



IBM announces many-to-many, bi-directional replication for IBM System Storage ProtecTIER Enterprise Edition V3.1 and ProtecTIER Appliance Edition V3.1

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At a glance

IBM® System Storage® ProtecTIER® Enterprise Edition and ProtecTIER Appliance Edition software have been enhanced in Version 3.1 to support many-to-many, bi-directional replication, additional ProtecTIER plug-ins for the Symantec NetBackup OpenStorage application programming interface (API), optional 10Gb Ethernet interfaces for ProtecTIER OpenStorage systems, and other enhancements.

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 ProtecTIER Enterprise Edition V3.1 and IBM System Storage ProtecTIER Appliance Edition V3.1 are the follow-on products for ProtecTIER Enterprise Edition V2.5 and ProtecTIER Appliance Edition V2.5.

ProtecTIER V3.1 builds on the functions available in ProtecTIER V2.5, and introduces many-to-many, bidirectional replication between two to four Virtual Tape Library (VTL) ProtecTIER systems. ProtecTIER V3.1 continues the support for the Symantec NetBackup OpenStorage API announced with ProtecTIER V2.5, and enhances it with support for Solaris and Red Hat Linux® operating systems. For the NetBackup OpenStorage environment, ProtecTIER V3.1 supports optional 10Gb Ethernet connections between ProtecTIER system and the ProtecTIER plug-in running on the NetBackup server.

Other enhancements ProtecTIER V3.1 is designed to provide performance improvements of up to 15% or more compared to ProtecTIER V2 and Simple Network Management Protocol (SNMP) alerting improvements.

Key prerequisites

ProtecTIER Enterprise Edition requires the IBM System Storage TS7650G Deduplication Gateway hardware. ProtecTIER Appliance Edition requires the IBM System Storage TS7650 ProtecTIER Deduplication Appliance hardware. Only

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

Planned availability date

June 3, 2011

Description

ProtecTIER Enterprise Edition and ProtecTIER Appliance Edition V3.1 introduce support for many-to-many, bi-directional replication between two to four VTL ProtecTIER systems, additional plug-ins, and optional 10Gb Ethernet connections for the Symantec NetBackup OpenStorage API, delivering improved performance and SNMP alerting enhancements.

ProtecTIER systems may be configured as a VTL system 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.

ProtecTIER V3.1 has been designed to provide single stream throughput performance improvements of up to 15% or more and total system throughput performance improvements up to 10% or more when compared to V2.5 running on the same hardware.

Additional SNMP alerting options have been included in ProtecTIER V3.1, enhancing the ability to receive system generated notification when exception conditions have been identified as defined by management policies.

IBM System Storage ProtecTIER Enterprise Edition V3.1 and IBM System Storage ProtecTIER Appliance Edition V3.1 replace ProtecTIER Enterprise Edition V2.5 and ProtecTIER Appliance Edition V2.5.

OpenStorage API

The OpenStorage interface is a NetBackup API supporting communication between NetBackup systems and OpenStorage enabled ProtecTIER systems.

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 1Gb Ethernet connections or up to four 10Gb Ethernet connections are supported for TS7650 and TS7650G OpenStorage enabled systems.

ProtecTIER V3.1 also supports the following OpenStorage plug-ins which have been introduced since ProtecTIER V2.5 availability:

- Oracle Solaris 10 (SPARC)
- Red Hat 5.4

For other attributes of these ProtecTIER offerings, refer to IBM System Storage ProtecTIER Appliance and Enterprise Edition V2.5 Software Announcement [210-375](#), dated October 26, 2010.

Virtual tape library

The replication capabilities of ProtecTIER V3.1 have been enhanced to support many-to-many, bi-directional replication between two to four ProtecTIER systems. Uni-directional, hub and spoke replication from up to 12 spoke systems to a single hub system continues to be supported as available in ProtecTIER V2.5 and earlier releases.

For other attributes of ProtecTIER VTL systems 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:

- Data growth outgrowing existing capacity
- Unable to meet backup and recovery SLAs
- Business decisions being made using out-of-date information
- No time available to test the disaster recovery plan
- No time to perform routine scheduled maintenance activities
- Customer satisfaction ratings dropping
- Losing competitive advantage
- Inability to comply with government and/or business regulations

ProtecTIER is designed to provide the following core differentiators:

- High speed backups: Up to 2000 MB/s or more sustained inline deduplication backup performance with clustered TS7650G systems running ProtecTIER Enterprise Edition V3.1, dependent on capabilities of the repository's disk array and other data and workload characteristics
- Even faster restores: Up to 2800 MB/s or more sustained recovery performance with clustered TS7650G systems running ProtecTIER Enterprise Edition V3.1, dependent on capabilities of the repository's disk array and other data and workload characteristics
- Cost Efficiency: Store up to 25 TB or more backup data on only 1 TB of physical disk
- Data Integrity: Patented HyperFactor® Deduplication technology designed to provide enterprise class data integrity by avoiding the possibility of data loss due to a hash collision
- Scalability: Architected to meet enterprise capacity needs to store up to 25 PB or more backup data
- High availability: Clustered configuration provides hardware redundancy for higher availability
- Disaster recovery: Integrated IP-based replication for data centers, remote offices, and offsite storage locations
- Proven technology: Implemented Fortune 500 data centers since 2005

Reference information

For information about IBM System Storage ProtecTIER Appliance Edition V2.5, refer to Software Announcement [210-375](#), dated October 26, 2010.

For information about IBM System Storage TS7650 ProtecTIER Deduplication Appliance (3958-AP1), refer to Hardware Announcement [110-234](#), dated October 26, 2010.

For information about IBM System Storage TS7650G Gateway (3958-DD4) server refresh refer to Hardware Announcement [110-237](#), dated October 26, 2010.

Program number

Note: The Software Maintenance program numbers have been previously announced in Software Announcement [210-375](#), dated October 26, 2010.

Beginning with release V3.1 of the ProtecTIER Enterprise and Appliance Editions, the pricing metrics for the maintenance products listed below are being changed from the previously announced "per Terabyte" to a new metric of "per Decimal Terabyte". This is not a change in actual pricing of these orderable features under the maintenance products, but to clarify that the current licensed capacity is based on decimal terabyte definitions, and to create consistent capacity definitions in IBM offerings.

| Program number | VRM | Program name |
|----------------|-------|---|
| 5639-PTB | 3.1.0 | IBM System Storage ProtecTIER Appliance Edition V3 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-PTA | 3.1.0 | IBM System Storage ProtecTIER Enterprise Edition V3 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

Note: The following Software Maintenance program numbers have been previously announced in Software Announcement [210-375](#), dated October 26, 2010.

IBM System Storage ProtecTIER Appliance Edition V3.1

| Program PID number | First Yr Reg and Maintenance 1 year Renewal PID number | Maintenance 1 year After License PID number |
|--------------------|--|---|
| 5639-PTB | 5639-XXQ | 5639-XXR |

Maintenance 3 year
Registration PID number

5639-XXS

Maintenance 3 year
After License
PID number

5639-XXU

Maintenance 2 year
Registration PID number

5639-XXV

Maintenance 4 year
Registration PID number

5639-XXW

5639-XXX

IBM System Storage ProtecTIER Enterprise Edition V3.1

| Program PID number | First Yr Reg and Maintenance 1 year Renewal PID number | Maintenance 1 year After License PID number |
|--------------------|--|---|
|--------------------|--|---|

5639-PTA

5639-XXC

5639-XXD

Maintenance 3 year
Registration PID number

5639-XXE

Maintenance 3 year
After License
PID number

5639-XXG

Maintenance 3 year
Renewal PID number

5639-XXF

Maintenance 2 year
Registration PID number

5639-XXJ

Maintenance 4 year
Registration PID number

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).

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 LCD7-4788*.

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 V3.1 publications

Publications with software relevance included in the Publications CD-ROM, LCD7-4788, when the media supply feature is ordered for ProtecTIER Appliance Edition V3.1 include:

| Title | Order number |
|---|--------------|
| IBM System Storage TS7600 with ProtecTIER Introduction and Planning Guide for the TS7650 (Appliance, 3958-AP1) | GA32-0918 |
| IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958-AP1) | GA32-0920 |
| IBM System Storage ProtecTIER User's Guide for Enterprise Edition and Appliance Edition for ProtecTIER V3.1. | GA32-0922 |
| Start Here for IBM System Storage TS7650 with ProtecTIER | GI13-1831 |
| ProtecTIER v. 3.1 Software Guide | SC27-3643 |
| 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) | GA32-0923 |

ProtecTIER Enterprise Edition V3.1 publications

Publications with software relevance are included in the Publications CD-ROM, LCD7-4788, when the media supply feature is ordered for ProtecTIER Enterprise Edition V3.1 include:

| Title | Order number |
|--|--------------|
| IBM System Storage TS7600 with ProtecTIER Introduction and Planning Guide for the TS7650 (Appliance, 3958 AP1) | GA32-0918 |
| IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958 AP1) | GA32-0920 |
| IBM System Storage ProtecTIER User's Guide for Enterprise Edition & Appliance Edition | GA32-0922 |
| Start Here for IBM System Storage TS7650 | GI13-1831 |

with ProtecTIER

| | |
|---|-----------|
| IBM System Storage TS7600 with ProtecTIER Problem Determination Guide for the TS7650 Appliance and TS7650G Gateway (3958 DD1, 3958 DD3, 3958 DD4, & 3958 AP1) | GA32-0923 |
| ProtecTIER V3.1 Software Upgrade Guide | SC27-3643 |

Technical information

Specified operating environment

Hardware requirements

ProtecTIER Appliance Edition V3.1 requires the IBM System Storage TS7650 ProtecTIER Deduplication Appliance, IBM 3958 Model AP1. Refer to Hardware Announcement [110-234](#), dated October 26, 2010.

For new system orders, ProtecTIER Enterprise Edition V3.1 requires the IBM System Storage TS7650G ProtecTIER Deduplication Gateway, IBM 3958 Model DD4. Refer to Hardware Announcement [110-237](#), dated October 26, 2010, for more information on the TS765G Model DD4. ProtecTIER Enterprise Edition V3.1 is also supported on existing TS7650G systems with Models DD1, DD3 or DD4.

ProtecTIER Manager

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

The customer provided workstation must be capable of operating one of the following operating systems:

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

The workstation must also have:

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

The workstation must have access to the ProtecTIER service nodes at IP address (port 3501 is open on the firewall). ProtecTIER Manager can support more than one ProtecTIER server. If the ProtecTIER Manager workstation is connected to more than one ProtecTIER 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 operating system is included with ProtecTIER V2 software and is loaded on the TS7650 Appliance or TS7650G Gateway with the initial order.

The ProtecTIER 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
- Oracle Solaris 10 (SPARC)
- Red Hat Linux 5.4

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/>

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 V3.1 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, TS7650G Gateways and TS7610 Appliances in the replication topology.

Many-to-many replication topologies are limited to a maximum of four ProtectTIER systems. These systems must run ProtectTIER V3.1, or later.

A hub and spoke replication topology is limited to a maximum of twelve spokes replicating to a single hub. These systems must run ProtectTIER V2.4, or later.

Systems operating as a source / target uni-directional 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* (GA32-0918).

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

Direct customer support

Less than one hour is required to install and configure the management software on the management console.

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

IBM Global Services

IBM Technical Support Services provides comprehensive hardware and software support, including hardware and software implementation for the ProtecTIER Deduplication solution.

Technical Support Services are designed to support your installations of IBM System Storage hardware and software. Offering the best solutions for storage management and data migration, IBM Technical Support Services can assist you in developing and deploying storage solutions to enable your success and satisfaction. For more information, contact your IBM representative or Business Partner.

Packaging

For new orders of IBM System Storage ProtecTIER Appliance Edition V3.1 (5639-PTB), the following media are shipped:

- IBM System Storage ProtecTIER Appliance Edition V3.1 (LCD7-5220)
- IBM System Storage ProtecTIER Manager V3.1 (LCD7-5217)
- IBM System Storage ProtecTIER OpenStorage Plug-in V3.1 (LCD7-5219)
- IBM System Storage ProtecTIER Maintenance and Recovery Disk V3.1 (LCD7-5218)
- IBM System storage TS7600 with ProtecTier - TS7650 & TS7650G Publications CD-ROM V3.1 (LCD7-4788)
- IBM ProtecTIER Software Upgrade Migration (SC27-3643)
- Start Here for IBM System Storage TS7600 with ProtecTIER (GI13-1831)
- License Agreement for Machine Code (Z125-5468)

For new orders of IBM System Storage ProtecTIER Enterprise Edition V3.1 (5639-PTA), the following media are shipped:

- IBM System Storage ProtecTIER Enterprise Edition V3.1 (LCD7-5216)
- IBM System Storage ProtecTIER Manager V3.1 (LCD7-5217)
- IBM System Storage ProtecTIER OpenStorage Plug-in V3.1 (LCD7-5219)
- IBM System Storage ProtecTIER Maintenance and Recovery Disk V3.1 (LCD7-5218)
- IBM System storage TS7600 with ProtecTIER - TS7650 & TS7650G Publications CD-ROM V3.1 (LCD7-4788)
- IBM ProtecTIER Software Upgrade Migration (SC27-3643)
- Start Here for IBM System Storage TS7600 with ProtecTIER (GI13-1831)
- License Agreement for Machine Code (Z125-5468)

The paid invoice acts as Proof of Entitlement (PoE) for all orders of ProtecTIER V3.1 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 5806 causes the media CDs to be shipped for ProtecTIER Appliance Edition (5639-PTB).

Media feature number 5806 causes the media CDs to be shipped for ProtecTIER Enterprise Edition (5639-PTA).

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 |
|--|------------------------------|---|
| ProtectTIER Appliance Edition V3 | 5639-PTB | per Storage Device and per Decimal Terabytes |

| Program name | Part number or PID number | Charge metric |
|---|------------------------------|---|
| ProtectTIER Enterprise Edition V3 | 5639-PTA | per Storage Device and per Decimal Terabytes |

Storage Device

Storage Device is a unit of measure by which the Program is licensed. A Storage Device is an independently powered, channel attached device that stores or controls the storage of data on magnetic disks or solid state drives, such as disk controllers and their respective expansion units, each constituting separate Storage Devices. Licensee must obtain entitlements for every Storage Device which runs, uses services provided by, or otherwise accesses the Program and for every Storage Device on which the Program is installed.

Tiered Decimal Terabytes (1-12), (13-32), (33-64), (65-100), (101-250), (251+)

Decimal Terabyte (1-12), Decimal Terabyte (13-32), Decimal Terabyte (33-64), Decimal Terabyte (65-100), Decimal Terabyte (101-250), and Decimal Terabyte (251+) is a unit of measure by which the Program can be licensed. Proofs of Entitlement are based on the number of Decimal Terabytes available to the Program. A Decimal Terabyte is 10 to the 12th power bytes. Licensee must obtain sufficient entitlements required for Licensee's environment. The entitlements are specific to the Program and may not be exchanged, interchanged, or aggregated with entitlements of another program.

Effective June 3, 2011, IBM System Storage ProtecTIER Appliance Edition V3.1 replaces the IBM System Storage ProtecTIER Appliance Edition V2.5 for all new TS7650 system orders, and IBM System Storage ProtecTIER Enterprise Edition V3.1 replaces the IBM System Storage ProtecTIER Enterprise Edition V2.5 for all new

TS7650G system orders. On or after this date, IBM System Storage ProtecTIER Appliance Edition V2.5 and IBM System Storage ProtecTIER Enterprise Edition V2.5 will remain active only to support capacity updates to existing licenses.

ProtecTIER Enterprise Edition and ProtecTIER Appliance Edition V3.1

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

To order ProtecTIER Enterprise Edition as a VTL system, order one *ProtecTIER VTL* per storage device use authorization feature for each TS7650G Server (3958 Model DDx). To order ProtecTIER Enterprise Edition as an OpenStorage system, order one *ProtecTIER OpenStorage* per storage device 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-only 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 decimal 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 V3.1 billing features

Supply feature code: 5806

5639-PTB:
IBM System Storage ProtecTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Appliance Edition V3.1
ProtecTIER VTL per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0001 |

5639-PTB:
IBM System Storage ProtecTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
ProtectTIER OpenStorage per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0002 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Capacity Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0003 |
| Per Decimal Terabytes (13-32) | 0004 |
| Per Decimal Terabytes (33-64) | 0005 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Clustering Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0006 |
| Per Decimal Terabytes (13-32) | 0007 |
| Per Decimal Terabytes (33-64) | 0008 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Replication Support per Decimal Terabytes
with 1 Year SW Maintenance

OTC

| Feature description | Feature number |
|-------------------------------|----------------|
| Per Decimal Terabytes (1-12) | 0009 |
| Per Decimal Terabytes (13-32) | 0010 |
| Per Decimal Terabytes (33-64) | 0011 |

IBM System Storage ProtecTIER Enterprise Edition V3.1 billing features

Supply feature code: 5806

5639-PTA:
IBM System Storage ProtecTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.1
ProtecTIER VTL per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0001 |

5639-PTA:
IBM System Storage ProtecTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.1
ProtecTIER OpenStorage per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0002 |

5639-PTA:
IBM System Storage ProtecTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.1
Capacity Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0003 |
| Per Decimal Terabytes (13-32) | 0004 |
| Per Decimal Terabytes (33-64) | 0005 |

Per Decimal Terabytes (65-100) 0006
 Per Decimal Terabytes (101-250) 0007
 Per Decimal Terabytes (251+) 0008
 Per 250 Decimal Terabytes (251+) 0009

5639-PTA:
 IBM System Storage ProtecTIER Enterprise Edition V3.1

Use Authorizations
 with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.1
 Clustering Support per Decimal Terabytes
 with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|----------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0010 |
| Per Decimal Terabytes (13-32) | 0011 |
| Per Decimal Terabytes (33-64) | 0012 |
| Per Decimal Terabytes (65-100) | 0013 |
| Per Decimal Terabytes (101-250) | 0014 |
| Per Decimal Terabytes (251+) | 0015 |
| Per 250 Decimal Terabytes (251+) | 0016 |

5639-PTA:
 IBM System Storage ProtecTIER Enterprise Edition V3.1

Use Authorizations
 with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.1
 Replication Support per Decimal Terabytes
 with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|----------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0017 |
| Per Decimal Terabytes (13-32) | 0018 |
| Per Decimal Terabytes (33-64) | 0019 |
| Per Decimal Terabytes (65-100) | 0020 |
| Per Decimal Terabytes (101-250) | 0021 |
| Per Decimal Terabytes (251+) | 0022 |
| Per 250 Decimal Terabytes (251+) | 0023 |

Note: The Software Maintenance program numbers have been previously announced.

Order Software Maintenance Registration corresponding to each ProtecTIER Appliance Edition V3 or Enterprise Edition V3 VTL, 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 billing features

The billing features and pricing information for ProtecTIER Appliance Edition software maintenance PIDs remain unchanged. Details may be found in:

- Software Announcement [210-375](#), dated October 26, 2010
- Software Announcement [210-138](#), dated April 13, 2010
- Software Announcement [209-443](#), dated October 27, 2009
- Software Announcement [209-216](#), dated July 14, 2009
- Software Announcement [209-030](#), dated February 10, 2009

ProtecTIER Enterprise Edition billing features

The billing features and pricing information for ProtecTIER Enterprise Edition software maintenance PIDs remain unchanged. Details may be found in:

- Software Announcement [210-375](#), dated October 26, 2010
- Software Announcement [210-135](#), dated April 13, 2010
- Software Announcement [209-223](#), dated July 14, 2009
- Software Announcement [209-031](#), dated February 10, 2009
- Software Announcement [208-228](#), dated August 26, 2008

Beginning with release V3.1 of the ProtecTIER Enterprise and Appliance Editions, the pricing metrics for the maintenance products listed below are being changed from the previously announced "per Terabyte" to a new metric of "per Decimal Terabyte". This is not a change in actual pricing of these orderable features under the maintenance products, but to clarify that the current licensed capacity is based on decimal terabyte definitions, and to create consistent capacity definitions in IBM offerings.

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

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License Information form number

L-KAVZ-8EJS6D

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.

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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 V3 software (5639-PTB) and IBM System Storage ProtecTIER Enterprise Edition V3 software (5639-PTA) 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

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

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-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
ProtectTIER VTL per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0001 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
ProtectTIER OpenStorage per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0002 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Capacity Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0003 |
| Per Decimal Terabytes (13-32) | 0004 |
| Per Decimal Terabytes (33-64) | 0005 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Clustering Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0006 |
| Per Decimal Terabytes (13-32) | 0007 |
| Per Decimal Terabytes (33-64) | 0008 |

5639-PTB:
IBM System Storage ProtectTIER Appliance Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.1
Replication Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|-------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0009 |
| Per Decimal Terabytes (13-32) | 0010 |
| Per Decimal Terabytes (33-64) | 0011 |

| Feature description | Feature number |
|------------------------|----------------|
| Media Supply - feature | 5806 |

| Feature description | Feature number |
|---------------------|----------------|
| Serial number only | 3444 |

IBM System Storage ProtectTIER Enterprise Edition V3.1 billing features

5639-PTA:
IBM System Storage ProtectTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V3.1
ProtectTIER VTL per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0001 |

5639-PTA:
IBM System Storage ProtectTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V3.1
ProtectTIER OpenStorage per Storage Device
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device | 0002 |

5639-PTA:
IBM System Storage ProtectTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V3.1
Capacity Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|----------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0003 |
| Per Decimal Terabytes (13-32) | 0004 |
| Per Decimal Terabytes (33-64) | 0005 |
| Per Decimal Terabytes (65-100) | 0006 |
| Per Decimal Terabytes (101-250) | 0007 |
| Per Decimal Terabytes (251+) | 0008 |
| Per 250 Decimal Terabytes (251+) | 0009 |

5639-PTA:
IBM System Storage ProtectTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V3.1
Clustering Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|----------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0010 |
| Per Decimal Terabytes (13-32) | 0011 |
| Per Decimal Terabytes (33-64) | 0012 |
| Per Decimal Terabytes (65-100) | 0013 |
| Per Decimal Terabytes (101-250) | 0014 |
| Per Decimal Terabytes (251+) | 0015 |
| Per 250 Decimal Terabytes (251+) | 0016 |

5639-PTA:
IBM System Storage ProtectTIER Enterprise Edition V3.1

Use Authorizations
with One Year Software Maintenance

One-time charge features

ProtectTIER Enterprise Edition V3.1
Replication Support per Decimal Terabytes
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|----------------------------------|--------------------|
| Per Decimal Terabytes (1-12) | 0017 |
| Per Decimal Terabytes (13-32) | 0018 |
| Per Decimal Terabytes (33-64) | 0019 |
| Per Decimal Terabytes (65-100) | 0020 |
| Per Decimal Terabytes (101-250) | 0021 |
| Per Decimal Terabytes (251+) | 0022 |
| Per 250 Decimal Terabytes (251+) | 0023 |

| Feature description | Feature number |
|---------------------|----------------|
|---------------------|----------------|

| | |
|------------------------|----------------|
| Media Supply - feature | 5806 |
| Feature description | Feature number |
| Serial number only | 3444 |

Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-211-155-List_prices_2011_05_09.PDF](#)

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Corrections

(Corrected on July 26, 2011)

MCP 32-bit has been removed from the ProtecTIER Manager section under Hardware requirements.

(Corrected on July 7, 2011)

Feature code number 3444 has been added to the Prices section.

(Corrected on May 31, 2011)

The Supply feature code has been corrected to 5806 in the Ordering information and Prices sections.