

# ANALYSIS OF TIMELY-TOKEN PROTOCOL WITH NON-UNIFORM HEAVY LOAD OF ASYNCHRONOUS TRAFFIC

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## **ABSTRACT**

**In this paper, the timely-token protocol is studied under non-uniformly heavy load of asynchronous traffic and problems were identified. The problem are due to inappropriate definition of heavily loaded networks. Specifically, the paper presented a more comprehension definition of a system that is heavily loaded with asynchronous traffic. Furthermore, the performance analysis is conducted to account for the two extreme cases; where every node is heavily loaded and another case, where only few nodes are heavily loaded while the rest are not loaded at all. The discovery in this paper is very essential to network designers and researcher as they strive to improve the performance of the timed token protocols under various network traffic configurations.**

**KEYWORDS: Timely-Token Protocol, Best-Effort Service, Bandwidth Reclaiming Mechanism, Asynchronous Traffic, Synchronous Traffic**