

Software Pricing for the z196 – AWLC and the Transition Program

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<http://ibm.com/systems/z/swprice>



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zEnterprise 196 Software Pricing Strategy

- **MLC Software** – New metric “Advanced Workload License Charges” (AWLC) provides MLC price performance
 - Modeled after VWLC, same MSU tiers, sub-cap, and aggregation benefits
 - All products with VWLC will also be announced with AWLC
 - AWLC on a z196 provides 1%-10% savings compared to VWLC on a z10
 - Includes incremental savings on middleware products above 875 MSUs
 - Transition program will provide partial AWLC benefit as customers migrate their Sysplexes to all z196 machines

- **zIPLA Software**
 - zOTC software and the associated S&S will continue to be priced using System z Value Units, typically based upon MSUs

- **Distributed Passport Advantage Software**
 - On a z196 distributed software will continue to be priced using PVUs
 - Rating for a z196 engine (IFL or CP) is 120 PVUs, same as for the z10

Advanced Workload License Charges*

for Sub-Capacity Eligible Products
 Advanced Workload License Charges (AWLC)

for non-Sub-Capacity Eligible Products
 Flat Workload License Charges (FWLC)

Full-Cap mode -
 use rated MSU capacity
 or
Sub-Cap mode -
 use MSU values from
 Sub-Capacity Reports

AWLC Price Structure

Level	Range
Base	3 MSUs
Level 0	4 - 45 MSUs
Level 1	46 - 175 MSUs
Level 2	176 - 315 MSUs
Level 3	316 - 575 MSUs
Level 4	576 - 875 MSUs
Level 5	876 - 1315 MSUs
Level 6	1316 - 1975 MSUs
Level 7	1976+ MSUs

cumulative monthly pricing

Flat WLC Structure

per server	single charge
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flat monthly pricing



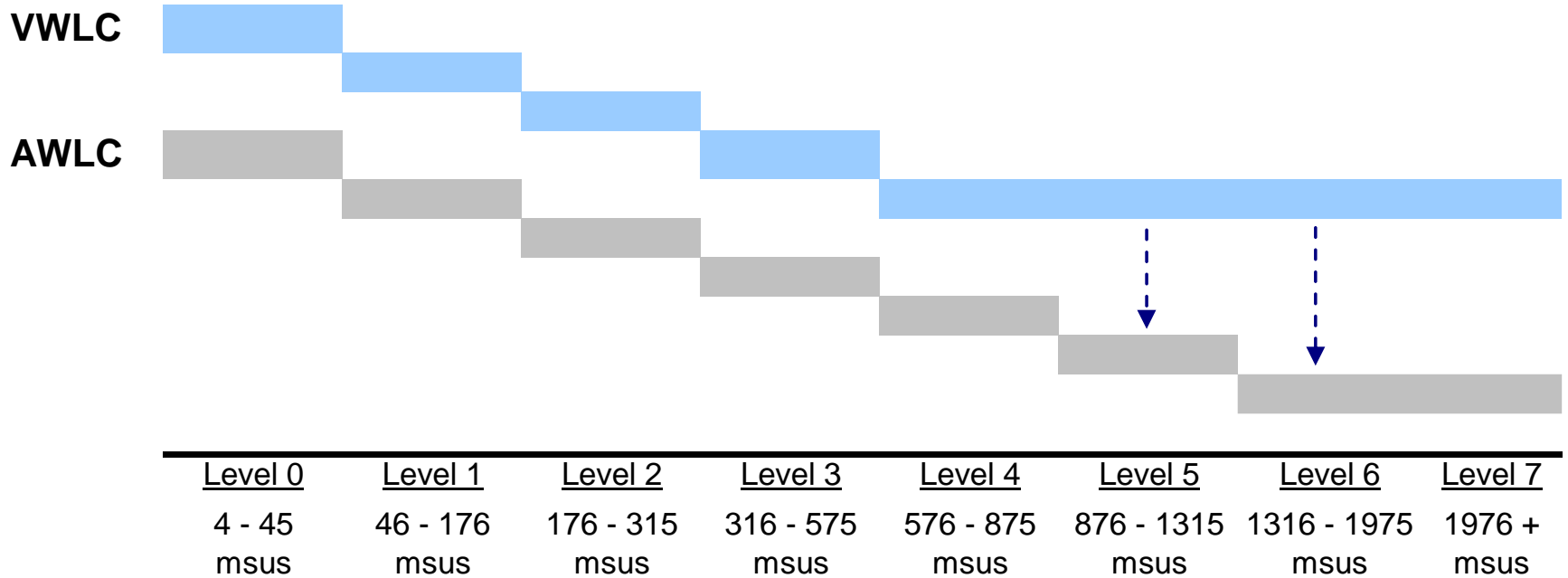
zEnterprise 196

*AWLC is available on z196 only

AWLC Price Performance

AWLC Price Performance

- AWLC has price performance improvements compared to VWLC at all MSU tiers above 3 MSUs
- Middleware price reductions on MSU tiers 5 and 6 provide additional unit cost improvement for customers > 875 MSUs



AWLC Middleware price performance improvements

- All AWLC products above 3 MSUs have a price performance benefit compared to VWLC
- VWLC Middleware products have the same price for MSU Tiers 4, 5, 6 and 7
- AWLC Middleware products have price performance improvements for MSU Tiers 5 and 6 as compared to Level 4
- The MSU Tier 5 and 6 price changes for Middleware contribute to the overall cumulative AWLC price performance improvements

▪ Example:

5655R36 - WebSphere MQ V7			
Tier Level	MSU Range	VWLC Price *	AWLC Price *
Base	3	2662	2662
Tier 0	4 to 45	119	115
Tier 1	46 to 175	66	63
Tier 2	176 to 315	49	47
Tier 3	316 to 575	38	37
Tier 4	576 to 875	29	28
Tier 5	876 to 1315	29	27
Tier 6	1316 to 1975	29	26
Tier 7	1976 and more	29	26

*All prices are estimates in USD and subject to change

AWLC Software Licensing Rules and Transition Charges for Sysplexes

AWLC Software Licensing Rules

z/OS and MLC middleware:

- Stand-alone z196:
 - **AWLC ***
 - PSLC is allowed +
 - VWLC not allowed
- Parallel Sysplex with all z196 machines:
 - **AWLC ***
 - PSLC is allowed +
 - VWLC not allowed
- Mixed Parallel Sysplex (z196 with z10 and/or z9):
 - **VWLC under Transition Charges for Sysplexes program ***
 - PSLC is allowed +
 - AWLC not allowed
 - *Without AWLC contract and transition program the machines in the Sysplex would become disaggregated: z196's with PSLC and z10/z9's with VWLC*

*** Requires AWLC contract**

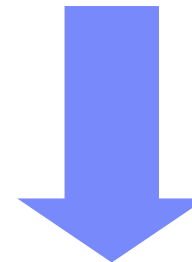
+ PSLC optionally allows ULC

A simple transition program provides VWLC savings for Sysplex customers as they migrate to z196 machines

- Transition Charges for Sysplexes program requires AWLC contract to be signed
- All machines in sysplex remain on VWLC until 100% of capacity migrated to z196
- A published discount schedule defines VWLC savings for partial plex upgrades
- VWLC discount will be based on the % of plex MSUs migrated to z196 machines, the % of z196 in plex is calculated using the **Full Capacity MSUs** of all Machines
- Transition Charges for Sysplexes program is **not** a special bid
 - It is announced and available for all Sysplex customers
 - It is implemented in the SW configurator and in IBM's inventory system

% of z196 MSUs in Sysplex *	Monthly Discount applied to VWLC
> 0 - 20%	0.5%
21 - 40%	1.5%
41 - 60%	3.0%
61 - 80%	4.0%
81 - < 100%	4.5%

Program designed to phase in AWLC savings ...



100% z196 = AWLC

A sysplex with 44% of MSUs on z196 qualifies for a 3.0% discount on the total sysplex VWLC bill

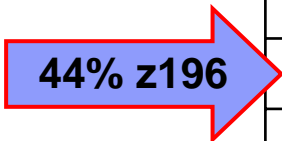
<u>Current Plex</u>		
	<u>MSUs*</u>	<u>% Plex</u>
z9	197	28%
z10	296	42%
z10	215	30%
Plex	708	100%



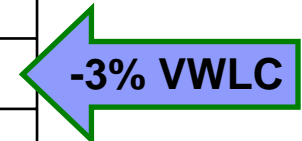
<u>After Upgrade</u>		
	<u>MSUs*</u>	<u>% Plex</u>
z196	408	44%
z10	296	32%
z10	215	23%
Plex	919	100%

*** Don't forget:**
HW MSU values must be full capacity values, not sub-capacity MSU values from SCRT.

% of z196 MSUs in Sysplex	Monthly Discount applied to VWLC \$
> 0 - 20%	0.5%
21 - 40%	1.5%
41 - 60%	3.0%
61 - 80%	4.0%
81 - < 100%	4.5%



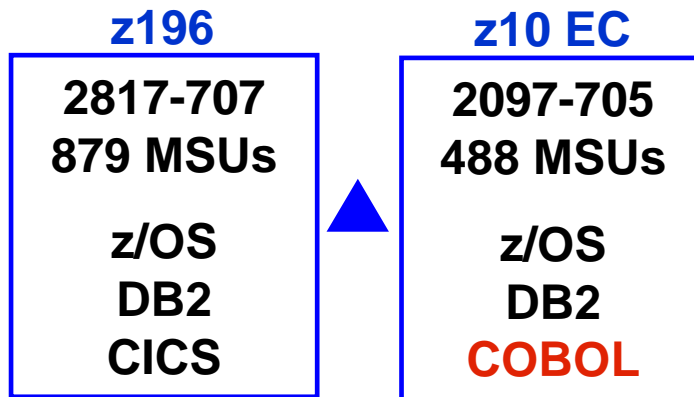
44% z196



-3% VWLC

Transition Discount Applies to All VWLC in the Sysplex

- Discount percent calculated without looking at any software!
 - Use Full Capacity MSUs of each machine to get Percentage of z196 in plex
 - Percentage of z196 hardware sets the VWLC discount percent across the plex
- Once discount percent is set it gets applied to **all** VWLC in the plex, whether or not an individual program is running on the z196



Example:

– Percent z196 HW: 64%

% of z196 MSUs in Sysplex	Monthly Discount applied to VWLC \$
> 0 - 20%	0.50%
21 - 40%	1.50%
41 - 60%	3.00%
61 - 80%	4.00%
81 - < 100%	4.50%

– Transition discount: 4%

Product	z196 Sub-cap MSUs	z10 EC Sub-cap MSUs	Total Billing MSUs	List Price	Price with 4% Discount
z/OS	804	475	1269	167673.00	160966.08
DB2	798	417	1215	98269.00	94338.24
CICS	647	---	647	81060.00	77817.60
COBOL	---	165	165	4488.00	4308.48

Transition Charges for Sysplexes program Rules

- **Aggregated Parallel Sysplex with one or more z196 servers and one or more z10/z9 servers needs Transition Charges for Sysplexes**
 - To allow VWLC to be licensed on a z196
 - To provide partial AWLC price performance benefit during sysplex migration
- **Sysplex stays on aggregated VWLC during migration**
 - AWLC is not available to Sysplex until all machines are z196
- **Amount of Transition Charges VWLC discount is based upon the percentage of z196 hardware in the Sysplex**
 - Count only full-capacity MSUs of machines (not SCRT values)
 - Do not include OOCoD, CBU, Unassigned, or Specialty engines
 - Round the z196 portion of Sysplex to the nearest whole percent
 - e.g. 0.204999 rounds down to 20%
 - e.g. 0.205000 rounds up to 21%
- **Any time any Sysplex hardware changes, for example when one or more of the machines is upgraded or downgraded in type or size, the Transition Charges price benefit must be re-calculated!**

Other z196 Software Licensing Rules

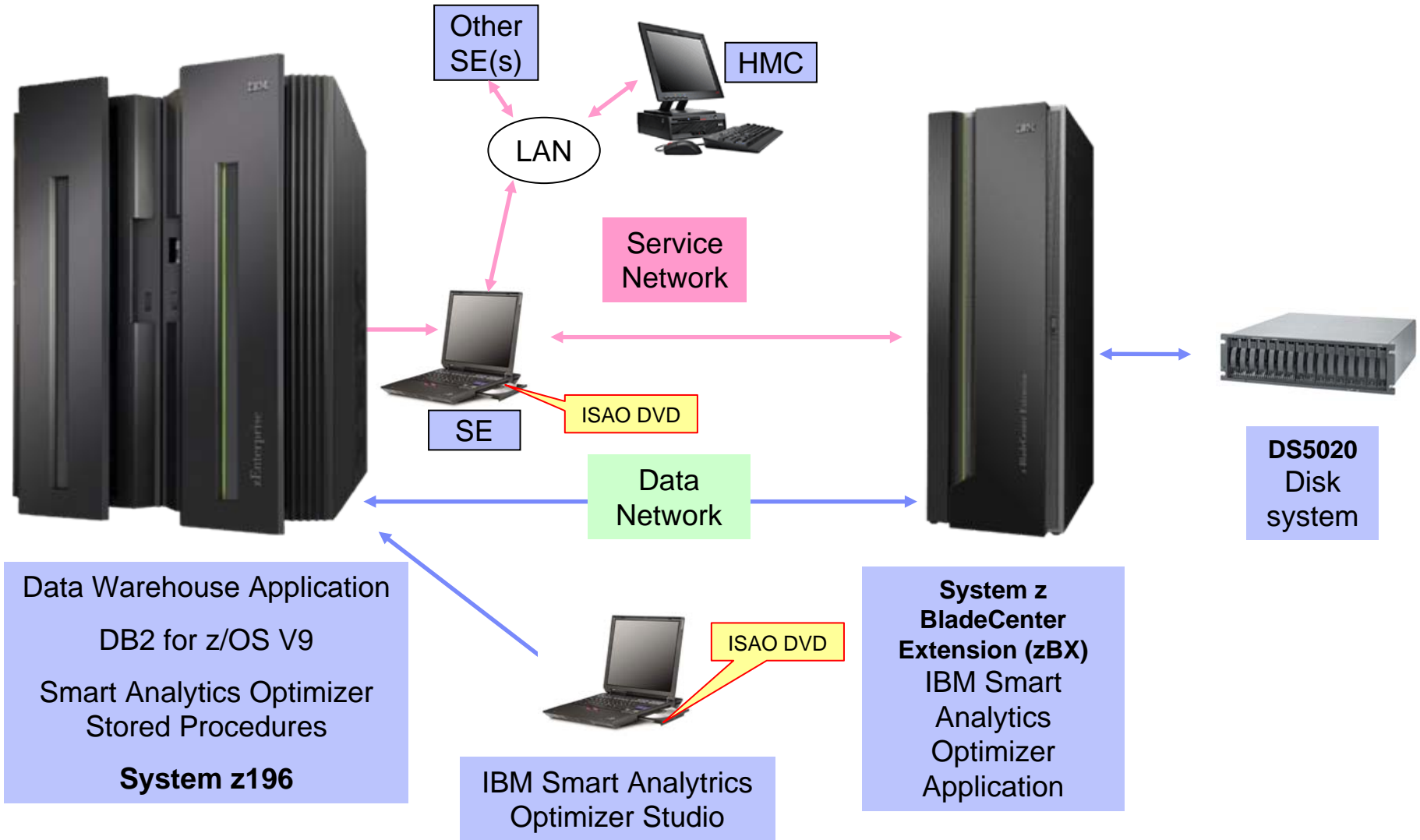
- z/OS MLC operating system and middleware
 - AWLC applies to z/OS
- z/TPF MLC operating system and middleware
 - AWLC applies to z/TPF (also PSLC is still allowed)
- z/OS IPLA middleware
 - Value Units (unchanged by AWLC announcement)
- z/VSE
 - MWLC (unchanged by AWLC announcement)
- z/VM
 - Engine based Value Units (unchanged by AWLC announcement)
- Passport Advantage Middleware for Linux on System z
 - 120 PVUs per z196 engine (unchanged by AWLC announcement)
- FWLC, zNALC, old NALC, and SALC all continue to work with AWLC the same way they worked with VWLC

New AWLC Contract

- ICA Attachment for IBM System z Advanced Workload License Charges
 - AWLC Attachment number Z125-8538 / INTC-8538
 - With accompanying Exhibit Z125-8539 / INTC-8539
- **Required** for AWLC on z196 machines
 - Stand-alone
 - Aggregated Parallel Sysplex
- **Required** for VWLC on mixed z196 and non-z196 Parallel Sysplexes
 - Transition Charges for Sysplexes permits VWLC on a z196
 - Without the AWLC contract VWLC is not available on a z196
- Not required for customers staying on PSLC
 - Without the AWLC contract only PSLC is available on a z196

**Software Licensing for the
IBM Smart Analytics Optimizer
on the
IBM zEnterprise BladeCenter Extension (zBX)**

zBX / IBM Smart Analytics Optimizer Product Layout



Preconfigured Solution Sizes for IBM Smart Analytics Optimizer



Preconfigured Sizes	XS	S	M	L	XL
Handles up to xx of Raw DB2 Table Data	0.5TB	1TB	2TB	3TB	4TB
Number of Blades	7	14	28	42	56
Gigabytes of Memory	336	672	1344	2016	2688
Enterprise Rack	1	1	1	2	2
BladeCenter H Chassis	1	1	2	3	4
DS5020 with # of SATA disks (1 TB)	16	16	16	32	32

1. For zEnterprise 196, order Machine Type 2458 Model 002
 - Order feature code #0610 for ISAOPT Blades
2. DS5020 controller, disks and expansion units need to be ordered separately from zBX, and housed in a separate rack.
3. Order IBM Smart Analytics Optimizer Software PID 5697-AQT

IBM Smart Analytics Optimizer – Software Licensing

- IBM **Smart Analytics Optimizer** is sold as **System z Software** (PID 5697-AQT)
 - Value Unit Exhibit VUE031 *
- It is licensed by Value Units tied to the **main memory** installed on the zBX
 - The **value** provided by the acceleration is **related to the amount of data** that can be stored in the main memory
 - **Not** tied to the capacity of the attached mainframe

Preconfigured Capacity Size	XS	S	M	L	XL
Gigabytes of Memory	336	672	1344	2016	2688
Value Units Required	336	646	1214	1663	2075

- The **more capacity** you buy the **fewer Value Units/GB** you need to license
 - Value Units aggregate across the enterprise

* **Value Unit Exhibit 031 (VUE031)**

Cumulative Usage Level	Value Units per Gigabyte
1 - 500 gigabytes	1 VU/GB
501 - 1,500 gigabytes	0.8455 VUs/GB
1,501 - 3,000 gigabytes	0.6137 VUs/GB
3,001 - 5,000 gigabytes	0.4639 VUs/GB
5,001 - 12,000 gigabytes	0.3870 VUs/GB
12,001+ gigabytes	0.3097 VUs/GB

The End

Backup

AWLC Contracts and Exhibits

▪ ICA Attachment for IBM System z AWLC (Z125-8538 / INTC-8538) Definitions

- AWLC - Advanced Workload License Charges available for selected IBM Programs which are used on an Eligible Machine and are running under an Eligible Operating System. AWLC charges allow for Sub-Capacity Pricing.
- Eligible Machine - A Machine to which an Eligible Operating System is licensed. Any copies of Eligible Operating Systems that run on an Eligible Machine must run in z/Architecture (64-bit) mode. Eligible Machines are specified on the IBM System z Advanced Workload License Charges Exhibit, INTC-8539-00 or later, (“Exhibit”).

▪ ICA IBM System z AWLC Exhibit (Z125-8539 / INTC-8539)

- Eligible Operating Systems
 - z/OS 5694-A01
 - z/TPF 5748-T15
- Eligible Machines
 - For product information, see <http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html>
 - (See Machines with an (A) in the WLC column.)

Continued on next chart...

AWLC Contracts and Exhibits (continued)

IBM Eligible Machine Exhibit (ZSL03030-USEN-02)

IBM System z Software Pricing Information								Updated 7/22/2010		
Vendor	Machine	WLC	PSLC	Full Capacity MSUs	Coupling Facility	Group	PR/SM	Other	zNALC	MWLC
IBM zEnterprise 196 (z196)										
<i>In this exhibit, Machine type 2817 is described with a model nomenclature of Nxx where N represents the capacity setting (4 is smallest, 7 is largest) and xx represents the number of general purpose central processors (CPs). For 2817, the hardware machine model (M15, M32, M49, M66, M80) is not an indicator of machine capacity.</i>										
IBM	2817-700				CF			IPLA Only		
IBM	2817-401	(A)	PSLC = Yes	30	CF	Group 70	Standard		zN	M
IBM	2817-402	(A)	PSLC = Yes	58	CF	Group 80	Standard		zN	M
IBM	2817-403	(A)	PSLC = Yes	85	CF	IMLC/ELC	Standard		zN	M
IBM	2817-404	(A)	PSLC = Yes	110	CF	IMLC/ELC	Standard		zN	M
IBM	2817-405	(A)	PSLC = Yes	135	CF	IMLC/ELC	Standard		zN	M
IBM	2817-406	(A)	PSLC = Yes	160	CF	IMLC/ELC	Standard		zN	M
IBM	2817-407	(A)	PSLC = Yes	183	CF	IMLC/ELC	Standard		zN	M

Footnote for 2817 machines in the “WLC” column:

(A) The default price metric for a 2817 machine is AWLC. Customer may select WLC pricing for a 2817 machine only when the 2817 participates in a WLC Sysplex under AWLC Transition Charges for Sysplexes terms and conditions with at least one of the following machines (2094, 2096, 2097, or 2098), and all other AWLC and WLC conditions are met.