We designed a system to detect fraud in Credit Card transactions. This system is capable of providing most of the essential features required to detect fraudulent and legitimate transactions. As technology changes, it becomes difficult to track the behavior and pattern of fraudulent transactions. We have just detected the fraudulent activity but we have not prevented. Preventing known and unknown fraud in real time is not easy but it is feasible. The proposed architecture is basically designed to detect credit card fraud in online payments, and emphasis is made to provide a fraud prevention system to verify a transaction as fraudulent or legitimate. For implementation purposes it is assumed that issuer and acquirer bank is connected to each other. If this system is to be implemented in real time scenario then exchange of best practices and raising consumer awareness among people can be very helpful in reducing the losses caused by fraudulent transactions.

Further enhancement can be done by making this system secure with the use of certificates for both merchant and customer and as technology changes new checks can be added to understand the pattern of fraudulent transactions and to alert the respective card holders and bankers when fraud activity is identified. The dataset available on day to day processing may become outdated, it is necessary to have updated data for effective fraud behavior identification. To this extent, the incremental approach is necessary in making the system to learn from past as well as present data and capable of handling the both. Fraudster uses different new techniques that are instantaneously growing along with new technology makes it difficult for detection. Also the nature of access pattern may vary from one geographical location
to another (such as urban and rural areas) that may result in a false positive detection.
In such a case a future enhancement may be based on new multiple models with
varying access pattern needs attention to improve the effectiveness. Privacy
preserving techniques applied in distributed environment resolves the security related
issues preventing private data access.
APPENDIX