



# IBM Spectrum Protect V7.1.3 and IBM Spectrum Protect Snapshot V4.1.3 provide breakthrough deduplication, native cloud storage, and a user-centric portal for file restore from virtual machines

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## At a glance

IBM Spectrum™ Protect V7.1.3 (formerly IBM® Tivoli® Storage Manager) offers the following new capabilities:

- Breakthrough cost and performance improvements for scalability and efficiency of software defined deduplication, increased ingestion rates, and increased capacity.
- Low cost, secure cloud storage capability, leveraging native object storage without the need for a gateway
- Extremely simple file-level restores for VMware virtual machine backups through a self-service web portal
- Lowers the cost of ownership and makes it simpler to administer through enhanced monitoring, more reporting and analytics, and wizard-based configuration

IBM Spectrum Protect Snapshot V4.1.3 (formerly IBM Tivoli Storage FlashCopy® Manager), which is included in the four IBM Spectrum Protect Suite products, delivers:

- Ease-of-use enhancements in the area of snapshot-based data protection for applications, databases, and virtual environments.
- New capabilities for protecting Microsoft™ Exchange databases and cloning of Oracle databases.

## Overview

IBM Spectrum Protect V7.1.3 (formerly IBM Tivoli Storage Manager) adds more scalability, efficiency, and flexibility with the following features:

- Up to ten times improvement in capacity per Spectrum Protect server using built-in software defined deduplication technology, enabling a storage pool to protect petabytes of backup data.
- Up to four times improvement in backup throughput using highly efficient in-line server-side deduplication technology.
- New, efficient, server-side, in-line deduplication allows the use of inexpensive backup storage pool disks.

- Deduplicated storage pools that natively leverage on-premises object storage or off-premises cloud-based object storage. Off-premises data is secured with encryption in-flight and at rest, and deduplication enables efficient transfer.
- Extends NetApp snapshot-assisted progressive incremental backup to clustered Data ONTAP environments.
- Easy installation experience with integrated language packs for all supported languages.

IBM Spectrum Protect V7.1.3 Operations Center adds more visibility, more control, and more automation with the following features:

- Setting up and monitoring Spectrum Protect replication is simplified through the addition of setup wizards and new monitoring screens.
- New wizards to help you configure and manage the new deduplication and object storage pools.
- Ability to define a lifecycle for decommission of client nodes data, which streamlines the process of removing backup data for decommissioned systems.
- Improved ease of use of backup policy configurations with ability to add, activate, and edit backup policy management classes.
- New interfaces to show front-end capacity values to make it easy to verify license compliancy.
- A REST API to help automate and simplify management of the Spectrum Protect environment for cloud and managed service providers.

IBM Spectrum Protect for Virtual Environments V7.1.3 simplifies the user experience with the following enhancements:

- Intuitive web-based portal for self-service file recovery that enables virtual machine owners, administrators, or help desk personnel the ability to perform file-level restores from VMware image backups in an automated way, reducing the complexity and cost
- Integrates with VMware hosted Microsoft Exchange Server environments to enable simple item-level mailbox restores from Data Protection for VMware backups

IBM Spectrum Protect Snapshot V4.1.3 (formerly IBM Tivoli FlashCopy Manager):

- Improves ease of use and, therefore, reduces administrative expenses by delivering the following functions:
  - Dynamic allocation for IBM Spectrum Virtualize FlashCopy target volumes in VMware environments
  - Enhanced pre-installation check program in UNIX™ environments
- Reduces business risks and achieves operational efficiencies by delivering the following new functions:
  - Individual item recovery from the Microsoft Exchange Recoverable Items Folder
  - Support for cloning of Oracle database running in Real Application Cluster mode on Oracle's Automatic Storage Management

### New product names

Prior product name	VRM	Prior PID	New product name	VRM	New PID
IBM Tivoli Storage Manager	7.1.2	5608-E01	IBM Spectrum Protect	7.1.3	5725-W98
IBM Tivoli Storage Manager Extended Edition	7.1.2	5608-E02	IBM Spectrum Protect Extended Edition	7.1.3	5725-W99
IBM Tivoli Storage	7.1.2	5725-A44	IBM Spectrum	7.1.3	5725-X00

<b>Prior product name</b>	<b>VRM</b>	<b>Prior PID</b>	<b>New product name</b>	<b>VRM</b>	<b>New PID</b>
Manager for Virtual Environments			Protect for Virtual Environments:		
IBM Tivoli Storage Manager for Databases	7.1.2	5608-E04	IBM Spectrum Protect for Databases	7.1.3	5725-X01
IBM Tivoli Storage Manager for Mail	7.1.2	5608-E06	IBM Spectrum Protect for Mail	7.1.3	5725-X02
IBM Tivoli Storage Manager for Enterprise Resource Planning	6.4.2	5608-E05	IBM Spectrum Protect for Enterprise Resource Planning	7.1.3	5725-X03
IBM Tivoli Storage Manager for Storage Area Networks	7.1.1	5608-E07	IBM Spectrum Protect for SAN	7.1.3	5725-X18
IBM Tivoli Storage Manager for Space Management	7.1.2	5608-E12	IBM Spectrum Protect for Space Management	7.1.3	5725-X04
IBM Tivoli Storage Manager Suite for Unified Recovery	7.1.2	5724-Z12	IBM Spectrum Protect Suite	7.1.3	5725-X05
IBM Tivoli Storage Manager Suite for Unified Recovery Entry	7.1.2	5725-H25	IBM Spectrum Protect Suite Entry	7.1.3	5725-X06
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End	7.1.2	5725-R37	IBM Spectrum Protect Suite - Front End	7.1.3	5725-X07
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End	7.1.2	5725-R38	IBM Spectrum Protect Suite Entry - Front End	7.1.3	5725-X08
IBM Tivoli Storage Manager Entry	7.1.2	5725-Q58	IBM Spectrum Protect Entry	7.1.3	5725-X11
IBM Tivoli Storage Manager Fastback	7.1.1	5724-Y96	IBM Spectrum Protect for Workstations	7.1.3	5725-X12

Prior product name	VRM	Prior PID	New product name	VRM	New PID
for Workstations					
IBM Tivoli Storage Manager Fastback for Workstations -Starter Edition	7.1.1	5724-S64	IBM Spectrum Protect for Workstations - Starter Edition	7.1.3	5725-X13
IBM Tivoli Storage Manager HSM for Windows™	7.1.2	5608-E13	IBM Spectrum Protect HSM for Windows	7.1.3	5725-X14
IBM Tivoli Storage FlashCopy Manager	4.1.2	5608-ACB (AAS)	IBM Spectrum Protect Snapshot	4.1.3	5608-AB3 (AAS)
IBM Tivoli Storage FlashCopy Manager	4.1.2	5724-X94 (PPA)	IBM Spectrum Protect Snapshot	4.1.3	5725-X22 (PPA)
IBM System Storage <sup>(R)</sup> Archive Manager	7.1.2	5608-E03	IBM Spectrum Protect for Data Retention	7.1.3	5725-X15

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## Key prerequisites

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Refer to the [Technical information](#) section.

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## Planned availability date

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- September 11, 2015: For electronic availability
- October 09, 2015: For physical availability

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## Description

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IBM Spectrum Protect V7.1.3 (formerly IBM Tivoli Storage Manager) delivers cost, performance, and scalability efficiencies:

- New storage pool technology provides native software deduplication capability with up to four times improvement in daily backup ingest throughput and up to ten times improvement in storage capacity for a single backup server instance.
- Compatible with existing client-side deduplication capability, which reduces backup data at the source and minimizes network bandwidth requirements.
- Inline server side deduplication eliminates the need for separate post-ingest processing of backup storage pool data, thus reducing resource requirements on the Spectrum Protect server.

Spectrum Protect V7.1.3 expands storage pool options to include secure on-premises or off-premises cloud object storage:

- Native object storage pool option supports IBM SoftLayer<sup>(R)</sup> or OpenStack Swift object storage, providing an on-premises or off-premises destination for backup data as an alternative or replacement for tape or on-site disk.

- Encryption of deduplicated data at rest ensures secure storage of off-premises backup data.

Spectrum Protect V7.1.3 incorporates user-centered design to enhance the user experience in administering, monitoring, and managing large, complex backup environments:

- Simplified, wizard-based configuration for deduplication and object storage pools.
- IBM Spectrum Protect V7.1.3 Operations Center dashboard including:
  - Setting up and monitoring Spectrum Protect replication that is simplified through the addition of setup wizards and new monitoring screens.
  - New wizards to help you configure and manage the new deduplication and object storage pools.
  - Ability to define a lifecycle for decommission of client nodes data, which streamlines the process of removing backup data for decommissioned systems.
  - Improved ease of use of backup policy configurations with ability to add, activate, and edit backup policy management classes.
  - New interfaces to show front-end capacity values to make it easy to verify license compliancy.
  - A REST API to help automate and simplify management of the Spectrum Protect environment for cloud and managed service providers.

Spectrum Protect V7.1.3 extends VMware data protection with enhanced, self-service, web browser based file restore:

- Highly simplified individual file restore using a web browser that enables users, VMware administrators, and backup administrators to perform restores of individual files from a block level image backup of virtual machines.

Spectrum Protect V7.1.3 improves integration with IBM Spectrum Scale V4.1.1:

- Spectrum Protect Backup Archive Client and Spectrum Protect for Space Management support for IBM Spectrum Scale Active File Management, including Active File Management Disaster Recovery
- Spectrum Protect Backup Archive Client support for Spectrum Scale backup on fileset level using snapshots (mmbackup)

IBM Spectrum Protect Snapshot (formerly IBM Tivoli FlashCopy Manager) improves ease of use and increases administrative efficiency:

- Introduces dynamic allocation for IBM Spectrum Virtualize FlashCopy target volumes in VMware environments. When configuring Spectrum Protect, Snapshot administrators can define storage pools containing target volumes where the snapshots should reside. At run time, when a FlashCopy operation takes place, the required target volumes are dynamically allocated by Spectrum Protect Snapshot.
- Provides a pre-installation check program in UNIX environments, which has been further automated since it verifies that the installation environment meets the requirements for the installation of Spectrum Protect Snapshot. This function improves the ease of use during installation to reduce administrative expenses. In addition, operational efficiencies are achieved when multiple Spectrum Protect Snapshot instances are deployed.

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## Reference information

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Refer to Software Announcement [AP13-0444](#), dated October 29, 2013 for information about the following products:

- IBM Spectrum Protect (5725-W98) previously known as IBM Tivoli Storage Manager (5608-E01)
- IBM Spectrum Protect Extended Edition (5725-W99) previously known as IBM Tivoli Storage Manager Extended Edition (5608-E02)

- IBM Spectrum Protect for Data Retention (5725-X15) previously known as IBM System Storage Archive Manager (5608-E03)
- IBM Spectrum Protect for Databases (5725-X01) previously known as IBM Tivoli Storage Manager for Databases (5608-E04)
- IBM Spectrum Protect for Enterprise Resource Planning (5725-X03) previously known as IBM Tivoli Storage Manager for Enterprise Resource Planning (5608-E05)
- IBM Spectrum Protect for Mail (5725-X02) previously known as IBM Tivoli Storage Manager for Mail (5608-E06)
- IBM Spectrum Protect for SAN (5725-X18) previously known as IBM Tivoli Storage Manager for Storage Area Networks (5608-E07)
- IBM Spectrum Protect for Space Management (5725-X04) previously known as IBM Tivoli Storage Manager for Space Management (5608-E12)
- IBM Spectrum Protect for Virtual Environments (5725-X00) previously known as IBM Tivoli Storage Manager for Virtual Environments (5725-A44)
- IBM Spectrum Protect for Workstations (5725-X12) previously known as IBM Tivoli Storage Manager Fastback for Workstations (5724-Y96)
- IBM Spectrum Protect for Workstations - Starter Edition (5725-X13) previously known as IBM Tivoli Storage Manager Fastback for Workstations - Starter Edition (5724-S64)
- IBM Spectrum Protect HSM for Windows (5725-X14) previously known as IBM Tivoli Storage Manager HSM for Windows (5608-E13)
- IBM Spectrum Protect Suite (5725-X05) previously known as IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12)
- IBM Spectrum Protect Suite Entry (5725-X06) previously known as IBM Tivoli Storage Manager Suite for Unified Recovery Entry (5725-H25)
- IBM Spectrum Protect Snapshot (5725-X22) previously known as IBM Tivoli Storage FlashCopy Manager (5724-X94) (for PPA)
- IBM Spectrum Protect Snapshot (5608-AB3) previously known as IBM Tivoli Storage FlashCopy Manager (5608-ACB) (for AAS)

Refer to Software Announcement [AP14-0207](#), dated April 15, 2014 for information about IBM Spectrum Protect Entry (5725-X11) previously known as IBM Tivoli Storage Manager Entry (5725-Q58).

Refer to Software Announcement [AP14-0339](#), dated September 2, 2014 for information about:

- IBM Spectrum Protect Suite - Front End (5725-X07) previously known as IBM Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37)
- IBM Spectrum Protect Suite Entry - Front End (5725-X08) previously known as IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End (5725-R38)

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## Availability of national languages

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Description	Availability date	Language
Electronic	September 11, 2015	Korean, Japanese, Simplified Chinese, Traditional Chinese, English
Media	October 9, 2015	Korean, Japanese, Simplified Chinese, Traditional Chinese, English

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## Program number

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Program number	VR	Program name
5725-W98	7.1.3	IBM Spectrum Protect

<b>Program number</b>	<b>VR</b>	<b>Program name</b>
5725-X11	7.1.3	IBM Spectrum Protect Entry
5725-W99	7.1.3	IBM Spectrum Protect Extended Edition
5725-X15	7.1.3	IBM Spectrum Protect for Data Retention
5725-X01	7.1.3	IBM Spectrum Protect for Databases
5725-X03	7.1.3	IBM Spectrum Protect for Enterprise Resource Planning
5725-X02	7.1.3	IBM Spectrum Protect for Mail
5725-X18	7.1.3	IBM Spectrum Protect for SAN
5725-X04	7.1.3	IBM Spectrum Protect for Space Management
5725-X00	7.1.3	IBM Spectrum Protect for Virtual Environments
5725-X12	7.1.3	IBM Spectrum Protect for Workstations
5725-X13	7.1.3	IBM Spectrum Protect for Workstations-Starter Edition
5725-X14	7.1.3	IBM Spectrum Protect HSM for Windows
5725-X05	7.1.3	IBM Spectrum Protect Suite
5725-X07	7.1.3	IBM Spectrum Protect Suite-Front End
5725-X06	7.1.3	IBM Spectrum Protect Suite Entry
5725-X08	7.1.3	IBM Spectrum Protect Suite Entry-Front End
5725-X22	4.1.3	IBM Spectrum Protect Snapshot (for Passport Advantage <sup>(R)</sup> )
5608-AB3	4.1.3	IBM Spectrum Protect Snapshot (for AAS)

### **Product identification number**

IBM Spectrum Protect Snapshot (for AAS)

<b>Program PID number</b>	<b>Registration PID number</b>	<b>SW Subscription and Support</b>
5608-AB3	5608-FCY	1 Year PID no charge registration number
	5608-R16	2 Year PID registration number
	5608-R13	3 Year PID registration number
	5608-R17	4 Year PID registration number
	5608-R18	5 Year PID registration number

### **Education support**

IBM training provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers are on the IBM training website

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

Contact your IBM representative for course information.

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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<sup>(R)</sup> 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 IBM Knowledge Center on the general availability date. The product documentation is found under the Cloud and Smarter Infrastructure category.

IBM Knowledge Center is located at

<http://ibm.biz/IBMKCgo>

Links to downloadable PDF files will also be provided in IBM Knowledge Center.

The IBM Spectrum Protect server documentation is being revised to focus on the preferred methods for implementing data protection solutions. The Version 7.1.3 documentation includes instructions that are designed to streamline and simplify the process of implementing and managing a single-site or multisite disk solution.

Note: For this release, IBM Spectrum Protect documentation is listed with the Tivoli family product names.

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## Technical information

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### **Specified operating environment**

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#### ***Software requirements***

#### **IBM Spectrum Protect supported devices**

Refer to the following websites for the list of devices that are supported by Spectrum Protect (5725-W98), IBM Spectrum Protect Extended Edition (5725-W99), and IBM Spectrum Protect for Data Retention (5725-X15). Libraries that have more than 4 drives or more than 48 tape slots require a license for Spectrum Protect Extended Edition.

For Spectrum Protect supported devices for AIX<sup>(R)</sup>, HP-UX, Solaris, and Microsoft Windows, visit

[http://www-01.ibm.com/software/sysmgmt/products/support/IBM\\_TSM\\_Supported\\_Devices\\_for\\_AIXHPUNIX.html](http://www-01.ibm.com/software/sysmgmt/products/support/IBM_TSM_Supported_Devices_for_AIXHPUNIX.html)

For Spectrum Protect supported devices for Linux<sup>TM</sup>, 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 the Spectrum Protect V7.1 products are available at the website listed with each product below.**



IBM Spectrum Protect (refer to Note 1)

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

IBM Spectrum Protect Extended Edition (refer to Note 1)

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

IBM Spectrum Protect for Data Retention (refer to Note 1)

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

IBM Spectrum Protect for Databases

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

IBM Spectrum Protect for Enterprise Resource Planning

<http://www.ibm.com/support/docview.wss?uid=swg21219410>

IBM Spectrum Protect for Mail

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

IBM Spectrum Protect for Space Management

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

IBM Spectrum Protect for SAN

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

IBM Spectrum Protect for Virtual Environments

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

IBM Spectrum Protect for Workstations

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

IBM Spectrum Protect for Workstations Starter Edition

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

IBM Spectrum Protect HSM for Windows

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

IBM Spectrum Protect Snapshot

<http://www.ibm.com/support/docview.wss?uid=swg21427692>

For technical requirements for IBM Spectrum Protect Suite V7.1.3 and Spectrum Protect Suite Entry V7.1.3, refer to the individual product websites listed above.

Note 1: IBM Spectrum Protect V7.1, Spectrum Protect Extended Edition V7.1, and Spectrum Protect for Data Retention 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 IBM Spectrum Protect. 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, Tivoli Storage Productivity Center complements Spectrum Protect. The customer who leverages these products can benefit from the ability to extend policies and file reports to directly initiate a Spectrum Protect backup or archive when certain threshold conditions are met, or in the case of file reports, if conditions deem it necessary.

### **Performance considerations**

Spectrum Protect products' 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. 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**

IBM Spectrum Protect products are distributed with:

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

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

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

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IBM Spectrum Protect products use the security and auditability features of the operating systems software.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

## Ordering information

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

Product group: Spectrum Protect

Product category: Spectrum Protect

Product Identifier Descriptions	PID number
IBM Spectrum Protect	5725-W98
IBM Spectrum Protect Entry	5725-X11
IBM Spectrum Protect Extended Edition	5725-W99
IBM Spectrum Protect for Data Retention	5725-X15
IBM Spectrum Protect for Databases	5725-X01
IBM Spectrum Protect for Enterprise Resource Planning	5725-X03
IBM Spectrum Protect for Mail	5725-X02
IBM Spectrum Protect for SAN	5725-X18
IBM Spectrum Protect for Space Management	5725-X04
IBM Spectrum Protect for Virtual Environments	5725-X00
IBM Spectrum Protect for Workstations	5725-X12
IBM Spectrum Protect for Workstations - Starter Edition	5725-X13
IBM Spectrum Protect HSM for Windows	5725-X14
IBM Spectrum Protect Suite	5725-X05
IBM Spectrum Protect Suite - Front End	5725-X07
IBM Spectrum Protect Suite Entry	5725-X06
IBM Spectrum Protect Suite Entry - Front End	5725-X08
IBM Spectrum Protect Snapshot (for PPA)	5725-X22
IBM Spectrum Protect Snapshot (for AAS)	5608-AB3

### 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
IBM Spectrum Protect (5725-W98)	IBM Spectrum Protect Extended Edition (5725-W99) 10 Processor Value Units (PVUs) Trade Up from IBM Spectrum Protect License + SW Subscription & Support 12 Months	D1IWQLL
IBM Spectrum Protect Suite Entry (5725-X06)	IBM Spectrum Protect Suite (5725-X05) Terabyte (1-100) Trade Up from IBM Spectrum Protect Suite - Entry License + SW Subscription & Support 12 Months	D1IVWLL
IBM Spectrum Protect Suite Entry - Front End (5725-X08)	IBM Spectrum Protect Suite - Front End (5725-X07) Terabyte (1-100) Trade Up from IBM Spectrum Protect Suite Entry - Front End License + SW Subscription & Support 12 Months	D1INJLL

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.

<b>Previous named product</b>	<b>Media packs description</b>	<b>Part number</b>
IBM Tivoli Storage Manager (5608-E01)	IBM Spectrum Protect for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-W98)	BJ17UML
IBM Tivoli Storage Manager Extended Edition (5608-E02)	IBM Spectrum Protect Extended Edition for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-W99)	BJ17VML
IBM System Storage Archive Manager (5608-E03)	IBM Spectrum Protect for Data Retention for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X15)	BJ17WML
IBM Tivoli Storage Manager for Databases (5608-E04)	IBM Spectrum Protect for Databases for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X01)	BJ17XML
IBM Tivoli Storage Manager for Enterprise Resource Planning (5608-E05)	IBM Spectrum Protect for Enterprise Resource Planning for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X03)	BJ17YML
IBM Tivoli Storage Manager for Mail (5608-E06)	IBM Spectrum Protect for Mail for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X02)	BJ17ZML
IBM Tivoli Storage Manager Fastback for Workstations (5724-Y96)	IBM Spectrum Protect for Workstations for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X12)	BJ180ML
IBM Tivoli Storage Manager Fastback for Workstations -Starter Edition (5724-S64)	IBM Spectrum Protect for Workstations - Starter Edition for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X13)	BJ181ML
IBM Tivoli Storage Manager for Storage Area Networks (5608-E07)	IBM Spectrum Protect for SAN for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X18)	BJ182ML
IBM Tivoli Storage Manager for Virtual Environments (5725-A44)	IBM Spectrum Protect for Virtual Environments for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X00)	BJ183ML
IBM Tivoli Storage Manager for Space Management (5608-E12)	IBM Spectrum Protect for Space Management for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X04)	BJ184ML
IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12)	IBM Spectrum Protect Suite for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X05)	BJ185ML

<b>Previous named product</b>	<b>Media packs description</b>	<b>Part number</b>
IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12)	IBM Spectrum Protect Suite - ProtecTIER <sup>(R)</sup> Option for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X05)	BJ186ML
IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12)	IBM Spectrum Protect Suite - Archive Option for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X05)	BJ187ML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry (5725-H25)	IBM Spectrum Protect Suite Entry for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X06)	BJ188ML
IBM Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37)	IBM Spectrum Protect Suite - Front End for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X07)	BJ189ML
IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End (5725-R38)	IBM Spectrum Protect Suite Entry - Front End for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X08)	BJ18AML
IBM Tivoli Storage Manager Entry (5725-Q58)	IBM Spectrum Protect Entry for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X11)	BJ18BML
IBM Tivoli Storage Manager HSM for Windows (5608-E13)	IBM Spectrum Protect HSM for Windows for Multiplatforms Version 7.1.3 Multilingual DVD Media Pack (5725-X14)	BJ18CML
IBM Tivoli Storage FlashCopy Manager (5724-X94)	IBM Spectrum Protect Snapshot V4.1.3 Multiplatform, ML Media Pack (5725-X22)	BJ18DML

**Cross-platform product for use on z Systems™ Integrated Facility for Linux (IFL) engines or zEnterprise<sup>(R)</sup> BladeCenter Extension**

Order the part numbers that follow when the product is intended to run on zEnterprise BladeCenter Extension or the Linux operating system on z Systems IFL engines. If the product is not intended to run in these environments, order from the other set of part numbers in this announcement. This set of part numbers provides the identical supply and authorization as the other set in this announcement.

<b>Program name/Description</b>	<b>Part number</b>
<b>IBM Spectrum Protect</b> (Refer to Note 1)	<b>5725-W98</b>
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1ISJLL
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVJLL
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs)	D1ISKLL

<b>Program name/Description</b>	<b>Part number</b>
SW Subscription & Support Reinstatement 12 Months	
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IMBLL
<b>IBM Spectrum Protect Extended Edition</b>	<b>5725-W99</b>
(Refer to Note 1)	
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWXL
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWKLL
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWYLL
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1INWLL
<b>IBM Spectrum Protect for Databases</b>	<b>5725-X01</b>
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWBLL
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWALL
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWCLL
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IRDLL
<b>IBM Spectrum Protect for Mail</b>	<b>5725-X02</b>
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVDLL
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVWLL
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value	D1IVELL

<b>Program name/Description</b>	<b>Part number</b>
Units (PVUs) SW Subscription & Support Reinstatement 12 Months	
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1ISCLL
<b>IBM Spectrum Protect for SAN</b>	
<b>5725-X18</b>	
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVNLL
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LW1LL
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVPLL
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IUULLL
<b>IBM Spectrum Protect Suite</b>	
<b>5725-X05</b>	
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IN0LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LUNLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1IN1LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) Monthly License	D1IMGLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IN2LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LUPLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IN3LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) Monthly License	D1IMHLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) License + SW Subscription & Support 12 Months	D1IN4LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) Annual SW Subscription & Support Renewal	E0LUQLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1IN5LL

<b>Program name/Description</b>	<b>Part number</b>
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) Monthly License	D1IMILL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) License + SW Subscription & Support 12 Months	D1IN6LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LURLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) SW Subscription & Support Reinstatement 12 Months	D1IN7LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) Monthly License	D1IMJLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1IN8LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LUSLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1IN9LL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) Monthly License	D1IMPLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1INALL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) Annual SW Subscription & Support Renewal	E0LUTLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1INBLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) Monthly License	D1IMQLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) License + SW Subscription & Support 12 Months	D1INCLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LUULL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) SW Subscription & Support Reinstatement 12 Months	D1INDLL
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) Monthly License	D1IMRLL
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte License + SW Subscription & Support 12 Months	D1INTLL
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Annual SW Subscription & Support Renewal	E0LV1LL
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte	D1INULL



<b>Program name/Description</b>	<b>Part number</b>
SW Subscription & Support Reinstatement 12 Months	
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Monthly License	D1IPBLL
<b>IBM Spectrum Protect Suite - Front End</b>	<b>5725-X07</b>
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IPSLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LV6LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1IPTLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) Monthly License	D1IS4LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IPULL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LV7LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IPVLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) Monthly License	D1ISELL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) License + SW Subscription & Support 12 Months	D1IPWLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) Annual SW Subscription & Support Renewal	E0LV8LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1IPXLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) Monthly License	D1ISFLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) License + SW Subscription & Support 12 Months	D1IPYLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LV9LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) SW Subscription & Support Reinstatement 12 Months	D1IPZLL

<b>Program name/Description</b>	<b>Part number</b>
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Monthly License	D1IUULL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1IQ0LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LVALL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1IQ1LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) Monthly License	D1IV6LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1IQ2LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) Annual SW Subscription & Support Renewal	E0LVBLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1IQ3LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) Monthly License	D1IV7LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) License + SW Subscription & Support 12 Months	D1IQ4LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LVCLL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) SW Subscription & Support Reinstatement 12 Months	D1IQ5LL
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) Monthly License	D1IV8LL

Note 1: Client licenses are interchangeable between IBM Spectrum Protect and IBM Spectrum Protect Extended Edition.

### **IBM Spectrum Protect Snapshot V4.1.3 (5608-AB3)**

<b>Feature description</b>	<b>Feature number</b>
Per Terabyte (1-12 ) with 1 Year SW S&S	A6MV
Per Terabyte (13-32) with 1 Year SW S&S	A6MW
Per Terabyte (33-64) with 1 Year SW S&S	A6NA
Per Terabyte (65-100) with 1 Year SW S&S	A6NB
Per Terabyte (101-250) with 1 Year SW S&S	A6NC
Per Terabyte (251+) with 1 Year SW S&S	A6ND
Per 250 Terabyte (251+) with 1 Year SW S&S	A6NE

## Charge metric

For IBM Spectrum Protect, the quantity to be specified for the Passport Advantage part numbers is in the following tables. To order for Passport Advantage, specify the desired part number and quantity.

Program name	Part number or PID number	Charge metric
<b>IBM Spectrum Protect</b>	<b>5725-W98</b>	
IBM Spectrum Protect 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IQHLL	10 PVU
IBM Spectrum Protect 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVGLL	10 PVU
IBM Spectrum Protect 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IQJLL	10 PVU
IBM Spectrum Protect 10 Processor Value Units (PVUs) Monthly License	D1IMALL	10 PVU
IBM Spectrum Protect per zEnterprise <sup>(R)</sup> Blade Center Extension and Linux on z Systems™ 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1ISJLL	10 PVU
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVJLL	10 PVU
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1ISKLL	10 PVU
IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IMBLL	10 PVU
IBM Spectrum Protect Client Device License + SW Subscription & Support 12 Months	D1IWLLL	Client device
IBM Spectrum Protect Client Device Annual SW Subscription & Support Renewal	E0LWFLL	Client device
IBM Spectrum Protect Client Device SW Subscription & Support Reinstatement 12 Months	D1IWMLL	Client device

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Client Device Monthly License	D1IMELL	Client device
<b>IBM Spectrum Protect Extended Edition</b>	<b>5725-W99</b>	
IBM Spectrum Protect Extended Edition 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWNLL	10 PVU
IBM Spectrum Protect Extended Edition 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWGLL	10 PVU
IBM Spectrum Protect Extended Edition 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWPLL	10 PVU
IBM Spectrum Protect Extended Edition 10 Processor Value Units (PVUs) Trade Up from IBM Spectrum Protect License + SW Subscription & Support 12 Months	D1IWQLL	10 PVU
IBM Spectrum Protect Extended Edition 10 Processor Value Units (PVUs) Monthly License	D1IMFLL	10 PVU
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWXLL	10 PVU
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWKLL	10 PVU
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWYLL	10 PVU
IBM Spectrum Protect Extended Edition per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1INWLL	10 PVU

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Extended Edition Client Device License + SW Subscription & Support 12 Months	D1IWZLL	Client device
IBM Spectrum Protect Extended Edition Client Device Annual SW Subscription & Support Renewal	E0LWLLL	Client device
IBM Spectrum Protect Extended Edition Client Device SW Subscription & Support Reinstatement 12 Months	D1IX0LL	Client device
IBM Spectrum Protect Extended Edition Client Device Monthly License	D1INXLL	Client device
<b>IBM Spectrum Protect for Data Retention</b>	<b>5725-X15</b>	
IBM Spectrum Protect for Data Retention Terabyte (1-12) License + SW Subscription & Support 12 Months	D1IWFL	Per Terabyte (1-12)
IBM Spectrum Protect for Data Retention Terabyte (1-12) Annual SW Subscription & Support Renewal	E0LWCLL	Per Terabyte (1-12)
IBM Spectrum Protect for Data Retention Terabyte (1-12) SW Subscription & Support Reinstatement 12 Months	D1IWGLL	Per Terabyte (1-12)
IBM Spectrum Protect for Data Retention Terabyte (1-12) Monthly License	D1IP8LL	Per Terabyte (1-12)
IBM Spectrum Protect for Data Retention Terabyte (13-32) License + SW Subscription & Support 12 Months	D1IWHLL	Per Terabyte (13-32)
IBM Spectrum Protect for Data Retention Terabyte (13-32) Annual SW Subscription & Support Renewal	E0LWDLL	Per Terabyte (13-32)
IBM Spectrum Protect for Data Retention Terabyte (13-32) SW Subscription & Support Reinstatement 12 Months	D1IWI	Per Terabyte (13-32)
IBM Spectrum Protect for Data Retention Terabyte (13-32) Monthly License	D1IP9LL	Per Terabyte (13-32)
IBM Spectrum Protect for Data Retention Terabyte (33-64) License + SW Subscription & Support 12 Months	D1IWJLL	Per Terabyte (33-64)
IBM Spectrum Protect for Data Retention Terabyte (33-64) Annual SW	E0LWELL	Per Terabyte (33-64)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
Subscription & Support Renewal		
IBM Spectrum Protect for Data Retention Terabyte (33-64) SW Subscription & Support Reinstatement 12 Months	D1IWKLL	Per Terabyte (33-64)
IBM Spectrum Protect for Data Retention Terabyte (33-64) Monthly License	D1IPALL	Per Terabyte (33-64)
IBM Spectrum Protect for Data Retention Terabyte (65-100) License + SW Subscription & Support 12 Months	D1IWRL	Per Terabyte (65-100)
IBM Spectrum Protect for Data Retention Terabyte (65-100) Annual SW Subscription & Support Renewal	E0LWHLL	Per Terabyte (65-100)
IBM Spectrum Protect for Data Retention Terabyte (65-100) SW Subscription & Support Reinstatement 12 Months	D1IWSLL	Per Terabyte (65-100)
IBM Spectrum Protect for Data Retention Terabyte (65-100) Monthly License	D1IQCLL	Per Terabyte (65-100)
IBM Spectrum Protect for Data Retention Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IWTL	Per Terabyte (101-250)
IBM Spectrum Protect for Data Retention Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LWILL	Per Terabyte (101-250)
IBM Spectrum Protect for Data Retention Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IWULL	Per Terabyte (101-250)
IBM Spectrum Protect for Data Retention Terabyte (101-250) Monthly License	D1IQDLL	Per Terabyte (101-250)
IBM Spectrum Protect for Data Retention Terabyte (251+) License + SW Subscription & Support 12 Months	D1I WVLL	Per Terabyte (251+)
IBM Spectrum Protect for Data Retention Terabyte (251+) Annual SW Subscription & Support Renewal	E0LWJLL	Per Terabyte (251+)
IBM Spectrum Protect for Data Retention Terabyte (251+) SW Subscription & Support Reinstatement 12 Months	D1IWWLL	Per Terabyte (251+)
IBM Spectrum Protect for Data Retention Terabyte (251+) Monthly License	D1IRBLL	Per Terabyte (251+)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
<b>IBM Spectrum Protect for Databases</b>	<b>5725-X01</b>	
IBM Spectrum Protect for Databases 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWELL	10 PVU
IBM Spectrum Protect for Databases 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWBLL	10 PVU
IBM Spectrum Protect for Databases 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWDLL	10 PVU
IBM Spectrum Protect for Databases 10 Processor Value Units (PVUs) Monthly License	D1IRCLL	10 PVU
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IWBLL	10 PVU
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LWALL	10 PVU
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IWCLL	10 PVU
IBM Spectrum Protect for Databases per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IRDLL	10 PVU
<b>IBM Spectrum Protect for Enterprise Resource Planning</b>	<b>5725-X03</b>	
IBM Spectrum Protect for Enterprise Resource Planning 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IV9LL	10 PVU
IBM Spectrum Protect for Enterprise Resource Planning 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVULL	10 PVU

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect for Enterprise Resource Planning 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVALL	10 PVU
IBM Spectrum Protect for Enterprise Resource Planning 10 Processor Value Units (PVUs) Monthly License	D1IRELL	10 PVU
<b>IBM Spectrum Protect for Mail</b>	<b>5725-X02</b>	
IBM Spectrum Protect for Mail 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVBLL	10 PVU
IBM Spectrum Protect for Mail 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVLL	10 PVU
IBM Spectrum Protect for Mail 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVCLL	10 PVU
IBM Spectrum Protect for Mail 10 Processor Value Units (PVUs) Monthly License	D1IRTLL	10 PVU
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVDLL	10 PVU
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVWLL	10 PVU
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVELL	10 PVU
IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1ISCLL	10 PVU
<b>IBM Spectrum Protect for Workstations</b>	<b>5725-X12</b>	



<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect for Workstations 25 Client Devices License + SW Subscription & Support 12 Months	D1IVFLL	Client device
IBM Spectrum Protect for Workstations 25 Client Devices Annual SW Subscription & Support Renewal	E0LVXLL	Client device
IBM Spectrum Protect for Workstations 25 Client Devices SW Subscription & Support Reinstatement 12 Months	D1IVGLL	Client device
IBM Spectrum Protect for Workstations 25 Client Devices Monthly License	D1ISHLL	Client device
<b>IBM Spectrum Protect for Workstations - Starter Edition</b>	<b>5725-X13</b>	
IBM Spectrum Protect for Workstations - Starter Edition Client Device License + SW Subscription & Support 12 Months	D1IVHLL	Client device
IBM Spectrum Protect for Workstations - Starter Edition Client Device Annual SW Subscription & Support Renewal	E0LVYLL	Client device
IBM Spectrum Protect for Workstations - Starter Edition Client Device SW Subscription & Support Reinstatement 12 Months	D1IVILL	Client device
IBM Spectrum Protect for Workstations - Starter Edition Client Device Monthly License	D1ISILL	Client device
<b>IBM Spectrum Protect for SAN</b>	<b>5725-X18</b>	
IBM Spectrum Protect for SAN 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVJLL	10 PVU
IBM Spectrum Protect for SAN 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LVZLL	10 PVU
IBM Spectrum Protect for SAN 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVKLL	10 PVU
IBM Spectrum Protect for SAN 10 Processor Value Units (PVUs) Monthly License	D1IUHLL	10 PVU
IBM Spectrum Protect for SAN Client Device	D1IVLLL	Client device

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
License + SW Subscription & Support 12 Months		
IBM Spectrum Protect for SAN Client Device Annual SW Subscription & Support Renewal	E0LW0LL	Client device
IBM Spectrum Protect for SAN Client Device SW Subscription & Support Reinstatement 12 Months	D1IVMLL	Client device
IBM Spectrum Protect for SAN Client Device Monthly License	D1IUILL	Client device
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVNLL	10 PVU
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LW1LL	10 PVU
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVPLL	10 PVU
IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License	D1IUULLL	10 PVU
<b>IBM Spectrum Protect for Virtual Environments</b>	<b>5725-X00</b>	
IBM Spectrum Protect for Virtual Environments 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVQLL	10 PVU
IBM Spectrum Protect for Virtual Environments 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LW2LL	10 PVU
IBM Spectrum Protect for Virtual Environments 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVRLL	10 PVU
IBM Spectrum Protect for Virtual Environments	D1IUPLL	10 PVU

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
10 Processor Value Units (PVUs) Monthly License		
<b>IBM Spectrum Protect for Space Management</b>	<b>5725-X04</b>	
IBM Spectrum Protect for Space Management 10 Processor Value Units (PVUs) License + SW Subscription & Support 12 Months	D1IVSLL	10 PVU
IBM Spectrum Protect for Space Management 10 Processor Value Units (PVUs) Annual SW Subscription & Support Renewal	E0LW3LL	10 PVU
IBM Spectrum Protect for Space Management 10 Processor Value Units (PVUs) SW Subscription & Support Reinstatement 12 Months	D1IVTLL	10 PVU
IBM Spectrum Protect for Space Management 10 Processor Value Units (PVUs) Monthly License	D1IUQLL	10 PVU
<b>IBM Spectrum Protect Suite</b>	<b>5725-X05</b>	
IBM Spectrum Protect Suite Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IVULL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LW4LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1IVVLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Terabyte (1-100) Trade Up from IBM Spectrum Protect Suite - Entry License + SW Subscription & Support 12 Months	D1IVWLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Terabyte (1-100) Monthly License	D1IM1LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IVXLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LW5LL	Per Terabyte (101-250)
IBM Spectrum Protect Suite Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IVYLL	Per Terabyte (101-250)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Suite Terabyte (101-250) Monthly License	D1IM2LL	Per Terabyte (101-250)
IBM Spectrum Protect Suite Terabyte (251-500) License + SW Subscription & Support 12 Months	D1IVZLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite Terabyte (251-500) Annual SW Subscription & Support Renewal	E0LW6LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1IW0LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite Terabyte (251-500) Monthly License	D1IM3LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite Terabyte (501-750) License + SW Subscription & Support 12 Months	D1IW1LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LW7LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite Terabyte (501-750) SW Subscription & Support Reinstatement 12 Months	D1IW2LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite Terabyte (501-750) Monthly License	D1IM4LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1IW3LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LW8LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1IW4LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite Terabyte (751-1250) Monthly License	D1IM5LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1IW5LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite Terabyte (1251-2000) Annual SW Subscription & Support Renewal	E0LW9LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1IW6LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite Terabyte	D1IMCLL	Per Terabyte (1251-2000)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
(1251-2000) Monthly License		
IBM Spectrum Protect Suite Terabyte (2001+) License + SW Subscription & Support 12 Months	D1IMYLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LUMLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite Terabyte (2001+) SW Subscription & Support Reinstatement 12 Months	D1IMZLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite Terabyte (2001+) Monthly License	D1IMDLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IN0LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LUNLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1IN1LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1-100) Monthly License	D1IMGLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IN2LL	Per Terabyte (101-250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LUPLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IN3LL	Per Terabyte (101-250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (101-250) Monthly License	D1IMHLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) License + SW Subscription & Support 12 Months	D1IN4LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte	E0LUQLL	Per Terabyte (251-500)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
(251-500) Annual SW Subscription & Support Renewal		
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1IN5LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (251-500) Monthly License	D1IMILL	Per Terabyte (251-500)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) License + SW Subscription & Support 12 Months	D1IN6LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LURLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) SW Subscription & Support Reinstatement 12 Months	D1IN7LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (501-750) Monthly License	D1IMJLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1IN8LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LUSLL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1IN9LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (751-1250) Monthly License	D1IMPLL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1INALL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte	E0LUTLL	Per Terabyte (1251-2000)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
(1251-2000) Annual SW Subscription & Support Renewal		
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1INBLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (1251-2000) Monthly License	D1IMQLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) License + SW Subscription & Support 12 Months	D1INCLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LUULL	Per Terabyte (2001+)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) SW Subscription & Support Reinstatement 12 Months	D1INDLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite per Linux on z Systems Terabyte (2001+) Monthly License	D1IMRLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - ProtecTIER <sup>(R)</sup> Option Terabyte License + SW Subscription & Support 12 Months	D1IMKLL	Per Terabyte
IBM Spectrum Protect Suite - ProtecTIER Option Terabyte Annual SW Subscription & Support Renewal	E0LUKLL	Per Terabyte
IBM Spectrum Protect Suite - ProtecTIER Option Terabyte SW Subscription & Support Reinstatement 12 Months	D1IMLLL	Per Terabyte
IBM Spectrum Protect Suite - ProtecTIER Option Terabyte Monthly License	D1INELL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option Terabyte License + SW Subscription & Support 12 Months	D1IMMLL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option Terabyte Annual SW Subscription & Support Renewal	E0LULLL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option Terabyte SW Subscription & Support Reinstatement 12 Months	D1IMNLL	Per Terabyte

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Suite - Archive Option Terabyte Monthly License	D1INVLL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte License + SW Subscription & Support 12 Months	D1INTLL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Annual SW Subscription & Support Renewal	E0LV1LL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte SW Subscription & Support Reinstatement 12 Months	D1INULL	Per Terabyte
IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Monthly License	D1IPBLL	Per Terabyte
<b>IBM Spectrum Protect Suite Entry</b>	<b>5725-X06</b>	
IBM Spectrum Protect Suite Entry Terabyte (1-100) License + SW Subscription & Support 12 Months	D1INFLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LUVLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1INGLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry Terabyte (1-100) Monthly License	D1IPCLL	Per Terabyte (1-100)
<b>IBM Spectrum Protect Suite - Front End</b>	<b>5725-X07</b>	
IBM Spectrum Protect Suite - Front End Terabyte (1-100) License + SW Subscription & Support 12 Months	D1INHLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LUWLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1INILL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End Terabyte	D1INJLL	Per Terabyte (1-100)



<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
(1-100) Trade Up from IBM Spectrum Protect Suite Entry - Front End License + SW Subscription & Support 12 Months		
IBM Spectrum Protect Suite - Front End Terabyte (1-100) Monthly License	D1IPGLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End Terabyte (101-250) License + SW Subscription & Support 12 Months	D1INKLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LUXLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1INLLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End Terabyte (101-250) Monthly License	D1IPHLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End Terabyte (251-500) License + SW Subscription & Support 12 Months	D1INMLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End Terabyte (251-500) Annual SW Subscription & Support Renewal	E0LUYLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1INNLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End Terabyte (251-500) Monthly License	D1IPILL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End Terabyte (501-750) License + SW Subscription & Support 12 Months	D1INPLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LUZLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End Terabyte (501-750) SW Subscription & Support Reinstatement 12 Months	D1INQLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End Terabyte (501-750) Monthly License	D1IPJLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1INRLL	Per Terabyte (751-1250)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Suite - Front End Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LV0LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1INSL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End Terabyte (751-1250) Monthly License	D1IPKLL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1IPNLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End Terabyte (1251-2000) Annual SW Subscription & Support Renewal	E0LV4LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1IPPLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End Terabyte (1251-2000) Monthly License	D1IPLLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End Terabyte (2001+) License + SW Subscription & Support 12 Months	D1IPQLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LV5LL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End Terabyte (2001+) SW Subscription & Support Reinstatement 12 Months	D1IPRLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End Terabyte (2001+) Monthly License	D1IPMLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IPSLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LV6LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) SW Subscription &	D1IPTLL	Per Terabyte (1-100)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
Support Reinstatement 12 Months		
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1-100) Monthly License	D1IS4LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) License + SW Subscription & Support 12 Months	D1IPULL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) Annual SW Subscription & Support Renewal	E0LV7LL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) SW Subscription & Support Reinstatement 12 Months	D1IPVLL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (101-250) Monthly License	D1ISELL	Per Terabyte (101-250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) License + SW Subscription & Support 12 Months	D1IPWLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) Annual SW Subscription & Support Renewal	E0LV8LL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) SW Subscription & Support Reinstatement 12 Months	D1IPXLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (251-500) Monthly License	D1ISFLL	Per Terabyte (251-500)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) License + SW Subscription & Support 12 Months	D1IPYLL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Annual SW Subscription & Support Renewal	E0LV9LL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) SW	D1IPZLL	Per Terabyte (501-750)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
Subscription & Support Reinstatement 12 Months		
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Monthly License	D1IUULL	Per Terabyte (501-750)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) License + SW Subscription & Support 12 Months	D1IQ0LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) Annual SW Subscription & Support Renewal	E0LVALL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months	D1IQ1LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (751-1250) Monthly License	D1IV6LL	Per Terabyte (751-1250)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) License + SW Subscription & Support 12 Months	D1IQ2LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) Annual SW Subscription & Support Renewal	E0LVBLL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) SW Subscription & Support Reinstatement 12 Months	D1IQ3LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (1251-2000) Monthly License	D1IV7LL	Per Terabyte (1251-2000)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) License + SW Subscription & Support 12 Months	D1IQ4LL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) Annual SW Subscription & Support Renewal	E0LVCLL	Per Terabyte (2001+)
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte	D1IQ5LL	Per Terabyte (2001+)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
(2001+) SW Subscription & Support Reinstatement 12 Months		
IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) Monthly License	D1IV8LL	Per Terabyte (2001+)
<b>IBM Spectrum Protect Suite Entry - Front End</b>	<b>5725-X08</b>	
IBM Spectrum Protect Suite Entry - Front End Terabyte (1-100) License + SW Subscription & Support 12 Months	D1IQ6LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry - Front End Terabyte (1-100) Annual SW Subscription & Support Renewal	E0LVDLL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry - Front End Terabyte (1-100) SW Subscription & Support Reinstatement 12 Months	D1IQ7LL	Per Terabyte (1-100)
IBM Spectrum Protect Suite Entry - Front End Terabyte (1-100) Monthly License	D1IPDLL	Per Terabyte (1-100)
<b>IBM Spectrum Protect Entry</b>	<b>5725-X11</b>	
IBM Spectrum Protect Entry Managed Server License + SW Subscription & Support 12 Months	D1IQ8LL	Per Managed Server
IBM Spectrum Protect Entry Managed Server Annual SW Subscription & Support Renewal	E0LVELL	Per Managed Server
IBM Spectrum Protect Entry Managed Server SW Subscription & Support Reinstatement 12 Months	D1IQ9LL	Per Managed Server
IBM Spectrum Protect Entry Managed Server Monthly License	D1IPELL	Per Managed Server
<b>IBM Spectrum Protect HSM for Windows</b>	<b>5725-X14</b>	
IBM Spectrum Protect HSM for Windows Terabyte License + SW Subscription & Support 12 Months	D1IQALL	Per Terabyte
IBM Spectrum Protect HSM for Windows Terabyte Annual SW Subscription & Support Renewal	E0LVFLL	Per Terabyte
IBM Spectrum Protect HSM for Windows Terabyte SW Subscription & Support Reinstatement 12 Months	D1IQBLL	Per Terabyte
<b>IBM Spectrum Protect Snapshot</b>	<b>5725-X22</b>	

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Snapshot per Terabyte 1-12 MONTHLY LICENSE	D1ILELL	Per Terabyte (1-12)
IBM Spectrum Protect Snapshot per Terabyte 1-12 License + SW Subscription & Support 12 Months	D1IKZLL	Per Terabyte (1-12)
IBM Spectrum Protect Snapshot per Terabyte 1-12 Annual SW Subscription & Support Renwal	E0LUDLL	Per Terabyte (1-12)
IBM Spectrum Protect Snapshot per Terabyte 1-12 SW Subscription & Support Reinstatement 12 Mo	D1IL0LL	Per Terabyte (1-12)
IBM Spectrum Protect Snapshot per Terabyte 13-32 MONTHLY LICENSE	D1ILTLL	Per Terabyte (13-32)
IBM Spectrum Protect Snapshot per Terabyte 13-32 License + SW Subscription & Support 12 Months	D1IL1LL	Per Terabyte (13-32)
IBM Spectrum Protect Snapshot per Terabyte 13-32 Annual SW Subscription & Support Renwal	E0LUELL	Per Terabyte (13-32)
IBM Spectrum Protect Snapshot per Terabyte 13-32 SW Subscription & Support Reinstatement 12 Mo	D1IL2LL	Per Terabyte (13-32)
IBM Spectrum Protect Snapshot per Terabyte 33-64 MONTHLY LICENSE	D1ILULL	Per Terabyte (33-64)
IBM Spectrum Protect Snapshot per Terabyte 33-64 License + SW Subscription & Support 12 Months	D1IL3LL	Per Terabyte (33-64)
IBM Spectrum Protect Snapshot per Terabyte 33-64 Annual SW Subscription & Support Renwal	E0LUFLL	Per Terabyte (33-64)
IBM Spectrum Protect Snapshot per Terabyte 33-64 SW Subscription & Support Reinstatement 12 Mo	D1IL4LL	Per Terabyte (33-64)
IBM Spectrum Protect Snapshot per Terabyte 65-100 MONTHLY LICENSE	D1ILVLL	Per Terabyte (65-100)
IBM Spectrum Protect Snapshot per Terabyte 65-100 License + SW Subscription & Support 12 Months	D1IL5LL	Per Terabyte (65-100)
IBM Spectrum Protect Snapshot per Terabyte 65-100 Annual SW Subscription & Support Renwal	E0LUGLL	Per Terabyte (65-100)

<b>Program name</b>	<b>Part number or PID number</b>	<b>Charge metric</b>
IBM Spectrum Protect Snapshot per Terabyte 65-100 SW Subscription & Support Reinstatement 12 Mo	D1IL6LL	Per Terabyte (65-100)
IBM Spectrum Protect Snapshot per Terabyte 101-250 MONTHLY LICENSE	D1ILWLL	Per Terabyte (101-250)
IBM Spectrum Protect Snapshot per Terabyte 101-250 License + SW Subscription & Support 12 Months	D1IL7LL	Per Terabyte (101-250)
IBM Spectrum Protect Snapshot per Terabyte 101-250 Annual SW Subscription & Support Renewal	E0LUHLL	Per Terabyte (101-250)
IBM Spectrum Protect Snapshot per Terabyte 101-250 SW Subscription & Support Reinstatement 12 Mo	D1IL8LL	Per Terabyte (101-250)
IBM Spectrum Protect Snapshot per Terabyte 251+ MONTHLY LICENSE	D1ILXLL	Per Terabyte (251+)
IBM Spectrum Protect Snapshot per Terabyte 251+ License + SW Subscription & Support 12 Months	D1IL9LL	Per Terabyte (251+)
IBM Spectrum Protect Snapshot per Terabyte 251+ Annual SW Subscription & Support Renewal	E0LUILL	Per Terabyte (251+)
IBM Spectrum Protect Snapshot per Terabyte 251+ SW Subscription & Support Reinstatement 12 Mo	D1ILALL	Per Terabyte (251+)

Note 1: Client licenses are interchangeable between IBM Spectrum Protect and IBM Spectrum Protect Extended Edition.

## **Licensing metric definitions**

### **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 (socket). 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 (see 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.

## 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 Spectrum Protect for Data Retention (formerly IBM Tivoli System Storage Archive Manager) terabyte capacity**

IBM Spectrum Protect for Data Retention terabyte capacity includes primary disk storage pool size combined with the amount of utilized primary removable media storage used by the Spectrum Protect for Data Retention 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 Spectrum Protect Suite (formerly 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 Spectrum Protect Suite, licensee must obtain sufficient entitlements required for all data stored in the designated Spectrum Protect primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack<sup>®</sup> repository volumes and for all data managed by the Spectrum Protect Snapshot.

**IBM Spectrum Protect Suite - Front End (formerly 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 Spectrum Protect Suite - Front End, licensee must obtain sufficient entitlements required for the aggregate amount of data protected by the program.

**IBM Spectrum Protect Suite - Archive Option terabyte capacity**

Entitlements for the Spectrum Protect Suite - Archive Option component apply only to data classified as archive data within Spectrum Protect 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 through the Spectrum Protect's user interface itself or through Spectrum Protect's application programming interface (API). Data stored on virtual tape appears to Spectrum Protect as physical tape. The Spectrum Protect Suite - Archive Option price applies to the capacity level recognized by Spectrum Protect (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 Spectrum Protect.

Licensee must obtain sufficient entitlements required for all data stored in the designated Spectrum Protect primary storage pool volumes and for all data stored in the designated IBM Tivoli Storage Manager Fastback repository volumes and for all data managed by the IBM Spectrum Protect Snapshot.

### **IBM Spectrum Protect Suite - 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 Spectrum Protect 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 Spectrum Protect server (with IBM DB2<sup>(R)</sup> included) to another Spectrum Protect server (with DB2 included), no additional DB2 licensing is required.

To use HADR to replicate from a Spectrum Protect 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

### Pricing examples for Spectrum Protect

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 Spectrum Protect or Spectrum Protect 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 PoE for Spectrum Protect 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.
- A Spectrum Protect Extended Edition server can only be used to manage Spectrum Protect Extended Edition components or clients.
- A Spectrum Protect Extended Edition server can act as a target server for disaster recovery purposes, with the exception of node replication, for Spectrum Protect servers.
- The use of node replication (REPLICATE NODE command) requires the same user entitlements for both the server that sends the data (source server) and the server that receives the data (target server).
- Spectrum Protect or Spectrum Protect Extended Edition licensing requirements for General Parallel File System (GPFS™) and IBM Scale Out Network Attached Storage require Spectrum Protect entitlements for each node performing data movement.
- Entitlement conversions to one of the Spectrum Protect Suites requires entitlement of Spectrum Protect Extended Edition. If there is entitlement of Spectrum Protect, then a trade up to Spectrum Protect 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 Spectrum Protect or Spectrum Protect Extended Edition. If NDMP is used, then entitlement for Spectrum Protect Extended Edition is required. If a proxy server or data mover is being used, then that server does not require additional entitlement.
- An Spectrum Protect for SAN entitlement is required for each Spectrum Protect server that is sharing a library where an Spectrum Protect acts as the library manager. An entitlement is required for each library client and library manager. An Spectrum Protect for SAN license entitlement is required for each system that performs LAN-free operations.

Go to the [Reference information](#) section for more information about Spectrum Protect for SAN.

- Client Device entitlements for IBM Spectrum Protect and IBM Spectrum Protect 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 Spectrum Protect or Spectrum Protect Extended Edition:

<b>Systems managed</b>	<b>Quantity in customer environment</b>	<b>Total client device entitlements required</b>
Client devices	20	20
Total client device entitlements		20

  

<b>Systems managed</b>	<b>Quantity in customer environment</b>	<b>Processor entitlements required</b>
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 Spectrum Protect for Databases:

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

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

The customer must obtain the following additional entitlements for IBM Spectrum Protect for Mail:

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

Note: This example is valid for any mail application supported by Spectrum Protect for Mail. Spectrum Protect or Spectrum Protect Extended Edition is required for each system with a mail server managed by Spectrum Protect 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 VMware vStorage APIs from a proxy server.
- Each virtual machine is assigned one processor core.
- The customer is backing up only the file servers.

Notes:

- Spectrum Protect or Spectrum Protect 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.
- Spectrum Protect or Spectrum Protect 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 Spectrum Protect, Spectrum Protect Extended Edition, or Spectrum Protect 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
Spectrum Protect or Spectrum Protect 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
Spectrum Protect or Spectrum Protect 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 Spectrum Protect or Spectrum Protect 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 Spectrum Protect or Spectrum Protect Extended Edition entitlement requirement is based on physical system cores and not virtual cores.

- The sub-capacity Spectrum Protect or Spectrum Protect 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
Spectrum Protect or Spectrum Protect Extended Edition	4	4	8
Spectrum Protect for Databases	4	0	4
Spectrum Protect 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 Spectrum Protect Extended Edition, Spectrum Protect for Databases, and Spectrum Protect 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
Spectrum Protect or Spectrum Protect Extended Edition	4	4	8
Spectrum Protect for Databases	1	0	1
Spectrum Protect 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 Spectrum Protect or Spectrum Protect 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 Spectrum Protect or Spectrum Protect Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity Spectrum Protect or Spectrum Protect Extended Edition entitlement requirement is based on virtual cores.

### Full capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
Spectrum Protect or Spectrum Protect Extended Edition	4	4

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
Spectrum Protect for Databases	4	4

### Sub-capacity requirements

Quantity of processor core entitlements required	ESX 1 (4 way)	Total
Spectrum Protect or Spectrum Protect Extended Edition	4	4
Spectrum Protect 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 Spectrum Protect Server.

The customer must obtain the following entitlements for Spectrum Protect Extended Edition:

	Customer environment	Entitlements required
4-way NAS Device	4	4
4-way Data Mover	4	0
8-way Spectrum Protect 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 Spectrum Protect server, the customer must obtain the following entitlements for Spectrum Protect Extended Edition:

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

### Pricing examples for IBM Spectrum Protect for Data Retention

#### Scenario 1

A customer has an Spectrum Protect for Data Retention 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 Spectrum Protect for Data Retention.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of Spectrum Protect for Data

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
			Retention for Windows

### Scenario 2 (additional capacity)

A customer had purchased 9 TB of Spectrum Protect for Data Retention. 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 Spectrum Protect for Data Retention.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4 TB	11.4 TB	12 TB of Spectrum Protect for Data Retention for Windows

### Pricing examples for IBM Spectrum Protect HSM for Windows

Entitlement for Spectrum Protect 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 Spectrum Protect 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 Spectrum Protect 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 Spectrum Protect 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 Spectrum Protect HSM for Windows

### Scenario 2 (additional capacity)

Customer had purchased 5 TB of Spectrum Protect 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 Spectrum Protect HSM for Windows.



<b>HSM disk storage pool</b>	<b>HSM removable media storage pool</b>	<b>Capacity</b>	<b>Required entitlements</b>
0.25 TB	8.75 TB	9 TB	9 TB of Spectrum Protect HSM for Windows

### Pricing examples for IBM Spectrum Protect for Virtual Environments

Protecting VMware environments using Spectrum Protect 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 Spectrum Protect for Virtual Environments.

Notes:

- Either Spectrum Protect or I Spectrum Protect Extended Edition are prerequisite products for Spectrum Protect 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 Spectrum Protect for Virtual Environments.
- Spectrum Protect for Virtual Environments is physically installed on a centralized VMware vStorage backup server, which is a secondary or proxy machine that is used to perform the backup using the VMware vStorage application programming interface (API). This secondary or proxy machine can be either a physical machine or a virtual machine. A single VMware 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 VMware vStorage backup servers.
- Entitlements for Spectrum Protect for Virtual Environments, Spectrum Protect, and Spectrum Protect Extended Edition are not required on the vStorage backup server. Spectrum Protect for Virtual Environment, Spectrum Protect, and Spectrum Protect Extended Edition entitlements are only required for the managed environment, which is the processor cores on the VMware vSphere hosts running the virtual machines being protected.
- Spectrum Protect 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).
- Spectrum Protect 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 VMware vStorage backup server to protect both VMware vSphere hosts

<b>Quantity of processor core entitlements required</b>	<b>VMware vSphere host 1 (4 way)</b>	<b>VMware vSphere host 2 (8 way)</b>	<b>VMware vStorage backup server (2 way)</b>	<b>Total</b>
Spectrum Protect or Spectrum Protect Extended Edition	4	8	0	12

Quantity of processor core entitlements required	VMware vSphere host 1 (4 way)	VMware vSphere host 2 (8 way)	VMware vStorage bakup server (2 way)	Total
Spectrum Protect for Virtual Environments	4	8	0	12

Scenario 2: Use two (2 way) VMwavStorage backup servers to protect only the larger VMware Sphere host

Quantity of processor core entitlements: required	VMware vSphere host 1 (4 way)	VMware vSphere host 2 (8 way)	VMware vStorage bakup server 1 (2 way)	VMware vStorage backup server 2 (2 way)	Total
Spectrum Protect or Spectrum Protect Extended Edition	0	8	0	0	8
Spectrum Protect for Virtual Environments	0	8	0	0	8

### Pricing example for IBM Spectrum Protect Suite and IBM Spectrum Protect Suite - Front End

Spectrum Protect Suite and Spectrum Protect Suite - 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.

Spectrum Protect Suite - Front End measures capacity on protected data at the source, instead of using capacity at Spectrum Protect 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 TB)
150 TB	(x * 100 TB) + (y * 50 TB)
500 TB	(x * 100 TB) + (y * 150 TB) + (z * 250 TB)
1,200 TB	(x * 100 TB) + (y * 150 TB) + (z * 250 TB) + (a * 250 TB) + (b * 450 TB)
1,800 TB	(x * 100 TB) + (y * 150 TB) + (z * 250 TB) + (a * 250 TB) + (b * 500 TB) + (c * 550 TB)
2,500 TB	(x * 100 TB) + (y * 150 TB) + (z * 250 TB) + (a * 250 TB) + (b * 500 TB) + (c * 750 TB) + (d * 500 TB)

## Pricing example for IBM Spectrum Protect Suite Archive Option

### Scenario 1

A client has Spectrum Protect Suite 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 Spectrum Protect Suite Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	4 TB	9 TB	9 TB of Spectrum Protect Suite Archive Option

### Scenario 2 (additional capacity)

A client purchased 9 TB of Spectrum Protect Suite 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 Spectrum Protect Suite Archive Option.

Primary disk storage pool	Removable media storage pool	Capacity	Required entitlements
5 TB	6.4.TB	11.4 TB	12 TB of Spectrum Protect Suite Archive Option

## Pricing example for IBM Spectrum Protect Suite 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 Spectrum Protect primary storage pool, they require PoEs of 20 TB of Spectrum Protect Suite ProtecTIER Option, regardless of the amount utilized. For example, in the case where the 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 Spectrum Protect Suite ProtecTIER Option and Spectrum Protect Suite standard tiers are not interchangeable and are separately licensed.

## Pricing example for IBM Spectrum Protect Suite Entry (formerly IBM Tivoli Storage Manager for Unified Recovery - Entry)

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

If a customer has 10 TB in their Spectrum Protect primary storage pool and 10 TB in their Tivoli Storage Manager FastBack repository, the customer requires PoEs of 20 TB of Spectrum Protect Suite 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 Spectrum Protect Suite (5725-X05).

If a customer requires more than two Spectrum Protect servers, the customer will require a trade up to Spectrum Protect Suite (5725-X05).

### **Pricing example for IBM Spectrum Protect Suite Entry - Front End**

IBM Spectrum Protect Suite 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 Spectrum Protect servers are supported per enterprise.

If a customer has 10 TB protected data, the customer requires PoEs of 10 TB of IBM Spectrum Protect Entry - Front End.

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 Spectrum Protect Suite (5725-X05).

If a customer requires more than two Spectrum Protect servers, the customer will require a trade up to Spectrum Protect Suite (5725-X05).

### **Pricing example for IBM Spectrum Protect Entry products**

- A managed server for Spectrum Protect 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 Spectrum Protect per enterprise. The replicated nodes do not count towards the 100 node count.
- Spectrum Protect Entry is only supported on Microsoft Windows, Linux x86, and Linux on POWER<sup>®</sup> platform.
- When using Per Managed Server licensing, entitlement for Spectrum Protect Entry is required for all managed servers including the managing server.
- Customers who are entitled to Spectrum Protect 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:

<b>Product description</b>	<b>Quantity of entitlement required</b>
Spectrum Protect	1
Spectrum Protect (Backup Assistant client)	10
Spectrum Protect for Mail	2
Total Spectrum Protect 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
Spectrum Protect	1
Spectrum Protect for Virtual Environments	2
Spectrum Protect for Mail	6
Spectrum Protect for Databases	6
Total Spectrum Protect 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 virtual machine hosted by 1 ESX host
- Nine database servers; two of which are running in virtual machines hosted by ESX host

Entitlements required for the above environment:

Product description	Quantity of entitlement required
IBM Spectrum Protect	1
IBM Spectrum Protect for Virtual Environments	2
IBM Spectrum Protect for Mail	8
IBM Spectrum Protect for Databases	9
Total Spectrum Protect Entry entitlement:	20

### Examples for IBM Spectrum Protect Snapshot within the Spectrum Protect Suites

Scenario	What is measured for entitlement	
Spectrum Protect Suite - Front End capacity measurement	Scenario 1 offloads snapshots into Spectrum Protect	Size of protected application on source volume
	Scenario 2 does not offload snapshots into Spectrum Protect Suite	Size of protected application on source volume
Spectrum Protect Suite - Back End capacity measurement	Scenario 3 offloads snapshots into Spectrum Protect	Size of protected application on source volumes multiplied by the number of local snapshots managed <b>and</b> size of active/inactive objects in Spectrum Protect Primary Storage Pools
	Scenario 4 does not offload snapshots into Spectrum Protect	Size of protected application on source volumes multiplied by the number of local snapshots managed

### Pricing example for Spectrum Protect Suite - Front End with Spectrum Protect Snapshot

#### Scenario 1

A client purchases Spectrum Protect Suite - Front End to protect one 500 GB (.5 TB) Microsoft SQL server database and one Oracle 3 TB database. The client keeps two fully allocated snapshots on disk and four full, uncompressed versions in Spectrum Protect server for both databases. The client protects 3.5 TB front-end database capacity.

$$0.5 \text{ TB} + 3 \text{ TB} = 3.5 \text{ TB}$$

The client must purchase 4 TB of Spectrum Protect Suite - Front End.

<b>Snapshots in array</b>	<b>Spectrum Protect Primary Storage Pool</b>	<b>Capacity</b>	<b>Required entitlements</b>
7 TB	14 TB	3.5 TB	4 TB of Spectrum Protect Suite - Front End

#### Scenario 2

A client purchases Spectrum Protect Suite - Front End to protect one 500 GB (.5 TB) Microsoft SQL server database and one Oracle 3 TB database. The client keeps two fully allocated snapshots on disk for both databases. No data is stored in Spectrum Protect server, snapshots are being stored on disk only. The client protects 3.5 TB front-end database capacity.

$$0.5 \text{ TB} + 3 \text{ TB} = 3.5 \text{ TB}$$

The client must purchase 4 TB of Spectrum Protect Suite - Front End.

<b>Snapshots in array</b>	<b>Spectrum Protect Primary Storage Pool</b>	<b>Capacity</b>	<b>Required entitlements</b>
7 TB	0 TB	3.5 TB	4 TB of Spectrum Protect Suite - Front End

#### Pricing example for Spectrum Protect Suite with Spectrum Protect Snapshot

#### Scenario 3

A client purchases Spectrum Protect Suite to protect one 500 GB Microsoft SQL server database and 1 Oracle 3 TB database. The client keeps two fully allocated snapshots on disk and four full, uncompressed versions in Spectrum Protect server for both database. The client protects 3.5 TB, which need to be multiplied by the snapshots on disk and the versions in Spectrum Protect.

$$(3.5 \text{ TB} \times 2) + (3.5 \text{ TB} \times 4) = 21 \text{ TB}$$

The client must purchase 21 TB of Spectrum Protect Suite.

<b>Snapshots in array</b>	<b>Spectrum Protect Primary Storage Pool</b>	<b>Capacity</b>	<b>Required entitlements</b>
7 TB	14 TB	21 TB	21 TB of Spectrum Protect Suite

#### Scenario 4

A client purchases Spectrum Protect Suite to protect one 500 GB Microsoft SQL server database and one Oracle 3 TB database. The client keeps two fully allocated snapshots on disk for both databases. No data is stored in Spectrum Protect server, snapshots are being stored on disk only. The client protects 3.5 TB, which need to be multiplied by the snapshots on disk.

$$3.5 \text{ TB} \times 2 = 7 \text{ TB}$$

The client must purchase 7 TB of Spectrum Protect Suite.

<b>Snapshots in array</b>	<b>Spectrum Protect Primary Storage Pool</b>	<b>Capacity</b>	<b>Required entitlements</b>
7 TB	0 TB	7 TB	7 TB of Spectrum Protect Suite

#### 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 value, brand, type, and model number at the website below) 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 (socket). A dual-core processor chip, for example, has two processor cores. The PVU table can be found 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)

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 web page 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.

#### Notes:

- Some programs may require licenses for the program **and** what is being managed. In that case, the following applies. In addition to the entitlements required for the program directly, licensee must obtain PVU entitlements for this program sufficient to cover the processor cores managed by the program.
- Some programs may be licensed on a managed basis only. In that case, the following applies. Instead of the entitlements required for the program directly, licensee must obtain PVU entitlements for this program sufficient to cover the processor cores managed by the program.
- A few programs on an exception basis may be licensed on a referenced basis. In that case, the following applies. Rather than obtaining entitlements for the activated processor cores available to the program, licensee must obtain PVU entitlements for this program sufficient to cover the environment made available to the referenced program as if the program itself were executing everywhere the referenced program was executing, independent of the basis on which the referenced program is licensed.

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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

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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

PID	Product name	License Information number
5725-W98	IBM Spectrum Protect	L-BEBY-9XJ2A5
5725-X11	IBM Spectrum Protect Entry	L-BEBY-9XJTPE
5725-W99	IBM Spectrum Protect Extended Edition	L-BEBY-9XJLBW
5725-X15	IBM Spectrum Protect for Data Retention	L-BEBY-9XJLRY
5725-X01	IBM Spectrum Protect for Databases	L-BEBY-9XJLZC
5725-X03	IBM Spectrum Protect for Enterprise Resource Planning	L-BEBY-9UAMRM
5725-X02	IBM Spectrum Protect for Mail	L-BEBY-9XJNP6
5725-X18	IBM Spectrum Protect for SAN	L-BEBY-9XJLVK
5725-X04	IBM Spectrum Protect for Space Management	L-BEBY-9XJP3B
5725-X00	IBM Spectrum Protect for Virtual Environments	L-BEBY-9XJPH5
5725-X12	IBM Spectrum Protect for Workstations	L-BEBY-9XJPSQ
5725-X13	IBM Spectrum Protect for Workstations - Starter Edition	L-BEBY-9XJPWM
5725-X14	IBM Spectrum Protect HSM for Windows	L-BEBY-9XJPF6
5725-X05	IBM Spectrum Protect Suite	L-BEBY-9XJSPU
5725-X05	IBM Spectrum Protect Suite - Archive Option	L-BEBY-9XJT6U
5725-X05	IBM Spectrum Protect Suite - ProtecTIER Option	L-BEBY-9XJTKM
5725-X06	IBM Spectrum Protect Suite Entry	L-BEBY-9XJQ9V
5725-X07	IBM Spectrum Protect Suite - Front End	L-BEBY-9XJTYJ
5725-X08	IBM Spectrum Protect Suite Entry - Front End	L-BEBY-9XJU46



<b>PID</b>	<b>Product name</b>	<b>License Information number</b>
5725-X22	IBM Spectrum Protect Snapshot	L-BEBY-9XJPKJ
5608-AB3	IBM Spectrum Protect Snapshot	L-BEBY-9XJPKJ

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>

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### **Limited warranty applies**

Yes

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### **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).

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### **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.

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### **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.

## **Volume orders (IVO)**

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No

## **Passport Advantage applies**

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Yes, and through the Passport Advantage website at  
<http://www.ibm.com/software/passportadvantage>

## **Usage restriction**

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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**

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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**

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No

## Educational allowance available

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15% to qualified educational institution 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.

## 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 is designed to securely transmit either via the Internet (HTTPS or VPN) or modem to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system.

For additional information, refer to IBM Electronic Service Agent

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

**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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### **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.

<http://www.ibm.com/partnerworld/sg/apchannounce/>

### **Passport Advantage**

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

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

For all local charges, contact your IBM representative.

### **IBM Global Financing**

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IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit

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For more financing information, visit

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## AP distribution

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Country/Region	Announced
AP IOT	
ASEAN *	Yes
India/South Asia **	Yes
Australia	Yes
Hong Kong	Yes
Macao	Yes
New Zealand	Yes
People's Republic of China	Yes
South Korea	Yes
Taiwan	Yes
Japan IOT	
Japan	Yes

\* Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, Timor-Leste, and Vietnam

\*\* Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka

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