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Research Article



Secure Load Balancer

K. Karthik Chary ¹ and Dr. G. Latha ²

Corresponding Author:

2211cs040078@mallareddyuniversity.ac.in

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ABSTRACT

Efficient management and distribution of network traffic across several servers to guarantee maximum performance and

dependability depend on the creation of a Secure Load Balancing system. When one server is inadequate to manage network traffic, this report describes the development and deployment of a Load Balancer, which is required. The system can manage higher traffic efficiently by creating a Web Farm— a set of servers working together. Securely deviating traffic from one server to another with block chain ticket generation means generating a distinctive, cryptographically secure token (ticket) on the block chain for every transaction or demand. Validated on the block chain, this ticket guarantees only authorized traffic goes to the intended server, thereby keeping unauthorized access or interference in check. Block chain's decentralized character guarantees that the direction process is aboveboard and immutable, hence protecting against cyber threats and providing transparency. Load Balancing system, apart from improving system performance and dependability, presents economical advantages. Rather than purchasing one top-end server, deploying several mid-level machines might help to solve load issues more cost-efficiently. This report goes over system architecture, server synchronization, and operational benefits— which are the essential elements of Load Balancer design and application.

¹ Research scholar, ² Associate Professor,

^{1,2} Computer Science & Engineering - Cyber Security,

^{1,2} Malla Reddy University, Hyderabad, India

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