



IBM Storwize V7000 Software V6.1.0

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At a glance

The IBM® Storwize V7000 disk system, IBM's newest midrange disk storage offering, utilizes IBM System Storage® SAN Volume Controller technology to deliver high performance, advanced function, high availability, and modular and scalable storage capacity.

- Supports RAID 0, 1, 5, 6, and 10
- Provides SAN-attached 8 Gbps Fibre Channel (FC) host connectivity and 1 GbE iSCSI host connectivity
- Accommodates up to twenty-four 2.5-inch disk drives or twelve 3.5-inch disk drives installed within the IBM Storwize V7000 Control Enclosure, with attachment support for up to nine IBM Storwize V7000 Expansion Enclosures, providing modular and highly scalable storage solutions
- Supports intermix of SAS drives, Nearline SAS drives, and solid-state drives within the IBM Storwize V7000 Control Enclosures and the IBM Storwize V7000 Expansion Enclosures
- Includes IBM Easy Tier technology for automatically moving heavily used data extents onto high-performance storage
- Supports attachment of other storage devices via the Fibre Channel interface, just as the SAN Volume Controller
- Supports a complete set of SAN Volume Controller functions including FlashCopy®, RemoteCopy, VDisk Mirroring, thin provisioning, and a revised web-based user interface for both products new with this release

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Overview

IBM Storwize V7000 disk system is IBM's newest midrange disk offering built on IBM System Storage SAN Volume Controller technology to help address midrange or departmental storage requirements.

Each IBM Storwize V7000 operates using IBM Storwize V7000 Software V6.1. IBM Storwize V7000 V6.1 supports RAID levels 0, 1, 5, 6, and 10. The IBM Storwize V7000 disk system is designed to deliver up to a two-fold IOP performance increase over competitive offerings. It also leverages SAN Volume Controller technology, and represents a new generation architecture within the midrange disk family.

IBM Storwize V7000 Software V6.1.0 features the same functionality and capabilities of the IBM System Storage SAN Volume Controller Storage Software V6.1.0. For

further information about the new software capabilities introduced on the SVC Storage Software, refer to SVC V6.1 Software Announcement [210-350](#), dated October 07, 2010 .

For further information about IBM Storwize V7000 hardware, refer to IBM Storwize V7000 Hardware Announcement [110-220](#), dated October 07, 2010 .

In addition to the basic IBM Storwize V7000 Software V6.1.0 the following licensed products are also available:

- IBM Storwize V7000 Remote Mirroring Software (5639-RM1) to license the use of remote copy
- IBM Storwize V7000 External Virtualization Software (5639-EV1) to license the use of IBM Storwize V7000 virtualization capabilities (like SAN Volume Controller) for external storage devices

Refer to the [Description](#) section for details about each.

Key prerequisites

IBM Storwize V7000 Software V6 (5639-VM1, 5639-EV1 and 5639-RM1) has the same prerequisites as IBM System Storage SAN Volume Controller Software V6 (5639-VC6).

Refer to the [Hardware requirements](#) and [Software requirements](#) sections for more information.

Planned availability date

- November 12, 2010: IBM Storwize V7000 Software V6 AAS new order shipments begin

Description

IBM Storwize V7000 Software

IBM Storwize V7000 Software V6.1.0 features the same functionality and capabilities of the IBM System Storage SAN Volume Controller Storage Software V6.1.0. For further information about the new software capabilities introduced on the SVC Storage Software, refer to SVC V6.1 Software Announcement [210-350](#), dated October 07, 2010 .

For further information about the IBM Storwize V7000 hardware, refer to IBM Storwize V7000 Hardware Announcement [110-220](#), dated October 07, 2010 [110-220](#), (RFA53618) dated October 7, 2010.

IBM Storwize V7000 Base Software (5639-VM1)

Each IBM Storwize V7000 (2076-112/124) Disk Control Enclosure and each IBM Storwize V7000 Disk Expansion Enclosure (2076-212/224) uses the IBM Storwize V7000 Base Software, 5639-VM1. A quantity of one 5639-VM1 IBM Storwize V7000 Base Software license is required for each enclosure, whether control or expansion enclosure. For example, a IBM Storwize V7000 order consisting of one control enclosure and three expansion enclosures requires a quantity of four enclosures of the IBM Storwize V7000 Base Software license, 5639-VM1.

IBM Storwize V7000 External Virtualization Software (5639-EV1)

Each IBM Storwize V7000 (2076-112/124) Disk Control Enclosure has the ability to attach and manage external storage devices on the SAN in the same way as the SAN Volume Controller. To authorize use of this function, the user licenses the IBM

Storwize V7000 External Virtualization Software, 5639-EV1. You will need to license the number of storage enclosures attached externally to the IBM Storwize V7000. IBM Storwize V7000 (2076-112/124) Disk Control Enclosures and IBM Storwize V7000 Disk Expansion Enclosures (2076-212/224) are not included in this External Virtualization license.

A storage enclosure externally managed by IBM Storwize V7000 is defined as an independently powered, channel attached device that stores data on magnetic disks or solid state drives, such as disk controllers and their respective expansion units, each constituting separate enclosures. Therefore, an enclosure can be either the main controller housing disk (or solid-state) drives or the expansion chassis that house additional disk (or solid-state) drives for the purpose of expanding the total capacity of the storage system. If there exists any confusion for an external storage enclosure that does not conform to this definition, consult your IBM sales representative for an equivalent measure based on a disk drive count.

For example, adding a DS5020 consisting of two enclosures to an IBM Storwize V7000 consisting of one control enclosure and three expansion enclosures, then you will need a license for two enclosures of the IBM Storwize V7000 external virtualization software, 5639-EV1.

IBM Storwize V7000 Remote Mirroring Software (5639-RM1)

To authorize use of Remote Copy capabilities of the IBM Storwize V7000, you must purchase a license for IBM Storwize V7000 Remote Mirroring Software (5639-RM1) for each licensed enclosure managed by the IBM Storwize V7000 Disk System, including each internal enclosure licensed with the IBM Storwize V7000 Base Software (5639-VM1) and each external enclosure licensed with the IBM Storwize V7000 External Virtualization Software (5639-EV1).

For example, if you have a DS5020 consisting of two enclosures managed by a IBM Storwize V7000 consisting of one control enclosure and three expansion enclosures, then in order to authorize remote mirroring for this configuration, you will need a license to the IBM Storwize V7000 Remote Mirroring Software, 5639-RM1, for a quantity of six enclosures.

Interoperability

<http://www.ibm.com/storage/support/storwize/v7000>

IBM Storwize V7000 IBM Tivoli Storage Manager FastBack

IBM Tivoli Storage Manager FastBack is an excellent complimentary product for use with IBM Storwize V7000. IBM Tivoli Storage Manager FastBack provides IP-based replication of Windows and Linux data, as well as advanced data protection and near-instant recovery for critical Windows and Linux servers and applications when used with the IBM Storwize V7000 system.

IBM Tivoli Storage Manager FastBack allows enables protection, replication, and recovery of data for critical applications, including Microsoft Exchange, SQL, SAP, DB2 and Oracle. It delivers the power to quickly recover any Microsoft, Windows, or Linux server data, anywhere in the organization, from any point in time. IBM Tivoli Storage Manager FastBack provides a cost-effective, comprehensive data protection and disaster recovery solution for small and mid-sized organizations.

IBM Tivoli Storage Manager FastBack combines a number of leading-edge and patented technologies to deliver a data protection and recovery solution for servers and applications. It helps eliminate the need for traditional backup windows by continuously tracking data changes at the block level, with extremely low overhead on the systems it protects. Its flexible policy engine helps improve recovery service levels and meet stringent data protection and retention requirements.

The IP-based replication technology in IBM Tivoli Storage Manager FastBack allows administrators to select which volumes to replicate and schedule when to send the data over the WAN or Internet, enabling IP replication capabilities for IBM

Storwize V7000 and effective disaster recovery capabilities without straining existing bandwidth.

IBM Tivoli Storage Manager FastBack excels in its recovery capabilities. With IBM Tivoli Storage Manager FastBack, it's easy to extract any file or application object (such as an e-mail) from the stored data blocks of any stored snapshot. Administrators can mount a snapshot virtually to a drive letter or mount point, allowing validation of the backup data and file-level and folder-level restore. IBM Tivoli Storage Manager FastBack even makes volume restore more efficient by providing several ways to restore data. In addition to traditional volume restores, IBM Tivoli Storage Manager FastBack has a near instant restore feature that can dramatically reduce recovery times. Near instant restore lets users use data on the same disk where the volume is being restored while the restore operation is still in progress. This means the administrator can allow instant access to data for users, while the restore occurs in the background. Users can see and access information, which signals to the restore process to make this information a priority, while data not being used is restored later in the process. IBM Tivoli Storage Manager FastBack file system view into the backup repository allows click-drag-drop recovery of any file or folder, greatly simplifying the ease of recovery.

Highlights

IP-based replication:

- Asynchronous, policy-based, block-level transmission over Wide Area Network (WAN) Internet
- Provides a more cost-effective disaster recovery solution as compared to Fibre Channel alternatives

Block-level incremental forever snapshots:

- Very low impact on application servers
- Ideal for virtual machines
- Eliminates the need for backup windows
- Superior performance with both large numbers of small files and for very large files such as databases
- Dramatically reduces backup disk requirements as compared to traditional full backup methods

Target-side data deduplication:

- Further reduces the amount of disk capacity required
- Post-processing does not impact backup or application server performance

Data deduplication across the WAN:

- Eliminates redundant blocks of backup data being sent from primary site to central / disaster recovery site
- Helps reduce costs of WAN bandwidth and supports remote office backup consolidation
- Replicates deduplicated data across a WAN or Local Area Network (LAN) connection directly to a IBM Tivoli Storage Manager server with seamless API integration Superior Restore capabilities
- Restore individual files, folders, databases, emails, disk volumes, and entire systems
- File system view into the backup repository allows click drag drop recovery of any file or folder
- Instant Restore enables full access to any volume in seconds, while recovery occurs in the background

Central management

- Centrally manage all backup and recovery operations

- Single Web-based interface

Application-aware:

- Support for almost all Windows and Linux-based applications, including IBM DB2, Microsoft Exchange and SQL, Oracle and mySAP

Granular recovery of Microsoft Exchange email objects:

- Restore individual messages, attachments, calendar entries, contacts, notes, tasks, and journals through a simple drag-and-drop operation
- Advanced search capabilities to help in e-discovery processes
- Supports Microsoft Exchange 2003, 2007 and 2010

Accessibility by people with disabilities

A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Product positioning

The IBM Storwize V7000 is a midrange disk system that is targeted to meet the storage and storage virtualization needs of midmarket and large enterprise customers.

Reference information

For information on IBM Storwize V7000 Hardware announcement, refer to Hardware Announcement [110-220](#), dated October 07, 2010 .

For the current IBM System Storage SAN Volume Controller Software V6.1 announcement, refer to Software Announcement [210-350](#), dated October 07, 2010 .

For the previous IBM System Storage SAN Volume Controller Software V5.1 announcement, refer to Software Announcement [209-261](#), dated October 20, 2009 .

For the previous IBM System Storage SAN Volume Controller Software V4.3.1 announcement, introducing Entry Edition, refer to Software Announcement [208-326](#), dated October 28, 2008 .

For the previous IBM System Storage SAN Volume Controller Software V4.3 announcement, including space-efficient functions, refer to Software Announcement [208-114](#), dated May 13, 2008 .

For the previous IBM System Storage SAN Volume Controller Software V4.2.1 announcement, refer to Software Announcement [207-264](#), dated October 23, 2007 .

For the previous IBM System Storage SAN Volume Controller Software V4.2.0 announcement, refer to Software Announcement [207-105](#), dated May 22, 2007 .

For the previous IBM System Storage SAN Volume Controller Software V4.1 announcement, refer to Software Announcement [206-121](#), dated May 23, 2006 .

Program number

Program number	VRM	Program name
5639-VM1	6.1.0	IBM Storwize v7000 Software V6.1

5639-EV1	6.1.0	IBM Storwize V7000 External Virtualization Software V6.1
5639-RM1	6.1.0	IBM Storwize V7000 Remote Mirroring Software V6.1

Product identification number

PID numbers for IBM Storwize V7000 Software V6 are:

Program PID number	Maintenance 1 year PID number	Maintenance 3 year PID number
5639-VM1	5639-SM1 reg/ren 5639-SM2 af1	5639-SM3 reg 5639-SM4 renewal 5639-SM5 af1
Maintenance 2 year PID number	Maintenance 4 year PID number	Maintenance 5 year PID number
5639-SM6 reg	5639-SM7 reg	5639-SM8 reg

PID numbers for IBM Storwize V7000 External Virtualization Software V6:

Program PID number	Maintenance 1 year PID number	Maintenance 3 year PID number
5639-EV1	5639-VVA reg	5639-VVC reg
Maintenance 2 year PID number	Maintenance 4 year PID number	Maintenance 5 year PID number
5639-VVF reg	5639-VVG reg	5639-VVH reg

PID numbers for IBM Storwize V7000 Remote Mirroring Software V6:

Program PID number	Maintenance 1 year PID number	Maintenance 3 year PID number
5639-RM1	5639-MMA reg	5639-MMC reg
Maintenance 2 year PID number	Maintenance 4 year PID number	Maintenance 5 year PID number
5639-MMF reg	5639-MMG reg	5639-MMH reg

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM , you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=210-356>

Education support

Web Lecture Courses - available to IBM and Business Partners

Storage Technical Online Education courses on the IBM Storwize V7000 product will be available to IBM and Business Partners on the IBM Systems College (formerly STG SMART Zone) site on the announcement date.

IBM access

<http://lt.be.ibm.com/smartzone/storagetech>

Business Partners access

<http://www.ibm.com/services/weblectures/dlv/smartzone/storagetech>

Classroom courses are available to IBM , Business Partners, and customers.

Two classroom hands-on courses will be available worldwide to all audiences for this new product with sessions beginning in November 2010:

Course number	Course title
SSE0	IBM System Storage Storwize v7000 Implementation Workshop

For more information and course schedules, visit

http://www.ibm.com/services/learning/ites.wss/zz/en?pageType=tp_search

Search on the course number - 'SSE0'

Or link to course offering information directly.

SSE0 course information:

http://www.ibm.com/services/learning/ites.wss/tp/en?pageType=tp_search_results&rowStart=0&rowsToReturn=20&searchString=sse0

IBM Global Services, IT Education Services, provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers are on the IBM IT Education Services web site

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

Refer to the IBM IT Education Services web site for information on course locations and availability dates.

Offering Information

Product information is available via the Offering Information web site

<http://www.ibm.com/common/ssi>

Publications

The following publications can be downloaded in PDF format from the Web sites that follow this list:

Title	Order number
IBM Storwize v7000 CIM Agent Developer's Guide	GC27-2292-00
IBM Storwize v7000 Read First	GC27-2293-00
IBM Storwize v7000 Quick Installation Guide	GC27-2290-00
IBM Storwize v7000 Troubleshooting, Recovery, and Maintenance Guide	GC27-2291-00

IBM System Storage SAN Volume Controller GC27-2287-00
and Storwize V7000 Command-Line Interface
User's Guide

IBM System Storage Multipath Subsystem GC52-1309
Device Driver User's Guide

IBM Systems Safety Notices G229-9054

Additional copies of the above listed publications will be available on November 12, 2010. Use the following options to order or download additional copies:

- To view online information and link to a download site, visit the IBM Storwize V7000 Information Center
<http://publib.boulder.ibm.com/infocenter/storwize/ic/index.jsp>
- To order additional selected hardcopy publications for a fee or download free PDF format publications, visit the IBM Publications Center web site
<http://www.ibm.com/shop/publications/order>
- To directly download publications in PDF format, visit the IBM product support web site
<http://www.ibm.com/storage/support/storwize/v7000>
- Call the Publications Support Group at 800-879-2755, and select option 1.
- Contact your IBM representative.

The IBM Publications Center

Hardcopies of selected IBM Storwize V7000 publications are available for a fee from the IBM Publications Center, as well as free softcopy publications. The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card or customer number. A large number of publications are available online in various file formats, and they can all be downloaded free of charge.

Publications may also be obtained on DVD via use of media feature 5809.

Technical information

Specified operating environment

Hardware requirements

This program requires at least one IBM Storwize V7000 (2076-112 or 2076-124) disk control enclosure for installation.

Current support summaries, including specific software, hardware, and firmware levels supported, are maintained at the IBM Storwize V7000 Support web site

<http://www.ibm.com/storage/support/storwize/v7000>

For information on the IBM Storwize V7000 hardware, refer to Hardware Announcement [110-220](#), dated October 07, 2010 .

For information on the IBM System Storage SAN Volume Controller Storage Software V6.1, refer to Software Announcement [210-350](#), dated October 07, 2010 .

Software requirements

For all current storage systems and host environments supported, refer to the support web site

<http://www.ibm.com/storage/support/storwize/v7000>

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Compatibility

For further information regarding currently supported environments and operating guidelines, visit the IBM Storwize V7000 Support web site at

<http://www.ibm.com/storage/support/storwize/v7000>

Limitations

This program operates on specified IBM Storwize V7000 hardware only, currently defined by IBM 2076-112, 2076-124, 2076-212, 2076-224.

For hardware-associated limitations, refer respectively to Hardware Announcement [110-220](#), dated October 07, 2010 .

For additional information, refer to "Usage restriction" in the [Terms and conditions](#) section of this announcement, and to the License Information document that is available on the IBM Software License Agreement web site

<http://www.ibm.com/software/sla/sladb.nsf>

Additional information on configuration limitations and configuration guidelines is further documented in the README file accompanying the IBM Storwize V7000 V6, in furnished publications for this product, or under the Plan/Upgrade tab in the IBM Storwize V7000 restrictions document at

<http://www.ibm.com/storage/support/storwize/v7000>

Planning information

Planning considerations required for IBM Storwize V7000 apply. Refer to the announcements listed in the [Reference information](#) section and to the *IBM Storwize V7000 information center* at the IBM Support website for publications

<http://www.ibm.com/support/publications/us/library/>

Fee-based storage services are also available. For details, refer to the **Storage services** section.

Customer responsibilities

Planning for and provision of the power and environmental support required for IBM Storwize V7000 is a customer responsibility.

Refer to the announcements listed in the [Reference information](#) section, or to the Storwize V7000 information center at the IBM Support website for publications

<http://www.ibm.com/support/publications/us/library/>

Service support for the server and its operating system which houses the browser from which the IBM Storwize V7000 console is accessed is a customer responsibility (and is separately ordered).

Customers with 5639-EV1 and 5639-RM1 enclosure licenses are responsible to combine the total number of enclosures managed for each function to ensure they are within the enterprise license entitlement for each function.

Direct customer support

For technical support or assistance, contact your IBM representative or visit

<http://www.ibm.com/support>

Packaging

New order packaging

IBM Storwize V7000 V6, (5639-VM1, 5639-EV1 and 5639-RM1) is preinstalled on and shipped with the required IBM 2076 IBM Storwize V7000 Disk Systems. For code updates, refer to the IBM Storwize V7000 product support web site at

<http://www.ibm.com/storage/support/storwize/v7000>

After receipt of an order for 5639-EV1 and 5639-RM1, the Business Partner or customer will be required to register and accept Passport Advantage® or Passport Express® terms and conditions. Upon registration, the customer will be authorized for the electronic download of software code updates. The product includes the license and one, two, three, four, or five years of Software Subscription and Support.

Note: This does not apply to 5639-VM1, IBM Storwize V7000 Base Software.

License Information documents for IBM Storwize V7000 programs ship with the hardware on which they are preloaded.

The following are shipped with each new IBM Storwize V7000 order:

- IBM Agreement for Acquisition of Support and Addendum for Support, Z125-6011
- License Information for IBM System Storage SAN Volume Controller & IBM Storwize V7000 6.1.0, LC23-5059
- License Information for IBM System Storage SAN Volume Controller & IBM Storwize V7000 Information Center 6.1.0, LC23-5098
- License Information for IBM System Storage SAN Volume Controller Storage Replication Adapter for VMware SRM, GA76-0431
- IBM Storwize V7000 Read First file, GC27-2293

The paid invoice acts as Proof of Entitlement (PoE) for all orders of IBM Storwize V7000 V6. All associated media listed in the [Publications](#) section are also shipped with the new hardware order. One media set per IBM Storwize V7000 Disk System will be shipped. Refer to the hardware announcements listed in the [Reference information](#) section for correlated hardware order features.

Subsequent media orders

For additional available publications, refer to the [Publications](#) section.

For assistance in placing orders with or without media features, contact your IBM representative.

Publications are in English. This program, when downloaded from a Web site, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

Security, auditability, and control

Use of supplementary antivirus software is recommended, but not required. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

<http://www.ibm.com/software/sw-services/>

Ordering information

Charge metric

Order Handling

The IBM storage software for products **5639-EV1 and 5639-RM1** will continue to be ordered through existing channels using the existing configurator and ordering tools. However, the fulfillment processes have been modified to improve customer records management associated with "Subscription and Support," often referred to as "Software Maintenance."

Starting with this announcement, the products **5639-EV1 and 5639-RM1** selected during configuration process with each hardware system, will be enabled for electronic download for the system unit for which the product was ordered. Optionally, software and license only configurations can be created for 5639-EV1 and 5639-RM1 based on existing supported hardware system units in your business environment. Offerings in this announcement are available exclusively via electronic download.

This fulfillment through Passport Advantage does not apply to 5639-VM1.

Passport Advantage allows greater flexibility to help you manage software licenses and Subscription and Support renewals. You can now have a common anniversary date for Subscription and Support renewals. The anniversary date, established at the order ship date for the initial product acquisition, will remain unchanged while your Passport Advantage and or Passport Advantage Express agreement remains in effect.

Program name	Part number or PID number	Charge metric
IBM Storwize v7000 Base Software V6	5639-VM1	Per Storage Device
IBM Storwize v7000 External Virtualization Software V6	5639-EV1	Per Storage Device
IBM Storwize v7000 Remote Mirroring Software V6	5639-RM1	Per Storage Device

Program name: IBM Storwize v7000
Base
Software V6
PID: 5639-VM1

Use-based OTC

with One-year
Software Maintenance

Description	Program number	Feature number
IBM Storwize V7000 BSW+1YRSWM/enc1 IBM Storwize V7000 Base SW Per Storage Device with 1 Year SW Maintenance	5639-VM1	0001

Program name: IBM Storwize V7000
External Virtualization
Software V6
PID: 5639-EV1

Use-based OTC
with One-year
Software Maintenance

Description	Program number	Feature number
IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW Per Storage Device with 1 Year SW Maintenance	5639-EV1	0001

IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW Per 250 Storage Device with 1 Year SW Maintenance		0002
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Program name: IBM Storwize V7000
Remote Mirroring
Software V6
PID: 5639-RM1

Use-based OTC
with One-year
Software Maintenance

Description	Program number	Feature number
IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror Per Storage Device with 1 Year SW Maintenance	5639-RM1	0001

IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror Per 250 Storage Device with 1 Year SW Maintenance		0002
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No-Charge Features:

Media Supply 5809
No-Charge Preload 5639-VM1 5005

Program name: IBM Storwize V7000
Base
Software Maintenance

One-year Registration and Renewal

PID: 5639-SM1

One-year No Charge Registration:

Description	Program number	Feature number
IBM Storwize V7000 BSW+1YRSWM/enc1 IBM Storwize V7000 Base SW One-year NC Registration per Storage Device	5639-SM1	0001

One-year Renewal:

Description	Program number	Feature number
IBM Storwize V7000 1Yr BSW RNL/enc1 IBM Storwize V7000 Base SW One-year Renewal One-time charge per Storage Device	5639-SM1	0002

Program name: IBM Storwize V7000
Base
Software Maintenance

One-year After License

PID: 5639-SM2

Description	Program number	Feature number
IBM Storwize V7000 1Yr BSW AFL/enc1 IBM Storwize V7000 Base SW One-year After License One-time charge per Storage Device	5639-SM2	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year Registration

PID: 5639-SM3

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Three-year Registration One-time charge	5639-SM3	0001

per Storage Device

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year Renewal

PID: 5639-SM4

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW RNL/enc1 IBM Storwize V7000 Base SW Three-year Renewal One-time charge per Storage Device	5639-SM4	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year After License

PID: 5639-SM5

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW AFL/enc1 IBM Storwize V7000 Base SW Three-year After License One-time charge per Storage Device	5639-SM5	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Two-year Registration

PID: 5639-SM6

Description	Program number	Feature number
IBM Storwize V7000 2Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Two-year Registration One-time charge per Storage Device	5639-SM6	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Four-year Registration

PID: 5639-SM7

Description	Program number	Feature number
IBM Storwize V7000 4Yr BSW Reg/enc1 IBM Storwize V7000 Base SW	5639-SM7	0001

Four-year Registration
One-time charge
per Storage Device

Program name: IBM Storwize V7000
Base
Software Maintenance

Five-year Registration

PID: 5639-SM8

Description	Program number	Feature number
IBM Storwize V7000 5Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Five-year Registration One-time charge per Storage Device	5639-SM8	0001

Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

One-year No Charge Registration

PID: 5639-VVA

Description	Program number	Feature number
IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW One-year NC Registration per Storage Device	5639-VVA	0001
IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW One-year NC Registration per 250 Storage Device		0002

Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Three-year Registration

PID: 5639-VVC

Description	Program number	Feature number
IBM Storwize V7000 3Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Three-year Registration One-time charge per Storage Device	5639-VVC	0001
IBM Storwize V7000 3Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Three-year Registration One-time charge		0002

per 250 Storage Device

Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Two-year Registration

PID: 5639-VVF

Description	Program number	Feature number
IBM Storwize V7000 2Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Two-year Registration One-time charge per Storage Device	5639-VVF	0001

IBM Storwize V7000 2Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Two-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Four-year Registration

PID: 5639-VVG

Description	Program number	Feature number
IBM Storwize V7000 4Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Four-year Registration One-time charge per Storage Device	5639-VVG	0001

IBM Storwize V7000 4Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Four-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Five-year Registration

PID: 5639-VVH

Description	Program number	Feature number
IBM Storwize V7000 5Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW	5639-VVH	0001

Five-year Registration
One-time charge
per Storage Device

IBM Storwize V7000 0002
5Yr EV Reg/enc1
IBM Storwize V7000
Ext. Virt. SW
Five-year Registration
One-time charge
per 250 Storage Device

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

One-year No Charge Registration

PID: 5639-MMA

Description	Program number	Feature number
IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror One-year NC Registration per Storage Device	5639-MMA	0001

IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror One-year NC Registration per 250 Storage Device		0002
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Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Three-year Registration

PID: 5639-MMC

Description	Program number	Feature number
IBM Storwize V7000 3Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Three-year Registration One-time charge per Storage Device	5639-MMC	0001

IBM Storwize V7000 3Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Three-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Two-year Registration

PID: 5639-MMF

Description	Program number	Feature number
IBM Storwize V7000 2Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Two-year Registration One-time charge per Storage Device	5639-MMF	0001
IBM Storwize V7000 2Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Two-year Registration One-time charge per 250 Storage Device		0002

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Four-year Registration

PID: 5639-MMG

Description	Program number	Feature number
IBM Storwize V7000 4Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Four-year Registration One-time charge per Storage Device	5639-MMG	0001
IBM Storwize V7000 4Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Four-year Registration One-time charge per 250 Storage Device		0002

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Five-year Registration

PID: 5639-MMH

Description	Program number	Feature number
IBM Storwize V7000 5Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Five-year Registration One-time charge per Storage Device	5639-MMH	0001
IBM Storwize V7000 5Yr RM Reg/enc1 IBM Storwize V7000		0002

Remote Mirror
Five-year Registration
One-time charge
per 250 Storage Device

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Choose the option entitled Purchase/upgrade tools.

Program name: IBM Storwize V7000
Base
Software V6
PID: 5639-VM1

Use-based OTC
with One-year
Software Maintenance

Description	Program number	Feature number
IBM Storwize V7000 BSW+1YRSWM/enc1 IBM Storwize V7000 Base SW Per Storage Device with 1 Year SW Maintenance	5639-VM1	0001
Media Supply		5809
No-Charge Preload		5005

Program name: IBM Storwize V7000
External Virtualization
Software V6
PID: 5639-EV1

Use-based OTC
with One-year
Software Maintenance

Description	Program number	Feature number
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IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW Per Storage Device with 1 Year SW Maintenance	5639-EV1	0001
IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW Per 250 Storage Device with 1 Year SW Maintenance		0002
Media Supply		5809

Program name: IBM Storwize V7000
Remote Mirroring
Software V6
PID: 5639-RM1

Use-based OTC
with One-year
Software Maintenance

Description	Program number	Feature number
IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror Per Storage Device with 1 Year SW Maintenance	5639-RM1	0001
IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000 Remote Mirror Per 250 Storage Device with 1 Year SW Maintenance		0002
Media Supply		5809

Program name: IBM Storwize V7000
Base
Software Maintenance

One-year Registration and Renewal

PID: 5639-SM1

One-year No Charge Registration:

Description	Program number	Feature number
IBM Storwize V7000 BSW+1YRSWM/enc1 IBM Storwize V7000 Base SW One-year NC Registration per Storage Device	5639-SM1	0001

One-year Renewal:

Description	Program number	Feature number
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IBM Storwize V7000 5639-SM1 0002
1Yr BSW RNL/enc1
IBM Storwize V7000 Base SW
One-year Renewal
One-time charge
per Storage Device

Program name: IBM Storwize V7000
Base
Software Maintenance

One-year After License

PID: 5639-SM2

Description	Program number	Feature number
IBM Storwize V7000 1Yr BSW AFL/enc1 IBM Storwize V7000 Base SW One-year After License One-time charge per Storage Device	5639-SM2	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year Registration

PID: 5639-SM3

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Three-year Registration One-time charge per Storage Device	5639-SM3	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year Renewal

PID: 5639-SM4

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW RNL/enc1 IBM Storwize V7000 Base SW Three-year Renewal One-time charge per Storage Device	5639-SM4	0001

Program name: IBM Storwize V7000
Base
Software Maintenance

Three-year After License

PID: 5639-SM5

Description	Program number	Feature number
IBM Storwize V7000 3Yr BSW AFL/enc1 IBM Storwize V7000 Base SW Three-year After License One-time charge per Storage Device Program name: IBM Storwize V7000 Base Software Maintenance Two-year Registration PID: 5639-SM6	5639-SM5	0001

Description	Program number	Feature number
IBM Storwize V7000 2Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Two-year Registration One-time charge per Storage Device Program name: IBM Storwize V7000 Base Software Maintenance Four-year Registration PID: 5639-SM7	5639-SM6	0001

Description	Program number	Feature number
IBM Storwize V7000 4Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Four-year Registration One-time charge per Storage Device Program name: IBM Storwize V7000 Base Software Maintenance Five-year Registration PID: 5639-SM8	5639-SM7	0001

Description	Program number	Feature number
IBM Storwize V7000 5Yr BSW Reg/enc1 IBM Storwize V7000 Base SW Five-year Registration One-time charge per Storage Device Program name: IBM Storwize V7000 External Virtualization Software Maintenance	5639-SM8	0001

One-year No Charge Registration

PID: 5639-VVA

Description	Program number	Feature number
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IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW One-year NC Registration per Storage Device	5639-VVA	0001
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IBM Storwize V7000 EV+1YRSWM/enc1 IBM Storwize V7000 Ext. Virt. SW One-year NC Registration per 250 Storage Device		0002
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Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Three-year Registration

PID: 5639-VVC

Description	Program number	Feature number
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IBM Storwize V7000 3Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Three-year Registration One-time charge per Storage Device	5639-VVC	0001
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IBM Storwize V7000 3Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Three-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Two-year Registration

PID: 5639-VVF

Description	Program number	Feature number
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IBM Storwize V7000 2Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Two-year Registration One-time charge per Storage Device	5639-VVF	0001
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IBM Storwize V7000 2Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Two-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Four-year Registration

PID: 5639-VVG

Description	Program number	Feature number
IBM Storwize V7000 4Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Four-year Registration One-time charge per Storage Device	5639-VVG	0001
IBM Storwize V7000 4Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Four-year Registration One-time charge per 250 Storage Device		0002

Program name: IBM Storwize V7000
External Virtualization
Software Maintenance

Five-year Registration

PID: 5639-VVH

Description	Program number	Feature number
IBM Storwize V7000 5Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Five-year Registration One-time charge per Storage Device	5639-VVH	0001
IBM Storwize V7000 5Yr EV Reg/enc1 IBM Storwize V7000 Ext. Virt. SW Five-year Registration One-time charge per 250 Storage Device		0002

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

One-year No Charge Registration

PID: 5639-MMA

Description	Program number	Feature number
IBM Storwize V7000 RM+1YRSWM/enc1 IBM Storwize V7000	5639-MMA	0001

Remote Mirror
One-year NC Registration
per Storage Device

IBM Storwize V7000 0002
RM+1YRSWM/enc1
IBM Storwize V7000
Remote Mirror
One-year NC Registration
per 250 Storage Device

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Three-year Registration

PID: 5639-MMC

Description	Program number	Feature number
IBM Storwize V7000 3Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Three-year Registration One-time charge per Storage Device	5639-MMC	0001

IBM Storwize V7000 3Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Three-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Two-year Registration

PID: 5639-MMF

Description	Program number	Feature number
IBM Storwize V7000 2Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Two-year Registration One-time charge per Storage Device	5639-MMF	0001

IBM Storwize V7000 2Yr RM Reg/enc1 IBM Storwize V7000 Remote Mirror Two-year Registration One-time charge per 250 Storage Device		0002
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Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Four-year Registration

PID: 5639-MMG

Description	Program number	Feature number
IBM Storwize V7000 4Yr RM Reg/enclosure IBM Storwize V7000 Remote Mirror Four-year Registration One-time charge per Storage Device	5639-MMG	0001
IBM Storwize V7000 4Yr RM Reg/enclosure IBM Storwize V7000 Remote Mirror Four-year Registration One-time charge per 250 Storage Device		0002

Program name: IBM Storwize V7000
Remote Mirroring
Software Maintenance

Five-year Registration

PID: 5639-MMH

Description	Program number	Feature number
IBM Storwize V7000 5Yr RM Reg/enclosure IBM Storwize V7000 Remote Mirror Five-year Registration One-time charge per Storage Device	5639-MMH	0001
IBM Storwize V7000 5Yr RM Reg/enclosure IBM Storwize V7000 Remote Mirror Five-year Registration One-time charge per 250 Storage Device		0002

Mach. Type	Model	Feature Code	Description	List Price
5639	VM1		Storwize Software	NC
5639	VM1	0001	Storwize Software per enclosure w/ 1 year SW maint	\$ 18,000
5639	VM1		No Charge Media Supply	\$ -
5639	SM1	0001	1 yr maint No Charge Registration per enclosure	\$ -
5639	SM1	0002	1 yr maint Renewal per enclosure	\$ 3,600
5639	SM2	0001	1 yr maint After License per enclosure	\$ 10,800
5639	SM3	0001	3 yr maint Registration per enclosure	\$ 7,200

5639	SM4	0001	3 yr maint Renewal per enclosure	\$ 10,800
5639	SM5	0001	3 yr maint After license per enclosure	\$ 18,000
5639	SM6	0001	2 yr maint Registration per enclosure	\$ 3,600
5639	SM7	0001	4 yr maint Registration per enclosure	\$ 10,800
5639	SM8	0001	5 yr maint Registration per enclosure	\$ 14,400
Mach. Type	Model	Feature Code	Description	List Price
5639	RM1		Storwize Remote Mirror Software	
5639	RM1	0001	Storwize Remote Mirror per enclosure w/ 1 year SW maint	\$ 5,000
5639	RM1	0002	Storwize Remote Mirror per 250 enclosures	\$ 1,250,000
5639	RM1	5809	Media Supply	\$ -
5639	MMA	0001	1 yr maint No Charge Registration per enclosure	\$ -
5639	MMA	0002	1 yr maint No Charge Registration per 250 enclosures	\$ -
5639	MMC	0001	3 yr maint Registration per enclosure	\$ 2,000
5639	MMC	0002	3 yr maint Registration per 250 enclosures	\$ 500,000
5639	MMF	0001	2 yr maint Registration per enclosure	\$ 1,000
5639	MMF	0002	2 yr maint Registration per 250 enclosures	\$ 250,000
5639	MMG	0001	4 yr maint Registration per enclosure	\$ 3,000
5639	MMG	0002	4 yr maint Registration per 250 enclosures	\$ 750,000
5639	MMH	0001	5 yr maint Registration per enclosure	\$ 4,000
5639	MMH	0002	5 yr maint Registration per 250 enclosures	\$ 1,000,000
Mach. Type	Model	Feature Code	Description	List Price

5639	EV1		Storwize External Virtualization Software	
5639	EV1	0001	Storwize External Virtualization per enclosure w/ 1 year SW maint	\$ 18,000
5639	EV1	0002	Storwize External Virtualization per 250 enclosures	\$ 4,500,000
5639	EV1	5809	Media Supply	\$ -
5639	VVA	0001	1 yr maint No Charge Registration per enclosure	\$ -
5639	VVA	0002	1 yr maint No Charge Registration per enclosure	\$ -
5639	VVC	0001	3 yr maint Registration per enclosure	\$ 7,200
5639	VVC	0002	3 yr maint Registration per 250 enclosure	\$ 1,800,000
5639	VVF	0001	2 yr maint Registration per enclosure	\$ 3,600
5639	VVF	0002	2 yr maint Registration per 250 enclosures	\$ 900,000
5639	VVG	0001	4 yr maint Registration per enclosure	\$ 10,800
5639	VVG	0002	4 yr maint Registration per 250 enclosures	\$ 2,700,000
5639	VVH	0001	5 yr maint Registration per enclosure	\$ 14,400
5639	VVH	0002	5 yr maint Registration per 250 enclosures	\$ 3,600,000

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Corrections

(Corrected on November 27, 2012)

The name for feature number 5809 has been updated in the Ordering information and Prices sections.

(Corrected on November 8, 2010)

The At a glance has been updated.

(Corrected on October 22, 2010)

The Volume orders information under the Terms and conditions section and Planned availability date information have both been updated

(Corrected on October 7, 2010)

The Prices section has been updated.