Abstract

Cyber crime is growing fast day-by-day through the spreading of Internet around the world. Many under-developed countries are using dial-up setup network where a call is connected only after a little extra effort. Some identified cyber crimes are writing abusive letters, giving threats to other, sending unwanted mails, hacking secret data, phishing attack on websites etc. The Internet traffic growth has some positive correlation with the cyber crime as justified by the Markov Chain Model based analysis of authors to examine the interrelationship between traffic sharing and blocking probability. This analysis has been extended for two-call basis also and model based relations are derived. These relations are complicated in terms of mathematical structure. This paper presents least square based curve analysis for Markov Chain model based relationship between traffic sharing and network blocking. The earlier suggested
complicated relationship has been simplified in the form of straight line showing a good fitting. The Coefficient of determination has been computed showing the high value towards unity. It proves that simplified linear relationships perform well as a thumb rule for expressing the complex relationship between traffic sharing and network blocking probability.

References

- Paxson, Vern (2004): Experiences with internet traffic measurement and analysis, ICSI Center for Internet Research International Computer Science Institute and Lawrence Berkeley National Laboratory.
- Shukla, D., Tiwari V. and Thakur S. [2010 e]: User behavior Based Probability Analysis of Internet Traffic Distribution in Two market in Computer Networks, Kalpagam Journal of Cambridge Studies (KJCS)
- Shukla, D. and Singhai, Rahul [2010 b]: Traffic analysis of message flow in three
- Shukla, D., Verma, Kapil and Gangele, Sharad, [2012]: Least Square Curve Fitting


Index Terms

Computer Science Networks

Keywords

User Behavior Transition Probability Matrix (tpm) Markov Chain Model (mcm) Coefficient Of Determination (cod) Confidence Interval