

Bare Demo of IEEEtran.cls for IEEE Conferences

Andrea Milanta
Computer Science
University of Illinois at Chicago
Chicago, Illinois
andrea.milanta@gmail.com

Abstract—The abstract goes here.

I. INTRODUCTION

In the past fifteen years there has been a clear shift in the computer system architecture paradigm. To the single very powerful unit, designers now prefer networks with lots of less powerful nodes. One of the first system archetypes addressed by this change was the set of all systems design to perform a lot of independent operations on many data. The reason why is rather obvious. Such systems usually have minimum synchronization requirements between processes and consequently can exploit at maximum the inherently concurrency of distributed systems without requiring sophisticated control algorithms. The most common problems of this category are server-side responses and complex mathematical computation on large arrays. Graphics renders are also related: however, since they usually need to perform very basic operation on a very large amount of data, communication becomes a bottleneck and therefore custom hardware architecture (GPU) have been developed to solve this problem specifically.

One of the main challenges in developing a distributed systems for these problem is assigning each task to a node of the network in an efficient way. The aim is to exploit all the nodes proportionally to their computing power, minimizing delay and response time. This problem is known as load balancing. The next section will describe more in details the load balancing problem and its challenges. Section number three provides an overview of the most common algorithms for load-balancing. Section number four presents a new solution.

II. THE PROBLEM

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Load balancing
is the problem of resource allocation optimization in
computing distributed systems. From saving food for the
winter in the prehistoric era to modern economy, efficiently
managing the available resources has always represented one
of the main challenges of humanity. Before focusing on the
problem, however, it is important to precisely understand

what a resource is.

According to the Merriam-Webster dictionary a resource is:

"a source of supply or support"

In computer science this issue becomes a real challenge in those systems where the computational load is close to the available computational power. Inherently, resource allocation implies the fact that there are multiple resources which can perform the same task. Let us consider the case of an oil company.

III. RELATED WORKS

A. Algorithm 1

Subsection text here.

B. Algorithm 2

Subsection text here.

1) *Subsubsection Heading Here*: Subsubsection text here.

IV. THE PROBLEM

V. CONCLUSION

The conclusion goes here.

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