

IBM Spectrum Protect V8.1 and IBM Spectrum Protect Snapshot V8.1 deliver advanced capabilities for cloud and data center environments

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At a glance

IBM Spectrum Protect™ V8.1

IBM Spectrum Protect V8.1 enhances hybrid cloud integration, increases flexibility in the data center, and enhances integration of virtual environments:

- Increase flexibility by leveraging Amazon Simple Storage Service (S3) cloud storage as a target for IBM Spectrum Protect backup and archive data
- Optimize performance for IBM[®] Cloud Object Storage and Amazon S3 cloud storage
- Add consistency and control for cloud storage through support for predefined containers
- Reduce infrastructure costs and provide additional protection by enabling copies of deduplicated directory containers on tape for repairs, compliance, air gap, and for environments with a single backup server
- Simplify authentication management with centralized Lightweight Directory Access Protocol (LDAP) integration
- Easily migrate your environment from VTL or tape to cloud-container or directory-container pools using an automated, nondisruptive conversion utility that harvests data from your VTL or tape and moves it to container pools, immediately leveraging the scalability and space efficiencies of the IBM Spectrum Protect container pools
- Accelerate time to value for fast deployment by using the native VMware vSphere interface for centralized configuration of data protection policy and scheduling
- Manage day-to-day data protection operations easily by monitoring backups and re-driving failures from within the vSphere Web Client
- Back up and restore large VMs faster with optimized backup and recovery using parallel streams

IBM Spectrum Protect Snapshot V8.1

IBM Spectrum Protect Snapshot V8.1 advances snapshot support:

- Automate provisioning of snapshot volumes in IBM Spectrum Virtualize™ Metro Mirror/Global Mirror environments
- Perform Microsoft™ Exchange item-level recoveries directly from persistent VSS snapshots
- Mount Microsoft Exchange and Microsoft SQL Server snapshots in read/write mode for testing and DevOps

Overview

IBM Spectrum Protect V8.1 includes the following features:

- IBM Spectrum Protect native object storage support for Amazon S3
- Improved performance for hybrid clouds by optimizing data movement to IBM Cloud Object Storage and Amazon S3 cloud storage
- Support for directory-container pool copies on tape
- Support for predefined cloud container pools
- Simplified LDAP authentication
- Support for conversion of existing data residing on tape, VTL, or file devices to directory or cloud container pools
- Deeper vSphere Web Client integration for deployment and day-to-day monitoring and redriving failed backups
- Data Protection for VMware cooperative application support for Microsoft SQL Server 2016
- Faster Data Protection for VMware backup and restore operations for large VMware virtual machines
- Support for Microsoft Windows™ Server 2016 for the Backup-Archive Client, Data Protection for VMware, Hyper-V, Oracle, SQL, Exchange, Workstations, and Space Management for Windows
- Data Protection for Oracle automation features
- Support for SAP HANA multitenant databases and parallel-stream restores
- Tighter integration of IBM Spectrum Protect for Space Management for UNIX™/Linux™ and IBM Spectrum Scale™
- Usability and performance enhancements for Space Management for Windows

IBM Spectrum Protect Snapshot V8.1 improves ease of use and reduces administrative costs by delivering the following features:

- Exchange item-level restores from persistent snapshots without needing to restore the entire database
- Ability to mount (read/write) snapshots of Microsoft SQL Server and Microsoft Exchange Server databases
- Support for Microsoft Windows Server 2016
- Dynamic allocation with support for Metro Mirror and Global Mirror
- Support for DB2^(R) V11.1
- Support for parallel synch mode for non-SAP DB2 Database Partitioning Feature (DPF)
- Support for Oracle Automatic Storage Management (ASM) disks on disk partitions
- Support for offload to IBM Spectrum Protect Server as root user
- Cloning support for DB2 storage groups

Key prerequisites

IBM Spectrum Protect supported devices

Refer to the specific websites listed in the [Software requirements](#) section for a complete list of devices that are supported by IBM 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 four drives or more than 48 tape slots require a license for IBM Spectrum Protect Extended Edition.

For complete details, see the [Software requirements](#) section.

Planned availability date

- December 09, 2016: Electronic availability

Availability of programs with encryption algorithm in France is subject to French government approval.

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

Description

IBM Spectrum Protect V8.1 features

IBM Spectrum Protect native object storage integration supports Amazon S3

Amazon S3 cloud storage can be defined as a target for IBM Spectrum Protect cloud-container pools. Primary or secondary copies of data can be stored in the IBM Spectrum Protect Server using Amazon S3 object storage. Previously announced support for IBM Spectrum Protect cloud-container pools include IBM Cloud Object Storage (formerly known as Cleversafe^(R)), IBM Softlayer, OpenStack Swift, and IBM Spectrum Scale. IBM Spectrum Protect combines its powerful software-defined, inline data deduplication and compression with Amazon S3 to create a cost-effective data protection solution.

Optimized performance for hybrid clouds

IBM Spectrum Protect Server introduces a temporary cache to optimize the movement of data to IBM Cloud Object Storage (formerly known as Cleversafe) and Amazon S3 cloud storage. Backups are quickly stored to the temporary cache (directory containers) and then transferred to the cloud as larger objects, leveraging the efficiency of S3 transfer mechanisms. This feature enables more use cases for leveraging cost-effective cloud storage.

Copy data from directory-container pools to tape

Administrators can create a copy of directory-container pools on tape and repair directory-container pool data from this copy. This feature lowers infrastructure costs by enabling copies of deduplicated directory-container pools on tape for repairs, compliance, and air gap, especially for environments with a single backup server where a second IBM Spectrum Protect server is not available to store a second copy of backup data.

Predefined cloud-container pools

Administrators can use predefined cloud S3 bucket names when creating cloud containers. This is important for organizations that require special policy and access rules when using object storage. This feature enables consistency and tighter control when using cloud storage with IBM Spectrum Protect.

Simplified LDAP authentication

Authentication management with centralized LDAP integration has been simplified by enabling users and administrators to authenticate with the same user IDs that they use to log on to an Active Directory server. IBM Security Directory Server and Microsoft Active Directory are supported. This feature lowers administration costs by simplifying user ID management.

Convert existing data on tape and VTL to container pools

Easily migrate your environment from VTLs or tape to cloud-container or directory-container pools using an automated, nondisruptive conversion utility that harvests

data from your VTL or tape and moves it to container pools. This enables you to reduce costs immediately by leveraging the scalability and space efficiencies of IBM Spectrum Protect container pools.

Deeper vSphere Web Client integration and day-to-day monitoring

VMware administrators can simplify initial deployments, including centralized configuration of data protection policy and scheduling, directly in the vSphere Web Client. Use VMware tagging to help set policies for retention and schedules, as well as to exclude VMs from backups without leaving the vSphere Web Client interface. They can also perform daily monitoring tasks and redrive failed backups with ease.

Data Protection for Oracle automation features

Automate configuration and operations in Data Protection for Oracle environments, lowering costs for Oracle DBAs.

Support for SAP HANA multitenant database containers and parallel-stream restores

This feature extends data protection for SAP HANA environments to multiple-container mode configurations and increases performance for recovery operations.

Space Management for UNIX/Linux integration with IBM Spectrum Scale and scalability enhancements for IBM Linear Tape File System™ Enterprise Edition environments

Tighter integration between IBM Spectrum Protect for Space Management and IBM Spectrum Scale means increased overall performance, improved recall scalability (especially for IBM Spectrum Archive™ Enterprise Edition workloads), and simplified restore for environments with large numbers of files.

Space Management for Windows enhancements for usability and performance

Space Management on Windows just got easier with GUI enhancements for searching for the filespace, and increased performance during migrations.

New support for IBM Spectrum Protect clients:

- Data Protection for VMware cooperative application support for Microsoft SQL Server 2016
- Support for Microsoft Windows Server 2016 for the Backup-Archive Client, Hyper-V, Oracle, SQL, Exchange, Workstations, and Space Management for Windows
- Support for Ubuntu 16.04 and 14.04 for the Backup-Archive Client on x86 and Linux on Power^(R) (LE)
- Support for IBM AIX^(R) 7.2 for Data Protection for Oracle

IBM Spectrum Protect Snapshot V8.1 features

Exchange item-level restore from VSS persistent snapshots

Automatically mount persistent snapshots to perform rapid Exchange item-level restores. This removes the need to set aside space for a restore and eliminates the time to restore the database itself.

Enables read and write mounts of copy-type VSS snapshots for Microsoft SQL and Microsoft Exchange databases

Leverage VSS persistent snapshots of your SQL and Exchange databases in read/write mode for DevOps or testing without affecting the snapshot itself.

Dynamic allocation with support for Metro Mirror and Global Mirror in UNIX/Linux environments

Automate and federate snapshot LUN provisioning in IBM Spectrum Virtualize environments configured for Metro Mirror or Global Mirror in UNIX/Linux environments.

New support for:

- Windows Server 2016
- DB2 V11
- Parallel sync mode for non-SAP DB2 DPF
- Partitioned ASM disks
- Cloning for DB2 Storage Groups

Reference information

Refer to Software Announcement [ZP16-0122](#), dated June 14, 2016, for information about the following products:

- 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 HSM for Windows (5725-X14)
- IBM Spectrum Protect Suite (5725-X05)
- IBM Spectrum Protect Suite Entry (5725-X06)
- IBM Spectrum Protect Snapshot (5725-X22) (for PPA)
- IBM Spectrum Protect Snapshot (5608-AB3) (for AAS)

Availability of national languages

There is only electronic availability. There is no physical media.

| Description | Availability date | Language |
|-------------|-------------------|--|
| Electronic | December 09, 2016 | French, German, Italian, Spanish, Russian, English |

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

- The client component of IBM Spectrum Protect V8.1
- The client component of IBM Spectrum Protect Extended Edition V8.1
- The client component of IBM Spectrum Protect for Data Retention V8.1
- The Data Protection for IBM Domino^(R) component of IBM Spectrum Protect for Mail V8.1
- IBM Spectrum Protect HSM for Windows V8.1
- IBM Spectrum Protect for Space Management V8.1
- IBM Spectrum Protect for Virtual Environments V8.1

Note 2: IBM Spectrum Protect for Databases V8.1 does not support Russian.

Translation information, if available, can be found at the [Translation Reports](#) website.

Program number

| Program number | VRM | Program name |
|----------------|-------|---|
| 5725-W98 | 8.1.0 | IBM Spectrum Protect |
| 5725-X11 | 8.1.0 | IBM Spectrum Protect Entry |
| 5725-W99 | 8.1.0 | IBM Spectrum Protect Extended Edition |
| 5725-X15 | 8.1.0 | IBM Spectrum Protect for Data Retention |
| 5725-X01 | 8.1.0 | IBM Spectrum Protect for Databases |
| 5725-X03 | 8.1.0 | IBM Spectrum Protect for Enterprise Resource Planning |
| 5725-X02 | 8.1.0 | IBM Spectrum Protect for Mail |
| 5725-X18 | 8.1.0 | IBM Spectrum Protect for SAN |
| 5725-X04 | 8.1.0 | IBM Spectrum Protect for Space Management |
| 5725-X00 | 8.1.0 | IBM Spectrum Protect for Virtual Environments |
| 5725-X12 | 8.1.0 | IBM Spectrum Protect for Workstations |
| 5725-X13 | 8.1.0 | IBM Spectrum Protect for Workstations-Starter Edition |
| 5725-Z10 | 8.1.0 | IBM Spectrum Protect High Speed Data Transfer |
| 5725-X14 | 8.1.0 | IBM Spectrum Protect HSM for Windows |
| 5725-X05 | 8.1.0 | IBM Spectrum Protect Suite |
| 5725-X07 | 8.1.0 | IBM Spectrum Protect Suite-Front End |
| 5725-X06 | 8.1.0 | IBM Spectrum Protect Suite Entry |
| 5725-X08 | 8.1.0 | IBM Spectrum Protect Suite Entry-Front End (for PPA) |
| 5725-X22 | 8.1.0 | IBM Spectrum Protect Snapshot (for PPA) |
| 5608-AB8 | 8.1.0 | IBM Spectrum Protect Snapshot (for AAS) |

Product identification number

IBM Spectrum Protect Snapshot (for AAS)

| Program PID number | Registration PID number | SW Subscription and Support |
|--------------------|-------------------------|--|
| 5608-AB8 | 5608-FCY | 1 Year PID no charge registration number |
| | 5608-R16 | 2 Year PID registration number |
| | 5608-R13 | 3 Year PID registration number |

| Program PID number | Registration PID number | SW Subscription and Support |
|---------------------------|--------------------------------|------------------------------------|
| | 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 [IBM Training and Skills](#).

Contact your IBM representative for course information.

Offering Information

Product information is available on the [IBM Offering Information](#) website.

More information is also available on the [Passport Advantage^{\(R\)}](#) and [Passport Advantage Express^{\(R\)}](#) website.

Publications

Documentation in English and all available translations will be available in [IBM Knowledge Center](#) on the general availability date. Use the search function or product finder feature in IBM Knowledge Center to find the specific products that you use.

IBM Spectrum Protect documentation is being revised to focus on the preferred methods for implementing data protection solutions. Version 8.1 documentation includes instructions that are designed to streamline and simplify the process of implementing and managing a single-site or multisite disk solution.

IBM Knowledge Center links to specific IBM Spectrum Protect products:

- [IBM Spectrum Protect](#)
- [IBM Spectrum Protect Extended Edition](#)
- [IBM Spectrum Protect for Databases](#)
- [IBM Spectrum Protect for Enterprise Resource Planning](#)
- [IBM Spectrum Protect for Mail](#)
- [IBM Spectrum Protect for Storage Area Networks](#)
- [IBM Spectrum Protect for Space Management](#)
- [IBM Spectrum Protect HSM for Windows](#)
- [IBM Spectrum Protect for Workstations](#)
- [IBM Spectrum Protect for Virtual Environments](#)
- [IBM Spectrum Protect Snapshot](#)

Services

Global Technology Services

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

Technical information

Specified operating environment

Software requirements

IBM Spectrum Protect supported devices

Refer to the specific websites for the list of devices that are supported by IBM 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 four drives or more than 48 tape slots require a license for IBM Spectrum Protect Extended Edition.

For IBM Spectrum Protect supported devices for AIX^(R) and Microsoft Windows, go to [IBM Spectrum Protect Supported Devices for AIX and Windows](#) website.

For IBM Spectrum Protect supported devices for Linux, go to [IBM Spectrum Protect Supported Devices for Linux](#) website.

Hardware and software requirements for IBM Spectrum Protect V8.1 products are available at the individual product websites listed below.

For IBM Spectrum Protect (5725-W98), IBM Spectrum Protect Extended Edition (5725-W99), and IBM Spectrum Protect for Data Retention (5725-X15)¹, go to [Overview -Tivoli^{\(R\)} Storage Manager Supported Operating Systems](#) website.

For IBM Spectrum Protect Entry (5725-X11), go to [IBM Spectrum Protect Entry information portals](#) website.

For IBM Spectrum Protect for Databases (5725-X01), go to [IBM Spectrum Protect for Databases - All Requirements Documents](#) website.

For IBM Spectrum Protect for Enterprise Resource Planning (5725-X03), go to [IBM Spectrum Protect for Enterprise Resource Planning - All Requirements Documents](#) website.

For IBM Spectrum Protect for Mail (5725-X02), go to [IBM Spectrum Protect for Mail - All Requirements Documents](#) website.

For IBM Spectrum Protect for Space Management (5725-X04), go to [IBM Spectrum Protect for Space Management \(HSM\) - All Requirements Documents](#) website.

For IBM Spectrum Protect for SAN (5725-X18), go to [IBM Spectrum Protect for SAN](#) website.

For IBM Spectrum Protect for Virtual Environments (5725-X00), go to [IBM Spectrum Protect for Virtual Environments - All Requirements Doc](#) website.

For IBM Spectrum Protect High Speed Data Transfer (5725-Z10), go to [IBM Spectrum Protect High Speed Data Transfer Version 8.1.0](#) website.

For IBM Spectrum Protect for Workstations (5725-X12) and IBM Spectrum Protect for Workstations Starter Edition (5725-X13), go to [IBM Spectrum Protect for Workstations V7.1.X Hardware and Software Requirements](#) website.

For IBM Spectrum Protect HSM for Windows (5725-X14), go to [Hardware and software requirements for IBM Spectrum Protect HSM for Windows](#) website.

For IBM Spectrum Protect Snapshot(5725-X22 for PPA) (5608-AB8 for AAS), go to [IBM Spectrum Protect Snapshot - All Requirements Documents](#) website.

For technical requirements for IBM Spectrum Protect Suite (5725-X05), IBM Spectrum Protect Suite-Front End (5725-X07), IBM Spectrum Protect Suite Entry (5725-X06), and IBM Spectrum Protect Suite Entry-Front End (5725-X08) refer to the individual product websites listed above.

¹ IBM Spectrum Protect V8.1, IBM Spectrum Protect Extended Edition V8.1, and IBM Spectrum Protect for Data Retention V8.1 have the same hardware, software, and supported device requirements.

Exclude: Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, Christmas Island, Cocos (Keeling) Islands, Cook Islands, Fiji, Heard Island and McDonald Islands, India, Indonesia, Kiribati, Democratic People's Republic of Korea (Embargoed), Republic of Korea, Lao People's Democratic Republic, Malaysia, Maldives, Nauru, Nepal, New Zealand, Niue, Norfolk Island, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tokelau, Tonga, Tuvalu, and Vietnam

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

Organizations that have a SAN environment might consider purchasing IBM Spectrum Control™ in addition to IBM Spectrum Protect. The organization 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, and logical connections between the devices.

Performance considerations

Spectrum Protect product 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 on the [IBM Electronic Support](#) website.

You can also access the [IBM Support Portal](#) page and the online [Service requests and PMRs](#) tool for more support.

Planning information

Packaging

IBM Spectrum Protect products are distributed with:

- *International Program License Agreement* (Z125-3301)
- License Information document
- Electronic download, no DVD media

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.

Direct customer support

Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express. Product upgrades and technical support are provided by the Software Subscription and Support (Software Maintenance) offering as described in the Agreements. Product upgrades provide the latest versions and releases to entitled software, and technical support provides voice and electronic access to IBM support organizations, worldwide.

IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with each program license acquired. The initial period of Software Subscription and Support (Software Maintenance) can be extended by the purchase of a renewal option, if available.

Security, auditability, and control

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

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

For more information, contact your IBM Sales Specialist or IBM Business Partner, or go to the [Passport Advantage](#) website.

This product is only available through Passport Advantage. It is not available as shrink wrap.

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 High Speed Data Transfer | 5725-Z10 |
| 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 |

| Product Identifier Descriptions | PID number |
|--|-------------------|
| IBM Spectrum Protect Suite Entry - Front End (for PPA) | 5725-X08 |
| IBM Spectrum Protect Snapshot (for PPA) | 5725-X22 |
| IBM Spectrum Protect Snapshot (for AAS) | 5608-AB8 |

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: Entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding electronic download. There is no longer a media pack.

| Previous named product | Electronic download description |
|--|--|
| IBM Tivoli Storage Manager (5608-E01) | IBM Spectrum Protect Version 8.1 (5725-W98) |
| IBM Tivoli Storage Manager Extended Edition (5608-E02) | IBM Spectrum Protect Extended Edition Version 8.1 (5725-W99) |
| IBM System Storage ^(R) Archive Manager (5608-E03) | IBM Spectrum Protect for Data Retention Version 8.1 (5725-X15) |
| IBM Tivoli Storage Manager for Databases (5608-E04) | IBM Spectrum Protect for Databases Version 8.1 (5725-X01) |
| IBM Tivoli Storage Manager for Enterprise Resource Planning (5608-E05) | IBM Spectrum Protect for Enterprise Resource Planning Version 8.1 (5725-X03) |
| IBM Tivoli Storage Manager for Mail (5608-E06) | IBM Spectrum Protect for Mail Version 8.1 (5725-X02) |
| IBM Tivoli Storage Manager for Storage Area Networks (5608-E07) | IBM Spectrum Protect for SAN Version 8.1 (5725-X18) |
| IBM Tivoli Storage Manager for Virtual Environments (5725-A44) | IBM Spectrum Protect for Virtual Environments Version 8.1 (5725-X00) |
| IBM Tivoli Storage Manager for Space Management (5608-E12) | IBM Spectrum Protect for Space Management Version 8.1 (5725-X04) |
| None | IBM Spectrum Protect High Speed Data Transfer Version 8.1 (5725-Z10) |
| IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12) | IBM Spectrum Protect Suite Version 8.1 (5725-X05) |

| Previous named product | Electronic download description |
|--|--|
| IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12) | IBM Spectrum Protect Suite -ProtectTIER ^(R) Option Version 8.1 (5725-X05) |
| IBM Tivoli Storage Manager Suite for Unified Recovery (5724-Z12) | IBM Spectrum Protect Suite - Archive Option Version 8.1 (5725-X05) |
| IBM Tivoli Storage Manager Suite for Unified Recovery Entry (5725-H25) | IBM Spectrum Protect Suite Entry Version 8.1 (5725-X06) |
| IBM Tivoli Storage Manager Suite for Unified Recovery - Front End (5725-R37) | IBM Spectrum Protect Suite - Front End Version 8.1 (5725-X07) |
| IBM Tivoli Storage Manager Suite for Unified Recovery Entry - Front End (5725-R38) | IBM Spectrum Protect Suite Entry - Front End Version 8.1 (5725-X08) |
| IBM Tivoli Storage Manager Entry (5725-Q58) | IBM Spectrum Protect Entry Version 8.1 (5725-X11) |
| IBM Tivoli Storage Manager HSM for Windows (5608-E13) | IBM Spectrum Protect HSM for Windows Version 8.1 (5725-X14) |
| IBM Tivoli Storage FlashCopy ^(R) Manager (5724-X94) | IBM Spectrum Protect Snapshot V8.1 (5725-X22) |

Cross-platform product for use on z Systems™ Integrated Facility for Linux (IFL) engines or zEnterprise^(R) 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.

| Program name/Description | Part number |
|---|--------------------|
| IBM Spectrum Protect | 5725-W98 |
| (Refer to Note 1) | |
| 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) SW Subscription & Support Reinstatement 12 Months | D1ISKLL |
| IBM Spectrum Protect per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License | D1IMBLL |
| IBM Spectrum Protect Extended Edition | 5725-W99 |
| (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 |

| Program name/Description | Part number |
|---|--------------------|
| 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 |
| IBM Spectrum Protect for Databases | 5725-X01 |
| 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 |
| IBM Spectrum Protect for Mail | 5725-X02 |
| 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 Units (PVUs) SW Subscription & Support Reinstatement 12 Months | D1IVELL |
| IBM Spectrum Protect for Mail per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License | D1ISCLL |
| IBM Spectrum Protect for SAN | 5725-X18 |
| 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 | D1IVPLL |

| Program name/Description | Part number |
|--|--------------------|
| Units (PVUs) SW Subscription & Support Reinstatement 12 Months | |
| IBM Spectrum Protect for SAN per zEnterprise Blade Center Extension and Linux on z Systems 10 Processor Value Units (PVUs) Monthly License | D1IUULL |
| IBM Spectrum Protect Suite | 5725-X05 |
| 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 |
| 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 |

| Program name/Description | Part number |
|--|--------------------|
| 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 SW Subscription & Support Reinstatement 12 Months | D1INULL |
| IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Monthly License | D1IPBLL |
| IBM Spectrum Protect Suite - Front End | 5725-X07 |
| 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 |

| Program name/Description | Part number |
|---|--------------------|
| 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 |
| IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Monthly License | D1IUVLL |
| 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 | E0LVBLL |

| Program name/Description | Part number |
|--|--------------------|
| (1251-2000) Annual SW Subscription & Support Renewal | |
| 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 |
| IBM Spectrum Protect High Speed Data Transfer | 5725-Z10 |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install License + SW Subscription & Support 12 Months | D1LBILL |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install Annual SW Subscription & Support Renewal | E0MEXLL |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install SW Subscription & Support Reinstatement 12 Months | D1LBJLL |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install Monthly License | D1LBLLL |

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

5608-AB8 -IBM Spectrum Protect Snapshot V8.1

| Feature description | Feature number |
|--|-----------------------|
| Per Terabyte (1-12) with 1 Year SW S&S | M3Z1QE |
| Per Terabyte (13-32) with 1 Year SW S&S | M3Z2QE |
| Per Terabyte (33-64) with 1 Year SW S&S | M3Z3QE |
| Per Terabyte (65-100) with 1 Year SW S&S | M3Z4QE |
| Per Terabyte (101-250) with 1 Year SW S&S | M3Z5QE |
| Per Terabyte (251+) with 1 Year SW S&S | M3Z6QE |
| Per 250 Terabyte (251+) with 1 Year SW S&S | X3Z6ZE |

This software license includes Software Maintenance, previously referred to as Software Subscription and Technical Support.

Extending coverage for a total of two years from the date of acquisition may be elected. Order the program number, feature number, and quantity to extend

coverage for your software licenses. If maintenance has expired, specify the after license feature number.

Software license includes 1 year Software Maintenance

IBM Spectrum Protect Snapshot V8.1

1 Year Software Subscription and Support (SW S&S)

| 5608-AB8 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3WTQE |
| Per Terabyte (13-32) with 2 Year SW S&S | M3WUQE |
| Per Terabyte (33-64) with 2 Year SW S&S | M3WVQE |
| Per Terabyte (65-100) with 2 Year SW S&S | M3WWQE |
| Per Terabyte (101-250) with 2 Year SW S&S | M3WXQE |
| Per Terabyte (251+) with 2 Year SW S&S | M3WYQE |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3WYZE |

SW S&S PID 1 Year No Charge Registration

| 5608-FCY | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3LFQF |
| Per Terabyte (13-32) with 2 Year SW S&S | M3LGQF |
| Per Terabyte (33-64) with 2 Year SW S&S | M3LHQF |
| Per Terabyte (65-100) with 2 Year SW S&S | M3LJQF |
| Per Terabyte (101-250) with 2 Year SW S&S | M3LKQF |
| Per Terabyte (251+) with 2 Year SW S&S | M3LLQF |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3LLZG |

SW S&S PID 2 Year Registration

| 5608-R16 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3F7X5 |
| Per Terabyte (13-32) with 2 Year SW S&S | M3F8X5 |
| Per Terabyte (33-64) with 2 Year SW S&S | M3F9X5 |
| Per Terabyte (65-100) with 2 Year SW S&S | M3GAX5 |
| Per Terabyte (101-250) with 2 Year SW S&S | M3GBX5 |
| Per Terabyte (251+) with 2 Year SW S&S | M3GCX5 |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3GC81 |

SW S&S PID 3 Year Registration

| 5608-R13 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3FNQH |
| Per Terabyte (13-32) with 2 Year SW S&S | M3FPQH |
| Per Terabyte (33-64) with 2 Year SW S&S | M3FRQH |
| Per Terabyte (65-100) with 2 Year SW S&S | M3FSQH |

| 5608-R13 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (101-250) with 2 Year SW S&S | M3FTQH |
| Per Terabyte (251+) with 2 Year SW S&S | M3FUQH |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3FU0B |

SW S&S PID 4 Year Registration

| 5608-R17 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3GDX7 |
| Per Terabyte (13-32) with 2 Year SW S&S | M3GEX7 |
| Per Terabyte (33-64) with 2 Year SW S&S | M3GFX7 |
| Per Terabyte (65-100) with 2 Year SW S&S | M3GGX7 |
| Per Terabyte (101-250) with 2 Year SW S&S | M3GHX7 |
| Per Terabyte (251+) with 2 Year SW S&S | M3GJX7 |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3GJ8G |

SW S&S PID 5 Year Registration

| 5608-R18 | |
|--|-----------------------|
| Feature description | Feature number |
| Per Terabyte (1-12) with 2 Year Software Subscription and Support (SW S&S) | M3GKX6 |
| Per Terabyte (13-32) with 2 Year SW S&S | M3GLX6 |
| Per Terabyte (33-64) with 2 Year SW S&S | M3GMX6 |
| Per Terabyte (65-100) with 2 Year SW S&S | M3GNX6 |
| Per Terabyte (101-250) with 2 Year SW S&S | M3GPX6 |
| Per Terabyte (251+) with 2 Year SW S&S | M3GRX6 |
| Per 250 Terabyte (251+) with 2 Year SW S&S | X3GR8H |

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 |
|--|----------------------------------|----------------------|
| IBM Spectrum Protect (see note 1) | 5725-W98 | |
| 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 & | D1IQJLL | 10 PVU |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| Support Reinstatement 12 Months | | |
| IBM Spectrum Protect 10 Processor Value Units (PVUs) Monthly License | D1IMALL | 10 PVU |
| IBM Spectrum Protect per zEnterprise ^(R) Blade Center Extension and Linux on z Systems TM 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 |
| IBM Spectrum Protect Client Device Monthly License | D1IMELL | Client device |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect Extended Edition (see note 1) | 5725-W99 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| 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 |
| 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 |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|-----------------------|
| IBM Spectrum Protect for Data Retention | 5725-X15 | |
| 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 | D1IWILL | 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 Subscription & Support Renewal | E0LWELL | Per Terabyte (33-64) |
| 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 | D1IWRLL | Per Terabyte (65-100) |
| IBM Spectrum Protect for Data Retention Terabyte (65-100) Annual SW | E0LWHLL | Per Terabyte (65-100) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|------------------------|
| Subscription & Support Renewal | | |
| 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 | D1IWTLL | 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+) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|----------------------|
| IBM Spectrum Protect for Databases | 5725-X01 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|----------------------|
| 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 |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect for Enterprise Resource Planning | 5725-X03 | |
| 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 |
| 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 |
| Program name | Part number or PID number | Charge metric |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect for Mail | 5725-X02 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect for Workstations | 5725-X12 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| 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 |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect for Workstations - Starter Edition | 5725-X13 | |
| 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 |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect for SAN | 5725-X18 | |
| 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 License + SW Subscription & Support 12 Months | D1IVLLL | Client device |
| IBM Spectrum Protect for SAN Client Device Annual SW Subscription & Support Renewal | E0LW0LL | Client device |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|----------------------|
| 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 | D1IUILL | 10 PVU |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect for Virtual Environments | 5725-X00 | |
| 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 10 Processor Value Units (PVUs) Monthly License | D1IUPLL | 10 PVU |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect for Space Management | 5725-X04 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|----------------------|
| IBM Spectrum Protect High Speed Data Transfer | 5725-Z10 | |
| IBM Spectrum Protect High Speed Data Transfer per Install License + SW Subscription & Support 12 Months | D1LBGLL | per Install |
| IBM Spectrum Protect High Speed Data Transfer per Install Annual SW Subscription & Support Renewal | E0MEWLL | per Install |
| IBM Spectrum Protect High Speed Data Transfer per Install SW Subscription & Support Reinstatement 12 Months | D1LBHLL | per Install |
| IBM Spectrum Protect High Speed Data Transfer per Install Monthly License | D1LBKLL | per Install |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install License + SW Subscription & Support 12 Months | D1LBILL | per Install |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install Annual SW Subscription & Support Renewal | E0MEXLL | per Install |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install SW Subscription & | D1LBJLL | per Install |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|------------------------|
| Support Reinstatement 12 Months | | |
| IBM Spectrum Protect High Speed Data Transfer for Linux on z Systems per Install Monthly License | D1LBLL | per Install |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect Suite | 5725-X05 | |
| 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) |
| 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) | D1IW1LL | Per Terabyte (501-750) |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|--------------------------|
| License + SW Subscription & Support 12 Months | | |
| 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 (1251-2000) Monthly License | D1IMCLL | Per Terabyte (1251-2000) |
| 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) | D1IN0LL | Per Terabyte (1-100) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|------------------------|
| License + SW Subscription & Support 12 Months | | |
| 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 (251-500) Annual SW Subscription & Support Renewal | E0LUQLL | Per Terabyte (251-500) |
| 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) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|--------------------------|
| 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 (1251-2000) Annual SW Subscription & Support Renewal | E0LUTLL | Per Terabyte (1251-2000) |
| 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+) |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| 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 ^(R) 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 |
| 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 | D1INULL | Per Terabyte |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|------------------------|
| & Support Reinstatement 12 Months | | |
| IBM Spectrum Protect Suite - Archive Option per Linux on z Systems Terabyte Monthly License | D1IPBLL | Per Terabyte |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect Suite Entry | 5725-X06 | |
| 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) |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect Suite - Front End | 5725-X07 | |
| 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 (1-100) Trade Up from IBM Spectrum Protect Suite Entry - Front End License + SW Subscription & Support 12 Months | D1INJLL | Per Terabyte (1-100) |
| 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) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|-------------------------|
| 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) |
| IBM Spectrum Protect Suite - Front End Terabyte (751-1250) Annual SW Subscription & Support Renewal | E0LVOLL | Per Terabyte (751-1250) |
| IBM Spectrum Protect Suite - Front End Terabyte (751-1250) SW Subscription & Support Reinstatement 12 Months | D1INSLL | Per Terabyte (751-1250) |
| IBM Spectrum Protect Suite - Front End Terabyte | D1IPKLL | Per Terabyte (751-1250) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|--------------------------|
| (751-1250) Monthly License | | |
| 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 & Support Reinstatement 12 Months | D1IPTLL | Per Terabyte (1-100) |
| 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) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|-------------------------|
| 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 Subscription & Support Reinstatement 12 Months | D1IPZLL | Per Terabyte (501-750) |
| IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (501-750) Monthly License | D1IUVLL | 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) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|--------------------------|
| 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 (2001+) SW Subscription & Support Reinstatement 12 Months | D1IQ5LL | Per Terabyte (2001+) |
| IBM Spectrum Protect Suite - Front End per Linux on z Systems Terabyte (2001+) Monthly License | D1IV8LL | Per Terabyte (2001+) |
| Program name | Part number or PID number | Charge metric |
| IBM Spectrum Protect Suite Entry - Front End | 5725-X08 | |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| 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) |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect Entry | 5725-X11 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect HSM for Windows | 5725-X14 | |
| 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 |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|----------------------|
| IBM Spectrum Protect Snapshot | 5725-X22 | |
| IBM Spectrum Protect Snapshot per Terabyte 1-12 MONTHLY LICENSE | D1ILELL | Per Terabyte (1-12) |

| Program name | Part number or PID number | Charge metric |
|---|----------------------------------|-----------------------|
| 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) |
| IBM Spectrum Protect Snapshot per Terabyte 65-100 SW Subscription & | D1IL6LL | Per Terabyte (65-100) |

| Program name | Part number or PID number | Charge metric |
|--|----------------------------------|------------------------|
| Support Reinstatement 12 Mo | | |
| 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, communications device, 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. A Client Device may have some processing capability or be programmable to allow a user to do work. 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)

Processor Value Unit 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 [Processor Value Unit \[PVU\] licensing for Distributed Software](#)) and the number of processors made available to the Program. IBM continues to define a processor, for

the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores.

Licensee can deploy the Program using either Full Capacity licensing or Virtualization Capacity (Sub-Capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (see 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](#).

* 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 40 th power bytes. Licensee must obtain an entitlement for each terabyte available to the Program.

IBM Spectrum Protect for Data Retention (formerly IBM Tivoli System Storage^(R) 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 IBM 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 Decimal Terabytes (1-12), (13-32), (33-64), (65-100), (101-250), (251+)

Decimal Terabyte (1--12), Decimal Terabyte (13--32), Decimal Terabyte (33--64), Decimal Terabyte (65--100), Decimal Terabyte (101--250), and Decimal Terabyte (251+) is a unit of measure by which the Program can be licensed. Proofs of Entitlement are based on the number of Decimal Terabytes available to the Program. A Decimal Terabyte is 10 to the 12 th 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.

Tiered Terabytes (large) (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--1250), Terabyte (1251--2000) and Terabyte (2001+) is a unit of measure by which the Program can be licensed. Proofs of Entitlement 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) Tiered Terabytes (large) capacity

For IBM Spectrum Protect Suite, Licensee must obtain sufficient entitlements required for all data stored in the designated IBM Spectrum Protect primary storage pool volumes and for all data stored in the designated Tivoli Storage Manager FastBack[®] repository volumes and for all data managed by the IBM Spectrum Protect Snapshot.

IBM Spectrum Protect Suite - Front End (formerly IBM Tivoli Storage Manager Suite for Unified Recovery - Front End) Tiered Terabytes (large) capacity

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

Licensee must obtain sufficient entitlements required for all data stored in the designated IBM 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 -ProtectTIER Option terabyte capacity

Licensee must obtain sufficient entitlements for the total aggregate usable physical capacity of all the IBM ProtectTIER repositories that are available to the IBM 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 by which the Program can be licensed. A server is a physical computer that is comprised of processing units, memory and input/output capabilities and that executes requested procedures, commands or applications for one or more users or client devices. Where racks, blade enclosures, or other similar equipment is being employed, each separable physical device (for example, a blade or a rack-mounted device) that has the required components

is considered itself a separate server. Licensee must obtain Managed Server entitlements for each server managed by the Program.

Install

Install is a unit of measure by which the Program can be licensed. An Install is an installed copy of the Program on a physical or virtual disk made available to be executed on a computer. Licensee must obtain an entitlement for each Install of the Program.

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 IBM Spectrum Protect server (with IBM DB2 included) to another IBM Spectrum Protect server (with DB2 included), no additional DB2 licensing is required.

To use HADR to replicate from a IBM 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 IBM Spectrum Protect

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

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

Notes:

- When using Processor Value Unit based licensing, license entitlements for IBM Spectrum Protect or IBM 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 are offered.
- A Proof of Entitlement (PoE) for IBM Spectrum Protect Extended Edition is required to use any of the following functions: 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 IBM Spectrum Protect Extended Edition server can only be used to manage IBM Spectrum Protect Extended Edition components or clients.
- A IBM Spectrum Protect Extended Edition server can act as a target server for disaster recovery purposes, with the exception of node replication, for IBM 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).
- IBM Spectrum Protect or IBM Spectrum Protect Extended Edition licensing requirements for General Parallel File System (GPFS™) and IBM Scale Out Network Attached Storage require IBM Spectrum Protect entitlements for each node performing data movement.
- Entitlement conversions to one of the IBM Spectrum Protect Suites requires entitlement of IBM Spectrum Protect Extended Edition. If there is entitlement of IBM Spectrum Protect, then a trade up to IBM 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 IBM Spectrum Protect or IBM Spectrum Protect Extended Edition. If NDMP is used, then entitlement for IBM Spectrum Protect Extended Edition is required. If a proxy server or data mover is being used, then that server does not require additional entitlement.
- A IBM Spectrum Protect for SAN entitlement is required for each IBM Spectrum Protect server that is sharing a library where a IBM Spectrum Protect acts as the library manager. An entitlement is required for each library client and library manager. A IBM Spectrum Protect for SAN license entitlement is required for each system that performs LAN-free operations.

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

- Client Device entitlements for IBM Spectrum Protect and IBM Spectrum Protect Extended Edition are interchangeable.

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

- Twenty client devices (laptops)
- Ten 4-way servers
- Five 8-way mail servers
- Five 16-way database servers
- One 32-way server
- One 8-way managing server

The client must obtain the following entitlements for IBM Spectrum Protect or IBM Spectrum Protect Extended Edition:

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

| Systems managed | Quantity in customer environment | Total client device entitlements required |
|----------------------------------|---|--|
| Total client device entitlements | | 20 |
| Systems managed | Quantity in customer environment | Total client device entitlements required |
| 4-way | 10 | 40 |
| 8-way | 5 | 40 |
| 16-way | 5 | 80 |
| 32-way | 1 | 32 |
| 8-way (managing server) | 1 | 8 |
| Total processor entitlements | | 200 |

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

| Systems managed | Quantity in customer environment | Total client device entitlements required |
|------------------------------|---|--|
| 16-way | 5 | 80 |
| Total processor entitlements | | 80 |

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

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

| Systems managed | Quantity in customer environment | Total client device entitlements required |
|------------------------------|---|--|
| 8-way | 5 | 40 |
| Total processor entitlements | | 40 |

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

Scenario 2: VMware environment with VMware vStorage APIs for data protection

The client 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 client is backing up only the file servers.

Notes:

- IBM Spectrum Protect or IBM 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.
- IBM Spectrum Protect or IBM 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 IBM Spectrum Protect, IBM Spectrum Protect Extended Edition, or IBM 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 |
|---|---------------|---------------|----------------------|-------|
| IBM Spectrum Protect or IBM 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 |
|---|---------------|---------------|----------------------|-------|
| IBM Spectrum Protect or IBM 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 client does not back up the fourth virtual machine.

Scenario 3: VMware environment with IBM Spectrum Protect or IBM Spectrum Protect Extended Edition backup agent installed inside a virtual machine and the client is backing up Oracle and Microsoft Exchange.

The client environment consists of the following:

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

Notes:

- The full-capacity IBM Spectrum Protect or IBM Spectrum Protect Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Spectrum Protect or IBM 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 |
|---|---------------|---------------|-------|
| IBM Spectrum Protect or IBM Spectrum Protect Extended Edition | 4 | 4 | 8 |
| IBM Spectrum Protect for Databases | 4 | 0 | 4 |
| IBM 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 IBM Spectrum Protect Extended Edition, IBM Spectrum Protect for Databases, and IBM 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 |
|---|---------------|---------------|-------|
| IBM Spectrum Protect or IBM Spectrum Protect Extended Edition | 4 | 4 | 8 |
| IBM Spectrum Protect for Databases | 1 | 0 | 1 |
| IBM 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 IBM Spectrum Protect or IBM Spectrum Protect Extended Edition backup agent running inside a virtual machine.

The client environment consists of the following:

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

Notes:

- The full capacity IBM Spectrum Protect or IBM Spectrum Protect Extended Edition entitlement requirement is based on physical system cores and not virtual cores.
- The sub-capacity IBM Spectrum Protect or IBM 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 |
|---|---------------|-------|
| IBM Spectrum Protect or IBM Spectrum Protect Extended Edition | 4 | 4 |
| IBM Spectrum Protect for Databases | 4 | 4 |

Sub-capacity requirements

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

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

| | Customer environment | Entitlements required |
|-----------------------------------|----------------------|-----------------------|
| 4-way NAS Device | 4 | 4 |
| 4-way Data Mover | 4 | 0 |
| 8-way IBM 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 IBM Spectrum Protect server, the client must obtain the following entitlements for IBM 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 a IBM Spectrum Protect for Data Retention server 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 needs to purchase 9 TB of IBM 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 IBM Spectrum Protect for Data Retention for Windows |

Scenario 2 (additional capacity)

A customer had purchased 9 TB of IBM Spectrum Protect for Data Retention. Twelve months after that initial purchase, the customer 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 IBM 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 IBM Spectrum Protect for Data Retention for Windows |

Pricing examples for IBM Spectrum Protect HSM for Windows

Entitlement for IBM Spectrum Protect HSM for Windows is based on the terabyte capacity being space managed (migrated). Capacity is defined as the primary HSM

disk storage pool size combined with the amount of utilized HSM removable media storage pool. Storage pools are configured on the IBM 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 terabyte. 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 client 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 IBM 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 client needs to purchase 5 TB of IBM 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 IBM Spectrum Protect HSM for Windows |

Scenario 2 (additional capacity)

Client had purchased 5 TB of IBM Spectrum Protect HSM for Windows. Over the last 12 months, the client 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, therefore, store the remaining 8.75 TB in the removable media storage pool.

The client should purchase an additional 4 TB of IBM Spectrum Protect HSM for Windows.

| HSM disk storage pool | HSM removable media storage pool | Capacity | Required entitlements |
|-----------------------|----------------------------------|----------|--|
| 0.25 TB | 8.75 TB | 9 TB | 9 TB of IBM Spectrum Protect HSM for Windows |

Pricing examples for IBM Spectrum Protect for Virtual Environments

Protecting VMware environments using IBM Spectrum Protect for Virtual Environments.

The client 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 IBM Spectrum Protect for Virtual Environments.

Notes:

- Either IBM Spectrum Protect or IBM Spectrum Protect Extended Edition are prerequisite products for IBM Spectrum Protect for Virtual Environments and require entitlement on all physical system cores on the vSphere hosts. This entitlement applies only to the VMware vSphere hosts protected by IBM Spectrum Protect for Virtual Environments.

- IBM 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 client can use one or more VMware vStorage backup servers.
- Entitlements for IBM Spectrum Protect for Virtual Environments, IBM Spectrum Protect, and IBM Spectrum Protect Extended Edition are not required on the VMware vStorage backup server. IBM Spectrum Protect for Virtual Environment, IBM Spectrum Protect, and IBM 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.
- IBM 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).
- IBM 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

| Quantity of processor core entitlements required | VMware vSphere host 1 (4 way) | VMware vSphere host 2 (8 way) | VMware vStorage backup server (2 way) | Total |
|---|-------------------------------|-------------------------------|---------------------------------------|-------|
| IBM Spectrum Protect or IBM Spectrum Protect Extended Edition | 4 | 8 | 0 | 12 |
| IBM Spectrum Protect for Virtual Environments | 4 | 8 | 0 | 12 |

Scenario 2: Use two (2 way) VMwav Storage 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 backup server 1 (2 way) | VMware vStorage backup server 2 (2 way) | Total |
|---|-------------------------------|-------------------------------|---|---|-------|
| IBM Spectrum Protect or IBM Spectrum Protect Extended Edition | 0 | 8 | 0 | 0 | 8 |
| IBM Spectrum Protect | 0 | 8 | 0 | 0 | 8 |

| Quantity of processor core entitlements required | VMware vSphere host 1 (4 way) | VMware vSphere host 2 (8 way) | VMware vStorage backup server 1 (2 way) | VMware vStorage backup server 2 (2 way) | Total |
|--|-------------------------------|-------------------------------|---|---|-------|
| for Virtual Environments | | | | | |

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

IBM Spectrum Protect Suite and IBM Spectrum Protect Suite - Front End use the same tiered terabyte 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 terabytes.

IBM Spectrum Protect Suite - Front End measures capacity on protected data at the source, instead of using capacity at IBM Spectrum Protect primary storage pool on the backend.

Based on the actual terabyte 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 IBM 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 IBM 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 IBM Spectrum Protect Suite Archive Option |

Scenario 2 (additional capacity)

A client purchased 9 TB of IBM 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 IBM 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 IBM Spectrum Protect Suite Archive Option |

Pricing example for IBM Spectrum Protect Suite ProtecTIER Option

If a client 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 IBM Spectrum Protect primary storage pool, they require Proof of Entitlements (PoEs) of 20 TB of IBM 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 client has 10 TB stored, the licensing requirement is for 20 TB.

Note: Entitlements for IBM Spectrum Protect Suite ProtecTIER Option and IBM 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)

IBM Spectrum Protect Suite Entry supports a combined maximum of 100 TB per enterprise in the designated IBM 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 IBM Spectrum Protect servers are supported per enterprise.

If a client has 10 TB in their IBM Spectrum Protect primary storage pool and 10 TB in their Tivoli Storage Manager FastBack repository, the client requires PoEs of 20 TB of IBM Spectrum Protect Suite Entry.

If a client reaches the maximum of 100 TB under management and foresees the need for more licenses, the client will require a trade up to IBM Spectrum Protect Suite (5725-X05).

If a client requires more than two IBM Spectrum Protect servers, the client will require a trade up to IBM 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 IBM Spectrum Protect servers are supported per enterprise.

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

If a client reaches the maximum of 100 TB under management and foresees the need for more licenses, the client will require a trade up to IBM Spectrum Protect Suite - Front End (5725-X07).

If a client requires more than two IBM Spectrum Protect servers, the client will require a trade up to IBM Spectrum Protect Suite - Front End (5725-X07).

Pricing example for IBM Spectrum Protect High Speed Data Transfer

IBM Spectrum Protect High Speed Data Transfer is sold on a per install license.

The High Speed Data Transfer capability is included in IBM Spectrum Protect Extended Edition server, therefore, also included in the IBM Spectrum Protect servers that are in the IBM Spectrum Protect Suites (back end and front end), however it is licensed and sold separately from IBM Spectrum Protect Extended Edition server and the servers included in the Suites.

- License key is required to activate, which is supplied upon purchase.
- Support only for Linux x86.

Scenario 1

The customer has remote location in Los Angeles that has a IBM Spectrum Protect managing server. The customer's main data center is in New York. The customer wants to do replication from a server in Los Angeles to a server in New York.

The customer environment consists of the following:

- Two managing servers (one in Los Angeles and one in New York)
- Five 4-way file servers
- Three 8-way mail servers

Entitlements for the above environment are:

- IBM Spectrum Protect High Speed Data Transfer requires 2 entitlements, one install for each IBM Spectrum Protect managing server (Los Angeles and New York).

Note: Other IBM Spectrum Protect products in the environment require entitlement per the offering's licensing requirements.

Scenario 2

The customer has remote locations in Los Angeles and Dallas. Each location has one IBM Spectrum Protect managing server. The customer's main data center is in New York. The customer wants to do replication from the server in Los Angeles to the server in New York and from the server in Dallas to the server in New York.

The customer environment consists of the following:

- Three managing servers (one in Los Angeles, one in Dallas, and one in New York)
- Five 4-way file servers
- Three 8-way mail servers

Entitlements for the above environment are:

- IBM Spectrum Protect High Speed Data Transfer requires 3 entitlements, one install for each IBM Spectrum Protect managing server (Los Angeles, Dallas, and New York)

Note: Other IBM Spectrum Protect products in the environment require entitlement per the offering's licensing requirements.

Pricing example for IBM Spectrum Protect Entry products

- A managed server for IBM 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 25 of which can be virtual host servers.
- Use is supported with 100 or fewer nodes registered to IBM Spectrum Protect per enterprise. The replicated nodes do not count towards the 100 node count.
- IBM Spectrum Protect Entry is only supported on Microsoft Windows, Linux x86, and Linux on POWER^(R) platform.

- When using Per Managed Server licensing, entitlement for IBM Spectrum Protect Entry is required for all managed servers including the managing server.
- Clients who are entitled to IBM Spectrum Protect Entry are allowed to use node replication capability.

Scenario 1

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

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

Entitlements required for the above environment are:

| Product description | Quantity of entitlement required |
|--|----------------------------------|
| IBM Spectrum Protect | 1 |
| IBM Spectrum Protect (Backup Assistant client) | 10 |
| IBM Spectrum Protect for Mail | 2 |
| Total IBM Spectrum Protect Entry Entitlement | 13 |

Scenario 2

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

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

Entitlements required for the above environment are:

| Product description | Quantity of entitlement required |
|---|----------------------------------|
| IBM Spectrum Protect | 1 |
| IBM Spectrum Protect for Virtual Environments | 2 |
| IBM Spectrum Protect for Mail | 6 |
| IBM Spectrum Protect for Databases | 6 |
| Total IBM Spectrum Protect Entry entitlement | 15 |

Scenario 3

The clients wants to do backup and recovery operations for all LAN-connected servers in its network. The client 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 one 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 |

| Product description | Quantity of entitlement required |
|---|----------------------------------|
| IBM Spectrum Protect for Mail | 8 |
| IBM Spectrum Protect for Databases | 9 |
| Total IBM Spectrum Protect Entry entitlement: | 20 |

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

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

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

Scenario 1

A client purchases IBM 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 IBM 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 IBM Spectrum Protect Suite - Front End.

| Snapshots in array | IBM Spectrum Protect Primary Storage Pool | Capacity | Required entitlements |
|--------------------|---|----------|--|
| 7 TB | 14 TB | 3.5 TB | 4 TB of IBM Spectrum Protect Suite - Front End |

Scenario 2

A client purchases IBM 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 IBM Spectrum Protect server, snapshots are being stored on disk only. The client protects 0.5 TB + 3 TB = 3.5 TB front-end database capacity.

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

| Snapshots in array | IBM Spectrum Protect Primary Storage Pool | Capacity | Required entitlements |
|--------------------|---|----------|--|
| 7 TB | 0 TB | 3.5 TB | 4 TB of IBM Spectrum Protect Suite - Front End |

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

Scenario 3

A client purchases IBM 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 and four full, uncompressed versions in IBM 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 IBM Spectrum Protect.

The client must purchase $(3.5 \text{ TB} \times 2) + (3.5 \text{ TB} \times 4) = 21 \text{ TB}$ of IBM Spectrum Protect Suite.

| Snapshots in array | IBM Spectrum Protect Primary Storage Pool | Capacity | Required entitlements |
|--------------------|---|----------|-------------------------------------|
| 7 TB | 14 TB | 21 TB | 21 TB of IBM Spectrum Protect Suite |

Scenario 4

A client purchases IBM 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 IBM 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.

The client must purchase $3.5 \text{ TB} \times 2 = 7 \text{ TB}$ of IBM Spectrum Protect Suite.

| Snapshots in array | IBM Spectrum Protect Primary Storage Pool | Capacity | Required entitlements |
|--------------------|---|----------|------------------------------------|
| 7 TB | 0 TB | 7 TB | 7 TB of IBM 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 on the [PVU licensing for Distributed Software](#) page. 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 found on the [Virtualization Capacity License Counting Rules](#) page. 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 that can be found on the [Virtualization Capacity License Counting Rules](#) page.

* 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.

Terms and conditions

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

This product is only available through Passport Advantage.

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

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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 | VRM | License Information number |
|------------|----------------------|------------|-----------------------------------|
| 5725-W98 | IBM Spectrum Protect | 8.1.0 | L-BEY-AAWRL8 |

| PID | Product name | VRM | License Information number |
|------------|---|------------|-----------------------------------|
| 5725-X11 | IBM Spectrum Protect Entry | 8.1.0 | L-BEBY-ACPUAC |
| 5725-W99 | IBM Spectrum Protect Extended Edition | 8.1.0 | L-BEBY-AAWS76 |
| 5725-Z10 | IBM Spectrum Protect High Speed Data Transfer | 8.1.0 | L-BEBY-AAWRHK |
| 5725-X15 | IBM Spectrum Protect for Data Retention | 8.1.0 | L-BEBY-AAWS95 |
| 5725-X01 | IBM Spectrum Protect for Databases | 8.1.0 | L-BEBY-AAWVUK |
| 5725-X03 | IBM Spectrum Protect for Enterprise Resource Planning | 8.1.0 | L-BEBY-AAWVWC |
| 5725-X02 | IBM Spectrum Protect for Mail | 8.1.0 | L-BEBY-AAWVZC |
| 5725-X18 | IBM Spectrum Protect for SAN | 8.1.0 | L-BEBY-AAWSKB |
| 5725-X04 | IBM Spectrum Protect for Space Management | 8.1.0 | L-BEBY-AAWW37 |
| 5725-X00 | IBM Spectrum Protect for Virtual Environments | 8.1.0 | L-BEBY-AAX228 |
| 5725-X14 | IBM Spectrum Protect HSM for Windows | 8.1.0 | L-BEBY-AAWW4S |
| 5725-X12 | IBM Spectrum Protect for Workstations | 8.1.0 | L-BEBY-AAX26P |
| 5725-X13 | IBM Spectrum Protect for Workstations - Starter Edition | 8.1.0 | L-BEBY-AAX28V |
| 5725-X05 | IBM Spectrum Protect Suite | 8.1.0 | L-BEBY-ACPU2T |
| 5725-X05 | IBM Spectrum Protect Suite - Archive Option | 8.1.0 | L-BEBY-ACPU5L |
| 5725-X05 | IBM Spectrum Protect Suite - ProtecTIER Option | 8.1.0 | L-BEBY-ACPU7X |
| 5725-X06 | IBM Spectrum Protect Suite Entry | 8.1.0 | L-BEBY-ACPSEP |
| 5725-X07 | IBM Spectrum Protect Suite - Front End | 8.1.0 | L-BEBY-ACPUCJ |
| 5725-X08 | IBM Spectrum Protect Suite Entry - Front End (PPA) | 8.1.0 | L-BEBY-ACPUE8 |
| 5725-X22 | IBM Spectrum Protect Snapshot (PPA) | 8.1.0 | L-BEBY-AAX23P |
| 5608-AB8 | IBM Spectrum Protect Snapshot (AAS) | 8.1.0 | L-BEBY-AAX23P |

The program's License Information will be available for review on the [IBM Software License Agreement](#) website.

Limited warranty applies

Yes

Limited warranty

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

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, see the [IBM Software Support Handbook](#).

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

Program technical support

Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect.

This technical support allows you to obtain assistance (by 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, through an announcement letter, of discontinuance of support with six 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.

For additional information on the IBM Software Support Lifecycle Policy, see the [IBM Software Support Lifecycle Policy](#) website.

Program support

Subscription and Support includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months' notice.

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)

Yes. Contact your IBM representative.

Passport Advantage applies

Yes, information is available on the [Passport Advantage and Passport Advantage Express](#) website.

Usage restriction

Yes

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

For additional information, see the License Information document that is available on the [IBM Software License Agreement](#) website

Software Subscription and Support applies

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

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

While your Software Subscription and Support is in effect, IBM provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. IBM provides assistance by 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, see the [IBM Software 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, go to the [Passport Advantage and Passport Advantage Express](#) website.

All distributed software licenses include Software Subscription and Support for a period of 12 months from the date of acquisition, providing a streamlined way to acquire IBM software and assure technical support coverage for all licenses. Extending coverage for a total of three years from date of acquisition, may be elected.

Variable charges apply

No

Educational allowance available

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

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

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

ESAP available

Yes, to qualified customers.

Statement of good security practices

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 lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

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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 organizations that are Electronic Service Agent tool-enabled to track system inventory and find pertinent fixes.

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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 through the Internet (HTTPS or VPN) or modem to provide organizations a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into an organization's system.

For additional information, go to the [IBM Electronic Service Agent](#) website.

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 [IBM Electronic Support](#) page.

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 knowledge base. 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 go to the [IBM Electronic Support](#) website.

Prices

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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 to access the [IBM Passport Advantage](#) website.

Passport Advantage

For Passport Advantage information and charges, contact your IBM representative. Additional information is also available on the [Passport Advantage and Passport Advantage Express](#) website.

Registered external customers and IBM Business Partners can access IBMLink for charges.

To view pricing information, go to [IBMLink](#).

For software prices, select **Look up IBM standard hardware and software prices (Price) excluding System z^(R) products** under *Prices*. Specify *Price type*, *Search type*, and *Search value*, then click **Search**.

Note: Enter program number in the **Search value**.

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Corrections

(Corrected on August 17, 2017)

The feature number table for 5608-R16 S&S PID 2 Year Registration has been updated.