
Rule WLM341: Work may be delayed waiting for initiation or scheduling

Finding: CPEXpert believes that much of the UNKNOWN delay may be attributed to work waiting for a initiation or scheduling.

Impact: This finding can have a MEDIUM IMPACT or HIGH IMPACT on the performance of the service class. The amount of impact depends upon the amount of delay attributed to waiting for initiation or scheduling.

NOTE: This finding applies only to environments prior to OS/390 V2R4. With OS/390 V2R4, batch job classes may be managed by the Workload Manager, and other CPEXpert analysis applies.

Logic flow: The following rules cause this rule to be invoked:
Rule WLM300: Service Class was delayed for UNKNOWN delay
Rule WLM340: Batch jobs may be delayed waiting for an initiator

Discussion: When CPEXpert detects that a service class did not achieve its response goal, CPEXpert analyzes the basic causes (see the discussion in the above predecessor rules).

In Rule WLM340, CPEXpert computes the amount of time spent in a queue by subtracting the transaction execution time (R723CXET) from the total transaction elapsed time (R723CTET). CPEXpert concludes that queue delay time was a significant amount of the transaction time if the queue delay time divided by the total transaction time is greater than the **WLMSIG** guidance variable.

CPEXpert scans the Service Class Description (SMF Type 72 field R723MCDE) for the word "batch" and assumes that the service class describes batch workload if "batch" is encountered. CPEXpert produces Rule WLM340 if "batch" is detected in the Service Class Description. It is possible that the word "batch" will not be in the description of a service class of batch workload, or the workload may describe APPC transactions. Rule WLM341 will be invoked to provide information in this case.

The following example illustrates the output from Rule WLM341:

RULE WLM341: SERVICE CLASS MAY BE DELAYED WAITING FOR INITIATOR/SCHEDULER

The APPCFEED Service Class might have failed to achieve its performance goal because of queue delays (either batch jobs were waiting for an initiator, APPC transactions were waiting for the MVS/APPC transaction scheduler, etc.). The below information shows the average number of address spaces in the system, by category.

	-----THIS SERVICE CLASS-----			AVERAGE
MEASUREMENT INTERVAL	AVERAGE QUEUE	AVERAGE	AVG	BATCH
	TIME PER JOB	JOBS QUEUED	MPL	INITIATORS

Suggestion: CPExpert suggests that you review your initiator structure or APPC scheduling parameters. Depending upon the amount of delay and the importance of the workload, you may wish to revise the initiator structure (provide more initiators, change the class assigned to initiators), or change the APPC scheduling.

Alternatively, you may wish to change the job class assigned to the batch workload missing the performance goal.