ISSN 2395-695X (Print)
ISSN 2395-695X (Online)

International Journal of Advanced Research in Biology Engineering Science and Technology (IJARBEST)
Vol. 1, Issue 3, June 2015

DESIGN OF MPLS BASED ATM NETWORKS

R.Tino Merlin
Francis Xavier Engineering College
Email:tinomerlin@yahoo.co.in

Abstract—The problem is to find the cheapest path that satisfies certain constraints. The efficiency of the algorithms directly relates to the magnitude of the errors introduced during discretization. In this paper, we propose two techniques that reduce the discretization errors, which allow faster algorithms to be designed. Reducing the overhead of computing constrained shortest paths is practically important for the successful design of a high-throughput QoS router, which is limited at both processing power and memory space.

1. INTRODUCTION

In practice, on-line algorithms are not always desired. When the request arrival rate is high (major gateways may receive thousands or tens of thousands of requests every second), even the time complexity of Dijkstra's algorithm will overwhelm the router if it is executed on a per-request basis.1 To solve this problem, the second scheme is to extend a link-state protocol (e.g., OSPF) and periodically pre-compute the cheapest delay-constrained paths for all destinations, for instance, for voice traffic with an end-to-end delay requirement of 100 ms. [1-5] The computed paths are cached for the duration before the next computation. This approach provides support for both constrained unicast and constrained multicast. The computation load on a router is independent of the request arrival rate. Moreover, many algorithms, including those we will propose shortly, have the same time complexity for computing constrained shortest paths to all destinations or to a single destination. This paper studies the second scheme [6-10].

2. PROBLEM DEFINITION

We design the path discretization algorithm (PDA) based on the above intuition. The algorithm solves the ε–approximation with the same worst-case complexity as RDA. However, its average execution time is better than RDA according to our simulations.

3. PERFORMANCE ANALYSIS

Creating the Cluster Head

In this fig 1 the cluster node source node and destination node will be identified according to that the data will be transmitted from source to destination by cluster information cluster node is group controller source and destination is used to communicate between other nodes.[11-15]

ISSN 2395-695X (Print)
ISSN 2395-695X (Online)

International Journal of Advanced Research in Biology Engineering Science and Technology (IJARBEST)
Vol. 1, Issue 3, June 2015

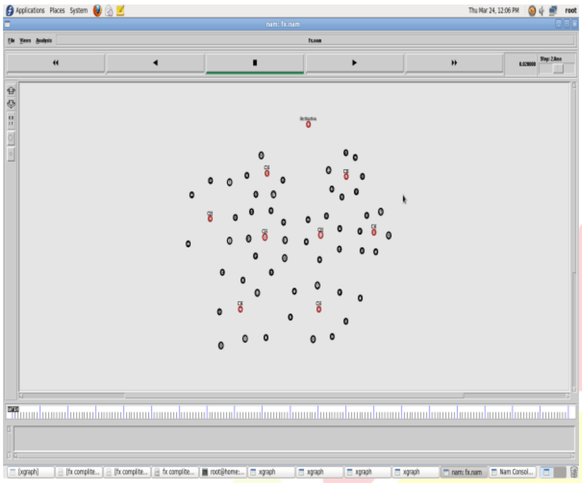

Fig-2 Creating the cluster Head

Indicates the Watchdog

In this fig 3 is used to know about the watchdog .The watchdog will be placed in every group of node. In a group of node which has a higher energy is act as a watchdog in every group of nodes.

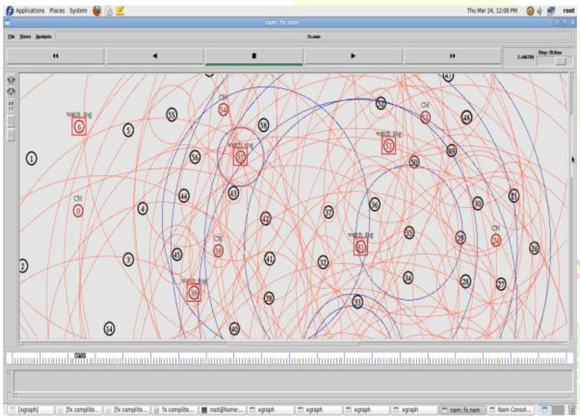

Fig-3 Indicates the Watchdog

Detecting the Malicious Node

The watchdog node will be finding about the malicious node and give alert signal to another node and cluster head. The data will not be transfer to the malicious node.

Sometimes the data will be send to malicious node at that time the will be lost in fig-2.

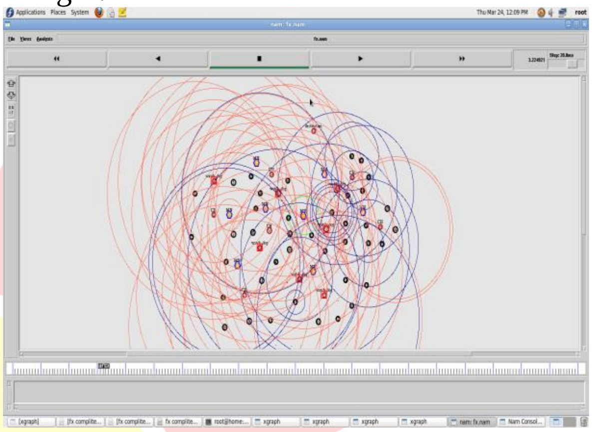

Fig-3 Detecting the Malicious Node

5.1.8 Moved the Malicious Node

In fig 4 every malicious node will be slowly removed from the group.

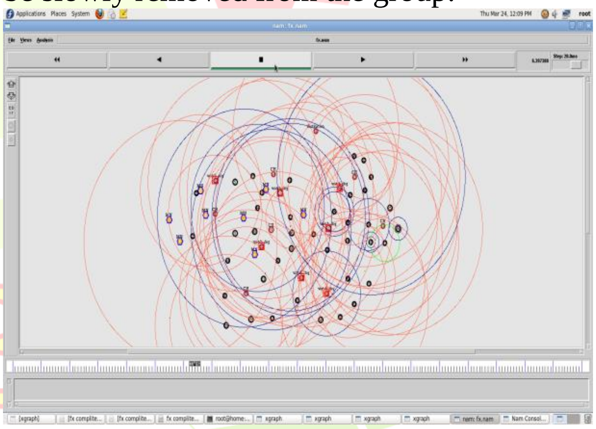

Fig-4 Moved the Malicious Node

GRAPHICAL REPRESENTATION

Throughput

In the above graph 5 shown the difference of throughput and time. The red color line will be indicates the proposed system and green color line will be indicates the existing system.

Table 1 Throughput

S.No	Existing System	Proposed System

ISSN 2395-695X (Print)
ISSN 2395-695X (Online)

International Journal of Advanced Research in Biology Engineering Science and Technology (IJARBEST)
Vol. 1, Issue 3, June 2015

	Time	Energy	Time	Energy
1	0.0000	0.0000	0.0000	0.0000
2	10.0000	0.1800	10.0000	0.5000
3	20.0000	0.6200	20.0000	0.8000
4	30.0000	0.7800	30.0000	1.0000
5	40.0000	0.8100	40.0000	1.2600

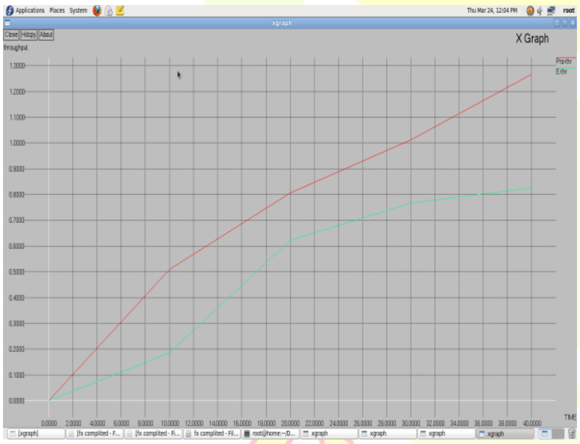

Fig-5 Throughput Graph

Energy

In this graph is shown 5 the difference between delay and time. The red color will be indicates the node energy and green color will be indicates the watchdog energy .

Table 2 Energy

S.No	Node		Watchdog	
	Time	Delay	Time	Delay
1	0.0000	0.0000	0.0000	0.0000
2	10.0000	1.6500	10.0000	3.2000
3	20.0000	1.8000	20.0000	3.3000
4	30.0000	2.1800	30.0000	3.4000
5	40.0000	2.3800	40.0000	3.6500

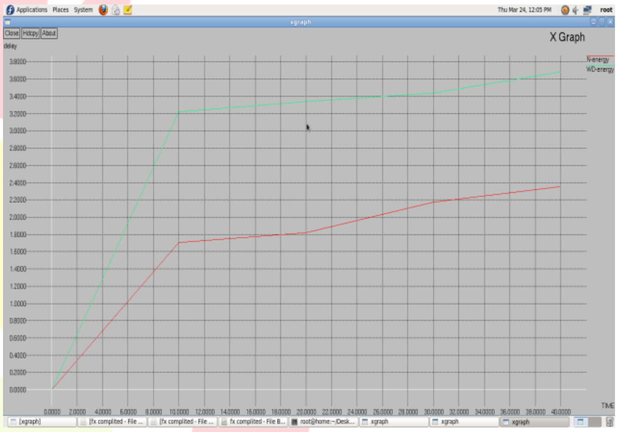

Fig- 6 Energy Graph

5.2.3 Delay

In this graph is shown 6 the difference between existing delay and proposed delay. The red color indicates the energy level of delay the green color indicates the proposed system delay. The energy indicates the delay slowly and proposed will be color indicates the delay fastly.

4. CONCLUSION

In this paper, we proposed two techniques, randomized discretization and path delay discretization, to design fast algorithms for computing constrained shortest paths. While the previous approaches (RTF and RTC) build up the discretization error along a path, the new techniques either make the link errors to cancel out each other along the path or treat the path delay as a whole for discretization, which results in much smaller errors.

REFERENCES

1. Raja Ratna, S, Ravi, R & Beulah Shekhar, 'An intelligent approach based on neuro-fuzzy detachment scheme for preventing jamming attack in wireless networks', Journal of Intelligent and Fuzzy Logic, Vol. 28, No. 2, pp. 801-820, Jan 2015, DOI:10.3233/IFS-141363. ISSN. 1064-1246, 2015.
2. Khongbantabam Susila Devi & Ravi,R 'Medical E-mail Spam Classification using a Score Based System and Immune System Embedded with Feature Selection Process', Journal of Pure andAppliedMicrobiology,Print-ISSN:0973-7510,vol.9,Spl.Edn.1,pp.673-680, 2015.
3. Raja Ratna, S, Ravi, R & Beulah Shekhar, 'Mitigating Denial of Service attacks in Wireless networks', International Journal of Advanced Research in Computer Engineering and Technology, vol. 2, no.5, pp. 1716-1719, 2013.
4. Raja Ratna, S & Ravi, R 2014, 'Malicious Route Defending Reliable-Data Transmission Scheme for Multi Path Routing in Wireless Network', World Academy of Science, Engineering and Technology, vol.8, no.12, pp. 1950-1955.
5. Raja Ratna, S & Ravi, R 2015, 'Code Based Rescheduling: A Highly Reliable Inter Layer Scheme to Prevent Physical layer Threat in Wireless Network', Global Journal of Pure and Applied Mathematics, vol.11, no.1, pp.75-90.
6. Muthukumaran, N & Ravi, R 2014, 'Quad Tree Decomposition based Analysis of Compressed Image Data Communication for Lossy and Lossless using WSN', World Academy of Science, Engineering and Technology, Print-ISSN:2010-376X, Volume. 8, No. 9, pp. 1543-1549.
7. Khongbantabam Susila Devi & Ravi, R 2015, 'A New Feature Selection Algorithm for Efficient Spam Filtering using Adaboost and Hashing Techniques', Indian Journal of Science and Technology, Print-ISSN:0974-6846, vol. 8.no.13,pp. 65753.
8. Khongbantabam Susila Devi & Dr. R. RAVI2015, ' A new algorithm for similarity preserving hashing based on Mvhash- Damerau Levenshtein for email filtering', International Journal of research in Computer Engineering and Electronics, vol. 4, no.1. pp. 1-16.
9. Dr. R. Ravi, A. Jenefa, "Classifier A Real time detection System for detecting Suspicious URLs in twitter Stream", International Journal of advance research in computer science and management studies Vol. 2, No 2, Feb 2014.
10. Dr. R. Ravi, M. Karthika, "An efficient and affordable user authentication protocol defiant to password pinching and reclaiming.", International Journal of advance research in computer science and management studies Vol. 2, No 2, Feb 2014.
11. Dr. R. Ravi, M. Jenefa, "A Machine Doctor for Diagnosing Ophthalmology problems using Neural Network", International Journal of Advance Research in Computer Engineering and Technology Vol. 2, No 2, Feb 2014.
12. Dr. R. Ravi, M. Jenefa, "Enhanced Secure Data transmission with Hash technique and level analysis for MANETs", International Journal of computer science and management Research Vol. 3, No 2, March 2014.
13. Dr. R. Ravi, S. Vasanthi, "Estimating the Exposure of Network Mechanism to High-Tech DDoS Attacks", International Journal of Advance Research in Computer Engineering and Technology Vol. 3, No 3, March 2014.
14. Muthukumaran, N & Ravi, R, 'The Performance Analysis of Fast Efficient Lossless Satellite Image

Compression and Decompression for Wavelet Based Algorithm', Wireless Personal Communications, Print-ISSN: 0929-6212, Volume. 81, No. 2, pp. 839-859, March 2015.

15. N. Muthukumaran & Dr. R. Ravi, 'VLSI Implementations of Compressive Image Acquisition Using Block Based Compression Algorithm', International Arab Journal of Information Technology, Print-ISSN: 1683-3198, vol. 12, no. 4, pp. 333-339, July 2015.