

OSG Scalability Testing

Job startup rate

GRAM5, osg-gw-5.t2.ucsd.edu (Opteron 275)

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Description

This page contains the results of the scalability tests ran against a GRAM5 RC instance installed on top of a OSG CE.

The tested machine was osg-gw-5.t2.ucsd.edu, with an Opteron 275 CPU. OSG CE version 1.0.0, GRAM5 was the release candidate for 5.0.0.

The testing suite was loadtest_condor v1_0_0. The client had Condor-G v7.4.0. The client was on the same LAN as the CE.

Submitting 5000 jobs with small files, CE has 2.5k slots.

The test was performed in December 2009.

Results at a glance

Rate	Peak
Condor-G to Globus submission	~110/min
Condor-G noticing jobs starting	~110/min
Condor-G noticing jobs terminating	~100/min
Limiting one	~100/min

Detailed results

Test – Sleep 30 mins

Command used:

```
loadtest_condor.sh -type grid gt5 osg-gw-5.t2.ucsd.edu:/jobmanager-condor -req  
"(condor_submit=(+SleepSlot 'TRUE'))" -end fixed 1800 -jobs 5000 -cluster 100 -in infile 100 -out  
outfile 123
```

Resources used:

Reached 2.6k running jobs.

Ran out of jobs at the second 1.5k mark.

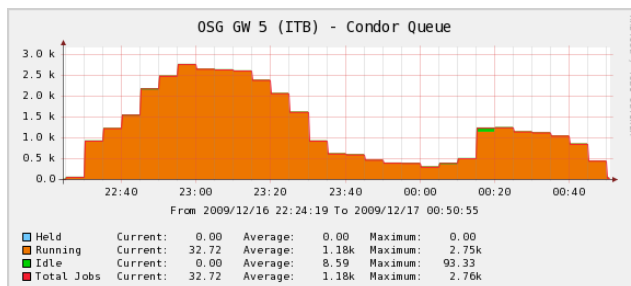


Figure 1: Running jobs on CE

Detailed rates:

Hourly

12/16 22 SB: 3700 GB: 3700 ST: 2681 TM: 0
 12/16 23 SB: 1200 GB: 1199 ST: 1186 TM: 1888
 12/17 00 SB: 100 GB: 100 ST: 1133 TM: 3100

Over 10 mins

12/16 22:2 SB: 1100 GB: 1100 ST: 36 TM: 0
 12/16 22:3 SB: 1100 GB: 844 ST: 1105 TM: 0
 12/16 22:4 SB: 800 GB: 884 ST: 851 TM: 0
 12/16 22:5 SB: 700 GB: 872 ST: 689 TM: 0
 12/16 23:0 SB: 300 GB: 299 ST: 316 TM: 0
 12/16 23:1 SB: 300 GB: 96 ST: 246 TM: 5
 12/16 23:2 SB: 200 GB: 186 ST: 202 TM: 12
 12/16 23:3 SB: 100 GB: 270 ST: 154 TM: 181
 12/16 23:4 SB: 100 GB: 148 ST: 102 TM: 912
 12/16 23:5 SB: 200 GB: 200 ST: 166 TM: 778
 12/17 00:0 SB: 100 GB: 100 ST: 99 TM: 1061
 12/17 00:1 SB: 0 GB: 0 ST: 649 TM: 740
 12/17 00:2 SB: 0 GB: 0 ST: 385 TM: 166
 12/17 00:3 SB: 0 GB: 0 ST: 0 TM: 99
 12/17 00:4 SB: 0 GB: 0 ST: 0 TM: 592
 12/17 00:5 SB: 0 GB: 0 ST: 0 TM: 442