EPV Technologies

Newsletter
March 2022

THIS MONTH HIGHLIGHTS

- Measuring z/OS Connect - Part 2
- EPV Next Generation 2022
- IBM z16 Day

Measuring z/OS Connect - Part 2

Cloud and mobile applications built on RESTful APIs, that use JSON message formats, are the predominant standards for new application development.
With z/OS Connect Enterprise Edition (z/OS Connect), IBM provides a framework that enables z/OS-based programs and data to play a fundamental role in an enterprise hybrid cloud strategy.

z/OS Connect allows z/OS resources (applications and data hosted in subsystems such as CICS, IMS, IBM MQ, and Db2) to be exposed as RESTful APIs.
Thanks to that, mobile and cloud application developers can incorporate z/OS data and transactions into their applications without the need to understand z/OS

subsystems.

At the same time, z/OS Connect provides the capability for CICS, IMS, and z/OS applications to access any RESTful endpoint, inside or outside z/OS, through RESTful APIs with JSON formatted messages.

In this paper, after a short overview of the z/OS Connect architecture, we will discuss what you need to do to measure z/OS Connect activity:
• from outside, by using "traditional" measurements provided by SMF 30 and 72 records,
• from inside, by using the new SMF 123 records.

*If you want to receive the paper you can reply to this e-mail writing **"Measuring z/OS Connect - Part 2"** in the subject*

EPV Next Generation 2022

The EPV product suite continues to evolve introducing new products and technologies.
In this virtual conference we will focus on the most recent and interesting of them.

The conference will be held on April 27th and repeated on April 28th 2022.

It is reserved to EPV customers, partners and invited guests.

AGENDA

Start	End	Description
09:45	10:00	Welcome and introduction
10:00	10:30	EPV V16 User Interface
10:45	11:15	Dynamic queries in EPV for z/OS V16
11:15	11:45	coffee break
11:45	12:00	EPVzip Tools V16
12:15	12:45	Using MyEPV V16
13:00	14:30	lunch break
14:30	15:00	EPV Real Time in action
15:15	15:45	Managing EPV with the Control Center
16:00		end of conference

Subscription form available at: www.epvtech.com

IBM z16 Day

IBM z16 Day SE (Special Edition) is a free 1-day virtual conference for anyone and everyone! Be among the first to hear about IBM z16 and join our lineup of global thought leaders, who will highlight industry trends and innovation spanning AI, Quantum, and more!

More details at: https://www.ibm.com/community/z/ibm-z16-day-se-2022/

I'm trying to determine the ratio between DDF zIIP time and DDF CPU time
I calculated this ratio, starting from the consumptions of the DIST address space, as:
zIIP ratio = zIIP time / (zIIP time + CPU time)

I see that this ratio is quite low.

My Db2 colleague gets much higher values than me by using the measurements provided in SMF 100 and the following formula;

zIIP Ratio on PREMPT SRB = QWSAPSRB_ZIIP * (QWSAPSRB_ZIIP + QWSAPSRB)

where:

QWSAPSRB is the preemptible SRB time for the address space on CPU
QWSAPSRB_ZIIP is the preemptible SRB time for the address space on zIIP

My question is: how come there is such a big difference? Is his calculation wrong?

EPV Technical Support answer
Not-native stored procedure and UDF can't be zIIP eligible because they run on a TCB not on a preemptible SRB.

The zIIP Ratio on PREMPT SRB formula calculates a ratio which takes into account only part of the CPU usage: the work running on preemptible SRBs.
The goal of this formula is understanding what is the zIIP ratio for the work which could run on zIIP.

Your formula, based on AS data, is more complete because it includes all the consumptions both on TCB and on whatever SRB type.
The goal of this formula is understanding what is the zIIP ratio, the real zIIP benefit, for the DDF work.

I think that the difference between the two ratios could be explained in two ways:
• consumptions due not-native stored procedure and UDF;
• consumptions due to bugs in the DIST AS.

Little known SMF parameters
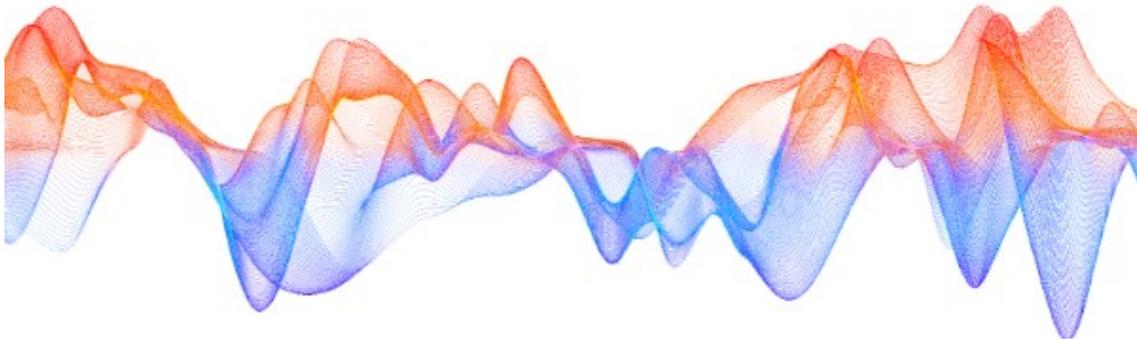
SYNCVAL, INTVAL, INTERVAL

The SYNCVAL and INTVAL parameters are included in the SMFPRMxx member of the system parmlib.
They allow to define a SMF global recording interval which can be used by SMF, RMF, and other
requestors.
INTVAL specifies the length of the SMF global recording interval; it can be from 1 through 60 minutes; the default is 30.

The SMF global recording interval needs to be synchronized with some part of the hour.
SYNCVAL specifies the number of minutes past the hour for the interval specified in INTVAL to start.
The default is 00.

From the practical point of view setting INTVAL and SYNCVAL alone has no effects on the SMF records production.
To synchronize SMF 30 interval records (subtype 2, 3 and 6), which provides information about address space activity, an additional setting is needed.

In the SYSTEM and SUBSYS sections of SMFPRMxx you need to specify INTERVAL (SMF,SYNC).
Thanks to this setting all the SMF interval records will be synchronized with INTVAL and SYNCVAL allowing a precise analysis of the workload activity in each interval.

We strongly suggest you using use the default SYNCVAL value (00) and INTERVAL (SMF,SYNC).
INTVAL should be set depending on each customer needs. Most common used values are 10 or 15 minutes.

We also suggest synchronizing RMF records production with SMF global recording interval. To do that, you need to set SYNC(SMF) in the ERBRMFxx member, used by Monitor I, of the system parmlib.

When also RMF records are synchronized it is possible to perform a precise analysis of

both workloads and resources utilization.

Quotes

"I dream for a living. Once a month the sky falls on my head, I come to, and I see another movie I want to make."

Steven Spielberg

Italy

<u>Add us to your address book</u>

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