



# Container Pricing for IBM Z

## Application Development and Test Solution

Announcement Date : 14th November 2017

Planned Availability Date : 15th December 2017

# About this document

IBM announced details of three Container Pricing for IBM Z solutions on 14<sup>th</sup> November 2017.

This document contains all the key informational text from the announcement letter for the **Application Development and Test Solution**.

The full announcement letters are linked here:

AP	<a href="#"><u>AP17-0478</u></a>
Canada	<a href="#"><u>A17-0752</u></a>
EMEA	<a href="#"><u>ZP17-0605</u></a>
Japan	<a href="#"><u>JP17-0588</u></a>
LA	<a href="#"><u>LP17-0601</u></a>
US	<a href="#"><u>US217-490</u></a>

# Title

Container Pricing for IBM Z introduces the Application Development and Test Solution to deliver up to three times the capacity with no increased Monthly License Charges

# At a Glance

Container Pricing for IBM Z provides simplified software pricing for qualified solutions to combine flexible deployment options with competitive economics that are directly relevant to those solutions.

The Application Development and Test Solution allows clients to increase their entitlement for current z/OS-based development and test environment capacity, up to triple its existing size, with no capacity-based increase in IBM monthly license charge (MLC) software charges for that workload.

# Overview

DevOps is an organizational strategy to manage the application lifecycle from requirements to a running system, across all platforms and teams. It brings Agile and Lean IT practices to the entire organization to allow for quick reaction to business demands.

Fundamentally, DevOps is about people and processes, with support from modern tooling to create an efficient DevOps pipeline. Best practices include:

- Build automation
- Continuous integration
- Test automation
- Continuous deployments

While these best practices can dramatically improve both team productivity and product quality, they can also put an additional burden on sometimes limited, z/OS-based development and test capacity.

In response to these requirements, IBM delivers the Application Development and Test Solution. This solution uses the new Container Pricing for IBM Z infrastructure to substantially lower the cost of growth for z/OS-based development and test workloads.

The Application Development and Test Solution allows clients to increase their entitlement for current z/OS-based development and test environment capacity, up to triple its existing size, with no capacity-based increase in MLC software charges for that workload.

The Application Development and Test 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.

# Key Prerequisites

The Application Development and Test Solution requires:

- IBM z13, IBM z13s, IBM z14, or later models, where IBM sub-capacity pricing has been 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)
  - OA53033 for System Management Facilities (SMF)
  - PI82528 for System Display and Search Facility (SDSF)

These and 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 (1).
- 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 Application Development and Test Solution for that client.
- (1) SCRT V25.2 will be available for download on December 15, 2017, from the IBM z Systems Software Pricing website or with the PTF for APAR OA53047 on z/OS V2.3.



# Description

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 Application Development and Test Solution allows clients to increase their entitlement for current, z/OS-based development and test environment capacity, up to triple its existing size, with no capacity-based increase in MLC software charges for that workload.

This dedicated capacity can be used for both new and existing z/OS-based application development and test workloads to deliver a low predictable cost for the business. This helps ensure development teams have the capacity they require to implement a modern, efficient DevOps pipeline, without directly impacting the costs of production environment workloads.

## Understanding the Application Development and Test Solution

The Application Development and Test Solution allows clients to separate their z/OS-based development and test environment costs, from their z/OS-based production environment costs. Production workloads can now be optimized without restricting capacity for development and test activities.

By utilizing the Container Pricing for IBM Z infrastructure, this solution enables clients to increase their entitlement for current z/OS-based development and test environment capacity, up to triple its existing size, with no capacity-based increase in MLC software charges for that workload. MLC software license charges are fixed at the capacity of the container and do not directly impact the costs of workloads that run elsewhere in the organization.

Non-MLC software that runs within the Application Development and Test Solution container, such as IBM IPLA software, must be licensed with reference to the size of the container. If additional capacity is required, it can be purchased at discounted prices.

As an example, a client with a 100 Millions of Service Units (MSU) z/OS-based application development and test environment may increase their entitlement for development and test capacity to 300 MSUs (which is triple the original capacity) and maintain the same MLC software charges for that workload. The new reference capacity of this Container Pricing solution for IBM IPLA software is now 300 MSUs.

Additionally, the Application Development and Test Solution allows clients to grow their IBM MLC capacity beyond the original maximum, with a reduction of 80% off the incremental MLC charges for this incremental capacity. The Country Multiplex License Charges (CMLC) price points are used as the reference for the MLC program costs in the Application Development and Test Solution.

For example, if over time the above client wanted to increase their 300 MSU test and development workload to 500 MSUs, the incremental 200 MSUs would be priced with a reduction of 80% off the CMLC metric. Participation in the Country Multiplex Pricing offering is not required for the solution.

## **Implementing Container Pricing for the Application Development and Test Solution**

It is typically a best practice to run development and test workloads in z/OS LPARs that are isolated from production LPARs. The Application Development and Test Solution uses the Container Pricing infrastructure to separate one or more LPARs from standard sub-capacity pricing terms and conditions. To achieve this, clients must indicate to SCRT which LPARs make up the Application Development and Test Solution by utilizing the SCRT Container control statement along with an IBM-provided solution ID.

In cases where z/OS-based development and test capacity is colocated in a production LPAR, certain colocated workloads can still be added to an Application Development and Test container for pricing purposes. This scenario 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 the Application Development and Test Solution. An example would be one or more CICS regions that are used solely for development and test purposes. The same IBM-provided solution ID is added to z/OS WLM to flag these address spaces as part of the container.

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. SCRT produces a specific Container Pricing section for the Application Development and Test solution that is based on the IBM-provided solution ID.

## **Calculating the reference baseline for the Application Development and Test Solution**

In the case where development and test workloads are separated into one or more z/OS LPARs that are isolated from production LPARs, the following calculations will apply.

The initial application development and test MSU base capacity for the Application Development and Test Solution is calculated from the average, peak, four-hour rolling average of any dedicated LPARs for the last three months of SCRT reports. The average will determine the initial MSU base capacity.

The MLC cost of this initial MSU base capacity will be calculated based on the incremental contribution of these application development and test LPARs to the overall, four-hour rolling average. The following SCRT reports will be required to determine MLC charges for this offering.

Case A: Production and Application Development and Test LPARs that run on the same machine:

- Run SCRT reports for the last 3 months using EXCLUDE statements for the Application Development and Test LPARs.
- Calculate MLC charges for each month by product using the MSUs in those reports.
- Calculate the three-month average charge from the monthly charges above for each product.
- Subtract this amount from the three-month average business as usual (BAU) (billed) MLC for this machine to determine the MLC price for Application Development and Test.

Note: If both Production and Application Development and Test machines are in a sysplex all pricing and calculations must be submitted at a sysplex level.

## Case B: Dedicated Application Development and Test machines in a sysplex:

- Run SCRT reports for the last 3 months for all machines except the Development and Test machines.
- Calculate MLC charges for each month by product using the MSUs in those reports.
- Calculate the three-month average charge from the monthly charges above for each product.
- Subtract this amount from the three-month average BAU (billed) MLC across the sysplex for each product to determine the MLC price for Application Development and Test.

## Case C: Stand-alone Application Development and Test machines

- Calculate the three-month average of the BAU (billed) MLC on this machine by product to determine the MLC price for Application Development and Test.



In the case where development and test workloads are colocated in production LPARs, then this requires the new z/OS Workload Manager (WLM) Tenant Resource Groups (TRGs) infrastructure to be configured to capture and meter dedicated development and test address spaces for a three-month period in order to create a baseline. Contact an IBM representative for more information.

## Terms and Conditions

The CMLC price points are used only as a reference for the MLC program costs in the Application Development and Test Solution. The previously announced Country Multiplex Pricing offering terms and conditions are not a requirement for the MLC software within the Application Development and Test Solution.

Capacity acquired for the Application Development and Test Solution may be used for pre-production z/OS-based application development and testing of any application, 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 Application Development and Test Solution terms and conditions is required for the receipt of these Container Pricing benefits. The client must have valid licenses for z/OS software installed on z13, z13s, z14, or future follow-on servers, with IBM sub-capacity pricing implemented. All terms and conditions associated with the Application Development and Test Solution and the IBM Client Relationship Agreement (Z126-6548), or equivalent, apply.

Agreement to the terms of the *IBM Addendum for Container Pricing Application Development and Test Solution* (Z126-7887) is required.

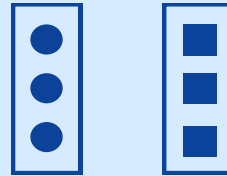
For clients with products licensed with Advanced Workload License Charges (AWLC), Advanced Entry Workload License Charges (AEWLC), or z Systems New Application License Charge (zNALC) charge metrics, or subject to Country Multiplex Pricing (CMP), the terms and conditions described in the following corresponding 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 Country Multiplex Pricing (Z126-6965)

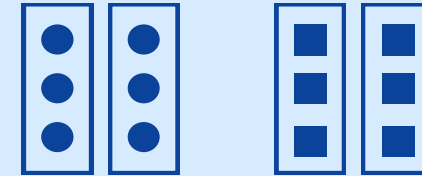
# Recap of Container Pricing for IBM Z



Same LPAR colocation



Dedicated LPAR solutions



Multiple LPAR solutions

No direct impact to  
the cost of unrelated  
workloads

Deployments  
optimized for technical  
excellence

Monthly metering  
and billing process  
fully automated

# Key Concepts

## the **Container**

The method of ***measuring*** the scope of a workload for pricing

The pricing and billing ***infrastructure***, not the actual pricing metrics

***No additional technical virtualisation*** layers to enable the container

## the **Solution**

It is the ***solution*** that runs inside the container that is priced

Prices are specific to solutions and ***price points differ between solutions***

There are ***3 different announced solutions***

# 3x Initial Solutions

**New Application  
Solution**

Predictable costs  
Win prices

**Application  
Development and  
Test Solution**

Up to 3 x MLC capacity  
0 x additional MLC costs

**Payments Pricing  
Solution**

Business based metric  
Based on your business

Need Help?

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