

## ABSTRACT

The rapid development of technology, especially in the development of the internet network is very large has a positive and negative impact for all users. Likewise with the attacks and threats that occur on computers and servers in a network due to the spike in Internet users a lot, which can be called anomalous traffic. With the problem of this traffic anomaly, then in need of a system that can detect anomalies on network traffic.

In this final project, Algorithm used for anomalous rock is Density Based Spatial Clustering Algorithm of Application with Noise (DBSCAN). This clustering based algorithm is an algorithm that classifies objects based on density (based on data rate density). In DBSCAN Algorithm, the distance calculation method used is Euclidean Distance which is less than maximum in calculating the distance between points in the clustering process. By looking at the deficiency, the author will use distance estimation method Mahalanobis Distance for better value cluster results.

The result of this research, using MD method on DBSCAN algorithm has a good enough performance in detecting traffic anomaly. This can be seen from the accuracy test results from the cluster, which has a result of 91.57%.

***Keyword:*** Mahalanobis Distance, DBSCAN, Traffic anomaly, KDDCUP 1999, Clustering