Abstract

In this paper, we proposed the usage of “Variable Structure Congestion Control Protocol” in network communication to avoid Buffer Overflow thereby preventing Buffer Overflow Attacks. In general transferring a signal between connected Clients are done through “Transmission Control Protocol” in which only two states are clearly shown i.e. either “0” or “1”. For successful transmission “1” is represented and for failure transmission “0” is represented during transmission process. In “Variable Structure Congestion Control Protocol” there are four possible states for representing the signal transmission. They are “00, 01, 10, and 11”. Through VCP the signal transmission can be classified as “Low load region”, “High load region” and “Overload region” from which the transmission load can be monitored thereby preventing “Buffer Overflow” in network transmission. Round Trip Time (RTT) and Round Trip Time Timeout (RTO) have been calculated together with VCP to prevent buffer overflow attack during signal transmissions.

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Index Terms
  Computer Science  Communications

Keywords
  Round Trip Time  Variable Structure Congestion Control Protocol  Buffer Overflow Attack