



# EPV TECHNOLOGIES NEWSLETTER

March 2020



## THIS MONTH HIGHLIGHTS

Is my IBM z15 performing as expected? - Part 1  
Getting started with z/OS Container Extensions and Docker  
Important IBM corrections

## Customer questions

### Customer question

We are working with the DB2 version v12.

We are making dynamic calls from Linux under z/VM with our WAS application, installed in Linux, to Db2 in z/OS (HYPERSOCKET).

We have implemented JAVA applications under WAS. The Db2 DIST address space receives the calls from the WAS address space.

As you can see, the EPV for z/OS HTML pages show some zIIP utilization.

In the HTML pages we can also see that we have 0 percent zIIP eligible on CPU.

Is this possible? If not, what can we do to fix this problem?

### EPV Technical Support answer

The zIIP eligible variable provides the amount of zIIP eligible work which overflowed to the standard CPU because all the zIIP engines were busy. If the percentage of zIIP busy is very low, as it is in your case, it's pretty normal that zIIP eligible is close to 0. Keep also in mind the we provide just one decimal in the view you showed, so it's very likely that the value is not really 0.

## Is my IBM z15 performing as expected? - Part 1

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 1"** in the subject

## Getting started with z/OS Container Extensions and Docker

"IBM z/OS Container Extensions (IBM zCX) is a new feature of the next version of the IBM z/OS Operating System (z/OS V2.4). It makes it possible to run Linux on IBM Z applications that are packaged as Docker container images on z/OS. Application developers can develop, and data centers can operate, popular open source packages, Linux applications, IBM software, and third-party software together with z/OS applications and data. This IBM Redbooks publication helps you to understand the

concepts, business perspectives and reference architecture for installing, tailoring, and configuring zCX in your own environment.”

Redbook available at:

<http://www.redbooks.ibm.com/abstracts/sg248457.html?Open>

## Important IBM corrections

### OA58573: HIGH CPU USAGE AND SP253 ELSQA STORAGE GROWTH IN A CICS REGION ON A Z14 AND A Z/OS V2R3 (HBB77B0) SYSTEM WITHOUT OA49692 PTF

On a z14 machine running a z/OS V2R3 (HBB77B0) system without OA49692's 7B0 PTF (UA93148) installed, a CICS region may experience high CPU usage and expanding storage growth in SP253 ELSQA. This is due to storage fragmentation caused by mismatched storage obtain/release lengths in ATTACH and DETACH processing.

This only exists on z/OS V2R3 (HBB77B0).

z/OS V2R2 (HBB77A0) and z/OS V2R4 (HBB77C0) are OK.

More details at:

<https://www.ibm.com/support/pages/node/1872111>

### OA58322: HIGH PU USAGE IN GRS AND XCFAS ADDRESS SPACES AFTER UPGRADING TO 2.2

Customer upgraded to 2.2 and began seeing high CPU usage in GRS and XCFAS address spaces. It was determined this was caused by LSPACE macro being issued in IGDOPSS1+x'16DE' at UA70324 due to the DCEUDCY value being out of synch with the VLDNTCPY value. The DCE value showed the devices were MOD27 while the VLD showed the devices as MOD 9.

The devices were PPRC'd from source volumes defined as MOD 9 and the target volumes were defined as MOD 27. Although this is a common practice, it is recommended that REFVTOC be issued against the target volumes in order for the VTOC to reflect the true status of the volume.

More details at:

<https://www.ibm.com/support/pages/node/1871259>

## Damn z/OS Acronyms

| Acronym | Meaning                       | Context          |
|---------|-------------------------------|------------------|
| AS      | Address Space                 | Operating system |
| ASM     | Auxiliary Storage Manager     | Operating system |
| BCP     | Base Control Program          | Operating system |
| CSA     | Common Service Area           | Operating system |
| DAE     | Dump Analysis and Elimination | Operating system |

|        |                                      |                  |
|--------|--------------------------------------|------------------|
| ECSA   | Extended Common Service Area         | Operating system |
| ELPA   | Extended Link Pack Area              | Operating system |
| ESQA   | Extended System Queue Area           | Operating system |
| FLPA   | Fixed Link Pack Area                 | Operating system |
| GRS    | Global Resource Serialization        | Operating system |
| HCD    | Hardware Configuration Definition    | Operating system |
| IPL    | Initial Program Load                 | Operating system |
| LFAREA | Large Frame Area                     | Operating system |
| LLA    | Library LookAside                    | Operating system |
| LPA    | Link Pack Area                       | Operating system |
| MLPA   | Modified Link Pack Area              | Operating system |
| MVS    | Multiple Virtual Storage             | Operating system |
| PLAREA | Pageable Large frame Area            | Operating system |
| PSA    | Prefixed Save Area                   | Operating system |
| PLPA   | Pageable Link Pack Area              | Operating system |
| RSM    | Real Storage Manager                 | Operating system |
| SQA    | System Queue Area                    | Operating system |
| SMP/E  | System Modification Program Extended | Operating system |
| SRM    | System Resource Manager              | Operating system |
| SVC    | SuperVisor Call                      | Operating system |
| USS    | Unix System Services                 | Operating system |
| VLF    | Virtual Lookaside Facility           | Operating system |
| VSM    | Virtual Storage Manager              | Operating system |
| WLM    | WorkLoad Manager                     | Operating system |
| z/OS   | Zero downtime Operating System       | Operating system |

## RECIPES



## **Crespelle ricotta e spinaci**

### **Ingredients**

For the crepes:

2 eggs  
250 ml of milk  
130 g of flour  
10 g of extra virgin olive oil  
salt

For the stuffing:

300 g of fresh spinach  
300 g of ricotta  
100 g of cheese(asiago)

For coverage:

300 ml of bechamel sauce  
25 g of grated Parmesan cheese  
extra virgin olive oil

### **Method**

In a bowl, beat the eggs with the salt.

Add the milk.

Gradually add the sifted flour.

Add the oil.

Cover the crepes dough with plastic wrap and let it rest in the fridge for half an hour.

Heat a pan and grease it with butter. Pour a ladle of crepes dough and make it stick and spread over the entire surface.

Let it cook for a couple of minutes on each side.

Rinse the spinach and put it in a pot with a small cup of water and

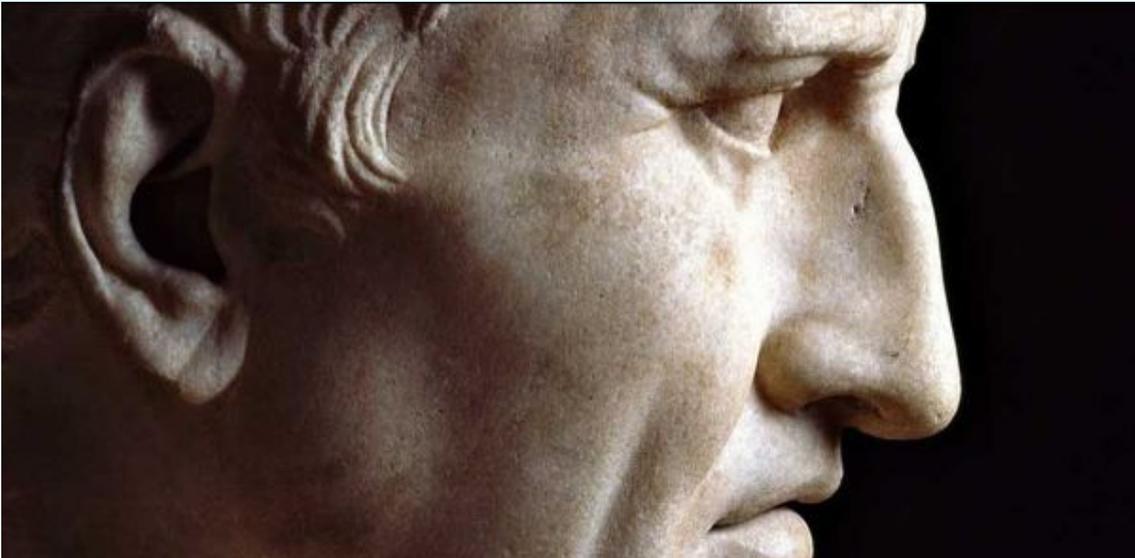
salt.  
Cook 5-10 minutes until softened.

Remove any excess water and cut the spinach with a knife.  
Mix them with the ricotta and diced asiago cheese.

Take the crepes and put the filling on one side.  
Close and fold further.

Put them in a pan greased with a little oil.  
Pour the bechamel and sprinkle with parmesan and pepper. Add a  
drizzle of oil.  
Bake in a preheated ventilated oven at 200 ° for about 15-20  
minutes.

## QUOTES



*Non nobis solum nati sumus*

*We were not born just for ourselves*

**(Marco Tullio Cicerone)**

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