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**sys.dm\_os\_schedulers - useful to find on whether your SQL Server engine is weakening!**

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The system DMV **sys.dm\_os\_schedulers** is an useful DMV to find such as running tasks & active workers threads etc. This is required to monitor the system state is heavily loaded or not, in particular this view will help you identify if there is any CPU bottleneck in the SQL Server machine.

SELECT

scheduler\_id,current\_tasks\_count,runnable\_tasks\_count

FROM sys.dm\_os\_schedulers

WHERE scheduler\_id < 255

By looking at the results of above query, the number of runnable tasks is generally a nonzero value; a nonzero value indicates that tasks have to wait for their time slice to run. If the runnable task counts show high values then there is a symptom of CPU bottleneck. The above query will also lists all the available schedulers in the SQL Server machine and the number of runnable tasks for each scheduler.

It is universal truth that having more CPUs (OS & SQL edition compatible) is always advantage in gaining performance (not always though, for the sake of theory assume query is normalized). But how to find whether your SQL Server application database is performing and it may need more CPUs or IO disks to keep up the optimum performance over a period of time. As always the SQL Server systemBy using above DMV (**sys.dm\_os\_schedulers**)you can obtain such information (as referred in Slava Oka's blog) :

select AVG (runnable\_tasks\_count) from sys.dm\_os\_schedulers where status = 'VISIBLE ONLINE'

Using above TSQL if you get the result greater than 0 (numbers >0) then it means your SQL System is waiting for CPU time to finish that particupar process.

select pending\_disk\_io\_count from sys.dm\_os\_schedulers

Using above TSQL if you get result greater than 0 (numbers >0) then it means the system is bound by IO, you need to get disks to perform better. BOL explains better on this value:

*Number of pending I/Os that are waiting to be completed. Each scheduler has a list of pending I/Os that are checked to determine whether they have been completed every time there is a context switch. The count is incremented when the request is inserted. This count is decremented when the request is completed. This number does not indicate the state of the I/Os. Is not nullable.*