



EPV TECHNOLOGIES NEWSLETTER

October 2019



THIS MONTH HIGHLIGHTS

z15 Capacity Planning - Part 2

EPV at GSE UK 2019

IBM zPCR 9.3

FORMULA OF THE MONTH

SubSystem Capture Ratio

SMF 30 provide the CPU consumptions accounted to each address space. SMF 72 can provide the same information for a specific address space (by assigning it to a dedicate service or report class).

Each of these measurements can be used to evaluate the amount of CPU used by a CICS or IMS region.

Additional measurements provided in SMF 110 (for CICS) and in the IMS log (for IMS) allow to evaluate the amount of CPU used by the transactions running in each region.

The sum of all the transaction consumptions is always lower than the total consumptions of the region where these transactions run. The reason is that there are some region activities that are not charged to any transaction.

To get a more realistic view of transaction consumptions you need to calculate the SubSystem Capture Ratio which is the ratio between the total transaction consumptions and the total region consumptions in a specific interval.

SubSystem Capture Ratio = All transactions CPU sec / Region CPU sec

To have a better estimate of the consumptions of a transaction running in a region you have to divide that transaction consumptions by the SubSystem Capture Ratio of that region.

Example

Let's suppose a CICS region, in the peak hour, is using 1.000 CPU seconds and the total CPU seconds used by all the transactions running in that region, in the same hour, are 700.

SubSystem Capture Ratio = 700 CPU sec / 1.000 CPU sec = 0,7

Let's now suppose the MYTX transaction running in the same region is using 0,100 CPU seconds on average in the peak hour. The real consumptions of MYTX have to be corrected as follows:

MYTX AVG CPU sec = 0,100 CPU sec / 0,7 = 0,143 CPU sec

WARNINGS

- 1) Long running transactions may disrupt the SubSystem Capture Ratio estimates
- 2) To estimate the complete transaction CPU consumptions you should also divide by the System Capture Ratio (see September Newsletter)

z15 Capacity Planning - Part 2

On September 12th IBM announced its new generation of the mainframe. The new system is called IBM z15 while the family model is 8561

Experienced capacity planners know that every new generation of machines provides a major challenge to their skills. They also know that their best friends are the IBM LSPR benchmarks, the IBM zPCR tool, the Measurement Facility counters provided in SMF 113 and an up to date performance database.

In the first part of this paper we'll have a look at the most important capacity characteristics of the IBM z15. Starting from

the IBM LSPR benchmarks we'll then estimate the MIPS capacity of each IBM z15 processor model. Finally, we will compare z15 single CP capacity and workload variability with previous machine generations.

In the second part we'll compare z14 and z15 processor cache architecture. Then we'll analyse in more detail the new z15 Measurement Facility basic and extended counters provided in SMF 113, using them to calculate the %L1M (percentage of cache Level 1 miss), the RNI and the CPI indexes.

If you want to receive the paper you can reply to this e-mail writing " z15 Capacity Planning - Part 2" in the subject

EPV at GSE UK 2019

The GSE UK Conference 2019 will be held on November 5-7, 2019 at Whittlebury Hall Hotel, Towcester, UK

EPV will give the following presentations:

- Measuring the Amazing Performance of Db2 V12, 5th November at 15:15, room Woodcote
- z/OS Capacity Planning in 2020, 6th November at 11:45, room Monza
- EPV University: z/OS Performance Analysis (Part I) , 7th November at 09:00, room Woodcote
- EPV University: z/OS Performance Analysis (Part II) , 7th November at 10:15, room Woodcote
- EPV University: z/OS Performance Analysis (Part III) , 7th November at 11:45, room Woodcote
- EPV University: z/OS Performance Analysis (Part IV) , 7th November at 13:00, room Woodcote

Come and meet us at the Inspired Solutions stand (n. 35).

More details at: <http://conferences.gse.org.uk/2019>

IBM zPCR 9.3

The new version of IBM zPCR is available. zPCR is a free of charge tool, running on Windows, designed to provide capacity planning insight for IBM Z and LinuxONE processors running LPAR configurations with various workload environments under z/OS, z/VM, z/VSE, KVM, Linux, zAware, zACI, SSC, and CFCC.

This new version supports the IBM z15 machines.

Download it at:

<https://www-03.ibm.com/support/techdocs/atmastr.nsf/WebIndex/PRS1381>

RECIPES



Polpette di carne e melanzane

Ingredients

- 400 g of ground beef
- 1 Eggplant
- 80 g of Fontina
- 80 g of grated Pecorino cheese
- 20 g of raisins
- 100 g of breadcrumbs
- 40 g of flour
- 2 eggs
- 1 clove of garlic
- Fresh parsley
- nutmeg
- 4 tablespoons of extra virgin olive oil (for frying)
- salt

Method

Let the raisins soak in a bowl with water.

Clean the aubergine, cut it into cubes and then cook it in a pan with a drizzle of olive oil, together with the chopped garlic and a little parsley, for 8-10 minutes over low heat; salt lightly and when necessary add a little hot water.

Meanwhile, in a large bowl, mix the minced, 1 egg, diced fontina cheese and grated pecorino.

Mash the cooked aubergine with a fork and add it to the meat mixture; add the drained and squeezed raisins, then season with a pinch of grated nutmeg and season with salt.

At this point, with moistened hands, form the meatballs and mash them lightly; pass them first in the flour, then in the remaining beaten egg, and finally in the breadcrumbs.

Fry the meatballs in plenty of hot oil for about 8 minutes and turn them a couple of times, very carefully so as not to break them, so that they turn evenly. Let them dry on absorbent paper and serve immediately.

QUOTES



*"In War: Resolution,
In Defeat: Defiance,
In Victory: Magnanimity
In Peace: Good Will."*

Winston S. Churchill

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