Abstract

Modern data processing tasks involving high computation with huge data intensive work are not providing any usual response as they run over a conventional computing architecture, where the synergism capabilities of such machines are limited to single central processing unit. Improvement over such single processing architecture is not the big issue as many earlier
efforts in this era has been performed, which involves overlapped pipelined architectures. Later
the technology extends to involve multiple processing elements under the control of a common
clock. A current trend involves multiple central processing units. Despite of such efforts, another
way of achieving parallel effect is to make effective utilization of multi-computer hardware in the
form of massively parallel clustering over a local area network. Further the experiment lead to
the analysis of Run-length image compression over a network cluster-involving client – server
model of computation consisting software modules implemented via TCP/IP sockets for the
requirement of increased speedup as well as throughput. Finally, the conclusion containing
comparisons over clustered environment will be discussed.

Reference

- Amit chhabra, Gurwinder Singh 2010 Cluster Based Parallel Computing framework for
  Performance evaluation of Parallel Applications, Vol.2 April – 2, International Journal of
  Computer Theory and Engineering.
- Amit chhabra, Gurwinder Singh 2009 Simulated Performance Analysis of Multiprocessor
  Theory and Engineering
- Hemal V. Shah, Calton Pu, Rajesh S. M. 2006 Network-Based “Parallel Computing,
- Chee Shin Yeo, Raj Kumar Buyya, Hossein Pourreza, Rasit Eskicioglu, Peter Graham,
  Frank Sommers 2005 Cluster “Computing: High-Performance, High-Availability, and
  High-Throughput Processing on a Network of Computers”. ICCS- 5th International Conference,
  Springer Verlag Berlin Heidelberg.
- Daniel Schulze Zumkley Architectures of Parallel computers, Westfälische Wilhelm’s
  Universitat Munster.
  transactions on computers, 21(9):948-960.
  CMU-CS-97-197

Index Terms

Computer Science
Signal Processing
Key words

Parallel Clustering        Multi-Computers        Run-length Image

Compression.