

# Container Pricing for IBM Z delivers the New Application Solution that is designed to significantly improve the cost of deploying new z/OS applications

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## At a glance

Container Pricing for IBM<sup>®</sup> Z provides simplified software pricing for qualified solutions by combining flexible deployment options with competitive economics that are directly relevant to those solutions.

The New Application Solution provides a more flexible software pricing model for deploying new applications. This allows new applications to be tightly integrated with colocated workloads, with the price predictability of a dedicated environment.

## Overview

No single programming language is optimal for every type of application. When deploying new application solutions, selecting the programming language that is the right balance between application requirements and the organization's skill base is a primary consideration. The IBM Z server is the ideal platform on which to run high volumes of mixed language applications, from powerful business languages (such as COBOL and PL/I) to newer, web-focused languages (such as Java<sup>™</sup> EE 7 and Node.js).

Traditionally, software cost is also a factor when choosing the appropriate programming languages to deploy on the IBM z<sup>®</sup>/OS platform. Considerations, such as specialty engine eligibility and the impact on other sub-capacity workload pricing, have at times been an inhibitor in choosing the optimal language for a set of programming requirements.

In response to these inhibitors, IBM delivers the New Application Solution, which uses the new Container Pricing for IBM Z infrastructure. It is designed to significantly improve the cost of deploying new applications to the z/OS<sup>®</sup> platform, regardless of the programming language in which they are written. Additionally, deployed applications that use the New Application Solution do not directly impact the cost of unrelated workloads, even when they execute colocated in the same LPAR.

The New Application Solution delivers z/OS capacity at savings of 50% off the current Multiplex System z<sup>®</sup> New Application License Charge (MzNALC), which was previously the best available, new workload pricing metric that IBM offered for z/OS. The MzNALC MLC price point is used only as a reference for the z/OS charges in the New Application Solution. MzNALC terms and conditions do not apply with this offering.

Application runtime environments (for example, IBM CICS<sup>®</sup> Transaction Server (CICS TS), IBM IMS<sup>™</sup> Transaction Manager (IMS TM), and IBM WebSphere<sup>®</sup> Application Server software) are offered on a one-time-charge (OTC) basis, at prices

that are competitive with and can be directly compared against public cloud and on-premises x86 environments.

There is no change in the way IBM z Integrated Information Processor (zIIP) eligible workload is handled with Container Pricing. IBM does not impose IBM software charges on zIIP capacity and any workload that is offloaded to a zIIP engine does not contribute towards the Millions of Service Units (MSU) of a container.

The New Application Solution offering can be added to existing contractual loyalty agreements (such as Enterprise License Agreements (ELAs) and Open Infrastructure Offerings (OIOs)), and is also offered through stand-alone transactions.

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## Key prerequisites

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The New Application Solution requires:

- Deployment of a new z/OS application that does not currently run in a client's environment on any IBM Z server. Growth in existing applications or re-architecting of existing applications does not qualify. IBM must approve that the application qualifies as new.
- IBM z13<sup>(R)</sup>, IBM z13s<sup>TM</sup>, IBM z14, or later models with IBM sub-capacity pricing implemented.
- For the separate LPAR solution, z/OS V2.1, or later operating system.
- For the colocated solution, z/OS V2.2 or V2.3, or later operating system, with the PTFs applied for APARs:
  - OA52312 for Workload Manager (WLM)
  - OA52694 for Resource Management Facility (RMF<sup>TM</sup>)
  - OA53033 for System Management Facilities (SMF)
  - PI82528 for System Display and Search Facility (SDSF)

These and any other related PTFs are associated with fix category, IBM.Function.Pricing.Infrastructure.

- Sub-Capacity Reporting Tool (SCRT) V25.2, or later according to the requirements and guidelines in the [SCRT Users Guide](#).<sup>1</sup>
- SCRT, to be run for each sub-capacity reporting period and the resulting sub-capacity report to be submitted to IBM on a monthly basis.
- A unique solution ID to be used by the client to identify the Container Pricing solution. The solution ID is provided to the client through the [IBM License Management Support \(LMS\)](#) website upon the approval of the New Application Solution for that client.

<sup>1</sup> SCRT V25.2 will be available for download on December 15, 2017, from the [IBM z Systems<sup>\(R\)</sup> Software Pricing](#) website or with the PTF for APAR OA53047 on z/OS V2.3.

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## Effective date

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December 15, 2017

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## Description

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Container Pricing for IBM Z provides simplified software pricing for qualified solutions by combining flexible deployment options with competitive economics that are directly relevant to those solutions. Container Pricing can scale from colocated solutions within existing LPARs, through to separate LPARs, and up to multiple LPAR solutions, without directly impacting the cost of unrelated workloads.

The New Application Solution uses the Container Pricing for IBM Z infrastructure to deliver highly competitive, stand-alone priced offerings for new z/OS applications, at

prices that are competitive with and can be directly compared against public cloud and on-premises x86 environments.

This solution significantly enhances IBM Z software pricing by providing greater flexibility for the deployment of new applications. It allows new applications to be tightly integrated with colocated workloads, with the price predictability of a dedicated environment.

### **Understanding the New Application Solution**

The New Application Solution provides a more flexible software pricing model for deploying new applications. It allows brand new applications to be tightly integrated with colocated workloads, while being priced as though they were deployed in a separate, dedicated environment.

The New Application Solution delivers z/OS capacity at savings of 50% off the current MzNALC MLC price points, which was previously the best available, new workload pricing metric for z/OS. Other software within the container is offered on a one-time charge (OTC) basis, at prices that are competitive with and can be compared against public cloud and on-premises x86 environments. As with public cloud environments, software must be licensed with reference to the size of the container.

Execution-based IPLA programs whose Value Units are based upon MSUs and which are technically capable of running only within the container are eligible. These products, along with z/OS, will be billed at the size of the container.

As an example, consider a client who wants to deploy a new Node.js application on z/OS. Because IBM SDK for Node.js -z/OS is an IPLA execution-based product, it can be priced at the size of the container, even when colocated in an existing, much larger LPAR. If the maximum required capacity of this new Node.js solution was 50 MSUs, then the price of z/OS and the SDK for Node.js would be set at the price for 50 MSUs, regardless of the size of the LPAR in which it is running. Any MSUs that are measured in the container will be removed from contributing to standard sub-capacity charges.

A client can deploy one or more New Application Solution containers in their environment. This includes adding a Value Unit Edition (VUE) product, such as CICS TS VUE, which is IPLA execution-based, to an LPAR where the corresponding monthly license charge (MLC) product, such as CICS TS MLC, is already running.

For example, consider that over time the above client wants to add a new CICS TS VUE, COBOL and VSAM application in a second New Application Solution container, to the same existing LPAR. This is possible, even if the existing LPAR already happens to run CICS TS under an MLC license. Consider the new CICS TS application is also an additional 50 MSUs. The z/OS software would be priced at 50 MSUs for this workload, and because CICS TS VUE is also an IPLA execution-based product, it can also be priced at the size of the 50 MSU container. Any MSUs that are measured in the container will be removed from contributing to standard sub-capacity charges, such as the existing CICS TS MLC.

Because z/OS always runs in a container, any IPLA z/OS-based products in the enterprise need to ensure they have enough entitlement to cover all New Application Solution containers. Reference-based IPLA products in the enterprise only need to have enough entitlement to cover the environments (Containers or LPARs) in which the parent product runs.

In the above examples, the client is also already running IBM OMEGAMON<sup>®</sup> for z/OS and IBM CICS Performance Analyzer for z/OS (a reference-based product where CICS TS is the parent) in their enterprise. Because both containers are running z/OS, OMEGAMON for z/OS must be licensed for enough entitlements to cover both containers (50 MSUs + 50 MSUs = 100 MSUs) in addition to any existing entitlement requirements. CICS TS only runs in one of the containers, and therefore, CICS Performance Analyzer for z/OS only needs to be licensed for enough

entitlements to cover the container in which it runs (50 MSUs) in addition to any existing entitlement requirements.

Reference-based and z/OS-based IPLA programs that run only in a container and do not add value to any workload that runs outside the container may be considered (where they are technically capable) for pricing at the size of the container only. IBM will determine whether a particular program is supporting workloads outside of the container.

### **Implementing container pricing for the New Application Solution**

The New Application Solution that utilizes the Container Pricing for IBM Z infrastructure provides advantages over existing new application offerings, such as Solution Edition or zNALC which require dedicated LPARs. It also provides advantages over IBM z Systems colocated Application Pricing (zCAP) and Integrated Workload Pricing (IWP), which do allow colocated deployments, however they only provide partial pricing isolation and typically require additional manual reporting on a monthly basis.

The Container Pricing infrastructure provides a common solution that can scale from colocated solutions within existing LPARs, through to separate LPARs, and up to multiple LPAR solutions, without directly impacting the cost of unrelated workloads.

In the case of a new LPAR or multiple LPAR deployment requirement, the client may simply indicate to SCRT which LPARs make up the New Application Solution by utilizing the SCRT Container control statement along with an IBM-provided solution ID.

However, in many cases, using a separate LPAR is not the optimal technical deployment for the solution and the requirement is to collocate the new application with existing workload in an existing LPAR. In this case, Container Pricing for IBM Z relies on the new z/OS Workload Manager (WLM) Tenant Resource Group (TRG) infrastructure. This meters (and optionally caps) address spaces that are defined as a New Application Solution. An example would be one or more new CICS regions that are used solely for a new application. Multiple runtime environments, such as WebSphere Application Server and CICS TS can be supported in a single solution.

For these colocated solutions, an IBM-provided solution ID is added to z/OS WLM to flag these address spaces as part of the container. Only separate address spaces and/or independent enclaves are supported for the purposes of Container Pricing.

In all scenarios, once z/OS and SCRT are configured for Container Pricing, SCRT removes the applicable workloads from the reporting of the standard sub-capacity environment. This effectively removes them from contributing to standard sub-capacity charges for IBM software products. There will be a specific Container Pricing section in the SCRT report for the New Application Solution that is based on the IBM-provided solution ID.

The Container Pricing for New Application Solution requires the implementation of sub-capacity software billing. IBM will determine whether a particular program is a qualified new application.

### **Terms and conditions**

The MzNALC price points are used only as a reference for IBM z/OS pricing within the New Application Solution. The previously announced zNALC terms and conditions (such as annual recertification) do not apply with this offering.

Capacity acquired for the New Application Solution may be used for the new z/OS-based application that is approved by IBM, whether written in-house or acquired from a third party. This workload must be identified using the Container Pricing for IBM Z infrastructure.

The client's agreement to the New Application Solution terms and conditions is required for the receipt of these Container Pricing benefits. The client must have valid licenses for z/OS software that is installed on z13<sup>(R)</sup>, z13s<sup>TM</sup>, z14, or future

follow-on IBM Z servers, with IBM sub-capacity pricing implemented. All terms and conditions that are associated with the New Application Solution and the *IBM Client Relationship Agreement* (Z126-6548), or equivalent, apply.

Agreement to the terms of the *IBM Addendum for Container Pricing New Application Solution*, (Z126-7888) is required.

For clients with products licensed with Advanced Workload License Charges (AWLC), Advanced Entry Workload License Charges (AEWLC), or z Systems<sup>®</sup> New Application License Charge (zNALC) charge metrics, or subject to Country Multiplex Pricing (CMP), the terms and conditions as described in the corresponding documents also apply:

- IBM Attachment for IBM System z Advanced Workload License Charges (Z125-8538)
- IBM System z Advanced Workload License Charges Exhibit (Z125-8539)
- IBM Attachment for IBM System z Advanced Entry Workload License Charges (Z125-8755)
- IBM Attachment for zNALC License Charges on IBM System z (Z125-7454)
- IBM Exhibit for zNALC License Charges on IBM System z (Z125-7455)
- IBM Attachment for County Multiplex Pricing (Z126-6965)

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## Reference information

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For additional information on the Container Pricing for Application Development and Test Solution, see Software Announcement [217-490](#), dated November 14, 2017.

For additional information on the Container Pricing for Payments Pricing Solution, see Software Announcement [217-518](#), dated November 14, 2017.

For additional information on the IBM Payments Pricing Solution for z/OS, see Software Announcement [217-292](#), dated September 5, 2017.

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