EPV Technologies

Newsletter

January 2024

THIS MONTH HIGHLIGHTS

- Tips for improving batch jobs performance
- EPV User Group DACH 2024

Tips for improving batch jobs performance

In an era of smart web applications fully exploiting the virtualization concept to ultimately run in the cloud, it is astonishing to realize that batch processing is still such an important component of the workload of any z/OS environment.

As batch processing is not usually triggered by a user waiting for an immediate

response, the importance of batch in performance tuning and capacity planning activities is often underestimated.
This is the reason why the performance of many batch jobs, often designed many years ago, in some cases may be substantially improved by simply exploiting new JCL options, parameters and up to date technologies.

In this paper we will describe some tips which can be easily implemented without the need of batch applications changes.

If you want to receive the paper you can reply to this e-mail writing "Tips for improving batch jobs performance" in the subject

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EPV User Group DACH 2024

On February 27, 2024, we will be holding our EPV User Group DACH at the BMW Welt.

The BMW Welt is an exhibition, delivery and event venue in Munich located in the immediate vicinity of the BMW four-cylinder tower, the BMW Museum and the Olympic Park.
At BMW Welt, you can also discover the latest models from BMW, BMW Motorrad, MINI, Rolls-Royce Motor Cars and other exciting topics related to the BMW brand.

Agenda and details available at: https://epv-benutzertagung-2024.webflow.io/

Hello, we see a CPU consumption close to 100% in some hours of the day. In these hours we experiment degradation of important applications.
We would like to cap some workload to reduce the CPU utilization. How can we do that?

EPV Technical Support answer
Resource group is the only available technique able to limit the CPU used by a workload inside an LPAR. It exploits the WLM capping function.
When the CPU used by the service classes assigned to a resource group reaches the maximum capacity specified in the resource group definition, all the service classes are capped.

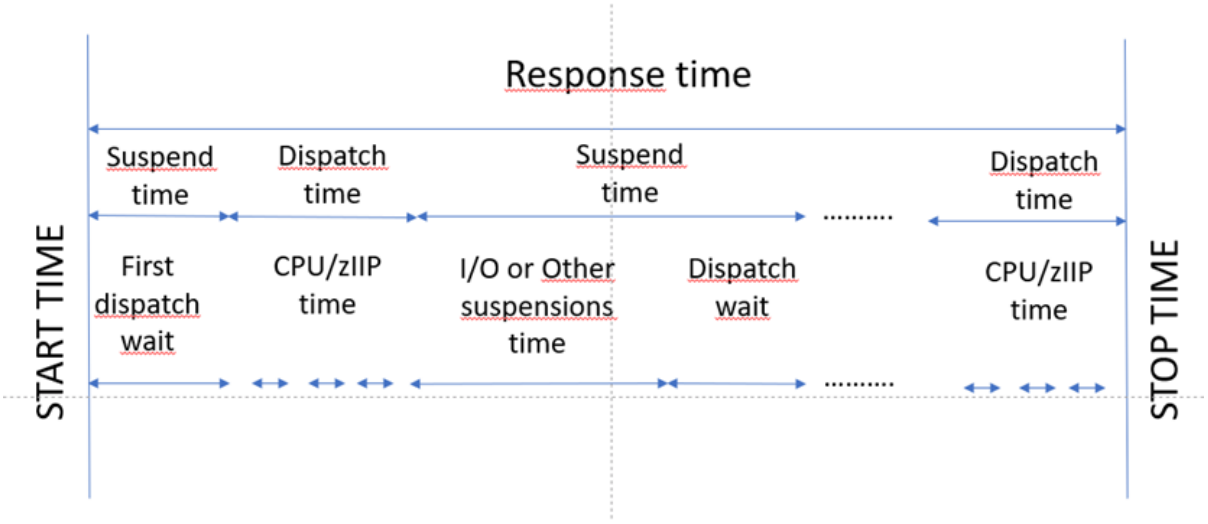
There are four types of Resource Groups:

- Type 1: maximum capacity is specified in un-weighted CPU (CPU+SRB) service units per second (SU/sec); it has a Sysplex wide scope.
- Type 2: maximum capacity is specified as a percentage of the LPAR capacity; the sum of all Resource Groups minimum values should not exceed 99; it has a system scope.
- Type 3: maximum capacity is specified as a percentage of a single general-purpose CP; 100 represents the capacity of one CPU; the sum of all Resource Group minimum values should not exceed the number of processors x 100; it has a system scope.
- Type 4; maximum capacity is specified in accounted (captured) workload MSU; it has a sysplex-wide scope.

Please remember that resource groups limit the possibility for WLM to manage the workload, so you must use them carefully and only if really needed.

Response time of a CICS transaction

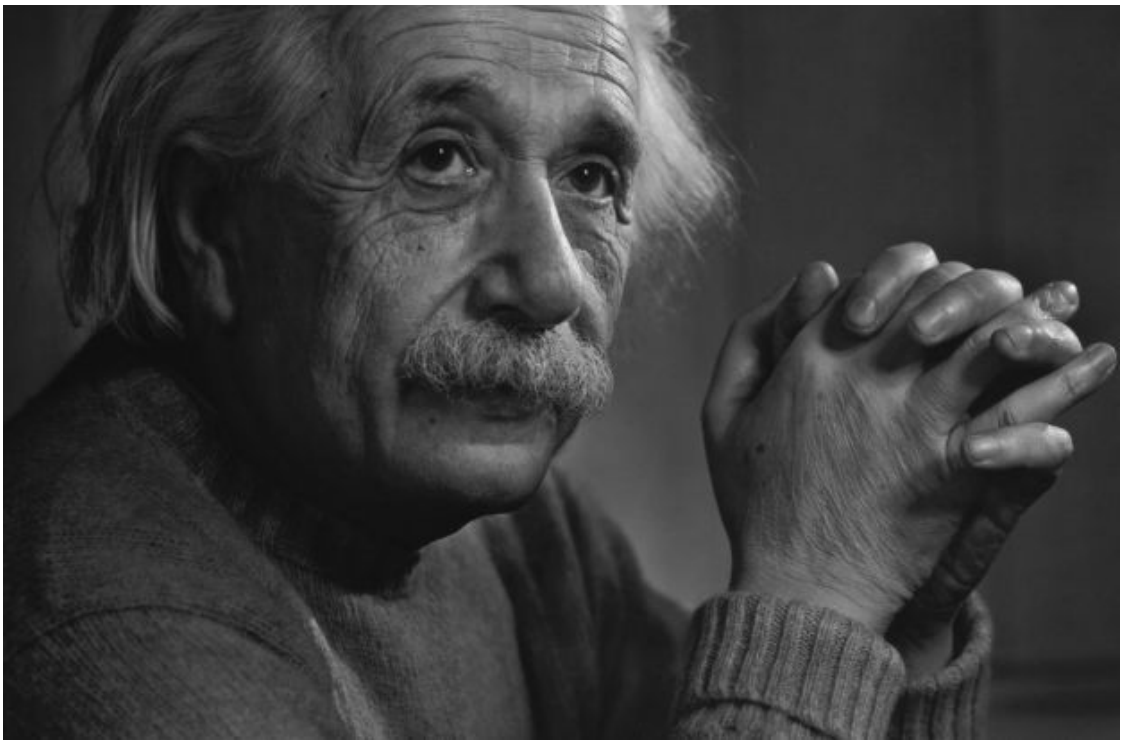
The following picture provides a simplified schema of the life of a CICS transaction.



When a transaction starts it must wait to be dispatched by the CICS region. This wait

is the “First dispatch wait” which is accounted as “Suspend time”.
Then the transaction is dispatched, and it starts using CPU and zIIP time alternated to periods when it is dispatched but it is waiting to use the CPU; all this time is accounted as “Dispatch time”.
At a certain point it can be suspended again for I/O or other reasons; all this time is added to the “Suspend time”.
This cycle is repeated more times up to the moment that the transaction ends.

Quotes



“Logic will get you from A to Z; imagination will get you everywhere.”

Albert Einstein

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