z/VSE Business, Strategy, News & Pricing

VM Workshop 2019, Richmond, VA

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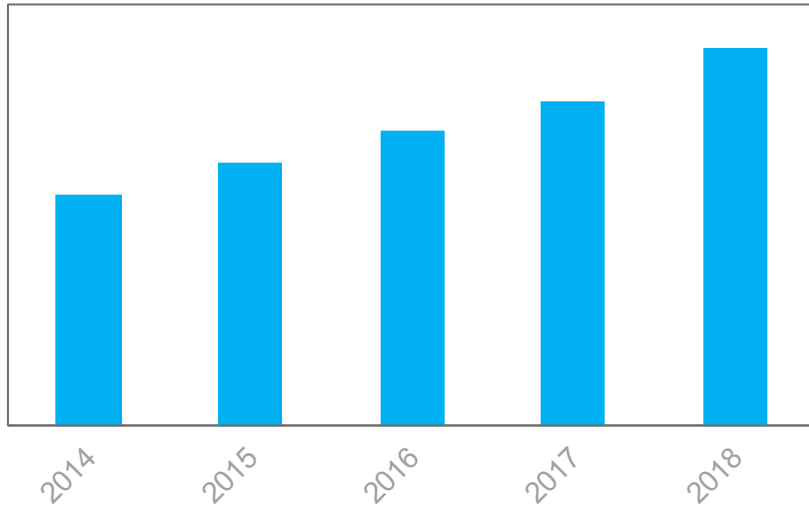
Agenda

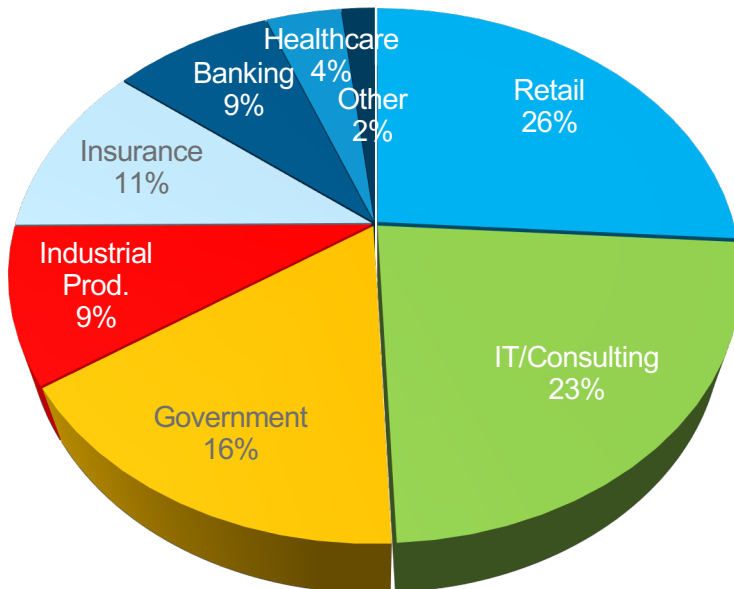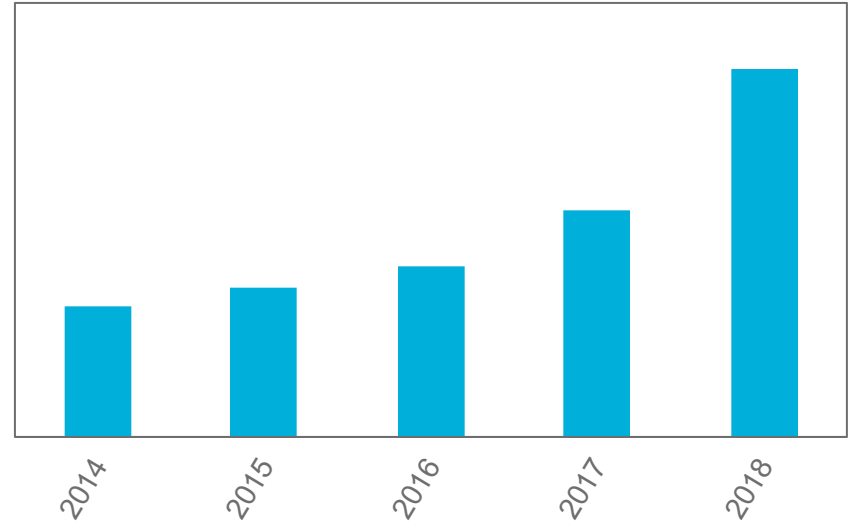- **z/VSE Business, Strategy & News**

- z/VSE Pricing

Business

z/VSE Traditional Workload MIPS/License

Linux on z MIPS driven and integrated with z/VSE

- **z/VSE customer's workload continue to grow driven by new (Linux) collocated workload**

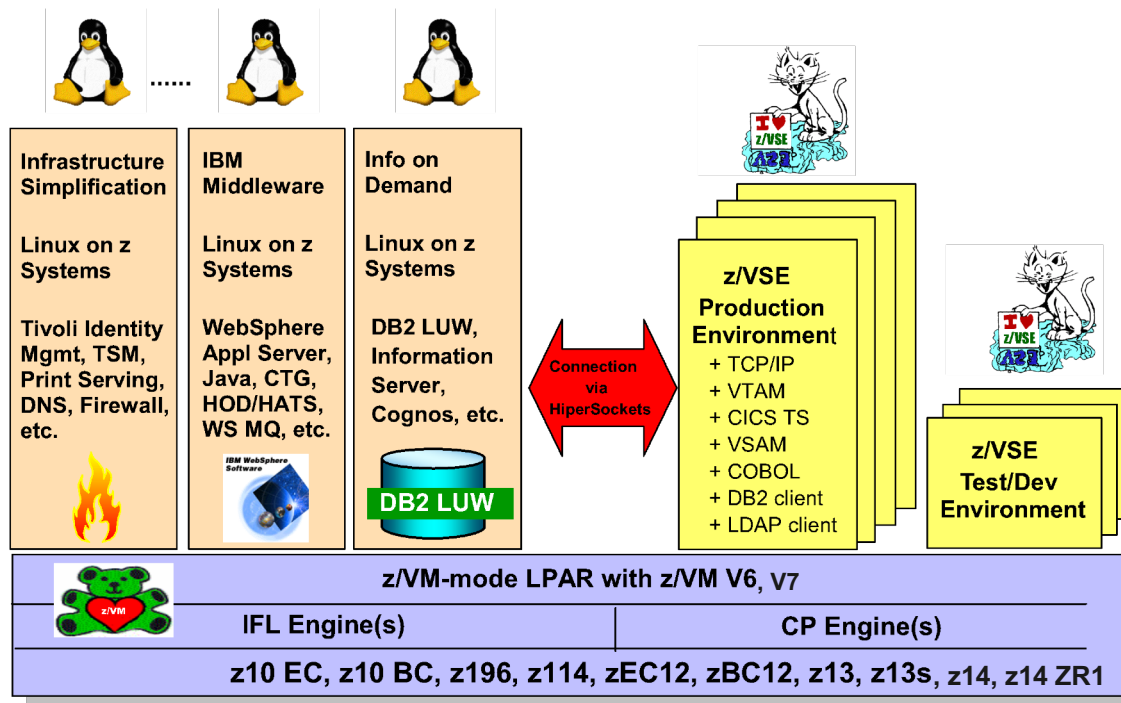- **z/VSE remains important for critical Industries**

Strategy

Protect existing z/VSE investments

Integrate using middleware and z/VSE connectors

**E**xtend with Linux on IBM Z technology & solutions

- **Hybrid Environment** leveraging z/VSE, z/VM, and Linux on IBM Z

Infrastructure Simplification	IBM Middleware	Info on Demand		z/VSE Production Environment	z/VSE Test/Dev Environment
Linux on z Systems	Linux on z Systems	Linux on z Systems	Connection via HiperSockets	+ TCP/IP + VTAM + CICS TS + VSAM + COBOL + DB2 client + LDAP client	
Tivoli Identity Mgmt, TSM, Print Serving, DNS, Firewall, etc.	WebSphere Appl Server, Java, CTG, HOD/HATS, WS MQ, etc.	DB2 LUW, Information Server, Cognos, etc. DB2 LUW			

z/VM-mode LPAR with z/VM V6, V7

IFL Engine(s)	CP Engine(s)

z10 EC, z10 BC, z196, z114, zEC12, zBC12, z13, z13s, z14, z14 ZR1

z/VSE Connectors

- GUI to z/VSE: z/VSE Navigator
- z/VSE Health Checker
- z/VSE Monitoring: SNMP Agent

- Synch. of VSAM or DB2 data
- Integration of SQL DBs via DBCLI API
- 3270 -> Web : CICS Web Support
- Webservices (SOAP and **REST**)

- LAN Printer enablement
- Virtual Tape Server

- Operation/Workflow Integration with z/VSE Script Server
- GUI Development Env.
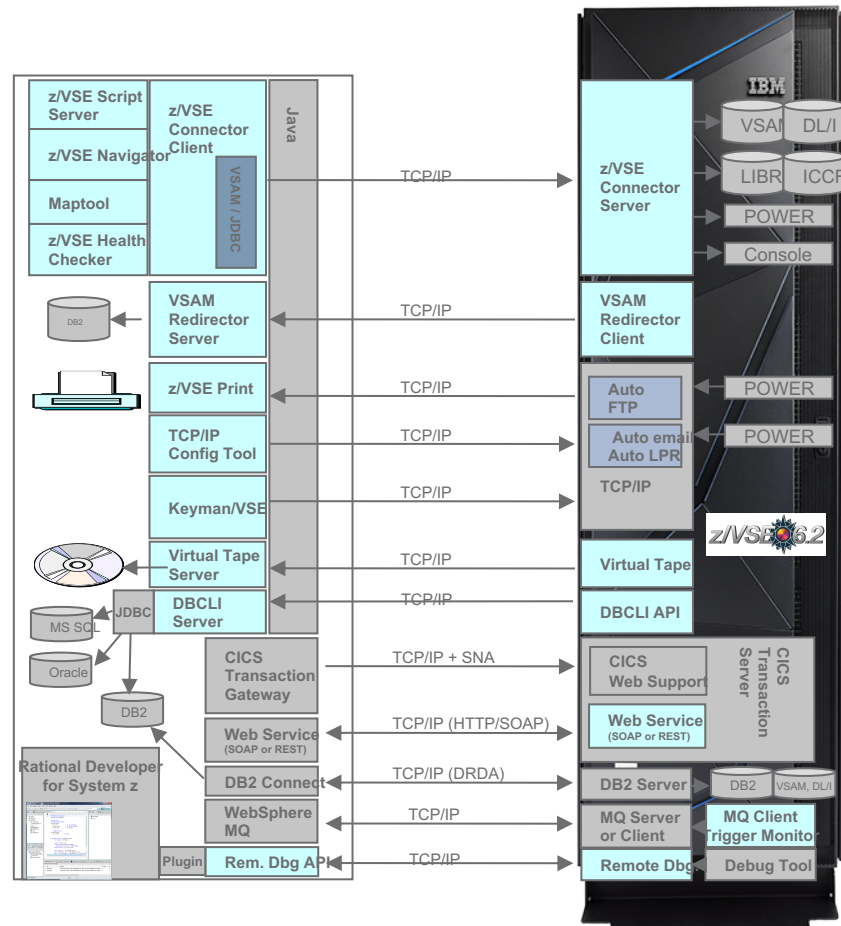
Roadmap

z/VSE Continuous Delivery
DL/I 1.12.1 with support for >4GB, ICKDFS PAV
HW enablement, Networking, Security

z/VSE 6.2: **GA: 1.12.2017**
z114/z196 or newer, Migration Pricing Option
HW exploitation, CICS TS V2.2 (HTTP 1.1) & CICS
Explorer, RESTfull Engine, Easy of use, Networking and
Security enhancements

z/VSE 6.1 GA: 27.11.2015 **end of marketing: 1.12.2017**
end of service: 30.6.2019
CICS TS for z/VSE 2.1: CICS Explorer update,
Channels & Containers; TCP/IP for z/VSE 2.1,
IPv6/VSE 1.2, z10 or newer; z Systems exploitation

z/VSE 5.2 GA: 25.4.2014; **end of service: 31.10.2018**
zEnterprise exploitation, device support
Tapeless installation, networking / security enhancements

z/VSE 5.1 GA: 11.2011; **end of service: 30.6.2016**
64 bit virtual, zEnterprise exploitation, z9 or newer
z/VSE 5.1.1 GA: 6.2012: CICS Explorer, LFP in LPAR, database connector
z/VSE 5.1.2 GA: 6.2013: TS1140, 64 bit I/O, openSSL, db connector enhancements

IBM Z support (or not)

VSE Release	z900 / z800	z990 / z890	z9 EC (eos 10.2017) /z9 BC (eos 12.2018)	z10 EC / z10 BC (eos 12.2019)	z196 / z114 / zEC12 / zBC12 / z13 / z13s	z14
z/VSE 6.2	No	No	No	No	Yes	Yes
z/VSE 6.1 (eos 6.2019)	No	No	No	Yes	Yes	Yes
z/VSE 5.2 (eos 10.2018)	No	No	Yes	Yes	Yes	Yes
z/VSE 5.1 (eos 6.2016)	No	No	Yes	Yes	Yes	Yes restricted
z/VSE 4.3	Yes	Yes	Yes	Yes	Yes	Yes restricted
z/VSE 4.2	Yes	Yes	Yes	Yes	Yes	Yes restricted
z/VSE 4.1	Yes	Yes	Yes	Yes	Yes	Yes restricted
z/VSE 3.1	Yes	Yes	Yes	Yes	Yes	No
VSE/ESA 2.7	Yes	Yes	Yes	Yes	Yes	No
VSE/ESA 2.6	Yes	Yes	Yes	Yes	Yes	No
VSE/ESA 2.5	Yes	Yes	No	No	No	No
VSE/ESA 2.4	Yes	No	No	No	No	No
VSE/ESA 2.3	Yes	No	No	No	No	No

z/VSE release / Hardware status: ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/zVSE_Status.pdf
ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/zVSE_Status_Unsupported.pdf

z/VSE 6.2 Cont. Delivery and z14 Model ZR1

Following HW features are supported by z/VSE

- **TTO** (SW pricing) TU6

- IPL and run in **z/Architecture** mode

- Better performance with **SIMD** support for Vendor and Customers using assembler

- Faster I/O with **FICON Express16S+** with link rate of 16 Gbps (ECKD/DASD & SCSI/FCP)
  - Including **zHPF**
  - Including **ICKDSF PAV enablement**

- **Integrated Storage or other options** (IBM or non-IBM, till 16U standard rack)

- Better performance with **OSA Express6S & 7S**

- Better performance with HW Encryption with **Crypto Express6S** and **CPACF**
  - Including **>16 domains & ECC** support

More news

- Latest z/VSE Announcement (content not already mentioned in this presentation)
  - Support for DS8882F (integrated storage)
  - Support for TS7700 R 4.2
  - New CICS Explorer client V5.5
  - IBM TCP/IP V2.2 updated to the 2.2.5 level (APAR PH05864)
  - Debug Tool updated to support CICS TS for z/VSE V2.2 (APAR PI75848)

- More info in the Announcement:
  - https://www-01.ibm.com/common/ssi/ShowDoc.wss?docURL=/common/ssi/rep_ca/0/897/ENUS219-130/index.html&request_locale=en

Not announced … IBM Websites

- Motivation: simplify the thousand of websites that each product have to content type oriented, so that related content is easy to find.

- Result: that might be interesting for customers that are not familiar with our products, content…but for customers using our website as reference is a total chaos. Sorry.

- Short guide:
  - Marketing pages… Landing page: https://www.ibm.com/it-infrastructure/z/zvse
  - Marketplace pages… Products that are sold and high level information about it: https://www.ibm.com/us-en/marketplace/zvse
  - Rest Resources: either pdfs, Knowledge Center, IBM Support or Slideshare.
    - Connectors and Tools: https://www.ibm.com/it-infrastructure/z/zvse-downloads
    - Upcoming events: https://www.ibm.com/it-infrastructure/z/zvse-events
    - Support: http://www-01.ibm.com/support/docview.wss?uid=isg3T1027442 ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/zVSE_Status.pdf
    - ShopZ: http://www-304.ibm.com/software/shopzseries/ShopzSeries_public.wss
    - Documentation: https://www.ibm.com/support/knowledgecenter/SSB27H_6.2.0/zvse_welcome_6.2.0.html
    - White Papers / Articles and Presentations:
      https://www.ibm.com/support/knowledgecenter/SSB27H_6.2.0/technical_articles_and_whitepapers.html
      ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/zVSE_Completed_LVCs.pdf
      https://www.slideshare.net/search/slideshow?searchfrom=header&q=z%2FVSE

z/VSE in the internet

- z/VSE Homepage: www.ibm.com/vse

- Redbook: Introduction to the New Mainframe: IBM z/VSE Basics
  - http://www.redbooks.ibm.com/abstracts/sg247436.html?Open

- Redbook: Migration to CICS Transaction Server for z/VSE V2.1
  - http://www.redbooks.ibm.com/abstracts/sg248390.html?Open

- Redbook: Security on IBM z/VSE
  - http://www.redbooks.ibm.com/abstracts/sg247691.html?Open

- *NEW* How to use REST support on z/VSE for access to IBM MQ REST API
  - ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/VSE2RESTMQ.pdf

- z/VSE Knowledge Center:
  - http://www-01.ibm.com/support/knowledgecenter/SSB27H/zvse_welcome.html
  - Tech. Articles, Whitepapers: https://www.ibm.com/support/knowledgecenter/SSB27H_6.2.0/technical_articles_and_whitepapers.html

- CICS TS for z/VSE Knowledge Center:
  - http://www-01.ibm.com/support/knowledgecenter/SSB2JE_1.1.1/welcome.html

- Ingolf's z/VSE blog:
  - www.ibm.com/developerworks/mydeveloperworks/blogs/vse/
  - Use „Tags" to search for topics

- VSE-L discussion list:
  - https://groups.google.com/forum/?fromgroups#!forum/bit.listserv.vse-l

Need something else?

- You may submit requirements at conferences (GSE, Tech. Univ., VM Workshop, ...)
    - [IBM Systems Technical University](), Worldwide 2019
    - [VM Workshop](), June 26th – 29th in Richmond, VA, US
    - [International GSE](), October 21st – 23rd in Leipzig, Germany

- z/VSE requirements via the Request for Enhancements (RFE) database:
    - http://www.ibm.com/developerworks/rfe/
    - Please select the following for z/VSE requirements:
        - Brand = Servers and System Software
        - Product = z/VSE

- CICS Transaction Server requirements via the Request for Enhancement (RFE) database:
    - http://www.ibm.com/developerworks/rfe/
    - Please select the following for z/VSE-CICS requirements:
        - Brand = Servers and System Software
        - Product = CICS Transaction Server

Agenda

- z/VSE Business, Strategy & News
- **z/VSE Pricing**

Pricing Website

https://www.ibm.com/it-infrastructure/z/software/pricing-licensing

IBM **IT Infrastructure**

IBM Z   Hardware ⌄   OS ⌄   Software   Resources ⌄

IBM Z software licensing

Explore the licensing terms and conditions for IBM software products that run on the mainframe.

| Overview | Tailored Fit Pricing | **Licensing** | CMP | Tools | Resources | Help |

What we offer for licensing

Get an overview of IBM Z software licensing, including MLC, zIPLA, sub-capacity, country multiplex and more. Explore these options for IBM software products that run on the mainframe below.

Learn about reporting and charging as well as options for migrating and transitioning.

Explore MVM (214 KB)

Pricing Website – cont.

MLC licensing

What is Monthly License Charge (MLC)?

MLC is a recurring charge that is applied monthly. This charge includes the right to use the product and provides access to IBM product support during the support period. An IBM pricing metric establishes both the prices and the applicable terms and conditions for IBM software products.

Select an MLC pricing metric, based on your goals and/or your environment. The selected metric will be used to price MLC products, such as z/OS, z/TPF, z/VSE, middleware, compilers and selected systems management tools and utilities.

PDF Advanced Workload License Charges (254 KB)

PDF Advanced Entry Workload Charges (151 KB)

PDF Country Multiplex License Charges (207 KB)

PDF Workload License Charges (214 KB)

PDF Entry Workload License Charges (339 KB)

PDF Midrange Workload License Charges (288 KB)

PDF New Application License Charges (266 KB)

PDF Multiplex zNALC (266 KB)

PDF z Series Entry License Charges (195 KB)

PDF S/390 Usage Pricing Charges (199 KB)

PDF Parallel Sysplex License Charges (179 KB)

PDF Usage License Charges (199 KB)

Pricing Website – cont.

zIPLA licensing

What are the benefits of zIPLA licensing?

International Program License Agreement (IPLA) programs have a one-time-charge (OTC) and an optional annual maintenance charge, called Subscription & Support.

This annual charge includes access to IBM technical support and enables you to obtain version upgrades at no charge for products that generally fall under the zIPLA such app development tools, CICS tools, data management tools, WebSphere for Z products, Linux on Z middleware and z/VM Version 4 and later.

Common pricing metrics

Value Unit (VU) pricing is the most common pricing metric for IPLA software on the mainframe.

Processor Value Unit pricing, under the Passport Advantage software licensing program, is a per-engine charge primarily used for Linux on Z middleware products.

PDF   Value Unit pricing (218 KB)

PDF   Value Unit Converter OOCoD (249 KB)

PDF   z/VM (230 KB)

PDF   Value Unit exhibits (201 KB)

PDF   Serialization and POE (180 KB)

Pricing Website – cont.

Sub-capacity licensing

What is sub-capacity?

Sub-capacity is software charges for certain IBM products based on the utilization capacity of the logical partitions (LPARs) on which the product runs.

In addition to an explanation of the contractual terms and conditions there are also different procedures to follow for certain circumstances (such as machine upgrades) and some information about the technology which forms the basis for the sub-capacity licensing rules.

PDF   Learn more (275 KB)

Steps for sub-capacity reporting

1. Customer submits their report to IBM by the 9th of the month for the prior month's data collection period (e.g. Aug 2 to Sept 1).
2. IBM receives and processes monthly sub-capacity report, updating billing based upon the reported utilization.
3. Customer receives system generated invoice on the first of the following month based upon reported utilization from the submitted month.

PDF   Linux (524 KB)   PDF   z/TPF (179 KB)   PDF   z/VSE (191 KB)

PDF   z/OS (200 KB)   PDF   z/VM (386 KB)

Display a menu

Pricing Website – cont.

IBM Z software pricing tools

Use these toolkits to get started with selected pricing options

| Overview | Tailored Fit Pricing | Licensing | CMP | **Tools** | Resources | Help |

Sub-capacity reporting

SCRT

Generate sub-capacity reports or multiplex reports. You must submit SCRT report(s) monthly to qualify for sub-capacity or multiplex charges.

PDF Getting started (314 KB)

PDF SCRT levels (167 KB)

SCRT downloads

→ Download z/OS

→ Download Linux

→ Download Windows

SCRT89RU

You may be required to use the SCRT89 Record Utility program to post-process your SCRT89 data prior to running the SCRT.

PDF How to (338 KB)

→ Download

Pricing Website – cont.

https://www.ibm.com/software/lms/

Sign in

IBM

| License Management Support | Language selection | E-mail subscription | Help | gmuelas ∨ |

Search

Software >

License Management Support

Newsflash

+ **V27.1 New Version 27 Jun 2019**

IBM announces the availability of the Sub-Capacity Reporting Tool Version 27.

SCRT V27.1.0

[Read More]

Welcome to the LMS application.

The following functions are available:

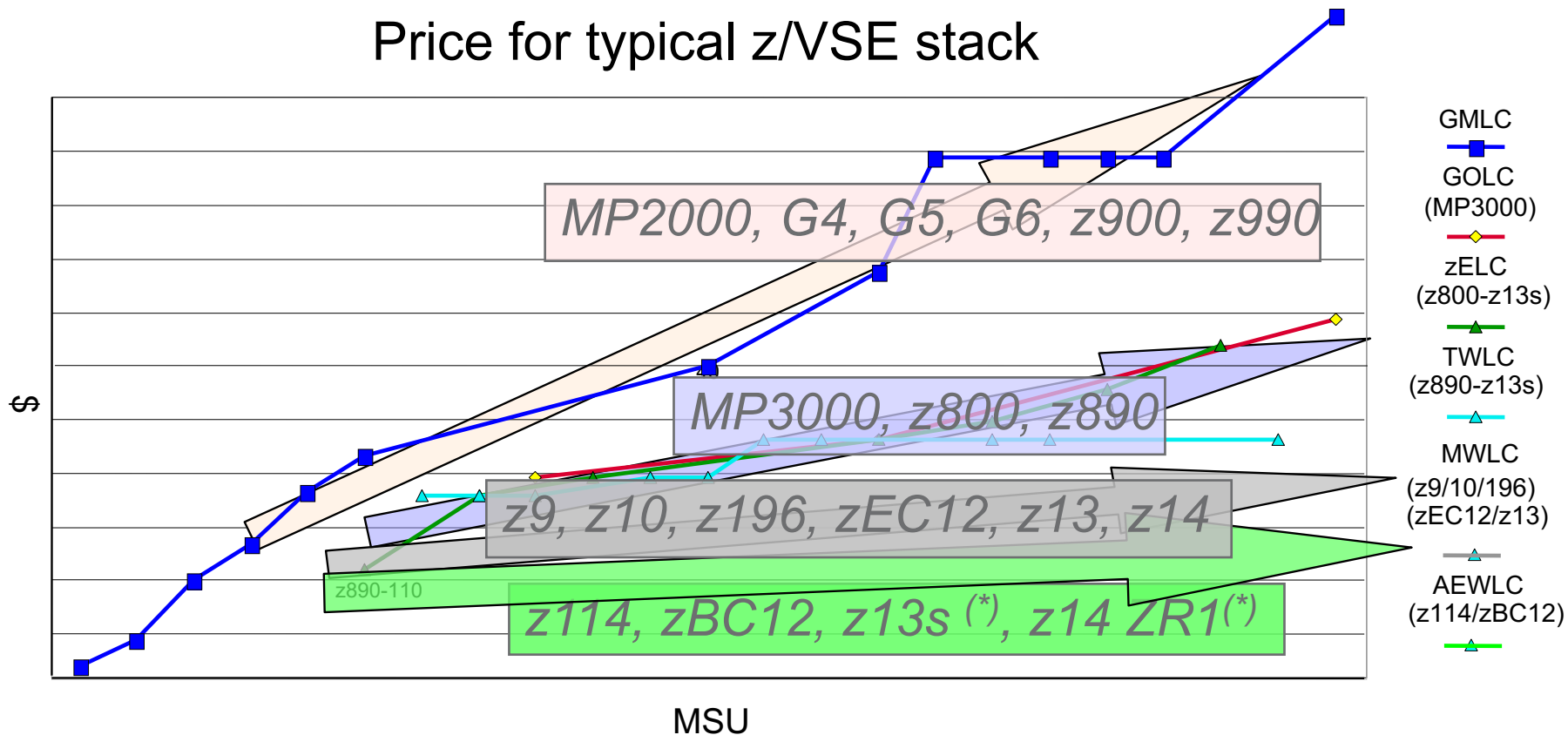| Data submission (not available) | DevTest Sizing Calculator | Language selection | E-mail subscription | Help |

z/VSE Software Pricing Metrics

Price for typical z/VSE stack

Legend:
- **GMLC**
- **GOLC** (MP3000)
- **zELC** (z800-z13s)
- **TWLC** (z890-z13s)
- **MWLC** (z9/10/196) (zEC12/z13)
- **AEWLC** (z114/zBC12)

Chart labels:
- MP2000, G4, G5, G6, z900, z990
- MP3000, z800, z890
- z9, z10, z196, zEC12, z13, z14
- z890-110
- z114, zBC12, z13s (*), z14 ZR1 (*)

Axes: $ (vertical), MSU (horizontal)

(*) The entry models of these servers, capacity settings A01 or 110, are priced using zELC.

Typical z/VSE stack consists of z/VSE Operating System, LE, CICS TS, VTAM, TCP/IP, DB2

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AEWLC Technology Transition Offerings

- Technology Update Pricing for z14 Model ZR1 (TU6)
  - For stand-alone **z14 Model ZR1** servers
  - AEWLC **pricing reduction till 18%**
  - For more details, see announcement link

- Technology Update Pricing for z13s (TU4)
  - For stand-alone **z13s** servers
  - AEWLC **pricing reduction till 13%**
  - For more details, see announcement link

- Technology Update Pricing for zBC12 (TU2)
  - For stand-alone **zBC12** servers
  - AEWLC **pricing reduction till 5%**
  - For more details, see announcement link

- For more information about AEWLC see this link

Multi-Version Measurement (MVM)

- Multi-Version Measurement (MVM) was [announced](#) Feb. 14th 2017 and the earliest billing effective date was June 1st, 2017. See details [here](#)

- MVM allows clients to selectively deploy new software versions for an unlimited duration, providing more flexible control over their program upgrade cycles

- MVM can be use for:
  - Programs reporting **Sub-Capacity**
    - MVM enables the **combining of all the versions MSUs** to calculate the **latest version billable charges on the same machine**
    - **MVM requires SCRT V24.2.0 or SCRT V24.11.0.**
  - Programs **not** eligible for **Sub-Capacity**
    - MVM enables to **charge Full Capacity MSUs only** for the **latest** licensed **version** and charges for **any earlier versions** of the program are **waived**

- MVM replaces Single Version Charging (SVC), the Migration Pricing Option (MPO) and the IPLA Migration Grace Period
  - It simply **takes away the time limit**
  - If pre-MVM **time limit expired before May 31st**, 2017, must **request in writing to IBM** that MVM be applied

IBM Sub-Capacity Reporting Tool

- **Enables** z/VSE customers to **report and pay** only for the **MSUs used**

- For z/VSE **AEWLC and MWLC** eligible products

- **IBM's policy** requires SCRT reports to be created using the **most current Version** of SCRT. However, IBM does **not require a specific Release or Modification level.**
  - The **Classic version** of SCRT is **no longer supported after October 2017** when SCRT V25 became available
  - **Currently only Java version available and supported**

- For **Java SCRT** and z/VSE **best practices and automation**, please see Using SCRT (Java Version) with z/VSE - Best Practices (PDF, 430KB)

- Latest **V27.1.0** (GA June 27th, 2019)
  - **Needed for reports submitted starting August 2019 on!**
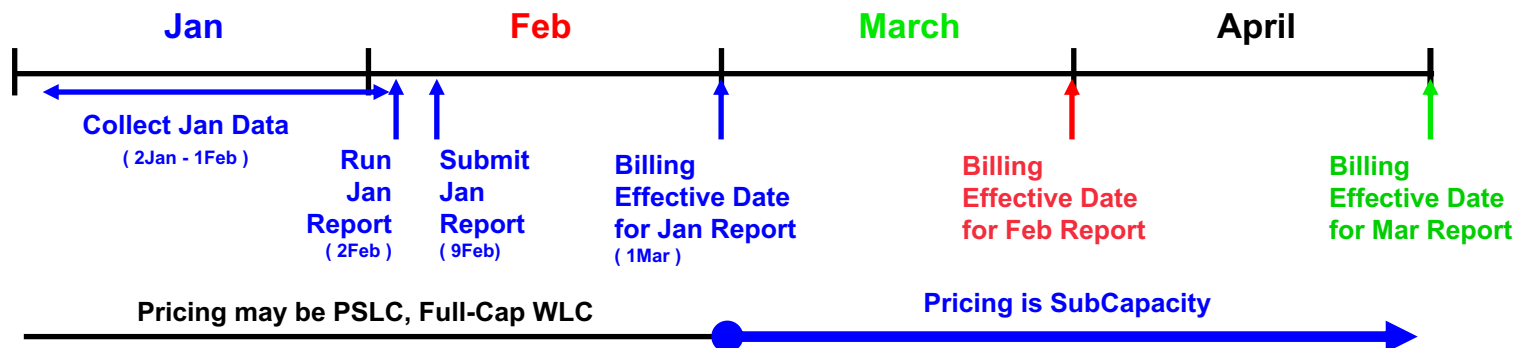
- For more information on IBM SCRT see this link

Sub-Capacity Pricing Terms & Conditions

▪ **Process**
  – Sub-Cap Pricing begins after processing of 1st full month report
  – Data Collection Period: 2nd of the previous month - 1st of current month
  – Submission Period: 2nd - 9th following data collection

▪ **Sub-Capacity Pricing Terms & Conditions**
  – Must report on all LPARS and z/VM guests (No exceptions for "Test", "Sandbox", "Maintenance" LPARs, etc.)
  – minimum of 95% Data Collection
  – Must have "Call Home" reporting active
  – Must retain SMF data for at least 6 months

Jan	**Feb**	**March**	**April**

Collect Jan Data
(2Jan - 1Feb)

Run Jan Report (2Feb)

Submit Jan Report (9Feb)

Billing Effective Date for Jan Report (1Mar)

Billing Effective Date for Feb Report

Billing Effective Date for Mar Report

Pricing may be PSLC, Full-Cap WLC

**Pricing is SubCapacity**

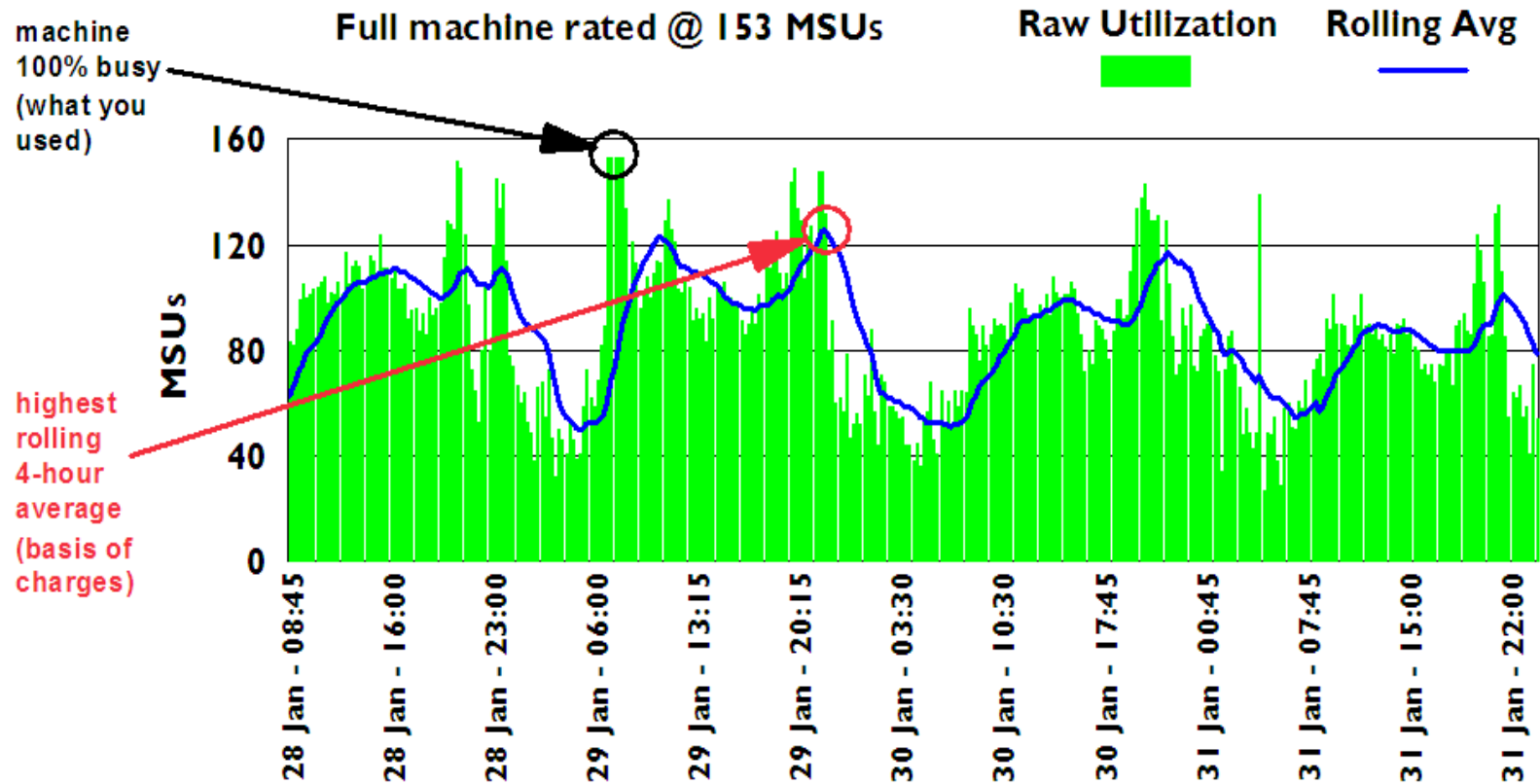# SubCap Concept: Rolling 4-Hour Average Utilization

- Captures the rolling 4-hour average LPAR utilization for each interval in the month
- Capacity and utilization is measured in Millions of Service Units (MSU) per hour

<u>Rolling 4-Hour Average</u>
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
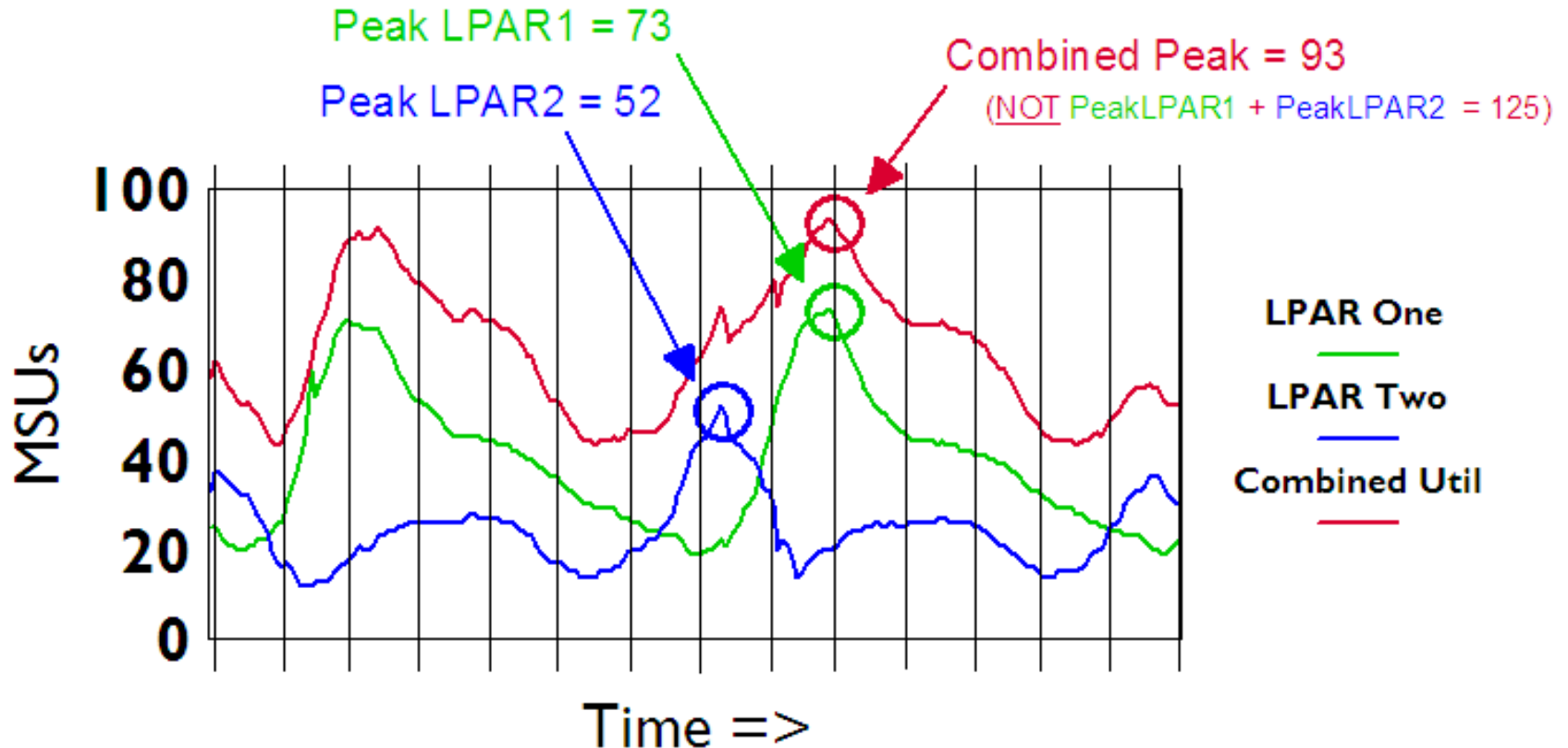3 pm   (12, 1, 2, 3): 80 MSUs
4 pm   (1, 2, 3, 4):   65 MSUs
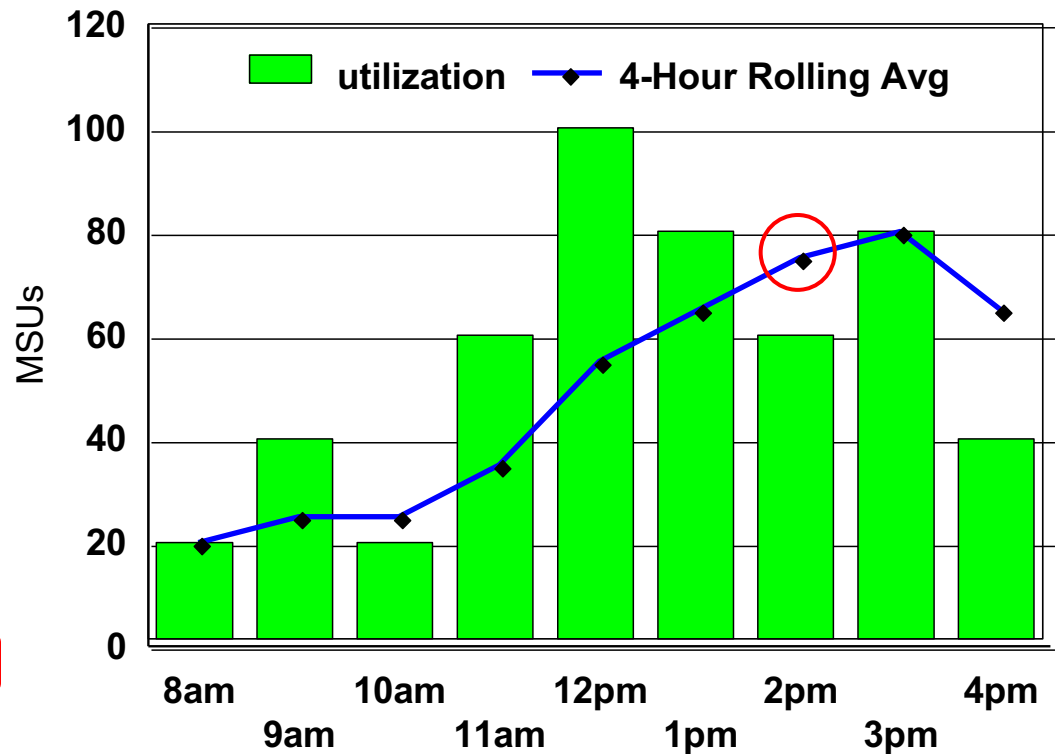
Example: Rolling 4-Hour Average

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

SubCap Concept:
Simultaneous Combined Rolling 4-Hour Average
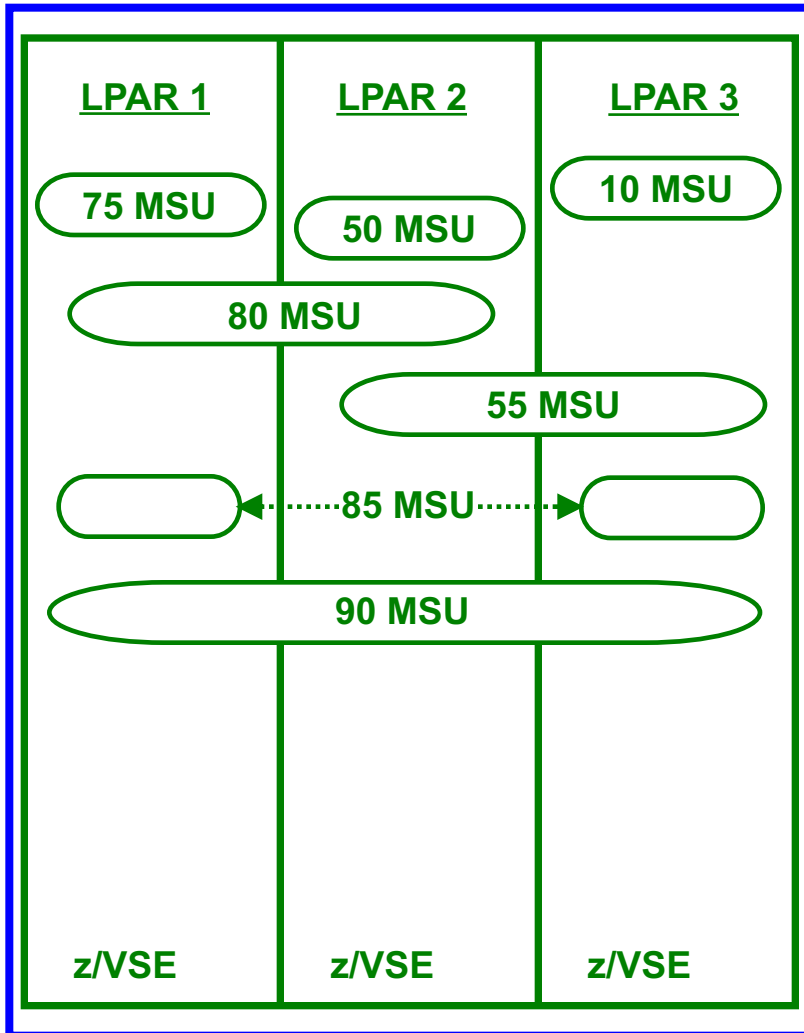
Sub-Capacity Overview

100 MSU Rated Capacity

LPAR 1	LPAR 2	LPAR 3
IPv6	PL/I	COBOL
CICS	DB2	CICS
DB2	DL/I	DL/I
z/VSE	z/VSE	z/VSE

- Full Capacity Pricing
  - Charges based on Machine Capacity of machines where product runs
  - Each SW product on the machine is charged 100 MSUs
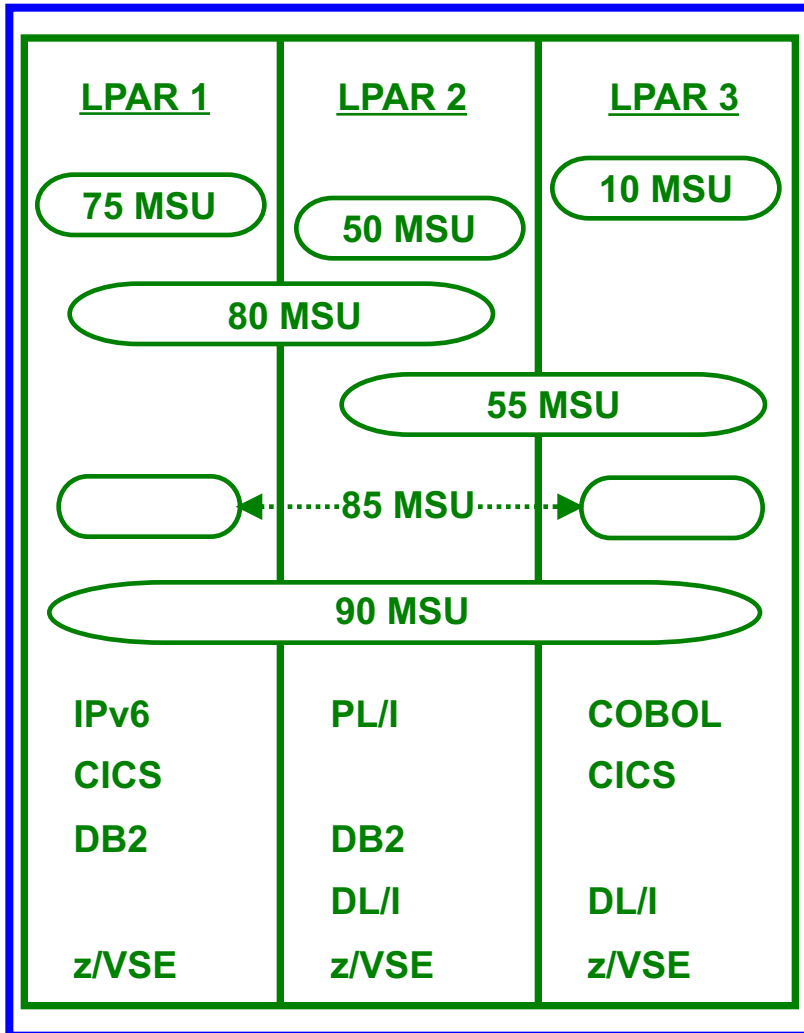
Sub-Capacity Overview

100 MSU Rated Capacity

LPAR 1	LPAR 2	LPAR 3
75 MSU		10 MSU
	50 MSU	
80 MSU		
	55 MSU	
◄····· 85 MSU ·····►		
90 MSU		
z/VSE	z/VSE	z/VSE

- Full Capacity Pricing
  - Charges based on Machine Capacity of machines where product runs

- Sub-Capacity Pricing
  - Charges based on Hardware Utilization of LPARs where product runs
  - Hourly intervals measured
  - Rolling 4-Hour Average calculated for each combination of LPARs
  - Charges based on Monthly Peak R4HA of appropriate LPAR combination
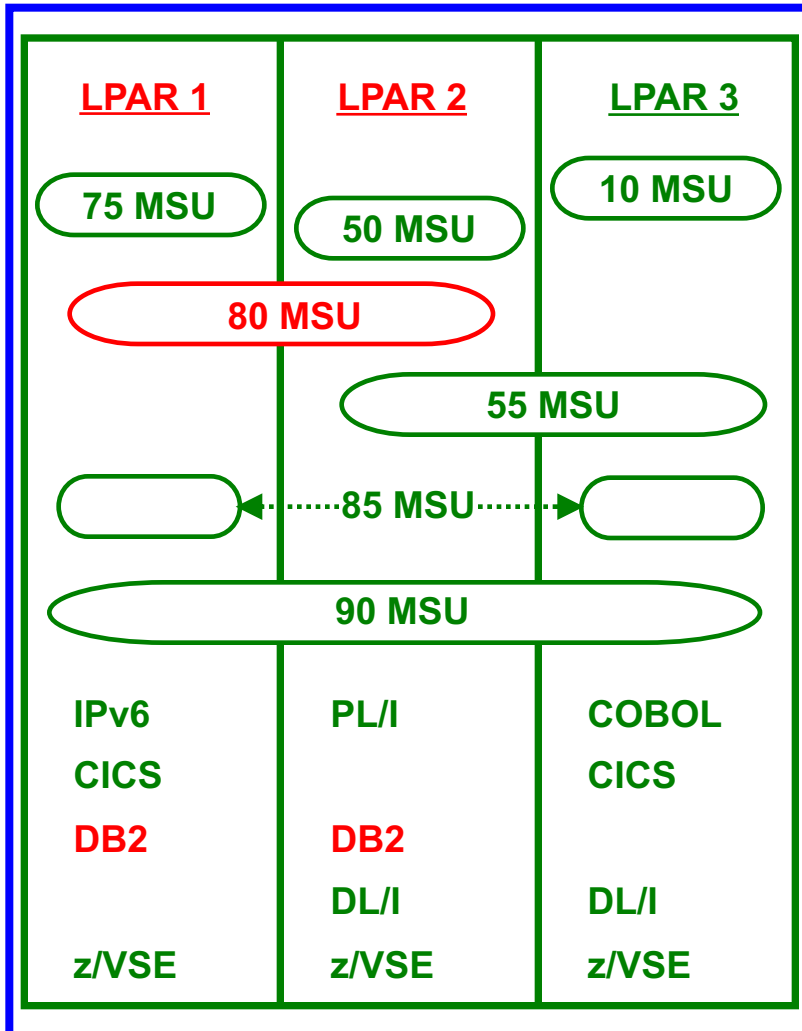
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  - Not based on individual Product measurement
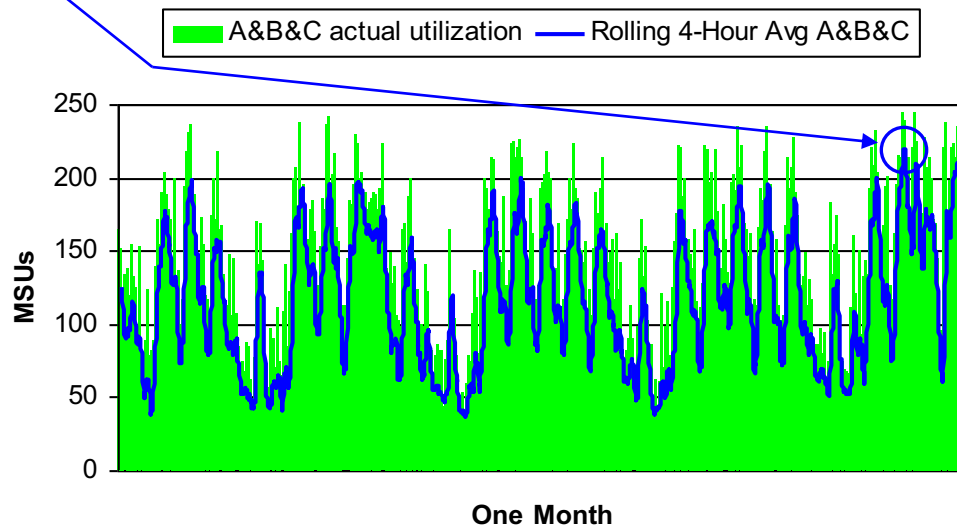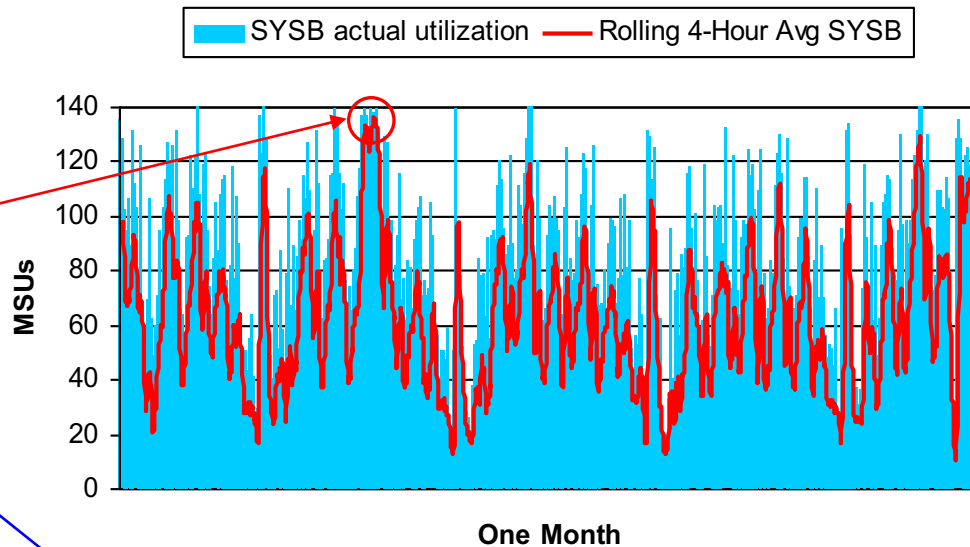
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    *e.g. DB2 is charged 80 MSUs because LPARs 1&2 had a peak R4HA utilization of 80 MSUs and DB2 ran in LPARs 1&2, **not** because DB2 "used" 80 MSUs*

Sub-Capacity Example

System z @ 240 MSUs

SYSA	SYSB	SYSC
	136 MSUs	
	219 MSUs	
	PL/I	
	DB2	
z/VSE	**z/VSE**	**z/VSE**

SCRT Report:

Product	Sub-Cap MSUs
PL/I	136 MSUs
DB2	136 MSUs
z/VSE	219 MSUs

SYSB actual utilization — Rolling 4-Hour Avg SYSB

MSUs vs One Month

A&B&C actual utilization — Rolling 4-Hour Avg A&B&C

MSUs vs One Month

System z @ 240 MSUs

SYSA	SYSB	SYSC
	136 MSUs (NO89)	
	129 MSUs (SCRT89)	
	TCP/IP	
	CICS	
z/VSE	z/VSE	z/VSE
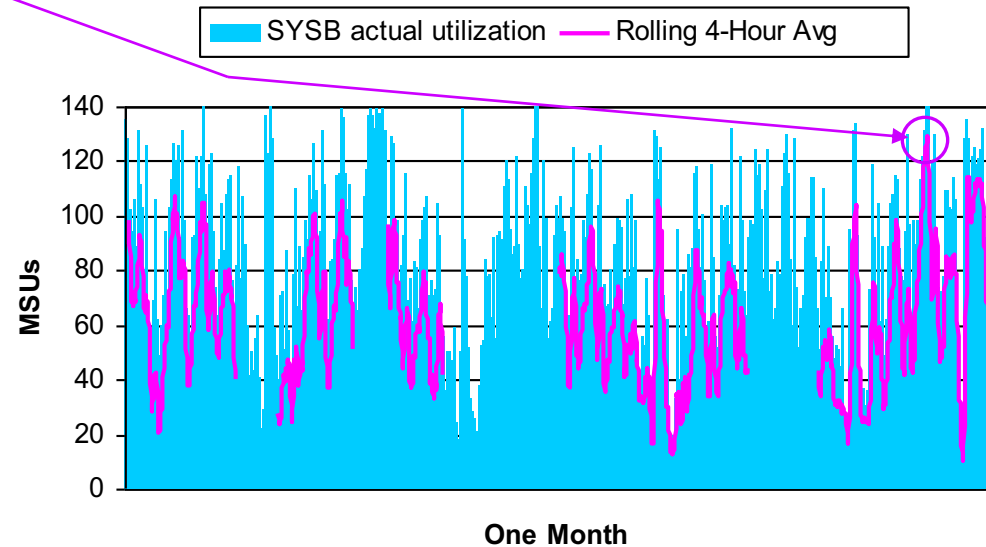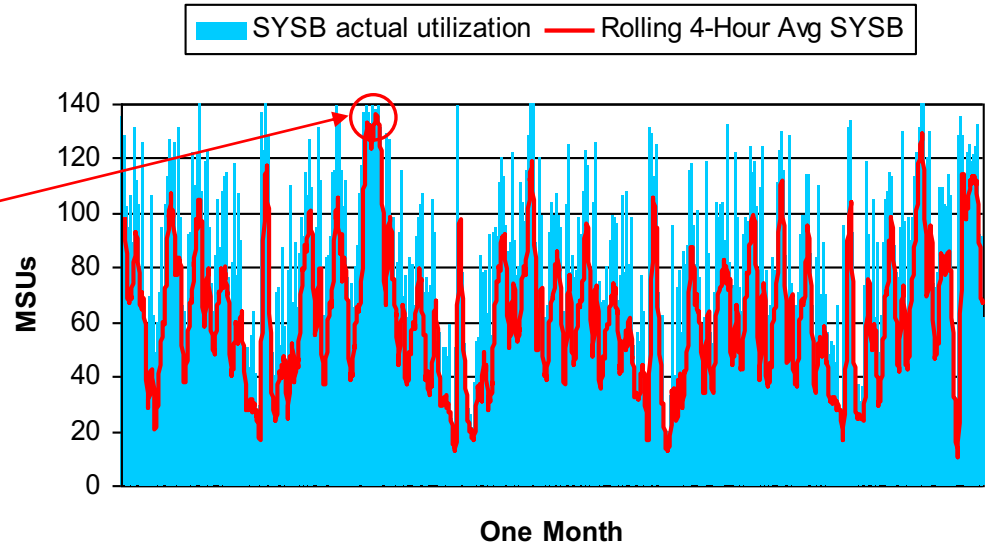
SCRT Report:

Product	Sub-Cap MSUs
TCP/IP	136 MSUs
CICS	129 MSUs
z/VSE	219 MSUs

Legend: SYSB actual utilization — Rolling 4-Hour Avg SYSB

One Month

Legend: SYSB actual utilization — Rolling 4-Hour Avg

One Month

35

SCRT Algorithm

Hour	1	1	2	2	3	3	...	719	719	720	720
LPAR	A	B	A	B	A	B		A	B	A	B
r4hr avg*	70	30	75	30	50	50		100	30	100	10
r4hr A/B	100		105		100			130		110	
z/VSE	yes 100	yes	yes 105	yes	yes 100	yes		yes 130	yes	yes 110	yes
CICS	yes 70		yes 75		yes 50						
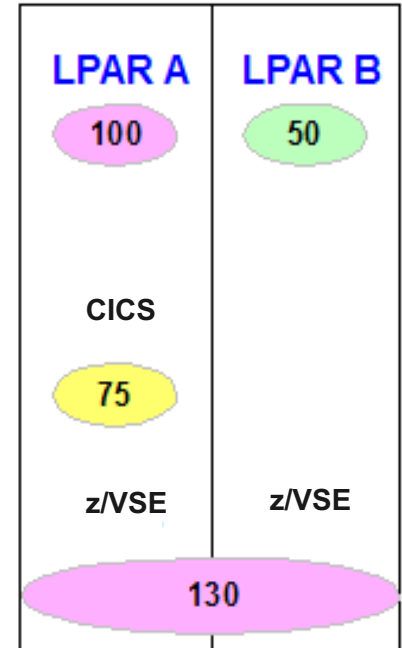
* Respective r4ha for each LPAR

LPAR A	LPAR B
100	50
CICS	
75	
z/VSE	z/VSE
130	

- **True**: Peak interval for A&B where z/VSE ran = hour 719, so z/VSE is 130
- **False**: z/VSE Runs in LPAR A and B, add A (100) + B (50), so z/VSE is 150
- **True**: Peak interval for A where CICS ran = hour 2, so CICS is 75
- **False**: CICS Runs in LPAR A, LPAR A peaks at 100, so CICS is 100

Sub-Capacity Measurement and Reporting on z/VSE

Data Collection | Data Submission

| CMT
Capacity Measurement Tool | → | SCRT89
Records | → | SCRT
Sub-Capacity Reporting Tool | → | Sub-Capacity Report(s) | → | IBM
License Management Support (LMS) Application |
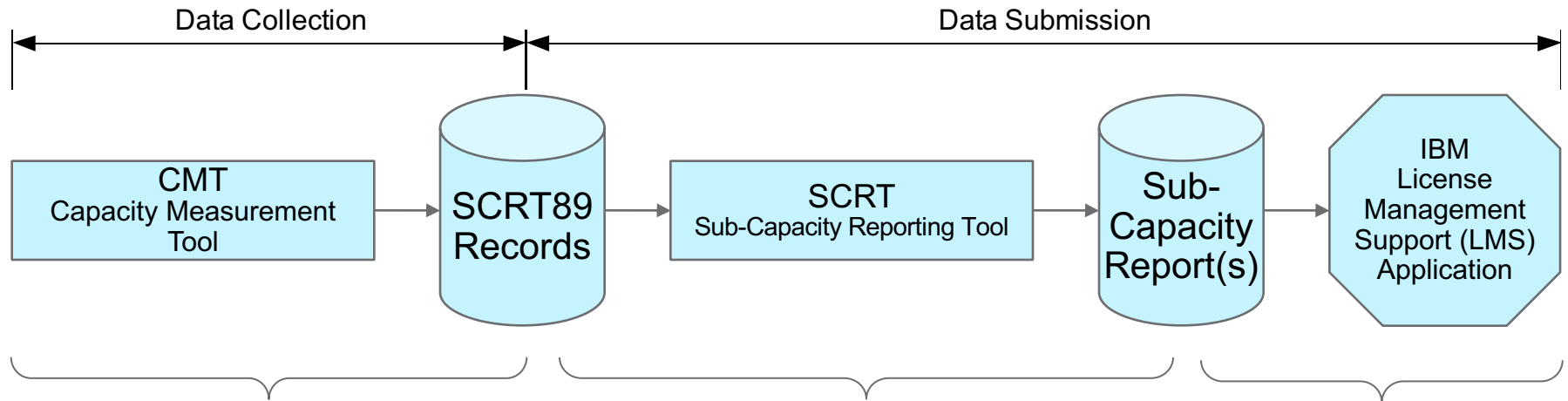
In case of a problem:
Open a Problem Record (PMR / SR) against z/VSE. This will then be handled by the z/VSE support people

In case of a problem:
Open a Problem Record (PMR / SR) against z/VSE. This will then be routed to the SCRT support people

In case of a problem:
For help with submitting SCRT Reports to IBM using the License Management Support (LMS) application, please contact the LMS Customer Support Center:
• via email: kmsweb@dk.ibm.com
• via phone: +44 2392 28 98 80
The LMS Customer Support Center provides support in English, 24 / 7

z/VSE Capacity Measurement Tool (CMT)

- **CMT System Task**
  - Measures used CPU capacity
  - Generates an SCRT89 record every measurement interval (30 minutes)
  - Writes the record to the CMT files (wrap-around)

- **CMT Batch Interface (IJBCMT)**
  - Initialize CMT files (INITDS)
  - Start measurement and specify CMT ID (START,ID=…)
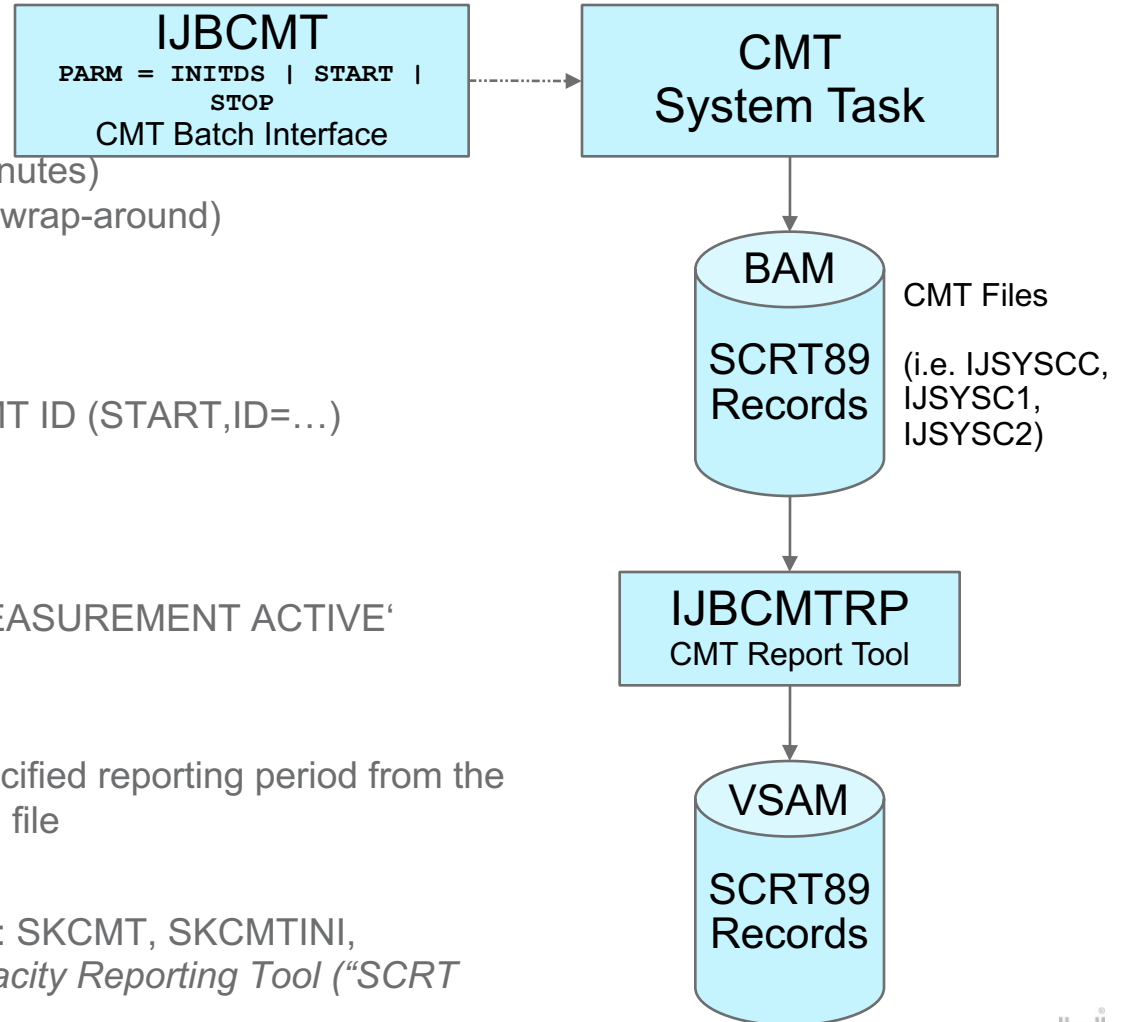 - Stop measurement (STOP)

- **SIR AR Command**
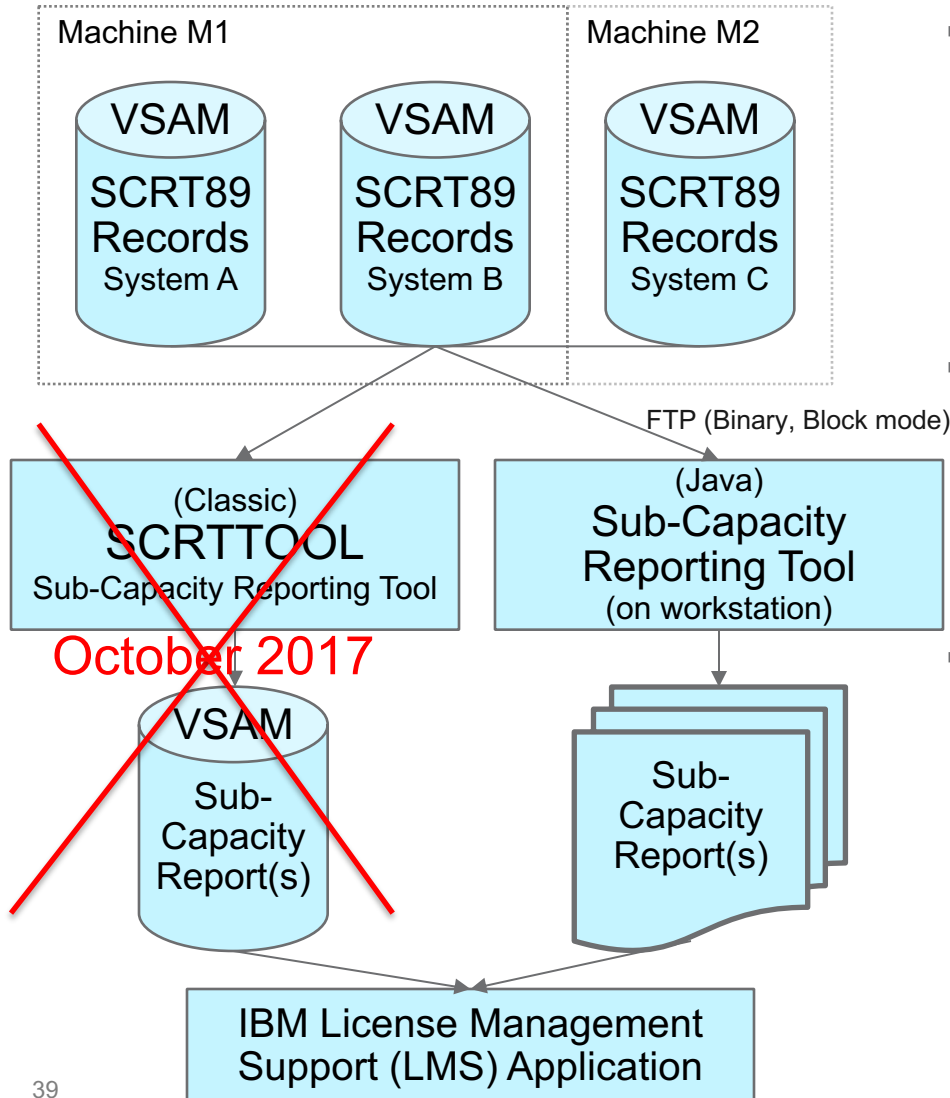 - Query CMT status: 'CAPACITY MEASUREMENT ACTIVE'

- **CMT Report Tool (IJBCMTRP)**
  - Extracts SCRT89 records for a specified reporting period from the CMT BAM files into a VSAM ESDS file

- **Setup using skeletons** in ICCF library 59: SKCMT, SKCMTINI, SKCMTREP (Manual: *Using the Sub-Capacity Reporting Tool ("SCRT User's Guide")*, SG24-6522)

```
IJBCMT
PARM = INITDS | START | STOP
CMT Batch Interface
```

CMT System Task

BAM
SCRT89 Records

CMT Files
(i.e. IJSYSCC, IJSYSC1, IJSYSC2)

IJBCMTRP
CMT Report Tool

VSAM
SCRT89 Records

Sub-Capacity Reporting Tool (SCRT)

Machine M1

VSAM
SCRT89
Records
System A

VSAM
SCRT89
Records
System B

Machine M2

VSAM
SCRT89
Records
System C

FTP (Binary, Block mode)

(Classic)
SCRTTOOL
Sub-Capacity Reporting Tool

October 2017

VSAM
Sub-
Capacity
Report(s)

(Java)
Sub-Capacity
Reporting Tool
(on workstation)

Sub-
Capacity
Report(s)

IBM License Management
Support (LMS) Application

- **Sub-Capacity Reporting Tool (SCRT)**
  – Processes SCRT89 records from multiple systems (and optional from multiple machines) together
  – Generates a Sub-Capacity Report ("SCRT report") for each machine

- **The SCRT report is in Comma Separated Values (CSV) format**
  - Can be viewed and edited using spreadsheet applications
    (e.g. MS Excel, OO.org Calc)

- **Submission process to IBM License Management Support (LMS) application:**
  – Download report to workstation for review and editing, then use either
    e-mail or web for submission to LMS
  – Send by e-mail to LMS, then manage, edit, and confirm via web

Types of Products
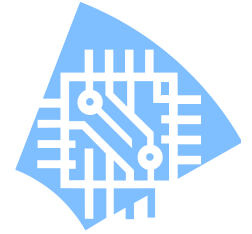
- **SCRT89-Products:** Monitored by CMT
    - SCRT89 record contains information if product was active during the measurement interval
        - VSE Base (z/VSE V4, V5 and V6; 5686-CF8, 5686-CF9, 5686-VS6)
        - CICS TS for VSE/ESA (5648-054) and CICS TS for z/VSE (5655-VSE)
        - ACF/VTAM V4 VSE/ESA (5686-065)

- **NO89-Products:** Not monitored by CMT
    - Customer provides list of LPARs and VM guests where the products were active in SCRT JCL NO89 section
        - DB2 Server for VSE & VM (5697-F42)
        - DITTO/ESA for VSE (5648-099)
        - DL/1 DOS/VS (5746-XX1)
        - High Level Assembler VSE & VM (5696-234)
        - IBM C for VSE/ESA V1 (5686-A01)
        - IBM COBOL VSE/ESA (5686-068)
        - IBM DFSORT/VSE V3 (5746-SM3)
        - IBM PL/1 for VSE/ESA (5686-069)
        - MQSeries for VSE/ESA V2 (5686-A06)
        - WebSphere MQ for VSE/ESA V3 (5655-U97)
        - TCP/IP for VSE (5686-A04)
        - IBM Rational COBOL Runtime for z/VSE V7 (5648-F66)
        - IPv6/VSE V1 (5686-BS1)

Hints & Tips

- **CMT BAM files (IJSYSCC, IJSYSC1, IJSYSC2):**
  - Must not be shared among multiple systems (for write)
    - each system requires its own set of files
  - Can reside on a shared disk as long as disk sharing is set up correctly:
    - IPL DLF statement (one single shared lock file)
    - IPL ADD statement with option SHR (for each shared disk)
  - Must not be relocated (neither moved on the disk nor to another disk)
  - It is recommended to stick to the default configuration values
    (e.g. number of tracks or blocks specified for ECKD and FBA disks)

- **CMT ID (=SYSID in z/OS) must be unique among all systems and across all operating systems:**
  - If every machine (=CPC) is processed on its own SCRT run, then the IDs must only be unique for each machine (this is the preferred solution)
  - If multiple machines (=CPCs) are to be processed in one SCRT run, then the IDs must be unique among all machines being processed together

- **SCRT User's Guide:**
  - http://www.ibm.com/systems/z/resources/swprice/subcap/scrt/

Two more things …

- I present you an instrument for the customers to influence IBM…

IBM will measure client experience with NPS, an industry-wide accepted metric

Net Promoter Score (NPS) calculation

- NPS is based on client responses to a simple question: **"How likely are you to recommend [IBM/Offering] to a colleague or business partner?"**
- Respondents answer on a scale of 0-10, which sorts them into 3 categories that serve as early predictors of churn and lifetime value:

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Detractors   Passives   Promoters

NPS = **% of promoters** - **% of detractors**

Key benefits of NPS

1 Endorsed by external subject matter experts and internal stakeholders

2 Strong indicator of future growth and competitive standing

3 Relationship NPS (rNPS) provides a comprehensive, long-term assessment of all touchpoints

CX Transformation will provide a Comprehensive View of IBM Client Experience

Wave 1

Digital Direct
April 2016

Wave 2

Sales Transactions and Relationships
October 2016

Wave 3

Technical Support
October 2016

Wave 4

Services Delivery
(GTS, GBS, Security Services, and Systems Lab Services)
May 2017

Wave 5

Offering Management
Initial Roll-out Expected
2Q-3Q 2017

Example Email

Dear Tina (offering_use),

We recently sent you an email about your experience with IBM z13s and noticed that you have not yet shared your feedback. At IBM, we make it a priority to listen to our clients and want to continuously improve our offerings. So, we would love your candid feedback on how we are doing. Please take a moment to answer a few short questions about your experience.

You can begin the survey by answering this question:

How likely are you to recommend IBM z13s to a colleague or business partner?

Not at all Likely   Extremely Likely

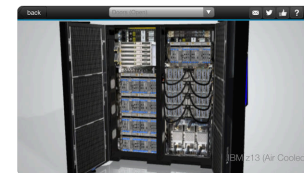| 0	1	2	3	4	5	6	7	8	9	10

Carolyn Maher
IBM Client Advocacy Officer

Nice Apps to have

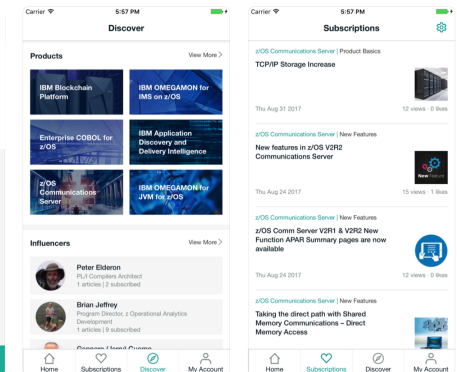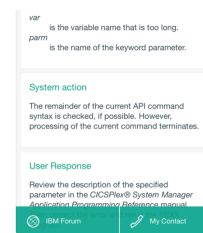- **IBM Interactive Product Catalog**:
  - IBM HW in 3D and AR in your pocket!
  - iOS link
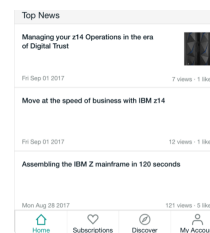 - Android link

- **IBM Doc Buddy:**
  - Search messages and codes issued from IBM Z products online and offline. Also aggregates mainframe social content.
  - iOS link
  - Android link

IBM Interactive Catalog 4+
Kaon Interactive, Inc.
Free

Screenshots iPhone iPad

IBM Doc Buddy 4+
IBM
Gratis

THANK YOU!

Gonzalo Muelas Serrano

Computer Science Engineer
Offering Mgr. for z/VSE & z/VM
IBM Systems

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