

# IBM Z Workload Scheduler V9.5, formerly known as IBM Workload Scheduler for z/OS, elevates automation and monitoring with user-defined alerts and actions, enables log data analytics, and improves efficiency of mainframe workload submission

## Table of contents

<a href="#">1 Overview</a>	<a href="#">6 Publications</a>
<a href="#">2 Key requirements</a>	<a href="#">7 Technical information</a>
<a href="#">2 Planned availability date</a>	<a href="#">8 Ordering information</a>
<a href="#">2 Description</a>	<a href="#">10 Terms and conditions</a>
<a href="#">6 Product positioning</a>	<a href="#">15 Prices</a>
<a href="#">6 Program number</a>	<a href="#">16 Order now</a>

## At a glance

IBM Z<sup>(R)</sup> Workload Scheduler V9.5, formerly known as IBM<sup>(R)</sup> Workload Scheduler for z/OS<sup>(R)</sup>, delivers:

- New alerts or actions when an operation does not complete or start within its deadline or by the time that you specify
- Filters on operations that are late
- Policies to optimize the workload through a smooth submission of the operations
- Integration with IBM Common Data Provider for z Systems<sup>(R)</sup> to enable IBM Z Workload Scheduler to stream its own log data to analytic engines such as Splunk and Elastic search
- Deployment of Dynamic Workload Console and IBM Z Workload Scheduler Agent with Docker containers
- Improved way to create a dashboard for monitoring your environment
- New Enterprise JavaBeans™ (EJB) plug-in to schedule, monitor, and control the execution of EJB JAR files
- SAP integration certifications for Background Processing, Job Scheduling (BC-XBP), and SAP Business Warehouse
- New reporting system for the Dynamic Workload Console with a redesigned user experience for the creation and management of reports using Business Intelligence and Reporting Tools

## Overview

IBM Z Workload Scheduler V9.5 simplifies schedulers' and system administrators' tasks with new advanced automation features, enables workload automation log data analytics scenarios by integrating with IBM Common Data Provider for z Systems, and introduces new optimization policies for the submission of noncritical jobs.

This new release also simplifies the installation and upgrade of the Dynamic Workload Console and IBM Z Workload Scheduler Agent with the capability to use container-based deployment.

Advanced automation features that can help simplify the tasks of schedulers and system administrators include:

- New user-defined alerts and actions on operation start or completion
- An easier way to customize Dynamic Workload Console dashboards

The integration with IBM Common Data Provider for z Systems enables IBM Z Workload Scheduler to stream its own log data, as messages and information logged to the Job Tracking or Database log files, to analytic engines such as Splunk, IBM Z Operations Analytics, and Elasticsearch.

IBM Z Workload Scheduler optimization enhancements address system overload and job interlock problems that can occur when the operations in plan are submitted very early in the process. The optimization of the workload through a smooth submission of the operations enables you to adjust the scheduling to meet the requirements of your network, prioritizing the jobs that are urgent or belong to a critical path. In addition, you can add a delay to the submission of the remaining operations.

---

## Key requirements

---

None

---

## Planned availability date

---

March 15, 2019

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

---

## Description

---

IBM Z Workload Scheduler offers the primary infrastructure to automate the execution of batch and near real-time workloads and activities that run in support of business services, helping to provide the reliable and Service Level Agreement (SLA) compliant delivery of those business services. When used in combination with IBM Workload Scheduler (distributed), it extends the automation into distributed systems, and manages workflows that integrate mainframe application with the distributed application (Enterprise Resource Planning) and business intelligence applications.

Besides the traditional ISPF panels, IBM Z Workload Scheduler provides the Dynamic Workload Console, a modern web-based interface that is purpose-built for operations, administrative tasks, and reporting. IBM Z Workload Scheduler also offers self-service catalog and dashboards on mobile, enabling business users to manage automatic tasks and perform health checks in a natural language.

### **IBM Z Workload Scheduler, V9.5 capabilities**

#### *Alerts and actions*

Setting alerts or actions if an operation does not start or complete:

- Users can define three different pairs of date and time to receive alerts and, optionally, to take actions if operations do not start or complete by the time specified.
- With deadline and action options, users can set the deadline day and time for the operation to complete, related to the application start time. If the operation does not complete within this time setting, an alert is issued and, optionally, an action taken.

- Not Started Action options provide that day offset and time, related to the application start day, checks if the operation has not yet started. If, by the time specified, the operation has not started, an alert is issued, and an action taken. Possible actions include:
  - Only an alert message is issued.
  - Operation is set to Complete, if possible. Otherwise it is NOPed.
  - Operation is set to Error ignored.
  - Operation and all internal successors are NOPed.

#### *Filters on late operations*

- From the ISPF panel, the **Selecting Operations** option enables the user to browse and modify the late operations in the current plan according to the following criteria:
  - The operations latest start times
  - The day and time specified in the Not Started Alert or Not Started Action field
  - Either their latest start time, or by the day and time that is specified in the Not Started Alert or Not Started Action field

#### *Workload optimizations policies*

Policies to optimize the workload through a smooth submission of the operations:

- Clients can configure the JTOPTS initialization statement to better balance the submission of operations by prioritizing the jobs that are urgent (with priority 9) or that belong to a critical path.
- With the Smooth Submission feature active, clients can also set other parameters in the BATCHOPT statement to have the controller add a delay in submitting the remaining operations. This delay, however, will never exceed the operations' latest start time.

#### *Integration with IBM Common Data Provider for z Systems to stream log data to analytic engines*

The complexity of data requires an effective way to rapidly understand information and operate on it. Analyzing operational data in near real-time and making it accessible across an enterprise is a major requirement. IBM Z Workload Scheduler can now integrate with IBM Common Data Provider for z Systems to collect data that is valuable to the client and stream its own log data to analytic engines, distributing data to a variety of analytics engines such as Splunk, IBM Z Operations Analytics, or Elasticsearch.

In the OPCOPTS statement, clients can enable the logging of data to be used with IBM Common Data Provider for z Systems by setting CDP(YES) and specifying the required and optional settings in the other CDP-related parameters.

#### *Deployment of Dynamic Workload Console and IBM Z Workload Scheduler Agent with Docker containers*

Docker adoption helps to ensure standardization of the client's workload scheduling environment and provides an easy method to replicate environments quickly in development, build, test, and production environments. This can significantly reduce the time between build and production. Using Docker to install the client's environment can improve scalability, portability, and efficiency.

With a few, simple commands clients can install one or more of the following ready-to-use packages:

- IBM Workload Automation Console
- IBM Z Workload Automation Agent

Docker must be installed on the local workstation.

*Dynamic Workload Console V9.5 redesigned with new graphical layout, features, and improved functionality*

Version 9.5 of the Dynamic Workload Console brings both an architectural and web redesign. Its modernized, feature-rich, intuitive interface is built on a new foundation of advanced technology but maintains the current workload logic and processes.

The interface is based on a new architectural foundation of modern front-end technologies. With this refurbishment, Dashboard Application Services Hub (DASH) is replaced by a lean, high-performance in-house solution that is based on a lightweight, highly composable, fast-to-start, dynamic application server runtime environment, WebSphere<sup>®</sup> Application Server Liberty. Modern front-end technologies such as ReactJS, Redux, React-Saga, and SaSS form the user interface infrastructure.

The streamlined design of the console accommodates a number of features that improve the overall user experience to deliver results for the client's business:

- New live dashboard experience enables smart troubleshooting use cases for proactive incident management
- New integrated web help system
- Customizable options to make the client's most commonly used or critical operations more accessible with pins and favorites

*New infrastructure of Dynamic Workload Console changes and improves creation of dashboard for scheduling objects*

To meet the ever-increasing challenges of controlling a schedule environment, Dynamic Workload Console centralizes functions for monitoring different machines and environments. Additionally, its new capabilities enable the client to create and customize a dashboard or use one of several prebuilt custom dashboards.

The capability to have customized data sources with information from an internal plan or from an external REST API helps to create an optimized solution for monitoring client machines and environments. By creating boards and filling it with widgets, clients can control every scheduling object, such as the health of machines and the list or number of critical jobs.

*Enhanced reporting system with capability to import report templates*

Version 9.5 of the Dynamic Workload Console includes an enhanced reporting system with the capability to import report templates that are created by Business Intelligence and Reporting Tools.

The reporting system is now organized in **predefined reports** and **personalized reports**. By using the predefined reports, clients can perform the same actions as in previous versions but with an improved user experience that is easier and more intuitive. Clients can still create a task to generate reports about job run statistics, workstation workload summaries, or custom SQL reports.

With the new personalized reports, clients can manage templates that are created with Business Intelligence and Reporting Tool and use them to generate reports to retrieve data from the Workload Scheduler database.

*EJB plug-in to schedule, monitor, and control execution of EJB JAR files*

With the new plug-in for EJB, clients can schedule, monitor, and control the execution of EJB JAR files that are deployed on a WebSphere Application Server and integrate them into more complex, composite batch workflows.

Clients can schedule and monitor an EJB JAR file on a time or event basis. Clients can even set a conditional dependency for the JAR file execution, based on the value of variables that are passed from one job to another, in the same job stream or in a different job stream.

Clients can monitor and control the running of EJB JAR files from the Dynamic Workload Console, from which clients can also restart them in case of failure.

### **SAP integration certifications for Workload Scheduler V9.5**

The following SAP integration certifications are featured in Workload Scheduler V9.5:

- Background Processing, Job Scheduling (BC-XBP)
  - Schedule, start, and monitor jobs outside of the S/4HANA system.
- SAP Business Warehouse
  - Manage SAP R/3 Business Warehouse InfoPackages and Process Chains.

### **Section 508 of the US Rehabilitation Act**

---

IBM Z Workload Scheduler V9.5 is capable as of March 15, 2019, 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.

### **Value Unit-based pricing**

---

Value Unit pricing for eligible IBM z Systems<sup>(R)</sup> IBM International Program License Agreement (IPLA) programs enables a lower cost of incremental growth and enterprise aggregation. Each z Systems IPLA product with Value Unit pricing has a single price per Value Unit and a conversion matrix, called Value Unit Exhibit, for converting from some designated measurement to Value Units. Most commonly, Millions of Service Units (MSUs) is the measurement designated by IBM to be converted to Value Units. Some other measurements are engines or messages. Since MSUs are the most common measurement, that measurement will be used for the remainder of this description.

Value Unit pricing offers price benefits for you. For each z Systems IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Each of the various Value Unit Exhibits stipulate that the larger your required license capacity, the fewer Value Units per MSU you will need. Value Unit Exhibits are uniquely identified by a three digit code and referred to using the nomenclature VUExxx, where xxx is the three digit code.

Subsequent acquisitions of Value Unit priced programs offer additional price benefits. The quantity of each z Systems IPLA program that you have acquired is referred to as **entitled license capacity**. If you wish to grow your entitled license capacity for a z Systems IPLA program, the calculation to determine additional needed Value Units is based upon the number of Value Units already acquired.

For each z Systems IPLA program with Value Unit pricing, you should:

- Determine the required license capacity, in MSUs
- Aggregate the MSUs across the enterprise
- Convert the total MSUs to Value Units, using the applicable Value Unit Exhibit
- Multiply the price per Value Unit by the total number of Value Units to determine the total cost

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool, go to the [IBM Z software pricing](#) website.

Note that Value Units of a given product cannot be exchanged, interchanged, or aggregated with Value Units of another product.

To determine the required license capacity for the z Systems IPLA program you selected, see the [Terms and conditions](#) section.

---

## Product positioning

---

IBM Z Workload Scheduler V9.5 is a modern enterprise scheduler with the needed flexibility designed to help you adapt to your most demanding process complexity and scalability needs. With the possibility to accurately forecast the schedule execution and the impact of planned and unplanned events that affect the workload automation, it offers the right maturity level to govern the complexity generated by the increased workloads and handle Service Level Agreements with high confidence. It also satisfies the demand of application developers to be autonomous when creating and scheduling their applications.

---

## Availability of national languages

---

Description	Availability date	Language
IBM Z Workload Scheduler V9.5	March 15, 2019	English, German, Spanish, Japan Kanji, Korean

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

---

## Program number

---

Program number	VRM	Program name
5698-T08	9.5	IBM Z Workload Scheduler
Program PID number	Subscription and Support PID number	
5698-T08	5698-S51	

---

## Education support

---

IBM training provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers can be found on the [IBM Training and Skills](#) website.

Call IBM training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

---

## Offering Information

---

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

---

## Business Partner information

---

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld<sup>(R)</sup> ID and password are required (use IBMid).

[BP Attachment for Announcement Letter 219-010](#)

---

## Publications

---

The following publications will be available for ordering on the general availability date. To order, use the [IBM Knowledge Center](#), or contact your IBM representative.

<b>Title</b>	<b>Publication number</b>
IBM Z Workload Scheduler English Program Directory	GI13-2248-04
IBM Z Workload Scheduler German Program Directory	GI13-2271-04
IBM Z Workload Scheduler Japanese Program Directory	GI13-2272-04
IBM Z Workload Scheduler Spanish Program Directory	GI13-2273-04
IBM Z Workload Scheduler Korean Program Directory	GI13-2274-04
Accessing IBM Z Workload Scheduler Downloads	LCD8-2757-00
IBM Z Workload Scheduler License Information CD	LC27-6259-02
IBM Z Workload Scheduler License Information	GI13-2275-03
IBM Z Workload Scheduler 9.5.0 TEP Integration Agent and Reporting features	LCD7-6516-05
IBM Z Workload Scheduler 9.5.0 - Dynamic Workload Console, z/OS Connector for AIX <sup>(R)</sup>	LCD7-6517-04
IBM Z Workload Scheduler 9.5.0 - Dynamic Workload Console, z/OS Connector for Windows <sup>TM</sup> X86-64	LCD7-6518-04
IBM Z Workload Scheduler 9.5.0 - Dynamic Workload Console, z/OS Connector for Linux <sup>(R)</sup> X86-64	LCD7-6519-04
IBM Z Workload Scheduler 9.5.0 - Dynamic Workload Console, z/OS Connector for Linux X86-64 (Docker image)	LCD8-2758-00
IBM WebSphere <sup>(R)</sup> Application Server Liberty (Archive install) 18.0.0.4, Multilingual	LCD8-2759-00

---

## 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 Z Workload Scheduler V9.5 and its components run on the hardware platforms that support the operating systems listed in the Memo to Users document. This information will be available in [IBM Knowledge Center](#) on March 15, 2019.

#### Software requirements

The detailed list of supported operating systems, software requirements, and hardware requirements for IBM Z Workload Scheduler V9.5 and its components (Dynamic Workload Console, Z Connector, and IBM Z Workload Scheduler Agent) will be listed in the Memo to Users document. This information will be available in [IBM Knowledge Center](#) on March 15, 2019.

## Planning information

---

### **Packaging**

This offering is delivered through the internet as an electronic download. There is no physical media.

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**

---

Direct client support is provided by IBM Operational Support Services - SoftwareXcel. This fee service enhances your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services - SoftwareXcel helps answer questions pertaining to usage and suspected software defects for eligible products. Installation and technical support is provided by Global Services. For more information, call 800-IBM-4YOU (426-4968).

For technical support or assistance, contact your IBM representative or go to the [IBM Support Portal](#) website.

---

## Ordering information

---

Consult your IBM representative.

The programs in this announcement all have Value Unit-Based pricing.

Program number	Program name	Value Unit exhibit
5698-T08	IBM Z Workload Scheduler	VUE020

For each z Systems IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Your required license capacity is based upon the following factors:

- The z Systems IPLA program you select
- The applicable Value Unit Exhibit
- The applicable terms
- Whether your current mainframes are full capacity or sub-capacity

### **Value Unit exhibit VUE020**

Level	Minimum	Maximum	Value Units/MSU
Base	1	3	1
Tier A	4	45	0.15
Tier B	46	175	0.08
Tier C	176	315	0.04
Tier D	316	+	0.03

### **Ordering z/OS through the internet**

Shopz provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be

added to your order (including determination of whether all product requisites are satisfied). For more details and availability, go to the [Shopz](#) website.

## Charge metric

The charge metrics for this licensed product can be found in the following License Information document(s):

Program identifier	License Information document title	License Information document number
5698-T08	IBM Z Workload Scheduler V9.5	L-MARI-B8FCXM

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.

## Basic license

Translation from MSUs to Value Units

	MSUs	Value Units/MSU
Base	1-3	1
Tier A	4-45	0.15
Tier B	46-175	0.08
Tier C	176-315	0.04
Tier D	316 or greater	0.03

To order, specify the program ID number and the appropriate license or charge option. To suppress shipment of media, select the license-only option in CFSW.

### Program name: IBM Z Workload Scheduler

#### Program ID: 5698-T08

Entitlement identifier	Description	License option/Pricing metric
S0177JM	IBM Z Workload Scheduler	Basic OTC, per Value Unit Basic OTC, per MSU-day TUC, Multi-Version Measurement NC

Orderable supply ID	Language
S0177JG	English
S0177JH	German
S0177JJ	Japan Kanji
S0177JK	Korean
S0177JL	Spanish

IBM recommends internet delivery. However, if you still require physical media, you can choose DVD.

### Subscription and Support Program ID: 5698-S51

Entitlement identifier	Description	License option/Pricing metric
S010CSM	IBM Z Workload Scheduler S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S, Per MSU SW S&S Registration, Multi-Version Measurement S&S NC

Orderable supply ID	Language
S010CTM	German
S010CTN	English

Orderable supply ID	Language
S010CTR	Spanish
S010CTP	Japanese
S016SC3	Korean

### Subscription and Support

To receive voice technical support via telephone and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program ID referenced above and the appropriate license or charge option.

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

- Includes and extends the support services provided in the base support to include technical support by telephone.
- Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new programs.

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

The combined effect of the IPLA license and the Agreement for Acquisition of Software Maintenance gives you rights and support services comparable to those under the traditional ICA IBM Z license or its equivalent. To ensure that you continue to enjoy the level of support you are used to in the ICA business model, you must order **both** the license for the program **and** the support for the selected programs at the same Value Unit quantities.

### Customized Offerings

Product deliverables are shipped only through CBPDO and ServerPac. These customized offerings are offered for internet delivery. For more details on internet delivery, go to the Help section on the [Shopz](#) website.

You choose the delivery method when you order the software. IBM recommends internet delivery. However, if you still require physical media, you can choose DVD.

Many products can be ordered in ServerPac the month following their availability in CBPDO. z/OS can be ordered through CBPDO and ServerPac at general availability. Many products will also be orderable in a Product ServerPac without also having to order the z/OS operating system or subsystem.

Shopz and CFSW will determine the eligibility based on product requisite checking. For more details on the Product ServerPac, go to the Help section on the [Shopz](#) website.

Production of software product orders will begin on the planned general availability date.

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin four weeks after general availability.

---

## 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

## 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 following agreement applies for Software Subscription and Support (Software Maintenance) and does not require client signatures:

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

These programs are 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. 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. IBM Operational Support Services - SoftwareXcel is an option if you desire added services.

## License Information number

---

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

Program identifier	License Information document title	License Information document number
5698-T08	IBM Z Workload Scheduler V9.5	<a href="#">L-MARI-B8FCXM</a>

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 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 on 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)**

No

---

### **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 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.
- 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 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**

---

Yes

### **Variable charges apply**

---

No

### **Educational allowance available**

---

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

### **Multi-Version Measurement**

---

Multi-Version Measurement (MVM) replaces the previously announced Migration Grace Period time limit of six months and allows unlimited time for clients to run more than one eligible version of a software program. Clients may run multiple versions of a program simultaneously for an unlimited duration during a program version upgrade. Clients may also choose to run multiple versions of a program simultaneously for an unlimited duration in a production environment. MVM does not extend support dates for programs withdrawn from service.

For more information about MVM, including requirements for qualification, see the [MVM](#) web page. For a list of eligible programs, see the [IPLA Execution-Based](#) web page.

### **Sub-capacity terms and conditions**

---

For each z Systems IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the required license capacity. Your required license capacity is based upon the following factors:

- The z Systems IPLA program you select.
- The applicable Value Unit Exhibit.
- The applicable terms.
- Whether your current mainframes are full capacity or sub-capacity.

For more information on the Value Unit Exhibit for the z Systems IPLA program you selected, see the [Ordering information](#) section.

<b>Program number</b>	<b>Program name</b>	<b>Terms</b>
5698-T08	IBM Workload Scheduler for z/OS	Execution-based

### **Full-capacity mainframes**

In cases where full capacity is applicable, the following terms apply.

Execution based, z/OS based, full machine based: The required capacity of a z Systems IPLA program with these terms equals the MSU-rated capacity of the machines where the z Systems IPLA program executes.

For more information on mainframe MSU-rated capacities, go to the [IBM Z software pricing \(IBM System z<sup>\(R\)</sup> Software Contracts\)](#) website.

### **Sub-capacity mainframes**

In cases where sub-capacity is applicable, the following terms apply.

Execution based: The required capacity of a z Systems IPLA sub-capacity program with these terms equals the capacity of the LPARs where the z Systems IPLA program executes.

For more information on mainframe MSU-rated capacities, see the *The IBM z Systems Machines Exhibit, Z125-3901*, or visit the Mainframes section of the z Systems Exhibits website.

For additional information for products with reference-based terms, z Systems IPLA sub-capacity programs with reference-based terms adds value to the parent program across the environment, regardless of where in the environment the z Systems IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex<sup>(R)</sup>. You may have one or more different environments across the enterprise. To determine the required license capacity for each z Systems IPLA program with referenced-based terms, each environment should be assessed separately.

When a z Systems IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment, the required license capacity of the z Systems IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one where MLC pricing is aggregated across the sysplex.

### **Sub-capacity eligibility**

To be eligible for sub-capacity charging on select z Systems IPLA programs, you must first implement and comply with all terms of either sub-capacity Workload License Charges (WLC) or sub-capacity Entry Workload License Charges (EWLC). To implement sub-capacity WLC or EWLC, a machine must be z Systems (or equivalent). On that machine:

- All instances of the OS/390<sup>(R)</sup> operating system must be migrated to the z/OS operating systems.
- Any licenses for the OS/390 operating system must be discontinued.
- All instances of the z/OS operating systems must be running in z/Architecture<sup>(R)</sup> (64-bit) mode.

For that machine, you must create and submit a Sub-Capacity Report to IBM each month. Sub-Capacity Reports must be generated using the Sub-Capacity Reporting Tool (SCRT). For additional information or to obtain a copy of SCRT, go to the [IBM Z software pricing](#) website.

You must comply with all of the terms of the WLC or EWLC offering, whichever is applicable:

- The complete terms and conditions of sub-capacity WLC are defined in the *IBM Customer Agreement - Attachment for z Systems Workload License Charges (Z125-6516)*.
- The complete terms and conditions for sub-capacity EWLC are defined in the *IBM Customer Agreement - Attachment for EWLC, TWLC, zELC, and z/OS.e License Charges (Z125-6587)*.

Additionally, you must sign and comply with the terms and conditions specified in the amendment to the IPLA contract - *Amendment for Amendment for IBM z Systems Programs Sub-Capacity Pricing (Z125-6929)*. Once the amendment is signed, the terms in the amendment replace any and all previous z Systems IPLA sub-capacity terms and conditions.

---

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

Registered external clients and IBM Business Partners can access [IBMLink](#) to view pricing information.

Specify "Price type," "Search type," and "Search value," then click "Search."

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

You can also contact your local IBM representative or IBM Business Partner for the applicable charges.

---

## 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.

---

## 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.

### **Trademarks**

IBM Z, IBM, z/OS, z Systems, PartnerWorld, Passport Advantage, WebSphere, IBM z Systems, AIX, System z, Parallel Sysplex, OS/390 and z/Architecture are registered trademarks of IBM Corporation in the United States, other countries, or both. JavaBeans is a trademark of Oracle in the U.S. and other countries.

Windows is a trademark of Microsoft Corporation in the United States, other countries, or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

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. 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 United States](#)