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A DYNAMIC LOAD BALANCING ALGORITHM
FOR DISTRIBUTED WEB SYSTEMS[2]

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Abstract: Distributed web systems are complex systems that are interconnected by a multitude of nodes. To guarantee high performance and availability, task distribution is a crucial issue in distributed systems. Modern computer systems are made up of multiple components (called nodes) and distributed over multiple physical nodes; these are known as distributed web systems. In this article, an efficient algorithm for task distribution in distributed web systems will be presented. The algorithm, when distributing packets, will take into account the capacity and load of the nodes. This helps ensure a continuous flow and that tasks are distributed to less-loaded nodes that are able to take on other tasks. A multitude of modern applications and platforms in the areas of e-commerce, social media, cloud computing, big data, and the Internet of Things use distributed web systems. Distributed web systems are complex and require attention in implementation and planning. This comes with a number of benefits. Scalability is used to meet increasing demand; distributed web systems can be easily scaled. Reliability: The fact that these do not depend on a single node to function properly makes them more reliable than centralized systems. Performance: Given that tasks are distributed across multiple computing nodes, distributed web systems offer increased performance compared to centralized systems. Security: attacks are much more difficult to carry out given the increased number of nodes to be attacked. These are more secure than centralized systems.

Keywords: Load balancing algorithm, Distributed web systems, Dynamic load balancing, Capacity, Load efficiency, Scalability, Reliability.

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