

IBM Spectrum Fusion HCI bare metal Red Hat OpenShift Container Platform simplifies deployment and operations of mission-critical workloads

Table of contents

1	Overview	5	Technical information
1	Key requirements	6	Ordering information
1	Planned availability date	9	Terms and conditions
2	Description	12	Prices
3	Program number	12	Regional availability
4	Publications	13	Corrections

Overview

IBM Spectrum^(R) Fusion HCI is a container-native hybrid cloud data platform for Kubernetes applications on Red Hat^(R) OpenShift^(R) Container Platform. It features an appliance form-factor, hyperconverged infrastructure along with integrated software-defined storage to meet the storage requirements of modern, stateful Kubernetes applications. IBM Spectrum Fusion HCI is designed to make it easy to deploy and manage container-native applications and their data on Red Hat OpenShift Container Platform.

IBM Spectrum Fusion HCI features include:

- Bare-metal deployment of Red Hat OpenShift Container Platform to eliminate performance and cost overhead of hypervisors
- Integrated software-defined cloud-native storage
- Integrated backup and restore of application-persistent volumes and metadata to both on-rack and off-rack backup targets
- High performance, low latency NVMe local storage
- Ready for production from power-on in as little as five hours
- Simple to scale compute and storage in the field
- Single point of contact for support of the complete solution

Key requirements

IBM Spectrum Fusion HCI requires Red Hat OpenShift Container Platform, which must be purchased separately by the client from Red Hat or an authorized Red Hat partner. The [IBM^{\(R\)} Storage Modeller](#) tool provides guidance for the number of OpenShift entitlements that are required for an IBM Spectrum Fusion HCI configuration.

Planned availability date

May 5, 2022.

Availability within a country is subject to local legal requirements.

Description

Hyperconverged infrastructure with integrated data services for mission-critical applications

Organizations are under increasing pressure to deliver cloud-native application experiences on premises in the safety of the private data center. Kubernetes and Red Hat OpenShift Container Platform provide an ideal cloud-native experience that is portable everywhere. However, organizations often struggle to transition container-based applications, such as IBM Cloud^(R) Paks, out of pilot and into production. They lack skills to build Red Hat OpenShift environments that perform well under load. They lack simple, consistent approaches for ensuring application resiliency and application high availability required by mission-critical applications. And often, the container-based applications cannot effectively leverage existing investments in storage devices.

IBM Spectrum Fusion HCI is the next-generation converged infrastructure designed for containers. It includes built-in integrated data services to simplify deployment and operation of mission critical applications and IBM Cloud Paks on Red Hat OpenShift Container Platform.

Key features and capabilities include:

- Factory-integrated solution with hardware and built-in data services designed to address the needs of mission-critical applications on premises
- Storage-rich commodity x86 servers with NVMe flash drives that are cost effective, performant, and easy to scale
- Industry-standard Kubernetes Container Storage Interface (CSI) to provision high-performance storage volumes for stateful applications
- Simplified data management enables infrastructure and operations (I&O) teams to publish data services able to be consumed by application development teams as a service
- Data protection enables I&O teams to create policies to backup application data for recovery at any point in time and replicate data for high availability and disaster recovery data services
- Investment protection as I&O teams can build Kubernetes CSI storage classes that provide a consistent way to access data on existing storage devices, such as NAS filers and object stores
- Caching policies can be attached to the storage classes to provide high-performance access
- Single point of contact through the IBM support portal for support of the complete solution, both hardware and software, delivering simplified operations

Flexible configurations

IBM Spectrum Fusion HCI configurations start at 6 nodes/192 physical cores and 92 TB raw storage and can be scaled up to 20 nodes/640 physical cores and 1524 TB of raw storage in a single rack. Three racks can be clustered to provide even larger Red Hat OpenShift clusters.

IBM Cloud Satellite^(R)

I&O teams can follow a guided experience to configure IBM Spectrum Fusion HCI hardware to host one or more IBM Cloud Satellite locations. IBM Spectrum Fusion data services are available to the IBM Cloud Satellite Locations on the IBM Spectrum Fusion HCI rack.

License metric

The primary license metric for 5771-PP7 (IBM Spectrum Fusion HCI Appliance Software) is by virtual processor core (VPC), where one VPC is defined as one x86 processor core. Each unit of VPC entitles storage capacity for these functions:

- Data storage at 2 TB per VPC
- Data protection at 2 TB per VPC

The following IBM Spectrum Fusion HCI servers require IBM Spectrum Fusion HCI software license:

- 9155-C00 - IBM Spectrum Fusion HCI Compute Server
- 9155-C01 - IBM Spectrum Fusion HCI Compute and Storage Server
- 9155-G01 - IBM Spectrum Fusion HCI GPU Server

The following Spectrum Fusion HCI servers do not require IBM Spectrum Fusion HCI software license:

- 9155-F01 - IBM Spectrum Fusion HCI AFM Server
- 9155-C01 - IBM Spectrum Fusion HCI Compute and Storage Servers that are designated as Red Hat OpenShift Control Nodes with feature number AHJ4

IBM Spectrum Fusion HCI software license is required regardless of whether the nodes are designated as Red Hat OpenShift infrastructure nodes as defined in the [Self-managed Red Hat OpenShift sizing and subscription guide](#).

The [IBM Storage Modeller](#) tool will automatically calculate the correct number of IBM Spectrum Fusion HCI software VPC and TB license required to completely entitle the IBM Spectrum Fusion HCI hardware configuration. No other adjustments to the license capacity are required. In some circumstances, a client may wish to purchase additional data protection capacity to provide for backup and restore for external (off-rack) storage devices. The [IBM Storage Modeller](#) tool and e-config tools will enable ordering of additional data protection capacity (above what is required by the IBM Spectrum Fusion HCI rack) to the purchase. Additional data storage and data protection capacity is purchased in 1 TB increments.

Accessibility by people with disabilities

Accessibility Compliance Reports (previously known as a VPAT) containing details on accessibility compliance to standards, including the Worldwide Consortium Web Content Accessibility Guidelines, European Standard EN 301 349, and US Section 508, can be found on the [IBM Accessibility Conformance Report Request](#) website.

Reference information

For information about IBM Storage Expert Care Service and Support offering, see the following Services Announcements:

- IBM Storage Expert Care for IBM Spectrum Fusion with additional coverage options, [ZS21-0022](#), dated August 31, 2021
- IBM Storage Expert Care for IBM Spectrum Fusion, [ZS21-0017](#), dated August 10, 2021

Program number

Program number	VRM	Program name
5771-PP7	2.2.0	IBM Spectrum Fusion HCI Appliance Software

Program number	Maintenance 3-month Program number	Maintenance 1-year Program number	Maintenance 2-year Program number	Maintenance 3-year Program number	Maintenance 4-year Program number	Maintenance 5-year Program number
5771-PP7	5771-PP4	5771-PP5	5771-PP8	5771-PP9	5771-PP2	5771-PP3

Offering Information

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

Publications

Publications for IBM Spectrum Fusion HCI can be found in [IBM Documentation](#).

Services

IBM Systems Lab Services

Systems Lab Services offers infrastructure services to help build hybrid cloud and enterprise IT solutions. From servers to storage systems and software, Systems Lab Services can help deploy the building blocks of a next-generation IT infrastructure to empower a client's business. Systems Lab Services consultants can perform infrastructure services for clients online or onsite, offering deep technical expertise, valuable tools, and successful methodologies. Systems Lab Services is designed to help clients solve business challenges, gain new skills, and apply best practices.

Systems Lab Services offers a wide range of infrastructure services for IBM Power^(R) servers, IBM Storage systems, IBM Z^(R), and IBM LinuxONE. Systems Lab Services has a global presence and can deploy experienced consultants online or onsite around the world.

For assistance, contact Systems Lab Services at ibmsls@us.ibm.com.

To learn more, see the [IBM Systems Lab Services](#) website.

IBM Consulting

As transformation continues across every industry, businesses need a single partner to map their enterprise-wide business strategy and technology infrastructure. IBM Consulting is the business partner to help accelerate change across an organization. IBM specialists can help businesses succeed through finding collaborative ways of working that forge connections across people, technologies, and partner ecosystems. IBM Consulting brings together the business expertise and an ecosystem of technologies that help solve some of the biggest problems faced by organizations. With methods that get results faster, an integrated approach that is grounded in an open and flexible hybrid cloud architecture, and incorporating technology from IBM Research^(R) and IBM Watson^(R) AI, IBM Consulting enables businesses to lead change with confidence and deliver continuous improvement across a business and its bottom line.

For additional information, see the [IBM Consulting](#) website.

IBM Technology Support Services (TSS)

Get preventive maintenance, onsite and remote support, and gain actionable insights into critical business applications and IT systems. Speed developer innovation with support for over 240 open-source packages. Leverage powerful IBM analytics and AI-enabled tools to enable client teams to manage IT problems before they become emergencies.

TSS offers extensive IT maintenance and support services that cover more than one niche of a client's environment. TSS covers products from IBM and OEMs, including servers, storage, network, appliances, and software, to help clients ensure high availability across their data center and hybrid cloud environment.

For details on available services, see the [Technology support for hybrid cloud environments](#) website.

IBM Expert Labs

Expert Labs can help clients accelerate their projects and optimize value by leveraging their deep technical skills and knowledge. With more than 20 years of industry experience, these specialists know how to overcome the biggest challenges to deliver business results that can have an immediate impact.

Expert Labs' deep alignment with IBM product development allows for a strategic advantage as they are often the first in line to get access to new products, features, and early visibility into roadmaps. This connection with the development enables them to deliver First of a Kind implementations to address unique needs or expand a client's business with a flexible approach that works best for their organization.

For additional information, see the [IBM Expert Labs](#) website.

IBM Security^(R) Expert Labs

With extensive consultative expertise on IBM Security software solutions, Security Expert Labs helps clients and partners modernize the security of their applications, data, and workforce. With an extensive portfolio of consulting and learning services, Expert Labs provides project-based and premier support service subscriptions.

These services can help clients deploy and integrate IBM Security software, extend their team resources, and help guide and accelerate successful hybrid cloud solutions, including critical strategies such as zero trust. Remote and on-premises software deployment assistance is available for IBM Cloud Pak^(R) for Security, IBM Security QRadar^(R)/QRoC, IBM Security SOAR/Resilient^(R), IBM i2^(R), IBM Security Verify, IBM Security Guardium^(R), and IBM Security MaaS360^(R).

For more information, contact Security Expert Labs at sel@us.ibm.com.

For additional information, see the [IBM Security Expert Labs](#) website.

Technical information

Specified operating environment

Software requirements

None

IBM Support

[IBM Support](#) is your gateway to technical support tools and resources that are designed to help you save time and simplify support. IBM Support can help you find answers to questions, download fixes, troubleshoot, submit and track problem cases, and build skills. Learn and stay informed about the transformation of IBM Support, including new tools, new processes, and new capabilities, by going to the [IBM Support Insider](#).

Additional IBM support

IBM Client Engineering for Systems

Client Engineering for Systems is a framework for accelerating digital transformation. It helps you generate innovative ideas and equips you with the

practices, technologies, and expertise to turn those ideas into business value in weeks. When you work with Client Engineering for Systems, you bring pain points into focus. You empower your team to take manageable risks, adopt leading technologies, speed up solution development, and measure the value of everything you do. Client Engineering for Systems has experts and services to address a broad array of use cases, including capabilities for business transformation, hybrid cloud, analytics and AI, infrastructure systems, security, and more. Contact Client Engineering for Systems at sysgarage@ibm.com.

Planning information

Packaging

This offering is preloaded on IBM Spectrum Fusion HCI solution hardware. There is no physical media.

Ordering information

Consult your IBM representative or IBM Business Partner.

5771-PP7 -IBM Spectrum Fusion HCI Appliance Software

Program number	Feature description	OTC feature number
5771-PP7	IBM Spectrum Fusion HCI Appliance Software per Virtual Processor Core Qty 1	V2BKBG
	IBM Spectrum Fusion HCI Appliance Software per Virtual Processor Core Qty 250	I2BKLA
	IBM Spectrum Fusion HCI Appliance Software Primary per Terabyte Qty 1	V2BJBG
	IBM Spectrum Fusion HCI Appliance Software Primary per Terabyte Qty 250	I2BJLA
	IBM Spectrum Fusion HCI Appliance Software Backup per Terabyte Qty 1	V2BHBG
	IBM Spectrum Fusion HCI Appliance Software Backup per Terabyte Qty 250	I2BHLA
Program number	Feature description	Supply feature number
5771-PP7	Electronic delivery	3450
	Media supply	5809

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

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

Maintenance program number description

Maintenance program number	Description
5771-PP4	IBM Spectrum Fusion HCI SWMA 3-month Registration
5771-PP5	IBM Spectrum Fusion HCI SWMA 1-year Registration

Maintenance program number	Description
5771-PP8	IBM Spectrum Fusion HCI SWMA 2-year Registration
5771-PP9	IBM Spectrum Fusion HCI SWMA 3-year Registration
5771-PP2	IBM Spectrum Fusion HCI SWMA 4-year Registration
5771-PP3	IBM Spectrum Fusion HCI SWMA 5-year Registration

5771-PP4 -IBM Spectrum Fusion HCI SWMA 3-month Registration

Maintenance program number	Feature description	OTC feature number
5771-PP4	IBM Spectrum Fusion HCI SWMA 3-month Registration per Virtual Processor Core Qty 1	H2BBBA
	IBM Spectrum Fusion HCI SWMA 3-month Registration per Virtual Processor Core Qty 250	K2BBBA
	IBM Spectrum Fusion HCI Primary SWMA 3-month Registration per Terabyte Qty 1	H2BDBA
	IBM Spectrum Fusion HCI Primary SWMA 3-month Registration per Terabyte Qty 250	K2BDBA
	IBM Spectrum Fusion HCI Backup SWMA 3-month Registration per Terabyte Qty 1	H2BCBA
	IBM Spectrum Fusion HCI Backup SWMA 3-month Registration per Terabyte Qty 250	K2BCBA

5771-PP5 -IBM Spectrum Fusion HCI SWMA 1-year Registration

Maintenance program number	Feature description	OTC feature number
5771-PP5	IBM Spectrum Fusion HCI SWMA 1-year Registration per Virtual Processor Core Qty 1	Z2BEJA
	IBM Spectrum Fusion HCI SWMA 1-year Registration per Virtual Processor Core Qty 250	A2BEK0
	IBM Spectrum Fusion HCI Primary SWMA 1-year Registration per Terabyte Qty 1	Z2BFJA
	IBM Spectrum Fusion HCI Primary SWMA 1-year Registration per Terabyte Qty 250	A2BFK0
	IBM Spectrum Fusion HCI Backup SWMA 1-year Registration per Terabyte Qty 1	Z2BGJA
	IBM Spectrum Fusion HCI Backup SWMA 1-year Registration per Terabyte Qty 250	A2BGK0

5771-PP8 -IBM Spectrum Fusion HCI SWMA 2-year Registration

Maintenance program number	Feature description	OTC feature number
5771-PP8	IBM Spectrum Fusion HCI SWMA 2-year Registration per Virtual Processor Core Qty 1	M2BMTA
	IBM Spectrum Fusion HCI SWMA 2-year Registration per Virtual Processor Core Qty 250	X2BM41
	IBM Spectrum Fusion HCI Primary SWMA 2-year Registration per Terabyte Qty 1	M2BNTA
	IBM Spectrum Fusion HCI Primary SWMA 2-year Registration per Terabyte Qty 250	X2BN41
	IBM Spectrum Fusion HCI Backup SWMA 2-year Registration per Terabyte Qty 1	M2BLTA
	IBM Spectrum Fusion HCI Backup SWMA 2-year Registration per Terabyte Qty 250	X2BL41

5771-PP9 -IBM Spectrum Fusion HCI SWMA 3-year Registration

Maintenance program number	Feature description	OTC feature number
5771-PP9	IBM Spectrum Fusion HCI SWMA 3-year Registration per Virtual Processor Core Qty 1	U2BSC5
	IBM Spectrum Fusion HCI SWMA 3-year Registration per Virtual Processor Core Qty 250	L2BSF7
	IBM Spectrum Fusion HCI Primary SWMA 3-year Registration per Terabyte Qty 1	U2BRC5
	IBM Spectrum Fusion HCI Primary SWMA 3-year Registration per Terabyte Qty 250	L2BRF7
	IBM Spectrum Fusion HCI Backup SWMA 3-year Registration per Terabyte Qty 1	U2BPC5
	IBM Spectrum Fusion HCI Backup SWMA 3-year Registration per Terabyte Qty 250	L2BPF7

5771-PP2 -IBM Spectrum Fusion HCI SWMA 4-year Registration

Maintenance program number	Feature description	OTC feature number
5771-PP2	IBM Spectrum Fusion HCI SWMA 4-year Registration per Virtual Processor Core Qty 1	M2A7TB
	IBM Spectrum Fusion HCI SWMA 4-year Registration per Virtual Processor Core Qty 250	X2A742

Maintenance program number	Feature description	OTC feature number
	IBM Spectrum Fusion HCI Primary SWMA 4-year Registration per Terabyte Qty 1	M2A6TB
	IBM Spectrum Fusion HCI Primary SWMA 4-year Registration per Terabyte Qty 250	X2A642
	IBM Spectrum Fusion HCI Backup SWMA 4-year Registration per Terabyte Qty 1	M2A5TB
	IBM Spectrum Fusion HCI Backup SWMA 4-year Registration per Terabyte Qty 250	X2A542

5771-PP3 -IBM Spectrum Fusion HCI SWMA 5-year Registration

Maintenance program number	Feature description	OTC feature number
5771-PP3	IBM Spectrum Fusion HCI SWMA 5-year Registration per Virtual Processor Core Qty 1	M2BATC
	IBM Spectrum Fusion HCI SWMA 5-year Registration per Virtual Processor Core Qty 250	X2BA43
	IBM Spectrum Fusion HCI Primary SWMA 5-year Registration per Terabyte Qty 1	M2A9TC
	IBM Spectrum Fusion HCI Primary SWMA 5-year Registration per Terabyte Qty 250	X2A943
	IBM Spectrum Fusion HCI Backup SWMA 5-year Registration per Terabyte Qty 1	M2A8TC
	IBM Spectrum Fusion HCI Backup SWMA 5-year Registration per Terabyte Qty 250	X2A843

Charge metric

The charge metric for these licensed products can be found in the following License Information documents:

Program identifier	License Information document title	License Information document number
5771-PP7	IBM Spectrum Fusion HCI Appliance Software	L-SVGY-CCXL5Q

Select your language of choice and scroll down to the Charge Metrics section. Follow-on releases, if any, may have updated terms. See the [License Information documents](#) website for more information.

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^(R) Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

Licensing

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

Software Maintenance

The IBM Agreement for Acquisition of Software Maintenance (Z125-6011) applies for Subscription and Support (also referred to as Software Maintenance) and does not require client signatures.

Licenses under the IBM International Program License Agreement (IPLA) 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 can be extended by the purchase of a renewal option, if available. Two charges apply: 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

The following License Information documents apply to the offerings in this announcement:

Program identifier	License Information document title	License Information document number
5771-PP7	IBM Spectrum Fusion HCI Appliance Software	L-SVGY-CCXL5Q

Follow-on releases, if any, may have updated terms. See the [License Information documents](#) website for more information.

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 Support Guide](#).

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

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 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

No

Software Subscription and Support applies

Yes. During the Software Subscription and Support period, for the unmodified portion of a program, and to the extent problems can be recreated in the specified operating environment, IBM will provide the following:

- Defect correction information, a restriction, or a bypass.
- Program updates: Periodic releases of collections of code corrections, fixes, functional enhancements and new versions and releases to the program and documentation.
- Technical assistance: A reasonable amount of remote assistance by telephone or electronically to address suspected program defects. Technical assistance is available from the IBM support center in the organization's geography.

Additional details regarding Technical Assistance, which includes IBM contact information, are provided in the [IBM Support Guide](#).

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.
- Failures caused by products for which IBM is not responsible under the IBM Agreement for Acquisition of Software Maintenance.

Software Subscription and Support is provided only if the program is within its support timeframe as specified in the Software Support Lifecycle policy for the program.

For operating system software, the revised IBM Technology Support Services - Support Line for IBM Z offering provides usage and how-to support for those operating systems and associated products that are not available with the Software Subscription and Support (Software Maintenance) offering.

This can ensure total support coverage for your enterprise needs, including IBM and selected non-IBM products. For complete lists of products supported under both the current and revised offering, see the [Supported Product List](#) website.

Variable charges apply

No

Educational allowance available

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

Education Software Allowance Program applies when ordering through the program number process.

ESAP available

Yes, to qualified clients.

Statement of good security practices

IT system security involves protecting systems and information through intrusion 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 regulatory compliant, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

Important: IBM does not warrant that any systems, products, or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.

Prices

For all local charges, contact your IBM representative or your authorized IBM Business Partner.

IBM Global Financing

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

IBM Global Financing offerings are provided through IBM Credit LLC in the United States, and other IBM subsidiaries and divisions worldwide to qualified commercial and government clients. Rates are based on a client's credit rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice.

Financing from IBM Global Financing helps you preserve cash and credit lines, enables more technology acquisition within current budget limits, can help accelerate implementation of economically attractive new technologies, offers payment and term flexibility, and can help match project costs to projected benefits. Financing is available worldwide for credit-qualified clients.

Regional availability

Europe: Aland Islands, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Holy See (Vatican City State), Hungary, Ireland, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta,

Netherlands, Norway, Poland, Portugal, Romania, Saint Martin (French Part), Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, and United Kingdom

Middle East and Africa: Angola, Egypt, Ghana, Kenya, Nigeria, State of Palestine, Senegal, South Africa, United Republic of Tanzania, Turkey, United Arab Emirates, and Western Sahara

Trademarks

IBM Spectrum, IBM, Power, IBM Z, Passport Advantage, IBM Cloud, IBM Cloud Satellite, IBM Research, IBM Watson, IBM Security, IBM Cloud Pak, QRadar, Resilient, i2, Guardium and MaaS360 are registered trademarks of IBM Corporation in the United States, other countries, or both.

Red Hat and OpenShift are registered trademarks of Red Hat Inc. in the U.S. and other countries.

Other company, product, and service names may be trademarks or service marks of others.

Terms of use

IBM products and services which are announced and available in your country can be ordered under the applicable standard agreements, terms, conditions, and prices in effect at the time. IBM reserves the right to modify or withdraw this announcement at any time without notice. This announcement is provided for your information only. Reference to other products in this announcement does not necessarily imply those products are announced, or intend to be announced, in your country. Additional terms of use are located at

[Terms of use](#)

For the most current information regarding IBM products, consult your IBM representative or reseller, or go to the IBM worldwide contacts page

[IBM Directory of worldwide contacts](#)

Corrections

(Corrected on July 21, 2022)

License metric information was added to the [Description](#) section.