- Repair of IBM hardware engineering and manufacturing defects
- Base Software Support included with your software offering license
 - Base software support for most System/390 offerings includes problem support for suspected defects in IBM code and publications. Support is by fax, mail, telephone (voice), and electronic access (bulletin boards).
 - Base software support for IBM and Lotus' AS/400, RS/6000, and desktop platform products includes reporting and defect resolution for IBM code and publications. Support is by fax, mail, and electronic access where available.
 - A complete discussion of IBM/Lotus/Tivoli software support is at http://ps.software.ibm.com/pbin-usa-ps/getobj.pl?/pdocs-usa/webhndbk.html

NOTE: This document contains representative lists only of the services and support available from IBM. For further information on services and support available, see http://www.ibm.com/services/ or call 1-800-IBM-4YOU.



IBM has received the National Medal of Technology -- which recognizes lasting contributions to competitiveness and embodies technological innovation for the company's leadership in developing and commercializing data storage technology.

Your first stop for IBM support . . . e-support

IBM delivers world-class storage support. We furnish you with the technical information and tools to help support a buying decision as well as help you get maximum value from your current storage products. Our technical support portal -- http://www.ibm.com/support -- offers you self-service 24 x 7 x 365 -- with its powerful, cross-IBM offering knowledge base. The portal also posts hot links to all of IBM offering support Web sites, including storage e-support at http://www.storage.ibm.com/techsup.htm

- Technical content
- Fixes, drivers, updates, tools
- Subscriptions, alerts
- Service requests

- Performance tuning, monitoring
- Installation planning, setup
- Education, certification
- Service offerings

e-support for TotalStorage Hardware

http://www.storage.ibm.com/techsup.htm

Find it first on the web!

We furnish you with the technical information and tools to help maintain your current storage hardware / software or support a buying decision.

The list below shows what's available from the storage support home page:

Hardware Support

- Technical support for:
 - Hard disk drives
 - Disk systems
 - Tape and optical
 - Storage software
 - SAN
 - NAS
 - iSCSI
- StorageSmart products for OEM, Resellers, and System Integrators
- Storage media
- OEM MR (magneto-resistive) head support
- IBM server support



PASSPORT/Advantage PMR Electronic Incident Submission System

Redbooks ("How-to" books on technical topics)

Storage Management Software Support

IBM Global Services: TotalStorage Services

Other Services

- Education
- Customer financing
- *iSource*, our customizable, one-stop source for IBM information

e-support for Storage Software

http://ssddom01.storage.ibm.com/techsup/swtechsup.nsf



Resolve your storage software problems quickly and independently using **timesaving online tools** that allow you to:

- Search for reported problems
- Download product fixes
- Report problems (or update an existing problem report)
- Order a fix
- Read related helpful information

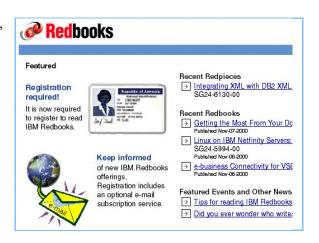
Products Covered

- StorWatch Product Family (see page 11)
- Data Facility Storage Management SubSystem / Hierarchical Storage Manager (DFSMS / HSM)
- Tivoli Storage Management Product Family
- 2105 Enterprise Storage Server (ESS) SubSystem Device Driver (SDD) Support
- 2106 Modular Storage Server (MSS) Support
- 3466 Network Storage Manager (NSM) Entitlement

Don't overlook Redbooks!

IBM Redbooks are "how-to" guides to technical information, and *Redbooks Online!* is THE web source for finding complete information on IBM products and offerings. You can view and download complete books. We also offer two ways to find the Redbook you are looking for. Do a quick keyword search for a hit list of IBM Redbooks, Redpieces, and Redpapers. Or browse through pre-selected categories.

See_http://www.redbooks.ibm.com/



Residencies



IBM Redbooks are developed

through a unique program -- the Residency -- that teams IBM technical professionals with Business Partners, customers, and IBM product development staff. Depending on the market needs of a product or solution, a team of residents is chosen through a competitive nomination process and works at one of the IBM International Technical Support Organization (ITSO) centers for two

to eight weeks, devoted to developing an IBM Redbook.

The intensive, multi-week residency is where small teams explore and document (via a Redbook) a product's implementation, integration and operations -- often in the context of marketplace solutions. ITSO residencies apply leading-edge information technology to customer needs. If you are interested in participating in a residency, you can get more information from the IBM Redbook home page -- http://www.redbooks.ibm.com/

Customer Support Plan for IBM TotalStorage

Ordering Redbooks and Other Publications

Many publications are available free online. You may view or download these titles without having to place them in a shopping cart and without providing any information about yourself.

To order hard copy publications for a fee, however, you will be asked to provide your name, address, e-mail address, and credit card information. This information allows your IBM Publications Center search results to display prices in your local currency. If available in stock, your order will be dispatched within 8-14 days by surface delivery, without additional cost.

Quick Publica	ition Ordering System search		
Begin your IBM Publication Ordering System (POS) search by using one or mor You can type (parts of) a publication title and description keywords, and publicat the bottom of this page provide additional search functionality to the IBM Pu			
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List	C All publications		
	Only orderable publications		
	C Only online publications (read/download)		
Start search	Help Advanced POS search		

See http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi?CTY=US

"IBM ... continues to leverage its strengths as the most recognized brand in IT and as the company that can offer the greatest depth and breadth of service to customers. IBM -- and only IBM -- can offer service, support and integration capabilities to almost any enterprise almost anywhere in the world, and those capabilities are an even more important competitive differentiator in difficult economic times." "Gartner Viewpoint" (www.cnet.com) 12.10.2001

If you don't find what you need with e-support, your next stop should be 1-800-IBM-SERV for hardware support

Your first call will connect you to your IBM Remote Technical Support Center Representative. This Representative will help diagnose your hardware problem and, if not resolved, will create a plan to resolve it, including recommending parts (if appropriate) to the IBM System Services Representative (SSR) responsible for supporting your IBM hardware. You can reach Hardware Support at 1-800-IBM-SERV. The Service Delivery Manager or Duty Manager can assist you with any service issues. Call the numbers below for hardware support on the following products:

Brocade: **1-800-IBM SERV** (2109 SAN Fibre Channel Switch)

INRANGE: **1-800-657-6897** (2042 INRANGE Fibre Channel Director)

McDATA: 1-800-752-4572 (2031 McDATA Fabric and Loop Switches; 2032 McDATA Fibre Channel Director)

If you need software support, call (US) 1-800-237-5511 (CAN) 1-800-IBM-SERV

Your call to Software Support gives us the opportunity to consistently meet your expectations by providing:

- Rapid response to your requests
- Fast relief for high impact problems
- Timely problem resolution
- High quality fixes and information
- Up-to-date service and installation information

Problem Resolution Using Severity Codes

The severity codes below determine how IBM escalates hardware and software problems. Report a severity code when placing the initial service request to the IBM Support Center.

Severity 1— CRISIS

- The system (or a major application or component) goes down, critically impacting a customer's ability to do acceptable business.
- No bypass alternatives are available.
- Severity 1 requires total commitment of equipment and personnel by the customer and vendors to resolve the problem. The respective management groups are responsible for assigning personnel.

Severity 2 — MAJOR

- A problem that causes a severe operational impact.
- Bypassing the problem is possible but not feasible.
- Severity 2 requires that the failing component be made available for repair.

Severity 3 — MINOR

- Any problem causing restricted function or minor impact on performance.
- Bypassing the problem is both possible / feasible.
- Deferred maintenance may be acceptable.

Severity 4 — BYPASSED

- ◆ A circumvented problem.
- The problem's impact is non-critical and does not affect operation.
- Deferred maintenance is acceptable.

NOTE: To be eligible for voice support on most software offerings, you must have either a Support Line or Passport/Advantage contract. (See page 9 for a list of IBM Global Services offerings.)

You are a valued customer. If, for any reason, we are not meeting your expectations, please call us.

- Duty Manager -- (US) 1-800-237-5511 or (CAN) 1-800-IBM-SERV
- Integrated Technology Services Sales --

(US) 1-888-426-4343 (option 3) or (CAN) 1-800-426-2255

When you're not sure, call 1-800-IBM-4YOU

If you encounter a problem of unknown origin, contact your Remote Technical Support Specialist by calling the Hardware or Software Support numbers listed above or call our general information number -- **1-800-IBM-4YOU.** Call between 8AM - 7PM EST, 7AM - 7PM CST, and 5AM - 7PM PST.

IBM Global Services for IBM TotalStorage -- Overview

What kinds of services are available for your IBM storage products?

,
◆ Testing Services for SAN
◆ Fibre Transport Services
 Geographically Dispersed Parallel Sysplex for Extended Remote Copy IBM 3583 Ultrium Scalable Tape Library on Host Server or Storage Area Network (SAN) SANergy Midrange Server SAN
 S/390-attached IBM TotalStorage Servers Open system-attached IBM TotalStorage Servers Virtual Tape Server (VTS) for New Allocations Virtual Tape Server for Static Data
S/390 SoftwareXcel http://www.ibm.com/services/its/us/mus19d1.html Support Line http://www.ibm.com/services/its/us/mus62d1.html S/390 Alert http://www.ibm.com/services/its/us/mus16d1.html S/390 Resolve http://www.ibm.com/services/its/us/mus23d1.html
 IBM Implementation Services for Enterprise Storage Server Copy Services Automated Tape Library Implementation Services Virtual Tape Server (VTS) Implementation Services
 3494 Automated Tape Library with Virtual Tape Server ADSM for SAP Tivoli Storage Manager Tivoli Storage Manager for Domain Resource Manager (DRM) Tivoli Storage Manager for Network Storage Manager (NSM) Performance Management and Capacity Planning Services for Tivoli ADSM

Please refer to http://www.ibm.com/services/its/us/storage.html for details on these and other services offerings. You may also call ITS Services at (US) 1-888-426-4343, option 2; (CAN) 1-800-426-2255.

Other IBM Global Services for Storage

Support Line (remote technical support from IBM Global Services)

With enhanced Support Line, any of your IS technical support personnel gain quick telephone and electronic access to our services specialists -- who can answer product-specific questions about installing and operating disk, tape, Storage Area Network (SAN), Network-Attached Storage (NAS), iSCSI, and storage software.

Support Line offers **flexible coverage alternatives** ranging from support for a single operating system to coverage for your entire enterprise.

Basic prime shift support includes coverage during normal business hours, Monday through Friday, excluding national holidays.

The full shift coverage option allows you to select 24-hours a day, 7-days a week coverage. Support coverage for customers' mission-critical problems is available 24 hours per day, 7 days per week, in the base support contract. This support is available for an additional fee in some countries.

For details, see

http://www-1.ibm.com/services/its/us/mus62d1.html

Software Services

http://www.ibm.com/services/its/us/swsupport.html

or (US) 1-888 426-4343, option 3 (CAN) 1-800-426-2255

- Self Help
- Base Support (support included with the License Charge)
- Enhanced Support
- IBM Support Family of Services
- Planning Services
- SmoothStart
- Account Advocate
- Advanced Support
- Passport Advantage
- Tivoli Maintenance and Support



Support Line enhancements:

 Support Line now offers just two procurement options:

User-selected "Support Groups," which provide support for from one to several collections of products, usually centered around operating systems.

"Enterprise Support," which covers all designated products across the enterprise.

- Some support groups now contain both selected hardware and software products.
- Any of your IS technical support personnel may contact IBM for support, eliminating the need for named callers.
- Support procurement is simplified with fewer Support Line procurement options and elimination of product groups.

Customer Support Plan for IBM TotalStorage

Learning Services

http://www.ibm.com/services/learning/

or 1-800-IBM-TEACH

- World's largest IT training provider
- Delivers thousands of courses daily in 55 countries

Why IBM Service?

IBM is uniquely qualified to deliver a caliber of service and support that allows businesses to concentrate on doing business. Why? Because:

- 116,000 people worldwide deliver IBM support and service in 164 countries.
- 2,500 IBM support specialists handle thousands of customer and Business Partner calls each month, in 23 languages from nine HelpCenters around the world.
- Maintenance parts are available from 145 parts-stocking locations (US); 479 locations (worldwide).

You can find more detailed information at http://www.ibm.com/services/its/us/storage.html

The StorWatch Family of Products

In the future, IBM intends to address all eight key areas of Enterprise Storage Resource Management (see sidebar below) with StorWatch. Its single view and point of control will allow administrators to consistently monitor and manage storage resources, including IBM and non-IBM classical storage subsystems, the new intelligent Seascape storage subsystems, plus storage management software. Brief descriptions of the StorWatch products follow. For more detailed information, see http://www.storage.ibm.com/software/storwatch/swvision.htm

The StorWatch Vision

Within the enterprise, the StorWatch vision means creating storage management expertise in devices and software. This involves:

- One comprehensive view of all storage resources -enterprisewide. A single view and point of control will exist for all these resources.
- This single point will be located anywhere in the enterprise where a secure intranet connection is available via a browser.
- A consistent interface will let administrators monitor and manage the StorWatch implementation's varied storage subsystems and software. These resources will have storage management expertise built in so they can fulfill their enterprise storage role.
- Should problems occur, the same network that allows StorWatch to communicate with its managed storage resources will also link directly with various vendors' support and service centers.

IBM StorWatch Experts and Specialists

The StorWatch family of enterprise storage management products has two primary dimensions: StorWatch Experts and StorWatch Specialists.

- Experts are separately purchased software products that provide asset, capacity, and performance management information about specific storage devices. (NOTE: Usage and installation questions for Expert products require a Support Line contract.)
- **Specialists**, which are packaged with the hardware purchase, provide configuration management for specific storage devices.

The 8 Key Areas of Enterprise Storage Resource Management

- **◆** Asset Management
- Capacity Management
- **♦** Configuration Management
- ◆ Data / Device / Media Migration
- Event / Alert Management
- **◆ Performance Management**
- Policy Management
- ◆ Removable Media Management

The Experts

- ◆IBM StorWatch Expert
- ◆IBM StorWatch Serial Storage Expert (StorX)

◆IBM StorWatch DFSMShsm Monitor

The Specialists

- ◆StorWatch Enterprise Storage Server (ESS)
 Specialist
- ◆StorWatch MagStar 3494 Tape Library Specialist
- ◆StorWatch MagStar 3494 Peer-to-Peer VTS Specialist
- ◆StorWatch Modular Storage Server (MSS) Specialist
- ◆StorWatch 2106 MSS Specialist
- ◆StorWatch SAN Data Gateway Specialist
- ◆StorWatch SAN Data Gateway S20 Specialist
- ◆StorWatch Fibre Channel Switch Specialist
- ◆StorWatch Fibre Channel RAID Specialist

Network Attached Storage (NAS)

Network Attached Storage devices are high-performance storage appliances that provide shared data to clients and other servers on a Local Area Network (LAN).

If you find that you need warranty, start-up, or maintenance support on a NAS appliance, you will need to call the IBM service support number, 1-800-IBM-SERV, and give the machine type and serial number.

NAS appliances are ordered by a system type number which may be composed of several machine components. Each machine component has its own machine type. You will need to input the **machine type** and the **serial number** when placing a call to support.

If you do not know your machine type or are unable to locate it on the appliance, please refer to the Storage Networking Technical Support page at: www.storage.ibm.com/support/nas From this page, double click on your system type and model. You'll see the table of machine types associated with your product.

As a supplement to the normal support structure, our **SAN Central** support team provides problem determination at the storage network level. This support includes storage area networking (SAN) hardware, network attached storage (NAS) hardware, and storage-related software. The **SAN Central** group is invoked by the product-specific support groups. They may engage whatever support and development teams are needed to isolate and fix a problem.

SERVICES

IBM Installation Services for IBM TotalStorage NAS products

IBM provides installation services for IBM TotalStorage network attached storage (NAS) equipment that is designed for customer setup. Taking advantage of this service means that, with limited interruption to your business, your equipment will be up and running smoothly and quickly. For more information on these and other installation services, visit the following website:

http://www-1.ibm.com/services/its/us/installation.html

IBM TotalStorage Consulting Services helps develop a storage infrastructure to support your business objectives. These services can help your organization establish interoperable, multivendor storage architectures and proper systems management. For information on consulting services, visit: http://www-1.ibm.com/services/

IBM Operational Support Services — Support Line

Support Line is a single integrated remote support offering that supports your operating systems environment across all platforms consistently, in a single contract. This service provides you with remote voice and, where available, electronic assistance from IBM for product-specific, task-oriented questions about installing and operating currently supported IBM and specified non-IBM operating systems and associated software products. The revised Support Line also offers usage and configuration assistance for selected hardware products.

http://www-1.ibm.com/services/its/us/mus62d1.html

Customer Support Plan for IBM TotalStorage

IBM URLs

Corporate Home Page	
Business Continuity and Recovery Services	http://www.ibm.com/services/continuity/recover1.nsf
Global Financing	http://www.ibm.com/financing/webprod.nsf/ID/778AA4
Global Services Consulting	
Operating Systems Home Page	http://www.ibm.com/software/os/
Redbooks	
Shop IBM	http://commerce.www.ibm.com/

IBM TotalStorage URLs

IBM TotalStorage Home Page
DFSMS Family of Products http://www.storage.ibm.com/software/sms/smshome.htm
Disk Systems Home Page <u>http://www.storage.ibm.com/hardsoft/disk/disk.htm</u>
Removable Media Storage Home Page http://www.storage.ibm.com/hardsoft/tape/index.html
Storage Area Networks (SANs)
SAN Software http://www.storage.ibm.com/ibmsan/products/sansoftware.htm
SAN Services
Storage Software Home Page
StorWatch Family of Products http://www.storage.ibm.com/software/storwatch/swhome.htm
IBM Global Services for Storage http://www.ibm.com/services/its/us/storage.html
Technical Support <u>http://www.storage.ibm.com/techsup.htm</u>
Technical Support Directory (Global) http://www.ibm.com/planetwide/
Technical Support Directory (US)
Tivoli Storage Management Solutions http://www.tivoli.com/products/solutions/storage/news.html

IBM , the IBM logo, e-business, the e-business logo, AS/400, AIX, AS/4003, OS/400, 400, Redbooks, RS/6000, SmoothStart, SP, DFS, DFSMhsm, Enterprise Asset Manager, Enterprise Storage Manager, Magstar, SecureWay, StorageSmart, StorWatch, ClusterProven, HelpCente;r, HelpWare, ServerGuide, ServerProven, ServicePac, SystemXtra, TechConnect, Netfinity, OS/2, RS/6000, S/390, TechConnect, and xSeries are trademarks of IBM Corporation in the United States and/or other countries. Microsoft, Windows, and Windows are trademark of Microsoft Corporation in the United States, other countries, or both. Linux is a registered trademark of Linux Torvalds. UNIX is a trademark of the Open Group. Lotus and Tivoli are subsidiearies of IBM Corp. and require attribution. Other company, products, an services names may be trademarks or service marks of other companies. IBM reserves the right to changes specifications or other product information without notice. This publication may include typographic errors and technical inaccuracies. The content is provided as it, without express or implied warranties of any kind, including the implied warranties of merchantability or fitness for a particular purpose. Some jurisdictions do not allow disclaimers of implied warranty so this disclaimer might not apply to you. NOTE: Although this document's information is currently accurate, be aware that contracts, terms and conditions, support procedures, and assigned personnel can change at any time. This document does not modify or replace any contract in place between you and IBM and is subject to change based on the terms and conditions of the contracts in place between you and IBM.

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Phone Directory of IBM Support



Customer Service Center
 A single point of contact if you do not know who to call at IBM Provides assistance and information on IBM products and services, seminars and classes, marketing assistance, and more
IBM Global Services' Integrated Technology Services (ITS) Sales (US) 1-888-426-4343
(CAN) 1-800-426-2255
 Can help you create systems, networks, and application infrastructures that support e-business on demand networked functionality.
 Includes IT planning, implementation, support and management services to help you maximize performance and availability, improve productivity, reduce cost and increase the value of your IT investments.
IBM Learning Services
· To receive information and/or enroll, call between 7 AM - 7 PM CST Monday - Friday.
Software Technical Support Center
(CAN) 1-800-IBM-SERV
 Serves as the primary contact for software problem reporting Accepts calls for software technical support covered by an: IBM Licensing Agreement or Support Contract
· Notifies local IBM assistance if customer requests to contact them
Hardware Technical Support Center
 Serves as the primary contact for hardware problem reporting Accepts calls for repairing hardware covered by an IBM Maintenance Agreement or Support Contract Notifies local IBM management if customer requests to contact them
Publication Orders and SLSS Support(US) 1-800-879-2755
(CAN) 1-800-IBM-4YOU
· To order publications or to receive System Library Subscription Service (SLSS)