Abstract

Congestion free services are ultimate preference of every network consumer and service providers. Variety of parameters like packet dropping rate, latency, jitter, throughput, bandwidth, fair response of resources, link utilization and queue length are responsible to fabricate or reduce congestion. Current TCP model for high speed networks is unstable and
ineffectual due to slow response, large window size and fairness issues. The ideal and positive utilization of indicated factors can reduce congestion up to ideal strength with enhanced fairness. These entire factors cannot be handled with single congestion handling technique but a joint committee of congestion techniques can manage all these constraints. We considered packet loss as a primary congestion and fairness metric that differs with already conveyed hybrid congestion techniques that utilize delay as primary metric. We reviewed several congestion algorithms to find out most essential parameters to negate congestion in packet switched networks among the above mentioned parameters. We proposed a hybrid congestion handling technique after performing sufficient comparison with already conveyed hybrid congestion management techniques. Our propose hybrid congestion management technique (ECN + IFRC) is empirically superior to exiting hybrid congestion management techniques in some extents.

References

Comprehensive Exploration for Proposing Hybrid Scheme upon Congestion Avoidance Algorithms

pp. 1-12

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