Anomaly based Intrusion Detection System using Genetic Algorithm and K-Centroid Clustering

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Abstract

Internet is being expanded because of the enhancement of today's networks and with these expansion different types of unauthorized activities building up to make the network vulnerable. Many researchers are working around the world to protect the systems from any kind of unauthorized access. In this study we have implemented an Intrusion Detection System based on K-Centroid Clustering and Genetic Algorithm to achieve a better detection rate and false positive rate. In our system training set is classified into different clusters based on K-Centroid clustering and then GA is performed to check each connection of the test set and finally result has been obtained for every specific connection. We have used both Kdd99Cup and NSLKDD dataset to get the experiment result of our system. Finally analyzing with those data we have got a decent detection rate in our implemented system.

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Index Terms

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Keywords