

## Midrange Workload License Charges (MWLC)

Midrange Workload License Charges (MWLC) is a monthly license charge price metric on the IBM z14 (z14), IBM z13 (z13), IBM zEnterprise EC12 (zEC12), zEnterprise 196 (z196), IBM System z10 Enterprise Class (z10 EC), IBM System z10 Business Class (z10 BC), IBM System z9 Enterprise Class (z9 EC), and the IBM System z9 Business Class (z9 BC) servers that applies to z/VSE V4 or later, as well as 15 key VSE middleware programs such as CICS TS for VSE, DB2 Server for VSE, and ACF/VTAM for VSE. MWLC is available on z14, z13, zEC12, z196, z10 EC, z10 BC, z9 EC and z9 BC servers with z/VSE V4 or later.

For more information on the introduction of the z/VSE V4 operating system, refer to the [announcement](#). A list of the 15 key MWLC eligible programs is available [on the web](#).

Similar to Advanced Workload License Charges, Workload License Charges, and Entry Workload License Charges, you may implement MWLC in full-capacity or sub-capacity mode.

- **Full-Capacity:** servers with full-capacity MWLC pricing must license and pay for MWLC-priced programs based on the IBM rated capacity of the server.
- **Sub-Capacity:** servers with sub-capacity MWLC pricing may license and pay for MWLC-priced programs based on the utilization of the Logical Partitions (LPARs) where the program executes. Sub-capacity MWLC pricing is available only on servers where z/VSE V4 or later is the only VSE operating system and prior versions of VSE use and license have been discontinued.

MWLC pricing applies only to the z/VSE V4 or later operating system and 15 key VSE middleware programs. On a z13s, zBC12, z114, z10 BC, or a z9 BC, all other VSE programs will be priced according to Tiered Entry Workload License Charges (TWLC). On a z14, z13, zEC12, z196, z10 EC or z9 EC, all other VSE programs will be priced according to the price metric appropriate to the configuration such as Flat Workload License Charges, Graduated Monthly License Charges, or Extended License Charges. In the event that one of these three pricing metrics is not available for a particular VSE program, other applicable pricing metrics may be used.

<i>MWLC Structure</i> (cumulative monthly pricing)		<i>TWLC Structure</i> (flat monthly pricing)	
<b>Level</b>	<b>Range</b>	<b>Tier</b>	<b>Machine Capacity</b>
Base MWLC	3 MSUs	<b>Tier A</b>	1 - 11 MSUs
Level 1	4 - 17 MSUs	<b>Tier B</b>	12 - 15 MSUs
Level 2	18 - 30 MSUs	<b>Tier C</b>	16 - 40 MSUs
Level 3	31 - 45 MSUs	<b>Tier D</b>	41 - 75 MSUs
Level 4	46 - 87 MSUs	<b>Tier E</b>	76 - 1500 MSUs
Level 5	88 - 175 MSUs	<b>Tier F</b>	1501+ MSUs
Level 6	176 - 260 MSUs		
Level 7	261+ MSUs		

## Limitations and Restrictions

The smallest z10 BC and z9 BC servers, capacity setting A01, do not qualify for MWLC. Customers on the z10 BC or z9 BC capacity setting A01 will always pay zELC for all IBM monthly license charge software.

If you want sub-capacity MWLC and intend to run z/VSE V4 as a guest of z/VM then you must run z/VM V5.2 or higher.

## Servers Running Both z/VSE and z/OS

In the case that a server is running both z/VSE V4 and z/OS, the customer must select the desired pricing metric for the z/VSE environment and separately select the pricing metric for the z/OS environment. The selection for z/VSE V4 pricing metric is independent from the selection of the pricing metric for z/OS. Pricing metric should be selected on the basis of price/performance, terms, and applicability.

Once the pricing metric selection is made for each environment, that pricing metric applies to both the operating system and the associated middleware. In addition, the customer must make a full-capacity vs. sub-capacity decision for each operating system and the associated middleware. Here are two examples:

- **Example 1: Stand-alone z9 BC running z/OS and z/VSE V4**

For the z/VSE V4 LPAR(s) on this z9 BC server, the customer may choose between TWLC and MWLC. MWLC may be sub-capacity or full-capacity. TWLC is always full-capacity. In this case, the customer would typically select MWLC because it offers attractive price/performance. Once MWLC is selected, all eligible z/VSE middleware will also be priced MWLC. Since MWLC is selected, the customer must choose between full-capacity MWLC or sub-capacity MWLC.

For the z/OS LPAR(s) on this z9 BC server, the customer must select EWLC because there are no other pricing options. All eligible z/OS middleware will be priced EWLC. Here, too, the customer must decide between full-capacity EWLC and sub-capacity EWLC.

- **Example 2: z9 EC running z/OS and z/VSE V4**

For the z/VSE V4 LPAR(s) on this z9 EC server, the customer may choose between Flat Workload License Charges (FWLC) and MWLC. MWLC may be full-capacity or sub-capacity. FWLC is always full-capacity. In this case, the customer would typically select MWLC because it offers attractive price/performance. Once the MWLC is selected, all eligible z/VSE middleware will also be priced MWLC. Since MWLC is selected, the customer must choose between full-capacity MWLC or sub-capacity MWLC.

For the z/OS LPAR(s) on this z9 EC server, the customer must choose between Parallel Sysplex License Charges (PSLC) and Workload License Charges (WLC). WLC may be full-capacity or sub-capacity. PSLC is always full-capacity. In this case, the customer would typically select WLC because it offers attractive price/performance. Once WLC is selected, all eligible z/OS middleware will also be priced WLC. Since WLC is selected, the customer must choose between full-capacity WLC or sub-capacity WLC.

**Notes on Examples 1 and 2:** While it is possible for you to select full-capacity for one operating system and sub-capacity for another on the same server, IBM recommends that you implement sub-capacity pricing wherever possible because it may help improve your price/performance. Only one Sub-Capacity Report per server is needed, regardless of how many sub-capacity-eligible operating systems are running on that server.

#### **MWLC News**

On 9 January 2007, IBM [announced](#) Midrange Workload License Charges, LPAR-based pricing for key monthly license charge z/VSE Version 4 software.