EPV Technologies

Newsletter

October 2020

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Quick Analysis of CICS Transactions

The CICS Transaction Interval Analysis is a component of the MyEPV Quick View product.

Its goal is to summarize CICS transactions data running in a specific timeframe to any desired interval (e.g. 1, 5, 10 minutes) to be able to locate problems and correlate them with any other interval statistics.

This component also keeps into account the transactions overlapping the defined interval (including long running transactions) considering only the portion of resource usage, elapsed time, and activity belonging to each interval.

It provides a lot of KPI such as CPU and zIIP consumptions, all the details about dispatch, suspend time, I/O and not I/O delays, requests to DB2, WEB, MQ, IMS, file and log requests.

If you want to receive the paper you can reply to this e-mail writing "**Quick Analysis of CICS Transactions**" in the subject

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System Z Update

System Z continues to evolve introducing new hardware and software technologies.
In this virtual conference we will focus on some of the most recent and interesting of them.
The conference will be held on November 25th and it is reserved to EPV customers, partners and invited guests.

Agenda

09:45 Is My z15 Performing as Expected?
11:00 From z13 to z15: a real customer case
14:30 Are you wasting money because of SIIS?
15:30 Running EPV on zCX

All the sessions will be managed through WEBEX.
The subscription form is available at www.epvtech.com

Abstracts

Is My z15 Performing as Expected?
The last IBM hardware (z15) should provide increased capacity and performance benefits.
As always happens, some customers are enthusiast, some are happy and some others are disappointed.
We regularly receive requests from some customers to help them evaluate the new machine's performance. This has also happened when upgrading to z15.
Their question is always the same: "Is my new machine performing as expected?".
In this presentation we will try to provide suggestions to help you answer this question. All these suggestions are not specific for an upgrade to z15, they also apply to any machine upgrade.
In the final part we will also discuss a real case.

From z13 to z15: a Real Customer Case
Upgrading to a new machine is always a critical moment for every site.
In this user experience the results have been even better than expected.
We will discuss CPU consumptions, zIIP eligible on CPU and zIIP consumptions, hardware efficiency measured through the CPI.
We will also show the performance benefits obtained for ICF and crypto card requests.

Are you wasting money because of SIIS?

When the software pricing is based on the monthly peak of the MSUs used in 4-hour rolling average the analysts focus mostly on the workloads contributing to those peaks.

With the advent of TFP (Enterprise Consumption solution) the situation is changing: all the MSUs are now relevant for the software bill, no matter the time of the day when they are used.

So, with TFP, identifying and eliminating any MSU waste has become even more important than before.

In the last machine generations, IBM has identified the "Store Into Instruction Stream" (SIIS) issue as possible reason for a reduction of the processor cache effectiveness and a consequent significant increase of CPU utilization.

In this presentation, after a short overview of the SIIS issue we will provide formulas and report examples to help you understand how relevant are the number of MSUs wasted in your systems because of SIIS events. We will also provide suggestions on what you need to do to identify SIIS culprits.

Running EPV on zCX

Probably the most exciting new functionality introduced with z/OS 2.4 is z/OS Container Extensions (zCX). Thanks to zCX, most applications that are currently only available to run on Linux, will be able to run on z/OS as Docker containers.

Up to now you could run EPV products on Windows, Linux, Linux on Z and Unix but not on z/OS. The major reason of this choice is our continuous effort to reduce customers z/OS hardware and software costs.

Nevertheless, some customers still prefer to keep their SMF and other z/OS data processing on z/OS, because of this platform's unmatched characteristics of security, availability, manageability and performance.

With zCX, it is now possible to run the EPV products code on z/OS, with no changes. The impact on hardware and software costs will be greatly reduced thanks to the exploitation of zIIPs allowed by this technology.

In this presentation, after a short introduction to Docker and zCX, we will discuss what you should do to install and run EPV in this new environment.

EPV for MQ V15 – Managed Availability

We are proud to announce the Managed Availability of EPV for MQ V15.
It will be possible to install the product at selected customers sites with close EPV support starting from November 2020.

The following major enhancements have been introduced:

1) Usability

EPV for MQ V15 support a new completely redesigned User Interface .

Major enhancements are:

• A much more useful and effective Home Page;

• New page menus;

• New icons and redesign of table functions.

2) 16 new view types provided out-of-the-box

COMPONENT	VIEW	DESCRIPTION
SYSTEM AS	A.S. CPU CHIN DETAIL	Log task utilization on each MQ subsystem
USER	MQ QUEUE THROUGHPUT	Throughput hourly profile of the queues selected by the user
USER	MQ QUEUE TOTAL CPU	CPU usage hourly profile of the queues selected by the user
USER	MQ QUEUE MAX DEPTH	Max depth hourly profile of the queues selected by the user
USER	MQ QUEUE MAX LATENCY	Max latency hourly profile of the queues selected by the user
USER TRENDS	MQ QUEUES TREND TABLE	Summary table showing which queues have been selected by the user
USER TRENDS	MQ QUEUE THROUGHPUT	Throughput daily and hourly profile of the queues selected by the user
USER TRENDS	MQ QUEUE TOTAL CPU	CPU usage daily and hourly profile of the queues selected by the user
USER TRENDS	MQ QUEUE MAX DEPTH	Max depth daily and hourly profile of the queues selected by the user
USER TRENDS	MQ QUEUE MAX LATENCY	Max latency daily and hourly profile of the queues selected by the user
REPORTS	QUEUE SUMMARY INDEX	Summary table showing all the on-demand reports by queue which have been produced
REPORTS	QUEUE SUMMARY	Summary report showing queue activity in the selected time interval
REPORTS	QUEUE-THREAD SUMMARY	Summary report showing thread activity on the selected queue in the selected time interval
REPORTS	THREAD SUMMARY INDEX	Summary table showing all the on-demand reports by thread which have been produced
REPORTS	THREAD SUMMARY	Summary report showing thread activity in the selected time interval
REPORTS	THREAD-QUEUE SUMMARY	Summary report showing queue activity due to the selected thread in the selected time interval

For more information, please contact EPV Technical Support.

Customer Questions

Can you please explain the difference between % ACT SOFCAPP and % WLM SOFTCAPP?
We see the first is very low and the second is very high.

< SYSTEM WLC USAGE >

SYSTEM WLC USAGE - Mon, 12 Oct 2020 - TEST

METRIC	7	8	9	10	11	12	13	14	15	16
CEC MSU	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0	6.050,0
IMAGE MSU	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0
GROUP MSU	631,0	631,0	631,0	631,0	631,0	631,0	631,0	631,0	631,0	631,0
DEF MSU	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0
MIN ENT	44,5	44,5	44,5	44,5	44,5	44,5	44,5	44,5	44,5	44,5
ROLLING 4*HOUR	15,2	15,0	16,8	18,2	18,3	21,2	22,0	23,3	40,8	44,5
MAX ENT	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0	51,0
% ACT SOFTCAPP	0,0	0,0	0,0	0,4	1,6	22,4	1,4	0,8	0,0	0,0
% WLM SOFTCAPP	0,0	0,0	0,0	63,5	100,0	97,2	100,0	15,8	0,0	0,0
GROUP MSU AVA	235,0	131,3	62,3	-5,0	-9,8	-10,8	-14,0	4,0	11,7	61,7
ABS MSU CAPP	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

EPV Technical Support answer

In the help page of the SYSTEM WLC USAGE view you can see:

% ACT SOFTCAPP	The percentage of the hourly interval when WLM activated "soft capping" reducing the CPU available to the LPAR to avoid a 4 hour rolling average greater than the Defined or Group Capacity limits.
% WLM SOFTCAPP	The percentage of the hourly interval when WLM considers to cap the partition to avoid a 4 hour rolling average greater than the Defined or Group Capacity limits.

In your case the group capacity limit has been reached in 5 hours (from 10 to 14).

You can understand that because the number of MSUs available to the group (GROUP MSU AVA) is negative.

So WLM considered capping this LPAR, at the minimum entitlement value (MIN ENT), for almost all the 5 hours. However, this LPAR was generally using less than the MSU allowed by MIN INT so it has been really capped for a small percentage of the hours only.

EPV
Acronyms

Acronym	Meaning	Context
ARM	Automatic Restart Manager	Recovery & Availability
BC	Business Continuity	Recovery & Availability
CBU	Capacity Back Up	Recovery & Availability
CDS	Couple Data Set	Recovery & Availability
CG	Consistency Group	Recovery & Availability
CIU	Customer Initiated Upgrade	Recovery & Availability
CoD	Capacity on Demand	Recovery & Availability
DR	Disaster Recovery	Recovery & Availability
DRaaS	Disaster Recovery as a Service	Recovery & Availability
GDPS	Geographically Dispersed Parallel Sysplex	Recovery & Availability
PPRC	Peer-to-Peer Remote Copy	Recovery & Availability
PtPVTS	Peer to Peer Virtual Tape Server	Recovery & Availability
RPO	Recovery Point Objective	Recovery & Availability
RTO	Recovery Time Objective	Recovery & Availability
SDM	System Data Mover	Recovery & Availability
SFM	Sysplex Failure Management	Recovery & Availability
SRDF	Symmetrix Remote Data Facility	Recovery & Availability
XCF	cross-system Coupling Facility	Recovery & Availability
XES	cross-system Extended Services	Recovery & Availability
XRC	eXtended Remote Copy	Recovery & Availability

Quotes

"The sky is not your limit,your mind is"

Marilyn Monroe