IBM GLOBAL SERVICES

B10

IBM Software Pricing Basics

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IBM zSeries Software

zSeries Software Pricing Basics

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e business on demand software

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SW Pricing Basics Agenda

- zSeries Software Pricing Framework
- Monthly License Charge (MLC) Concepts
  - Aggregation
  - Single Price Pricing
  - Model Based Pricing
  - Simple Tiered Pricing
  - Cumulative Tiered Pricing
  - Usage Based Pricing
  - SubCapacity Pricing
    - SubCap Eligible
    - Non-SubCap Eligible
- One Time Charge = IPLA Software

zSeries Software Pricing Framework

Category One: Monthly License Charge

Contract:
IBM Customer Agreement (ICA)

Metric Determined by:
- Customer Choice and/or Environment

Key Metrics:
- PSLC, WLC, GOLC, zELC

Core Products
- z/OS, OS/390
- CICS
- MQSeries
- DB2
- IMS

Best-of-Breed Offerings
Lower Cost of Incremental Growth
Flexibility & Customer Choices

Category Two: One Time Charge (IPLA)

Contract:
International Prgm License Agreement

Metric Determined by:
- Product Selection

Key Metrics:
- Value Unit, Engine-Based

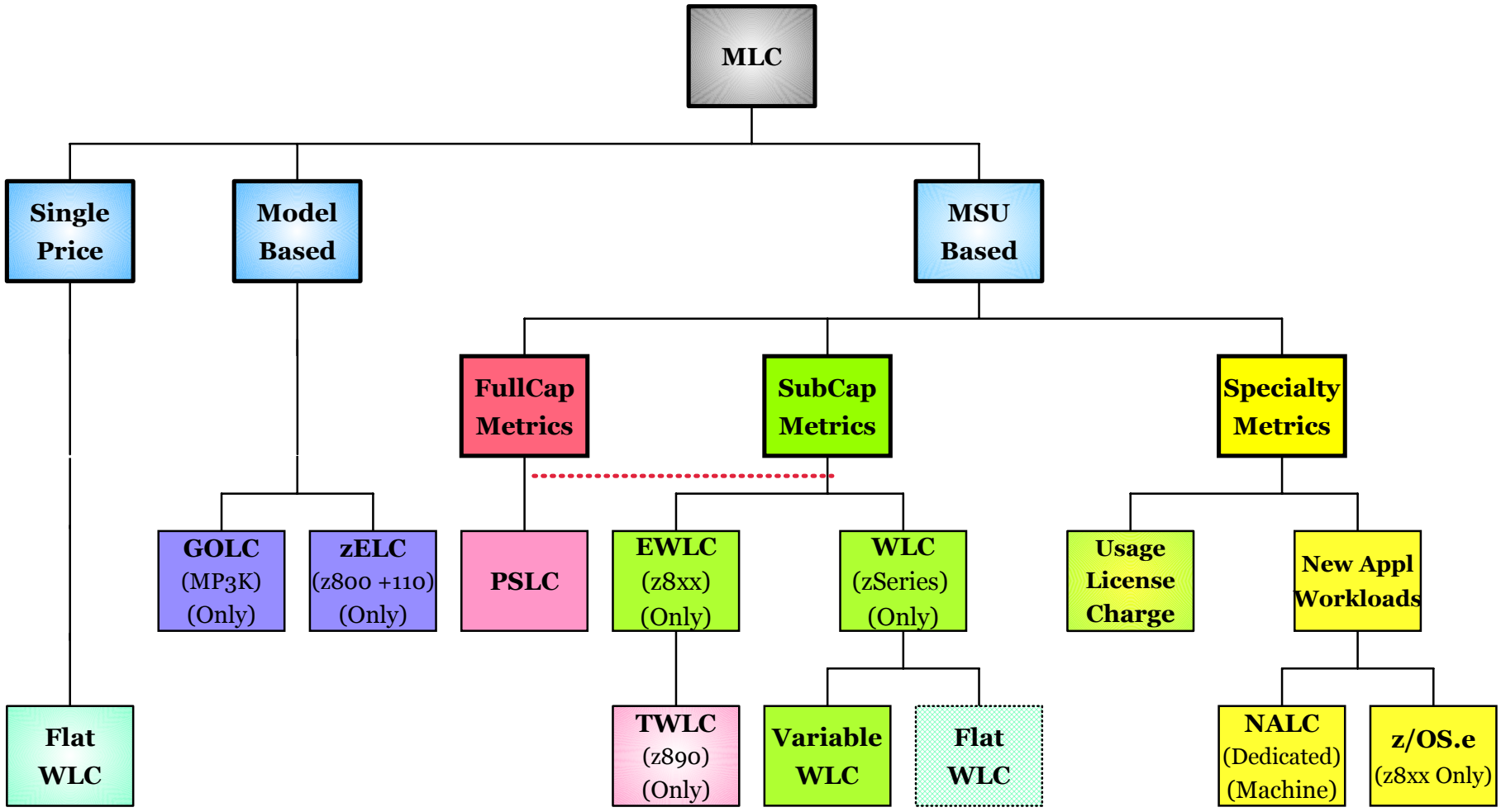
Competitive Products
- DB2 Tools & IMS Tools
- Application Development Tools
- Systems Management Tools
- eBusiness Tools
- zSeries Linux Middleware and z/VM

Breadth and Depth of Portfolio
Lower Cost of Incremental Growth
Offer Competitive Alternatives

Terminology

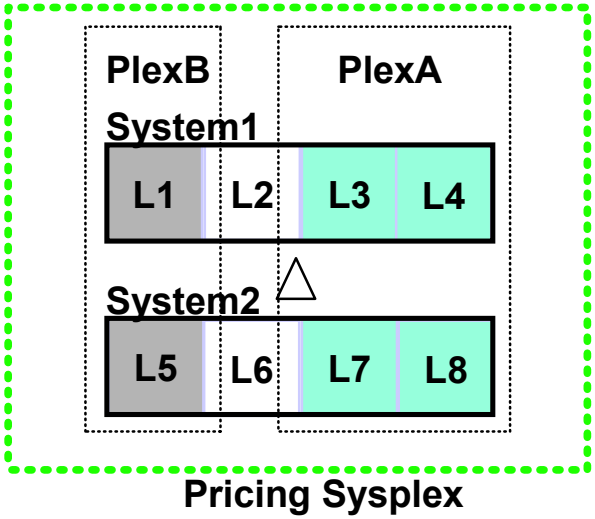
- Pricing Metric = Pricing Model = Pricing Structure
  - Synonyms
  - Methodology for pricing software
  - Examples: PSLC, WLC, zELC,GOLC, NALC, ULC, SALC
- Millions of Service Units (MSUs)
  - "Relative Capacity" Unit of Measure for Software Pricing Activities
  - Traditionally 1 MSU Roughly equaled 5.7 MIPS (subject to change)
    - z890/z990 10% Tech Dividend over traditional
    - z9 109: 10% Tech dividend over zx90
  - MSUs are announced for each new IBM mainframe
- Fully Qualified Parallel Sysplex
  - Technical/physical sysplex that meets the software pricing-related Ts & Cs
- Aggregation
  - Accumulating capacity requirements, in MSUs, across multiple machines
  - MLC: Sysplex Aggregation (Some metrics)
  - IPLA: Enterprise Aggregation
  - Enhances the benefits of "Decreasing $$$ / MSU"
- Billable MSUs
  - Full Capacity Standalone Machine: Rated MSUs of machine
  - Full Capacity Aggregated Sysplex: Total of Rated MSUs for all machines
  - SubCapacity: Reported MSUs for each product (Aggregated for some metrics)

Monthly License Charge (MLC) Metrics



Qualifying Pricing Sysplex

- Basic Pricing Sysplex Rules
  - One Pricing Sysplex per machine
  - Common Coupling Facility & Common Sysplex Timer
  - Common Enablement Function
  - Determined by 50% of Workload measured during Prime Shift



Below is an example of the 50% Rule Calculation

All software products on these machines will aggregate under PSLC or WLC (assuming other plex criteria are met and the plex workload % stays above 50% for each machine during all intervals of Prime Shift).

SYSTEM 1 Box Capacity = 100 MSUs NOTE: Machine capacity is not used to calculate qualifying %.					SYSTEM 2 Box Capacity = 200 MSUs NOTE: Machine capacity is not used to calculate qualifying %.			
LPAR	**SYSPLEX**	**FUNCTION**	**UTILIZATION (9am)**		**LPAR**	**SYSPLEX**	**FUNCTION**	**UTILIZATION (9am)**
LPAR 1	PLEXB	PROD	12 MSUs		LPAR 5	PLEXB	PROD	25 MSUs
LPAR 2	NO	PROD	12 MSUs		LPAR 6	NO	PROD	25 MSUs
LPAR 3	PLEXA	PROD	12 MSUs		LPAR 7	PLEXA	PROD	25 MSUs
LPAR 4	PLEXA	TEST	40 MSUs		LPAR 8	PLEXA	TEST	50 MSUs
% of workload participating in Primary Plex (PLEXA)			(12+40)/12+12+12+40) = 68%		% of workload participating in Primary Plex (PLEXA)			(25+50)/(25+25+25+50) = 60%

Sysplex Calculator

- Available from Software Pricing Website
- Must supply SMF70 records for all LPARs on machine

This Sysplex Calculator is designed to enable you to analyze your sysplex environment for compliance with the LPAR usage criteria of IBM's Parallel Sysplex Aggregation rules. The tool assumes, but does not verify, your compliance with the other criteria for Parallel Sysplex aggregation.

For a complete list of the Parallel Sysplex Aggregation criteria, please visit…http://ibm.com/zseries/swprice/sysplex

Use of the Sysplex Calculator is not designed to arrive at a conclusive determiniation of your eligibility for Parallel Sysplex Aggregation, which determination may only be made by IBM. Please see your IBM representative for details.

Based on IBM's Parallel Sysplex Aggregation criteria, Sysplex Calculator determines that CPC1 is a member of KNOXPLEX

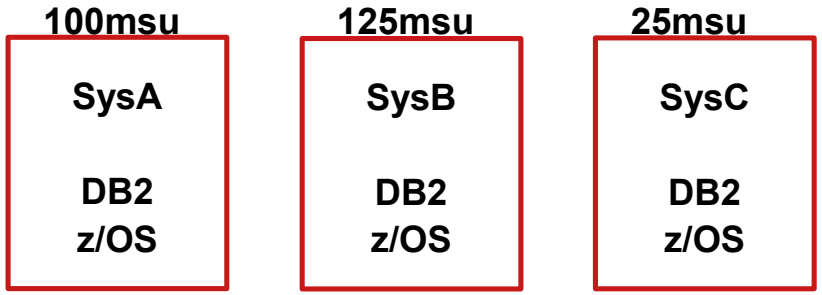
Machine =>	CPC1	CPC1	CPC1	CPC1	CPC1
LPAR =>	P1E8	P1E1BNZ		P1E2BNZ	P1E3BNZ	P1E7
Plex => KNOXPLEX		ASYSPLEX		BSYSPLEX	CSYSPLEX	KNOXPLEX
Interval						
22 Jul 02 - 08:00	52%	19%	5%	6%	18%	
22 Jul 02 - 08:15	45%	19%	5%	6%	24%	
~~						
22 Jul 02 - 09:15	45%	26%	4%	4%	21%	

Concept & Example: Sysplex Aggregation

- Combines MSUs for all machines in Sysplex before calculating price
- Applies to:
  - Some **MSU Based** MLC Metrics

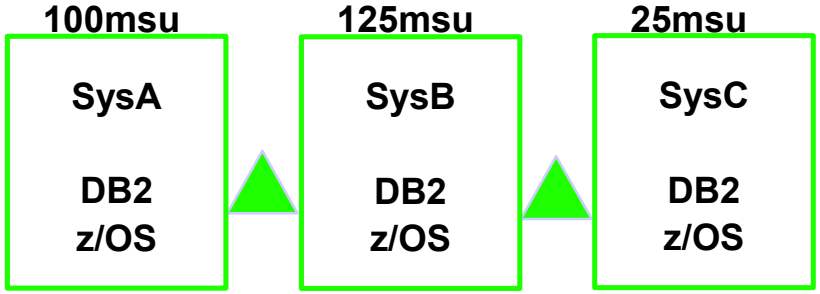
Product A	msu /tier	$ /msu	Tier $$$	Accu $$$
Base (3msu)	3	1,000	3,000	3,000
4- 50 msu	47	200	9,400	12,400
51-100 msu	50	100	5000	17,400
101-200 msu	100	50	5000	22,400
201+ msu	n/a	25		

Standalone



Prod A	MSU	$$$
ProdA (SysA)	100	17,400
ProdA (SysB)	125	18,650
ProdA (SysC)	25	7,400
Total		43,450

Sysplex



Prod A	MSU	$$$
ProdA (SysA)	100	
ProdA (SysB)	125	
ProdA (SysC)	25	
Total	250	23,650

SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

Single Price

- Independent of HW capacity
- Each SW Product has a single price defined
- No aggregation (Price x #machines each month)
- To Price: Look up Product Price
- Applies to:
  - **Flat Workload License Charges (FWLC)**

z990 Mdl	MSUs		Fortran	Rexx
2084-032	132		648	1842
2084-304	248		648	1842
2084-306	352		648	1842
2084-308	448		648	1842
2084-310	538		648	1842

Model Based Pricing

- Each SW Product has a price for each HW Model
- No aggregation (Look up price for each machine individually)
- To Price: Look up HW Model and use assigned price
- Applies to:
  - **GOLC: Growth Opportunity License Charge**
  - **zELC: zSeries Entry License Charge**

	Prod A	Prod B	Prod C
Model 1	$10	$22	$50
Model 2	$20	$33	$65
Model 3	$30	$42	$80
Model 4	$40	$51	$95
Model 5	$50	$60	$120

	Prod A Installed?	Prod A Price	Prod B Installed?	Prod B Price	Total
Machine 1 (Model 2)	yes	$20	no		
Machine 2 (Model 5)	yes	$50	yes	$60	
		$70		$93	$163

Simple Tiered Pricing

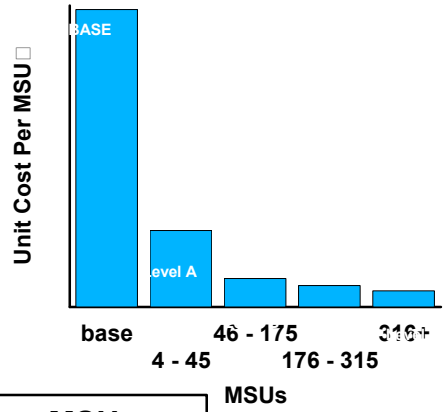
- Tiers are defined as a range of MSUs
- Each SW Product has a price assigned to each tier
- No aggregation (Look up price for each machine individually)
- To Price: Select "Tier" based on Machine MSU rating and use "Tier" price
- Applies to:
  - **TWLC: Tiered Entry Workload License Charge (No aggregation)**

Tier	MSU Range	z890 Models	Fortran	Rexx
Tier A or	1 - 11 MSUs	110, 120, 210, 310	197	530
Tier B or	12 - 15 MSUs	130, 220, 410	213	576
Tier C or	16 - 40 MSUs	140 150 160 230 240 320 330 420	253	691
Tier D or	41 - 75 MSUs	170 250 260 340 350 430 440	477	1335
Tier E or	76 - 1500 MSUs	270 360 370 450 460 470	636	1806
Tier F or	1501+ MSUs			

Cumulative Tiered Pricing

- Charges Based on Billable MSUs
- $/MSU Decreases as Capacity Increases
- May or may not aggregate
- To Price: Price each MSU based on "Tier" and add the "Tier" prices together
- Applies to:
  - **PSLC: Parallel Sysplex License Charge (Sysplex Aggregation)**
  - **VWLC: Variable Workload License Charge (Sysplex Aggregation)**
  - **EWLC: Entry Workload License Charge (No Aggregation)**

	Product A	Base	$$$ per MSU
Base	Base Price (Incl: 3 MSU)	3000	
Level A	Cumulative Unit Price for 4 to 45 MSU		200
Level B	Cumulative Unit Price for 46 to 175 MSU		100
Level C	Cumulative Unit Price for 176 to 315 MSU		50
Level D	Cumulative Unit Price for 316 + MSU		25



Product A @ 275 MSUs	Range	# MSUs	$$$ per MSU	$$$ per Month	Total MSUs Priced	MSUs Remaining
Base	1 - 3	up to 3	n/a	3,000	3	272
Level A	4 - 45	42	200	8,400	45	230
Level B	46 - 175	130	100	13,000	175	100
Level C	176 - 315	100	50	5,000	275	0
Total				$29,400		

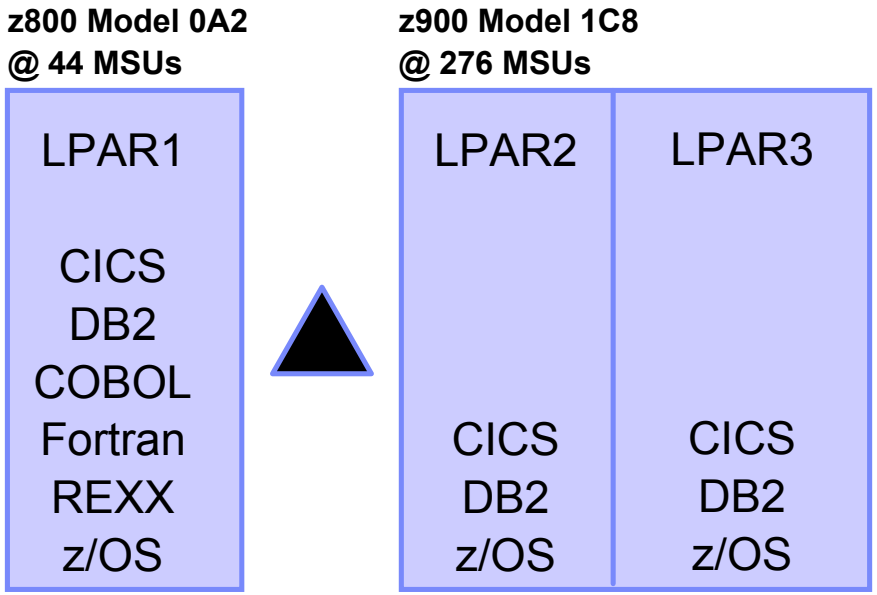
SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

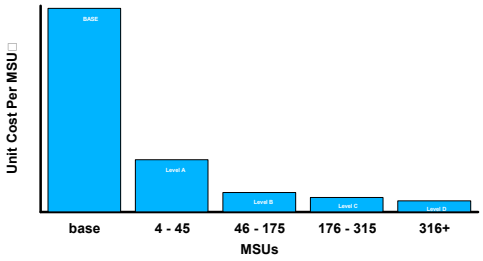
Example: PSLC

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

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



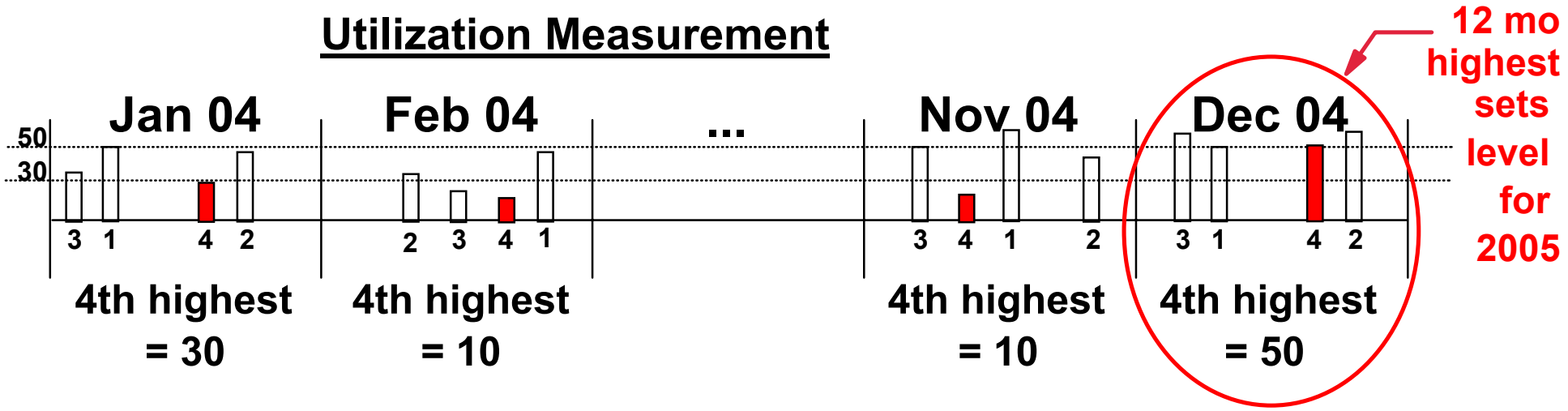


SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

Usage Based Pricing

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

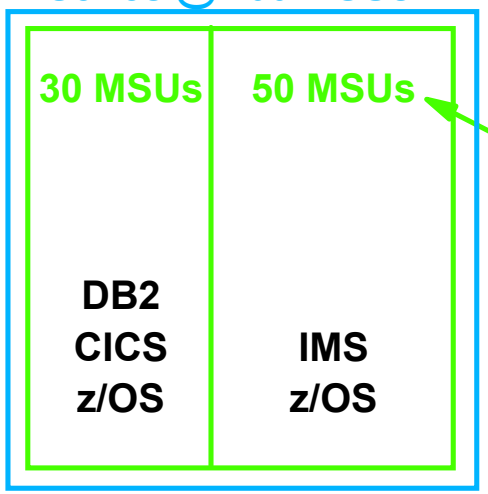
- Available for a small subset of key SW products
- Benefits ONLY when product usage is low compared to standard billable MSUs
- Charges Based on product CPU 'consumption' as measured in MSUs
  - **Reported on an Annual basis via "Usage Report"**
  - **Report created by IBM supplied IFAURP "Usage Reporting Program"**
- $/MSU Decreases as Capacity Increases
- Sysplex Aggregation applies
- To Price: Price each MSU based on "Tier" and add the "Tier" prices together
- Applies to:
  - **ULC: Usage Licence Charge (DB2, IMS, CICS, MQ)**
  - **SALC: Select Application License Charge (MQ Only)**



SubCapacity Pricing

What is "SubCapacity" ?

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



Full-Capacity Pricing Metrics:

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

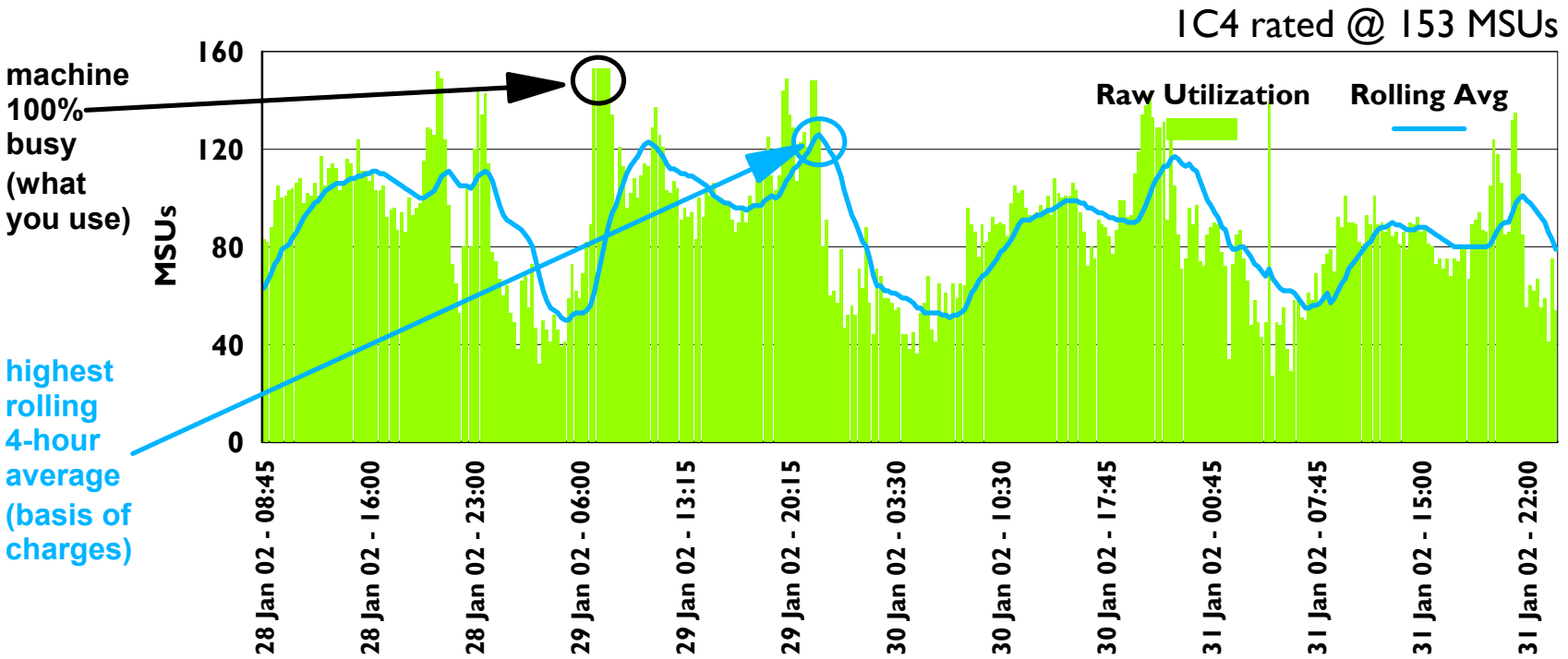
Ex: PSLC, FullCap WLC, zELC

Sub-Capacity Pricing Metrics:

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

Ex: Variable WLC, EWLC

Example: Rolling 4-Hour Average



Rolling 4-Hour Average Utilization Smoothes Out Peaks in Raw Utilization
Allows for Varied Peaks, Bases Software Charges on More Moderate Measure

SubCap Concept: Rolling 4-Hour Average Utilization

4-Hour Rolling Average

11 am (8,9,10,11): 35 MSUs

12 pm (9,10,11,12): 55 MSUs

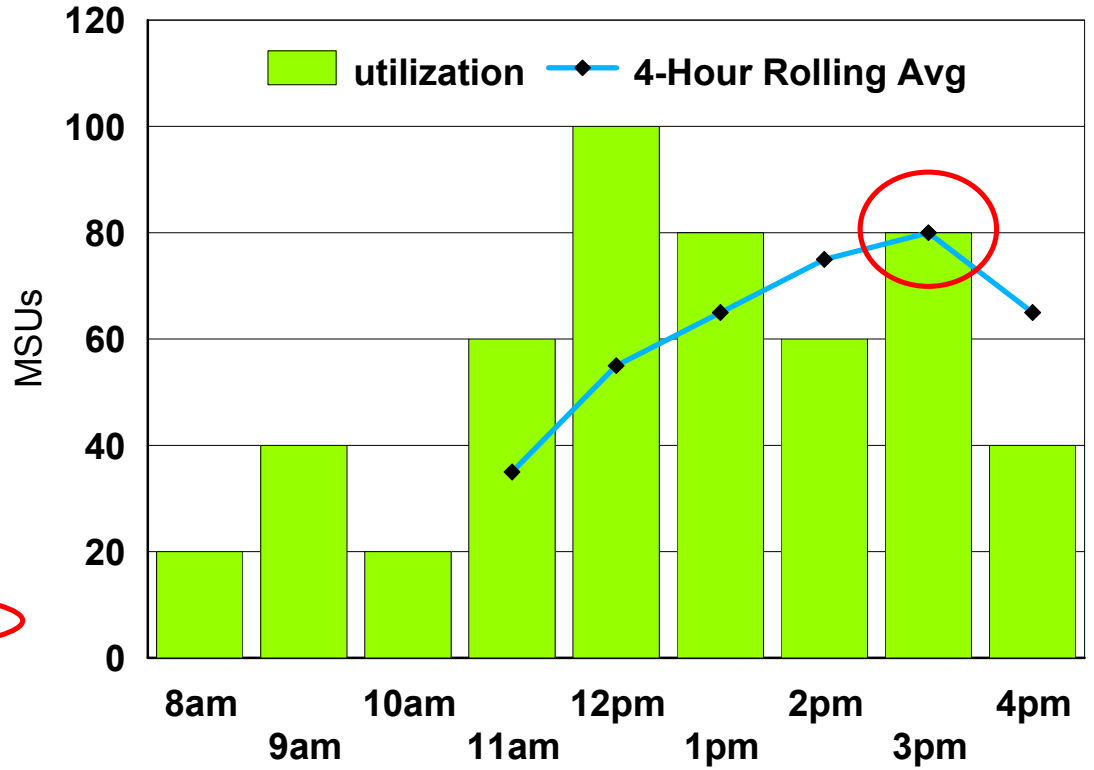
1 pm (10,11,12,1): 65 MSUs

2 pm (11,12,1,2): 75 MSUs

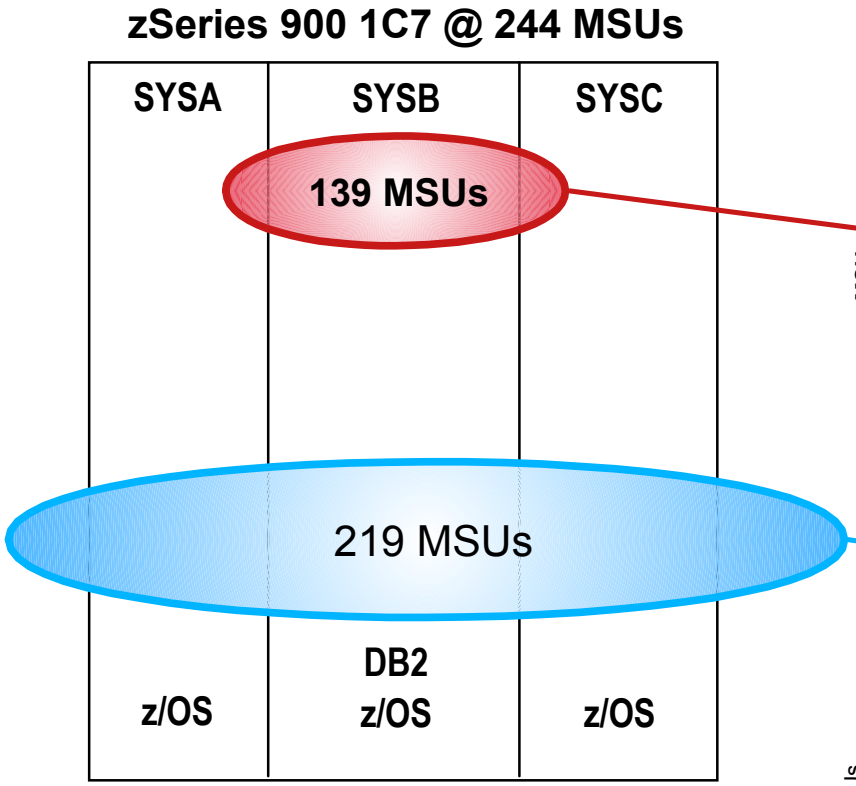
3 pm (12, 1, 2, 3): 80 MSUs

4 pm (1, 2, 3, 4): 65 MSUs

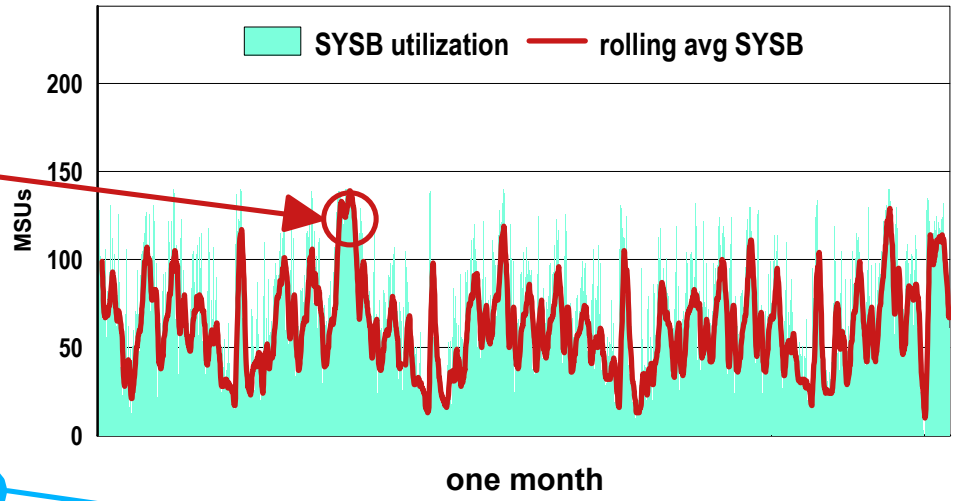
z/OS captures the 4-hour rolling average of utilization for each interval in the month

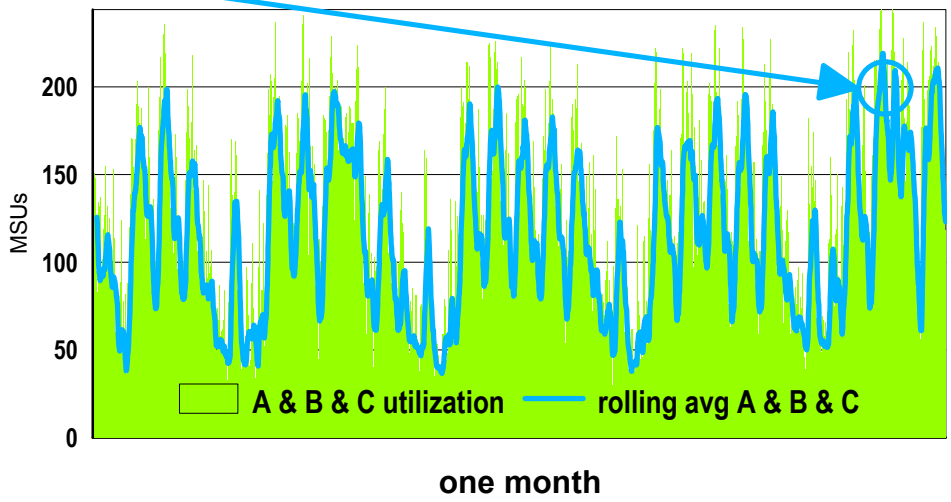


Generic SubCapacity Example

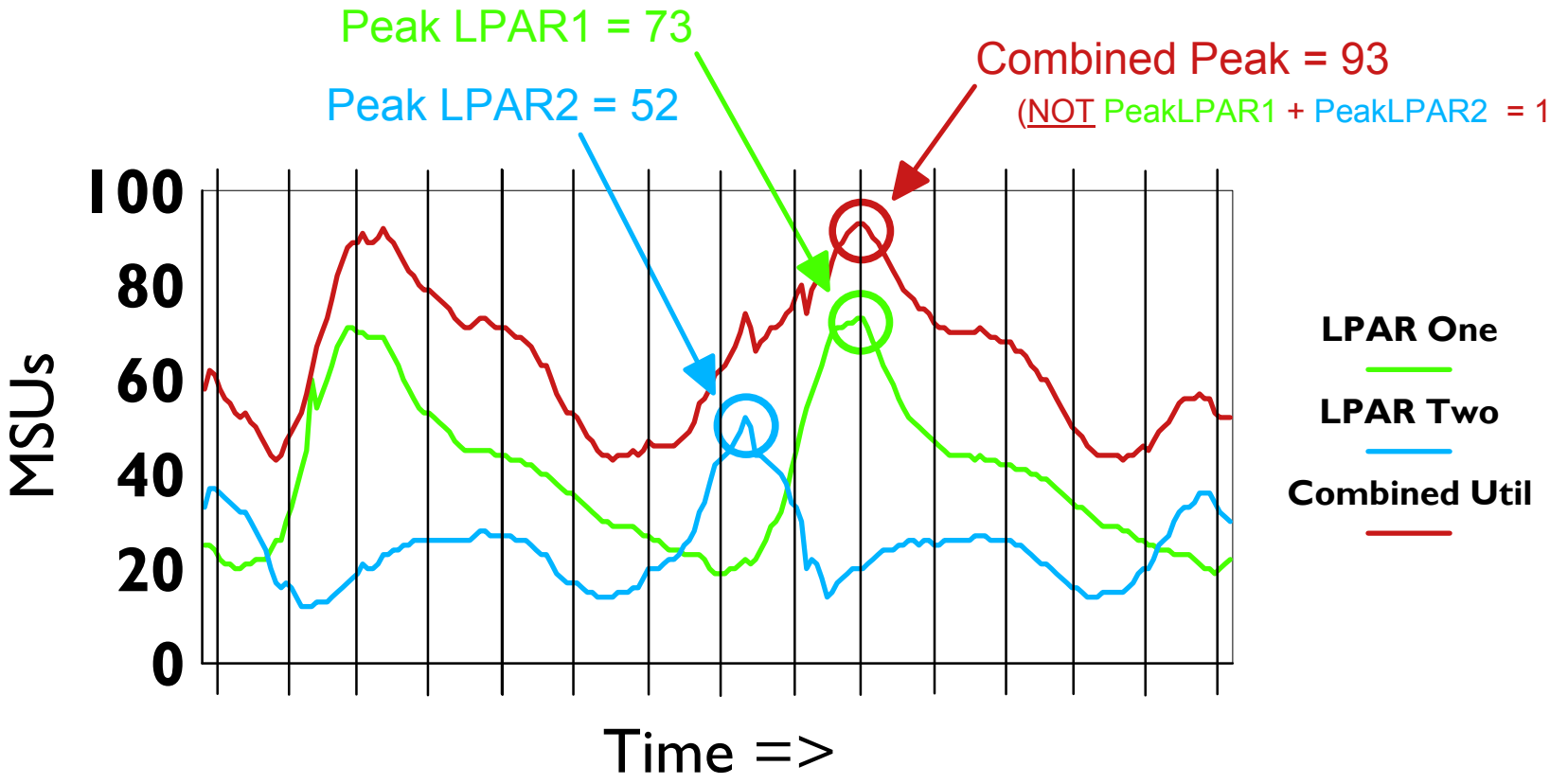


Product	Sub-Cap MSUs
DB2	139 MSUs
z/OS	219 MSUs

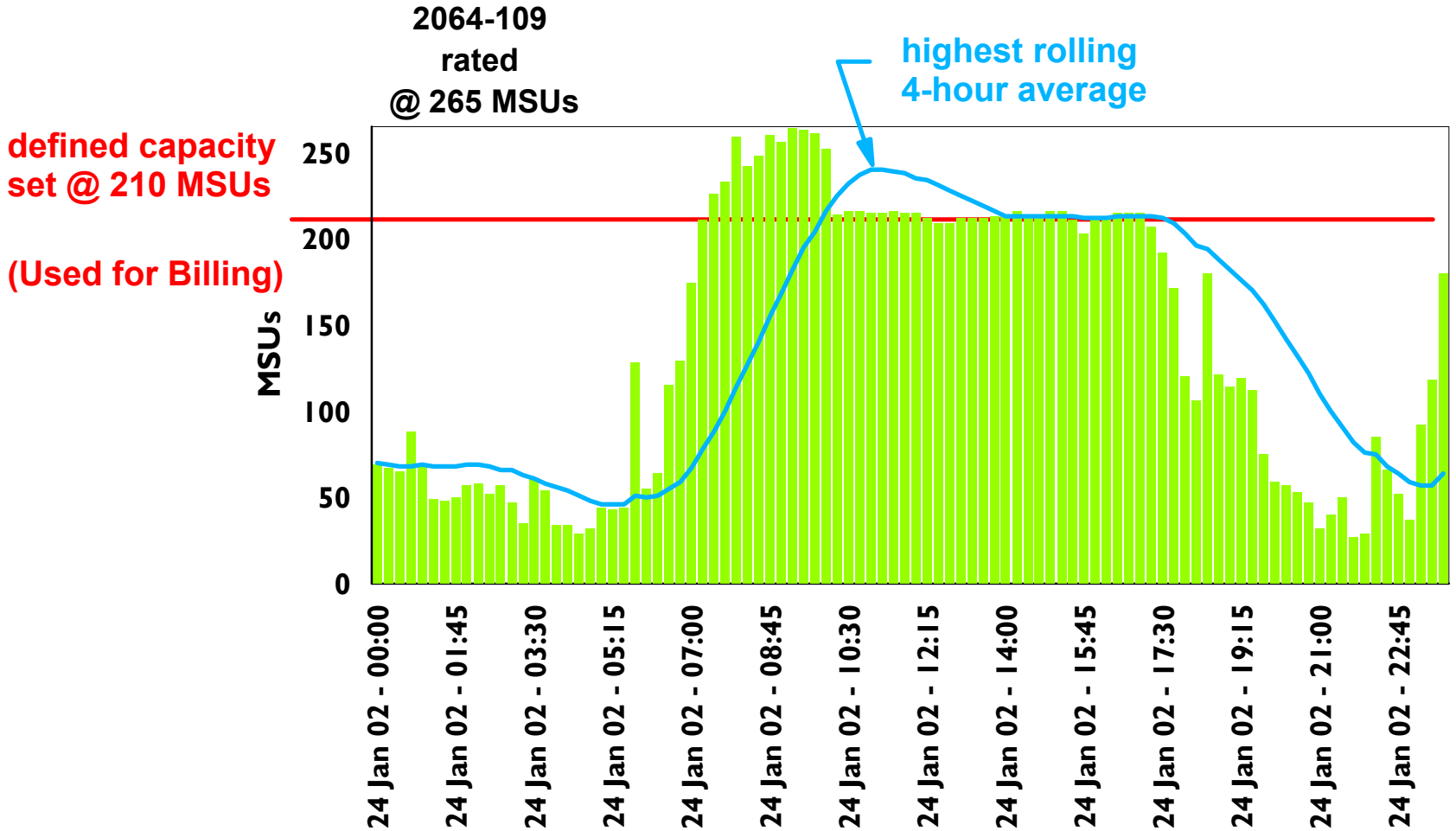




SubCap Concept: Simultaneous Combined Rolling 4Hour Average



SubCap Concept: Defined Capacity



Defined Capacity is an OPTIONAL setting

SubCapacity Pricing Basics

Characteristics	EWLC	V WLC
Metric Type	**Cumulative**	**Cumulative**
Aggregation	**None**	**Sysplex**

- **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**
    - **Examples: z/OS, CICS, DB2, IMS, MQSeries, etc.**
    - **Priced using a SubCapacity Metric (VWLC, EWLC)**
    - **May or may not aggregate**
    - **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**
    - **Examples: MVS Utilities, Older Compilers, VM/VSE Middleware**
    - **Priced using a SubCap Companion Metric (FWLC, zELC, TWLC)**
    - **No aggregation**
    - **The same under both FullCap and SubCap implementations**

EWLC Structure (z8xx only)

EWLC Level	Range	WLC Level
Base	3 MSUs	Base
Level 1	4 - 17 MSUs	Level 0
Level 2	18 - 30 MSUs	" "
Level 3	31 - 45 MSUs	" "
Level 4	46 - 87 MSUs	Level 1
Level 5	88 - 175 MSUs	" "
Level 6	176 - 260 MSUs	Level 2
Level 7	261+ MSUs	" "

Variable WLC Structure

PSLC Lvl D

Level	Range
Base	0 - 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

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

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

Companion Non-SubCapacity Metrics

FWLC

- Used with VWLC
- Independent of HW capacity
- One Price per Product per Machine

Characteristics	EWLC
Metric Type	**Single Price**
Aggregation	**None**

z990 Mdl	MSUs		Fortran	Rexx
2084-032	132		648	1842
2084-304	248		648	1842
2084-306	352		648	1842
2084-308	448		648	1842
2084-310	538		648	1842

zELC

- Used with EWLC on z800
- One Price per Product per HW Model

Characteristics	zELC
Metric Type	**Model**
Aggregation	**None**

z800 Mdl	MSUs		Fortran	Rexx
2066-oe1	7		197	530
2066-0a1	13		213	576
2066-0b1	20		253	691
2066-001	32		365	1013
2066-002	60		561	1581
2066-004	108		702	2004

TWLC

- z890 with EWLC Only
- Select the tier based on z890 MSU rating
- Billed monthly

Characteristics	TWLC
Metric Type	**Simple Tier**
Aggregation	**None**

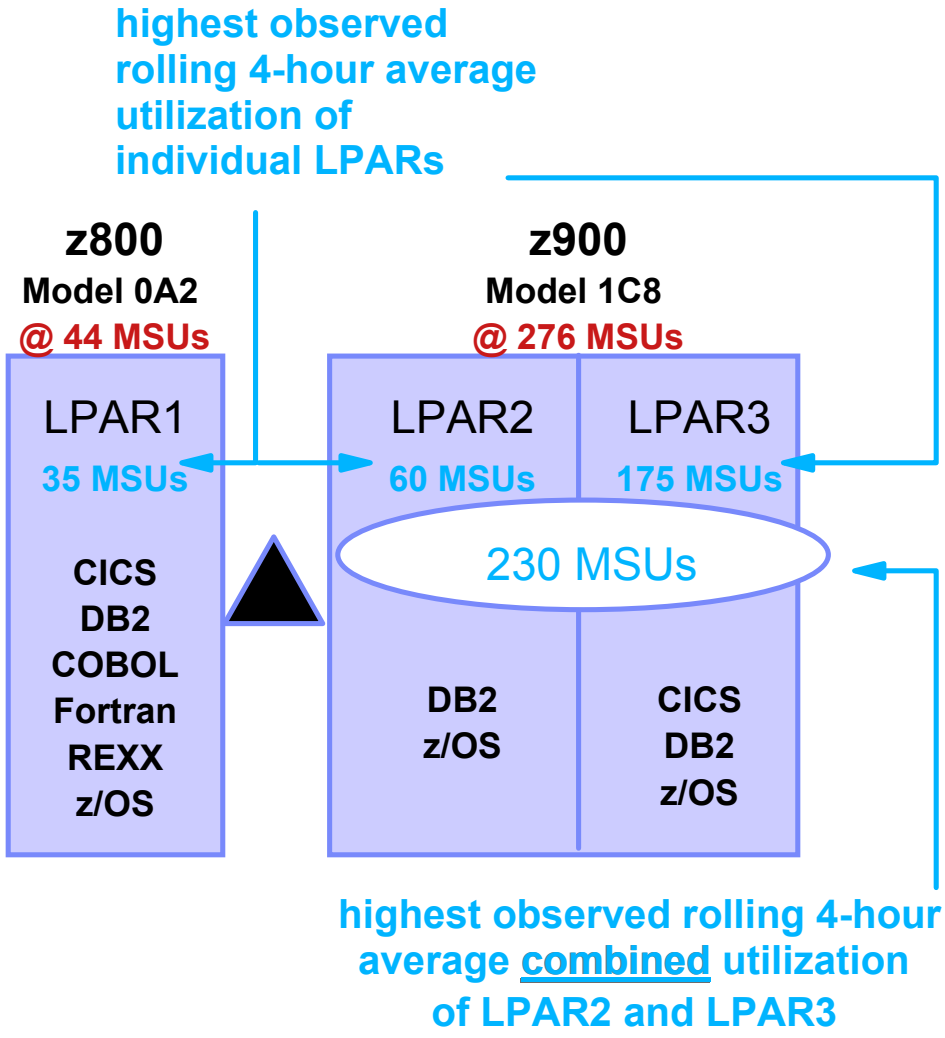
TWLC	MSU Range	z890 Models	Fortran	Rexx
Tier A or	1 - 11 MSUs	110, 120, 210, 310	197	530
Tier B or	12 - 15 MSUs	130, 220, 410	213	576
Tier C or	16 - 40 MSUs	140 150 160 230 240 320 330 420	253	691
Tier D or	41 - 75 MSUs	170 250 260 340 350 430 440	477	1335
Tier E or	76 - 1500 MSUs	270 360 370 450 460 470	636	1806
Tier F or	1501+ MSUs			

SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

WLC (VWLC/FWLC) Pricing Example

	Product	WLC SubCap	WLC FullCap	PSLC
S	COBOL 5648A25	$2,243 35 MSUs	$2,639 44 MSUs	$2,509 44 MSUs
C	Fortran 5668805	648 Flat WLC	648 Flat WLC	517 44 MSUs
C	REXX 5695013	1,842 Flat WLC	1,842 Flat WLC	1,450 44 MSUs
S	CICS TS 5655E93	32,978 210 MSUs	42,003 320 MSUs	38,034 320 MSUs
S	DB2 V7 5675DB2	31,876 265 MSUs	35,801 320 MSUs	33,626 320 MSUs
S	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

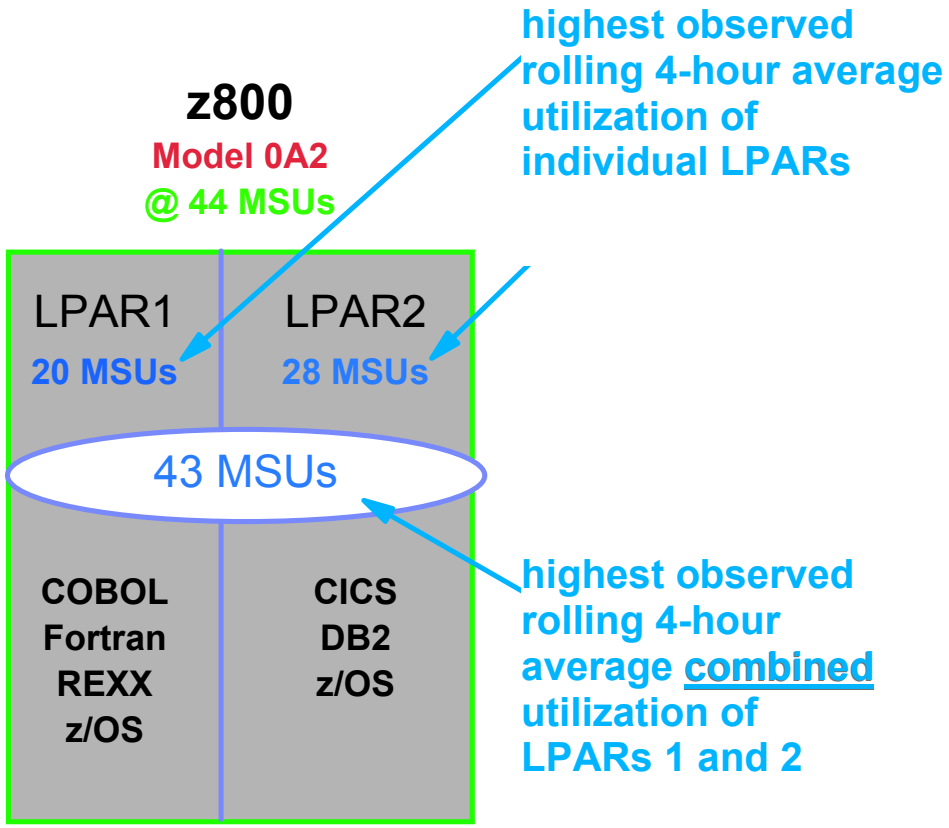


SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

z800 EWLC/zELC Pricing Example

	Product	EWLC Sub-Cap	EWLC Full-Cap	zELC 0A2
S	COBOL 5648A25	$1129 20 MSUs	$2459 44 MSUs	$2286 zELC 0A2
C	Fortran 5668805	477 zELC 0A2	477 zELC 0A2	477 zELC 0A2
C	REXX 5695013	1335 zELC 0A2	2459 zELC 0A2	1335 zELC 0A2
S	CICS TS 5655147	7209 28 MSUs	12513 44 MSUs	11193 zELC 0A2
S	DB2 V7 5675DB2	6908 28 MSUs	11616 44 MSUs	11448 zELC 0A2
S	z/OS 5694A01	15960 43 MSUs	16279 44 MSUs	17811 zELC 0A2
	TOTAL	$33,018	$44,679	$44,550

Prices in US$ as of 7May04

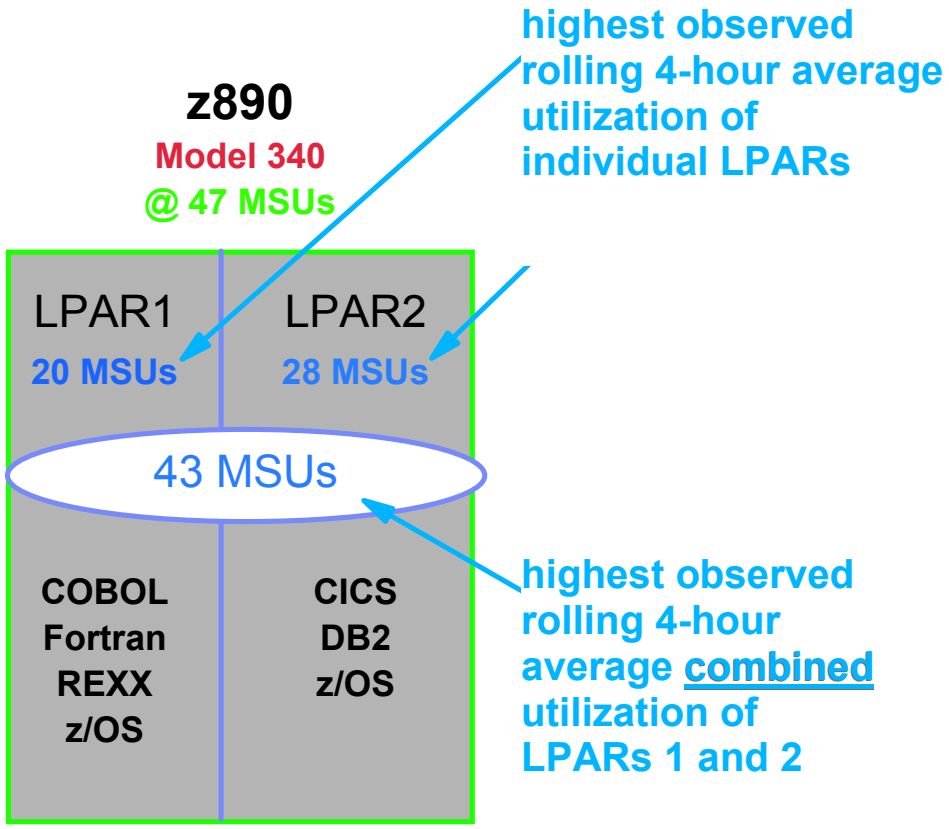


SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

z890 EWLC + TWLC Pricing Example

	Product	EWLC SubCap	EWLC FullCap
S	COBOL 5648A25	$1129 20 MSUs	$2548 47 MSUs
C	Fortran 5668805	477 TWLC TD	477 TWLC TD
C	REXX 5695013	1335 TWLC TD	1335 TWLC TD
S	CICS TS 5655147	7209 28 MSUs	13052 47 MSUs
S	DB2 V7 5675DB2	6908 28 MSUs	12118 47 MSUs
S	z/OS 5694A01	15,960 43 MSUs	17236 47 MSUs
	TOTAL	$33,018	$46,766

Prices in US$ as of 7May04



SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

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 product utilization... it is LPAR utilization

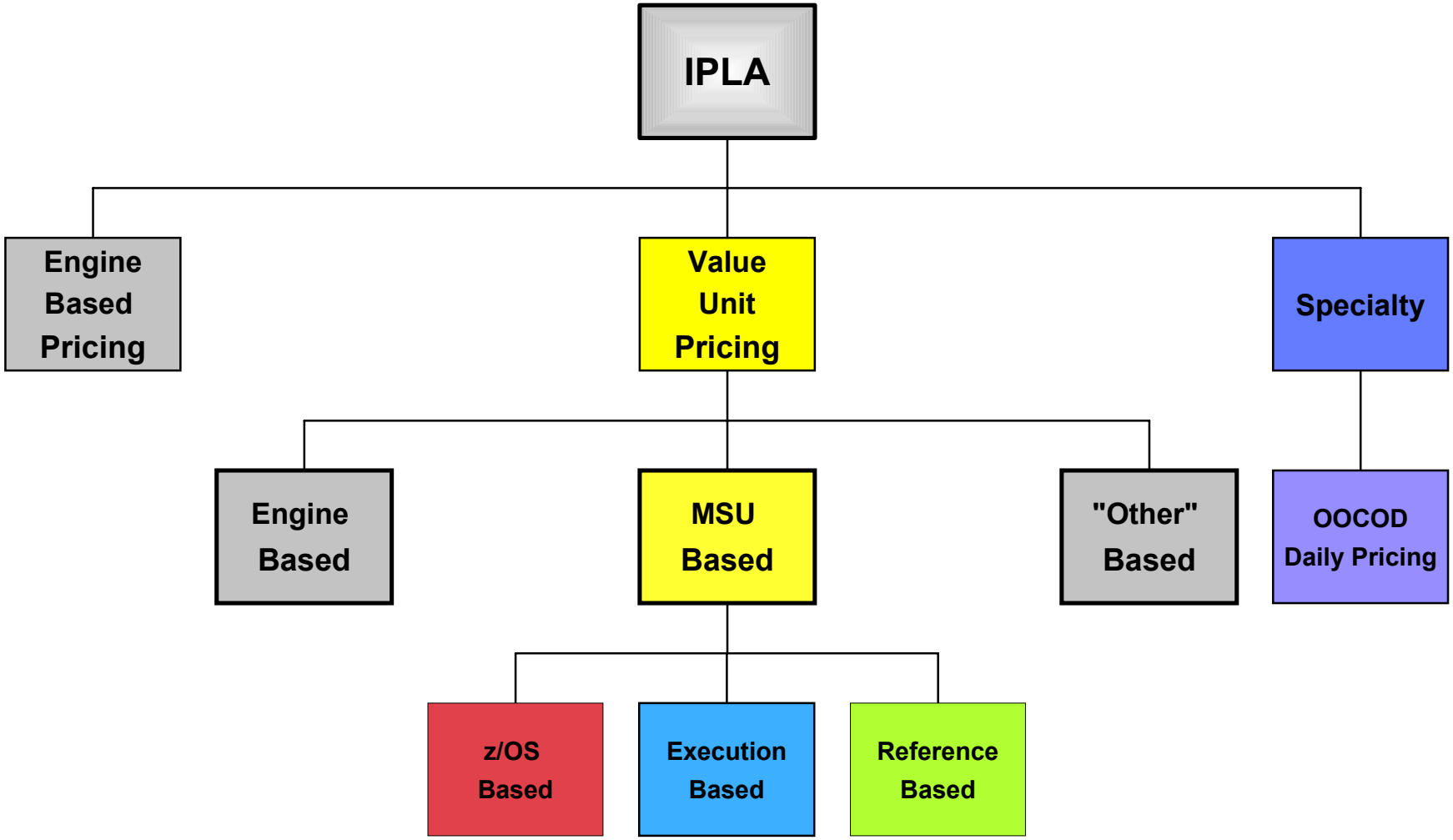
Monthly License Charges Machine Summary

	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 at no charge
  - 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
- For each zSeries IPLA Product...
  - there is a unique product ID per version
  - there is a common S&S product ID across all versions

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

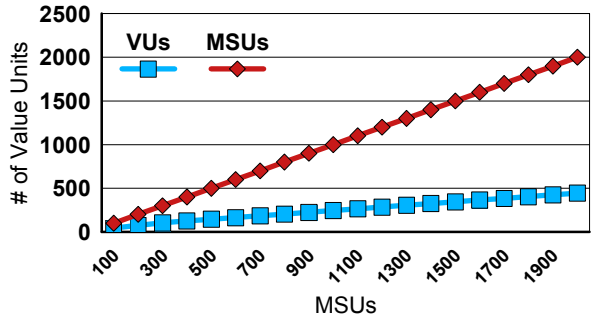
Value Unit Overview

- 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)

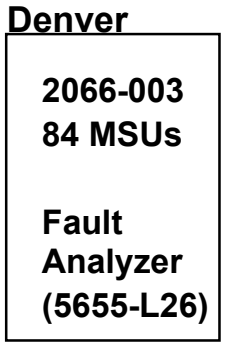
Fault Analyzer 2000 MSUs => 444 VUs => $1.03M ($515/MSU)

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

They are presented here for illustrative purposes only.

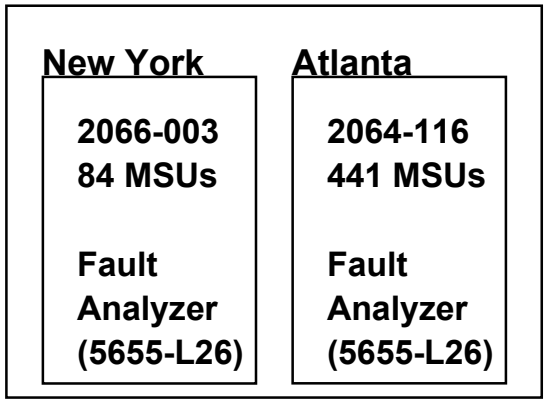
IPLA Value Unit Enterprise Aggregation

- Applies to **all** IPLA Value Unit Bases (e.g., MSUs, Engines)
- 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



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)



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)

SW Prices in US$ current as of 7May04
They are presented here for illustrative purposes only.

Summary of MSU Based Value Unit Ts & Cs

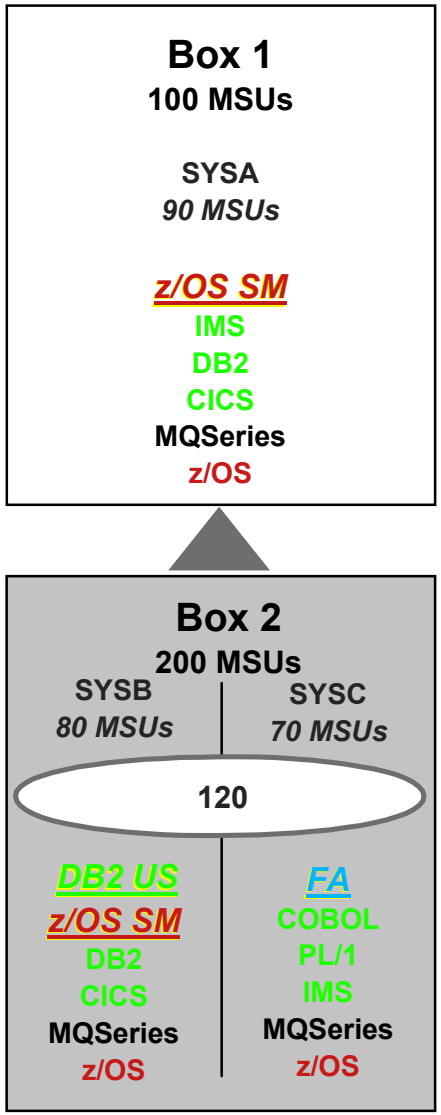
Most zSeries IPLA Programs with MSU based Value Unit Pricing will fall into one of the following categories...

	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**

http://www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo/ipla.html

NOTE: product announcement materials for "unclassified" products will outline the applicable Ts & Cs.

IPLA Pricing Examples



- 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 Materials

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
- SubCapacity Reporting Tool Help
  - http://ibm.com/zseries/swprice/scrt/scrt_askme.html
- SubCapacity 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

The End

Thank You

Visit the zSeries Software Pricing Website

ibm.com/zseries/swprice