



# IBM Tivoli Storage Manager V7.1.1 helps improve data protection and disaster recovery capabilities and extends incremental forever backup to Microsoft Hyper-V

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## At a glance

IBM® Tivoli® Storage Manager V7.1.1 products offer the following new capabilities:

- IBM Tivoli Storage Manager V7.1.1 and IBM Tivoli Storage Manager Extended Edition V7.1.1 help reduce the cost of ownership through delivering optimal global data management with different policies on the primary and secondary Tivoli Storage Manager servers for replication.
- IBM Tivoli Storage Manager for Virtual Environments V7.1.1 extends incremental forever backup for Microsoft™ Hyper-V without deploying an agent in guest and simplifies single file restore for VMware environments.
- IBM Tivoli Storage Manager Operations Center V7.1.1 adds integrated administrative actions for schedule creation, and improved client and server diagnostics from a single user interface.
- New front-end capacity licensing option for IBM Tivoli Storage Manager Suite for Unified Recovery and IBM Tivoli Storage Manager Suite for Unified Recovery Entry and Enterprise Editions

## Overview

### IBM Tivoli Storage Manager

IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition V7.1.1 enables lower cost disaster recovery and enhances resilience with the following features:

- Improved replication flexibility that allows different policies to be defined on the primary and secondary Tivoli Storage Manager servers. This enables optimal management of resources for disaster recovery and simplifies compliance with long term retention requirements.
- Automated recovery of damaged, source server volumes or data from a replication server for local disaster. This could be used to replace local copy storage pools, reducing total cost of ownership.
- Enhanced security with NIST SP800-131 compliance and support of 256-bit AES Encryption.

The IBM Tivoli Storage Manager Operations Center V7.1.1 component adds integrated administrative actions, and improved client and server diagnostics for the backup environment with the following features:

- New scheduling interface provides at a glance view of complex backup schedules and provides the ability to create and modify client schedules.
- Ability to email reports on backup client and server status without logging into the managing server.
- Centralized log views for Microsoft Windows™ and Linux™ backup-archive clients from a single user interface to enable more efficient problem diagnosis and resolution.
- Backend capacity reporting for IBM Tivoli Storage Manager Suite for Unified Recovery products.

The enhancements noted above for Tivoli Storage Manager and Tivoli Storage Manager Extended Edition V7.1.1 are also available in IBM System Storage® Archive Manager V7.1.1.

IBM Tivoli Storage Manager for Virtual Environments V7.1.1 helps improve backup and recovery management for virtual environments with the following new features:

- Expanded Microsoft Hyper-V support to provide single-pass incremental forever backups to reduce backup windows and save storage cost without deploying an agent in guest
- Improved ease of use for file-level recovery scenarios in VMware environments involving Linux Logical Volume Manager, Microsoft Windows dynamic disks, and Microsoft Windows GUID partitioning table disks
- Integration with the VMware vSphere Web Client enabling VMware administrators to restore virtual machines from Tivoli Storage Manager and view task progress directly from the vSphere Web Client interface

IBM Tivoli Storage Manager for Mail V7.1.1 helps improve usability and performance when restoring folders with individual mailbox restores, and supports Microsoft Exchange role-based access control.

There are two new capacity licensing options for IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 that offer more simplified pricing and licensing with a tiered per terabyte (TB) front-end capacity metric.

- **IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1**
- **IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1**

The IBM Tivoli Storage Manager Site for Unified Recovery product bundles include the following products:

- IBM Tivoli Storage Manager Extended Edition V7.1.1: Scalable enterprise-class backup and restore, archive, and disaster recovery
- IBM Tivoli Storage Manager for Virtual Environments V7.1.1: Advanced protection and flexible recovery of VMware and Microsoft Hyper-V environments
- IBM Tivoli Storage Manager for Databases V7.1.1: Protection of Oracle and Microsoft SQL data
- IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2: Helps protect SAP and SAP HANA system data more efficiently, consistently, and reliably
- IBM Tivoli Storage Manager for Mail V7.1.1: Helps secure IBM Domino® and Microsoft Exchange data; granular restore of Microsoft Exchange objects
- IBM Tivoli Storage Manager for Storage Area Networks V7.1.1: Helps maximize storage network connections for Tivoli Storage Manager servers and client computers
- IBM Tivoli Storage Manager for Space Management V7.1.1: Software that moves inactive data to reclaim online disk space

- IBM Tivoli Storage Manager FastBack® V6.1: Advanced data protection and near-instant recovery for Microsoft Windows and Linux servers
- IBM Tivoli Storage Manager FastBack for Bare Machine Recovery V6.1: Restore a Microsoft Windows or Linux Server operating system volume within an shorter timeframes
- IBM Tivoli Storage Manager FastBack for Exchange V6.1: Fast and easy recovery of individual email objects

IBM Tivoli Storage Manager Suite Unified Recovery Entry - Front End includes the same 10 products. It is suitable for organizations with less than 100 TB front-end capacity, with no more than 2 Tivoli Storage Manager servers.

The enhancements noted above are also included in the following bundles:

- IBM Tivoli Storage Manager Suite for Unified Recovery
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry
- IBM Tivoli Storage Manager Suite for Unified Recovery - Front End
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End
- IBM Tivoli Storage Manager Entry

### **IBM Tivoli Storage FlashCopy® Manager V4.1.1**

IBM Tivoli Storage FlashCopy Manager V4.1.1 extends its integration with storage array mirroring for VMware environments, provides usability enhancements for VMware and Microsoft Windows environments, and also delivers performance improvements for Microsoft Exchange mailbox restore. In addition, IBM Tivoli Storage FlashCopy Manager V4.1.1 support for third-party storage devices is extended to include EMC VNX and Hitachi Data Systems Virtual Storage Platform and Hitachi Unified Storage, storage devices, when used with V1.4 of the Rocket Device Adapter Pack for IBM Tivoli Storage FlashCopy Manager.

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## **Key prerequisites**

IBM Tivoli Storage Manager operating systems supported:

- AIX®
- Microsoft Windows
- Linux on System x®, Linux on System p®, and Linux on System z®
- Solaris
- HP-UX

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## **Planned availability date**

- September 12, 2014: Electronic
- October 10, 2014: DVD media

Refer to the [Availability of national languages](#) availability.

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## **Description**

**IBM Tivoli Storage Manager V7.1.1 and IBM Tivoli Storage Manager Extended Edition V7.1.1** help reduce backup windows and enhance resilience:

- Different replication policies for retention time and number of versions can be defined on the primary and secondary Tivoli Storage Manager server, for flexible management of disaster recovery at different sites and optimal use of resources.

- Repairs volumes for source server from replication server for local disaster. This could be used to replace local copy storage pool tapes, reducing total cost of ownership.
- More security with NIST SP800-131 compliance and support of 256-bit AES Encryption.

**Tivoli Storage Manager for Virtual Environments V7.1.1** helps to improve backup and recovery management for virtual environments with the following new features:

- Expanded Microsoft Hyper-V support to provide incremental forever backups, automatic discovery of virtual machines, automatic migration of virtual machines between hosts, restoration of virtual machines to alternate locations, and file level recovery from image backups
- Simplified file-level recovery for VMware environments with a more automated mount process supporting Linux Logical Volume Management, Microsoft Windows dynamic disks Microsoft Windows GUID partitioning table disks
- Integration with the VMware vSphere Web Client enabling VMware administrators to drive Tivoli Storage Manager recovery actions for selected virtual machines and view task progress directly from the vSphere Web Client interface
- More control over access rights allowing administrators to limit user access by data center

**Tivoli Storage Manager Operations Center V7.1.1** provides more administrative actions within the GUI. There is improved visibility for data protection diagnostics with these capabilities:

- View, create, and modify client schedules and client schedule associations
- Visibility into server maintenance schedules for processes such as expiration, migration, reclamation, database, and storage pool backups
- Centralized log views for Microsoft Windows 32 bit, Microsoft Windows 64 bit, and Linux 64 bit backup-archive clients from one central GUI to enable more efficient problem diagnosis and resolution
- Email reports on client coverage, status, and overall Tivoli Storage Manager server health
- More control over alert definition configuration and management
- Actions to manage storage pools such as editing storage pool properties and manual initiation of storage pool migration or reclamation
- More detailed visibility to volume information, policy details, and active policy sets
- More security with NIST SP800-131 compliance
- Advanced filtering for table views for more targeted listing of such items such as clients, servers, storage pools, and storage devices that meet specific search criteria
- Backend capacity reporting for Tivoli Storage Manager Suite for Unified Recovery products' licensing needs

**Tivoli Storage Manager V7.1.1 Backup-Archive Client** adds support including:

- Enhanced security with support of 256-bit AES Encryption.
- Microsoft Windows 2012 R2 support.
- Solaris x86 support.

**IBM Tivoli Storage Manager for Mail V7.1.1** adds support and new features including:

- Individual mailbox restore usability and performance enhancements for restoring folders and messages from the mailbox restore browser.
- Support for Microsoft Exchange role-based access control to limit rights available to backup and restore administrators and automatic validation of permissions during configuration.

- Microsoft Windows 2012 R2 support.

**IBM Tivoli Storage Manager for Databases V7.1.1** adds support including:

- Microsoft SQL Server 2014 support.
- Microsoft Windows 2012 R2 support.

**IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2**

supports Microsoft Windows 2012 and Solaris 11:

- For the Data Protection for SAP for DB2® 6.4.2 component: IBM DB2 10.1 and IBM DB2 10.5 with BLU Acceleration, which speeds analytics and reporting using dynamic in-memory columnar technologies
- For the Data Protection for SAP for Oracle 6.4.2 component: Support BR\*Tools version 7.4

**Tivoli Storage Manager for Space Management V7.1.1** adds new features including:

- Improved efficiency in handling failed cluster nodes in large General Parallel File System (GPFS™) Hierarchical Storage Management (HSM) clusters that enable better cooperation and communication between HSM nodes.
- More control over stub file recall that provides the ability to:
  - Customize when recalls are performed
  - Change settings at the individual file level versus the file system level
  - Change settings while recall processing is ongoing

IBM Tivoli Storage Manager for z/OS® Media V7.1.1 and IBM Tivoli Storage Manager Extended Edition for z/OS Media V7.1.1 provide entitlement to:

- Either IBM Tivoli Storage Manager V7.1.1 or IBM Tivoli Storage Manager Extended Edition V7.1.1 for AIX and Linux on System z.
- IBM Tivoli Storage Manager Operations Center V7.1.1.
- IBM Tivoli Storage Manager Media Server V6.3.

IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 enables continuous data protection functionality and instant recovery for Microsoft Windows desktops and laptops with the addition of the following new features:

- Enhanced block level backups to increase the frequency of incremental backups, and reduce network bandwidth and storage capacity consumption.
- Central Administration Console migration from IBM Tivoli Integrated Portal to IBM WebSphere® Liberty Profile for a smaller footprint of around 500 MB and faster installation times with new installs in as little as 10 minutes.
- Enhanced visualization of client, server, or historical storage utilization reports.

**Tivoli Storage Flashcopy Manager V4.1.1** adds support for the following features:

- Microsoft Windows :
  - SQL 2014 support
  - Role Based Access Control for Microsoft Exchange backup and restore
  - Microsoft Exchange individual mailbox recovery performance and usability enhancements
  - Usability enhancements for SQL
- VMware:
  - Metro Mirror and Global Mirror integration
  - NIST SP800-131 compliance
  - Configuration Wizard

- Initial integration with VMware Web Client

## 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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## Reference information

For more information about IBM Tivoli Storage Manager V7.1 family of products, refer to Software Announcement [ZP13-0569](#), dated October 29, 2013.

For more information about IBM Tivoli Storage Manager Entry V7.1, IBM Tivoli Storage Manager for z/OS Media V7.1, and IBM Tivoli Storage Manager Extended Edition for z/OS Media V7.1, refer to Software Announcement [ZP14-0264](#), dated April 15, 2014.

For more information about support for IBM Tivoli Storage Manager for Storage Area Networks platform, refer to Software Announcement [ZP11-0463](#), dated October 11, 2011.

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## Availability of national languages

The Tivoli Storage Manager V7.1.1 products are enabled to support all language environments and are translated into the following languages on the dates shown below (refer to Notes 1 and 2).

Language	Electronic availability date	Media availability date
French, German, Italian, Spanish, Russian, and English	09/12/14	10/10/14

Note 1: The following are also available in Czech, Hungarian, and Polish:

- The client component of Tivoli Storage Manager V7.1.1
- The client component of Tivoli Storage Manager Extended Edition V7.1.1
- The client component of IBM System Storage Archive Manager V7.1.1
- The Data Protection for IBM Domino component of IBM Tivoli Storage Manager for Mail V7.1.1
- Tivoli Storage Manager HSM for Windows V7.1.1
- Tivoli Storage Manager for Space Management V7.1.1
- Tivoli Storage Manager for Virtual Environments V7.1.1
- Tivoli Storage Manager FastBack for Workstations V7.1.1
- Tivoli Storage Manager FastBack for Workstations Starter Edition V7.1.1

Note 2: Tivoli Storage Manager for Databases V7.1.1 does not support Russian.

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**Program number**

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Program number	VRM	Program name
5608-E01	7.1.1	IBM Tivoli Storage Manager
5725-Q58	7.1.1	IBM Tivoli Storage Manager Entry
5608-E02	7.1.1	IBM Tivoli Storage Manager Extended Edition
5608-E03	7.1.1	IBM System Storage Archive Manager
5608-E04	7.1.1	IBM Tivoli Storage Manager for Databases
5608-E05	6.4.2	IBM Tivoli Storage Manager for Enterprise Resource Planning
5608-E06	7.1.1	IBM Tivoli Storage Manager for Mail
5608-E12	7.1.1	IBM Tivoli Storage Manager for Space Management
5608-E07	7.1.1	IBM Tivoli Storage Manager for Storage Area Networks
5725-A44	7.1.1	IBM Tivoli Storage Manager for Virtual Environments
5608-E13	7.1.1	IBM Tivoli Storage Manager HSM for Windows
5724-Z12	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery
5725-R37	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery - Front End
5725-H25	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery Entry
5725-R38	7.1.1	IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End
5724-Y96	7.1.1	IBM Tivoli Storage Manager Fastback for Workstations
5724-S64	7.1.1	IBM Tivoli Storage Manager Fastback for Workstations Starter Edition
5724-X94	4.1.1	IBM Tivoli Storage FlashCopy Manager (for Passport Advantage®)
5608-ACB	4.1.1	IBM Tivoli Storage FlashCopy Manager (for AAS)

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**Product identification number**

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IBM Tivoli Storage FlashCopy Manager (for AAS)

Program SW Subscription and Support 1 Year PID no charge registration  
PID number number

5608-ACB 5608-FCY

SW Subscription and Support 2 Year PID registration number

5608-R16

SW Subscription and Support 3 Year PID registration number

5608-R13

SW Subscription and Support 4 Year PID registration number

5608-R17

SW Subscription and Support 5 Year PID registration number

5608-R18

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## Education support

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Comprehensive education for IBM Tivoli products is offered through Worldwide Tivoli Education Delivery Services. A wide range of training options are available, including classes led by instructors, learning on demand, on-site training, and blended learning solutions.

For additional information, visit

<http://www-306.ibm.com/software/tivoli/education/>

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## Offering Information

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Product information is available via the Offering Information website

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

Also, visit the Passport Advantage website

<http://www.ibm.com/software/passportadvantage>

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## Publications

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Documentation in English and all available translations will be available in the IBM Knowledge Center on the general availability date. The Tivoli product documentation is found under the Cloud & Smarter Infrastructure category.

<http://ibm.biz/IBMKCgo>

Links to downloadable PDFs will also be provided in the Knowledge Center.

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## Technical information

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### Specified operating environment

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#### *Hardware and software requirements*

#### **Tivoli Storage Manager supported devices**

Refer to the following websites for the list of devices that are supported by Tivoli Storage Manager (5608-E01), Tivoli Storage Manager Extended Edition (5608-E02), and IBM System Storage Archive Manager (5608-E03). Libraries that have more than 4 drives or more than 48 tape slots require a license for Tivoli Storage Manager Extended Edition.

For Tivoli Storage Manager supported devices for AIX, HP-UX, Solaris, and Microsoft Windows, visit

[http://www.ibm.com/software/sysmgmt/products/support/IBM\\_TSM\\_Supported\\_Devices\\_for\\_AIXH\\_PSUNWIN.html](http://www.ibm.com/software/sysmgmt/products/support/IBM_TSM_Supported_Devices_for_AIXH_PSUNWIN.html)

For Tivoli Storage Manager supported devices for Linux, visit

[http://www.ibm.com/software/sysmgmt/products/support/IBM\\_TSM\\_Supported\\_Devices\\_for\\_Linux.html](http://www.ibm.com/software/sysmgmt/products/support/IBM_TSM_Supported_Devices_for_Linux.html)

#### **Hardware and software requirements for Tivoli Storage Manager V7.1.1 products are available at the website listed with each product below.**

IBM Tivoli Storage Manager (5608-E01) (refer to Note 1)



<http://www.ibm.com/support/docview.wss?&uid=swg21243309>

IBM Tivoli Storage Manager Extended Edition (5608-E02) (refer to Note 1)

<http://www.ibm.com/support/docview.wss?&uid=swg21243309>

IBM System Storage Archive Manager (5608-E03) (refer to Note 1)

<http://www.ibm.com/support/docview.wss?&uid=swg21243309>

IBM Tivoli Storage Manager for Mail (5608-E06)

<http://www.ibm.com/support/docview.wss?&uid=swg21219345>

IBM Tivoli Storage Manager for Storage Area Networks (5608-E07)

<http://www.ibm.com/support/docview.wss?uid=swg21321214>

IBM Tivoli Storage Manager for Space Management (5608-E12)

<http://www.ibm.com/support/docview.wss?&uid=swg21321200>

IBM Tivoli Storage Manager for HSM for Windows (5608-E13)

<http://www.ibm.com/support/docview.wss?uid=swg21319299>

IBM Tivoli Storage Manager for Databases (5608-E04)

<http://www.ibm.com/support/docview.wss?uid=swg21218747>

IBM Tivoli Storage Manager for Virtual Environments (5725-A44)

<http://www.ibm.com/support/docview.wss?uid=swg21505139>

IBM Tivoli Storage Manager FastBack for Workstations (5724-Y96)

<http://www-01.ibm.com/support/docview.wss?uid=swg21643334>

IBM Tivoli Storage Manager FastBack for Workstations Starter Edition (5724-S64)

<http://www-01.ibm.com/support/docview.wss?uid=swg21643334>

For a list of products included in the offering bundle, and the technical requirements for each of the included products, refer to the information portal website listed for each product below.

IBM Tivoli Storage Manager Entry V7.1.1 (5725-Q58)

<http://www.ibm.com/support/docview.wss?uid=swg27041477>

IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 (5724-Z12)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 (5725-H25)

<http://www.ibm.com/support/docview.wss?uid=swg27039964>

IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 (5725-R37)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 (5725-R38)

<http://www.ibm.com/support/docview.wss?uid=swg27039963>

Note 1: Tivoli Storage Manager V7.1, Tivoli Storage Manager Extended Edition V7.1, and IBM System Storage Archive Manager V7.1 have the same hardware, software, and supported device requirements.

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.

### ***Companion products***

Customers who have a SAN environment may consider purchasing IBM Tivoli Storage Productivity Center in addition to Tivoli Storage Manager. The customer can benefit from the ability to more fully manage their storage environment, including backup and recovery, management of disk performance, management of the physical network of the SAN, logical connections between the devices, and capacity management of file systems and databases. Additionally, IBM Tivoli Storage Productivity Center complements Tivoli Storage Manager. The customer who leverages these products can benefit from the ability to extend policies and file reports to directly initiate a Tivoli Storage Manager's backup or archive when certain threshold conditions are met, or in the case of file reports, if conditions deem it necessary.

### ***Performance considerations***

Tivoli Storage Manager product's performance will vary depending upon your particular configuration, the client and server options, and customization.

### ***IBM Electronic Support***

The IBM Support Portal is your gateway to technical support. This includes IBM Electronic Support tools and resources, for software and hardware, to help save time and simplify support. The Electronic Support tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems through the Service Request online tool, and build skills. All these tools are made available through your IBM support agreement, at no additional charge. Read about the Electronic Support portfolio of tools

<http://ibm.com/electronicssupport>

Access the IBM Support Portal

<http://ibm.com/support>

Access the online Service Request tool

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

### ***Planning information***

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#### ***Packaging***

Tivoli Storage Manager V7.1.1 products are distributed with:

- International Program License Agreement (Z125-3301)
- License Information document
- DVD media
- Publications (refer to the [Publications](#) section)

These programs, when downloaded from a website, contain the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

## **Security, auditability, and control**

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Tivoli Storage Manager V7.1 products use the security and auditability features of the operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

## **Global Technology Services®**

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Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.

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## **Licensing metric definitions and pricing examples**

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### **Licensing metric definitions**

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#### **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 assistant, point-of-sale terminals, sensors, smart meters, tape drives, and technical workstations. Licensee must obtain entitlements for every Client Device which 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.

#### **Processor Value Unit (PVU)**

PVU is a unit of measure by which the program can be licensed. The number of PVU entitlements required is based on the processor technology defined within the PVU table by processor vendor, brand, type, and model number at

[http://www.ibm.com/software/lotus/passportadvantage/pvu\\_licensing\\_for\\_customers.html](http://www.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html)

and the number of processors made available to the program. IBM continues to define a processor, for the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores.

Licensee can deploy the program using either full capacity licensing or virtualization capacity (sub-capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (refer to the webpage below). If using full capacity licensing, licensee must obtain PVU entitlements sufficient to cover all activated processor cores\* in the physical hardware environment made available to or managed by the program, except for those servers from which the program has been permanently removed. If using virtualization capacity licensing, licensee must obtain entitlements sufficient to cover all activated processor cores made available to or managed by the program, as defined according to the Virtualization Capacity License Counting Rules at

[http://www.ibm.com/software/lotus/passportadvantage/Counting\\_Software\\_licenses\\_using\\_specific\\_virtualization\\_technologies.html](http://www.ibm.com/software/lotus/passportadvantage/Counting_Software_licenses_using_specific_virtualization_technologies.html)

\* An activated processor core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor

core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions.

Instead of the entitlements required for the Program directly, Licensee must obtain PVU entitlements for this program sufficient to cover the processor cores for the systems on which the resources managed or processed by the program reside.

### **Terabyte**

Terabyte is a unit of measure by which the program can be licensed. A terabyte is 2 to the 40th power bytes. Licensee must obtain an entitlement for each terabyte of storage available to the program.

### **IBM System Storage Archive Manager terabyte capacity**

IBM System Storage Archive Manager terabyte capacity includes primary disk storage pool size combined with the amount of utilized primary removable media storage used by the IBM System Storage Archive Manager server.

Capacity does not include:

- Copy storage pools for the space-managed data that reside on disk.
- Copy storage pools for the space-managed data that reside on removable media.
- Space used on the IBM Tivoli Storage Manager server for any purpose other than the primary storage of space-managed data.
- Disk on the host being space managed.

A virtual tape library (VTL) is considered a removable media device, so capacity is based on utilization.

The minimum amount of capacity that can be purchased is 1 terabyte.

Partial capacity will be rounded up to the next whole number of terabytes.

Additional capacity must be added in increments of 1 Terabyte.

### **Tiered terabytes (1-12), (13-32), (33-64), (65-100), (101-250), (251+)**

Terabyte (1-12), Terabyte (13-32), Terabyte (33-64), Terabyte (65-100), Terabyte (101-250), and Terabyte (251+) is a unit of measure by which the program can be licensed. Proofs of Entitlement (PoEs) are based on the number of terabytes available to the program. A terabyte is 2 to the 40th 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.

Instead of the entitlements required for the program directly, Licensee must obtain terabyte entitlements for the program sufficient to cover the storage managed by the program.

### **IBM Tivoli Storage Manager Suite for Unified Recovery terabyte capacity**

### **Tiered terabytes (1-100), (101-250), (251-500), (501-750), (751-1,250), (1,251-2,000), (2001+)**

Terabyte (1-100), Terabyte (101-250), Terabyte (251-500), Terabyte (501-750), Terabyte (751-1,250), Terabyte (1,251-2,000), Terabyte (2,001+) is a unit of measure by which the program can be licensed. PoEs are based on the number of terabytes available to the program. A terabyte is 2 to the 40th 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.

Instead of the entitlements required for the program directly, licensee must obtain terabyte entitlements for the program sufficient to cover the storage managed by the program.

For Tivoli Storage Manager Suite for Unified Recovery, Licensee must obtain sufficient entitlements required for all data stored in the designated Tivoli Storage Manager primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack repository volumes.

### **IBM Tivoli Storage Manager Suite for Unified Recovery - Front End terabyte capacity**

Tiered terabytes (1-100), (101-250), (251-500), (501-750), (751-1,250), (1,251-2,000), (2001+)

Terabyte (1-100), Terabyte (101-250), Terabyte (251-500), Terabyte (501-750), Terabyte (751-1,250), Terabyte (1,251-2,000), Terabyte (2,001+) is a unit of measure by which the program can be licensed. PoEs are based on the number of terabytes available to the program. A terabyte is 2 to the 40th 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.

Instead of the entitlements required for the program directly, licensee must obtain terabyte entitlements for the program sufficient to cover the data managed by the program. For Tivoli Storage Manager Suite for Unified Recovery Front End, licensee must obtain sufficient entitlements required for the aggregate amount of data protected by the program.

### **IBM Tivoli Storage Manager Suite for Unified Recovery - Archive Option terabyte capacity**

Entitlements for the new Tivoli Storage Manager Suite for Unified Recovery - Archive Option component apply only to data classified as archive data within Tivoli Storage Manager that results from running an archive operation, and the data must reside on tape or VTL within the primary storage pool. An archive operation is designated either via the Tivoli Storage Manager's user interface itself or through Tivoli Storage Manager's application programming interface (API). Data stored on virtual tape appears to Tivoli Storage Manager as physical tape. The Tivoli Storage Manager Suite for Unified Recovery - Archive Option price applies to the capacity level recognized by Tivoli Storage Manager (which equates to the amount of data sent to the virtual tape). Subsequent deduplication of data within a VTL does not reduce the capacity level recognized by Tivoli Storage Manager.

### **IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER® Option terabyte capacity**

Licensee must obtain sufficient entitlements for the total aggregate usable physical capacity of all the IBM ProtecTIER repositories that are available to the IBM Tivoli Storage Manager primary storage pool, excluding the capacity for Disaster Recovery sites used for replication only.

### **Managed Server**

Managed Server is a unit of measure. 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 (for example, a blade or rack-mounted device) that has the required components is considered itself a separate server. Licensee must obtain Managed Server entitlements for each server managed.

### **Standby or backup systems**

For programs running or resident on backup machines, IBM defines three types of situations: cold, warm, and hot. In cold and warm situations, a separate entitlement

for the copy on the backup machine is normally not required and typically no additional charge applies. In a hot backup situation, the customer needs to acquire other license or entitlements sufficient for that server. All programs running in backup mode must be solely under the customer's control, even if running at another enterprise's location.

As a practice, the following are definitions and allowable actions concerning the copy of the program used for backup purposes.

**Cold:** A copy of the program may reside, for backup purposes, on a machine as long as the program is not started. There is no additional charge for this copy.

**Warm:** A copy of the program may reside for backup purposes on a machine and is started, but is idling, and is not doing any work of any kind. There is no additional charge for this copy.

**Hot:** A copy of the program may reside for backup purposes on a machine, is started, and is doing work. The customer must acquire a license or entitlements for this copy and there will generally be an additional charge.

Doing work includes, for example, production, development, program maintenance, and testing. It also could include other activities such as mirroring of transactions, updating of files, synchronization of programs, data, or other resources (for example, active linking with another machine, program, database or other resource, and so on), or any activity or configurations that would allow an active hot switch or other synchronized switch over between programs, databases, or other resources to occur. In the case of a program or system configuration that is designed to support a high availability environment by using various techniques (for example, duplexing, mirroring of files, or transactions, maintaining a heartbeat, active linking with another machine, program, database, or other resource), the program is considered to be doing work in the hot situation and a license or entitlement must be purchased.

### **High Availability and Disaster Recovery (HADR)**

To use HADR to replicate from one Tivoli Storage Manager server (with bundled DB2) to another Tivoli Storage Manager server (with bundled DB2), no additional DB2 licensing is required.

To use HADR to replicate from a Tivoli Storage Manager server (with bundled DB2) to a nonbundled DB2 instance, the licensee must purchase 100 Processor Value Units (PVUs) to obtain a license for DB2 Enterprise Edition (bundled).

### **Pricing examples**

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#### **Pricing examples for Tivoli Storage Manager**

The following examples are provided to illustrate the customer's licensing requirements.

References to processor-based licensing **do not** represent the actual number of entitlements required. Entitlement requirements are Value Unit based. Processors referenced in these examples represent the designated measurement on which the required number of Value Unit entitlements will be calculated. The number of Value Units required per processor will depend on the processor type.

Notes :

- When using Processor Value Unit based licensing, license entitlements for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition are required for all managed servers including the managing server. Licensing entitlement is Processor Value Unit based and both full capacity and sub-capacity licensing is offered.
- A Proof of Entitlement (PoEs) for IBM Tivoli Storage Manager Extended Edition is required to use any of the following function: node replication (and the use of REPLICATE NODE command as a target server), disaster recovery manager,

Network Data Management Protocol (NDMP), support of tape libraries (including virtual tape libraries) with more than 4 drives or more than 48 slots.

- An IBM Tivoli Storage Manager Extended Edition server can only be used to manage IBM Tivoli Storage Manager Extended Edition components or clients.
- A Tivoli Storage Manager Extended Edition server can act as a target server for disaster recovery purposes, with the exception of node replication, for Tivoli Storage Manager servers.
- The use of node replication (REPLICATE NODE command) requires the same end-user entitlements for both the server that sends the data (source server) and the server that receives the data (target server).
- Tivoli Storage Manager or Tivoli Storage Manager Extended Edition licensing requirements for General Parallel File System (GPFS) and IBM SONAS require Tivoli Storage Manager license entitlements for each node performing data movement.
- Entitlement conversions to Tivoli Storage Manager Suite for Unified Recovery require entitlement of Tivoli Storage Manager Extended Edition. If there is entitlement of Tivoli Storage Manager, then a trade up to Tivoli Storage Manager Extended Edition is required as a precondition to the entitlement conversion.
- All Network Attached Storage (NAS) devices that are being backed up require entitlement for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition. If NDMP is used, then entitlement for IBM Tivoli Storage Manager Extended Edition is required. If a proxy server or data mover is being used, then that server does not require additional entitlement.
- An IBM Tivoli Storage Manager for Storage Area Networks entitlement is required for each IBM Tivoli Storage Manager server that is sharing a library where an IBM Tivoli Storage Manager acts as the library manager. An entitlement is required for each library client and library manager. An IBM Tivoli Storage Manager for Storage Area Networks license entitlement is required for each system that performs LAN-free operations.

Go to the [Reference information](#) section for more information about IBM Tivoli Storage Manager for Storage Area Networks.

- Client Device entitlements for IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition are interchangeable.

Scenario 1: The customer wants to do basic archiving and retrieval for all of the LAN-connected servers in its network. The customer environment consists of the following:

- 20 Client devices (laptops)
- 10 4-way servers
- Five 8-way mail servers
- Five 16-way database servers
- One 32-way server
- One 8-way managing server

The customer must obtain the following entitlements for IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition:

Systems managed	Quantity in customer environment	Total client device entitlements required
Client devices	20	20
Total client device entitlements		20

Systems managed	Quantity in customer environment	Processor entitlements required

4-way	10	40
8-way	5	40
16-way	5	80
32-way	1	32
8-way (managing server)	1	8
Total processor entitlements		200

The customer must obtain the following additional entitlements for IBM Tivoli Storage Manager for Databases:

Systems managed	Quantity in customer environment	Processor entitlements required
16-way	5	80
Total processor entitlements		80

Note: This example is valid for any database application supported by IBM Tivoli Storage Manager for Databases. IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition is required for each system with a database managed by IBM Tivoli Storage Manager for Databases.

The customer must obtain the following additional entitlements for IBM Tivoli Storage Manager for Mail:

Systems managed	Quantity in customer environment	Processor entitlements required
8-way	5	40
Total processor entitlements		40

Note: This example is valid for any mail application supported by IBM Tivoli Storage Manager for Mail. IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition is required for each system with a mail server managed by IBM Tivoli Storage Manager for Mail.

#### Scenario 2: VMware environment with VMware vStorage APIs for Data Protection

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as a Microsoft SQL Server.
- ESX server 2 with four virtual servers, three running as file servers, and the fourth running as a Microsoft Exchange server.
- Both ESX servers are backed up using the vStorage APIs from a proxy server.
- Each virtual machine is assigned one processor core.
- The customer is backing up only the file servers.

Notes :

- IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition full capacity entitlement requires that all physical system cores on VMware ESX servers, being backed up by the proxy server, are to be entitled.
- IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition sub-capacity entitlement requires that the virtual cores, assigned to virtual machines on VMware ESX servers being backed up by the proxy server, are to be entitled.
- VMware vStorage API for Data Protection proxy server does not require entitlement for Tivoli Storage Manager, Tivoli Storage Manager Extended Edition, or Tivoli Storage Manager for Virtual Environments.



#### Full capacity requirement

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Proxy server (4 way)	Total
TSM or TSM Extended Edition	4	4	0	8

#### Sub-capacity requirement

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Proxy server (4 way)	Total
TSM or TSM Extended Edition	3	3	0	6

Note: Only the virtual machines running as file servers require entitlement. Since these are the only machines being backed up, the customer does not back up the fourth virtual machine.

Scenario 3: VMware environment with IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition backup agent installed inside a virtual machine and the customer is backing up Oracle and Microsoft Exchange

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as an Oracle server.
- ESX server 2 with four virtual servers, three running as file servers, and the fourth running as a Microsoft Exchange server.
- Each virtual machine is assigned one processor core.

Notes :

- The full capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on virtual cores.

#### Full capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Total
TSM or TSM Extended Edition	4	4	8
TSM for Databases	4	0	4
TSM for Mail	0	4	4

Note: If VMware vMotion is running across all ESX servers, enabling migration of virtual machines between the two ESX servers, then the ESX cluster is treated as the server at full capacity, which requires all cores on all ESX servers to be entitled. If vMotion is running in the above scenario, then IBM Tivoli Storage Manager Extended Edition, IBM Tivoli Storage Manager for Databases, and IBM Tivoli Storage Manager for Mail will each require eight cores to be entitled.

#### Sub-capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	ESX 2 (4 way)	Total
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Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	4	4	8
TSM for Database s	1	0	1
TSM for Mail	0	1	1

Note: If VMware vMotion is running across all ESX servers, enabling migration of virtual machines between the two ESX servers, entitlement requirements would not change from the above required entitlements.

Scenario 4: VMware environment with IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition backup agent running inside a virtual machine.

The customer environment consists of the following:

- ESX server 1 with four virtual servers, three running as file servers, and the fourth running as an Oracle server.

Notes :

- The full capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition entitlement requirement is based on virtual cores.

Full capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
TSM or TSM Extended Edition	4	4
TSM for Databases	4	4

Sub-capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
TSM or TSM Extended Edition	4	4
TSM for Databases	1	1

### Scenario 5: Network Attached Storage (NAS) Device backup

The customer environment consists of the following:

- The NAS device is being backup using NDMP.
- One 4-way NAS device.
- One 4-way server (acting as a data mover).
- One 8-way Tivoli Storage Manager Server.

The customer must obtain the following entitlements for IBM Tivoli Storage Manager Extended Edition:

	Customer environment	Entitlements required
4-way NAS Device	4	4
4-way Data Mover	4	0

8-way TSM Server	8	8
Total processor entitlements		12

If in addition to the NAS device being backed up, the data mover has locally attached data that is being backed up to the Tivoli Storage Manager Server, the customer must obtain the following entitlements for IBM Tivoli Storage Manager Extended Edition.

	Customer environment	Entitlements required
4-way NAS Device	4	4
4-way Data Mover	4	4
8-way TSM Server	8	8
Total processor entitlements		16

## Pricing examples for IBM System Storage Archive Manager

### Scenario 1

A customer has an IBM System Storage Archive Manager server with a 5 terabytes (TB) primary disk storage pool and a removable media storage pool that will store 4 TB of data within the next 12 months. The data in the primary storage pools will be copied for off-site protection to a copy pool. The customer has designated 10 TB of removable media for a copy storage pool.

The customer needs to purchase 9 TB of IBM System Storage Archive Manager.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of IBM System Storage Archive Manager for Windows

### Scenario 2 (additional capacity)

A customer had purchased 9 TB of IBM System Storage Archive Manager. 12 months after that initial purchase, the customer is managing 9 TB of data. Over the next 12 months, the customer estimates they will need to manage an additional 2.4 TB worth of data.

The customer should purchase an additional 3 TB of IBM System Storage Archive Manager.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4 TB	11.4 TB	12 TB of IBM System Storage Archive Manager for Windows

## Pricing examples for Tivoli Storage Manager HSM for Windows

Entitlement for Tivoli Storage Manager HSM for Windows is based on the TB capacity being space managed (migrated). Capacity is defined as the primary HSM disk storage pool size combined with the amount of utilized HSM removable media storage pool. Storage pools are configured on the IBM Tivoli Storage Manager server. The minimum amount of capacity that can be purchased is 1 TB. Partial capacity will be rounded up to the next whole number of TB. Additional capacity must be added in multiples of 1 TB. Capacity does not include:

- Copy storage pools for the space-managed data that reside on disk
- Copy storage pools for the space-managed data that reside on removable media

### Scenario 1

A customer wants to space manage 4.25 TB of files from six Microsoft Windows file servers. This means 4.25 TB of files will be migrated from their current location to the Tivoli Storage Manager server's primary HSM storage pools. The migrated files will be replaced with references to the original file. The data in the primary HSM storage pools will be copied for off-site protection to a copy pool. The customer has designated 0.25 TB of disk for an HSM disk storage pool, 4 TB for a HSM removable media storage pool, and 6 TB of removable media for a copy storage pool.

The customer needs to purchase 5 TB of Tivoli Storage Manager HSM for Windows.

HSM disk storage pool	HSM removable media storage pool	Capacity	Required entitlements
0.25 TB	4 TB	4.25 TB	5 TB of Tivoli Storage Manager HSM for windows

### Scenario 2 (additional capacity)

A customer had purchased 5 TB of Tivoli Storage Manager HSM for Windows. Over the last 12 months, the customer consumed the 5 TB of HSM capacity they purchased initially in addition to an additional 1 TB. Over the next 12 months, they expect the amount of space managed data will grow to 9 TB total. They will continue to keep the 0.25 TB for the HSM disk storage pool and thus store the remaining 8.75 TB in the removable media storage pool.

The customer should purchase an additional 4 TB of Tivoli Storage Manager HSM for Windows.

HSM disk storage pool	HSM removable media storage pool	Capacity	Required entitlements
0.25 TB	8.75 TB	9 TB	9 TB of Tivoli Storage Manager HSM for windows

### Pricing examples for Tivoli Storage Manager for Virtual Environments

Protecting VMware environments using Tivoli Storage Manager for Virtual Environments

The customer environment consists of the following:

- vSphere (host) 1 with 12 virtual machines (guests).
- vSphere (host) 2 with 19 virtual machines (guests).
- All of the guests on both vSphere servers (hosts) are protected using Tivoli Storage Manager for Virtual Environments V6.2.

Notes :

- Either IBM Tivoli Storage Manager or IBM Tivoli Storage Manager Extended Edition are prerequisite products for Tivoli Storage Manager for Virtual Environments and require entitlement on all physical system cores on the vSphere hosts. This entitlement applies only to the vSphere hosts protected by Tivoli Storage Manager for Virtual Environments.
- Tivoli Storage Manager for Virtual Environments is physically installed on a centralized vStorage backup server, which is a secondary or proxy machine that is used to perform the backup using the vStorage application programming

interface (API). This secondary or proxy machine can be either a physical machine or a virtual machine. A single vStorage backup server can be used to protect one or more virtual machines that reside on one or more vSphere servers. The customer can use one or more vStorage backup servers.

- Entitlements for Tivoli Storage Manager for Virtual Environments, Tivoli Storage Manager, and Tivoli Storage Manager Extended Edition are not required on the vStorage backup server. Tivoli Storage Manager for Virtual Environment, Tivoli Storage Manager, and Tivoli Storage Manager Extended Edition entitlements are only required for the managed environment, which is the processor cores on the vSphere hosts running the virtual machines being protected.
- Tivoli Storage Manager for Virtual Environments can also be licensed under sub-capacity software licensing terms, if required. Processor Value Unit (PVU) sub-capacity licensing lets you license an eligible software product for less than the full capacity (or total number of processors) of your server or group of servers. It provides the licensing granularity needed to leverage various multicore chip and virtualization technologies. The sub-capacity software licensing terms are documented in the International Passport Advantage Agreement (IPAA) Attachment for Sub-capacity Licensing Terms (Sub-capacity Licensing Attachment).
- IBM Tivoli Storage Manager for Virtual Environments sub-capacity entitlement requires that the virtual cores, assigned to virtual machines on VMware ESX servers being backed up by the proxy server, are to be entitled.

#### Full capacity requirement

Scenario 1: Use a single vStorage backup server to protect both vSphere hosts

Quantity of processor core entitlements required	vSphere host 1 (4 way)	vSphere host 2 (8 way)	vStorage backup server (2 way)	Total
Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	4	8	0	12
Tivoli Storage Manager for Virtual Environments	4	8	0	12

Scenario 2: Use two (2 way) vStorage backup servers to protect only the larger vSphere host

Quantity of processor core entitlements required	vSphere host 1 (4 way)	vSphere host 2 (8 way)	vStorage backup server 1 (2 way)	vStorage backup server 2 (2 way)	Total
Tivoli Storage Manager or Tivoli Storage Manager Extended Edition	0	8	0	0	8
Tivoli Storage Manager for Virtual Environments	0	8	0	0	8

#### **Pricing example for Tivoli Storage Manager Suite for Unified Recovery and Tivoli Storage Manager Suite for Unified Recovery - Front End**

Tivoli Storage Manager Suite for Unified Recovery and Tivoli Storage Manager Suite for Unified Recovery - Front End use the same tiered TB pricing model. The model consists of seven tiers that are to be used cumulatively. All tiers must be used in order (begin with the first tier and move on to the second tier, and so on) to arrive at the desired total amount of TB.

Tivoli Storage Manager Suite for Unified Recovery - Front End measures capacity on protected data at the source, instead of using capacity at Tivoli Storage Manager primary storage pool on the backend.

Based on the actual TB tiers, the following example is an illustration, using variables for prices, that shows how to calculate the prices:

Tier TB range (actual)	\$K/TB
1-100	x
101-250	y
251-500	z
501-750	a
751-1,250	b
1,251-2,000	c
2,001+	d
Total TB ordered	How it is charged
50 TB	$(x * 50 \text{ TB})$
150 TB	$(x * 100 \text{ TB}) + (y * 50 \text{ TB})$
500 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB})$
1,200 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 450 \text{ TB})$
1,800 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 500 \text{ TB}) + (c * 550 \text{ TB})$
2,500 TB	$(x * 100 \text{ TB}) + (y * 150 \text{ TB}) + (z * 250 \text{ TB}) +$ $(a * 250 \text{ TB}) + (b * 500 \text{ TB}) + (c * 750 \text{ TB}) +$ $(d * 500 \text{ TB})$

### Pricing example for Tivoli Storage Manager Suite for Unified Recovery Archive Option

#### Scenario 1

A client has Tivoli Storage Manager Suite for Unified Recovery Archive Option with a 5 TB primary disk storage pool and a removable media storage pool that will store 4 TB of data within the next 12 months. The data in the primary storage pools will be copied for off-site protection to a copy pool. The client has designated 10 TB of removable media for a copy storage pool.

The client must purchase 9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option

#### Scenario 2 (additional capacity)

A client purchased 9 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option. Twelve months after that initial purchase, the client is managing 9 TB of data. Over the next 12 months, the client estimates they will need to manage an additional 2.4 TB worth of data.

The client should purchase an additional 3 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4 TB	11.4 TB	12 TB of Tivoli Storage Manager Suite for Unified Recovery Archive Option

### **Pricing example for Tivoli Storage Manager Suite for Unified Recovery ProtecTIER Option**

If a customer has IBM ProtecTIER with a total aggregate usable physical capacity, excluding any capacity for disaster recovery sites used for replication only, of 20 TB that they will use as part of their Tivoli Storage Manager primary storage pool, they require Proof of Entitlements (PoEs) of 20 TB of IBM Tivoli Storage Manager Suite for Unified Recovery ProtecTIER Option, regardless of the amount utilized. So, for example, in the case where the IBM ProtecTIER has a total aggregate usable physical capacity of 20 TB and the customer has 10 TB stored, the licensing requirement is for 20 TB.

Note: Entitlements for Tivoli Storage Manager Suite for Unified Recover ProtecTIER Option and Tivoli Storage Manager Suite for Unified Recovery standard tiers are not interchangeable and are separately licensed.

### **Pricing example for Tivoli Storage Manager Suite for Unified Recovery Entry**

Tivoli Storage Manager Suite for Unified Recovery Entry supports a combined maximum of 100 terabytes (TB) per enterprise in the designated Tivoli Storage Manager primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack repository volumes. In addition, a maximum of two Tivoli Storage Manager servers are supported per enterprise.

If a customer has 10 TB in their Tivoli Storage Manager primary storage pool and 10 TB in their Tivoli Storage Manager FastBack repository, the customer requires Proofs of Entitlements (PoEs) of 20 TB of Tivoli Storage Manager Suite for Unified Recovery Entry.

If a customer reaches the maximum of 100 TB under management and foresees the need for more licenses, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5724-Z12).

If a customer requires more than two Tivoli Storage Manager servers, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5724-Z12).

### **Pricing example for Tivoli Storage Manager Suite for Unified Recovery Entry - Front End**

Tivoli Storage Manager Suite for Unified Recovery Entry - Front End supports a maximum of 100 TB per enterprise for the aggregate amount of data protected by the program. In addition, a maximum of two Tivoli Storage Manager servers are supported per enterprise.

If a customer has 10 TB protected data, the customer requires Proofs of Entitlements (PoEs) of 10 TB of Tivoli Storage Manager Suite for Unified Recovery Entry - Front End.

If a customer reaches the maximum of 100 TB protected data and foresees the need for more licenses, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37).

If a customer requires more than two Tivoli Storage Manager servers, the customer will require a trade up to Tivoli Storage Manager Suite for Unified Recovery (5725-R37).

### Pricing example for Tivoli Storage Manager Entry products

- A managed server for IBM Tivoli Storage Manager Entry is a server that is managed or protected by one of the components of this offering.
- Use is supported for up to 50 managed servers per enterprise, up to five of which can be virtual host servers.
- Use is supported with 100 or fewer nodes registered to Tivoli Storage Manager per enterprise. The replicated nodes do not count towards the 100 node count.
- Tivoli Storage Manager Entry is only supported on Microsoft Windows, Linux x86, and Linux on POWER® platform.
- When using Per Managed Server licensing, entitlement for IBM Tivoli Storage Manager Entry is required for all managed servers including the managing server.
- Customers who are entitled to IBM Tivoli Storage Manager Entry are allowed to use node replication capability.

#### Scenario 1

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One managing server
- Ten 4-way file servers
- Two 8-way mail servers

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager (Backup Assistant client)	10
IBM Tivoli Storage Manager for Mail	2
Total TSM Entry Entitlement:	13

#### Scenario 2

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One 16-way managing server
- Two 16-way VMware ESX Host servers
- Six 8-way mail servers
- Six 16-way database servers

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager for Virtual Environments	2
IBM Tivoli Storage Manager for Mail	6
IBM Tivoli Storage Manager for Databases	6
Total TSM Entry entitlement:	15



### Scenario 3

The customer wants to do backup and recovery operations for all LAN-connected servers in its network. The customer environment consists of the following:

- One managing server
- Two VMware ESX Host servers
- Eight mail servers; four of which are running in VM hosted by 1 ESX host
- Nine database servers; two of which are running in VMs hosted by ESX host

Entitlements required for the above environment are:

Product description	Quantity of entitlement required
IBM Tivoli Storage Manager	1
IBM Tivoli Storage Manager for Virtual Environments	2
IBM Tivoli Storage Manager for Mail	8
IBM Tivoli Storage Manager for Databases	9
Total TSM Entry entitlement:	20

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## Ordering information

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This IBM Workstation Software product is being announced as a dual-pipe offering, and is available for ordering by program and feature number or by part number.

When ordering by part numbers, this product can be obtained through IBM Passport Advantage. Contact your IBM representative or IBM Business Partner Reseller and Distributors for Workstation Software.

For more information, contact your IBM Sales Specialist, IBM Business Partner, or visit

<http://www.ibm.com/software/support/pa.html>

This product is only available via Passport Advantage. It is not available as shrinkwrap.

These products may only be sold directly by IBM or by authorized IBM Business Partners for Software Value Plus.

For more information about IBM Software Value Plus, visit

[http://www.ibm.com/partnerworld/page/svp\\_authorized\\_portfolio](http://www.ibm.com/partnerworld/page/svp_authorized_portfolio)

To locate IBM Business Partners for Software Value Plus in your geography for a specific Software Value Plus portfolio, visit

<http://www.ibm.com/partnerworld/wps/bplocator/>

Product group: Tivoli Storage Management

Product category: Tivoli Storage Manager

Product Identifier Descriptions	PID number
IBM Tivoli Storage Manager	5608-E01
IBM Tivoli Storage Manager Extended Edition	5608-E02
IBM System Storage Archive Manager	5608-E03
IBM Tivoli Storage Manager for Databases	5608-E04

IBM Tivoli Storage Manager for Enterprise Resource Planning	5680-E05
IBM Tivoli Storage Manager for Mail	5608-E06
IBM Tivoli Storage Manager for Storage Area Networks	5608-E07
IBM Tivoli Storage Manager for Space Management	5608-E12
IBM Tivoli Storage Manager HSM for Windows	5608-E13
IBM Tivoli Storage Manager Fastback for Workstations Starter Edition	5724-S64
IBM Tivoli Storage Manager Fastback for Workstations	5724-Y96
IBM Tivoli Storage Manager Suite for Unified Recovery	5724-Z12
IBM Tivoli Storage Manager for Virtual Environments	5725-A44
IBM Tivoli Storage Manager Suite for Unified Recovery Entry	5725-H25
IBM Tivoli Storage Manager Entry	5725-Q58
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End	5725-R37
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End	5725-R38
IBM Tivoli Storage FlashCopy Manager	5724-X94 (for PPA)
IBM Tivoli Storage FlashCopy Manager	5608-ACB (for AAS)

### Passport Advantage trade up

You must have previously acquired a license for the following precursor product to be eligible to acquire an equivalent license of the trade-up product.

Precursor product	Trade-up product	Trade-up part number
(5608-TE5) IBM Tivoli Storage Manager Express® License + SW S&S 12 Mo	(5608-E01) IBM Tivoli Storage Manager 10 PVU License + SW S&S 12 Mo	D59V5LL
(5608-E01) IBM Tivoli Storage Manager License + SW S&S 12 Mo	(5608-E02) IBM Tivoli Storage Manager Extended Edition 10 PVU License + SW S&S 12 Mo	D56FILL
(5608-TE5) IBM Tivoli Storage Manager for Express License + SW S&S 12 Mo	(5608-E02) IBM Tivoli Storage Manager Extended Edition 10 PVU License + SW S&S 12 Mo	D59V6LL
(5608-TEQ) IBM Tivoli Storage Manager for SQL Microsoft License + SW S&S 12 Mo	(5608-E04) IBM Tivoli Storage Manager for Databases 10 PVU License + SW S&S 12 Mo	D59V3LL
(5608-TEX) IBM Tivoli Storage Manager Express for Microsoft Exchange License + SW S&S 12 Mo	(5608-E06) IBM Tivoli Storage Manager for Mail 10 PVU License + SW S&S 12 Mo	D59V4LL
(5725-H25) IBM Tivoli Storage Manager Suite for Unified Recovery Entry Terabyte (1-100) License + SW S&S 12 Mo	(5724-Z12) IBM Tivoli Storage Manager Suite for Unified Recovery Terabyte (1-100) License + SW S&S 12 Mo	D0Q3ZLL
(5725-R38) IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End	(5725-R37) IBM Tivoli Storage Manager Suite for Unified Recovery - Front End	

Terabyte (1-100) License + SW S&S 12 Mo      Terabyte (1-100) License + SW S&S 12 Mo      D15T3LL

Consult your IBM representative if you have any questions.

### Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

Media packs description	Part number
IBM Tivoli Storage Manager V7.1.1 Multiplatform, ML Media Pack (5608-E01)	BJ15WML
IBM Tivoli Storage Manager Entry V7.1.1 Multiplatform, ML Media Pack (5725-Q58)	BJ16AML
IBM Tivoli Storage Manager Extended Edition V7.1.1 Multiplatform, ML Media Pack (5608-E02)	BJ15XML
IBM System Storage Archive Manager V7.1.1 Multiplatform, ML Media Pack (5608-E03)	BJ15ZML
IBM Tivoli Storage Manager for Databases V7.1.1 Multiplatform, ML Media Pack (5608-E04)	BJ160ML
IBM Tivoli Storage Manager for Mail V7.1.1 Multiplatform, ML Media Pack (5608-E06)	BJ161ML
IBM Tivoli Storage Manager for Storage Area Network V7.1.1 Multiplatform, ML Media Pack (5608-E07)	BJ162ML
IBM Tivoli Storage Manager for Space Mgmt V7.1.1 Multiplatform, ML Media Pack (5608-E12)	BJ163ML
IBM Tivoli Storage Manager for HSM windows V7.1.1 Multiplatform, ML Media Pack (5608-E13)	BJ164ML
IBM Tivoli Storage Manager for Virtual Environments V7.1.1 Multiplatform, ML Media Pack (5725-A44)	BJ167ML
IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ166ML
IBM Tivoli Storage Manager Suite for Unified Recovery Archive Option V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16CML
IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16DML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 Multiplatform, ML Media Pack (5725-H25)	BJ15YML
IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 Multiplatform, ML Media (5724-Y96)	BJ165ML
IBM Tivoli Storage Manager Fastback for Workstations Starter Edition V7.1.1 Multiplatform, ML Media (5724-S64)	BJ168ML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1 Multiplatform, ML Media Pack (5725-R37)	BJ15MML

IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R37)	BJ16EML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1 Multiplatform, ML Media Pack (5725-R38)	BJ15NML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R38)	BJ16BML
IBM Tivoli Storage Manager for Enterprise Resource Planning V6.4.2 Multiplatform, ML Media Pack (5608-E05)	BJ169ML
IBM Tivoli Storage FlashCopy Manager V4.1.1 Multiplatform, ML Media Pack	BJ15UML

## New licensees

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Orders for new licenses will be accepted now.

Shipment will begin on the planned availability date.

## Basic license

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### Ordering information for Passport Advantage

Passport Advantage allows you to have a common anniversary date for Software Subscription and Support (SW S&S) renewals, which can simplify management and budgeting for eligible new versions and releases (and related technical support) for your covered products. The anniversary date, established at the start of your Passport Advantage Agreement, will remain unchanged while your Passport Advantage Agreement remains in effect. New software purchases will initially include twelve full months of Software Subscription and Support (also referred to as Software Maintenance). Software Subscription and Support in the second year (the first year of renewal) can be prorated to be coterminous with your common anniversary date. Thereafter, all Software Subscription and Support (Software Maintenance) will renew at the common anniversary date for twelve full months of Software Subscription and Support (Software Maintenance).

Refer to the IBM International Passport Advantage Agreement and to the *IBM Software Support Handbook* for specific terms relating to, and a more complete description of, technical support provided through Software Subscription and Support (Software Maintenance).

### Tivoli Storage Manager

The quantity to be specified for the Passport Advantage part numbers in the following tables is per 10 Processor Value Units, per client device, and per terabyte. To order for Passport Advantage, specify the desired part number and quantity.

Description	Part number
IBM Tivoli Storage Manager (5608-E01)	
10 Processor Value Units:	
License and SW S&S 12 Months (Refer to Note 1)	D56FULL
Annual SW S&S Renewal	E029KLL
SW S&S Reinstatement 12 Months	D56FWLL
Lnx on z - License and SW S&S 12 Months	D56Q5LL
Lnx on z - Annual SW S&S Renewal	E02B7LL
Lnx on z - SW S&S Reinstatement 12 Months	D56Q6LL
Tradeup from Tivoli Storage Manager Express License and SW S&S 12 Months	D59V5LL

Client devices:	
License and SW S&S 12 Months	D5158LL
Annual SW S&S Renewal	E00AJLL
SW S&S Reinstatement 12 Months	D515ALL

Description	Part number
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IBM Tivoli Storage Manager Entry (5725-Q58)

Per managed server:	
License and SW S&S 12 Months	D14MFLL
Annual SW S&S Renewal	E0JFRL
SW S&S Reinstatement 12 Months	D14MGLL

Description	Part number
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IBM Tivoli Storage Manager Extended Edition (5608-E02)

10 Processor Value Units:	
License and SW S&S 12 Months	D56FELL
(Refer to Note 1)	
Annual SW S&S Renewal	E029ELL
SW S&S Reinstatement 12 Months	D56FFLL
Lnx on z - License and SW S&S 12 Months	D56FJLL
Lnx on z - Annual SW S&S Renewal	E029GLL
Lnx on z - SW S&S Reinstatement 12 Months	D56FKLL
Tradeup from Tivoli Storage Manager	
License and SW S&S 12 Months	D56FILL
Tradeup from Tivoli Storage Manager for Express	
License and SW S&S 12 Months	D59V6LL

Client devices:	
License and SW S&S 12 Months	D51MKLL
Annual SW S&S Renewal	E00IAL
SW S&S Reinstatement 12 Months	D51MMLL

Note 1: Client licenses are interchangeable between IBM Tivoli Storage Manager and IBM Tivoli Storage Manager Extended Edition.

Description	Part number
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IBM System Storage Archive Manager (5608-E03)

Per Terabyte (1-12)	
License and SW S&S 12 Months	D61H2LL
Annual SW S&S Renewal	E040YLL
SW S&S Reinstatement 12 Months	D61H3LL

Per Terabyte (13-32)	
License and SW S&S 12 Months	D61G7LL
Annual SW S&S Renewal	E040ILL
SW S&S Reinstatement 12 Months	D61G8LL

Per Terabyte (33-64)	
License and SW S&S 12 Months	D61GHLL
Annual SW S&S Renewal	E040NLL
SW S&S Reinstatement 12 Months	D61GILL

Per Terabyte (65-100)	
License and SW S&S 12 Months	D61GJLL
Annual SW S&S Renewal	E040PLL
SW S&S Reinstatement 12 Months	D61GKLL

Per Terabyte (101-250)	
License and SW S&S 12 Months	D61GLLL
Annual SW S&S Renewal	E040QLL
SW S&S Reinstatement 12 Months	D61GMLL

Per Terabyte (251+)	
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License and SW S&S 12 Months	D61GNLL
Annual SW S&S Renewal	E040RLL
SW S&S Reinstatement 12 Months	D61GPLL
Description	Part number
IBM Tivoli Storage Manager for Databases (5608-E04)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56D9LL
Annual SW S&S Renewal	E028WLL
SW S&S Reinstatement 12 Months	D56DALL
Tradeup from Tivoli Storage Manager for SQL Microsoft	
License and SW S&S 12 Months	D59V3LL
for zEnterprise® BladeCenter® Extension and Linux on	
System z 10 Processor Value Units (PVUs)	
License and SW S&S 12 Months	D0BTCLL
Annual SW S&S Renewal	E087QLL
SW S&S Reinstatement 12 Months	D0BTDLL
Description	Part number
IBM Tivoli Storage Manager for Enterprise Resource Planning	
V6.4.2 (5608-E05)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56F7LL
Annual SW S&S Renewal	E029CLL
SW S&S Reinstatement 12 Months	D56FBLL
Description	Part number
IBM Tivoli Storage Manager for Mail (5608-E06)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56Q3LL
Annual SW S&S Renewal	E02B6LL
SW S&S Reinstatement 12 Months	D56Q4LL
Lnx on z - License and SW S&S 12 Months	D56Q1LL
Lnx on z - Annual SW S&S Renewal	E02B5LL
Lnx on z - SW S&S Reinstatement 12 Months	D56Q2LL
Tradeup from Tivoli Storage Manager Express	
Microsoft Exchange	
License and SW S&S 12 Months	D59V4LL
Description	Part number
IBM Tivoli Storage Manager for Storage Area Network (5608-E07)	
10 Processor Value Units:	
License and SW S&S 12 Months	D56FPLL
Annual SW S&S Renewal	E029ILL
SW S&S Reinstatement 12 Months	D56FQLL
Client devices:	
License and SW S&S 12 Months	D51MYLL
Annual SW S&S Renewal	E00IELL
SW S&S Reinstatement 12 Months	D51N0LL
for zEnterprise BladeCenter Extension and Linux on	
System z 10 Processor Value Units (PVUs)	
Annual SW S&S Renewal	E07XCLL
License + SW S&S 12 Months	D0BE7LL
SW S&S Reinstatement 12 Months	D0BE8LL
Description	Part number
IBM Tivoli Storage Manager for Space Management (5608-E12)	

10 Processor Value Units:	
License and SW S&S 12 Months	D56FLLL
Annual SW S&S Renewal	E029HLL
SW S&S Reinstatement 12 Months	D56FMLL
Description	Part number
IBM Tivoli Storage Manager HSM for windows (5608-E13)	
Per terabytes:	
License and SW S&S 12 Months	D55H5LL
Annual SW S&S Renewal	E01ZBLL
SW S&S Reinstatement 12 Months	D55H6LL
Description	Part number
IBM Tivoli Storage Manager for Virtual Environments (5725-A44)	
10 Processor Value Units:	
License and SW S&S 12 Months	D0I2SLL
Annual SW S&S Renewal	E0BI0LL
SW S&S Reinstatement 12 Months	D0I2TLL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D0BM1LL
Annual SW S&S Renewal	E084XLL
SW S&S Reinstatement 12 Months	D0BM2LL
Tradeup from Tivoli Storage Manager Suite for Unified Recovery Entry Terabyte (1-100)	
License and SW S&S 12 Months	D0Q3ZLL
Per Terabyte (101-250)	
License and SW S&S 12 Months	D0BM9LL
Annual SW S&S Renewal	E0851LL
SW S&S Reinstatement 12 Months	D0BMALL
Per Terabyte (251-500)	
License and SW S&S 12 Months	D0BMBLL
Annual SW S&S Renewal	E0852LL
SW S&S Reinstatement 12 Months	D0BMCLL
Per Terabyte (501-750)	
License and SW S&S 12 Months	D0BMJLL
Annual SW S&S Renewal	E0856LL
SW S&S Reinstatement 12 Months	D0BMLLL
Per Terabyte (751-1,250)	
License and SW S&S 12 Months	D0BMKLL
Annual SW S&S Renewal	E0857LL
SW S&S Reinstatement 12 Months	D0BMMLL
Per Terabyte (1,251-2,000)	
License and SW S&S 12 Months	D0BMULL
Annual SW S&S Renewal	E085BLL
SW S&S Reinstatement 12 Months	D0BMWLL
Per Terabyte (2,001+)	
License and SW S&S 12 Months	D0BMVLL
Annual SW S&S Renewal	E085CLL
SW S&S Reinstatement 12 Months	D0BMXLL
Archive Option Per Terabyte	
License and SW S&S 12 Months	D0PCMLL
Annual SW S&S Renewal	E0DMPLL
SW S&S Reinstatement 12 Months	D0PCNLL
Archive Option Per Terabyte for Linux on z	

License and SW S&S 12 Months	D11CNLL
Annual SW S&S Renewal	E0IBSLL
SW S&S Reinstatement 12 Months	D11CPLL
ProtectTIER Option Per Terabyte	
License and SW S&S 12 Months	D10XWLL
Annual SW S&S Renewal	E0I67LL
SW S&S Reinstatement 12 Months	D10XXLL
for Linux System z Terabyte (1-100)	
License and SW S&S 12 Months	D0QCXLL
Annual SW S&S Renewal	E0E11LL
SW S&S Reinstatement 12 Months	D0QCYLL
for Linux System z Terabyte (101-250)	
License and SW S&S 12 Months	D0QCZLL
Annual SW S&S Renewal	E0E12LL
SW S&S Reinstatement 12 Months	D0QD0LL
for Linux System z Terabyte (251-500)	
License and SW S&S 12 Months	D0QD1LL
Annual SW S&S Renewal	E0E13LL
SW S&S Reinstatement 12 Months	D0QD2LL
for Linux System z Terabyte (501-750) Annual SW	
License and SW S&S 12 Months	D0QD3LL
Annual SW S&S Renewal	E0E14LL
SW S&S Reinstatement 12 Months	D0QD4LL
for Linux System z Terabyte (751-1250) Annual SW	
License and SW S&S 12 Months	D0QD5LL
Annual SW S&S Renewal	E0E15LL
SW S&S Reinstatement 12 Months	D0QD6LL
for Linux System z Terabyte (1251-2000) Annual SW	
License and SW S&S 12 Months	D0QD7LL
Annual SW S&S Renewal	E0E16LL
SW S&S Reinstatement 12 Months	D0QD8LL
for Linux System z Terabyte (2001+) Annual SW	
License and SW S&S 12 Months	D0QD9LL
Annual SW S&S Renewal	E0E17LL
SW S&S Reinstatement 12 Months	D0QDALL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery Entry (5725-H25)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D0Q3XLL
Annual SW S&S Renewal	E0DYELL
SW S&S Reinstatement 12 Months	D0Q3YLL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D15T1LL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15T2LL
Tradeup from Tivoli Storage Manager Suite for Unified Recovery Entry - Front End Terabyte (1-100)	
License and SW S&S 12 Months	D15T3LL
Per Terabyte Linux on Sys z (1-100)	
License and SW S&S 12 Months	D15SVLL
Annual SW S&S Renewal	E0JV8LL
SW S&S Reinstatement 12 Months	D15SWLL



Per Terabyte (101-250)	
License and SW S&S 12 Months	D15TALL
Annual SW S&S Renewal	E0JVFL
SW S&S Reinstatement 12 Months	D15TBLL
Per Terabyte Linux on Sys z (101-250)	
License and SW S&S 12 Months	D15T4LL
Annual SW S&S Renewal	E0JVCLL
SW S&S Reinstatement 12 Months	D15T5LL
Per Terabyte (251-500)	
License and SW S&S 12 Months	D15T8LL
Annual SW S&S Renewal	E0JVELL
SW S&S Reinstatement 12 Months	D15T9LL
Per Terabyte Linux on Sys z (251-500)	
License and SW S&S 12 Months	D15TELL
Annual SW S&S Renewal	E0JVGLL
SW S&S Reinstatement 12 Months	D15TFLL
Per Terabyte (501-750)	
License and SW S&S 12 Months	D15SHLL
Annual SW S&S Renewal	E0JV5LL
SW S&S Reinstatement 12 Months	D15SILL
Per Terabyte Linux on Sys z (501-750)	
License and SW S&S 12 Months	D15SJLL
Annual SW S&S Renewal	E0JV6LL
SW S&S Reinstatement 12 Months	D15SKLL
Per Terabyte (751-1250)	
License and SW S&S 12 Months	D15SLLL
Annual SW S&S Renewal	E0JV7LL
SW S&S Reinstatement 12 Months	D15SMLL
Per Terabyte Linux on Sys z (751-1250)	
License and SW S&S 12 Months	D15SXLL
Annual SW S&S Renewal	E0JV9LL
SW S&S Reinstatement 12 Months	D15SYLL
Per Terabyte (1251-2000)	
License and SW S&S 12 Months	D15SZLL
Annual SW S&S Renewal	E0JVALL
SW S&S Reinstatement 12 Months	D15T0LL
Per Terabyte Linux on Sys z (1251-2000)	
License and SW S&S 12 Months	D15T6LL
Annual SW S&S Renewal	E0JVDLL
SW S&S Reinstatement 12 Months	D15T7LL
Per Terabyte (2001+)	
License and SW S&S 12 Months	D15S4LL
Annual SW S&S Renewal	E0JV2LL
SW S&S Reinstatement 12 Months	D15S5LL
Per Terabyte Linux on Sys z (2001+)	
License and SW S&S 12 Months	D15S6LL
Annual SW S&S Renewal	E0JV3LL
SW S&S Reinstatement 12 Months	D15S7LL
Description	Part number
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End (5725-R38)	
Per Terabyte (1-100)	
License and SW S&S 12 Months	D15S8LL
Annual SW S&S Renewal	E0JV4LL
SW S&S Reinstatement 12 Months	D15S9LL
Description	Part number

IBM Tivoli Storage Manager Fastback for Workstations (5724-Y96)

Per 25 client devices	
License and SW S&S 12 Months	D0BYWLL
SW S&S Annual Renewal	E08A8LL
SW S&S Reinstatement 12 Months	D0BYXLL

Description	Part number
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IBM Tivoli Storage Manager Fastback for Workstations Starter Edition (5724-S64) (previously known as IBM Tivoli Continuous Data Protection for Files Starter Edition)

Per single client	
License and SW S&S 12 Months	D613ALL
SW S&S Annual Renewal	E03U5LL
SW S&S Reinstatement 12 Months	D613BLL

To order a media pack for Passport Advantage, specify the part number in the desired quantity from the following table:

Media pack description and entitled Maintenance offerings description	Part number
IBM Tivoli Storage Manager V7.1.1 Multiplatform, ML Media Pack (5608-E01)	BJ15WML
IBM Tivoli Storage Manager Entry V7.1.1 Multiplatform, ML Media Pack (5725-Q58)	BJ16AML
IBM Tivoli Storage Manager Extended Edition V7.1.1 Multiplatform, ML Media Pack (5608-E02)	BJ15XML
IBM System Storage Archive Manager V7.1.1 Multiplatform, ML Media Pack (5608-E03)	BJ15ZML
IBM Tivoli Storage Manager for Databases V7.1.1 Multiplatform, ML Media Pack (5608-E04)	BJ160ML
IBM Tivoli Storage Manager for Mail V7.1.1 Multiplatform, ML Media Pack (5608-E06)	BJ161ML
IBM Tivoli Storage Manager for Storage Area Network V7.1.1 Multiplatform, ML Media Pack (5608-E07)	BJ162ML
IBM Tivoli Storage Manager for Space Mgmt V7.1.1 Multiplatform, ML Media Pack (5608-E12)	BJ163ML
IBM Tivoli Storage Manager for HSM Windows V7.1.1 Multiplatform, ML Media Pack (5608-E13)	BJ164ML
IBM Tivoli Storage Manager for Virtual Environments V7.1.1 Multiplatform, ML Media Pack (5725-A44)	BJ167ML
IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ166ML
IBM Tivoli Storage Manager Suite for Unified Recovery Archive Option V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ16CML
IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER V7.1.1 Multiplatform, ML Media Pack (5724-Z12)	BJ160ML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 Multiplatform, ML Media	BJ154ML

Pack (5725-H25)

IBM Tivoli Storage Manager Fastback for Workstations V7.1.1 Multiplatform, ML Media (5724-Y96)	BJ165ML
IBM Tivoli Storage Manager Fastback for Workstations Starter Edition V7.1.1 Multiplatform, ML Media (5724-S64)	BJ168ML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1 Multiplatform, ML Media Pack (5725-R37)	BJ15MML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R37)	BJ16EML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1 Multiplatform, ML Media Pack (5725-R38)	BJ15MNL
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 Multiplatform, ML Media Pack (5725-R38)	BJ16BML
IBM Tivoli Storage Manager Suite for Enterprise Resource Planning V6.4.2 Multiplatform, ML Media Pack (5608-E05)	BJ169ML

The products listed in the above tables are also available via web download from Passport Advantage.

Note 2: These DVDs are also included in the Tivoli Storage Manager and Tivoli Storage Manager Extended Edition packages.

**FlashCopy Manager**

The quantity to be specified for the Passport Advantage part numbers in the following table is per terabyte. To order for Passport Advantage, specify the desired part number and quantity.

Description	Part number
IBM Tivoli Storage FlashCopy Manager (5724-X94)	
Per Terabyte (1-12)	
License and SW S&S 12 Months	D0B5GLL
Annual SW S&S Renewal	E07TXLL
SW S&S Reinstatement 12 Months	D0B83LL
Per Terabyte (13-32)	
License and SW S&S 12 Months	D0B6YLL
Annual SW S&S Renewal	E07UBLL
SW S&S Reinstatement 12 Months	D0B84LL
Per Terabyte (33-64)	
License and SW S&S 12 Months	D0B85LL
Annual SW S&S Renewal	E07UTLL
SW S&S Reinstatement 12 Months	D0B86LL
Per Terabyte (65-100)	
License and SW S&S 12 Months	D0B87LL
Annual SW S&S Renewal	E07UULL
SW S&S Reinstatement 12 Months	D0B88LL
Per Terabyte (101-250)	
License and SW S&S 12 Months	D0B8CLL
Annual SW S&S Renewal	E07UXLL
SW S&S Reinstatement 12 Months	D0B8DLL

Per Terabyte (251+)	
License and SW S&S 12 Months	D0B8ELL
Annual SW S&S Renewal	E07UYLL
SW S&S Reinstatement 12 Months	D0B8FLL

To order a media pack for Passport Advantage, specify the part number in the desired quantity from the following table:

Description	Part number
IBM Tivoli Storage FlashCopy Manager V4.1.1 Multiplatform, ML Media Pack	BJ15UML

### **Ordering information for non-Passport Advantage (AAS ordering systems)**

For information about Software Subscription and Support options, contact your IBM representative.

#### **Order handling**

IBM Tivoli Storage FlashCopy Manager V4.1.1 (5608-ACB) may be ordered through existing channels using the existing configurator and ordering tools. However, the fulfillment processes have been modified to improve customer records management associated with Software Subscription and Support (SW S&S), often referred to as Software Maintenance. SW S&S will be entitled through Passport Advantage.

5608-ACB, when selected during configuration process with each hardware system, will be enabled for electronic download for the system unit for which the product was ordered. Optionally, software and license only configurations can be created for 5608-ACB based on existing supported hardware system units in your business environment. 5608-ACB is available exclusively via electronic download.

After receipt of an order, you will be required to register for, and accept, Passport Advantage or Passport Advantage Express terms and conditions. Upon registration, you will be provided with a website for the electronic download.

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

To order a basic license, specify the program number and the one-time charge feature number in the quantity desired.

The program is available via electronic download only. Physical media can be ordered via Passport Advantage once entitled.

The quantity to be specified for the feature numbers in the following tables is per terabyte.

Product number	Product name	Feature number
5608-ACB	IBM Tivoli Storage FlashCopy Manager V4.1.1	
	Per Terabyte (1-12) with 1 Year SW S&S	M3VZQE
	Per Terabyte (13-32) with 1 Year SW S&S	M3V0QE
	Per Terabyte (33-64) with 1 Year SW S&S	M3V1QE
	Per Terabyte (65-100) with 1 Year SW S&S	M3V2QE
	Per Terabyte (101-250) with 1 Year SW S&S	M3V3QE
	Per Terabyte (251+) with 1 Year SW S&S	M3V4QE
	Per 250 Terabyte (251+) with 1 Year SW S&S	X3V4ZE

#### **Rapid Application Software bundle**

To order a Rapid Application Storage Manager or a Rapid Application Backup bundle for program numbers 5608-ACB, 5608-FCY, 5608-R16, 5608-R13, 5608-R17, and

5608-R18, specify the desired no charge feature number below, where feature number 6398 applies only to RASM and feature number 6399 applies only to RAB.

Feature number	Description
6398	Unlimited users entitlement
6399	Unlimited external users entitlement

### Software Subscription and Support (SW S&S)

This software license includes SW S&S, also referred to as Software Maintenance, for a period of 12 months from the date of acquisition. Extending coverage from two to five years from date of acquisition may be elected.

To order, specify the SW S&S program number and the desired registration feature number. With the exception of SW S&S 1 Year No Charge Registration, a one-time charge applies.

#### IBM Tivoli Storage FlashCopy Manager SW S&S Registration

SW S&S PID 1 Year: 5608-FCY

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 1 Year No Charge Registration	M3LFQF
Per Terabyte (13-32)	
-- SW S&S 1 Year No Charge Registration	M3LGQF
Per Terabyte (33-64)	
-- SW S&S 1 Year No Charge Registration	M3LHQF
Per Terabyte (65-100)	
-- SW S&S 1 Year No Charge Registration	M3LJQF
Per Terabyte (101-250)	
-- SW S&S 1 Year No Charge Registration	M3LKQF
Per Terabyte (251+)	
-- SW S&S 1 Year No Charge Registration	M3LLQF
Per 250 Terabyte (251+)	
-- SW S&S 1 Year No Charge Registration	X3LLZG

SW S&S PID 2 Year: 5608-R16

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 2 Year Registration	M3F7X5
Per Terabyte (13-32)	
-- SW S&S 2 Year Registration	M3F8X5
Per Terabyte (33-64)	
-- SW S&S 2 Year Registration	M3F9X5
Per Terabyte (65-100)	
-- SW S&S 2 Year Registration	M3GAX5
Per Terabyte (101-250)	
-- SW S&S 2 Year Registration	M3GBX5
Per Terabyte (251+)	
-- SW S&S 2 Year Registration	M3GCX5
Per 250 Terabyte (251+)	
-- SW S&S 2 Year Registration	X3GC81

SW S&S PID 3 Year: 5608-R13

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 3 Year Registration	M3FNQH
Per Terabyte (13-32)	
-- SW S&S 3 Year Registration	M3FPQH
Per Terabyte (33-64)	
-- SW S&S 3 Year Registration	M3FRQH

Per Terabyte (65-100)	
-- SW S&S 3 Year Registration	M3FSQH
Per Terabyte (101-250)	
-- SW S&S 3 Year Registration	M3FTQH
Per Terabyte (251+)	
-- SW S&S 3 Year Registration	M3FUQH
Per 250 Terabyte (251+)	
-- SW S&S 3 Year Registration	X3FU0B

SW S&S PID 4 Year: 5608-R17

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 4 Year Registration	M3GDY7
Per Terabyte (13-32)	
-- SW S&S 4 Year Registration	M3GEX7
Per Terabyte (33-64)	
-- SW S&S 4 Year Registration	M3GFX7
Per Terabyte (65-100)	
-- SW S&S 4 Year Registration	M3GGX7
Per Terabyte (101-250)	
-- SW S&S 4 Year Registration	M3GHX7
Per Terabyte (251+)	
-- SW S&S 4 Year Registration	M3GJX7
Per 250 Terabyte (251+)	
-- SW S&S 4 Year Registration	X3GJ8G

SW S&S PID 5 Year: 5608-R18

Description	Feature number
Per Terabyte (1-12)	
-- SW S&S 5 Year Registration	M3GKX6
Per Terabyte (13-32)	
-- SW S&S 5 Year Registration	M3GLX6
Per Terabyte (33-64)	
-- SW S&S 5 Year Registration	M3GMX6
Per Terabyte (65-100)	
-- SW S&S 5 Year Registration	M3GNX6
Per Terabyte (101-250)	
-- SW S&S 5 Year Registration	M3GPX6
Per Terabyte (251+)	
-- SW S&S 5 Year Registration	M3GRX6
Per 250 Terabyte (251+)	
-- SW S&S 5 Year Registration	X3GR8H

### Subscription and Support

Subscription and Support must be ordered to receive voice technical support via telephone during normal business hours, and future releases and versions, at no additional charge. The capacity of Subscription and Support (for example, terabytes) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program product number and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products, via a separately purchased offering, under the terms of the IBM International Agreement for Acquisition of Support Maintenance. This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone during normal business hours.
- Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new products.

When Subscription and Support is ordered, the charges will automatically renew annually unless cancelled by you.

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## Terms and conditions

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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.

This product is only available via Passport Advantage.

### ***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. Part number products only, offered outside of Passport Advantage, where applicable, are license only and do not include Software Maintenance.

### ***Agreement for Acquisition of Software Maintenance***

The IBM Agreement for Acquisition of Software Maintenance (Z125-6011) 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 number***

- IBM Tivoli Storage Manager V7.1.1 (5608-E01): L-BEBY-9LST9P
- IBM Tivoli Storage Manager Entry V7.1.1 (5725-Q58): L-BEBY-9LTRR3
- IBM Tivoli Storage Manager Extended Edition V7.1.1 (5608-E02): L-BEBY-9LSTK8
- IBM System Storage Archive Manager V7.1.1 (5608-E03): L-BEBY-9LSTNH
- IBM Tivoli Storage Manager for Databases V7.1.1 (5608-E04): L-BEBY-9LSTVC
- IBM Tivoli Storage Manager for Mail V7.1.1 (5608-E06): L-BEBY-9LSTX4
- IBM Tivoli Storage Manager for Storage Area Networks V7.1.1 (5608-E07): L-BEBY-9LSTRC
- IBM Tivoli Storage Manager for Space Management V7.1.1 (5608-E12): L-BEBY-9LSU8P
- IBM Tivoli Storage Manager HSM for Windows V7.1.1 (5608-E13): L-BEBY-9LSUAP
- IBM Tivoli Storage Manager for Virtual Environments V7.1.1 (5725-A44): L-BEBY-9LSTYT
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry V7.1.1 (5725-H25): L-BEBY-9LSW47
- IBM Tivoli Storage Manager Suite for Unified Recovery V7.1.1 (5724-Z12): L-BEBY-9LTQY6
- IBM Tivoli Storage Manager Suite for Unified Recovery - Archive Option V7.1.1 (5724-Z12): L-BEBY-9LTR4X

- IBM Tivoli Storage Manager Suite for Unified Recovery - ProtecTIER Option V7.1.1 (5724-Z12): L-BEBY-9LTRAG
- IBM Tivoli Storage Manager Suite for Unified Recovery - Front End V7.1.1 (5725-R37): L-BEBY-9LTSDS
- IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End V7.1.1 (5725-R38): L-BEBY-9LTSGG
- IBM Tivoli Storage Manager FastBack for Workstations V7.1.1 (5724-Y96): L-BEBY-9LSU3Z
- IBM Tivoli Storage Manager FastBack for Workstations Starter Edition V7.1.1 (5724-S64): L-BEBY-9LSU6U
- IBM Tivoli Storage FlashCopy Manager (for Passport Advantage) V4.1.1 (5724-X94): L-BEBY-9LSUCT
- IBM Tivoli Storage FlashCopy Manager V4.1.1 (for AAS) (5608-ACB): L-BEBY-9LSUCT

The program's License Information 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).

### ***Program technical support***

Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect. This technical support allows you to obtain assistance (via telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support (Software Maintenance) also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, via announcement letter, of discontinuance of support with 12 months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

### ***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 (1) for programs acquired under the IBM International Passport Advantage offering, this term applies only to your first acquisition of the program and (2) 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)**

No

**IBM International Passport Advantage Agreement**

**Passport Advantage applies**

Yes, and through the Passport Advantage website at

<http://www.ibm.com/software/passportadvantage>

**Usage restriction**

Yes. Usage is limited to the quantity of Processor Value Units, client devices, and terabytes licensed.

For additional information, refer to the License Information document that is available on the IBM Software License Agreement website

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

**Software Subscription and Support applies**

Yes. Software Subscription and Support (also referred to as Software Maintenance), is now included in the Passport Advantage Agreement. Installation and technical support for the products announced in this announcement is provided by the Software Subscription and Support offering of the IBM International Passport Advantage Agreement. This fee service enhances customer productivity by providing voice or electronic access into the IBM support organizations.

IBM includes one year of Software Subscription and Support with the initial license acquisition of each program acquired. The initial period of Software Subscription and Support can be extended by the purchase of a renewal option.

While your Software Subscription and Support 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 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.

For additional information about the Passport Advantage Agreement, visit the Passport Advantage website at

<http://www.ibm.com/software/passportadvantage>

All distributed software licenses include Software Subscription and Support 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 three years from date of acquisition, may be elected.

***Variable charges apply***

No

***Educational allowance available***

Yes. When ordering through the program number process, a 15% education allowance applies to qualified education institution customers.

Education software allowance program applies when ordering through the program number process.

For the part number ordering process, special education prices are available for qualified customers through Passport Advantage.

***ESAP available***

Yes, to qualified customers.

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## **Statement of good security practices**

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IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.

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## **IBM Electronic Services**

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Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support, all at no additional cost to you.

Now integrated into the base operating system of AIX V5.3, AIX V6.1, and AIX V7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type `smitty esa_main`, and select Configure Electronic Service Agent. In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

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

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

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## Benefits

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**Increased uptime:** The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the symptoms, diagnosing the error, and manually calling IBM Support to open a problem record. Its 24x7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

**Security:** The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits via either the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide you a single point of exit from your site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into your system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable only by you and IBM. Your business applications or business data is never transmitted to IBM.

**More accurate reporting:** Because system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, you are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

**Customized support:** Using the IBM ID entered during activation, you can view system and support information in the My Systems and Premium Search sections of the Electronic Support website at

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

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with your IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium Search and the Electronic Service Agent information that has been collected from your system, you are able to see search results that apply specifically to your systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

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

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## Prices

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For all local charges, contact your IBM representative.

### Passport Advantage

For Passport Advantage and charges, contact your IBM representative or your authorized IBM Business Partner. Additional information is also available at

<http://www.ibm.com/software/passportadvantage>

## **Business Partner information**

If you are an IBM Business Partner -- Distributor for Workstation Software acquiring products from IBM, you may link to Passport Advantage Online for resellers where you can obtain Business Partner pricing information. An IBM ID and password are required.

<https://www.ibm.com/software/howtobuy/passportadvantage/paoreseller/emea/channelannouncement>

Authorization to resell IBM software products is achieved at the Reseller Authorization group level. You must be authorized in the Tivoli Storage Group to sell this product. To register an opportunity for this product in the Global Partner Portal, you may use Product Family - Software: Tivoli Storage. For information on how to become an Authorized Business Partner in IBM Software Value Plus, visit website

<https://www-304.ibm.com/partnerworld/wps/servlet/ContentHandler/svp>

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## **Announcement countries**

All European, Middle Eastern, and African countries except Iran, Sudan, and Syria.

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