

IBM STORAGE CUSTOMER SUPPORT PLAN

for North America

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Purpose of Support Plan

This document communicates the full range of IBM support available to you, procedures for obtaining support, and information on contacting IBM. You will find information on IBM e-support, hardware and software reporting procedures, escalation processes (including a chart defining severity levels), as well as information available by phone.

NOTE:

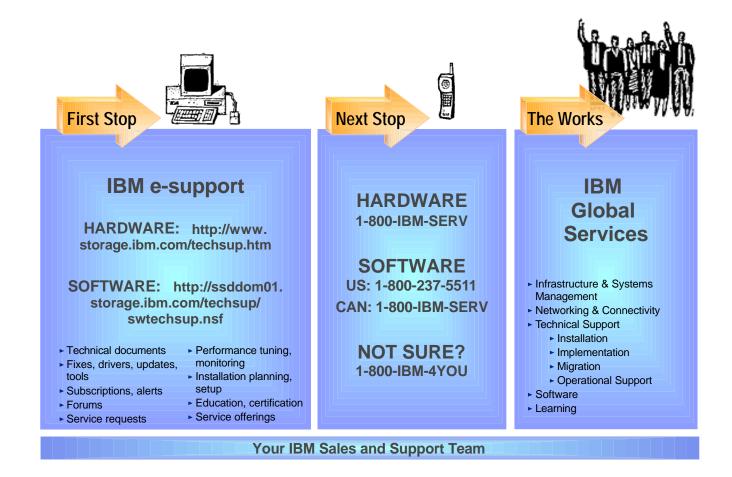
To download the latest version of this Customer Support Plan, go to http://www.ibm.com/support/ and do a search using "customer support plan" (quotation marks included) in the search field.

Support Overview for IBM Storage

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 storage 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: wComplex solution design and assistance
 - wOffering configurations
 - wBasic capacity plans
 - wSolution Assurance reviews for new IBM offerings to assure the solution both addresses your business needs and is technically feasible

wEducation 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

wBase 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).

wBase 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.

wA 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.



Former President Clinton recently announced that IBM will receive the National Medal of Technology -- which recognizes lasting contributions to America's competitiveness and standard of living -- 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 hotlinks 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 Storage Hardware

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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:
 - w Hard disk drives
 - w Disk systems
 - w Tape and optical
 - w Storage software
- 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: Storage 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 Storage

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 hardcopy publications 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 Publi	cation Ordering System search
You can type (par	ublication Ordering System (POS) search by using one or mor ts of) a publication title and description keywords, and publica his page provide additional search functionality to the IBM Pu
Search on	
Publication numb	per (xxxx-xxx-xxx)
List	C All publications
	 Only orderable publications
	C Only online publications (read/download)
Start search	h Help Advanced POS search

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

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.

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

NOTE: To be eligible for voice support on most software offerings, you must have either a Support Line or Passport/Advantage contract. (See page 10 for a list of IBM Global Services.)

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
 (CAN) 1-800-IBM-SERV
- Integrated Technology Services Sales --

(US) 1-888-426-4343 (option 3) (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

Severity Codes
The following severity codes determine how

Problem Resolution Using

The following severity codes 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.

or Software Support numbers listed above or call our general information number -- 1-800-IBM-4YOU.

IBM Global Services for IBM Storage -- Overview

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

Infrastructure & Systems Management	◆Testing Services for SAN
Networking & Connectivity	◆ Fibre Transport Services
Technical Support	
Installation 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
Migration Services	 \$S/390-attached IBM Storage Servers Open system-attached IBM Storage Servers Virtual Tape Server (VTS) for New Allocations Virtual Tape Server for Static Data
Software Support Services	◆ 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
• Implementation Services	 IBM Implementation Services for Enterprise Storage Server Copy Services Automated Tape Library Implementation Services Virtual Tape Server (VTS) Implementation Services
Operational Support 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.

Customer Support Plan for IBM Storage

Other IBM Global Services for Storage

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

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 10 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

Customer Support Plan for IBM Storage

IBM URLs

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

IBM Storage URLs

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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 (US) 1-800-237-5511
(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
• To order publications or to receive System Library Subscription Service (SLSS)