Stress Tests – Round 2

Steve Timm

Neha Sharma

SCF/Fermilab/FermiGrid

September 13th 2012

Specifics

- GUMS 1.3.18 – gums1318.fnal.gov (gums1318a/gums1318b) SL5 64 bit
- MySQL servers – kvmmysql.fnal.gov (kvmmysql1/kvmmysql2) SL5 64 bit
- GUMS Protocol – XACML
- Condor Resources – CDF Sleeper Pool

- Terminology

  Width – number of parallel processes to run on each worker node

  Depth – number of times each parallel process will execute the call to GUMS server

  Number of worker nodes/slots on which to run the jobs

  Mapping Rate – number of mappings per second

- Test Types (Number of slots * width * depth)
  - Base load –(50*1*1) 50 parallel clients (one on each worker node)
  - Stress – (n*1*100) several runs (where n = 5000)

- Load and rate observed ~5 min after all jobs were running

- Load numbers observed for several minutes. Highest number that caught the eye was recorded.

- Rate based on 10 minute interval starting 5 minutes after the trigger was generated.

Run	Slots	Width	Depth	Mapping Rate/sec	% Failure	% Success	Load (gums1318a/ gums1318b/ kvmmysql1/ kvmmysql2)
1. Baseload prima scas client timeout for connect – 30 sec maxThreads = 150 minSpareThreads =25 maxSpareThreads =75 acceptCount=100 max_connections – 2000 each	50	1	N/A	40/39=**79/ sec**	~ 0%	~ 100%	9.4/9.5/1.2/1.2 % CPU usage Java – 160% Mysql – 39% % Mem usage Java – 30%

Run	Slots	Width	Depth	Mapping Rate/sec	% Failure	% Success	Load (gums1318a/ gums1318b/ kvmmysql1/ kvmmysql2)
2. Stress prima scas client timeout for connect – 30 sec maxThreads = 150 minSpareThreads =25 maxSpareThreads =75 acceptCount=100 max_connections – 2000 each	5000	1	100	49/48=**97/ sec**	13	87	17.3/18/1.4/1.3 % CPU usage Java – 200% Mysql –50% % Mem usage Java – 30%