Abstract

Intrusion Detection System (IDS) is an effective security tool that helps to prevent unauthorized access to network resources by analysing the network traffic and classifying the records as either normal or anomalous. In this paper, a new classification method using Fisher Linear Discriminant Analysis (FLDA) is proposed. The features of KDD Cup '99 attack dataset are reduced for each class of attacks using correlation based feature selection method. Then with the reduced feature set, discriminant analysis is done for the classification of records. Comparison with other approaches reveals that our approach achieves good classification rate for R2L (Remote-to-Local) and U2R (User-to-Root) attacks.

References

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- SPSS Inc., &quot;SPSS 13. 0 Base User's Guide&quot;


Index Terms

Computer Science Security
Keywords
Intrusion Detection System  R2L   U2R   Fisher Linear Discriminant Analysis   Feature Reduction   Spss
Weka
Kdd Cup &apos;99