



Effectual Resolute and Lodge Round Robin Packet Scheduling With Compression in IEEE 802.16 WIMAX Network

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ABSTRACT- *In Wireless communications provide different and efficient communication. By the usage of WiMAX communication, Scheduling problem had many issues in the Multi-Hop Communication. To reduce the packet Scheduling Issues, We propose Effectual Resolute and Lodge Round Robin Packet Scheduling with Compression [ERLRRPC]. This can be resolving the scalability problem, Security problem, delay problem and Quality of service problem. It uses very High secured and Lodge Round robin scheduling provides High security using compression technique. It consumes the power and energy is high. It reduces the arrangement problem, broadcasting problem. It is tremendously improves the Throughput and the Delivery ratio high. We simulate the Data communication in packets, Router Drops, Data Packet delay, Jitter, Routing overhead, Channel Utilization, Throughput and Delivery ratio in Network Simulator.*

Keywords- *WIMAX, ERLRRPC, Packet scheduling, Router drops, Routing Overhead, Quality of service, Delivery Ratio*

I. INTRODUCTION

1.1 WIMAX

Worldwide Interoperability for Microwave Access (WiMAX) has dawn as the robust and efficient amateur for Broadband wireless technology with the promises to provide certify Quality Of Service to wireless access users [4]. It is New technology [15]. It provides High Throughput and Quality of service and it supports the Orthogonal Frequency Division Multiple Access [17]. WiMAX is a technology aimed at providing last-mile wireless broadband access at a very cheap cost. The term WiMAX was created by the WiMAX forum that promotes congruency and introvertive of the standard [4]. It supports high Bandwidth Quality Of service and providing various Service Classes. [18]. It has support two operating Modes. Point to Multi-point and Mesh mode. It is using the Mac protocol to storage all the relevant details. [24,28]. It has High speed Mobile internet Access and it covers a wide area of several Km and the Data rate of 75 Mbps. It has heterogeneous traffics expected in WiMAX. These traffics have different QoS and arrive at the network. There is a need to have efficient method of admitting service flows and agenda their packets in upgrade way [26]. It adopts Two different policies for entering the Uplink and Downlink connections and to improve the Fairness and favour of connections. [27]. It has been seen as the propitious avenue towards 4G [29]. It has a Base station [BS] which can communicate to the Subscriber Station [SS] in One hop or Multi-hop. [28] which complementary access technologies and access the nodes very easily [31]. It has efficient radio resources and Mobility of the users. [32]

1.2. PACKET SCHEDULING

Packet Scheduling depends on the different parameters like the High speed downloading, Maximum Throughput delivery, Traffic shaping, Operating System etc., It has operandi for arranging the Data packets in the Packet switched communication Network. It is basically the Wireless Network communication and it has Maximize the Overall Throughput of the Network. As well as system spectral Efficiency in wireless Network.

It can be reached by the providing Scheduling Priority to the less expensive data flows in terms of engross network resources per transferred the amount of data Information. It is a reinforce 3G Mobile telephony communication protocol. And many protocols using to recover the data and it has error correction bits. Traffic Shaping has the computer network Traffic Management Technique. It defines the delay few of all Datagrams to pick up them into assent with desired traffic profile. In OS based System which complete the works in time slicing, with handling the processes without priority and process in tantamount. Sharing the Frequency channels based on the scheduling algorithm.

II. REVIEW OF LITURATURE

2.1. PACKETIZED DYNAMIC BATCH CO-SCHEDULING

It has carry out the packet level parallel processing and the Multiprocessing provides the out of order departure of processing the packets. Surplus round robin is the scheduling the mutable length of packets via Multiple ways with different ability.[1]

2.2 DEFICIT ROUND ROBIN SCHEDULING

It used the TCP Vegas for the Transport communication. Behalf of that it can be combines with the Random Early Detection to solve the Scalability problem in the Scheduling.[2].

2.3 PACKET SCHEDULING WITH TOKEN BUCKET

Uplink scheduling based on the Token bucket; It has defined the Bucket size and Token rate. It can be represented in Bytes. It has only accessing in below 50kms and the main part of WiMAX packet scheduling was not defined. [3].

2.4 FAIR AND EFFICIENT SCHEDULING

Fair and Efficient quality of service scheduling rectify the delay criticism. It has very low criticism to prevent delay, delay violation rate and traffic [4].

2.5 BUFFERED SHUFFLENET WITH DEFLECTION ROUTING

The packets go via a Number of Hops sooner absorbed at their destination. Care packets having higher priority and don't care packets having Lower priority. It has very cumbersome when the buffer size is greater than one packet size.[5]

2.6 OTHER PACKET SCHEDULINGS

Guaranteed rate scheduling algorithm for IP routers constrains the delay rate and Jitter. It can be arranged to traffic throughput [25] DQBA allocates and alters the Bandwidth forceful [15]. Multiple Parallel channels and packet concatenation treat as the individual elucidation to few problems [12]. It can be forwarded using the Minimum path and it has limited buffer[5].Here resource Management Scheme is the consolidation of power Distribution, Rate allocation and Service ordering.[6,24]BER scheduling achieve the Maximum capacity.[7]Gradual NCNN is not only define the minimum Frame length as well as it uses the gradual expansion scheme[8]performance of BE services is augment at the prize of real time Services[9].Fair scheduling to allocate the radio Resources[10,24]combined Scheduling satisfies the minimum exigency of CBR and EMG and these allocates the superfluous the capacity to EMG users[11,18]Scheduling algorithm make sure that each and every packets of admitted entreaty conditional demands its delay and jitter constraints[18].In case of the Optical switches has useless degradation of optical signal quality[13].It has propensity of migrating optical packets[13].weighted fair priority intra class scheduling can access multi point and care about the battery levels[17].In BSP has minimum frame length and Channel Utilization and increasing the network parameters[14].

III. PROBLEM IDENTIFICATION IN EXISTING PACKET SCHEDULING

3.1 SCHEDULING PROBLEM

Using Packet level parallel processing increased the out of order departure problem [1] Scalability is the main issues using DRR algorithm [2] It didn't consider the Sequential ordering problem and the batch is also akin makes the scheduling problem [1].Inherent problem in DRR[2].It has an open issue for scheduling[3]Its consider the cellular network[11].Scheduling algorithm explicit the minimal performance constraints[11].Fair scheduling creates the limits of ongoing connections[10].Data scheduling becomes main issue in road side[23]. It has store and forward case using the Buffer size as small as four packets per node and it has priority scheduling problem occurring[5].

3.2. QUALITY OF SERVICE PROBLEM

Next generation Internet access supporting the Fair allocation of the Bandwidth [2].It did not provide the proper allocation [2, 10].It has congenital quality of service [3].The QOS scheduling concoct the high delay and fewer Throughputs [4]. Service scheduling and rate allocation provides the Quality of service dilemma [6]. QOS sensitive users had limitation to access the Ongoing connections [10].It supports different services and using the fair allocation some losses in bandwidth [24].Low QOS dispense the very low speed [18].Scheduling algorithm is an important one in QOS [19].It has variable link failures and aggressive nature of the Network [19].It has the few suitable slots to demand the Quality of service[24].It is often Bipartite graph problem[25].

3.3. DELAY AND INTRFERENCE PROBLEM

Due to backlogged queue concoct the very high delay[1],It dispense near optimal queuing delays and required Zero delay jitter[25]which along End to end path[25] greedy algorithm has more interference problems[22]. Token bucket which has more jitter and end to end delay because it allows the packets very slowly and has single way out [3] Efficient QOS scheduling facing main issues of Delay problem [4] Red algorithm has more packet dropping probability lean on the Input line retention [2] Multi hop nature increasing the Routing overhead and reduce the Throughput of overall system [12].

3.4. POWER PROBLEM

In NP schedule variable length packets concoct the heavy power dissipation problem [1]. Minimum power allocation algorithm depends on BER scheduling so it drops more power [7]. Power level is changing based on the user access [17]. EMG consumes very few power because of utility Maximization problem [11] DQBA has very high capacity and it drops power very huge [15]. Packet scheduling had the power distribution problem [6].

3.5. SECURITY PROBLEM

Packet switch scheduling did not dispense the security; It is not consider the security. It concoct the main issues [25]. Dynamic co-scheduling just provide the very less security [1]. Other FIFO, RED, DRO does not contribute the security problem [2]. When the user has the token easily enter into the communication in Token Bucket, It makes huge security problems and troubles [3]. Efficient rate allocation based on the power distribution, When the intruders easily hacked or altered the power control can easily collapse the whole system, It has an main issues [6]. Scheduling algorithm facing the Link error problem via less security condition [19]. G-NCNN has outperform very less authentication so the noise addition to that algorithm is very favorable [8].

IV. EFFECTUAL RESOLUTE AND LODGE ROUND ROBIN PACKET SCHEDULING WITH COMPRESSION.

Effectual resolute and Lodge Round robin packet scheduling with compression [ERLRRPC] is the most efficient scheduling and equip the high secured and less power dissipation algorithm. It is similar to the round robin scheduling but few variation to solve the Existing problems. Each data can be entered into the system with high secured compression and the scheduling verifies the packets ID using the stake function. It checks the ID double times into the entry level of compression and the end limit of the compression. It is resolving the power problems because it has included the Power aware function mode, Its try to consume the power at all conditions. Owing to this Power aware function power dissipation and wastages are greatly reduced. It schedules the packets demand on the conditions not in First In First Out. So the prerogative condition problems are easily solved. Here Flags utilize the very paltry using Substantial Function, So the without Flags are using the extra users. It is revamping the Bandwidth Utilization of the Overall system. Its abate the Routing Overhead and Delay problems. It has been both packet level serial and parallel processing so the out of departure problems can be easily solved demand on the conditions. It admits the call from all ranges because here we are using 12dbi Omni antenna. It accesses the whole directions and angles. It resolves the packet dropping problem. It has very high scalability being double verification function. Hither very high authentication and less power wastage, These data packets are transferred only compression format. As well as these compression has highly encrypted compression so the intrusion problem can be greatly and highly prevented. Because of compression the data packets are using very few power and Space. It is the double purpose to solve the both conditions. It can be accessing the cellular network very comfortable. These scheduling processes are accessing the call from all range of transmission with compression packets. It is verifying the entry level incoming packets, when the packets has proper ID it can be forwarded to the caller and then it verify the Packet ID at the time of call establishment.

4.1. STAKE FUNCTION IN ERLRRPC

It has double level verification function in ERLRRPC. It is the one of the main function of the Entry level and the Ending level of the communication. Using these functions easily identified the duplicate Id and Intrusion packets. By the compression technique feed the high security to the system.

4.2. POWER AWARE FUNCTION MODE

It is the power consuming mode in the ERLRRPC. Using this mode easily solves the power dissipation and End to End delays are rectifying. It is carefully consumes power at all conditions, Owing to these low power dissipation the Life time of the whole system can be extended and reducing the Jitter problem also.

4.3. SUBSTANTIAL FUNCTION

Using these substantial function Flags can be lavish very few bandwidth so the unused bandwidth using the extra users. So it resolves the Bandwidth problem and it is directly cure the Routing Overhead problem and Broadcasting problems. This can be easily improved the energy consumption and the working of the overall system is greatly improved. It is directly proportional to improve the throughput of the system.

4.4. MULTICAST COMMUNICATION

In ERLRRPC using the Multicast Communication protocol like AOMDV. Ad-Hoc On demand Multicast distance Vector Routing communicates Multi Hop. So it can access the data in Bidirectional. AOMDV works on the basic principle of Shortest Path algorithm. These can be established based on the Three Operations like Route Request, Route Reply and Route Maintenance.

At the starting of the communication the source nodes forward those details to the neighbouring nodes using Hello message at every 10ms. After that the neighbouring nodes forward those details to other nodes at the possible paths to reach the destination. These had done via shortest path algorithm [SPA]. After reaching those details to the destination it responds to the

reply at the coming paths. Using the Best and reliable shortest path reply are forwarded to the Source nodes. That path is maintained by using the Route Maintenance. It can be solved the Route error fault using the another route establishment. In reverse condition, Using the duplicate route reply to solve the Cache error and using the Routing Loops easily find out the best path very early.

$$ERLRRPC = b + c + S + F + P$$

c - Compression_nodes

i - Intrusion Nodes

b - Best nodes

S - Stake Function

e - Bandwidth losses node

h - Power dissipation node

F - Substantial Function

P - Power Aware Function

Input of the system = Packet scheduling Nodes + AODV + STAKE Function + Substantial Function + Power Aware Function + Node communication duration + Data rate + Packet size.

Output of the System = Less space + Less time + High security + Prevent Intrusion + High power + High Energy best nodes + Less Bandwidth Losses + High Throughput + High Delivery ratio.

Throughput = Data receive/Data sent

Delivery ratio = Throughput x 100

$$SINR = (R/(S+D))$$

R - Receive data power

S - Interference data power

D - Router drop

$$SINR = (1270/(1300+120))$$

$$SINR = 0.894366 \text{ db.}$$

Or

$$SINR = 20 \log (R/(S+D))$$

$$SINR = 1.1635$$

V. ALGORITHM

Algorithm 1

Effectual Resolute And Lodge Round Robin Packet Scheduling With Compression.

1: /*purpose to create nodes

2: /*Assign 12bi High Range Omni antenna, Multicast routing and Packet scheduling

3: **PARAMETERS:**

4: *c* outgoing compression nodes

5: *s* outgoing Stake Function

6: *p* outgoing power aware Function

7: *f* outgoing Substantial Function

8: *M* outgoing ERLRRPC

9: **PROCEDURE:**

10: Begin

11: *b* outgoing best_nodes

12: **If** best_node > Normal_nodes

Using Shortest Path algo

13: **else**

Neighbouring nodes

14: *c_compression_nodes* > normal_nodes

then

15: Provide security.

16: **If** intrusion_nodes > normal_nodes

S_Stake Function established

17: **else**

Create normal admit to the scheduling packets

18: *e* outgoing Bandwidth_losses_node.

19: **If** Bandwidth_losses_node. > Normal_nodes

F_Substantial Function is established

20: **else**

Normal bandwidth utilized

21: *h* outgoing power_dissipation_node

22: **If** $Power_dissipation_node > Normal_nodes$
 P_ power aware function
 23: **else**
 Normal power utilization
 24: **END**

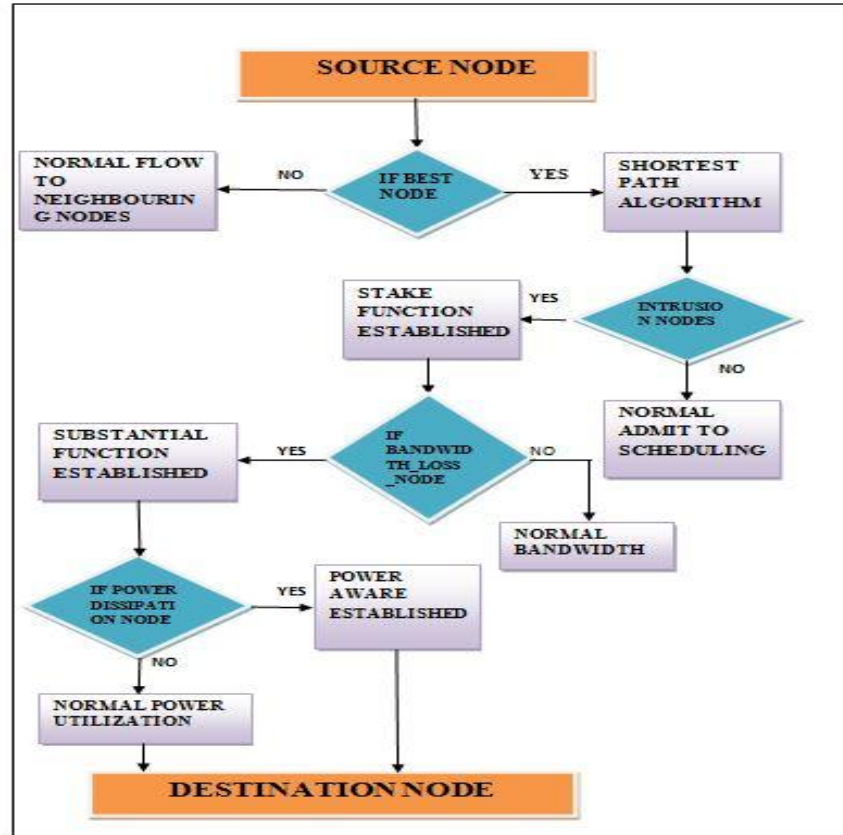


FIG NO : 1 FLOW CHART OF ERLRRPC

VI. PERFORMANCE EVALUATION

6.1 Performance Measurement.

We choose six metrics for analyzing the performance of ERLRRP.

6.1.1. Data Packets

Data packets are the important one in the Network communication. Based on the data packets sent and receive only, We are analyzing the overall system. These packets contain the data or the information what you want to transmit and receive from sender to receiver.

6.1.2. Routing Overhead.

When the nodes are migrating from one location to another location, that time establishing routes are generated in the Routing table and Mac table. It leads unnecessary routing overhead. These overhead can be rectified by using Substantial Function.

6.1.3. Average Packet Delay.

This is the average delay at the epitome of store and forward delay makes the Routing Packet delay during the communication. Due to congestion and misbehaving delays are occurred. These delays are indirectly proportional to the bandwidth and energy usage. Here by using the power aware and substantial functions are greatly reducing the delays.

6.1.4. Router Drops

Router drops indicate the how many packets are dropping at the condition of data packets communication. When the source transmits the packet to the destination and receiver receiving the packet properly. Hither constant bit rate [CBR] is using for the packet communication in data rates. To reduce the drops using the Stake function.

6.1.5. Jitter

Jitter is the crosstalk with carriers of other signals. Here ERLRRPC reduces the jitter because it schedules the communication to each node using the Stake function, So the interference problem has decreased.

6.1.6 Throughput

Throughput is the second important parameter. It is ratio between the Data receive by Data sent. It is the important parameter to calculate the delivery Ratio of the whole system. It is denoted in Bits per second. Here we are getting higher throughput compared to the existing system

6.1.7 Delivery Ratio

Delivery Ratio of a network is the most important parameter to represent the Data communication performance. It can be calculated by using throughput value or the ratios between the Data receive by Data sent with multiplication of 100 it gives the proper result. It is representing in percentage symbol [%]. Here we are getting huge Delivery ratio compared to existing system.

VII. SIMULATION PARAMETERS.

Apart from the routing algorithm, there are many different factors which can influence the final Simulation results such as the number of static nodes and mobile nodes, the co-ordination of the mobile nodes, Using the Network layer (Routing protocol), transport layer (TCP, UDP) and the Data display in the system by using the Application Layer. In order to make the simulation environment ERLRRPC has great improvements compared to the other existing Systems, Here we are representing the following different parameters. Denoting parameters completely related to the Real Time System. Main parameters like Wired/Wireless Channel, Queue, Link Layer, Antenna Propagation, Mac layer, Physical or Wireless Physical, X,Y topography, Simulation end time, Data Rate, Random Movement, Agent Definition and Application Definition.

PARAMETERS	VALUE
MAC protocol	IEEE 802.16
Radio propagation model	Two-ray ground reflection model
Signal propagation radius	10 meters
Channel	Wireless Channel
Routing Protocol	AODV
Packet size	1000 Bytes
Data interval	1 msec
Traffic type	Constant Bit Rate (CBR)
Simulation time	20 msec
Data Rate	1 Mbps

VIII. RESULT SCENARIO1

8.1. ERLRRPC

At the starting condition source and destination nodes are broadcasting those details to neighbouring nodes by using the Shortest Path Algorithm fixing the accurate route path. When the intruders hassle the nodes, At that time our system using Stake function to prevent the intrusion and concoct the very high security to the system. Substantial Function greatly dilutes the Bandwidth losses problem and it is directly proportional to suppress the Routing overhead problem, Router delay and Broadcasting Storm problem. It improves the bandwidth, Power utilization and energy utilization as well as increases the overall network communication is good. Fig No.2 and 3 shows the without security Node communication and ERLRRPC Node communication. In Fig.2 Black Dot shows the router drops and Communication losses. This problem shouldn't happen in ERLRRPC.

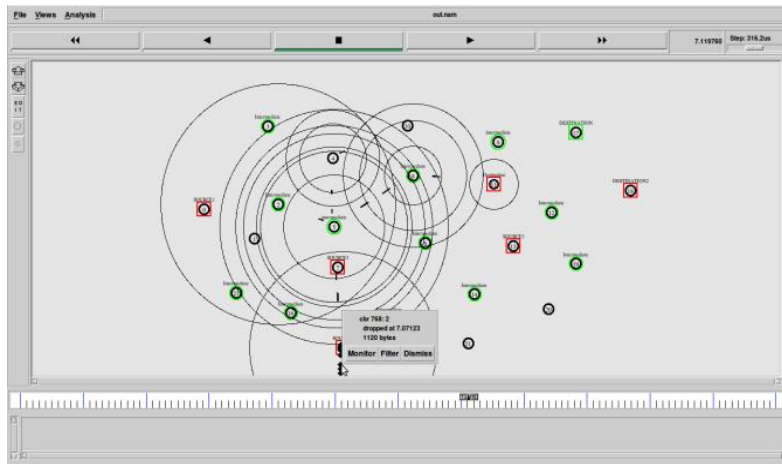


FIG NO 2: WITHOUT SECURITY NODE COMMUNICATION

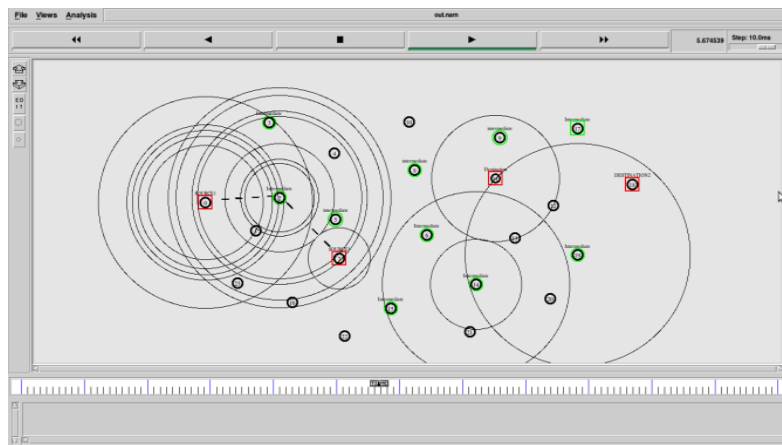


FIG NO.3 ERLRRPC NODE COMMUNICATION

8.2. ERLRRPC SIMULATION RESULT

Here shows the command Prompt window in Ubuntu. Run the Effectual Resolute and Lodge Round Robin Packet Scheduling with Compression System in Terminal window. ERLRRPC Numerical Results shown in FIG NO 4. It displays the AODV sent, AODV Receive, Data Sent, Data Receive, Router Drops and Delivery Ratio. Here Delivery Ratio shows the 93.215%. This is calculate by using the Trace file output and the Pearl script

```
softxper@softxper-desktop:~/phd/phasetwo/scenario1/proposal/secure$ cat out.tr | perl analyze.pl
AODV Sent      : 771
AODV Recv     : 4088
Data Sent      : 1369
Data Recv     : 1279
Router Drop    : 80
Delivery Ratio : 93.4258582907232
softxper@softxper-desktop:~/phd/phasetwo/scenario1/proposal/secure$
```

FIG NO.4 .ERLRRPC NUMERICAL RESULT

8.3. THROUGHPUT Vs END TO END DELAY

It has compared with the Existing Systems with Proposed ERLRRPC. Here using Parameters are Throughput Vs End to End Delay. Throughput in X axis and End To End delay in Y axis. In this comparison Xgraph shows the Effectual Resolute and Lodge Round Robin Packet Scheduling with Compression System has reduced End to end delay compared with other Existing System. When the number of nodes communication increases as well as Throughput and delay also increases because Throughput are directly proportional to the End to end delay. Here ERLRRPC has reduced delay owing to Substantial Function compared with Existing system. It is shown in FIG NO 5.

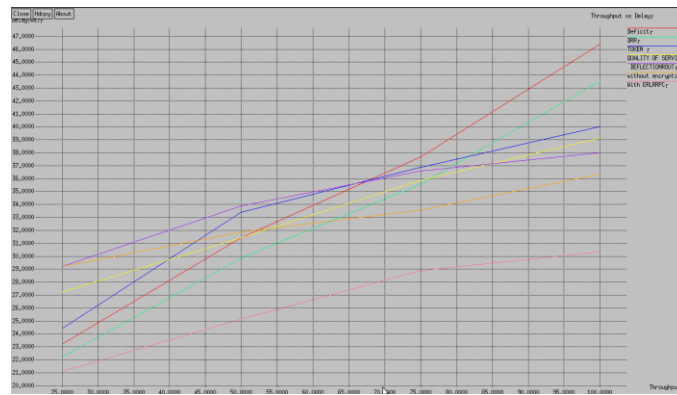


FIG.NO.5.COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING THROUGHPUT VS END TO END DELAY

8.4. NO OF NODES Vs BANDWIDTH LOSSES

It has compared with the Existing Systems with Proposed ERLRRPC. Here by using Parameters is No of Nodes Vs Bandwidth Losses. No of Nodes in X axis and Bandwidth Losses in Y axis. In this comparison Xgraph shows the Effectual Resolute and Lodge Round Robin Packet Scheduling with Compression System has very less bandwidth losses because of using Substantial Function Compared with other Existing system. It is shown in FIG NO 6.

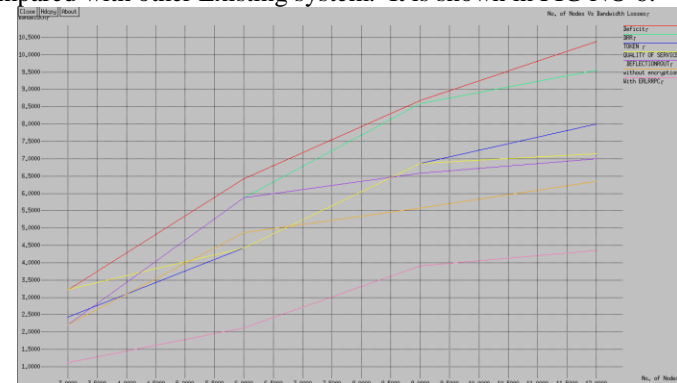


FIG.NO.6. COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING NO OF NODES Vs BANDWIDTH LOSSES

8.5. NO OF NODES Vs ENERGY LOSSES

It has compared with the Existing Systems with Proposed ERLRRPC. Here by using Parameters is No of Nodes Vs Energy Losses. No of Nodes in X axis and Energy Losses in Y axis. In this comparison Xgraph shows the ERLRRPC has very less energy losses because of using Power Aware Function Compared with other Existing system. It is shown in FIG NO 7.

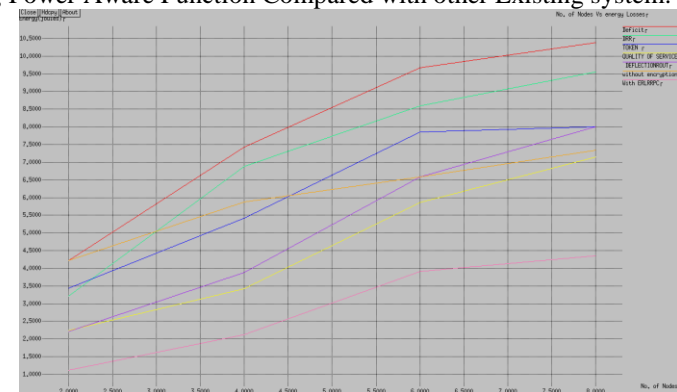


FIG.NO.7. COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING NO OF NODES Vs ENERGY LOSSES

8.6. THROUGHPUT VS DELIVERY RATIO

It has compared with the Existing Systems with Proposed ERLRRPC. Here by using Parameters is Throughput Vs Delivery ratio. Throughput in X axis and Delivery Ratio in Y axis. In this comparison Xgraph shows the ERLRRPC has most highest Throughput and that is directly proportional to the Delivery Ratio compared with other Existing system. It is shown in FIG NO 8.

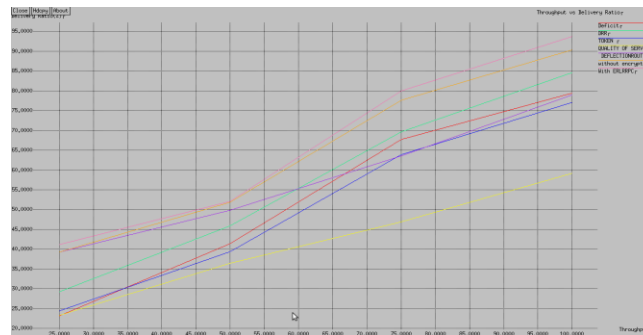


FIG.NO.8.COMPARISON GRAPH ERLRRPC WITH EXISTING SYSTEM USING THROUGHPUT VS DELIVERY RATIO

SCENARIO-2

8.7. ERLRRPC

In this scenario altering the Queue length and the data rates of communication. Queue length is 40 and the Data rates is 2 Mbps. Fig No.9 and 10 shows the Without security Node communication and ERLRRPC Node communication.

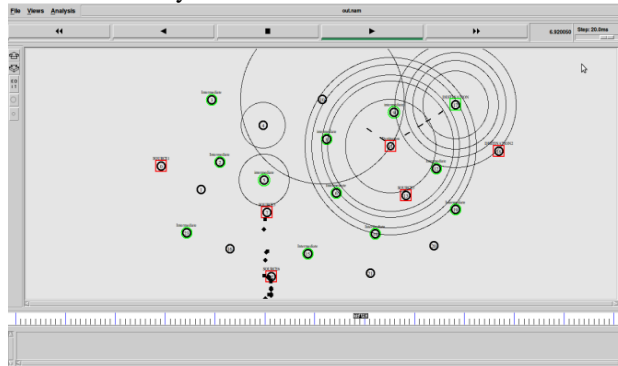


FIG NO 9: WITHOUT SECURITY NODE COMMUNICATION

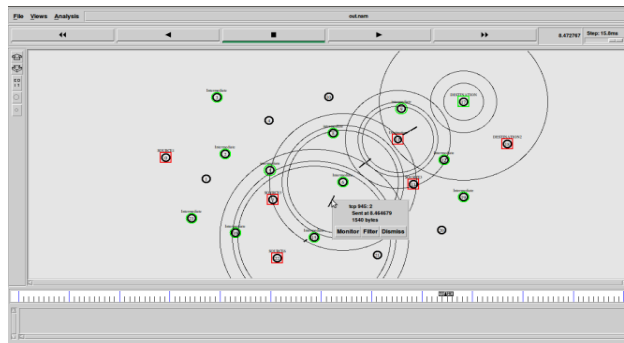


FIG NO.10 ERLRRPC NODE COMMUNICATION

8.8. ERLRRPC SIMULATION RESULT

Here shows the command Prompt window in Ubuntu. Run the ERLRRPC in Terminal window. ERLRRPC Numerical Results shown in FIG NO 11.It displays the AODV sent, AODV Receive, Data Sent, Data Receive, Router Drops and Delivery Ratio. Here Delivery Ratio shows the 90.215%.This is calculate by using the Trace file output and the Pearl script.

```
softxper@softxper-desktop:~/phd/phasetwo/scenario2/proposal/secure$ cat out.tr | perl analyze.pl
AODV Sent      : 1176
AODV Recv     : 6072
Data Sent      : 1383
Data Recv     : 1256
Router Drop    : 120
Delivery Ratio : 90.8170643528561
softxper@softxper-desktop:~/phd/phasetwo/scenario2/proposal/secure$
```

FIG NO.11 .ERLRRPC NUMERICAL RESULT

8.9. THROUGHPUT Vs END TO END DELAY

It has compared with the Existing Systems with Proposed ERLRRPC. Here using Parameters are Throughput Vs End to End Delay. Throughput in X axis and End To End delay in Y axis. In this comparison Xgraph shows the ERLRRPC has reduced End to end delay compared with other Existing System. When the number of nodes communication increases as well as Throughput and delay also increases because Throughput are directly proportional to the End to end delay. Here ERLRRPC has reduced delay owing to Substantial Function compared with Existing system. It is shown in FIG NO 12.

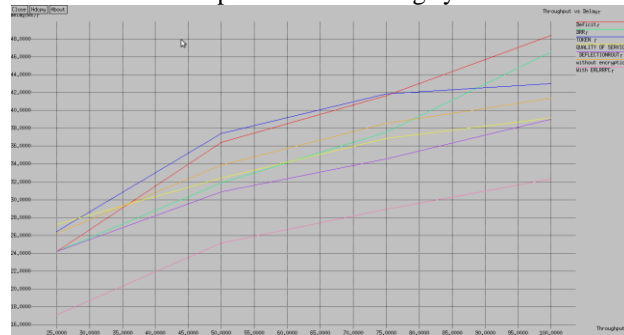


FIG.NO.12.COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING THROUGHPUT VS END TO END DELAY

8.10. NO OF NODES Vs BANDWIDTH LOSSES

It has compared with the Existing Systems with Proposed ERLRRPC. Here by using Parameters is No of Nodes Vs Bandwidth Losses. No of Nodes in X axis and Bandwidth Losses in Y axis. In this comparison Xgraph shows the ERLRRPC has very less bandwidth losses because of using Substantial Function Compared with other Existing system shown in FIG NO 13.

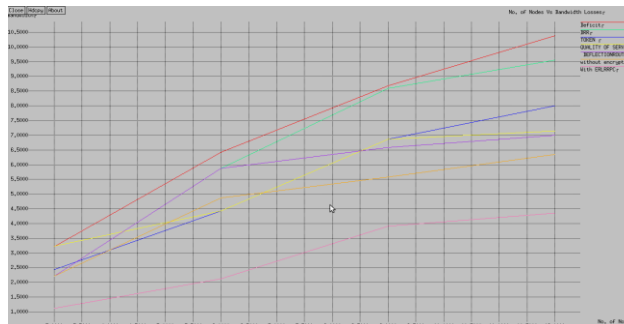


FIG.NO.13. COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING NO OF NODES Vs BANDWIDTH LOSSES

8.11. NO OF NODES Vs ENERGY LOSSES

It has compared with the Existing Systems with Proposed ERLRRPC. Using Parameters are No of Nodes in X axis Vs Energy Losses in Y axis. In this comparison Xgraph shows the ERLRRPC has very less energy losses because of using Power Aware Function Compared with other Existing system. It is shown in FIG NO 14.

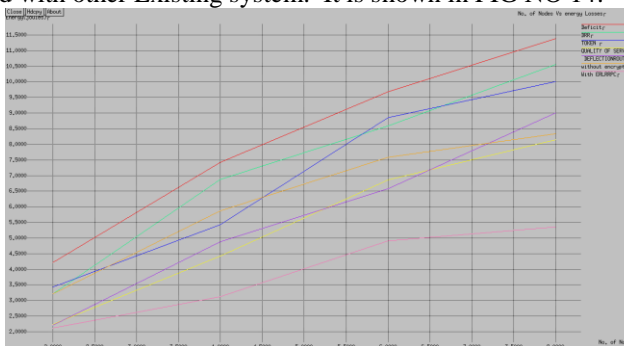


FIG.NO.14. COMPARISON XGRAPH ERLRRPC WITH EXISTING SYSTEM USING NO OF NODES Vs ENERGY LOSSES

8.12. THROUGHPUT VS DELIVERY RATIO

It has compared with the Existing Systems with Proposed ERLRRPC. Here by using Parameters is Throughput Vs Delivery ratio. Throughput in X axis and Delivery Ratio in Y axis. In this comparison Xgraph shows the ERLRRPC has highest Throughput and that is directly proportional to the Delivery Ratio compared with other Existing system. It is shown in FIG NO 15.

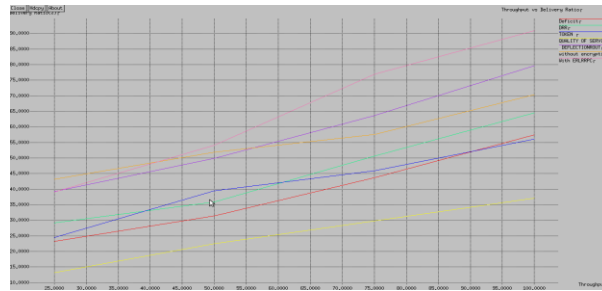


FIG.NO.15.COMPARISON GRAPH ERLRRPC WITH EXISTING SYSTEM USING THROUGHPUT VS DELIVERY RATIO.

IX. CONCLUSION AND FUTURE WORK

We have developed a new kind of algorithm for the packet scheduling. By using ERLRRPC improves the security, Throughput and the High secured compression to reducing the Space allocation problem, Power and Energy problems. It provides the High security and slash the intrusion. Effectual Resolute and Lodge Round Robin Packet Scheduling with Compression System [ERLRRPC] is used to find the malicious nodes and concoct aware to the nodes using the Stake Function. This increases the probability of successful route discovery and improves the Quality of service. Bandwidth utilization problem can be easily solved by the Substantial Function, So the system did not effect by the Routing Overhead problem and Broadcasting problems. For reducing Power dissipation problem power aware mode is easily solve the power dissipation problem. So finally ERLRRPC huge Throughput and Delivery ratio shows the better system using Packet scheduling. In Future work can improve the scheduling encryption level using the double level encryption and High bit keys to product the System security level.

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