IBM Spectrum Conductor V2.3 offers enterprise-class software with centralized monitoring, reporting, and troubleshooting, and end-to-end security with role-based access controls

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At a glance

IBM Spectrum Conductor™ V2.3 provides:

• Faster insight from data to deliver faster time to results
• Increased utilization of highly valued resources through dynamic sharing, with fine grain control across multiple lines of business and applications
• Drive efficiency for grid administrators through simplified deployments, monitoring, and reporting, and cloud enablement with dynamic bursting of the workload to cloud providers
• Faster time to accuracy for deep learning models through features such as data ingestion, hyper parameter search and optimization, training visualization at run time, elastic distributed training, and inference as a service
• Enterprise-class, security-rich solution with established performance at scale

Overview

IBM Spectrum Conductor is an enterprise-class, multitenant solution for Apache Spark and Anaconda/Python. It provides a framework to enable other application integrations, sharing resources dynamically. It specifically enables your organization to deploy Apache Spark-based and Anaconda/Python-based applications efficiently and effectively, supporting multiple concurrent instances and versions. It can help increase performance and scale, optimize resource usage, and eliminate silos of resources that would otherwise be tied to multiple, separate Apache Spark or Anaconda/Python implementations.

Version 2.3 of IBM Spectrum Conductor includes security features that are required for enterprise deployments. Enhancements to the toolset also include features that are designed to simplify administration and use of multitenant Apache Spark and Anaconda/Python environments.

IBM Spectrum Conductor V2.3 offers the following improvements and enhancements:

• Native Anaconda/Python integration. This feature delivers robust lifecycle management of Anaconda deployments with enterprise security. You can manage an existing Anaconda/Python distribution or create a new one to deploy to your cluster. You can also share an Anaconda/Python distribution cluster that
is deployed across multiple Spark instance groups to save disk space. This extends the choices that are available to you when creating and deploying your applications.

- IBM Cloud Private enablement for Kubernetes integration (Evaluation version). This enhancement enables you to easily deploy IBM Spectrum Conductor and evaluate the capabilities that it brings to your high-performance analytics workloads.
- GPU monitoring improvements for memory and GPU utilization. These features deliver full visibility into the allocation of GPU resources to enhance overall utilization and execution.
- Notebook enhancements, with a focus on Jupyter notebooks, deliver new language kernel options. These options have a Spark context that is ready to use and run outside of the Jupyter notebook service. The notebook also has kernel culling to reclaim kernel resources.
- Explorer technology for charge back or show back reporting. This improvement provides a consistent method for tracking and billing resource consumption as part of a multitenant deployment.
- Spark instance group (SIG) lifecycle enhancements.
- Installation, upgrading, configuration, and security updates.
- Sample application updates.
- Support for the current versions of Apache Spark, Jupyter Notebook, and Anaconda.

**Key prerequisites**

IBM Power System servers or x86-based servers running one of the following operating systems:

- Red Hat Enterprise Linux
- Ubuntu Server LTS

**Planned availability date**

November 30, 2018: Electronic delivery only

**Section 508 of the US Rehabilitation Act**

IBM Spectrum Conductor is capable as of November 30, 2018, when used in accordance with associated IBM documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A US Section 508 Accessibility Conformance Statement can be requested on the Product accessibility information website.

**Product positioning**

The ultimate aim of a software-defined infrastructure is to yield an application-aware and data-aware infrastructure that captures workload requirements, provides policy-based automation across data center environments, and includes analytics to optimize in near-real time. IBM Spectrum Conductor achieves these goals in a cost-efficient way.

IBM Spectrum Conductor provides the following:

- Time to results, with reduced workload wait time, improved performance
- Multitenancy
• Powerful and flexible management of resource allocation policies
• Sophisticated lifecycle management capabilities
• Separation of compute and storage, which provides independent scaling of both compute and storage resources
• Existing, mature technology with optimal results at scale
• Enterprise-class application and data security

Program number

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<td>5771-ISD</td>
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Offering Information

Product information is available on the IBM Offering Information website.

Publications

Documentation for IBM Spectrum Conductor V2.3 is available in IBM Knowledge Center.

IBM Knowledge Center is a worldwide central repository of IBM technical publications hosted in a single application, located at a single web address. You can find and navigate technical content more efficiently and easily with improved search, filtering, and user experience.

Services

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services, contact your Lab Services Sales or Delivery Leader.

Technical information

Specified operating environment

Hardware requirements

IBM Spectrum Conductor V2.3 is supported on the following:

• IBM Power Systems™ servers (POWER® and POWER™) LE
- OpenPOWER-based servers
- x86-based servers

**Note:** When installed in a local environment, IBM Spectrum Conductor supports a mixed cluster that uses both Linux and Linux on POWER®. A mixed cluster is not supported in a shared environment.

**Software requirements**
IBM Spectrum Conductor V2.3 is supported on the following operating systems:

On Power Systems, POWER 64-bit LE:
- Red Hat Enterprise Linux 7.x
- Ubuntu Server 16.04 LTS and 18.04 LTS

On x86-based servers, Linux 64-bit:
- Red Hat Enterprise Linux 6.5, or later
- Red Hat Enterprise Linux 7.x
- Ubuntu Server 16.04 LTS and 18.04 LTS

See [IBM Knowledge Center Support Matrix](https://www.ibm.com/support/knowledgecenter) for more details on supported configurations and requirements for IBM Spectrum Conductor V2.3.

**The IBM Support Community**
The [IBM Support Community](https://www.ibm.com/support/knowledgecenter) is your gateway to technical support tools and resources that are designed to help you save time and simplify support. Support Community tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems, and build skills.

You can also access the [Service requests and PMRs](https://www.ibm.com/support/knowledgecenter) tool for more support.

**Planning information**

**Packaging**
IBM Spectrum Conductor V2.3 is distributed through electronic download from the [My Entitled System Support](https://www.ibm.com/servers/myenteritlement) website. Included are:

- IBM International Program License Agreement in multiple languages
- Required installation files

No physical media is available.

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, which 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 client support**
For technical support or assistance, contact your IBM representative or go to the [IBM Support Portal](https://www.ibm.com/support/knowledgecenter) website.

**Security, auditability, and control**
IBM Spectrum Conductor uses the security and auditability features of the system on which the program is installed.
The client is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

**Ordering information**

Consult your IBM representative.

Program: IBM Spectrum Conductor (5765-ISC)

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This software license includes an option for Software Subscription and Support, previously referred to as Software Maintenance. You can elect to get extended coverage for one year or three years from the date of acquisition. Order the program number, feature number, and quantity to elect coverage for your software licenses. If maintenance has expired, specify the after-license feature number.

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**Software Maintenance for IBM Spectrum Conductor**

**5771-ISC Software Maintenance 1-year registration + 1-year renewal**

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**5773-ISC Software Maintenance 3-year registration + 3-year renewal**

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**Electronic Software Delivery**

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<td>5765-ISC</td>
<td>Socket</td>
<td>L-TKAO-B4RKK5</td>
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**Socket**

Socket is a unit of measure by which the Program can be licensed. A Socket is electronic circuitry that accepts a processor chip. A server is a physical computer that is comprised of processing units, memory, and input/output capabilities 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. A virtual server is either a virtual computer created by partitioning the resources available to a physical server or the unpartitioned physical server. Licensee must obtain entitlements for each Socket on the virtual servers made available to the Program.

**Note:** A graphics processing unit (GPU) is also considered a socket for the purpose of ordering this Program.

**System Program Order (SPO)**

An order for SPO 5692-A6P is mandatory for shipments of program distribution. The individual licensed program orders are for registration and billing purposes only. No shipment occurs under these orders.

To receive shipment of machine-readable materials, the order needs to include SPO 5692-A6P and the following supply feature:

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**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.

**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.

This program is licensed under the IBM International 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 offers a one year or three year option for Software Subscription and Support (also referred to as Software Maintenance) with the initial license of each program acquired. The initial period of Software Subscription and Support can be extended by the purchase of a renewal option, if available. This program has a one-time license charge for use of the program 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 Software Maintenance is in effect.

**License Information number**
The following License Information document applies to the offering in this announcement:

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<td>IBM Spectrum Conductor V2.3</td>
<td>L-TKAO-B4RKK5</td>
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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.

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 about 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 12 months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

For additional information about the IBM Software Support Lifecycle Policy, see the IBM Software Support Lifecycle Policy website.

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**

For operating system software, the revised IBM Operational Support Services - SoftwareXcel offering will provide support for those operating systems and associated products that are not available with the Software Subscription and Support (Software Maintenance) offering.

This will 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, go to the Supported product list website.

**IBM Operational Support Services - SoftwareXcel**

No

**Variable charges apply**

No

**Educational allowance available**

Yes. A 15% education allowance applies to qualified education institution clients.

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**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.

**IBM Electronic Services**

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to organizations that have IBM Systems. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support, all at no additional cost to you.
Now integrated into the base operating system of AIX® V5.3, AIX V6.1, and AIX V7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type smitty esa_main, and select Configure Electronic Service Agent. In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, go to the IBM Electronic Service Agent website.

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.

Benefits

**Increased uptime:** The Electronic Service Agent™ tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the symptoms, diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean human intervention is not required to report errors.

**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 IBMid 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 IBMid. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium Search and the Electronic Service Agent information that has been collected from your system, you are able to see search results that apply specifically to your systems.

For more information about how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or go to the IBM Electronic Support website.

Prices
For additional information and current prices, contact your local IBM representative.

**Program: IBM Spectrum Conductor (5765-ISC)**

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**Software Maintenance for IBM Spectrum Conductor**

**5771-ISC Software Maintenance 1-year registration + 1-year renewal**

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**Order now**

To order, contact the IBM Digital Sales Center, your local IBM representative, or your IBM Business Partner. To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968). For more information, contact the IBM Digital Sales Center.

Phone: 800-IBM-CALL (426-2255)

Fax: 800-2IBM-FAX (242-6329)

For IBM representative: askibm@ca.ibm.com

For IBM Business Partner: pwcs@us.ibm.com

IBM Digital Sales Offices
1177 S Belt Line Rd
Coppell, TX 75019-4642, US

The IBM Digital Sales Center, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

**Note:** Shipments will begin after the planned availability date.

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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 United States