

Improving the Speed of the data Transmission using Collaborative Contact Based Watchdog to Detect Inactive Selfish Nodes

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Abstract

Mobile Adhoc Networks are Very essential for daily activities for Human life. The Communication between People is most needed one. So this paper gives updated Adhoc Technology. By using this contact Based watchdog system, less interrupted communication and data transferring is possible. Nowadays the main problem of communication is packet loss and delayed communication. This paper overcomes some problems of the Delayed communication. Each node has communication between them; this is the main stream of this paper. Each nodes send data between them and sharing the data.

Index Terms – Mobile Adhoc Networks, less interrupted, watchdog.

1. Introduction

Communications between the Nodes are very important. The data is send to the first node means, first node send the data to second node, second send to third node, likewise the data has been transmitted. In this Contact based system all the nodes are not good nodes .some node are not Cooperate. These nodes made them Selfish, which means these nodes receive the data but not to transmit the data to neighbor node. It holds the data with them. So delay will appear. The data has not been transmitted. So now we proposed to detect the selfish nodes in the beginning of the transmission. The hello message is send to all the nodes in the beginning. The path of data transmission is to be change. The diffusion is positive or negative detections of selfish nodes that creates some issues to the reputation of the another nodes. The issue of the consolidation of information is trust about neighbor's positive and negative detections; it does not match with the local watchdog detection. If the data is send through the first node means it transmits it to second node. Now we are going to use local watch dog to detect selfish nodes. Watchdog detects the selfish nodes.

Watchdog is essential to detect selfish nodes. If watch dog detected means it send the data and information to all the nodes. All the nodes receive the information and change the path. Now the information is passed by the co operative nodes. There are collections of nodes present means one co operative nodes present in those nodes. These cooperative nodes send the message to nodes to change the path.

2. Overall Architecture

The Architecture of the Selfish nodes detection is simple model .At first the data is to be send through the nodes. Now the watch dog and cooperative nodes are created. So we are going to send the data through the nodes. In next step the data has been transmitted and passed through the nodes. Now the Watchdog detected the selfish node and sends the message to cooperative Nodes. The cooperative nodes send this message to all the nodes. All the nodes are alerted and not send the data to those selfish nodes. The chain process has been happened in those nodes.

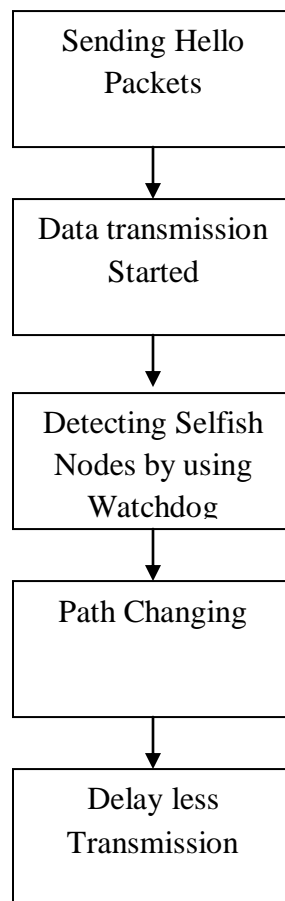


Fig 2.1 Architecture

In this Architecture the path changing is important part. If the path has not been changed the transmission is getting delay. Watchdog detects the selfish nodes and helping to change the data. Cooperative nodes have major part to change the data path. If the data path changed and transmission getting speed. The data path has already decided. In this paper only we change the data path. So the path has changed.

3. Selfish nodes Detection

Selfish nodes are the major problem of the transmission. In this method we are reducing the selfish nodes. The data transmitted through the selfish nodes means, it will pass the data to neighbor node it holds the data with them. So the transmission getting delays. The speed of the transmission is getting reduced. In this contact based process watchdog will find out the selfish nodes.

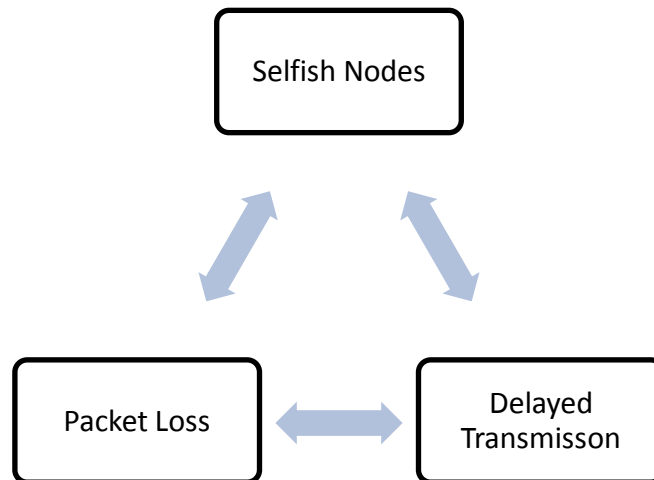


Fig 3.1 Selfish nodes detection

There is the Connection between these Selfish nodes and packet loss. So the transmission is getting delayed. The delayed transmission leads to packet loss. The Connection of these nodes has been interconnected. In this paper we reduce the packet loss and delayed transmission. In this fastest world the transmission is getting delayed means, the updated technology also lagging back. So the reduction of packet loss is essential for all the transmission.

3.1 Data Packet Loss

Communication between two nodes is the basic for all the transmissions. In this transmission automatically the packet loss will occur. We are going to improve the packet loss. To detect selfish nodes and changed the data path means the packet loss is automatically reduce. If the speed of the data transmission is increased means the data packets loss is also reduced. Selfish nodes are mostly creating the data packet loss. If the selfish nodes present in the transmission means the delayed transmission has occurred. Delayed transmission is the major problem of data transmission. Time delay is occurring when data has been delayed. If this problem has been solved means distortion less data transmission is possible.

4. Literature Survey

s.S.no	Author and Year of Publication	Title	What is Done	Advantage	Disadvantage
1.	Enforcing service availability in mobile ad-hoc WANS, 2000.	Enforcing service availability in mobile ad-hoc WANS	Chip out Scheme used, only for Observation	It will Observe the Node Properly	It is not to give solution for the Problem
2.	J. R. Douceur, 2002.	The sybil attack	It Can Control a Substantial Fraction of a System	It will give better Results	Sometimes it may attack good Nodes
13.	S. Bansal and M. Baker , 2003.	Observation-based cooperation enforcement in ad hoc networks	Punish Selfish Nodes	It will Punish but	Recover the Node
4.	L. Buttyan and J.-P. Hubaux, 2003.	Stimulating cooperation in self organizing mobile ad hoc networks	Enforce nodes to Cooperate in a Selfish Ad hoc Environment	Nodes Works properly.	It is only for few nodes
5.	Y. Zhang, W. Lee, and Y.-A. Huang, 2003.	Intrusion Detection Techniques for Mobile Wireless Networks	It includes intrusion detection in the security	It is the Firewall of the mobile Nodes .	Not that much Effective

Table 4.1 Literature Survey

5. Experimental Result

The Experimental Result are showed, the delay of transmission and packet loss is reduced successfully. The transmission speed is also increased. In this paper we knows, if selfish nodes are detected means, immediately the path has to be change. If the Path is changed automatically the transmission is getting increased.

6. Future Work

In future the Intrusion Detection System is very much helpful to improve the transmission. In this method the selfish nodes detection process is involved, in the starting of the experiment. Hello messages will send the details about the selfish nodes. Starting itself the selfish nodes are detected. So the speed of the data transmission is getting improved.

7. Conclusion

The speed of the data transmission is the Essential part of Communication. Selfish nodes detection is the main objective to reduce selfish nodes. Changing the path is better way to improve transmission. Watchdog is very helpful to detect selfish nodes. Overall the selfish nodes are detected and Speed of data transmission is improved.

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