

Improve workload resilience with IBM z/OS Workload Interaction Correlator, a new z/OS priced feature

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Overview

Centralized mainframe workloads continue to become more complex over time. Often there are interdependencies among the various middleware workload components. When performance problems arise, the state of the art often involves performing detailed middleware silo analysis, and then attempting to bridge the findings across multiple silos. This may result in finger pointing across the silos. It is difficult to identify the root cause of complex problems when you can see only one puzzle piece at a time.

Imagine if new technology were developed that enabled the direct correlation of interacting activities that were performing anomalously, across the entire z/OS^(R) and middleware stack. With IBM^(R) z/OS Workload Interaction Correlator, a patented, radical new approach delivers low CPU cost, high value context rich data -- a key first step toward delivering on that promise. The z/OS Workload Interaction Correlator infrastructure is designed to be consumed by both z/OS and middleware exploiters. z/OS Workload Interaction Correlator prescribes how each exploiter's summary data is generated. Ultimately this synchronized, standardized approach to data generation will enable the ability to dynamically define and correlate disparate client-specific performance anomalies -- with no predefined policy. This correlation capability will help clients implicate or exonerate workload components, where correlated anomalous activities are implicated, and nonanomalous activities are exonerated. The z/OS Supervisor component is the first to provide its workload-wide data in this powerful standardized format.

IBM z/OS Workload Interaction Correlator is a priced feature of IBM z/OS. It requires IBM z14 or z15 hardware and support will be in the PTF for APAR OA57165 for IBM z/OS V2.3 and V2.4.

Planned availability date

March 20, 2020

Statement of direction

Besides z/OS itself, the first exploiters of this technology are intended to be IMS and CICS^(R) Transaction Server.

Statements by IBM regarding its plans, directions, and intent are subject to change or withdrawal without notice at the sole discretion of IBM. Information regarding potential future products is intended to outline general product direction and should not be relied on in making a purchasing decision. The information mentioned

regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for IBM products remain at the sole discretion of IBM.

Hardware and software support services

SmoothStart/installation services

IBM SmoothStart Services and Installation Services are not provided.

Reference information

For detailed information about z/OS V2.4, see Software Announcement [A19-0500](#), dated July 23, 2019.

For detailed information about z/OS V2.3, see Software Announcement [A17-0390](#), dated July 17, 2017.

Program number

Program number	VRM	Program name
5650-ZOS	2.4.0	IBM z/OS
5650-ZOS	2.3.0	IBM z/OS

Ordering information

Current licensees

This feature can be ordered as an MES for installed users of z/OS V2.4 and V2.3. The charge type selected must be the same as the base program; for example, one-time charge, monthly license charge, and graduated one-time charge.

New licensees

Orders for new licenses can be placed now.

Registered clients can access [IBMLink](#) for ordering information and charges. Shipment will not occur before the availability date. Unless a later date is specified, orders entered before the planned availability date will be assigned a schedule date of one week following availability.

Based on the client-requested arrival date (CRAD) and to allow for order processing, the first client shipment will begin within seven business days after the planned availability date.

To order a basic license, specify the z/OS program number 5650-ZOS. Proceed to select the features listed which are required and then select any optional features.

Parallel Sysplex License Charge

To order a basic license, specify the program number and quantity of MSU.

If there is more than one program copy in a Parallel Sysplex^(R), the charge for all copies is associated to one license by specifying the applicable PSLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge PSLC Up to Level D MSU Capacity
S018H13	IBM z/OS Workload Int Corr	System Usage Registration No Charge PSLC Up to Level D MSU Capacity

Advanced Workload License Charge

To order a basic license, specify the program number and quantity of MSUs.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable AWLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Advanced Workload License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Advanced Workload License Charge

Advanced Entry Workload License Charge

To order a basic license, specify the program number and quantity of MSUs.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge AEWLC - Advanced Entry WLC

Country Multiplex License Charge

To order a basic license, specify the program number and quantity of MSUs.

If there is more than one program copy in a Country Multiplex, the charge for all copies is associated to one license if all the copies are licensed to one customer number within the multiplex. If there is more than one customer number, the charge for all copies is prorated to one license for each customer within the multiplex.

For each license being charged, specify the applicable CMLC license options and the prorated quantity of the Service Units in Millions (MSUs) for each customer number within the multiplex. For all other program copies, specify the Workload Registration No-Charge (WREG NC) Identifier on the licenses.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Country Multiplex License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Country Multiplex License Charge

Solution Consumption License Charge

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly Charge Solution Consumption MSU 0
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly Charge Solution Consumption MSU 1
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly Charge Solution Consumption MSU 10
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 0
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 1
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 10

Variable Workload License Charge

To order a basic license, specify the program number and the quantity of MSUs.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable WLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the Workload Registration Variable WLC Identifier on the licenses.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Variable Workload License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Variable Workload License Charge

Entry Workload License Charge

To order a basic license, specify the program number and the quantity of MSUs.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Entry Workload License Charge

IBM Z Entry License Charge

To order a basic license, specify the program number and machine model.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge zSeries Entry License Charge

IBM Z New Application License Charge

z/OS (and z/OS priced features) is the only program eligible for zNALC charges. In the IBM enterprise software billing and fulfillment system, IBM uses the term "Basic License" to indicate licenses that are billable. When software is licensed to a stand-alone server, IBM places basic (billable) licenses on that stand-alone server. When software is licensed to multiple machines in a qualified Parallel Sysplex, IBM places basic (billable) licenses on an entity representing the Sysplex and places registration (no-charge) licenses on each licensed machine belonging to the Parallel Sysplex.

z/OS with zNALC charges can aggregate across servers that participate in a fully qualified Parallel Sysplex. For more information about Parallel Sysplex, go to the [IBM System z[®] Software Pricing](#) website.

In the case that there are multiple servers with z/OS with zNALC charges participating in a qualified Parallel Sysplex and you request aggregated pricing, then IBM will apply the zNALC basic license structure to the Sysplex and apply zNALC no-charge registration licenses to each of the individual servers that comprise the Sysplex.

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge System z New Application License Charge
S018H13	IBM z/OS Workload Int Corr	zNALC Registration No Charge System z New Application License Charge

Multiplex z New Application License Charge

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Multiplex z New Application License Charge
S018H13	IBM z/OS Workload Int Corr	zNALC Registration No Charge Multiplex z New Application License Charge

Enterprise Solution License Charge

Program name: IBM z/OS Workload Interaction Correlator

Program ID: 5650-ZOS

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License No Charge Enterprise Solution FLAT
S018H13	IBM z/OS Workload Int Corr	Enterprise Solution License Charge Monthly Charge Enterprise Solution MSU
S018H13	IBM z/OS Workload Int Corr	Enterprise Solution License Charge Registration No Charge Enterprise Solution MSU

Basic machine-readable material

Orderable Supply ID	Description	Language
S018H14	IBM z/OS Workload Interaction Correlator	English US

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.

Customization options

Select the appropriate feature number to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

Publications

No publications are shipped with the announced product.

Customized Offerings

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

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 on the planned availability date. 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 availability date.

- CBPDO shipments will begin one week after the planned availability date.

- ServerPac shipments will begin two weeks after the planned availability date.

Terms and conditions

The terms are unaffected by this announcement.

Statement of good security practices

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

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

Prices are subject to change without notice.

GST, QST, and sales taxes, where applicable, are extra.

For additional information and current prices, contact your local IBM representative or IBM Business Partner.

IBM Z^(R) Entry License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge zSeries Entry License Charge

Parallel Sysplex License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge PSLC Up to Level D MSU Capacity
S018H13	IBM z/OS Workload Int Corr	System Usage Registration No Charge PSLC Up to Level D MSU Capacity

Advanced Workload License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Advanced Workload License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Advanced Workload License Charge

Advanced Entry Workload License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge AEWLC - Advanced Entry WLC

Sub-capacity charges for AWLC, AEWLC, CMLC, zNALC, VWLC, EWLC, and MWLC products

Sub-capacity charges for eligible products are based on product LPAR utilization capacity. Product LPAR utilization capacity for a sub-capacity product is the highest number of MSUs utilized by the combined LPARs in which the product runs concurrently during a reporting period. The number of MSUs is based on the highest observed rolling 4-hour average utilization used by the combination of the relevant LPARs during the reporting period.

Sub-capacity charges terms and conditions

IBM Z software charges at less than full machine capacity for eligible sub-capacity products apply when z/OS, z/TPF, or z/VSE^(R) is running in z/Architecture^(R) (64-bit) mode on an IBM Z, no other MVSTM-based, TPF-based, or VSE-based operating system respectively is licensed to that server, and the required information is provided by the client in accordance with the applicable terms.

Sub-capacity charges for a sub-capacity product are based on the utilization of the LPARs where and when the product executes. To obtain charges at less than full machine capacity for sub-capacity products, the client is required to:

- Sign and abide by the terms of one of the following:
 - Attachment for IBM System z Advanced Workload License Charges (Z125-8538)
 - Attachment for IBM System z Advanced Entry Workload License Charges (Z125-8755)
 - Attachment for IBM Country Multiplex Pricing (Z126-6965)
 - Attachment for zNALC License Charges on IBM System z (Z125-7454)
 - Attachment for IBM System z Workload License Charges (Z125-6516)

- Attachment for EWLC, TWLC, zELC, and z/OS.e License Charges (Z125-6587)
- Attachment for IBM System z Midrange Workload License Charges (Z125-7452)
Required service will be listed on the [IBM Z software pricing](#) website.
- Collect SMF or SCRT89 data as required by the Sub-Capacity Reporting Tool. Retain the collected data for a period of not less than six months.
- Use the IBM provided Sub-Capacity Reporting Tool to process the collected SMF or SCRT89 data. The Sub-Capacity Report produced by the tool is used to determine required license capacity for the sub-capacity products. Required license capacity is determined based on the largest MSU value of a sub-capacity product running concurrently in all LPARs during the reporting period. IBM reserves the right to request the system data that supports these product-defined capacity values for a period of up to six months after the data was collected.
- Provide an initial Sub-Capacity Report to begin to receive the benefits of less than full machine capacity charges. Sub-capacity charging will follow submission of a Sub-Capacity Report. There will be no retroactive application of sub-capacity charges.
- Submit Sub-Capacity Reports monthly between the second and ninth day of the month after the reporting period.
- Submit Sub-Capacity Reports for all sub-capacity products with complete data for the entire reporting period through the method specified on the [IBM Z software pricing](#) website.
Sub-Capacity Reports that reflect a changed product defined capacity will be considered to be orders placed by the client without further action on the client's part, and IBM is authorized to make any resulting billing increase or decrease, including the ordering of any necessary new licenses. To discontinue licenses, move licenses between machines, report a hardware model upgrade, or enable or disable product features, the client must contact IBM or their IBM Business Partner.
- Configure the machine to send weekly Transmit System Availability Data (TSAD) to IBM through the IBM Z Remote Support Facility (RSF). If the machine cannot connect through the RSF, provide this TSAD through an alternate means documented in the *SCRT Users Guide* (SG24-6522) publication on the [IBM Z software pricing](#) website.

Variable Workload License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Variable Workload License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Variable Workload License Charge

Country Multiplex License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Country Multiplex License Charge
S018H13	IBM z/OS Workload Int Corr	Workload Registration No Charge Country Multiplex License Charge

Solution Consumption License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly

Entitlement Identifier	Description	License Option/Pricing Metric
		Charge Solution Consumption MSU 0
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly Charge Solution Consumption MSU 1
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Monthly Charge Solution Consumption MSU 10
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 0
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 1
S018H13	IBM z/OS Workload Int Corr	Solution Consumption License Charge Registration No Charge Solution Consumption MSU 10

Entry Workload License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Entry Workload License Charge

IBM Z New Application License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge System z New Application License Charge
S018H13	IBM z/OS Workload Int Corr	zNALC Registration No Charge System z New Application License Charge

Multiplex z New Application License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License Monthly Charge Multiplex z New Application License Charge
S018H13	IBM z/OS Workload Int Corr	zNALC Registration No Charge Multiplex z New Application License Charge

Enterprise Solution License Charge

Entitlement Identifier	Description	License Option/Pricing Metric
S018H13	IBM z/OS Workload Int Corr	Basic License No Charge Enterprise Solution FLAT
S018H13	IBM z/OS Workload Int Corr	Enterprise Solution License Charge Monthly Charge Enterprise Solution MSU
S018H13	IBM z/OS Workload Int Corr	Enterprise Solution License Charge Registration No

Entitlement Identifier	Description	License Option/Pricing Metric
		Charge Enterprise Solution MSU

For additional details, see the Software Announcements listed in the [Reference information](#) section.

Variable charges

The applicable processor based one-time charge will be based on the group of the designated machine on which the program is licensed for use. If the program is designated to a processor in a group for which no charge is listed, the charge of the next higher group listed applies. For movement to a machine in a higher group, an upgrade charge equal to the difference in the then-current charges between the two groups will apply. For movement to a machine in a lower group, there will be no adjustment or refund of charges paid.

Order now

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Note: Shipments will begin after the planned availability date.

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[IBM Canada](#)

Corrections

(Corrected on January 30, 2020)

The "Ordering information" and "Prices" sections were revised.