Z24

IBM z9xx Software Pricing Overview

Kay Elizabeth Adams
IBM Software Group
WorldWide zSeries Software Sales

zSeries® EXPO

FEATURING Z/OS, Z/VM, Z/VSE AND LINUX ON ZSERIES

September 19 - 23, 2005   **San Francisco, CA**

z9xx Software Pricing
zExpo Session: Z24

19-23 September 2005   San Francisco, CA, USA

Kay Elizabeth Adams   WorldWide zSeries Software Sales

kadams@us.ibm.com

business on demand software

SW Pricing

- **Monthly License Charge Metrics**
  - ► Machine Capacity Pricing: PSLC (Parallel Sysplex License Charge
    - – Usage Pricing: ULC (Usage License Charge)
  - ► SubCapacity Pricing: WLC (Workload License Charge)
    - – Usage Pricing: SALC (Select Application License Charge)
  - ► Specialty Pricing:
    - – NALC (New Application License Charge)
    - – zAAP (zSeries Application Assist Processor)

- **IPLA (aka: One Time Charge) Software**
  - ► Value Unit Overview
  - ► z/OS, Execution and Reference based Pricing

z9xx Monthly License Charge (MLC) Metrics

IBM

zSeries Software
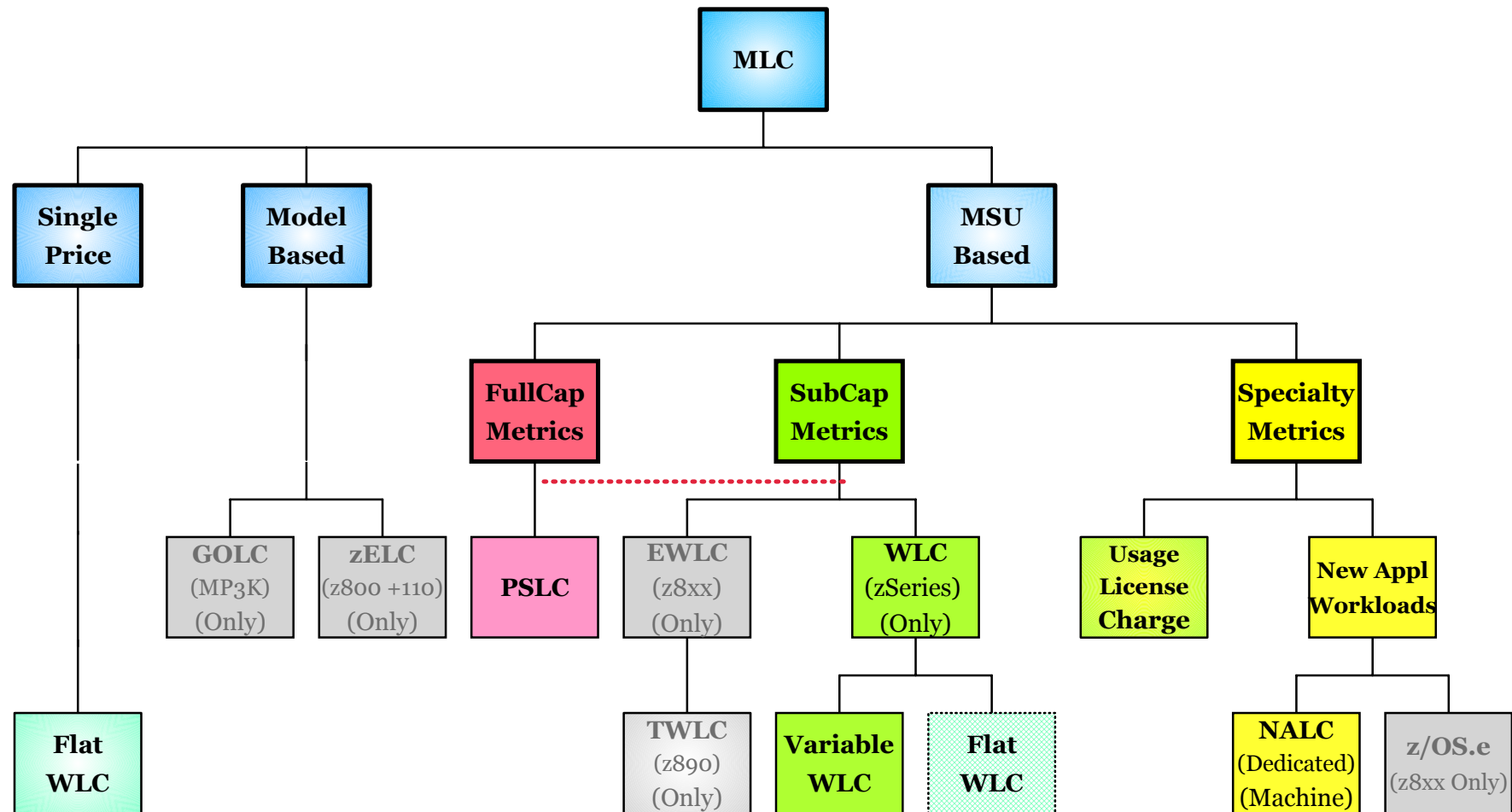
Machine Capacity Based Metrics

© 2005 IBM Corporation

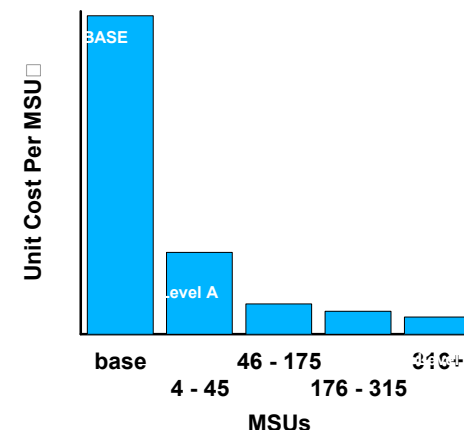# PSLC (Parallel Sysplex License Charge)

Characteristics	PSLC
Metric Type	**Cumulative Tier**
Aggregation	**Sysplex**

- Charges Based on Total Machine Capacity as expressed in MSUs
- $/MSU Decreases as Capacity Increases
- PSLC may be applied to:
  - a single system
  - a qualified Parallel Sysplex environment with aggregation of MSUs across the sysplex
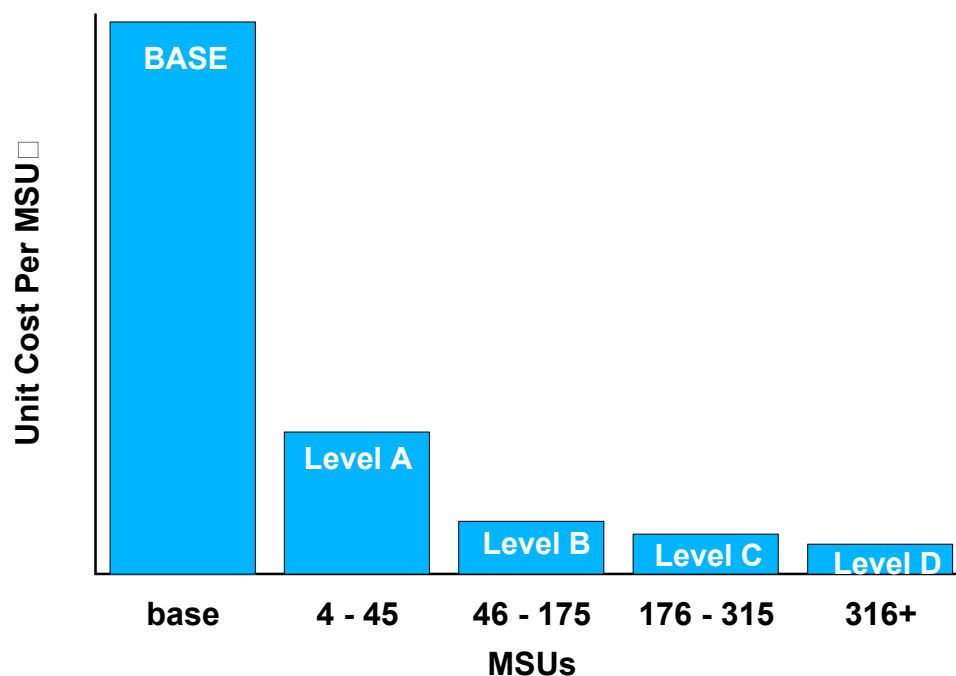
Example: PSLC Pricing - The Math

DB2 UDB v7 PSLC Pricing Tiers	Base	$$$ per MSU
Base Price (Incl: 3 MSU)	3960	
Cumulative Unit Price for 4 to 45 MSU		208
Cumulative Unit Price for 46 to 175 MSU		88
Cumulative Unit Price for 176 to 315 MSU		66
Cumulative Unit Price for 316 + MSU		50

DB2 UDB v7 @ 284MSUs	Range	# MSUs	$$$ per MSU	$$$	MSUs Remaining
Base	1 - 3	up to 3	n/a	3,960	281
Level A	4 - 45	42	208	8,736	239
Level B	46 - 175	130	88	11,440	109
Level C	176 - 284	109	66	7,194	0
Total				$ 31,330	

Example: PSLC

Product	Box 1 MSUs	Box 2 MSUs	PSLC (aggregate)
COBOL 5648A25	44 MSUs		$2,509 44 MSUs
Fortran 5668805	44 MSUs		517 44 MSUs
REXX 5695013	44 MSUs		1,450 44 MSUs
CICS TS 5697E93	44 MSUs	276 MSUs	38,034 320 MSUs
DB2 V7 5675DB2	44 MSUs	276 MSUs	33,626 320 MSUs
z/OS 5694A01	44 MSUs	276 MSUs	97,950 320 MSUs
TOTAL			$174,086

Prices in US$ as of 7May04

z800 Model 0A2 @ 44 MSUs

z900 Model 1C8 @ 276 MSUs

LPAR1

CICS
DB2
COBOL
Fortran
REXX
z/OS

LPAR2

CICS
DB2
z/OS

LPAR3

CICS
DB2
z/OS

ULC (Usage License Charge)

Characteristics	ULC
Metric Type	**Cumulative Tier**
Aggregation	**Sysplex**

- Alternative for PSLC (& GOLC) customers
- Eligible Products: DB2, CICS, MQ, IMS
- Measures the CPU usage of the subsystem (DB2, CICS, IMS, MQ)
- Sets one price per year for the subsystem based on previous 12 mos measurement
- Financially advantageous if subsystem uses < 25% of environment (CEC/Plex)

DB2 Utilization Measurement

12 mo highest sets level for 2004

Jan 03	Feb 03	...	Nov 03	Dec 03
50 / 30				
3 1 4 2	2 3 4 1		3 4 1 2	3 1 4 2
4th highest = 30	4th highest = 10		4th highest = 10	4th highest = 50
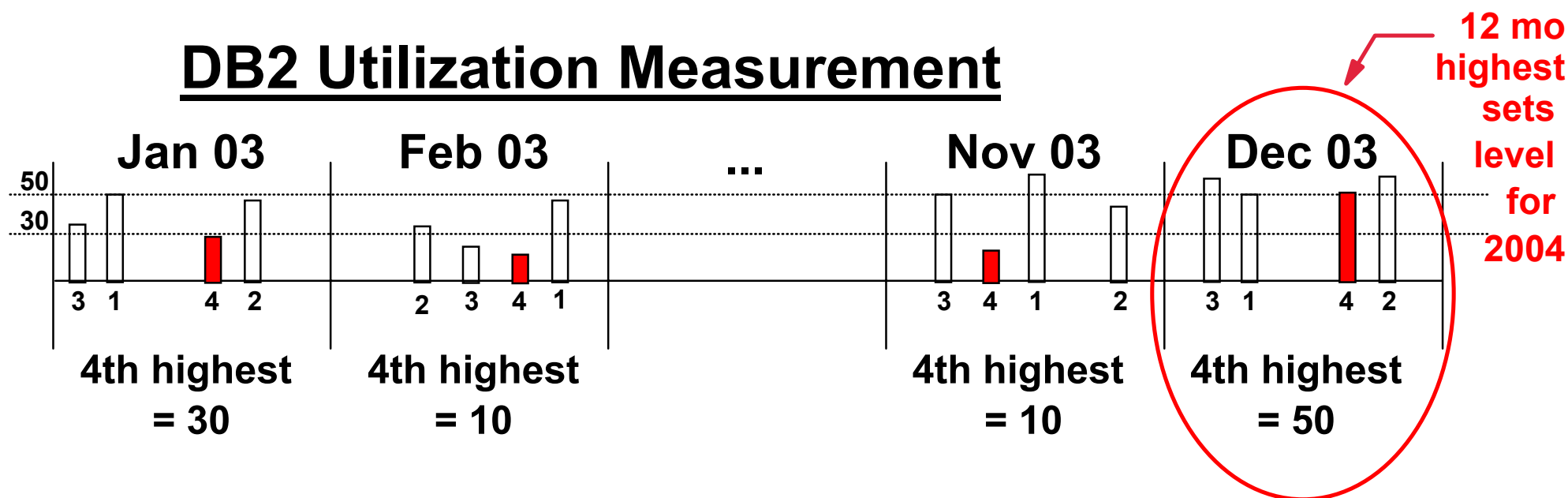
Example: PSLC + ULC

Product	PSLC (aggregate)	PSLC w Usage
COBOL 5648A25	$2,509 44 MSUs	$2,509 44 MSUs
Fortran 5668805	517 44 MSUs	517 44 MSUs
REXX 5695013	1,450 44 MSUs	1,450 44 MSUs
CICS TS 5655147	33,066 320 MSUs	33,066 320 MSUs
DB2 V7 5675DB2	33,626 320 MSUs	25,688 50 MSUs
z/OS 5694A01	97,950 320 MSUs	97,950 320 MSUs
TOTAL	$169,118	$161,180

z800
Model 0A2
@ 44 MSUs

LPAR1

CICS
DB2
COBOL
Fortran
REXX
z/OS

z900
Model 1C8
@ 276 MSUs

LPAR2

CICS
DB2
z/OS

LPAR3

CICS
DB2
z/OS

~$8K/mo Savings
from Usage License Charges

SubCapacity Metrics

What is "Sub-Capacity?"

> **sub- (prefix)**
>
> ...
>
> **Subdivision:** *subregion.*
>
> **Less than completely** or normally; nearly;

zSeries @ 100 MSUs

30 MSUs	50 MSUs
DB2 CICS z/OS	IMS z/OS
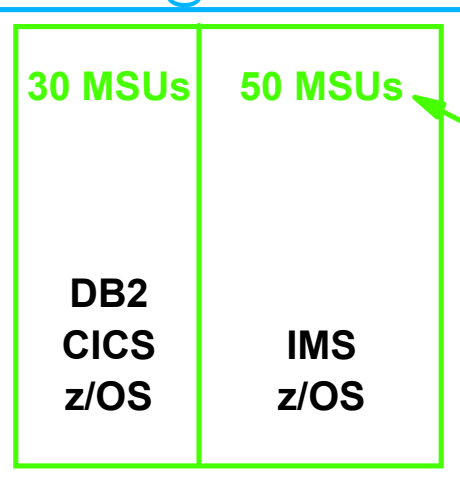
Full-Capacity Pricing Metrics:

Based on total rated capacity of the MACHINE where a product executes.

Ex: PSLC, FullCap WLC, zELC

Sub-Capacity Pricing Metrics:

Based on the utilization of the LPAR(s) where a product executes.

Ex: Variable WLC, EWLC

SubCapacity Eligible Products (as of 8/22/05)

Product ID	Product Name
5694A01	z/OS V1
5655G52	z/OS.e V1
5655018	CICS/ESA V4
5655147	CICS TS for OS/390
5697E93	CICS TS for z/OS V2
5655M15	CICS TS for z/OS V3
5695DB2	DB2 for MVS/ESA V4
5655DB2	DB2 for OS/390 V5
5645DB2	DB2 UDB for OS/390 V6
5675DB2	DB2 UDB for OS/390 V7
5625DB2	DB2 UDB for z/OS V8
5695176	IMS V5
5655158	IMS V6
5655B01	IMS V7
5655C56	IMS V8
5655J38	IMS V9
5695137	MQSeries for MVS/ESA
5655A95	MQSeries for OS/390 V2
5655F10	MQSeries for OS/390 V5
5655L82	MQSeries for z/OS V6

Product ID	Product Name
5655H32	Debug Tool for z/OS & OS/390
5655L24	Debug Tool for z/OS V4
5655M18	Debug Tool for z/OS V5
5648A25	COBOL for OS/390 & VM V2
5655G53	Enterprise COBOL for z/OS and OS/390
5655B22	Visual Age PL/I for OS/390
5655H31	Enterprise PL/I for z/OS and OS/390
5645005	System Automation for OS/390
5645006	System Automation for OS/390 V2
5697B82	Tivoli NetView for OS/390
5697ENV	Tivoli NetView for z/OS
5697MQZ	MQ Ext Security Edition for z/OS V5
5697OPC	Tivoli OPC V2
5697WSZ	Tivoli Workload Scheduler for z/OS
5655043	Tivoli Netview PM
5655B86	Lotus Domino for S/390 V5
5655K36	Lotus Domino for z/OS V6
5706254	QMF MVS V3
5695068	Airline Control System V2
5748T15	z/TPF V1
5748F15	z/TPFDF V1

http://ibm.com/zseries/library/swpriceinfo/mlc.html

SubCapacity (Workload License Charge) Pricing Basics

Characteristics	V WLC
Metric Type	**Cumulative**
Aggregation	**Sysplex**

Characteristics	F WLC
Metric Type	**Single Price**
Aggregation	**None**

- **SubCapacity Prerequisites**
  - ▶ IBM @server™ zSeries® server, or equivalent
  - ▶ z/OS operating system in 64-bit mode
  - ▶ Meet all specified IBM terms

- **SW Products divided into 2 categories**

  - ▶ **SubCapacity Eligible Products**
    - – Priced using SubCapacity Metric: <u>VWLC (Variable WLC)</u>
    - – Examples: z/OS, CICS, DB2, IMS, MQSeries, etc.
    - – Sysplex Aggregation Permitted
    - – Can choose to implement at Full Capacity
      - • z/OS LPARs can co-exist with OS/390 LPARs
      - • No reports required
    - – To receive benefits of SubCapacity
      - • Must be fully migrated to z/OS (no OS/390 LPARs)
      - • Must send in SCRT Reports every month

  - ▶ **Non-SubCapacity Eligible Products**
    - – Priced using SubCap Companion Metric: <u>FWLC (Flat WLC)</u>
    - – Examples: MVS Utilities, Older Compilers, VM/VSE Middleware
    - – No aggregation
    - – The same under both SubCap and FullCap implementations

Variable WLC Structure

Level	Range
Base	0 - 3 MSUs
Level 0	4 - 45 MSUs
Level I	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

PSLC Lvl D →

WLC (VWLC/FWLC) Pricing Example

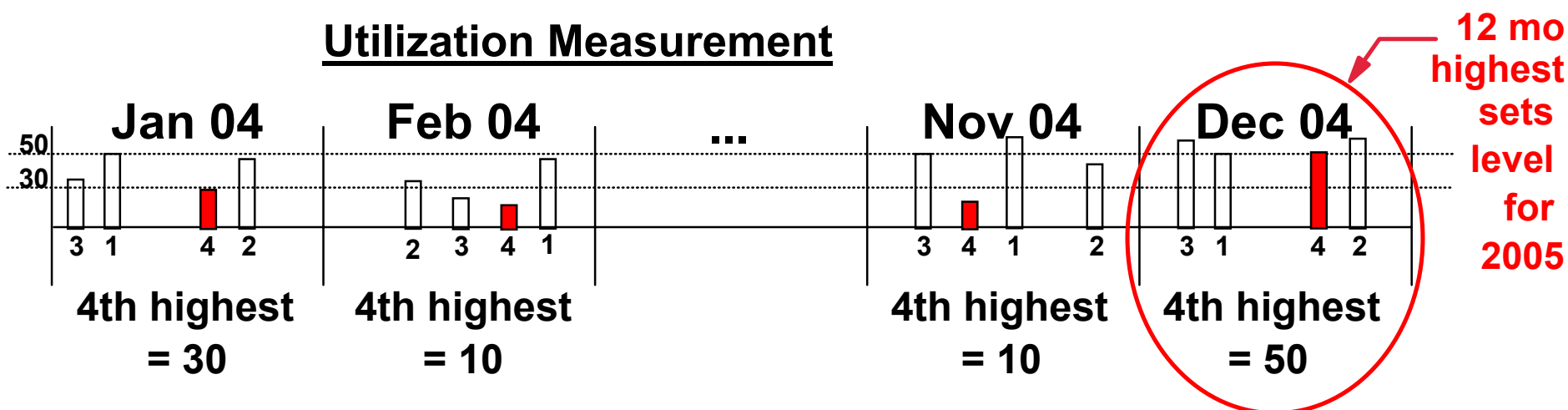| Product	WLC Sub-Cap	WLC Full-Cap	PSLC
COBOL 5648A25	$2,243 35 MSUs	$2,639 44 MSUs	$2,509 44 MSUs
Fortran 5668805	648 Flat WLC	648 Flat WLC	517 44 MSUs
REXX 5695013	1,842 Flat WLC	1,842 Flat WLC	1,450 44 MSUs
CICS TS 5655E93	32,978 210 MSUs	42,003 320 MSUs	38,034 320 MSUs
DB2 V7 5675DB2	31,876 265 MSUs	35,801 320 MSUs	33,626 320 MSUs
z/OS 5694A01	75,459 265 MSUs	86,409 320 MSUs	97,950 320 MSUs
TOTAL	$145,046	$169,342	$174,086

Prices in US$ as of 7May04

highest observed rolling 4-hour average utilization of individual LPARs

z800
Model 0A2
@ 44 MSUs

LPAR1

35 MSUs

CICS
DB2
COBOL
Fortran
REXX
z/OS

z900
Model 1C8
@ 276 MSUs

LPAR2 | LPAR3

60 MSUs | 175 MSUs

230 MSUs

DB2
z/OS

CICS
DB2
z/OS

highest observed rolling 4-hour average combined utilization of LPAR2 and LPAR3
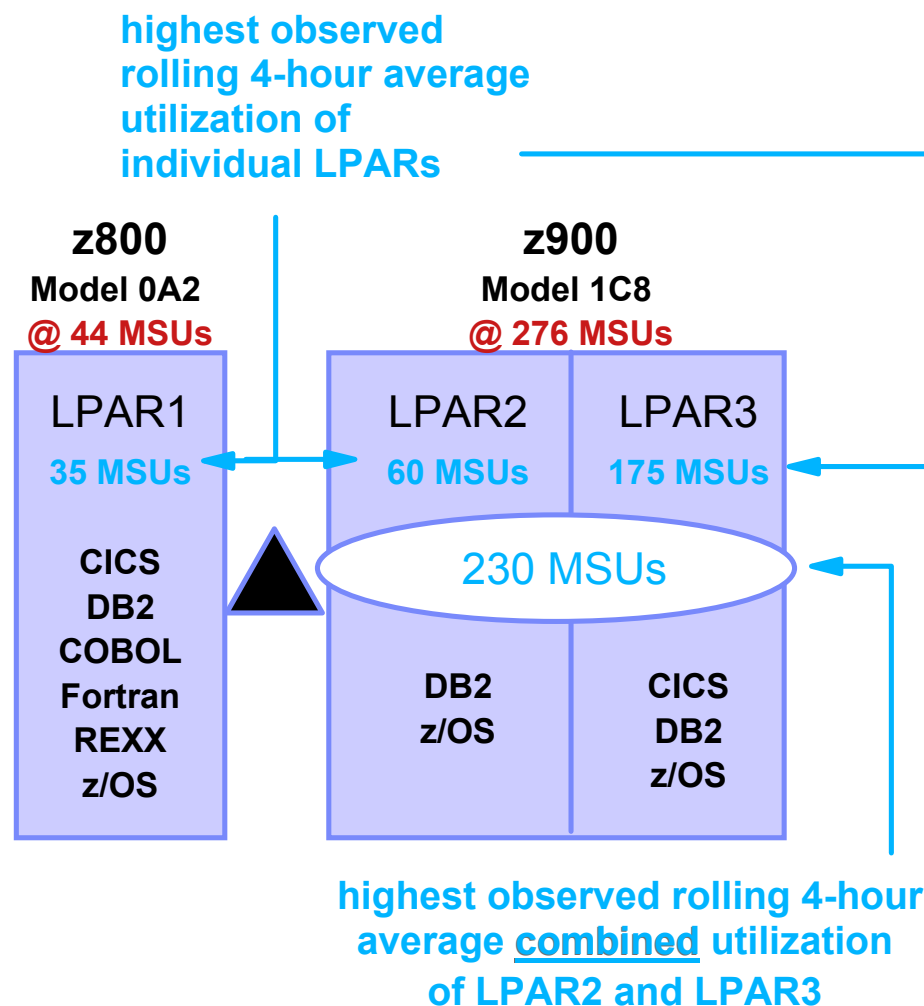
SALC
(Select Application License Charge)

Characteristics	SALC
Metric Type	**Cumulative Tier**
Aggregation	**Sysplex**

- Applies to MQSeries only
- Benefits ONLY when product usage is low compared to standard billable MSUs
- Charges Based on product CPU 'consumption' as measured in MSUs
  - ► Reported on an Annual basis via "Usage Report"
  - ► Report created by IBM supplied IFAURP "Usage Reporting Program"
- $/MSU Decreases as Capacity Increases
- Sysplex Aggregation applies
- To Price: Price each MSU based on "Tier" and add the "Tier" prices together

Utilization Measurement

12 mo highest sets level for 2005

| Jan 04 | Feb 04 | ... | Nov 04 | Dec 04 |

50
30

3 1   4 2 | 2 3 4 1 | 3 4 1 2 | 3 1 4 2

4th highest = 30 | **4th highest = 10** | **4th highest = 10** | **4th highest = 50**

Terms & Conditions Define Metric Combinations

	Apr04 Entry WLC + Tiered	Sep03 Entry WLC + zELC	Sep01 WLC VWLC + FWLC Apr02
Eligible Machines	z890 Only (not mdl 110)	z800 z890-110	z900, z990, z9109 z800**, z890** **Sysplex Only
SubCap Eligible Products	EWLC	EWLC	Variable WLC
Non Sub-Cap Eligible Products	Tiered EWLC	zELC	Flat WLC
Implementation Options	SubCap EWLC FullCap EWLC	SubCap EWLC FullCap EWLC	SubCap WLC FullCap WLC
LPAR SubCap Measurement	Rolling 4-Hour Average LPAR Utilization	Rolling 4-Hour Average LPAR Utilization	Rolling 4-Hour Average LPAR Utilization
Aggregation	None	None	Sysplex
Planning Tool	SubCapacity Planning Tool	SubCapacity Planning Tool	SubCapacity Planning Tool
Implementation Tool	SubCapacity Reporting Tool	SubCapacity Reporting Tool	SubCapacity Reporting Tool

Benefits of SubCapacity

- **Disconnect Hardware Growth from Software Charges for SubCap products**
  - ► Allows you to grow hardware capacity independently of software capacity
    e.g., Upgrade server and pay for software based on the utilized portion of the server
  - ► Grow into excess HW capacity gradually as needed with a 1 MSU level of granularity
  - ► Spike into "spare" capacity without incurring software charges
  - ► Manage utilization without having to turn engines on and off

- **Grow an LPAR without affecting software in other LPARs**
  - ► Isolate products in certain LPARs to reduce software costs (OPTIONAL)
  - ► Reduce LPAR Utilization to reduce software costs (OPTIONAL)
  - ► Add capacity to grow your CICS LPAR without impacting your IMS LPAR

- **Align Software Charges with Utilization**
  - ► Pay based on highest rolling 4-hour average utilization each month, not peak utilization
  - ► Sub-Capacity Reporting Tool manages measurement/reporting
  - ► Software charges increase/decrease based on variations in utilization

    NOTE: Remember, this is NOT sub-system utilization... it is LPAR utilization

- **For ELA/ESSO:**
  - ► Actual monthly software inventory value is compared against the MLC cap

Specialty Pricing Metrics

NALC (New Application License Charge) Ts & Cs

The New Application Growth Environment offers an attractive new software price to customers dedicating a standalone zSeries, S/390 or equivalent processor to qualifying new applications and/or to the consolidation of UNIX or NT print and/or file server workloads. This new software price, called the New Application License Charge, is available on OS/390 V2 (5647-A01), z/OS V1 (5694-A01), Lotus Domino for OS/390 V5R5 (5655-B86) and selected optional features of these products.

Eligibility:

To be eligible for New Application License Charges, you must have a zSeries, a S/390, or equivalent machine installed and dedicated to server consolidation of Unix or NT platform print or file server workloads or to one or more of the following qualifying applications (called "Qualifying Application(s)"):

1. Lotus Domino
2. Net.Commerce
3. Payment Server
4. Payment Gateway
5. WebSphere Payment Manager
6. Intelligent Miner for OS/390
7. SAP
8. PeopleSoft
9. Baan ERP
10. Oracle Applications for OS/390
11. DB2 OLAP Server for OS/390
12. WebSphere Application Server for OS/390 or z/OS
13. Siebel
14. WebSphere Commerce
15. Lawson ERP Applications
16. Walker e-Business Applications
17. Intelligent Miner for Data for OS/390

NOTE: Programs running on z800 (IBM 2066) or Multiprise 3000 (IBM 7060) Machines or their equivalents are not eligible for New Application License Charges.

This new software price makes it attractive for customers to implement new applications, or consolidate, non-S/390, UNIX or NT print and/or file server workloads by providing a S/390 value-priced alternative to UNIX platforms allowing customers to grow the industry¢s hottest application set in a dedicated S/390 environment.

z/OS NALC (z/OS.e) Price Curve Comparison

NALC (z/OS.e) Price Curve Comparison

New NALC*   **Old NALC**   **WLC**   **PSLC**
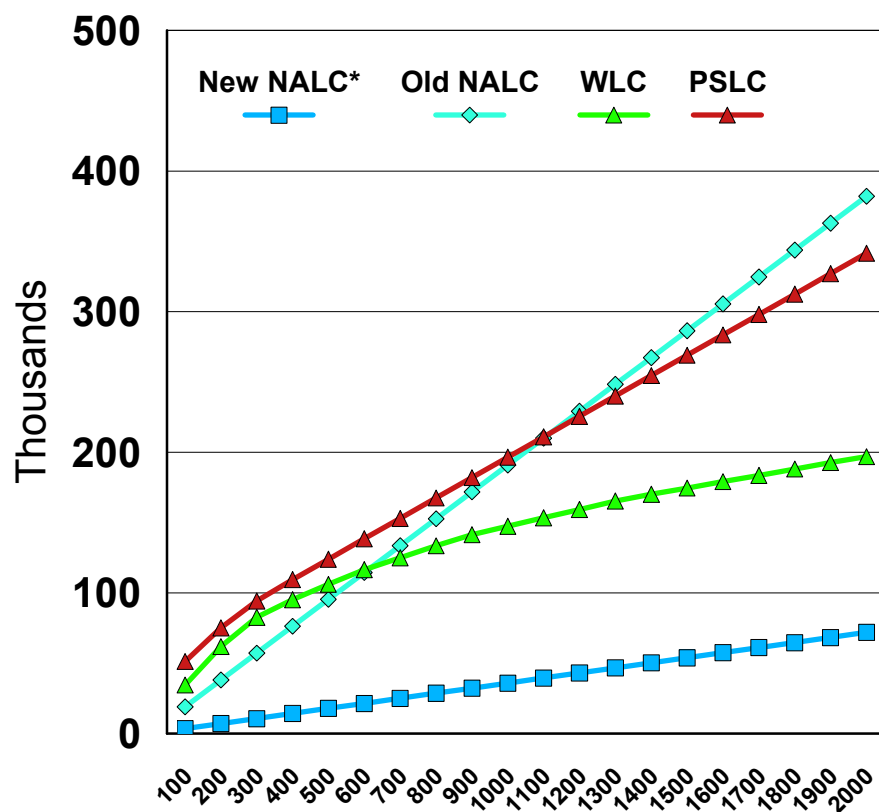
Savings with NALC (z/OS.e)

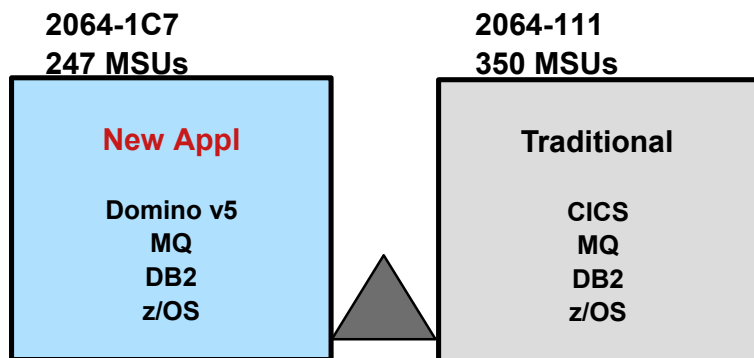| z/OS	vs PSLC	vs WLC
100 msu	93%	90%
500 msu	85%	83%
1000 msu	82%	76%
1500 msu	80%	69%
2000 msu	70%	63%

NALC: Sysplex Aggregation + WLC Pricing

- **Available in both PSLC and WLC environments**
- **NALC standard offering requires a dedicated machine (can participate in a Sysplex)**
- **NALC machine may have PSLC/WLC Sysplex Aggregation for middleware if PSLC/WLC terms are met**
- **SubCapacity WLC may apply in a WLC Based Sysplex**

2064-1C7
247 MSUs

2064-111
350 MSUs

New Appl	Traditional
Domino v5	CICS
MQ	MQ
DB2	DB2
z/OS	z/OS

- **Assume 15% white space for SubCap WLC**
  - 1C7 @ 247 MSUs (15% white space) = 247*.85 = 210 MSUs
  - 111 @ 350 MSUs (15% white space) = 350*.85 = 298 MSUs
- **NALC SW must be priced at full-machine capacity**

WLC SubCapacity Example

MTM	System Name	Type		MSU	85%	WLC
2064-1C7	System01 (New Appl)	z900		247	210	No
2064-111	System02 (Trad'l)	z900		350	298	No

PID	Software Name		WLC		Price	Total
	System	Type	Qty	MSU		
5645DB2	DB2 UDB for OS/390		508		41868	41868
	01	VWLC		210		
	02	VWLC		298		
5655B86	Domino for OS/390		n/a		7657	7657
	01	NALC		247		
5655F10	MQSeries for OS/390		508		23922	23922
	01	VWLC		210		
	02	VWLC		298		
5655147	CICS TS for OS/390		298		35052	35052
	02	VWLC		298		
5694A01	z/OS v1 Base		298		91215	91215
	01	NALC		210	8892	
	02	VWLC		298	82323	
					Total	Monthly	199714

zAAP (zSeries Application Assist Processor)

- zAAP – New processor type dedicated exclusively for Java workloads under z/OS – e.g. WebSphere
  - ► z/OS 1.6 required (available 9/04)
  - ► Java SDK 1.4.1 required

- Enabled by zSeries innovative PR/SM virtualization
  - ► CPs and zAAPs in the same z/OS LPAR
  - ► Java work ONLY directed to zAAPs by z/OS 1.6+

- Can lower cost of computing for Java technology-based application servers
  - ► Attractively priced at $125K USD per zAAP.
  - ► z990 and z890
  - ► No IBM software charges on zAAPs
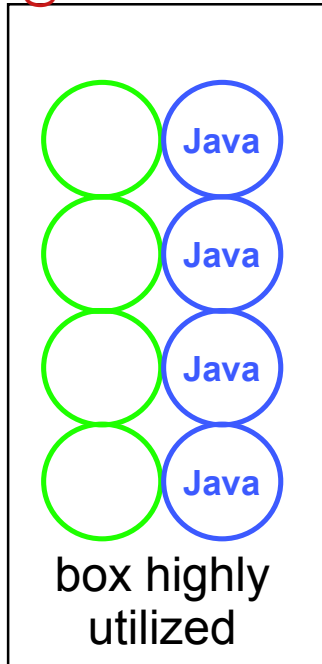 - ► zAAP HW feature available June 30, 2004; enabled with z/OS 1.6 (9/04)
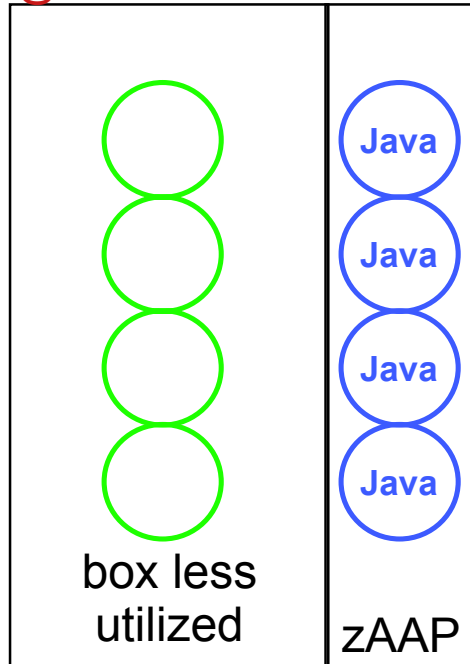
BEFORE zAAP

AFTER zAAP

2086-350 @ 74 MSUs

2086-350 @ 74 MSUs

zAAP

LPARA

Java

Java

Java

Java

box highly utilized

LPARA

Java

Java

Java

Java

box less utilized
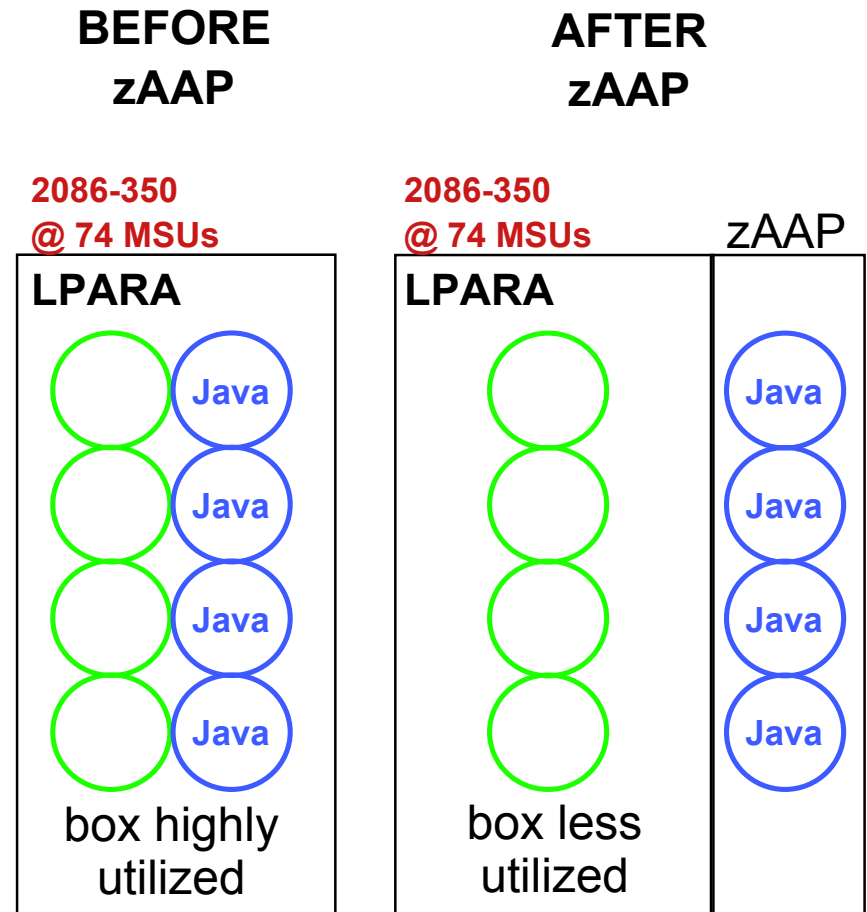
zAAP w/ FullCap EWLC

BEFORE
2086-350
@ 74 MSUs

AFTER
2086-350
@ 74 MSUs

box highly utilized

box less utilized

zAAP

✓ **Full-Capacity EWLC**
✓ **adds zAAP instead of upgrading to 360 or 450**
✓ **Java workload runs on zAAP engine**
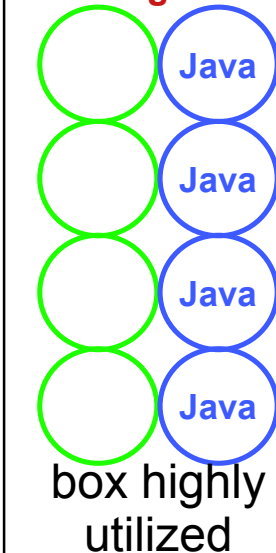✓ **Full-Capacity EWLC charges remain at 74 MSUs**

zAAP w/SubCap EWLC

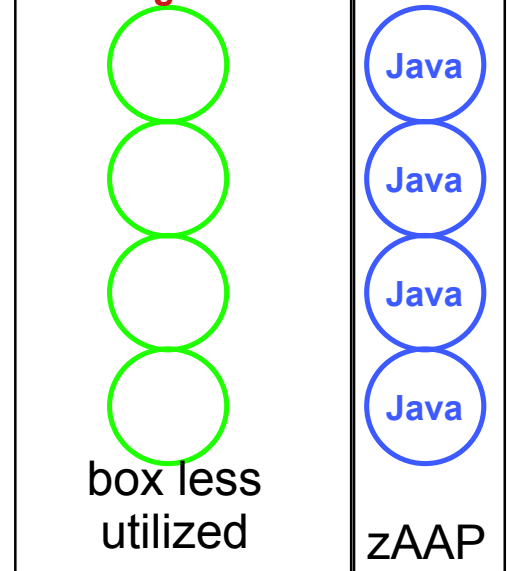**BEFORE**
2086-350
@ 74 MSUs

LPARA
R4HrAvg: 64 MSUs

AFTER
2086-350
@ 74 MSUs

LPARA
R4HrAvg: 42 MSUs

box highly utilized

box less utilized

zAAP

✓ **Sub-Capacity EWLC**
✓ **adds zAAP instead of upgrading to 360 or 450**
✓ **Java workload runs on zAAP engine**
✓ **LPARA's rolling 4-hour avg decreases from 64 to 42 MSUs (only utilization of general purpose CPs is measured)**
✓ **Sub-Cap Products in LPARA = 42 MSUs**

Similar SW pricing concepts apply to z990 + zAAP

Monthly License Charges Machine Summary

	Metric Type	Aggr	z9109 (2094)	z990 (2084)	z900 (2064)	z890 (2086)	z800 (2066)	MP3K (7060)	Other
PSLC: Parallel Sysplex License Charge - *allows ULC* - *allows NALC*	**Cumulative Tiered**	Y	x	x	x	x (plex)	x (plex))		x
(V)WLC: Variable Workload License Charge - *allows SALC* - *allows NALC*	**Cumulative Tiered**	Y	x	x	x	x (plex)	x (plex)		
(F)WLC: Flat WLC - with VWLC	**Single Price**	N	x	x	x	x (plex)	x (plex)		
EWLC: Entry Workload License Charge - *allows SALC* - *allows z/OS.e (eWLC)*	**Cumulative Tiered**	N				x	x		
TWLC: Tiered EWLC - with EWLC	**Simple Tiered**	N				x	x		
zELC: zSeries Entry License Charge - *allows z/OS.e (engine)*	**Model Based**	N				x (110 Only)	x		
GOLC: Growth Opportunity License Charge - *allows ULC*	**Model Based**	N						x	

ULC = Usage License Charges = available only for MQSeries, DB2, CICS, IMS; used when product has low utilization

SALC = Special Application License Charges = available ONLY for MQ Series; used when product has low utilization
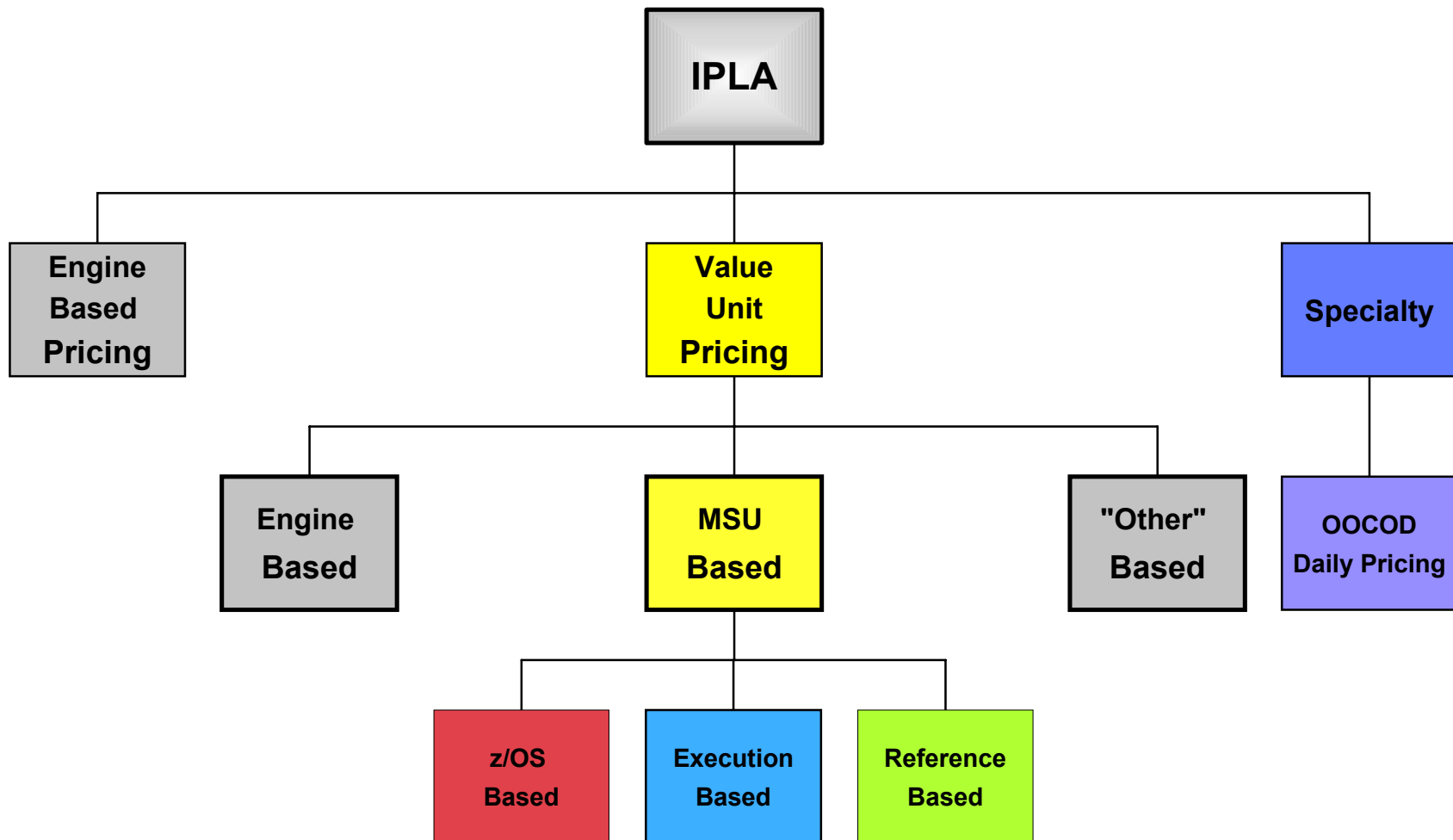
NALC = New Application License Charges = available only for z/OS, OS/390, Domino V5; associated w/ ebusiness

z/OS.e = low cost / reduced function version of z/OS for ebusiness; CICS and IMS cannot run on z/OS.e

One Time Charge Software
IPLA

IPLA Pricing Structures

zSeries IPLA Terminology

IPLA	International Program License Agreement The contract that governs IBM "one time charge" software (zSeries & PPA)
Value Unit	Pricing Unit: IPLA prices are stated as a $/VU
Value Unit Basis	The measurable entity that is used to determine the amount (in Value Units) of Required License Capacity (e.g., MSUs, engines, concurrent users, etc)
Required License Capacity	The # of Value Units a Customer must license to meet the IBM Ts & Cs
Entitled License Capacity	The # of Value Units of zSeries IPLA license the Customer has acquired
Environment	A single/standalone machine OR A qualified Parallel Sysplex. Customers may have multiple environments.
Parent	A zSeries MLC program (e.g., DB2, CICS, IMS) that is supported by a zSeries IPLA program with Reference Based terms

zSeries IPLA Characteristics

- **IBM IPLA Contracts online at ibm.com/software/sla**
  - ► Generic "base" IPLA Contract & product-specific "License Information" contracts available
  - ► **IPLA Amendment for zSeries Platform Programs Sub-Capacity Pricing (Z125-6929).**

- **IPLA Programs have a One-Time-Charge for License Acquisition**
  - ► New and/or existing entitlements may be used in a Full-Capacity or a Sub-Capacity environment
  - ► Aggregate across entire Enterprise

- **(Optional) Recurring Annual Charge for Subscription & Support (S&S)**
  - ► S&S provides version-to-version upgrades <u>at no charge</u>
  - ► S&S provides break/fix support
  - ► S&S is optional, but strongly encouraged
  - ► S&S is an annual charge called "Annual License Charge"
  - ► If purchased, S&S capacity MUST equal license capacity
  - ► S&S automatically renews each year
  - ► Existing S&S cannot be cancelled except at renewal date

Product ID	Product
5697-F19	Fault Analyzer V1
5655-G74	Fault Analyzer V2
5655-J47	Fault Analyzer V3
5655-L25	Fault Analyzer V4
5697-G59	Fault Analyzer S&S

- **For each zSeries IPLA Product...**
  - ► there is a unique product ID per version
  - ► there is a common S&S product ID across all versions

Value Unit Overview

- Value Unit Pricing Converts various other measurements to Value Units
  - ▶ **The most common conversion is MSUs to Value Units**
    - − It is also possible to convert engines, messages and other measurements to Value Units
  - ▶ For each Value Unit Priced program, there is a single price per Value Unit
  - ▶ For each Value Unit Priced program, there is a specific 'Value Unit Exhibit' (VUEXXX)
  - ▶ The 'Value Unit Exhibit' establishes the appropriate Value Unit conversion
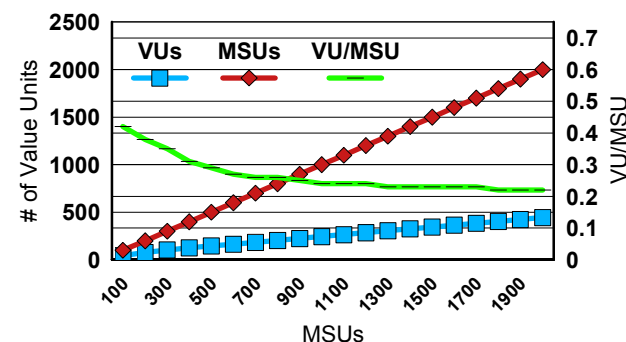
Value Unit Exhibit 007 (VUE007):
MSUs 1 - 3, need 1 VU per MSU
MSUs 4 - 45, need .45 VUs per MSU
MSUs 46 - 175, need .36 VUs per MSU
MSUs 176 - 315, need .27 VUs per MSU
MSUs 316+, need .20 VUs per MSU

Value Unit Exhibit 001 (VUE001):
MSUs 1 - 3, need 5.25 VUs per MSU
MSUs 4 - 45, need .83 VUs per MSU
MSUs 46 - 175, need .35 VUs per MSU
MSUs 176 - 315, need .26 VUs per MSU
MSUs 316+, need .20 VUs per MSU

Value Unit Curve

Product ID	Product	Price per VU
5697-F19	Fault Analyzer V1	$2,325/VU
5655-G74	Fault Analyzer V2	$2,325/VU
5655-J47	Fault Analyzer V3	$2,325/VU
5655-L25	Fault Analyzer V4	$2,325/VU
5697-G59	Fault Analyzer S&S	$349/VU

Value Unit Exhibit 007 (VUE007)

Fault Analyzer (VUE007) Examples:
Fault Analyzer 100 MSUs => 42 VUs =>
$98K ($980/MSU)

Fault Analyzer 2000 MSUs => 444 VUs =>
$1.03M ($515/MSU)

Value Unit Converter Tool from ibm.com/zseries/swprice
will convert MSUs to Value Units

IPLA Value Unit Enterprise Aggregation

- Applies to **all** IPLA Metrics
- Combines Value Unit Basis (e.g., MSUs) for all machines in **ENTERPRISE** before calculating # of VUs needed
- Calculation of additional capacity uses Current Entitlement as starting point

Denver

2066-003
84 MSUs

Fault
Analyzer
(5655-L26)

Customer One:

Deploying Fault Analyzer on 2066-003

Use VUConverter to Convert total MSUs (84) to Value Units (36)

Total for 36 VUs @ $36/VU = $83,700 lic ($12,564 S&S)

New York

2066-003
84 MSUs

Fault
Analyzer
(5655-L26)

Atlanta

2064-116
441 MSUs

Fault
Analyzer
(5655-L26)

Customer Two:

Deploying Fault Analyzer on 2066-003, 2064-116

Use VUConverter to Convert total MSUs (525) to Value Units (149)
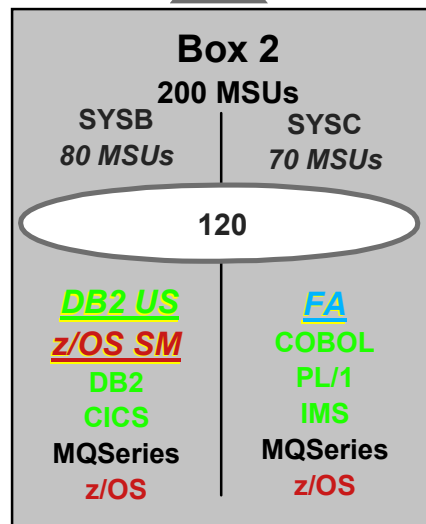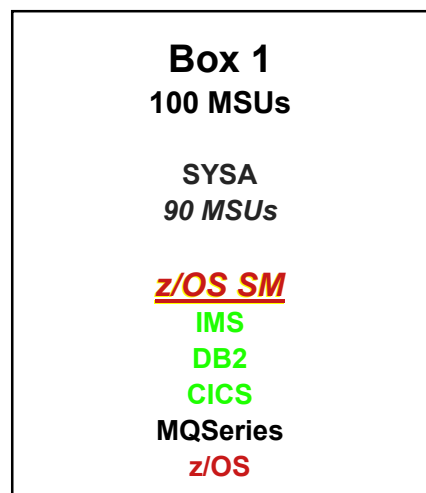
Total for 149 VUs @ $36/VU = $346,425 lic ($52,001 S&S)

Summary of MSU Based Value Unit Ts & Cs

Most zSeries IPLA Programs with MSU based Value Unit Pricing will fall into one of the following categories...

	z/OS Based	Execution Based	Reference Based
Full Capacity **For machines w/ PSLC, zELC or FullCap EWLC/WLC**	Required license capacity equals the capacity of the **machine(s)** where the IPLA program **executes**	Required license capacity equals the capacity of the **machine(s)** where the IPLA program **executes**	Required license capacity equals the capacity of the **parent program** across the **environment**
Sub Capacity **For machines w/ SubCap EWLC/WLC**	Required license capacity equals the **z/OS capacity** of the **machine(s)** where the IPLA program **executes**	Required license capacity equals the capacity of the **LPAR(s)** where the IPLA program **executes**	Required license capacity equals the capacity of the **parent program** across the **environment**

**For products which are "unclassified",
the product announcement materials will outline the applicable Ts & Cs.**

IPLA Pricing Examples

Box 1
100 MSUs

SYSA
90 MSUs

z/OS SM
IMS
DB2
CICS
MQSeries
z/OS

Box 2
200 MSUs

SYSB   SYSC
80 MSUs   *70 MSUs*

120

DB2 US   *FA*
z/OS SM   COBOL
DB2   PL/1
CICS   IMS
MQSeries   MQSeries
z/OS   z/OS

CHECKLIST

- Desired Programs

- Terms for each Program
  - ► z/OS-based
  - ► execution-based
  - ► reference-based

- Deployment Plan
  - ► Full-Cap or Sub-Cap
  - ► Standalone or Sysplex
  - ► For execution-based, which LPARs?
  - ► For z/OS-based, which boxes?

- Required License Capacity
  - ► Combine checklist data to determine required license capacity

Desired Programs
1. Fault Analyzer, execution-based terms
2. DB2 Utilities Suite, reference-based terms
3. z/OS Session Manager, z/OS-based terms

IPLA Product	FullCap	SubCap
Fault Analyzer	Box 2 200 msu	SYSC 70 msu
DB2 Util Suite	Box 1, 2 300 msu	SYS A, B 170 msu
z/OS SMgr	Box 1, 2 300 msu	SYS A,B,C 210 msu

Reference Information

More Information

- **zSeries Software Pricing Website**
  - ► http://ibm.com/zseries/swprice
  - ► Announcement News, Complete WLC Product Listing
    - – z/OS and S/390 Software Pricing Reference Guide
    - – Mainframe MSU Ratings
    - – ISV Press Releases
    - – IBM Announcement Letters

- **Sub-Capacity Reporting Tool Help**
  - ► http://ibm.com/zseries/swprice/scrt/scrt_askme.html
- **WLC Planning Tool Help**
  - ► http://ibm.com/zseries/swprice/scrt/wlctool_askme.html

- **z/OS.e Website**
  - ► http://ibm.com/zseries/zose

- **Data Management Tools Website**
  - ► http://ibm.com/software/data/db2imstools

- **CICS Tools Website**
  - ► http://ibm.com/cics/tools.html

IBM

Thank you

Visit the zSeries Software Pricing Website
http://ibm.com/zseries/swprice