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IT Cost
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EPV Technologies

Newsletter

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THIS MONTH HIGHLIGHTS

- Is my IBM z15 performing as expected? - Part 3
- Vector Packed Decimal Facility
- Important Db2 corrections

Is my IBM z15 performing as expected? - Part 3 -

Every time a new IBM machine is announced the LSPR benchmarks are published. They provide an indication of the performance of the new machine compared to the existing ones.

Based on these numbers, on the usage of available tools, such as IBM zPCR, and on their capacity planning methodology, customers decide the characteristics of the new machine model which better fit their application needs for the next years.

Once the upgrade has been completed some customers are happy, some are not satisfied, others simply are not able to understand if they get the expected performance benefits.

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 paper 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 of migrating from z13 to z15.

If you want to receive the paper you can reply to this e-mail writing "Is my IBM z15 performing as expected? - Part 3" in the subject

Vector Packed Decimal Facility

This very interesting article has been published more than 2 years ago. It refers to z14 but it is even more valuable with z15.

If you missed it and you still run an old COBOL version, you absolutely need to read it.

" ... some impressive performance numbers:

- A COBOL V6.2 program compiled with ARCH(12) in a 100 million times in a loop is 4.85x faster than COBOL V4 with 80 percent less CPU usage. It was 2.91x faster than a program compiled with ARCH(11)
- In a Zoned Decimal Computation, a program compiled using ARCH(12) is 3.05x faster than COBOL V4. Programs compiled with ARCH(12) are 1.74x faster than those compiled with ARCH(11). "

Read it at: <https://ibmsystemsmag.com/IBM-Z/01/2018/vector-facility-z14>

Important Db2 corrections

PH17336: ENHANCEMENT IN IRLM DEADLOCK PROCESSING TO REDUCE CPU TIME

This apar is an enhancement to reduce CPU consumed by IRLM deadlock processing. It is known that IRLM SRB time increases when there are a large amount of datasets opened concurrently due to the long hash chain to traverse.

This apar makes enhancements in algorithm to reduce CPU used by IRLM.

More details at: <https://www.ibm.com/support/pages/apar/PH17336>

PH23216: S MODE PAGE P-LOCKS NOT RELEASED WITH PGSTEAL (NONE) BUFFER POOLS

S mode page P-locks associated with page sets that reside in Db2 12 PGSTEAL(NONE) contiguous buffer pools are not released.

S mode page plocks are not that common. However, starting at FL500, a process running ISO(CS) CD(N) doing a TS scan of an object with many overflow rows could acquire a lot of these page plocks. If that object resides in a contiguous BP, the p-locks will not be released.

This can result in high IRLM CPU usage (managing the extra locks including deadlock detection processing), increased IRLM latch contention and elongated transaction response times.

More details at: <https://www.ibm.com/support/pages/node/6112204>

Customer questions

When trying to look at EPV for MQ Workloads, I am missing MQ queues details on our production system. I used to see all this information but, since the last system IPL, I can't see any MQ queues details anymore.

Nothing has changed in EPV nor in SMF parameters.

Any comment's or suggestion would be appreciated.

EPV Technical Support answer

All the EPV for MQ views, that provide information about MQ queues activity, require subtypes 1 and 2 of SMF 116 records, produced by class 3 of the MQ accounting trace.

The most likely reason because this information is no longer available after the IPL

is that class 3 had been activated manually and it has not been restarted after the IPL.

Acronyms

Acronym	Meaning	Context
CDSA	CICS Dynamic Storage Area	CICS
CICS	Customer Information Control System	CICS
CTG	CICS Transaction Getaway	CICS
DSA	Dynamic Storage Area	CICS
ECDSA	Extended CICS Dynamic Storage Area	CICS
ERDSA	Extended Read-only Dynamic Storage Area	CICS
ESDSA	Extended Shared Dynamic Storage Area	CICS
ETDSA	Extended Trusted Dynamic Storage Area	CICS
EUDSA	Extended User Dynamic Storage Area	CICS
EXCI	External CICS Interface	CICS
GCDSA	Grande CICS Dynamic Storage Area	CICS
GSDSA	Grande Shared Dynamic Storage Area	CICS
GUDSA	Grande User Dynamic Storage Area	CICS
IPIC	Internet Protocol InterConnectivity	CICS
MRO	Multi Region Operation	CICS
RDSA	Read-only Dynamic Storage Area	CICS
SDSA	Shared Dynamic Storage Area	CICS
TD	Transient Data	CICS
TS	Temporary Storage	CICS
UDSA	User Dynamic Storage Area	CICS

Quotes

"Change your thoughts and you change your world"

Norman Vincent Peale

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