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IMPROVED SUSTAINABLE PATH ALLOCATION USING HISTORICAL BACKUP FOR NODE INTERCONNECTIVITY ALGORITHM IN MANET

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Abstract

Mobile network is does not manage the heavy load, because data packet size is varied based on the data size. Packets are totally blocked for heavy load of data packets in waiting state. The load balancing path is does not detected by sender node, since the traffic occurred immediately, it does not maintain historical details, if any hop get failed, it makes difficult to transmit data packet with allocated time slot. It provides the unbalanced load routing path. So, proposed Improved sustainable path allocation (ISPA) technique is used to obtain the load balancing sustainable routing path, packet generated by sender provides the similar size of data packets for relaying from source node to destination node. This also allocate the time slot considering packet size. Historical backup for node interconnectivity algorithm is desgined to applying for relaying nodes, those nodes should easy to balance heavy load using backup of historical details. It improve throughput, and reduce end to end delay.

Keywords: Improved sustainable path allocation, Historical backup for node interconnectivity algorithm.

I.INTRODUCTION

Lacking any previously available environment, nodes should selfconfigured into mobile ad hoc network energetically and chance to appearance a provisional topology. These type of wireless networks permit packet sharing between sender to controller node [1], these characteristics are broken in disaster investigate and save energy usage, and completely suitable for packet transmission tracked in the battleground. though its huge possible, Mobile network are forced by the incomplete resources placed, and the advanced susceptibility to a few protection problems. The significance is rewarded to this assortment of wireless networks. Essentially, an determined communication has concerted on the communication process within mobile network [2]. Definitely, the essential part of a communication technique is used to find out and to launch

accurate path from source to target node, it is dependable for continue connections to assurance the network connectivity. while, the characteristic boundaries of wireless structure, create the manipulative of recent communication technique a not easy work [3].

Conditions of a satisfactory presentation, a lot of techniques should prepared to increase the superiority of communication of direction-finding method depends on various metrics, like transmission rate, and packet latency [4]. Furthermore, the estimate of the mobile ad hoc neworks communication technique presentation is also the focal point of various investigation, those distinguish applied to the presentation parameters, including transmission rate, packet latency.The transmission rate, route steadiness, packet drop [5].

Individually vital terms of communication technique is used to improve the lifetime of network, also it obtain the improving energy efficiency and managing the workload among mobile nodes. To present a recent presentation parameters is uded to estimate the energy effectiveness connected to the load managing process for various communication technique from various group. For assessment with existing process [6], this estimate forwards on a recent quality of communication and energy effectiveness parameters that are considerably indicate the efficiency of the technique is applied to broadcast data packets on the root of energy usage and lifespan of network [7]. Sequence to indicate the connection among these load metrics and the quality of packet transmission should improve the characteritics, experimental output parameters are the regular communication also loss data packets. This parameter arrangement provides obviously the collision of the communication on emphasize the idea of inexperienced packet transmission within wireless network [8].

The network topology regularly alters considering the speed of mobile node movement. Mobile network is easy and elastic therefore extensively used in armed forces information exchange, urgent situation information exchange and mobile discussion. Mobile networks are commonly used, the protection problems has turn into one of the main concern. The every nodes present in the network is supportive and also intruder node. Except only one compromise node can reason the breakdown of the whole network environment. They are each inactive and active intruders in mobile network. In inactive intruders, packets have top secret data’s should be lossed that may break secrecy [9]. energetic intruders having removing else lossing information such as black hole and gray hole intruder. It uses an distance vector routing based Improved bait detection method to identify and avoid intruders in mobile network. These method, should concentrate on of an neighbouring node is used as bait objective deal with to bait intruders to provides a acknowledgement packet, and attacker nodes are identified by using a invalidate tracing method and then identify intruder node is reserved in a attacker record, for that each other nodes which contribute in communication are aware to discontinue packet transmission with any nodes in the record [10].

Residual of the paper is designed as follows. Section II provides related works. In section III, to present the details of proposed Improved sustainable path allocation (ISPA) technique is applied

to network to provide traffic free sustainable routing path. Historical backup for node interconnectivity algorithm is desgined is used to provide historical details of load balancing. Section IV provides simulation performance results analysis obtained under various metrics. At last section, V concludes the paper with future work.

II.RELATED WORKS

Ourouss, et al., [11] using minimum energy to consistently deal out the traffic occurrence, it define a important process for well-organized communication technique in Mobile Networks. Certainly, this procedure should reject attacks, and also improve the network lifetime and maintain subsequently better packet transmission. Sequence to stimate the networks ability, to present a innovative characteristics of parameters Energy Efficiency of traffic management also survey the result of velocity on the origin of energy effectiveness and traffic management using quality of service parameters. In experimental output some efficient routing techniques in different velocity situation.

Yang, Y., et al., [12] proposing enhanced Ant Colony Optimization method to prepare an relocation route. For an additional, whether a group member node damages to achieve an communication, it could negotiate as a tenderee with other nodes using a revised agreement techniques. In addition, to utilize a stimulation method of distribute effective communication knowledge in link with quality of service assurance to suggest reward for nodes' energy usage and over traffic. Experimental output shows the presentation merits of adaptive technique can efficaciously increasing load of the cluster header node, to manage the traffics of nodes in reflection of energy limitation, and improve the lifespan of the network.

Chelani, P. L., et al., [13] present scheme effort to decide this problem by constructing an AODV based communication technique that is referred to as enhanced bait detection method that merges conditions of each proactive and reactive defense environement. Experimental output are provide indicates the differentiation among the two nodes, node does not use bait identification mechanism. Experimental output indicates that IBDS better perfoemance compared to previous methods in metrics are Throughput, communication overhead and energy usage.

Patil, Y. S., et al., [14] propose equipment the wrong reply calculation method is used to find instrusion,. nodes does transmit wrong reply to appeal packet to be a focus for over load when the procedure of path organization among sender node to target node. Effective connection method is used for route confirmation over nodes which alters its characteritics truthful node to intruder node after the route organization and packet transmission is initiated. while intruder node available in the path, suitable broadcasting of data packets is not possible. While node loss information incompletely, packet sharing among the sender to target node become compromise and unsuitable. Since of incompletely losing of data packets, it is significant to identify attacks in the network environment. Therefore, it is vital to identify and eliminate attacks from environment.

Rmayti, M., et al., [15] present a arithmetical technique to defense over request packet dropping intrusion in mobile network environment. Identification Methos is used to ad hoc network structure. Experimental output shows that these intrusion is identified with a minimum rate of wrong alarm. Hello packet is used to obtain a interrupted confirmation of intermediate nodes in network. To confirm the previous of a packet dropping intrusion in the network environment. Biased affecting regular of accepted path request quantity. To establish the sender node of losing packet, the biased travelling standard of created path request quantity is estimated. Graph to confirm the capability of network to identify intrusion in huge network environment, and to construct also execute the necessary condition to protect the ad hoc networks over this type of intrusion.

Wahane, G., et al., [16] present scheme, the target node absorb each the data packets and loss them completely or on occasion incompletely, so that the target node does not capable to obtain the data packets output in disturbing the packet success rate to a huge amount. Occasionally the intruder nodes collaborate with all other node with the matching goal of lossing data packets is called as cooperative intrusion. This scheme provides adapted AODV for identifying intrusion using crosschecking with accurate connection model. accurate connection is a time depending respond to calculate to the cooperative intrusion. The proposed technique should enhance the output as distinguish with previous technique.

Hiremath, P. S., et al., [17] Proposed technique is depend on adaptive fuzzy deduction scheme for mobile ad hoc network in sequence to identify and avoid the intrusion. The accepted protocol utilize in mobile network is on-demand distance vector rule, also conduct experiment using network simulator. The experimental output of the present schemes are distinguish with that of an adaptive technique, where in source node verifies each routing node characteritics by using DAT table which contains from sender node to next neighbor node’s data’s and declare attacker node by path overhear technique. It is experimental that the present algorithm is depends on adaptive fuzzy logic network shows improved presentation as distinguish to adaptive schemes in conditions of transmission rate, packet latency and packet success rate.

Joneckis, L., et al., [18] present environment affect connectivity in mobile ad hoc networks. Mutually average pairwise connection end and the rate at that the connection condition alters while nodes travel based on the behavior of the principal environment. Smooth although these key metrics are based only slightly on internode distance in ordinary real network environment, experiential analysis detects that the amount of linked mechanism in the network structure and thechance of being completely linked are not efficiently calculate by the regular connection possibility in some environment. This detection has

implication for the restrictions of ad hoc connectivity below unrestrained network.

Koleva, P., et al., [19] Presenting techniqur should minimizes the entire amount of broadcasts in the network environment, and guarantee a trustworthy and energy well-organized link, by

managing the traffic through the nodes in network. These technique should be measured as a fusion kind of communication technique, incorporate many route hop-by-hop disseminated communication. To apply a instance based identity organize with identity communication method by the use of a network representation with general essential node possessions. All node should describe two practical and one general possessions. That amethod has the judgment of non supportive communication depends on the calculation of the definite essential property of the node in network. The main merits of the techniques are connected to the difficulty and the minimized entire communication rate, particularly in high density network environment.

Zaman, R. U., et al., [20] proposed method provides efficient development compared to an existing method that address the problems of well-organized relay node finding and traffic management. Present method uses a inherited scheme to optimize the relay node consignment managing method. This techenique is experimented in network simulator. It depends on the experimental output, it is experimental present method not only deliver improved presentation than the existing method, except is also optimized using the proposed inherited method.

III.OVERVIEW OF PROPOSED SCHEME

In the movable network must not handle over traffic during communication period, since sender node gathered information size is varied for every time. Those data are entirely jammed for over traffic of data packets it takes more time for holding the process. The over traffic routes are does not identified easily by source node, because the data packet jammed directly. This network does not preserve historical information for long time, if any hop get unsuccessful, it make not easy to broadcast the data packet with assigned specific time period. It obtains the disturbed communication in particular route. It increase the end to end delay, and reduce throughput.

Then Proposed Improved sustainable path allocation (ISPA) method is used to achievings the traffic managing sustainable routing path for packet transmission, source node analyze the environment, and then create data packet, it should forward data packets from source node to target node. That technique should assigns the time slot, to considering packet size for every transmission. The historical backup for node interconnectivity algorithm is constructed and applied to network, the intermediate nodes must forward data packets continously to manage over traffic using backup of historical informations. It improves throughput, and reduce end to end delay.

Figure 1 shows block Diagram of proposed Improved sustainable path allocation method. Source generate the data packets also forward that packet to target node, it must not consider the over load for further communication. Improved sustainable path allocation method is applied to provide traffic free routing path, whether there is any traffic made use historical backup for node interconnectivity algorithm to reduce traffic for communication between source node to destination node. The heavy traffic is identified and filter out those details. it increase transmission rate, and reduce end to end delay.

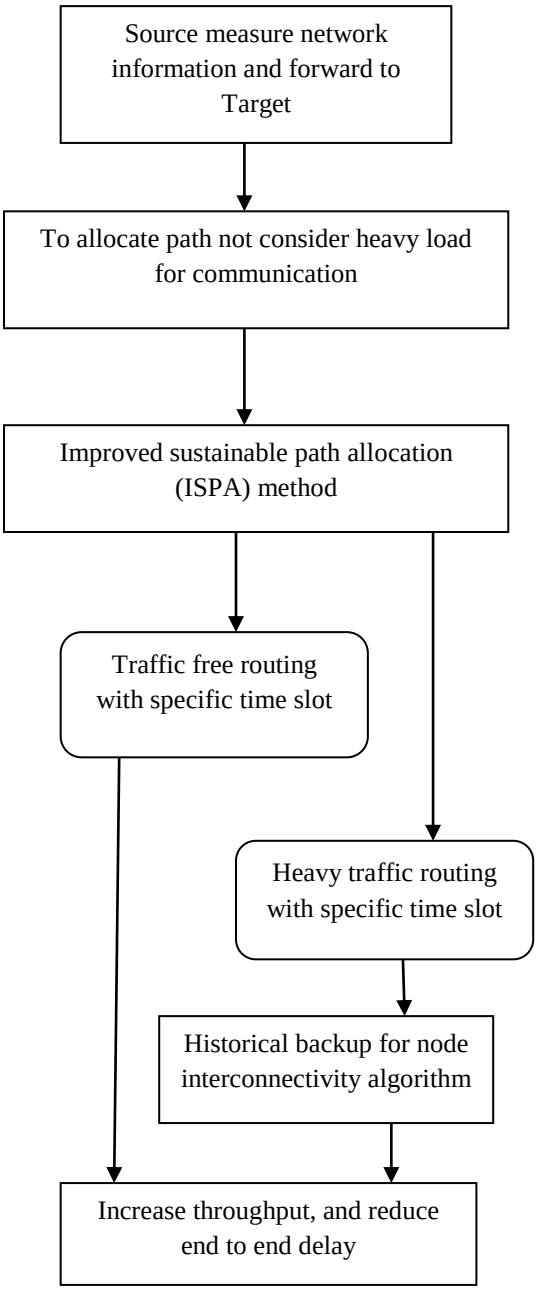

Figure 1: Block Diagram of Proposed Improved sustainable path allocation method

3.1 Source measure network information and forward to Target

Spontaneous broadcasting of data packets generated by source node are relayed in the direction of the target meeting point to discover communicating routes. Leading automatic broadcast of data reach at the destination node that are interconnected, automatic reply packets are generated also transmit back to the sender node following the invalidate routes of the sender node, to

modernize pheromone rates and fixes the efficient communication route at interconnected. The routing tables emotionally involved at all interconnections are utilized to choose the best next neighnor they are interconnected to forward data packets with assured possibility. Easy to hold the data packet forwarding is by sender node to make data packets receive at next neighbor node which are interconnected. In addition, the technique makes use of positive ants sample to take out routing path preservation technique that can alter at regular intervals, increase and get better routing details beside communication routes. $F(D)$ forward data, $B(L)$ balance load.

$$S = F(D) * B(L) - (1)$$

$$F(D) = S(Pack) + tsn - (2)$$

Initially, spontaneous broadcast of data packets are created by the source node to discover the network also the communication routes in the direction of the destination node should interconnected. While receiving at all interconnected neighbor node, spontaneous broadcast of data add the detector of the interconnection to its individual header node. Depending on hold ravenous forwarding method, the reactive broadcast of data packets are then relay gradually to next neighbor node interconnected by moreover transmitt else unicast transmission based on whether the already available interconnection deatails for the destination node interconnection. Whether the communication details are available, the spontaneous broadcasting data packets to the next neighbor node they are interconnected by unicast with assured possibility. ts time slot, $S(Pack)$ share packet.

$$S(Pack) + ts1 = S \leftrightarrow S(Pack) \leftrightarrow N - (3)$$

$$S(Pack) + ts2 = \mathrm{N} \leftrightarrow S(Pack) \leftrightarrow D - (4)$$

Whether there does not present the communication details for node should interconnected that should transmit the automatic relaying a data packet to verify it to multiply quickly the entire network environment. The several copy of the data packets should stochastically discover the various routes to the destination node they are interconnected. Sequence to control the quantity of traffic rate and keep away from communication circle, simply the intial copy of a spontaneous data packets are relayed. This method is capable to be obtained by using the sender node and the ant succession count both continue in the broadcasting by sender node.

While spontaneous transmit data which receive at the destination node that are interconnected, spontaneous reply packets are started to send also it return reverse to the sender node to subsequent the equivalent backward routes. The aim of automatic reply packet sent and to receive, the forwarding latency of data packet in network, and then broadcast and modernize techniqur at all interconnected nodes along the routes.

3.2 Improved sustainable path allocation method

Establish an implementation for all kind of communication. Distinguish the self-sufficient process are more difficult to make a decision in network, which nodes are also characterized depends on energy level and bandwidth rate. Dependability of sender node should observe and handle the further communication. Sparate the nodes and select efficient routing path depends on resource utilization. Then assortment task technique. It is essential for restricted environment based communication to preparation a relocation of mobile nodes, should move along a network to construct a path. Reply packets are collected during straight communication between source node and destination node, otherwise accepted by a mobile node, after it visit each nodes in the relocation network.

$$S \leftrightarrow S(Pack) \leftrightarrow N = S \overset{pack}{\longleftrightarrow} N - (5)$$

The procedure of traffic managing to be interpret by various parameters. It should be connected to the path traffic, it indicates the routing path have traffic where many nodes compete to acquire admission to the mutual intermediate. The traffic is the previous condition of traffic management, it reproduce the quantity of a node's burden with communicating cycle. Finally, the neighboring node traffic is select to measure the traffic, which node's neighbors create during packet transmission characteritics. Select the traffic to compute the load managing ability of the communicating techniques. These parameter calculate the quantity of traffic should relayed when the experiment conducted time, from this output to end whether the traffic process was moderately dispersed in the network else not in network. Readily available, disturbed sharing can exploit the packet latency, the packet loss rate, the queue size. consequently, a high energy usage in output and degrade therefore the communicating presentation.

$$\text{N}\leftrightarrow S(Pack) \leftrightarrow D = N \overset{pack}{\longleftrightarrow} D - (6)$$

Subsequently, maximum energy usage should be in output and degrade therefore the communication presentation. To calculate the traffic managing, to select initially to evaluate the traffic balanced by every node also estimate the pattern divergence to enumerate the quantity of spreading of these traffic rates. The model divergence of traffic should provide design about the way the packet traffic is dispersed through the mobile nodes. The minimum standard divergence shows that's the traffic is close to the signify that reflect the managed traffic allocation. Additionally to the traffic ability parameters, also used a recent energy effectiveness of traffic managing parameters to estimate the energy usage need to steadiness the traffic among mobile nodes. These parameters analyzes the energy usage by a node to consistently execute its communication duty in the direction of the over traffic.

$$S(Pack) + tsn = (S(Pack) + ts1) + (S(Pack) + ts2) - (7)$$

$$S(Pack) + tsn = S \overset{pack}{\longleftrightarrow} N + N \overset{pack}{\longleftrightarrow} D - (8)$$

Present improved sustainable path allocation method is used to estimate the quality of service parameters sequence to highlight the accuracy and the wholeness of survey. The high packet success rate of routing path is chosen to measure the quantity of packets effectively accepted. To calculate the consequence of traffic allocation on routing presentation, then use the packet drop rate with losing of control packets. these two parameters calculate the quantity of lossed packets with an design of the packet jamming rate. It obtains the traffic routing in allocated path.

Algorithm for Improved sustainable path allocation

Step1: Source node measures the network details.

Step 2: For each sender node finds nearest relay node

Step 3: Allocate the routing path does not consider heavy traffic

Step 4: Communication started

Step 5: if {Traffic==high}

Step 6: Packet transmission failure

Step 7: else

Step 8: if { Traffic==low }

Step 9: Packet Transmission success

Step 10: The allocated path is efficient path

Step 11: Increase throughput.

Step 12: end if

Step 13: end for

3.3 Historical backup for node interconnectivity algorithm

Network should create a traffic report for grade, network accepted proposal routing cost and choose the one efficient path with minimum cost to send packet to provide a agreement. For the meantime, it initiates time answer for restricting limit for reply packet. Specified altering rules guide to a prearranged traffic packet having minimum resources usage for packet transmission in an authorized time slot, this observation as a renouncement for this communication. Then the traffic occureence have no option except to accept one more data packets to the individual rank packet waiting list. Subsequent to create a agreement with a successfully received data packets, the traffic should broadcast the intervention output to all routing nodes.

$$B(L) = (N1)link(N2) - (9)$$

$$B(L) = (N1) \leftrightarrow (N2) - (10)$$

$$S = S \overset{pack}{\longleftrightarrow} N + N \overset{pack}{\longleftrightarrow} D * (N1) \leftrightarrow (N2) - (11)$$

This algorithm have the details of interconnectivity among the mobile nodes, its maintains the backup information of all historical routing nodes present in a network environment. The historical data's are maintain the node connectivity details, this is used to provide a better routing path, it re establish the routing path with heavy load balancing quality. So, it increase the packet success rate from starting point to ending point node in network environment.

Algorithm for Historical backup for node interconnectivity

Step 1: Determine the interconnectivity among routing nodes.

Step 2: for each gather historical backup details of all nodes.

Step 3: if { Packet ==Drop}

Step 4: Use historical backup data

Step 5: Provide efficient interconnection among mobile nodes

Step 6: Perform communication

Step 7: else

Step 8: if {Packet ==Success}

Step 9: Already better interxonnectivity is made.

Step 10: That path is used to continue communication.

Step 11: End If

Step 12: End For.

Histrorical backup data's contains the every node id, packet transmission rate, node end to end connectivity, routing protocol details, this are support to establish sustainable path for communication. It increase throughput, and reduce end to end delay for every packet.

Packet ID: Packet ID contains the very mobile node packet transmission information. Every mobile node communication informations and resource utilization details are stored in routing table.

Source ID	Destination ID	Source measure network	To allocate path not consider heavy	Improved sustainable path	Historical backup for node interconnectivity

		information and forward to Target	load for communication	allocation	algorithm
4 4	3 2	3	3		

Figure 2: Proposed ISPA Packet format

In figure 2: the proposed ISPA packet format is shown. Here the source and destination node ID field each carries 4 bytes. Third one is Source measure network information and forward to Target occupies 3 bytes. Sender analayze spontaneous transmission of data packets through the selected routing path. In fourth field takes 2 bytes. To allocate path not consider heavy load for communication, normally traffic ocuured based on heavy load for routing from sender to target node, that heavy load is not consider for initial state of routing. In fifth occupies 3 bytes, Improved sustainable path allocation, the steady path allocation is abnormal for routing from sender to target node, this method is efficiently achieve the sustainable routing path. Multirate Historical backup for node interconnectivity algorithm, it occupies 3 bytes, this algorithm should connects the every nodes using backup historical details for connection reason is traffic occurrence, this improves throughput and reduce end to end delay.

VI. PERFORMANCE EVALUATION

A. Simulation Model and Parameters

The proposed Improved sustainable path allocation (ISPA) technique is simulated with Network Simulator tool (NS 2.34). In our simulation, 100 mobile nodes are placed in a 1034 meter x 1018 meter square region for 22 milliseconds simulation time. Each Mobile node goes random manner among the network in different speed. All nodes have the same transmission range of 250 meters. CBR Constant Bit Rate provides a constant speed of packet transmission in network to limit the traffic rate. DSDV Destination sequence distance vector routing protocol is applied to achieve traffic free routing in sustainable path is allocated. Table 1 shows Simulation setup is Estimation.

Table 1: Simulation Setup

No. of Nodes	100
Area Size	1035 X 1021
Mac	802.11g
Radio Range	250m
Simulation Time	22ms
Traffic Source	CBR

Packet Size	512 bytes
Mobility Model	Random Way Point
Protocol	DSDV

Simulation Result: Figure 3 shows that the proposed ISPA technique is used to obtain Traffic free communication in sustainable path is allocated, and proposed ISPA is compared with existing LRA [16] and ALB [20]. ISPA method is used to analyze the load for particular routing path, the heavy load cause traffic, the packets are blocked for routing. Historical backup for node interconnectivity algorithm is applied to gather the details of historical routing nodes transmission rate, and resource utilization rate. At last this traffic free sustainable path allocation provides the better communication to improve throughput, and reduce end to end delay.

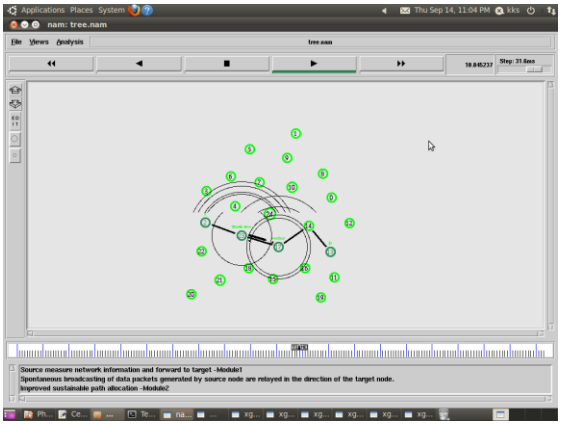

Figure 3: Proposed ISPA Result

Performance Analysis

In simulation to analyzing the following performance metrics using X graph in ns2.34.

End to End Delay: Figure 4 shows end to end delay is estimated by amount of time used for packet transmission from source node to destination node, Historical backup for node interconnectivity algorithm is used to obtain traffic free communication. In proposed ISPA technique end to end delay is reduced compared to Existing scheme LRA, ALB, EPATP, and ERUP.

$$End\ to\ End\ Delay = End\ Time - Start\ Time$$

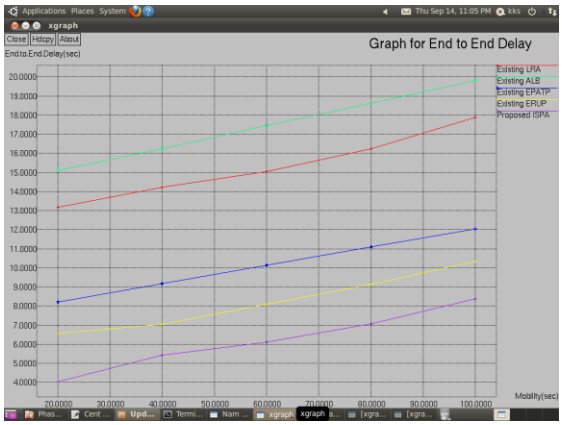

Figure 4: Graph for Mobility vs. End to End Delay

Communication overhead: Figure 5 shows communication overhead is minimized in which sender transmit packet to receiver node, Historical backup for node interconnectivity algorithm is used to measure the load occurrence also balance the laod, during communication. In proposed ERUP technique communication overhead is reduced compared to Existing scheme LRA, ALB, EPATP, and ERUP.

$$\boldsymbol{Communication\ overhead} = (\boldsymbol{Number\ of\ Packet\ Losses/Received}) * \mathbf{100}$$

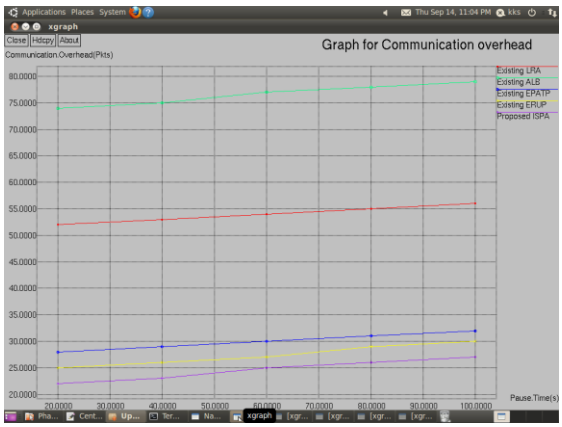

Figure 5: Graph for Pause time vs. Communication overhead

Throughput: Figure 6 shows throughput is measured by no of received from no of packet sent in particular speed. Node velocity is not a constant, simulation mobility is fixed at 100(bps). In proposed ERUP technique Packet delivery ratio is improved compared to eExisting scheme LRA, ALB, EPATP, and ERUP.

$$\boldsymbol{Packet\ Delivery\ Ratio} = (\boldsymbol{Number\ of\ packet\ received/Sent}) * \boldsymbol{speed}$$

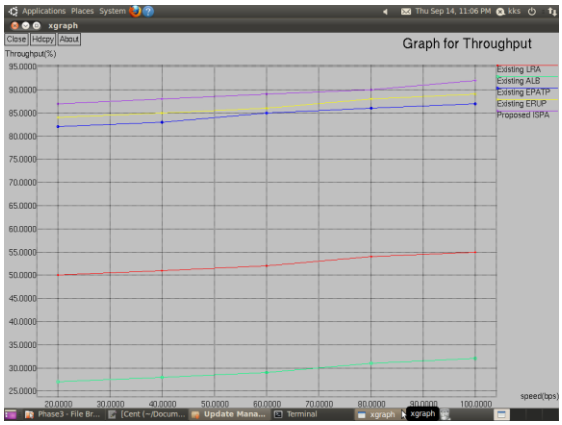

Figure 6: Graph for Nodes vs. Throughput

Detection efficiency: Figure 7 shows Detection efficiency, attacks are occurred packet transmission is repeated from source node to Destination node. Historical backup for node interconnectivity algorithm, it manage the heavy load using historical backup of interconnectivity. In proposed ERUP method detection efficiency is improved compared to Existing scheme LRA, ALB, EPATP, and ERUP.

$$\boldsymbol{Detection\ efficiency = attack\ detection\ rate/overall\ time}$$

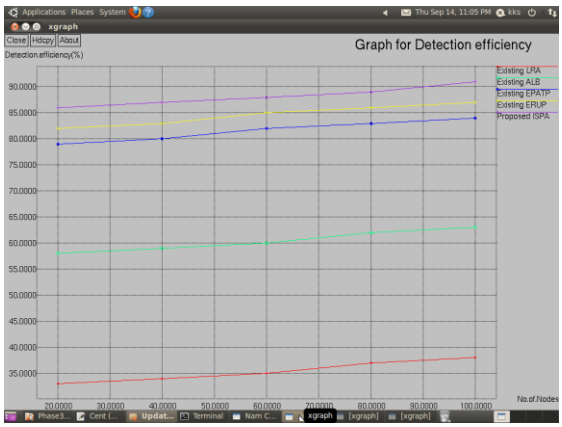

Figure 7: Graph for Nodes vs. Detection efficiency

Network Lifetime: Figure 8 shows that Lifetime of the network is measured by nodes process time taken to utilize network from overall network ability, it contains the Historical backup for node interconnectivity algorithm is used to allocate the sustainable routing path. In proposed ERUP technique network Lifetime is increased compared to Existing scheme LRA, ALB, EPATP, and ERUP.

$$\boldsymbol{Network\ Lifetime = time\ taken\ to\ utilize\ network/overall\ ability}$$

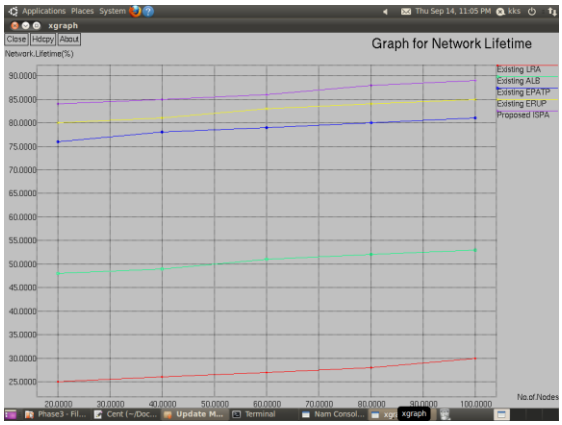

Figure 8: Graph for Nodes vs. Network Lifetime

Packet drop rate: Figure 9 shows that Packet loss of particular communication in network is calculated by nodes loss packet with poor connectivity are avoided by Historical backup for node interconnectivity algorithm to stable the packet transmission in routing path. In proposed ERUP scheme Packet loss is reduced compared to Existing scheme LRA, ALB, EPATP, and ERUP.

$$\textbf{\textit{Packet drop rate}} = \left(\textbf{\textit{Number of packet}}\frac{\textbf{\textit{dropped}}}{\textbf{\textit{Sent}}}\right) * \mathbf{100}$$

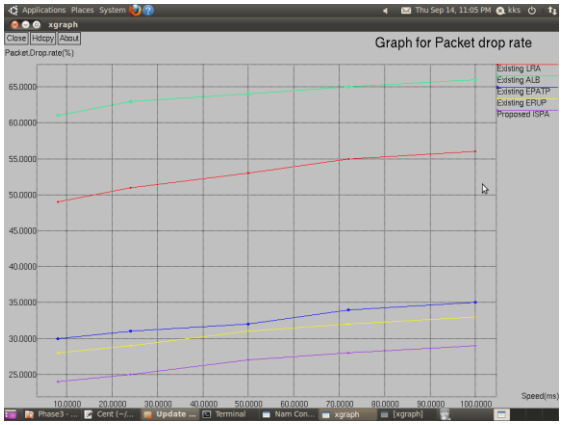

Figure 9: Graph for Speed vs. Packet drop rate

V. CONCLUSION

Mobile network does not obtain the stable node for routing, the sustainable path allocation is very difficult. The heavy load occurred for communication with using unstable routing node, it makes the packet loss,and block data packets, packet does not reach the destination with in allocated time slot. It reduce throughput, and increase end to end delay So, proposed Improved sustainable path allocation (ISPA) technique is used to achive traffic free communication among the sustainable routing path. It monitors the node is stable for communication or not based on the resource utilization scheme. This scheme provides the efficient interconnection between mobile

nodes. Historical backup for node interconnectivity algorithm is constructed, it survey the load is balance this path else not, if it balance, start communication, otherwise go for histyorical back up routing to use backup interconnectivity. This increase throughput and minimize end to end delays. In future work Steady path optimization in cross layer to analyze the different parameters.

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