



# ProtectTIER Enterprise Edition and ProtectTIER Appliance Edition V3.2 support new options

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## At a glance

IBM® System Storage® ProtectTIER® Enterprise Edition and ProtectTIER Appliance Edition Version 3.2 software introduce the Common Interface File System (CIFS) backup interface for customers with Windows-based backup environments.

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 V3.2 and IBM System Storage ProtectTIER Appliance Edition V3.2 build on the functions available in ProtectTIER V3.1, and introduce the Common Internet File System (CIFS) backup interface. ProtectTIER V3.2 supports replication between a maximum of eight ProtectTIER CIFS system. Any one ProtectTIER CIFS systems is limited to a maximum of three target systems within the replication grid per replication policy.

ProtectTIER V3.2 continues the support for the Symantec NetBackup OpenStorage API announced with ProtectTIER V2.5, and for the Virtual Tape Library (VTL) interface that has been the foundation of the ProtectTIER offerings. Supported replication grid configurations for ProtectTIER OST and ProtectTIER VTL systems are unchanged with ProtectTIER V3.2.

Other enhancements ProtectTIER V3.2 are designed to include Simple Network Management Protocol (SNMP) alerting improvements, enhancements to the security interface for the ProtectTIER Manager GUI, and performance improvements compared to ProtectTIER V3.1. When combined with the TS7650G Model DD5 Gateway, ProtectTIER Enterprise Edition V3.2 can help deliver up to 25% faster throughput for multiple stream backups than ProtectTIER Enterprise Edition V3.1 running on a TS7650G Model DD4 gateway.

IBM System Storage ProtectTIER Enterprise Edition V3.2 and IBM System Storage ProtectTIER Appliance Edition V3.2 are the follow-on products for ProtectTIER Enterprise Edition V3.1 and ProtectTIER Appliance Edition V3.1.

## Key prerequisites

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

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

The CIFS interface in ProtecTIER Enterprise Edition V3.2 is only supported on the TS7650G Gateway model DD5. The CIFS interface in ProtecTIER Appliance Edition V3.2 is only supported on new TS7650 Appliance model AP1 systems.

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## Planned availability date

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June 8, 2012

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## Description

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ProtecTIER Enterprise Edition V3.2 introduces File System Interface Common Internet File System (FSI-CIFS) support for Microsoft™ Windows-based network attached storage (NAS) backup environments. The ProtecTIER FSI interface is intended to be used for backup and restore of data sets using a backup application. Use of the ProtecTIER FSI interface for primary storage is not supported at this time. ProtecTIER Enterprise Edition V3.2 FSI-CIFS support requires TS7650G Model DD5. ProtecTIER FSI support must be installed on the initial system order. Field conversions of existing systems to utilize the FSI function are not supported.

ProtecTIER systems may also 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, an OpenStorage interface system, or a FSI system; it cannot function as a combination of any two or three of these system types.

ProtecTIER Replication for FSI systems is supported between up to eight ProtecTIER FSI systems. However, any single ProtecTIER FSI system may only replicate to a maximum of three other ProtecTIER FSI systems within the replication topology.

An Enterprise Edition FSI system will support scalability up to:

- 128 file backup file systems
- A maximum nominal file-system size of 256 TB
- 1 million files per file system
- 16 million files per repository
- 256 files open concurrently
- 192 backup streams
- 64 replication streams
- 256 CIFS shares
- 256 CIFS users
- 64 client host connections
- 8 TB physical file size

Existing TS7650G gateway systems may upgrade to ProtecTIER Enterprise Edition V3.2. Existing TS7650 appliance systems may update to ProtecTIER Appliance Edition V3.2. Upgraded systems must continue to be used as the same system type, VTL or OST, as previously configured.

ProtecTIER Enterprise Edition V3.2 installed on the TS7650G Model DD5 gateway as a VTL system has been designed to provide single stream throughput performance improvements of up to 25% or more, and total system throughput performance improvements up to 25% or more when compared to V3.1 running on the TS7650G Model DD4 gateway.

IBM System Storage ProtecTIER Enterprise Edition V3.2 and IBM System Storage ProtecTIER Appliance Edition V3.2 replace ProtecTIER Enterprise Edition V3.1 and ProtecTIER Appliance Edition V3.1.

For other attributes of these ProtecTIER offerings, refer to IBM System Storage ProtecTIER Appliance and Enterprise Edition V3.1 Software Announcement [211-155](#), dated May 09, 2011 .

### **Accessibility by people with disabilities**

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A US 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](http://www.ibm.com/able/product_accessibility/index.html)

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## **Product positioning**

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### **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 or business regulations

ProtecTIER is designed to provide the following core differentiators:

- High speed backups: Up to 2500 MB/s or more sustained inline deduplication backup performance with clustered VTL TS7650G systems running ProtecTIER Enterprise Edition V3.2 as a VTL system, dependent on capabilities of the repository's disk array and other data and workload characteristics
- Even faster restores: Up to 3200 MB/s or more sustained recovery performance with clustered VTL TS7650G systems running ProtecTIER Enterprise Edition V3.2, 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 supporting a single physical repository size up to 1 PB
- 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 in many Fortune 500 data centers since 2005

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## Reference information

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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 ProtecTIER Appliance Edition V3.1, refer to Software Announcement [211-155](#), dated May 09, 2011 .

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 .

For information about IBM System Storage TS7650G Gateway (3958-DD5) server refresh refer to Hardware Announcement [112-102](#), dated June 04, 2012 .

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## Program number

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| Program number       | VRM   | Program name   |
|----------------------|-------|--|
| 5639-PTA             | 3.2.0 | 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                |

| Program number       | VRM   | Program name  |
|----------------------|-------|---|
| 5639-PTB             | 3.2.0 | 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                |

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## Product identification number

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### IBM System Storage ProtecTIER Enterprise Edition V3.2

| 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<br>Registration PID number | Maintenance 3 year<br>After License<br>PID number |
| 5639-XXE                                      | 5639-XXG  |
| Maintenance 3 year<br>Renewal PID number      |   |
| 5639-XXF                                      |   |
| Maintenance 2 year<br>Registration PID number | Maintenance 4 year<br>Registration PID number     |
| 5639-XXJ                                      | 5639-XXK  |
| Maintenance 5 year<br>Registration PID number |   |
| 5639-XXL                                      |   |

### **IBM System Storage ProtecTIER Appliance Edition V3.2**

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

### **Business Partner information**

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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=212-196>

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### **Offering Information**

Product information is available via the Offering Information website

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

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## Publications

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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 V3.2 publications

Publications with software relevance included in the Publications CD-ROM, LCD7-4788, when the media supply feature is ordered for ProtecTIER Appliance Edition V3.2 include:

| Title   | Order number |
|---|--------------|
| IBM System Storage TS7650 ProtecTIER 3.2 Deduplication Appliance and TS7650G Deduplication Gateway Introduction and Planning Guide (3958-AP1 and 3958-DD5)                | GA32-0918    |
| IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958-AP1), v.3.2  | GA32-0920    |
| IBM System Storage ProtecTIER User's Guide for Enterprise Edition and Appliance Edition for ProtecTIER V3.2.  | GA32-0922    |
| Start Here for IBM System Storage TS7650 with ProtecTIER, v.3.2   | GI13-1831    |
| ProtecTIER v.3.2 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, 3958-DD5, and 3958-AP1) | GA32-0923    |

### ProtecTIER Enterprise Edition V3.2 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 V3.2 include:

| Title  | Order number |
|--|--------------|
| IBM System Storage TS7650 ProtecTIER 3.2 Deduplication Appliance and TS7650G Deduplication Gateway Introduction and Planning Guide (3958-AP1 and 3958-DD5) | GA32-0918    |
| IBM System Storage TS7600 with ProtecTIER Installation Roadmap Guide for the TS7650 (Appliance, 3958 AP1), v.3.2   | GA32-0920    |
| IBM System Storage ProtecTIER User's Guide for Enterprise Edition and Appliance Edition  | GA32-0922    |

|   |           |
|---|-----------|
| Start Here for IBM System Storage TS7650 with ProtecTIER, v.3.2   | GI13-1831 |
| ProtecTIER V3.2 Software Upgrade 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, 3958 DD5, and 3958 AP1) | GA32-0923 |

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## Technical information

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### Specified operating environment

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#### **Hardware requirements**

ProtecTIER Appliance Edition V3.2 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 V3.2 requires the IBM System Storage TS7650G ProtecTIER Deduplication Gateway, IBM 3958 Model DD5. Refer to Hardware Announcement [112-102](#), dated June 04, 2012 .

ProtecTIER Enterprise Edition V3.2 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.

Contact 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 Fibre 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**

In VTL mode, ProtecTIER Enterprise Edition and Appliance Edition V3.2 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**

CIFS mode is limited to ProtecTIER Enterprise Edition V3.2 preloaded on the TS7650G Gateway model DD5, and to ProtecTIER Appliance Edition V3.2 preloaded on the TS7650 Appliance model AP1.

ProtecTIER Enterprise Edition software is only supported for installation on TS7650G ProtecTIER Deduplication Gateway hardware (3958 Models DD1, DD3, DD4, and DD5).

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

ProtecTIER supports any combination of TS7650 Appliances, TS7650G Gateways and TS7610/TS7620 Appliances in the replication topology.

In VTL mode, many-to-many replication topologies are limited to a maximum of four ProtecTIER systems. These systems must run ProtecTIER V3.2, or later.

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

Systems operating as a source and target uni-directional replication pair must run ProtecTIER V2.3, or later.

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

### **Planning information**

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#### **Customer responsibilities**

Physical planning is a customer responsibility. Detailed planning information is in the *IBM System Storage TS7650 ProtecTIER 3.2 Deduplication Appliance and TS7650G Deduplication Gateway Introduction and Planning Guide (3958-AP1 and 3958-DD5)* GA32-0918.



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

## ***Installability***

### ***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

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

### **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 Enterprise Edition V3.2 (5639-PTA), the following media are shipped:

- IBM System Storage ProtecTIER Enterprise Edition V3.2 (LCD7-5216)
- IBM System Storage ProtecTIER Manager V3.2 (LCD7-5217)
- IBM System Storage ProtecTIER OpenStorage Plug-in V3.2 (LCD7-5219)
- IBM System Storage ProtecTIER Maintenance and Recovery Disk V3.2 (LCD7-5601)
- IBM System storage TS7600 with ProtecTier - TS7650 & TS7650G Publications CD-ROM V3.2 (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 Appliance Edition V3.2 (5639-PTB), the following media are shipped:

- IBM System Storage ProtecTIER Appliance Edition V3.2 (LCD7-5220)
- IBM System Storage ProtecTIER Manager V3.2 (LCD7-5217)
- IBM System Storage ProtecTIER OpenStorage Plug-in V3.2 (LCD7-5219)
- IBM System Storage ProtecTIER Maintenance and Recovery Disk V3.2 (LCD7-5601)
- IBM System storage TS7600 with ProtecTier - TS7650 & TS7650G Publications CD-ROM V3.2 (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 V3.2 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.

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### **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.

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## **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/>

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## **Ordering information**

### ***Charge metric***

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

| Program name                    | Part number or PID number | Charge metric                                |
|---------------------------------|---------------------------|--|
| ProtecTIER Appliance Edition V3 | 5639-PTB                  | per Storage Device and per Decimal Terabytes |

### **Client Device**

Client Device is a unit of measure by which the program can be licensed. A Client Device is a single-user computing device or special-purpose sensor or telemetry device that requests the execution of or receives for execution a set of commands, procedures, or applications from or provides data to another computer system that is typically referred to as a server or is otherwise managed by the server. Multiple Client Devices may share access to a common server. A Client Device may have some processing capability or be programmable to allow a user to do work. Examples include, but are not limited to, actuators, appliances, automated teller

machines, automatic meter readers, cash registers, disk drives, desktop computers, kiosks, notebook computers, personal digital assistants, point-of-sale terminals, sensors, smart meters, tape drives, and technical workstations. Licensee must obtain entitlements for every Client Device that runs, provides data to, uses services provided by, or otherwise accesses the program and for every other computer or server on which the program is installed.

Effective June 8, 2012, IBM System Storage ProtecTIER Appliance Edition V3.2 replaces the IBM System Storage ProtecTIER Appliance Edition V3.1 for all new TS7650 system orders, and IBM System Storage ProtecTIER Enterprise Edition V3.2 replaces the IBM System Storage ProtecTIER Enterprise Edition V3.1 for all new TS7650G system orders. On or after this date, IBM System Storage ProtecTIER Appliance Edition V3.1 and IBM System Storage ProtecTIER Enterprise Edition V3.1 will no longer be available for shipment.

### **ProtecTIER Enterprise Edition and ProtecTIER Appliance Edition V3.2**

ProtecTIER systems are ordered as a VTL, FSI, or as an OpenStorage system. These options are mutually exclusive. To order ProtecTIER Appliance Edition as a FSI system, order one *ProtecTIER FSI* 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 an FSI system, order one *ProtecTIER FSI* 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 FSI 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 Enterprise Edition V3.2 billing features**

#### **Supply feature code: 5806**

5639-PTA:  
IBM System Storage ProtecTIER Enterprise Edition V3.2

Use Authorizations  
with One Year Software Maintenance

One-time charge features

ProtecTIER Enterprise Edition V3.2  
ProtecTIER FSI per Storage Device  
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

## IBM System Storage ProtecTIER Appliance Edition V3.2 billing features

### Supply feature code: 5806

5639-PTB:  
IBM System Storage ProtecTIER Appliance Edition V3.2

Use Authorizations  
with One Year Software Maintenance

One-time charge features

ProtecTIER Appliance Edition V3.2  
ProtecTIER FSI per Storage Device  
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0012               |

**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 FSI, 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 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 [212-196](#), dated June 04, 2012
- Software Announcement [211-155](#), dated May 09, 2011
- 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

### 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 [212-196](#), dated June 04, 2012
- Software Announcement [211-155](#), dated May 09, 2011
- 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

Beginning with release V3.2 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.

### **ProtecTIER Enterprise Edition Software Maintenance**

5639-XXC:

IBM System Storage ProtecTIER Enterprise Edition V3.2  
One Year Software Maintenance

ProtecTIER Enterprise Edition V3.2  
No Charge Registration  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0048               |

One-time charge features

ProtecTIER Enterprise Edition V3.2  
One Year Renewal  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0049               |

5639-XXD:

IBM System Storage ProtecTIER Enterprise Edition V3.2  
One Year Software Maintenance

ProtecTIER Enterprise Edition V3.2  
One Year After License  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXE:

IBM System Storage ProtecTIER Enterprise Edition V3.2  
Three Year Software Maintenance  
One time charge features

ProtecTIER Enterprise Edition V3.2  
Three Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXF:  
 IBM System Storage ProtectTIER Enterprise Edition V3.2  
 Three Year Software Maintenance  
 One time charge features

ProtectTIER Enterprise Edition V3.2  
 Three Year Renewal  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0054               |

5639-XXG:  
 IBM System Storage ProtectTIER Enterprise Edition V3.2  
 Three Year Software Maintenance  
 One time charge features

ProtectTIER Enterprise Edition V3.2  
 Three Year After License  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXJ:  
 IBM System Storage ProtectTIER Enterprise Edition V3.2  
 Two Year Software Maintenance  
 One-time charge features

ProtectTIER Enterprise Edition V3.2  
 Two Year Registration  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0040               |

5639-XXK:  
 IBM System Storage ProtectTIER Enterprise Edition V3.2  
 Four Year Software Maintenance  
 One-time charge features

ProtectTIER Enterprise Edition V3.2  
 Four Year Registration  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXL:  
 IBM System Storage ProtectTIER Enterprise Edition V3.2  
 Five Year Software Maintenance  
 One-time charge features

ProtectTIER Enterprise Edition V3.2  
 Five Year Registration  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

### **ProtectTIER Appliance Edition Software Maintenance**

5639-XXQ:  
 IBM System Storage ProtectTIER Appliance Edition V3.2  
 One Year Software Maintenance

ProtectTIER Appliance Edition V3.2  
 No Charge Registration  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0033               |

One-time charge features

ProtectTIER Appliance Edition V3.2  
 One Year Renewal  
 One Time Charge  
 FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0034               |

5639-XXR:  
 IBM System Storage ProtectTIER Appliance Edition V3.2  
 One Year Software Maintenance  
 One-time charge features

ProtectTIER Appliance Edition V3.2  
 One Year After License  
 One Time Charge  
 FSI Per Storage Device

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

Per Storage Device 0016

5639-XXS:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year Registration  
One Time Charge  
FSI Per Storage Device

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

Per Storage Device 0016

5639-XXT:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year Renewal  
One Time Charge  
FSI Per Storage Device

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

Per Storage Device 0016

5639-XXU:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year After License  
One Time Charge  
FSI Per Storage Device

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

Per Storage Device 0016

5639-XXV:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Two Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Two Year Registration  
One Time Charge  
FSI Per Storage Device

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

Per Storage Device 0016



5639-XXW:  
IBM System Storage ProtecTIER Appliance Edition V3.2  
Four Year Software Maintenance  
One-time charge features

ProtecTIER Appliance Edition V3.2  
Four Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

5639-XXX:  
IBM System Storage ProtecTIER Appliance Edition V3.2  
Five Year Software Maintenance  
One-time charge features

ProtecTIER Appliance Edition V3.2  
Five Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

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L-KAVZ-8EJS6D

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**Limited warranty**

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**Other terms**

**Volume orders (IVO)**

Yes. Contact your IBM representative.

**Passport Advantage applies**

No

**Usage restriction**

Yes

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

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***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.

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## Prices

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Information on charges is available at

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

Choose the option entitled Purchase/upgrade tools.

### **IBM System Storage Protectier Enterprise Edition V3.2 billing features**

5639-PTA:  
IBM System Storage ProtectIER Enterprise Edition V3.2

Use Authorizations  
with One Year Software Maintenance

One-time charge features

ProtectIER Enterprise Edition V3.2  
ProtectIER FSI per Storage Device  
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

### **ProtectIER Enterprise Edition Software Maintenance**

5639-XXC:  
IBM System Storage ProtectIER Enterprise Edition V3.2  
One Year Software Maintenance

ProtectIER Enterprise Edition V3.2  
No Charge Registration  
FSI Per Storage Device

| Feature description | OTC Feature number |     |
|---------------------|--------------------|-----|
| Per Storage Device  | 0048               | N/C |

One-time charge features

ProtectIER Enterprise Edition V3.2  
One Year Renewal  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0049               |

5639-XXD:  
IBM System Storage ProtectIER Enterprise Edition V3.2  
One Year Software Maintenance

ProtectTIER Enterprise Edition V3.2  
One Year After License  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXE:  
IBM System Storage ProtectTIER Enterprise Edition V3.2  
Three Year Software Maintenance  
One time charge features

ProtectTIER Enterprise Edition V3.2  
Three Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXF:  
IBM System Storage ProtectTIER Enterprise Edition V3.2  
Three Year Software Maintenance  
One time charge features

ProtectTIER Enterprise Edition V3.2  
Three Year Renewal  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0054               |

5639-XXG:  
IBM System Storage ProtectTIER Enterprise Edition V3.2  
Three Year Software Maintenance  
One time charge features

ProtectTIER Enterprise Edition V3.2  
Three Year After License  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXJ:  
IBM System Storage ProtectTIER Enterprise Edition V3.2  
Two Year Software Maintenance  
One-time charge features

ProtectTIER Enterprise Edition V3.2  
Two Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0040               |

5639-XXK:

IBM System Storage ProtectTIER Enterprise Edition V3.2  
Four Year Software Maintenance  
One-time charge features

ProtectTIER Enterprise Edition V3.2  
Four Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

5639-XXL:

IBM System Storage ProtectTIER Enterprise Edition V3.2  
Five Year Software Maintenance  
One-time charge features

ProtectTIER Enterprise Edition V3.2  
Five Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0024               |

### **IBM System Storage Protectier Appliance Edition V3.2 billing features**

5639-PTB:

IBM System Storage ProtectTIER Appliance Edition V3.2

Use Authorizations  
with One Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.2  
ProtectTIER FSI per Storage Device  
with 1 Year SW Maintenance

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0012               |

## ProtectTIER Appliance Edition Software Maintenance

5639-XXQ:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
One Year Software Maintenance

ProtectTIER Appliance Edition V3.2  
No Charge Registration  
FSI Per Storage Device

| Feature description | OTC Feature number |     |
|---------------------|--------------------|-----|
| Per Storage Device  | 0033               | N/C |

One-time charge features

ProtectTIER Appliance Edition V3.2  
One Year Renewal  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |  |
|---------------------|--------------------|--|
| Per Storage Device  | 0034               |  |

5639-XXR:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
One Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
One Year After License  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |  |
|---------------------|--------------------|--|
| Per Storage Device  | 0016               |  |

5639-XXS:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |  |
|---------------------|--------------------|--|
| Per Storage Device  | 0016               |  |

5639-XXT:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance

One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year Renewal  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

5639-XXU:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Three Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Three Year After License  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

5639-XXV:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Two Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Two Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

5639-XXW:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Four Year Software Maintenance  
One-time charge features

ProtectTIER Appliance Edition V3.2  
Four Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

5639-XXX:  
IBM System Storage ProtectTIER Appliance Edition V3.2  
Five Year Software Maintenance  
One-time charge features



ProtectTIER Appliance Edition V3.2  
Five Year Registration  
One Time Charge  
FSI Per Storage Device

| Feature description | OTC Feature number |
|---------------------|--------------------|
| Per Storage Device  | 0016               |

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[ENUS-212-196-LIST\\_PRICES\\_2012\\_06\\_04.PDF](#)

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