Quality of Service Aware Order Allocation for Inter-Regional Online Food Delivery Systems

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***Abstract*—The allocation of orders in an online food delivery system that maximizes Quality of Service (QoS) to customers by assuring long distance delivery is a challenging problem because of the different order completion properties and service expectations. Existing works in the literature are constrained by focusing either on reducing order completion time or minimizing costs associated with order delivery within a predetermined region. In this paper, we have developed a framework for optimal order allocation of inter-regional food delivery orders as an optimization function which minimizes service time to escalate QoS of the system with required constraints. The results of performance studies depict that the proposed system achieves competitive service time as well as enhances the number of orders of the system.**

***Keyword*—Crowdsourcing, Online Food Delivery, Order Allocation, Service Time Minimization, Inter-Region Delivery.**

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