MCM
How can I generate a report of processor hours used by group per month?

Issue: How can I generate a report of processor hours used by group per month?

Affected Versions: All

Symptom: Som customers would like to generate a report of processor hours used by group per month. Currently this feaure is not support however data points can be extracted with <u>mcredctl.</u>

Solution:

Some customers would like to generate reports of processor hours used by group per month. To do this you can use the output of showstats --xml with a timeframe. Here is an example:

mcredctl -q profile group --format=xml --timeout=00:10:00 -o time:1388590200,1431529200,types:TPSD

<u>TPSD</u> - Total proc-seconds (proc * sec) dedicated by this credential in the profiling interval
In short the formula is TPSD / ((Total proc count * 1800 seconds) 100)
This assumes you have not modified the profiling duration. The default is 30 minuets.
So for your output:
TPSD="0*4831
17719.20
17739.60
...
18040.00*2
...
15999.80
0*42308
713.88
904.22
185.88
0*454">

The first 4831 profiling duration (30 min) no dedicated proc hours were used by this group. Then the next 4832nd profiling duration 17719.20 proc second were used ...4833: 17739.60 proc seconds were used. Note you see at times 18040.00*2. This mean 18040.0, 18040.0 so each profiling duration 18040.0 was used for each. *# is just a way to aggregate the same usage without repeating it. Note at the end you see 0*454. This means the last 454 profile durations there was no dedicated procs used.
Detailed meaning:

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% System Utilization = (TPSD)/((TPC/IC)*SpecDuration) * 100

TPC - Total available processors. These are processors that are currently available. Down processors are ignored.
IC - This is the number of Moab Workload Manager iterations that have occurred in each profiling interval. This is used in almost every calculation.
The SpecDuration indicates the size of the profiling interval in seconds
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 Last update: 2015-06-11 18:31