

**AN INNOVATIVE PROPOSAL FOR MANAGING OF TRAFFIC
OVERLOAD****V.Pravallika¹, V.Somaiah²**¹M.Tech Student, Dept of CSE, Arjun College of Technology & Sciences, Hyderabad, T.S, India²Assistant Professor, Dept of CSE, Arjun College of Technology & Sciences, Hyderabad, T.S, India**ABSTRACT:**

Lot of works were made on enhancing of data access performance within delay tolerant networks. The concept of Auction was utilized widely in designing of network. Here in our work we highlight on studying of trade-off between quantity of traffic being offloaded as well as users' fulfilment, and suggest a novel incentive structure for the purpose of motivating users to control their delay tolerance for offloading of traffic. We introduce a novel structure which is a reverse auction incentive, for motivating users to manage their delay tolerance for offloading of traffic and the system have three enviable properties such as consistency, individual lucidity, as well as low computational complexity. In our system, users function as sellers to send bids, includes delay that they experience and the obtained discount for this delay. The network operator later functions as buyer to acquire delay tolerance from users. In proposed construction users are offered with incentives; that is obtaining of discount for service charge when they wait longer for downloading of data.

Keywords: Delay tolerant networks, Auction, Reverse auction, Delay tolerance, Offloading of traffic, Sellers, Network operator.

1. INTRODUCTION:

The unpredictable expansion of user population for multimedia content increases important demanding for cellular networks. On offloading of cellular forms towards different forms, various efforts regarding research were carried out and mainly highlight on maximizing of cellular traffic that is offloaded [1]. Lot of offloading opportunities might takes place by means of requesting mobile users to hold on for a long period before downloading data from cellular networks, however this make users turn into more intolerant and, for this reason, decrease their agreement. For handling the overload problem of cellular traffic, several studies suggests in utilizing of delay tolerant networks to carry out offloading. The traditional works made in earlier efforts did not consider satisfaction loss of users when long delay is caused by means of traffic offloading. For motivating users towards influencing of delay tolerance in support of offloading cellular traffic, we introduce auction-basis incentive structure. Applying of auction in spectrum leasing is one of the extensively used useful applications. In our work, we spotlight on studying of trade-off among quantity of traffic being offloaded as well as users' fulfilment, and recommend a

novel incentive structure for the purpose of motivating users to control their delay tolerance for offloading of traffic [2][3]. We introduce a novel structure of Win-Coupon, which is based on reverse auction incentive, for motivating users to manage their delay tolerance for offloading of traffic and the system have three enviable properties such as consistency, individual lucidity, as well as low computational complexity. The most important challenge in designing of the proposed incentive structure is to reduce incentive cost of cellular network operator that includes total discount offered to mobile users, subjected to a normal quantity of traffic that is being offloaded. For attaining of this goal, two most essential factors were taken into consideration such as delay tolerance as well as offloading ability of users. The user containing high delay tolerance as well as huge offloading potential has to be prioritized within offloading of cellular traffic.

2. METHODOLOGY:

In our work we put forward an accurate form for capturing accepted traffic that can be offloaded towards delay tolerant networks for facilitating our structure design. Contrasting from traditional works,

in our work we put forward an accurate representation for prediction of offloading traffic by means of WiFi hotspots when a mobile user is interested to wait for assured delay time. By the same delay period, users with advanced delay tolerance necessitate fewer discounts to balance their loss of satisfaction. For capturing the dynamic features of delay tolerance regarding user we introduce a novel structure which is based on reverse auction incentive, for motivating users to manage their delay tolerance for offloading of traffic that is proved to carry out an acceptable pricing. System has three privileged properties such as consistency, individual lucidity, as well as low computational complexity. In our proposed system, users serve as sellers to send bids, includes delay that they experience and the obtained discount for this delay. The network operator later serves as buyer to acquire delay tolerance from users. On the basis of derived information, a reverse auction is performed, including two most important steps such as allocation as well as pricing. In proposed structure users are offered with incentives; that is obtaining of discount for service charge when they wait longer for downloading of data. For the delay period, cellular data traffic might be

offloaded to various other networks and user is guaranteed to obtain enduring part of data through cellular network when delay period finish [4]. The best possible auction outcome is determined by means of considering both delay tolerance as well as offloading potential of users to attain least incentive cost, when provided an offloading target. The user with high delay tolerance as well as huge offloading potential has to be prioritized within offloading of cellular traffic. The auction winners initiate contracts by network operator for delay they wait and coupon they make. Various other users download data by means of cellular network at unusual price.

3. AN OVERVIEW OF PROPOSED SYSTEM:

In the recent times, cellular networks face severe problems of traffic overload that are caused by extreme traffic demands. For encouraging users towards influencing of delay tolerance in support of offloading cellular traffic, we set up auction-basis incentive structure. We introduce a novel structure of Win-Coupon, which is based on reverse auction incentive. In the reverse auction-based proposed system users serve as sellers to send bids, includes delay that

they experience and the obtained discount for this delay. The network operator later serves as buyer to acquire delay tolerance from users. The buyer pays coupon in return for long delay of users. The sellers put up for sale their delay tolerance to succeed coupon. The network operator gather bids for deriving delay tolerance of bidders, and expect their offloading potential. On the basis of derived information, a reverse auction is performed, including two most important steps such as allocation as well as pricing and later network operator returns auction outcome to bidders. In designing of incentive structure is to reduce incentive cost of cellular network operator that includes total discount offered to mobile users, subjected to a normal quantity of traffic that is being offloaded. In this structure users are offered with incentives; that are obtaining of discount for service charge when they wait longer for downloading of data. Two most necessary factors were taken into consideration such as delay tolerance as well as offloading ability of users. System has three enviable properties such as consistency, individual lucidity, as well as low computational complexity. The optimal auction outcome is determined by means of considering both

delay tolerance as well as offloading potential of users to attain least incentive cost, when provided an offloading target. By similar delay period, users by means of advanced delay tolerance necessitate fewer discounts to balance their loss of satisfaction. In allocation step, network operator comes to a decision regarding winner bidders and how long they must wait. In pricing step, network operator comes to a decision regarding payment for each of the winner [5]. Finally, network operator returns bidders with auction outcome that comprise allocated delay and value of coupon for every bidder. The finest auction outcome is to reduce network operator's incentive cost that is subjected towards a specified offloading target according to bidders delay tolerance as well as offloading potential [6].

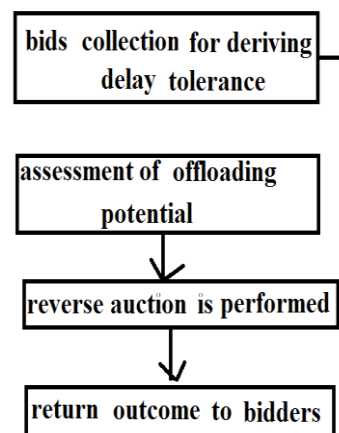


Fig1: Proposed system.

4. CONCLUSION:

In our work we introduce accurate structure for capturing accepted traffic that can be offloaded towards delay tolerant networks for facilitating our structure design. We focus on studying of trade-off among traffic being offloaded as well as users' fulfilment, and recommend a novel incentive structure for the purpose of motivating users to control their delay tolerance for offloading of traffic. We initiate a novel structure based on reverse auction incentive, for motivating users to manage their delay tolerance for offloading of traffic and the system have three enviable properties such as consistency, individual lucidity, as well as low computational complexity. The user enclosing high delay tolerance as well as huge offloading potential has to be prioritized within offloading of cellular traffic. Different from established works, in our work we propose an accurate representation for prediction of offloading traffic when a mobile user is interested to wait for assured delay time. In our structure, users serve as sellers to send bids, includes delay that they experience and the obtained discount for this delay. The network operator later serves as buyer to acquire delay tolerance from users. The most select

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