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MULTIPLE ROUTING FLOW ALGORITHM TO PREVENT NETWORK FLOW PROBLEMS

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Abstract— In wireless network group of notes can be communicated using unicasting, multicast or broadcast based data transmission techniques to transmit a packet over a network. We consider the problem to regulate the network flow problems between faster sender and slower receiver based. To avoid packet dissemination proposing on demand dynamic routing policy using multicast max weight algorithm to generalized the network flow problems.

Keywords— Introduction, Network Flow problems, transmission techniques.

I. INTRODUCTION

The majority of the nodes are suffered with battery power is a key problem of energy cost reduction in wireless sensor network is to find route with minimum total energy consumption for a given communication session broadcast (all node are destination nodes), multicast (some nodes are destination nodes) or any cast (several choices for a single destination node). Packets generated at a source need to be distributed among all nodes in the network. In the classic paper of Edmonds [1], the broadcast capacity of a wired network is derived and an algorithm is proposed to compute.

II. RELATED WORK

In Existing Work optimal control for generalized network flow problems are considered using throughput-optimal back-pressure policy to allow for packet cycling, resulting in excessive delay. But extensively simulation results are not up to the mark Provenance has been used to verify trust, trustworthiness, or correctness of information in many research areas.

III.PROPOSED WORK

The Proposed Work, stochastic lyapunav theory with a sample path argument policies are studied extensively, proposing a new optimal algorithm called multicast max weight algorithm which retains throughput optimality when implemented with physical queue lengths, instead of the virtual queue lengths. Significantly refine the previous trust model by considering the following enhancements: (a) trust is scaled in [0; 1] as a real number; (b) trust evidence, either direct or indirect evidence, is modelled by the Beta distribution with evidence filtering, treating evidence in a Bayesian way, to make more generic with the amount of positive and negative evidence; (c) trust dimensionality is considered by which multiple dimensions of trust can be captured independently; and (d) four variants of devised to deal with uncertain evidence caused by message loss or modification. We consider a more comprehensive set of performance metrics to characterize QoS, including the average delay occurred to deliver a message and the ratio of correct message delivery. Furthermore, we consider trust bias per trust property to give a more comprehensive understanding of the relationships between the accuracy of trust estimation and the routing performance in Networks. We conduct a performance analysis comparing four variants of existing trust-based and non-trust-based network routing protocols and validate the results using a real dataset of network mobility traces.

CONTRUBUTION OF WORK

1. Delay improvement compared to back pressure policy using multicast setting.
2. Using heuristic on demand dynamic routing policy for improves latency in wireless network-the broadcast setting.

IV.PROPOSED RELATED WORK

MODEL AND PROBLEM FORMULATION

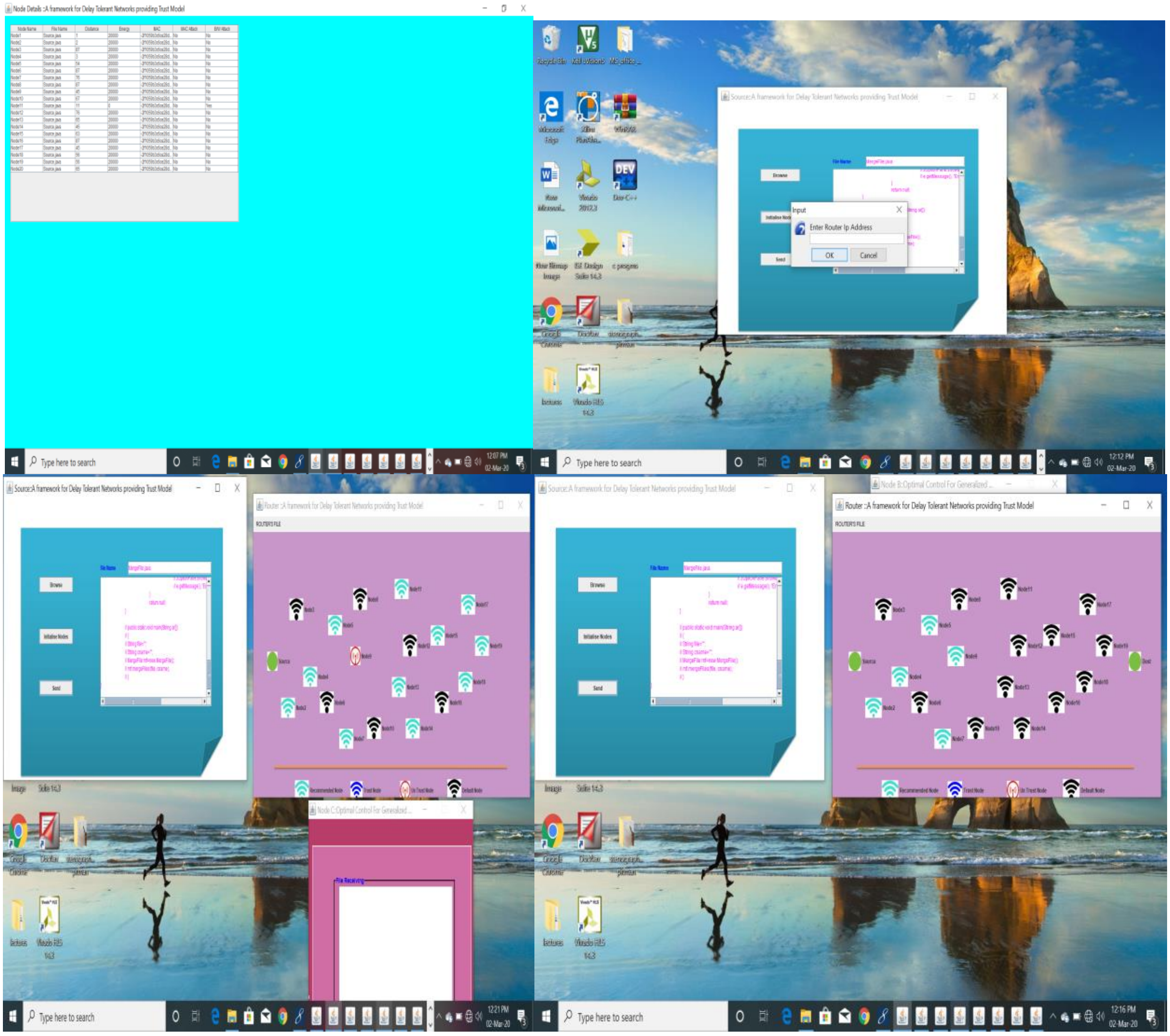
A. Network Model

We model, where the activation set $_{\text{wired}} = 2^E$. In other words, in wired networks, packets can be transmitted over all links simultaneously. Traffic Model In this paper, we consider the Generalized Network Flow problem, where incoming packets at a source node are to be distributed among an arbitrary set of destination nodes in a multi-hop fashion. Formally, the set of all distinct classes of incoming traffic is denoted by . A class c traffic is identified by its source node $s^{(c)}$ V and the set of its required destination nodes $^{(c)}$ V . As explained below, by varying the structure of the destination set $^{(c)}$ of a class c, this general framework yields the following four fundamental flow problems as special cases.

Proposed Algorithms

Theorem 1. Under the above dynamic routing and link scheduling policy, the virtual queue process {Q˜(t)}t0 is strongly stable for any arrival rate 2 int(⇤), i.e., lim sup T!1 1 T T X1 t=0 X e2E E(Q˜e(t)) < 1.As a consequence of the strong stability of the virtual queues {Q˜e(t), e 2 E}, we have the following sample-path result, which will be the key to our subsequent analysis.

V. COMPARATIVE RESULTS



VI. CONCLUSIONS

In this paper we have proposed a new, efficient and throughput-optimal policy, named Universal Max-Weight (UMW), for the Generalized Network Flow problem. The UMW policy can simultaneously handle a mix of Unicast, Broadcast, Multicast and Anycast traffic in arbitrary networks and is empirically shown to exhibit superior performance.

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