

## ABSTRACT

The 4.0 Industrial revolution of the present era raises a concept called the Internet of Things (IoT). IoT is a concept of technology that can incorporate objects that exist around the Internet. With the connecting of the objects to the Internet, it will make the objects as targets of cyber crimes. There are some crimes that often occur on the internet, such as DoS (Denial of Service), Modification Attack, and Drop Packet. One of these crimes can be minimized by adopting the principle of the Blockchain.

This final task focuses on reducing the network's impact on DoS attacks. DoS is a crime that aims to negate services on the system. By adopting the work of the Blockchain where the data received by the server will enter the validation process first before further processing by the server. The validation process is performed by matching the result of the hash value received by the server with the hash validation algorithm on the server. If the received data is invalid, the server will block the parcel's sender address.

By implementing this blockchain system, the system is capable of delivering the efficiency of CPU memory usage by 2.5% when there is a DoS attack. The results are derived from the maximum average use of the system without a blockchain of 62.3% and a system that uses a blockchain of 59.8%. As for normal CPU usage when no DoS attack ranges between 4-6% for running XAMPP and Microsoft Excel programs.

Keywords : *Blockchain Network, DOS, Internet of Things, Security*