

Technology Transition Offerings for the IBM z16 offer price-performance advantages

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Overview

Complementing the information in Hardware Announcement [122-001](#), dated April 5, 2022, for the IBM^(R) z16 server, the following is delivered:

- A new Technology Transition Offering (TTO) called *Technology Update Pricing for the IBM z16 (TU9)*
- One new (TC6) and three revised (TC5, TC4, and TC3) Transition Charges for Sysplexes or Multiplexes TTOs for actively coupled Parallel Sysplexes (z/OS^(R)), Country Multiplexes, and Loosely Coupled Complexes (z/TPF)

Technology Update Pricing for the IBM z16 uses the reporting mechanisms and existing Millions of Service Units per hour (MSU) tiers of the Advanced Workload License Charges (AWLC) or Country Multiplex License Charges (CMLC) pricing metrics while extending the software price-performance provided for the IBM z16.

Five TTOs apply only to eligible IBM z/OS and z/TPF operating systems and their associated middleware programs (see the [Programs and all associated features eligible for AWLC and CMLC section](#)) when running in the following configurations:

- On a stand-alone IBM z16 server
- In an aggregated z/OS Parallel Sysplex^(R) or Country Multiplex, referred to as a *sysplex*, with an IBM z16 server
- In an aggregated z/TPF Loosely Coupled Complex, referred to as a *complex*, with an IBM z16 server

Benefits of Technology Update Pricing for the IBM z16:

- Reduces AWLC or CMLC pricing on the IBM z16 as compared to AWLC or CMLC on the IBM z15TM, IBM z14^(R), IBM z13^(R), IBM zEnterprise^(R) EC12 (zEC12), and IBM zEnterprise 196 (z196) servers with more than three MSUs
- Offers sub-capacity or full capacity implementation

If you are operating a single, stand-alone IBM z16 server, you may elect Technology Update Pricing for the IBM z16 or Parallel Sysplex License Charges (PSLC) that are subject to all applicable terms and conditions.

If you are operating only IBM z16 servers in an actively coupled z/OS Parallel Sysplex, Country Multiplex, or z/TPF Loosely Coupled Complex, you may elect aggregated Technology Update Pricing for the IBM z16 or aggregated Parallel Sysplex License Charges (PSLC). Both options are subject to all applicable terms and conditions.

Benefits of new and revised Transition Charges for Sysplexes:

- Offers actively partial Technology Update Pricing for IBM z16 benefits for actively coupled Parallel Sysplexes, Country Multiplexes, and Loosely Coupled Complexes with different generations of server hardware server technology
- Offers sub-capacity or full capacity implementation

The new **Transition Charges for Sysplexes or Multiplexes (TC6)** program provides a reduction in aggregated AWLC or CMLC as you upgrade to IBM z16 servers within actively coupled Parallel Sysplexes, Country Multiplexes, or Loosely Coupled Complexes with a mix of IBM server technologies that include one or more IBM z16 servers with one or more z15 (all models) servers.

The revised **Transition Charges for Sysplexes or Multiplexes (TC5)** program provides a reduction in aggregated AWLC or CMLC as you upgrade to IBM z16 servers within actively coupled Parallel Sysplexes, Country Multiplexes, or Loosely Coupled Complexes with a mix of IBM Z^(R) server technologies that include one or more IBM z16 servers with one or more z15 (all models) or z14 (all models) servers.

The revised **Transition Charges for Sysplexes or Multiplexes (TC4)** program provides a reduction in aggregated AWLC or CMLC as you upgrade to IBM z16 servers within actively coupled Parallel Sysplexes, Country Multiplexes, or Loosely Coupled Complexes with a mix of IBM Z server technologies that include one or more IBM z16, z15 (all models), z14 (all models), z13^(R), or z13s^(R) servers.

The revised **Transition Charges for Multiplexes (TC3)** program provides a reduction in aggregated CMLC as you upgrade to z15 servers within actively coupled Country Multiplexes with a mix of IBM Z server technologies that include one or more IBM z16, z15 (all models), z14 (all models), z13, z13s, zEC12, or zBC12 servers.

Aggregated Technology Update Pricing for the IBM z16 (TU9) is not available for actively coupled Parallel Sysplexes, Country Multiplexes, or Loosely Coupled Complexes until all the servers in the sysplex, multiplex, or complex are upgraded to IBM z16 servers.

Key requirements

- Technology Update Pricing for the IBM z16 is available only for:
 - Single, stand-alone IBM z16 servers
 - Actively coupled z/OS Parallel Sysplexes that consist only of IBM z16 servers
 - Country Multiplexes that consist only of IBM z16 servers
 - z/TPF Loosely Coupled Complexes that consist only of IBM z16 servers
- Technology Update Pricing for the IBM z16 and Transition Charges for Sysplexes or Multiplexes apply only to specified eligible software programs that are included in the [Programs and all associated features eligible for AWLC and CMLC](#) section.

Effective date

April 5, 2022

Availability within a country is subject to local legal requirements.

Description

Five TTOs consist of:

- Technology Update Pricing for the IBM z16
- One new and three revised Transition Charges for Sysplexes or Multiplexes programs

Within this announcement, a "TTO-eligible environment" refers to eligible z/OS and z/TPF operating systems and their associated middleware programs, which are listed in the [Programs and all associated features eligible for AWLC and CMLC](#) section, and running in the following configurations priced with AWLC or CMLC:

- On a stand-alone IBM z16 server
- In a Country Multiplex with an IBM z16 server
- In an aggregated z/OS Parallel Sysplex with an IBM z16 server
- In an aggregated z/TPF Loosely Coupled Complex with an IBM z16 server

Technology Update Pricing for the IBM z16 (TU9)

IBM z16 servers that receive a reduction to AWLC or CMLC pricing, which is called *Technology Update Pricing for the IBM z16*, are those that are:

- Stand-alone IBM z16 servers that are priced with AWLC
- All servers in an actively coupled Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex

Technology Update Pricing for the IBM z16 is a monthly-license-charge price structure that is available for eligible software programs that run on an IBM z16 server. The pricing update applies to z/OS operating system software and many of its associated middleware software programs, such as:

- IBM CICS^(R)
- IBM Db2^(R)
- IBM IMS

Technology Update Pricing for the IBM z16 also applies to z/TPF and its associated z/TPFDF monthly-license-charge programs. Other IBM operating systems and associated middleware software programs continue to be licensed and priced that are based on previously announced charge structures.

For details, see the [Programs and all associated features eligible for AWLC and CMLC](#) section.

As an enhancement to AWLC that was previously announced in Software Announcement [210-238](#), dated July 22, 2010, Technology Update Pricing for the IBM z16 may be implemented in full capacity or sub-capacity mode under the previously announced terms.

- Full capacity

Monthly charges for Technology Update Pricing for the IBM z16 priced programs are based on the total MSU capacity of the IBM z16 server. To view the IBM MSU ratings for the IBM z16 servers, see the [IBM Mainframe Exhibit](#) web page.

- Sub-capacity

Monthly charges for Technology Update Pricing for the IBM z16 priced software programs are based on the highest number of MSUs utilized by the combined logical partitions (LPARs) in which the Technology Update Pricing for the IBM z16 program executes during a reporting period. LPAR MSU utilization is measured by the Sub-Capacity Reporting Tool (SCRT) by using the highest observed rolling, four-hour average MSUs utilization. If you choose sub-capacity pricing, you must use SCRT to generate sub-capacity reports and submit these reports to IBM each month. Additional client responsibilities under sub-capacity pricing are specified in the:

- IBM Attachment for IBM System z^(R) AWLC (Z125-8538)
- IBM Attachment for IBM Country Multiplex Pricing (Z126-6965)

For more information about SCRT, see the Sub-capacity Corner section of the [IBM Z software pricing tools](#) website.

Schedule of AWLC and CMLC reductions for Technology Update Pricing for the IBM z16 (TU9)

Quantity of IBM z16 full capacity MSUs for a stand-alone server, or the sum of full capacity MSUs in an actively coupled z/OS Parallel Sysplex, Country Multiplex, or z/TPF Loosely Coupled Complex made up entirely of IBM z16 servers	Reduction in monthly AWLC or CMLC
1 - 3 MSUs	0.0%
4 - 45 MSUs	10.0%
46 - 315 MSUs	20.0%
316 - 1315 MSUs	22.0%
1316 - 2676 MSUs	25.0%
2677 - 5476 MSUs	30.0%
5477 - more MSUs	35.0%

The number of MSUs that are used to determine either the MSUs of a stand-alone IBM z16 server or the total MSUs of a IBM z16 Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex is based on the announced IBM full capacity ratings that can be found on the [IBM Mainframe Exhibit](#) web page.

Transition Charges for Sysplexes offerings

Transition Charges for Sysplexes or Multiplexes (TC6)

When two or more servers comprise a TTO-eligible environment that consists of only one or more IBM z16 servers with one or more z15 (all models) servers, those servers receive a reduction to AWLC or CMLC pricing. This reduction provides a portion of the price-performance benefit related to Technology Update Pricing for the IBM z16 that is based on the total full capacity MSUs of all IBM z16 and z15 machines in the TTO-eligible environment.

The number of MSUs used to determine the total MSUs for the Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex is based on the announced IBM full capacity ratings that can be found on the [IBM Mainframe Exhibit](#) web page.

Schedule of AWLC and CMLC reductions for Transition Charges for Sysplexes or Multiplexes (TC6)

Quantity of IBM z16 and z15 (all models) full capacity MSUs in an actively coupled Parallel Sysplex or Country Multiplex	Reduction in monthly AWLC or CMLC
1 - 3 MSUs	0.0%
4 - 45 MSUs	9.0%
46 - 315 MSUs	18.0%
316 - 1315 MSUs	20.0%
1316 - 2676 MSUs	22.0%
2677 - 5476 MSUs	27.0%
5477 - more MSUs	31.0%

Transition Charges for Sysplexes or Multiplexes (TC5)

The Transition Charges for Sysplexes or Multiplexes (TC5) offering that was previously announced in Software Announcement [219-410](#), dated September 12, 2019, is updated to include the IBM z16.

Transition Charges for Sysplexes or Multiplexes (TC5)

When two or more servers comprise a TTO-eligible environment that consists of only one or more IBM z16 servers with one or more z15 (all models) or z14 (all models) servers, those servers receive a reduction to AWLC or CMLC pricing. This reduction provides a portion of the price-performance benefit related to Technology Update

Pricing for the IBM z16 that is based on the total full capacity MSUs of all IBM z16, z15, and z14 machines in the TTO-eligible environment.

The number of MSUs used to determine the total MSUs for the Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex is based on the announced IBM full capacity ratings that can be found on the [IBM Mainframe Exhibit](#) web page.

Schedule of AWLC and CMLC reductions for Transition Charges for Sysplexes or Multiplexes (TC5)

Quantity of z15 and z14 (all models) full capacity MSUs in an actively coupled Parallel Sysplex or Country Multiplex	Reduction in monthly AWLC or CMLC
1 - 3 MSUs	0.0%
4 - 45 MSUs	7.0%
46 - 315 MSUs	14.0%
316 - 1315 MSUs	16.0%
1316 - 2676 MSUs	17.0%
2677 - 5476 MSUs	21.0%
5477 - more MSUs	24.0%

Schedule of AWLC and CMLC reductions for Transition Charges for Sysplexes or Multiplexes (TC4)

The Transition Charges for Multiplexes (TC4) offering that was previously announced in Software Announcements [212-320](#), dated August 28, 2012, and [212-437](#), dated October 3, 2012, is updated to include the IBM z16 in an existing qualified Country Multiplex.

When two or more servers comprise a TTO-eligible environment that consists of only one or more IBM z16 servers with one or more z15 (all models), z14 (all models), z13, or z13s servers, those servers receive a reduction to AWLC pricing. This reduction provides a portion of the price-performance benefit that is related to Technology Update Pricing for the IBM z16 that is based on the total full capacity MSUs of all IBM z16, z15 (all models), z14, (all models), z13, and z13s machines in the TTO-eligible environment. The number of MSUs used to determine the total MSUs for the Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex is based on the announced IBM full capacity ratings. They can be found on the [IBM Mainframe Exhibit](#) web page.

Quantity of IBM z16, z15, z14 (all models), z13, and z13s full capacity MSUs in an actively coupled Parallel Sysplex or Country Multiplex	Reduction in monthly AWLC or CMLC
1 - 3 MSUs	0.0%
4 - 45 MSUs	5.0%
46 - 315 MSUs	10.0%
316 - 1315 MSUs	11.0%
1316 - 2676 MSUs	13.0%
2677 - 5476 MSUs	15.0%
5477 - more MSUs	18.0%

Transition Charges for Multiplexes (TC3)

The Transition Charges for Multiplexes (TC3) offering that was previously announced in Software Announcements [212-320](#), dated August 28, 2012, and [212-437](#), dated October 3, 2012, is updated to include the IBM z16 in an existing qualified Country Multiplex.

When two or more servers comprise an existing qualified Country Multiplex eligible environment that consists of one or more IBM z16, z15, z14 (all models), z13, z13s, zEC12, or zBC12 servers, those servers receive a reduction to CMLC pricing. This reduction provides a portion of the price-performance benefit related to Technology Update Pricing (TU1), based on the total full capacity MSUs of all based on the proportion of IBM z16, z15, z14 (all models), z13, z13s, zEC12, or zBC12

server capacity within the TTO-eligible environment. IBM z16 in a Parallel Sysplex or Loosely Coupled Complex is not supported in TC3. An IBM z16 may only be added to a currently qualified Country Multiplex that includes an existing zEC12 or zBC12 server.

The number of MSUs used to determine the total MSUs for the Country Multiplex is based on the announced IBM full capacity ratings that can be found on the Mainframe Exhibits section of the [z Systems[®] Software Contracts](#) website.

Schedule of CMLC reductions for Transition Charges for Multiplexes (TC3)

Quantity of IBM z16, z15, z14 (all models), z13, z13s, zEC12, and zBC12 full capacity MSUs in an actively coupled Parallel Sysplex or Country Multiplex	Reduction in monthly CMLC
1 - 3 MSUs	0.0%
4 - 45 MSUs	2.8%
46 - 315 MSUs	5.6%
316 - 1315 MSUs	6.3%
1316 - 2676 MSUs	7.0%
2677 - 5476 MSUs	8.4%
5477 - more MSUs	9.8%

The number of MSUs that are used to determine the total MSUs for the Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex is based on the announced IBM full capacity ratings that can be found on the [IBM Mainframe Exhibit](#) web page.

Transition Charges for Sysplexes (TC2)

The TC2 offering is unaffected by this announcement. For details, see Software Announcements:

- [218-156](#), dated April 10, 2018
- [217-273](#), dated July 17, 2017
- [216-008](#), dated February 16, 2016
- [215-001](#), dated January 14, 2015

Transition Charges for Sysplexes (TC1)

The TC1 offering is unaffected by this announcement. For details, see Software Announcements [212-437](#), dated October 3, 2012, and [212-320](#), dated August 28, 2012.

Rules for MSUs under Technology Transition Offerings

All MSUs that are used in determining Technology Update Pricing for the IBM z16, Transition Charges for Sysplexes or Multiplexes (TC6), Transition Charges for Sysplexes or Multiplexes (TC5), Transition Charges for Sysplexes or Multiplexes (TC4), and Transition Charges for Multiplexes (TC3) exclude capacity related to specialty engines, unassigned capacity, and temporary capacity such as, but not limited to:

- Capacity Back Up
- Capacity for Planned Events
- On/Off CoD

Rules for aggregation under Technology Transition Offerings

Aggregation of product MSUs across multiple IBM Z servers is allowed if the servers meet the actively coupled z/OS Parallel Sysplex definition rules in:

- Attachment for System z AWLC (Z125-8538)
- IBM Attachment for IBM Country Multiplex Pricing (Z126-6965)

- z/TPF Loosely Coupled Complex definition rules in the Amendment for Aggregation of Charges for z/TPF (Z125-7357)

z/OS or z/TPF must be licensed and running in IBM z/Architecture^(R) (64-bit) mode on each of the IBM Z servers of a Parallel Sysplex, Country Multiplex, or Loosely Coupled Complex that receives aggregated Technology Update Pricing for the IBM z16, aggregated AWLC or CMLC under Transition Charges for Multiplexes (TC3), Transition Charges for Sysplexes or Multiplexes (TC4), Transition Charges for Sysplexes or Multiplexes (TC5), or Transition Charges for Sysplexes or Multiplexes (TC6). Flat Workload License Charges (FWLC) products do not aggregate MSUs because their charge is independent of machine size or LPAR utilization.

Programs and all associated features eligible for AWLC and CMLC

Note: Program eligibility is subject to program availability, including new programs and all associated features that become eligible for AWLC and CMLC.

Program number	Program name
5695-068	Airline Control System V2
5655-147	CICS ^(R) TS for OS/390 ^(R)
5697-E93	CICS TS for z/OS V2
5655-M15	CICS TS for z/OS V3
5655-S97	CICS TS for z/OS V4
5655-Y04	CICS TS for z/OS V5
5655-018	CICS/ESA VERSION 4
5605-DB2 ^(R)	DB2 10 for z/OS
5615-DB2	Db2 ^(R) 11 for z/OS
5650-DB2	Db2 12 for z/OS
5695-DB2	DB2 FOR MVS/ESA V4
5645-DB2	Db2 UDB for OS/390
5675-DB2	DB2 UDB for OS/390 V7
5625-DB2	DB2 UDB for z/OS
5635-DB2	DB2 V9 for z/OS
5655-H32	Debug Tool for z/OS & OS/390
5655-L24	Debug Tool V4
5655-M18	Debug Tool V5
5655-P14	Debug Tool V6
5655-R44	Debug Tool V7
5655-S17	Debug Tool V8
5655-P97	Encryption Facility for z/OS
5655-G53	Enterprise COBOL
5648-A25	Enterprise COBOL for OS/390
5655-S71	Enterprise COBOL V4
5655-W32	Enterprise COBOL V5
5655-EC6	Enterprise COBOL z/OS V6
5655-H31	Enterprise PL/I
5655-PL5	Enterprise PL/I for z/OS V5
5655-W67	Enterprise PL/I V4
5655-DB2	IBM DB2 for OS/390 Version 5
5655-MQ9	IBM MQ for z/OS V9
5697-ENV	IBM Tivoli ^(R) NetView for z/OS
5697-WSZ	IBM TWS for z/OS
5697-MQZ	IBM Web MQ Ext Sec Ed z/OS
5655-W97	IBM WebSphere ^(R) MQ for z/OS V8
5697-NV6	IBM Z NetView V6
5635-A01	IMS V10
5635-A02	IMS V11

Program number	Program name
5635-A03	IMS V12
5635-A04	IMS V13
5635-A05	IMS V14
5635-A06	IMS V15
5655-B01	IMS V7
5655-C56	IMS V8
5655-J38	IMS V9
5695-176	IMS/ESA ^(R) V5
5655-158	IMS/ESA Version 6
5655-B86	Lotus Domino for S/390 ^(R) V5
5655-S73	Lotus Domino for z/OS
5655-K36	Lotus Domino for z/OS V6
5655-N14	Lotus Domino for z/OS V7
5695-137	MQSeries ^(R) for MVS/ESA
5799-GKY	MQSeries for OS/390
5655-A95	MQSERIES FOR OS/390 V.2.1
5706-254	Query Management Facility V3
5645-006	System Auto. For z/OS
5645-005	System Auto. for OS/390
5655-043	Tivoli NetView PM
5697-B82	Tivoli NetView for OS/390
5697-OPC	Tivoli OPC
5655-B22	VisualAge ^(R) PL/I OS/390 V2R2
5655-F10	WebSphere MQ for z/OS
5655-L82	WebSphere MQ for z/OS V6
5655-R36	WebSphere MQ for z/OS V7
5697-NQZ	WS MQ Ext Sec Edn z/OS V6.0
5694-A01	z/OS V1 Base
5650-ZOS	z/OS V2
5748-T15	z/TPF EE
5748-F15	z/TPF V1

Terms and Conditions

The terms and conditions that are associated with Technology Update Pricing for the IBM z16 apply for the following:

- Sub-capacity pricing
- Transition Charges for Sysplexes or Multiplexes
- The Attachment for System z^(R) AWLC
- The IBM Attachment for IBM Country Multiplex Pricing
- The IBM Customer Agreement
- The Client Relationship Agreement

In conjunction with software programs that are implemented with Technology Update Pricing for the IBM z16, programs that have FWLC will continue to be charged by using FWLC. These programs have one flat monthly charge per IBM Z server, independent of the size of the machine to which the program is licensed.

System z New Application License Charges (zNALC) and Select Application License Charges (SALC) remain available for their respective eligible programs under their respective terms and conditions on servers with Technology Update Pricing for the IBM z16.

The *Supplement for Technology Transition Offerings to Attachment for IBM System z Advanced Workload License Charges (Z125-8994)* is updated specifically for the five Technology Transition Offerings, which consist of Technology Update Pricing for the IBM z16 and the new and revised Transition Charges for Sysplexes or Multiplexes program variations.

AWLC and CMLC terms and conditions that are described in the following documents, apply to Technology Update Pricing for the IBM z16 and all Transition Charges for Sysplexes or Multiplexes program variations:

- 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 Country Multiplex Pricing (Z126-6965)

Parallel Sysplex License Charges (PSLC) are available as an alternative charge metric for eligible software programs running on an IBM z16 server. If available for your specific configuration, you have a choice of selecting either AWLC, CMLC, or PSLC, but not a combination of charges for your IBM software programs within the z/OS or z/TPF operating system families on an IBM z16 server. In conjunction with software programs implemented with PSLC, z Systems[®] Usage Pricing Charges remain available for your respective eligible programs under z Systems Usage Pricing Charges terms and conditions.

Reference information

For a list of software programs that are eligible for ALWC, see the [Programs eligible for AWLC and CMLC](#) section.

For information about machine exhibits, see the [IBM Mainframe Exhibit](#) web page.

For information about the IBM z16, see Hardware Announcement [122-001](#), dated April 5, 2022.

For Technology Update Pricing for AWLC previously announced, see the following announcements:

- For Technology Update Pricing for the z15 (TU7), see Software Announcement [219-410](#), dated September 12, 2019.
- For Technology Update Pricing for the z14 (TU5), see Software Announcement [217-273](#), dated July 17, 2017.
- For Technology Update Pricing for the z13 (TU3), see Software Announcement [215-001](#), dated January 14, 2015.
- For Technology Update Pricing for the EC12 (TU1), see Software Announcement [212-437](#), dated October 3, 2012.
- For Technology Update Pricing for the EC12 (TU1), see Software Announcement [212-320](#), dated August 28, 2012.

Regional availability

American Samoa, Guam, Marshall Islands, Federated States of Micronesia, Northern Mariana Islands, Palau, Puerto Rico, United States, and US Virgin Islands

Trademarks

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