



ProtectTIER supports Symantec NetBackup OpenStorage API

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At a glance

IBM® System Storage® ProtectTIER® Enterprise Edition and ProtectTIER Appliance Edition V2.5 software have been enhanced to support the Symantec NetBackup OpenStorage API (application programming interface).

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

Overview

IBM System Storage ProtectTIER Enterprise Edition V2.5 and IBM System Storage ProtectTIER Appliance Edition V2.5 software has been enhanced to provide an option supporting the Symantec NetBackup OpenStorage API. The OpenStorage interface is an application programming interface (API) which provides tighter integration between the ProtectTIER system and NetBackup software. Through this API, increased control of ProtectTIER deduplication systems is provided to NetBackup systems. The OpenStorage interface delivers better management of backup images from NetBackup systems, and more control over the replication of backup images to multiple ProtectTIER systems.

Key prerequisites

Only backup data passed to ProtectTIER from NetBackup is eligible to utilize the optional OpenStorage interface.

Planned availability date

December 3, 2010

Description

ProtectTIER Enterprise Edition and ProtectTIER Appliance Edition V2.5 introduce support for the Symantec NetBackup OpenStorage API. ProtectTIER V2.5 systems may be configured as a virtual tape library (VTL) or as an OpenStorage interface

system. At this time, a ProtecTIER system may only function as a VTL system or an OpenStorage interface system; it cannot function as both.

OpenStorage API

The OpenStorage interface is a NetBackup application programming interface (API) supporting communication between NetBackup systems and OpenStorage enabled ProtecTIER systems. The OpenStorage interface provides the following capabilities:

- Manage backup images: NetBackup determines when backup images are created, copied, deleted or restored, and instructions are passed to the ProtecTIER system through the API
- NetBackup software directs replication to up to 12 ProtecTIER systems: Replicated backup images are recorded in the NetBackup catalog to facilitate rapid recovery of data in the event of a disaster
- Balance workload and performance: NetBackup software balances backup jobs among media servers and ProtecTIER systems by choosing the least used media server and least full ProtecTIER system
- Monitoring: Detailed statistics on the state of ProtecTIER systems and the backup images stored in the systems are available through the API

A ProtecTIER plug-in for OpenStorage must be installed on the NetBackup media server. The API communication occurs between the NetBackup media server and the plug-in. Backup images are transferred between the plug-in and the ProtecTIER system through Ethernet connections. Up to six 1 Gb Ethernet connections are supported for TS7650 and TS7650G OpenStorage enabled systems.

ProtecTIER OpenStorage support includes plug-ins for:

- Microsoft® Windows® 2003 (32-bit and 64-bit)
- Windows 2008 (64-bit)
- AIX® 5.3
- AIX 6.1

A ProtecTIER OpenStorage enabled system is also known as a storage server. There is one storage server on each ProtecTIER OpenStorage system. Each storage server can support up to 256 logical storage units (LSUs). Backup images sent to a storage server are written to a LSU. A single storage server may be shared with multiple NetBackup media servers.

ProtecTIER Enterprise Edition supports up to 256 OpenStorage streams per node. ProtecTIER Appliance Edition supports up to 128 OpenStorage streams per node. A maximum of 64 replication streams are supported from the total OpenStorage streams per node.

Virtual tape library

The characteristics of ProtecTIER VTL systems have not changed with this release. For more information on VTL characteristics refer to

IBM System Storage ProtecTIER Appliance Edition V2.4 Software Announcement [210-138](#), dated April 13, 2010

IBM System Storage ProtecTIER Enterprise Edition V2.4 Software Announcement [210-135](#), dated April 13, 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

Data protection pain points in the data center

Enterprise and midrange data centers require high-capacity, reliable, and scalable data protection solutions with excellent price and performance. Delivering high-level data protection is increasingly difficult for many reasons:

- Information volume is growing rapidly and must be protected.
- Shrinking backup and restore windows require more efficient, high-performance data protection solutions.
- Pressure to lower capital expenditures for network bandwidth and data infrastructure is driving the need for a simpler way to deploy and manage data protection solutions.
- Increased need to more efficiently manage disk space of existing infrastructure by improving utilization of current hardware.
- Increasing need to support more efficient, easier-to-manage, disaster recovery strategies.

ProtectTIER is designed to provide the following core differentiators:

- In-line deduplication: Helps avoid disruption to data protection processes.
- High performance: Sustainable throughput of up to 1,000 MB/sec in-line deduplication capability with a clustered configuration.
- Flexible configurations: Three disk capacity configurations for different sized environments with the TS7650 Appliance, while the TS7650G gateway supports a variety of disk arrays.
- Data reduction: Reduces the amount of user data to be stored by up to 25 times, or more.
- Higher availability: Clustered configuration provides hardware redundancy in the event of a node failure.
- Data integrity: HyperFactor® technology helps avoid "hash collisions" or "false positive" data matches.
- Data agnostic: Not sensitive to data type, file name, or data structure of the specific backup application (unlike content-aware approaches).
- Path failover: Helps enhance availability.
- IP replication: Reduces the data transferred over the IP network in support of DR plans by up to 25 times.
- OpenStorage: Provides NetBackup customers with enhanced management capabilities of backup images stored in ProtectTIER.

ProtectTIER differs from many other open systems virtual tape offerings through its in-line deduplication performance. Comparable offerings perform the actual deduplication as a post-process, which can elongate the backup cycle and increase disk storage requirements and cost.

Reference information

For information about IBM System Storage ProtecTIER Appliance Edition V2.4, refer to Software Announcement [210-138](#), dated April 13, 2010.

For information about IBM System Storage ProtecTIER Enterprise Edition V2.4, refer to Software Announcement [210-135](#), dated April 13, 2010.

For information about IBM System Storage TS7650 Appliance (IBM 3958-AP1), refer to Hardware Announcement [109-088](#), dated February 10, 2009.

For information about IBM System Storage ProtecTIER Appliance Edition V2 (IBM 5639-XXB), refer to Software Announcement [209-030](#), dated February 10, 2009.

Program number

Program number	VRM	Program name
5639-XXP	2.5.0	IBM System Storage ProtecTIER Appliance Edition V2 Software
Software Maintenance		
5639-XXQ		ProtecTIER Appliance Ed. Reg./Ren. 1 year
5639-XXR		ProtecTIER Appliance Ed. After license 1 year
5639-XXS		ProtecTIER Appliance Ed. Registration 3 year
5639-XXT		ProtecTIER Appliance Ed. Renewal 3 year
5639-XXU		ProtecTIER Appliance Ed. After license 3 year
5639-XXV		ProtecTIER Appliance Ed. Registration 2 year
5639-XXW		ProtecTIER Appliance Ed. Registration 4 year
5639-XXX		ProtecTIER Appliance Ed. Registration 5 year
Program number	VRM	Program name
5639-XXB	2.5.0	IBM System Storage ProtecTIER Enterprise Edition V2 Software
Software Maintenance		
5639-XXC		ProtecTIER Enterprise Ed. Reg./Ren. 1 year
5639-XXD		ProtecTIER Enterprise Ed. After license 1 year
5639-XXE		ProtecTIER Enterprise Ed. Registration 3 year
5639-XXF		ProtecTIER Enterprise Ed. Renewal 3 year
5639-XXG		ProtecTIER Enterprise Ed. After license 3 year
5639-XXJ		ProtecTIER Enterprise Ed. Registration 2 year
5639-XXK		ProtecTIER Enterprise Ed. Registration 4 year
5639-XXL		ProtecTIER Enterprise Ed. Registration 5 year

Product identification number

IBM System Storage ProtecTIER Appliance Edition V2.5 maintenance PIDs:

Program PID number	First Yr Reg and Maintenance 1 year Renewal PID number	Maintenance 1 year After License PID number
5639-XXP	5639-XXQ	5639-XXR
	Maintenance 3 year Registration PID number	Maintenance 3 year Renewal PID number
	5639-XXS	5639-XXT
	Maintenance 3 year After License PID number	
	5639-XXU	
	Maintenance 2 year Registration PID number	Maintenance 4 year Registration PID number
	5639-XXV	5639-XXW
	Maintenance 5 year Registration PID number	
	5639-XXX	

IBM System Storage ProtecTIER Enterprise Edition V2.5 maintenance PIDs:

Program PID number	First Yr Reg and Maintenance 1 year Renewal PID number	Maintenance 1 year After License PID number
5639-XXB	5639-XXC	5639-XXD
	Maintenance 3 year Registration PID number	Maintenance 3 year After License PID number
	5639-XXE	5639-XXF
	Maintenance 3 year Renewal PID number	
	5639-XXG	
	Maintenance 2 year Registration PID number	Maintenance 4 year Registration PID number
	5639-XXJ	5639-XXK
	Maintenance 5 year Registration PID number	
	5639-XXL	

Offering Information

Product information is available via the Offering Information website

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

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=210-375>

Publications

All required publications are shipped with the corequisite hardware that contains the preloaded ProtecTIER software.

Publications are available on the IBM Publications Center website and are included on the *IBM System Storage TS7600 ProtecTIER - TS7650 & TS7650G Publications CD-ROM LCD8-1271*.

To order additional selected hardcopy publications for a fee or download free PDF format publications, visit the IBM Publications Center website

<http://www.ibm.com/shop/publications/order>

ProtecTIER Appliance Edition V2.5 publications

Publications with software relevance included in the Publications CD-ROM, LCD8-1271, when the media supply feature is ordered for ProtecTIER Appliance Edition V2.5 include:

Title	Order number
IBM System Storage TS7600 with ProtecTIER Introduction and Planning Guide for the TS7650 (Appliance, 3958-AP1)	GC53-1193
IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958-AP1)	GC53-1194
IBM System Storage ProtecTIER User's Guide for Enterprise Edition and Appliance Edition	GC53-1156
Start Here for IBM System Storage TS7650 with ProtecTIER	GA32-0644
ProtecTIER v. 2.5 Software Upgrade and Replication Enablement Guide	GC53-1196
IBM System Storage TS7600 with ProtecTIER Problem Determination Guide for the TS7650 Appliance and TS7650G Gateway (3958-DD1, 3958-DD3, 3958-DD4, and 3958-AP1)	GC53-1157

ProtecTIER Enterprise Edition V2.5 publications

Publications with software relevance are included in the Publications CD-ROM, LCD8-1271, when the media supply feature is ordered for ProtecTIER Enterprise Edition V2.5 include:

Title	Order number
IBM System Storage TS7600 with ProtecTIER Introduction and Planning Guide for the TS7650 (Appliance, 3958 AP1)	GC53-1193
IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958 AP1)	GC53-1194
IBM System Storage ProtecTIER User's Guide for Enterprise Edition & Appliance Edition	GC53-1156
Start Here for IBM System Storage TS7650 with ProtecTIER	GA32-0644
IBM System Storage TS7600 with ProtecTIER Problem Determination Guide for the TS7650 Appliance and TS7650G Gateway (3958 DD1, 3958 DD3, 3958 DD4, & 3958 AP1)	GC53-1157
ProtecTIER V2.5 Software Upgrade and Replication Enablement Guide	GC53-1196

Technical information

Specified operating environment

Hardware requirements

Requires the IBM System Storage TS7650 ProtecTIER Deduplication Appliance, IBM 3958 Model AP1. Refer to Hardware Announcement [109-088](#), dated February 10, 2009.

ProtectTIER Manager

ProtectTIER Manager is required for service or maintenance of ProtectTIER systems, and must be installed on a customer provided workstation.

The console must be capable of operating one of the following operating systems:

- Windows 2003, Windows XP, or Windows 7
- Red Hat Enterprise 4 or 5

The console must also have:

- At least 1.2 GB of available disk space
- At least 256 MB of RAM

The console must have access to the ProtectTIER service nodes at IP address (port 3501 is open on the firewall).

ProtectTIER Manager can support more than one ProtectTIER server. If the ProtectTIER Manager workstation is connected to more than one ProtectTIER server, they can be connected to a workstation via a switch box or via a terminal server. The workstation and switch box must be provided by the customer.

Confer with your IBM representative for console configuration alternatives.

Software requirements

Operating system prerequisites

The appropriate Linux® operating system is included with ProtectTIER V2 software and is loaded on the TS7650 Appliance or TS7650G Gateway with the initial order.

The ProtectTIER plug-in for OpenStorage must be installed on a NetBackup media server running NetBackup V6.5 or V7.0, and one of the following operating systems

- Windows 2003
- Windows 2008
- AIX 5.3
- AIX 6.1

Connectivity prerequisites

The supported Fiber Channel switches are listed in the System Storage Operation Center (SSIC) located at

<http://www-03.ibm.com/systems/support/storage/config/ssic/>

If this TS7650 ProtectTIER Deduplication Appliance is to be accessed via ProtectTIER Manager installed on another computer, network connections must be configured to allow access.

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

ProtectTIER Appliance Edition and Enterprise Edition V2.5 software emulates, in both stand-alone and clustered configurations, the IBM System Storage TS3500 tape library with IBM Ultrium 3 Tape Drives, and the Quantum P3000 tape library with DLT or IBM Ultrium 2 Tape Drives.

Limitations

ProtectTIER Appliance Edition software is only supported for installation on TS7650 ProtectTIER Deduplication Appliance hardware (3958 Model AP1).

ProtectTIER Enterprise Edition software is only supported for installation on TS7650G ProtectTIER Deduplication Gateway hardware (3958 Models DD1, DD3 and DD4).

ProtectTIER supports any combination of TS7650 Appliances and TS7650G Gateways in the replication topology. Systems in a hub and spoke replication topology must run ProtectTIER V2.4, or later. Systems operating as a simple replication pair must run ProtectTIER V2.3, or later.

ProtectTIER path failover functions are not supported with Quantum P3000 virtual tape library definitions.

Planning information

Customer responsibilities

Physical planning is a customer responsibility. Detailed planning information is in the *IBM System Storage TS7600 with ProtectTIER Introduction and Planning Guide for the TS7650 AP1* (GC53-1193).

This guide is available at no charge at the IBM Publications Center. Refer to the [Publications](#) section.

Packaging

For new orders of IBM System Storage ProtectTIER Appliance Edition V2.5 (5639-XXP), the following media are shipped:

- IBM System Storage ProtectTIER Appliance Edition V2.5 (LCD8-1258)
- IBM System Storage ProtectTIER Manager V2.5 (LCD8-1040)
- IBM System Storage ProtectTIER OpenStorage Plug-in V2.5 (LCD8-1714)
- IBM System Storage ProtectTIER Maintenance and Recovery Disk V2.5 (LCD7-4602)
- IBM System storage TS7600 with ProtecTier - TS7650 & TS7650G Publications CD-ROM V2.5 (LCD8-1271)
- IBM ProtectTIER Software Upgrade Migration (GC53-1196)
- Start Here for IBM System Storage TS7600 with ProtectTIER (GA32-0644)
- License Agreement for Machine Code (Z125-5468)

For new orders of IBM System Storage ProtectTIER Enterprise Edition V2.5 (5639-XXB), the following media are shipped:

- IBM System Storage ProtectTIER Enterprise Edition V2.5 (LCD8-1039)
- IBM System Storage ProtectTIER Manager V2.5 (LCD8-1040)
- IBM System Storage ProtectTIER OpenStorage Plug-in V2.5 (LCD8-1714)
- IBM System Storage ProtectTIER Maintenance and Recovery Disk V2.5 (LCD7-4602)
- IBM System storage TS7600 with ProtectTIER - TS7650 & TS7650G Publications CD-ROM V2.5 (LCD8-1271)
- IBM ProtectTIER Software Upgrade Migration (GC53-1196)
- Start Here for IBM System Storage TS7600 with ProtectTIER (GA32-0644)
- License Agreement for Machine Code (Z125-5468)

The paid invoice acts as Proof of Entitlement (PoE) for all orders of ProtectTIER V2 software.

Refer to the [Ordering information](#) section and to the Hardware Announcements listed in the [Reference information](#) section for correlated hardware order features.

Media feature number 5809 causes the media CDs to be shipped for ProtecTIER Appliance Edition.

Media feature number 5829 causes the media CDs to be shipped for ProtecTIER Enterprise Edition.

Serial number only feature 3444 suppresses media CDs from being shipped on ProtecTIER orders.

Security, auditability, and control

This product uses the security and auditability features of host hardware, host software, or application software to which it is attached. 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

Program name	Part number or PID number	Charge metric
ProtecTIER Appliance Edition V2	5639-XXP	per Server and per Terabyte

Program name	Part number or PID number	Charge metric
ProtecTIER Enterprise Edition V2	5639-XXB	per server and per terabyte

Server

Server is a unit of measure by which the Program can be licensed. A Server is a physical computer that is comprised of processing units, memory, and input/output capabilities and that executes requested procedures, commands, or applications for one or more users or client devices. Where racks, blade enclosures, or other similar equipment is being employed, each separable physical device (e.g., a blade or a rack-mounted device) that has the required components is considered itself a separate Server. For the purpose of Server-based licensing, Licensee must obtain entitlements for each Server which is made available to the Program, regardless

of the number of processor cores and/or partitions in the Server or the number of copies of the Program on the Server.

Effective December 3, 2010, IBM System Storage ProtecTIER Appliance Edition V2.5 replaces the IBM System Storage ProtecTIER Appliance Edition V2.4, and IBM System Storage ProtecTIER Enterprise Edition V2.5 replaces the IBM System Storage ProtecTIER Enterprise Edition V2.4. On or after this date, IBM System Storage ProtecTIER Appliance Edition V2.4 and IBM System Storage ProtecTIER Enterprise Edition V2.4 can no longer be ordered or shipped directly from IBM.

ProtecTIER Enterprise Edition and ProtecTIER Appliance Edition V2.5

ProtecTIER systems are ordered as a VTL or as an OpenStorage system. With ProtecTIER V2.5, these options are mutually exclusive. To order ProtecTIER Appliance Edition for a VTL system, order one *ProtecTIER VTL* per server use authorization feature for each 3958 Model AP1 feature number 3120 or 3170 configured. To order ProtecTIER Appliance Edition for an OpenStorage system, order one *ProtecTIER OpenStorage* per server use authorization feature for each 3958 Model AP1 feature number 3120 or 3170 configured.

To order ProtecTIER Enterprise Edition for a VTL system, order one *ProtecTIER VTL* per server use authorization feature for each TS7650G Server (3958 Model DDx). To order ProtecTIER Enterprise Edition for an OpenStorage system, order one *ProtecTIER OpenStorage* per server use authorization feature for each TS7650G Server (3958 Model DDx).

Data deduplication

Order basic capacity authorizations corresponding to the total terabytes managed by the ProtecTIER system. This entitles use of the HyperFactor data deduplication functionality of ProtecTIER. This authorization is required for every ProtecTIER system which will deduplicate data received from a backup application. Basic capacity authorizations are not required for *no deduplication* licenses or for the target VTL system in a replication topology, unless that target system is also receiving data from a backup host. OpenStorage systems with deduplication active must always license capacity support, whether they are a replication target system or not.

Network replication

Order replication authorizations corresponding to the total terabytes managed by the ProtecTIER system. This entitles the customer to use the ProtecTIER's network replication. This authorization is required for every ProtecTIER system which sends or receives replicated data from another ProtecTIER system.

IBM System Storage ProtecTIER Appliance Edition V2.5 billing features

5639-XXP

IBM System Storage ProtecTIER Appliance Edition V2.5

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Appliance Edition v2.5
OpenStorage Interface per Server
with 1 Year SW Maintenance

Feature description	OTC Feature number
per Server	0015

IBM System Storage ProtecTIER Enterprise Edition V2.5 billing features

5639-XXB

IBM System Storage ProtecTIER Enterprise Edition V2.5

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V2.5
OpenStorage Interface per Server
with 1 Year SW Maintenance

Feature description	OTC Feature number
per Server	0023

Order Software Maintenance Registration corresponding to each ProtecTIER Appliance Edition V2 or Enterprise Edition V2 base, capacity, replication, OpenStorage interface and cluster authorization feature, for both new and upgrade orders.

Order renewals prior to the expiration of the original Software Maintenance registration period or previous Software Maintenance renewal.

ProtecTIER Appliance Edition Software Maintenance

5639-XXQ:

IBM System Storage ProtecTIER Appliance Edition V2.5
One Year Software Maintenance

ProtecTIER Appliance Edition V2.5
No Charge Registration
OST Interface per Server

Feature description	OTC Feature number
per Server	0031

One-time charge features

ProtecTIER Appliance Edition V2.5
One Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0032

5639-XXR:

IBM System Storage ProtecTIER Appliance Edition V2.5
One Year Software Maintenance
One-time charge features

ProtecTIER Appliance Edition V2.5

One Year After License
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXS:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXT:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXU:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year After License
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXV:
IBM System Storage ProtectTIER Appliance Edition V2.5
Two Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Two Year Registration
One Time Charge

OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXW:
IBM System Storage ProtectTIER Appliance Edition V2.5
Four Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Four Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXX:
IBM System Storage ProtectTIER Appliance Edition V2.5
Five Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Five Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

ProtectTIER Enterprise Edition Software Maintenance

5639-XXC:
IBM System Storage ProtectTIER Enterprise Edition
One Year Software Maintenance

ProtectTIER Enterprise Edition
No Charge Registration
OST Interface per Server

Feature description	OTC Feature number
per Server	0045

One-time charge features

ProtectTIER Enterprise Edition
One Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
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per Server 0046

5639-XXD:
IBM System Storage ProtectTIER Enterprise Edition
One Year Software Maintenance

ProtectTIER Enterprise Edition
One Year After License
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
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per Server 0023

5639-XXE:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
Three Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
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per Server 0023

5639-XXF:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
Three Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
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per Server 0053

5639-XXG:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
Three Year After License
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
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per Server 0023

5639-XXJ:
IBM System Storage ProtectTIER Enterprise Edition
Two Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition
Two Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0039

5639-XXK:
IBM System Storage ProtectTIER Enterprise Edition
Four Year Software Maintenance
One-time charge features

ProtectTIER Enterprise Edition
Four Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0023

5639-XXL:
IBM System Storage ProtectTIER Enterprise Edition
Five Year Software Maintenance
One-time charge features

ProtectTIER Enterprise Edition
Five Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0023

Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage® Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

Licensing

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

This software license includes Software Subscription and Support (also referred to as Software Maintenance).

Agreement for Acquisition of Software Maintenance

The IBM Agreement for Acquisition of Software Maintenance (Z125-6011) agreement applies for Subscription and Support (also referred to as Software Maintenance) and does not require customer signatures.

These programs are licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with the initial license acquisition of each program acquired. The initial period of Software Subscription and Support (also referred to as Software Maintenance) can be extended by the purchase of a renewal option, if available. These programs have a one-time license charge for use of the program and an annual renewable charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours), as well as access to updates, releases, and versions of the program as long as support is in effect.

License Information form number

LCKOR-88LNGU

The program's LI will be available for review on the IBM Software License Agreement website

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

Limited warranty applies

Yes

Limited warranty

IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at

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

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

Money-back guarantee

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

Other terms**Volume orders (IVO)**

Yes. Contact your IBM representative.

Passport Advantage applies

No

Usage restriction

Yes

IBM System Storage ProtecTIER Appliance Edition V2 software (5639-XXP) and IBM System Storage ProtecTIER Enterprise Edition V2 software (5639-XXB) are licensed on a per server and per terabyte basis. Optional Clustering support and Replication support functions are licensed on a per terabyte capacity basis.

Software Subscription and Support (Software Maintenance) applies

Yes. All distributed software licenses include Software Subscription and Support (also referred to as Software Maintenance) for a period of 12 months from the date of acquisition, providing a streamlined way to acquire IBM software and assure technical support coverage for all licenses. Extending coverage for a total of two, three, four, or five years from date of acquisition may be elected.

While your Software Subscription and Support (Software Maintenance) is in effect, IBM provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. (This assistance is not available to your end users.) IBM provides Severity 1 assistance 24 hours a day, every day of the year. For additional details, consult your IBM Software Support Handbook at

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Software Subscription and Support (Software Maintenance) does not include assistance for the design and development of applications, your use of programs in other than their specified operating environment, or failures caused by products for which IBM is not responsible under this agreement.

IBM Operational Support Services - SoftwareXcel

No

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Yes. A 15% education allowance applies to qualified education institution customers.

Prices

Information on charges is available at

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

Choose the option entitled Purchase/upgrade tools.

5639-XXP:
IBM System Storage ProtectTIER Appliance Edition V2.5

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V2.5
OST Interface per Server
with 1 Year SW Maintenance

Feature description	OTC Feature number
per Server	0015

Software Maintenance

5639-XXQ:
IBM System Storage ProtectTIER Appliance Edition V2.5
One Year Software Maintenance

ProtectTIER Appliance Edition V2.3
No Charge Registration
OST Interface per Server

Feature description	OTC Feature number
per Server	0031

One-time charge features

ProtectTIER Appliance Edition V2.5

One Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0032

5639-XXR:
IBM System Storage ProtectTIER Appliance Edition V2.5
One Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.3
One Year After License
One Time Charge
OST Interface per Server

Feature	OTC Feature
---------	-------------

description	number
per Server	0015

5639-XXS:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year Registration
One Time Charge
OST Interface per Server

Feature	OTC
description	Feature
	number
per Server	0015

5639-XXT:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year Renewal
One Time Charge
OST Interface per Server

Feature	OTC
description	Feature
	number
per Server	0015

5639-XXU:
IBM System Storage ProtectTIER Appliance Edition V2.5
Three Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Three Year After License
One Time Charge
OST Interface per Server

Feature	OTC
description	Feature
	number
per Server	0015

5639-XXV:
IBM System Storage ProtectTIER Appliance Edition V2.5
Two Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Two Year Registration
One Time Charge
OST Interface per Server

Feature	OTC
description	Feature
	number

per Server 0015

5639-XXW:
IBM System Storage ProtectTIER Appliance Edition V2.5
Four Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Four Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXX:
IBM System Storage ProtectTIER Appliance Edition V2.5
Five Year Software Maintenance
One-time charge features

ProtectTIER Appliance Edition V2.5
Five Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0015

5639-XXB:
IBM System Storage ProtectTIER Enterprise Edition V2.5
Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V2.5
OST Interface per Server
with 1 Year SW Maintenance

Feature description	OTC Feature number
per Server	0023

5639-XXC:
IBM System Storage ProtectTIER Enterprise Edition
One Year Software Maintenance

ProtectTIER Enterprise Edition
No Charge Registration
OST Interface per Server

Feature description	OTC Feature number
per Server	0045

ProtectTIER Enterprise Edition
One Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0046

5639-XXD:
IBM System Storage ProtectTIER Enterprise Edition
One Year Software Maintenance

ProtectTIER Enterprise Edition
One Year After License
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0023

5639-XXE:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
Three Year Registration
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0023

5639-XXF:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
Three Year Renewal
One Time Charge
OST Interface per Server

Feature description	OTC Feature number
per Server	0053

5639-XXG:
IBM System Storage ProtectTIER Enterprise Edition
Three Year Software Maintenance
One time charge features

ProtectTIER Enterprise Edition
 Three Year After License
 One Time Charge
 OST Interface per Server

Feature description	OTC Feature number
per Server	0023

Software Maintenance

5639-XXJ:
 IBM System Storage ProtectTIER Enterprise Edition
 Two Year Software Maintenance
 One-time charge features

ProtectTIER Enterprise Edition
 Two Year Registration
 One Time Charge
 OST Interface per Server

Feature description	OTC Feature number
per Server	0039

5639-XXK:
 IBM System Storage ProtectTIER Enterprise Edition
 Four Year Software Maintenance
 One-time charge features

ProtectTIER Enterprise Edition
 Four Year Registration
 One Time Charge
 OST Interface per Server

Feature description	OTC Feature number
per Server	0023

5639-XXL:
 IBM System Storage ProtectTIER Enterprise Edition
 Five Year Software Maintenance
 One-time charge features

ProtectTIER Enterprise Edition
 Five Year Registration
 One Time Charge
 OST Interface per Server

Feature description	OTC Feature number
per Server	0023

Description	Type	Feature	List price
Per Server	5639XXP	0015	\$10000
Per Server	5639XXQ	0031	0
Per Server	5639XXQ	0032	2799
Per Server	5639XXR	0015	8397

Per Server	5639XXS	0015	5598
Per Server	5639XXT	0015	8397
Per Server	5639XXU	0015	13995
Per Server	5639XXV	0015	2799
Per Server	5639XXW	0015	8397
Per Server	5639XXX	0015	11196
Per server	5639XXB	0023	20000
Per server	5639XXC	0045	0
Per server	5639XXC	0046	4799
Per server	5639XXD	0023	14397
Per server	5639XXE	0023	9598
Per server	5639XXF	0053	14397
Per server	5639XXG	0023	23995
Per server	5639XXJ	0039	4799
Per server	5639XXK	0023	14397
Per server	5639XXL	0023	19196

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Corrections

(Corrected on November 15, 2010)

The Description and Hardware requirements sections have been updated.