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Title : Statistical analysis in evaluating STAKCERT infection, activation and payload methods

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Abstract : This paper presents the result of the statistical analysis on relationship between sub features in STAKCERT worm classification. The sub features of the STAKCERT worm classification in this paper were using the statistical analysis to prove the relationship between the sub features. Prior to that, the static and the dynamic analysis were conducted to identify and prove the association between the main features in STAKCERT worm classification for worm detection. There are limited ways on how the relationship between categorical data can be evaluated and Chi-Square tests and the symmetric measure are seen as the best method to be implemented. The case study presented in this paper explains in details how the Chi-Square tests are used to determine the relationship existed between the sub features and followed by the symmetric measure to quantify the strength of the relationship. This research paper is based on the integration between statistics and computer security field specifically with worm analysis. It can be used as the basis for further exploration in worm detection and isolation study.

Subject : Activation; Chi-Square; Infection; Payload; Symmetric measure

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