A Review of Comparative Analysis of TCP Variants for Congestion Control in Network

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Abstract

TCP is a consistent, association-oriented and extensively used end-to-end transport protocol in the computer network. It gives data in the structure of byte streams, start the connection and it is used in many applications that depend upon secured delivery of information. TCP assigns array to establish their integrity and deliver operation measures from timeouts and retransmissions to provide accuracy. Many analysis affiliate with the computer network processes showed that the accurate characteristics of traffic possess the capacity of time-scale invariant. Such an impact is produced by the specific character of file allocation on servers, their dimensions ahead with an ordinary behavior of users. It was introduce that the data streams, which originally do not show autonomous-analogy properties after being processed at the host server and an effective grid elements, start exhibit the distinct signs of autonomous-analogy. It produces quick buffer overwhelm even with using low factor. If no action is taken to eliminate the arriving traffic then the queues on the maximum weighted boundary will grow repeatedly and finally increase the size of the buffers at the identical nodes. This paper presents a comparison of TCP variants for Congestion Control in network concerning the basis of various
performance metrics such as end-to-end wait, throughput, queue dimension and packet delay rate using Network Simulator-2 (NS-2). The conclusion show that in high congested network, Vegas does best while in low cohesive network Reno gives best result.

References

Index Terms

Computer Science  Networks

Keywords

Congestion Control, TCP Tahoe, TCP Reno, TCP New Reno, TCP Vegas.