



Achieving Top 20 with Condor Backfill and BOINC



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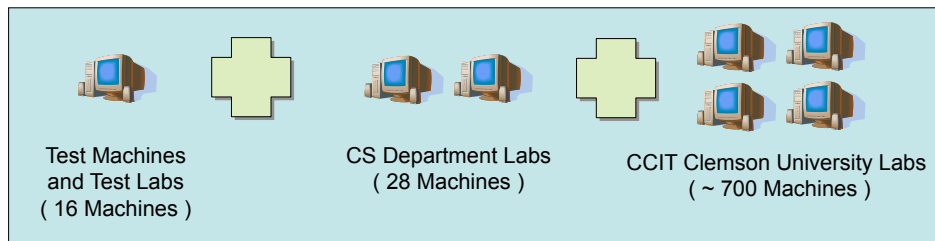
Introduction to Condor / BOINC Backfill

Condor is a distributed batch system that comes from the University of Wisconsin at Madison and allows companies and institutions to take advantage of their unused compute resources. BOINC is a distributed volunteer computing project from the University of California at Berkeley, which allows users to volunteer their unused compute time to BOINC projects.

Methodology

Clemson was able to use the backfill option provided with Condor combined with the BOINC mass installer from the World Community Grid to schedule BOINC as a job when there were no other Condor jobs. Condor and the BOINC mass installer were installed to the Computer Science labs and closely monitored for a month, then after the system was debugged it was implemented across all of the Clemson Computer and Information Technology administered computer labs. This combination of technologies insures that the power used to run and cool idle computers at Clemson University is not wasted, but donated to world impacting projects at the World Community Grid.

Clemson University Backfill System

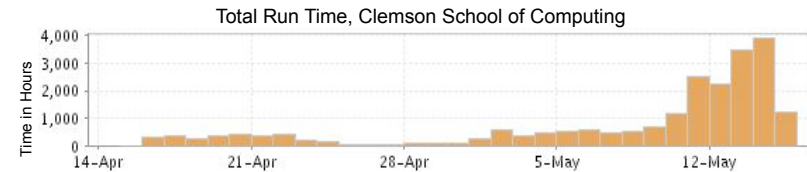


Acknowledgements

This project was made possible by grant from IBM and the efforts of Sebastien Goasguen from Clemson University School of Computing, Ben Burnett from The University of Wisconsin at Madison, Nell Kennedy, CS Windows administrator, and John Mark Smotherman, administrative assistant, for their work with the computer science department's labs, and Matthew Rector from CCIT for his work in the CCIT test lab and university lab imaging.

Results

The School of Computing has steadily risen through the ranks of contributors at the World Community Grid and is now the fourth highest contributor of CPU time among the world's colleges. The clemsonTiger user account, under which all computers are registered, is ranked ninth among contributors in the United States and is ranked sixteenth in the world.



Team:	Total Run Time (y:d:h:m:s):
neu-innova	2:283:06:20:47
Rochester Institute of Technology	0:355:15:58:59
Michigan Tech	0:288:18:56:46
Clemson School of Computing	0:173:22:47:38
TACC	0:154:15:53:58
St.Lukes-Roosevelt	0:154:04:31:12
University of Kaiserslautern	0:110:12:25:44
University of Waterloo	0:086:03:59:59
UTBM	0:075:07:22:45
Fairleigh Dickinson University	0:066:18:17:24

Future Work

The Clemson School of Computing and the Clemson Computer and Information Technology center will be switching from Windows XP SP2 to Windows Vista, so aggressive testing with Condor and BOINC on Vista machines has been started.

