

Comparison of Bandwidth of MALN with Four Tree (Ft) Network

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Introduction: In this paper Modified Alpha Network has been compared with the existing Four Tree Network on the basis of different Performance Parameters.

Keywords: MALN, ALN, FT, Performance Parameters, Bandwidth, Probability of Acceptance

Bandwidth and Probability of Acceptance

The parameters Bandwidth and Probability of Acceptance have been evaluated using formulas and the values have been shown in Table 1 and Table 2.

Table 1: Bandwidth comparison of MALN, ALN and FT

Bandwidth P_{req_gen}	MALN	ALN	FT
0.1	1.476	0.9798	1.2
0.2	2.735	1.6792	2.1264
0.3	3.818	2.2118	3.0144
0.4	4.755	2.6332	3.8032
0.5	5.571	2.9826	4.5072
0.6	6.285	3.2792	5.1344
0.7	6.911	2.5374	5.696
0.8	7.461	3.7644	6.1968
0.9	7.944	3.9654	6.6432
1.0	8.369	4.1440	7.0416

Table 2 shows the compared values of Probability of Acceptance of MALN, ALN and FT.

Table 2: Probability of Acceptance comparison of MALN, ALN and FT

Probability of Acceptance P_{req_gen}	MALN	ALN	FT
0.1	0.9225	0.6123	0.75
0.2	0.8547	0.5247	0.6645
0.3	0.7954	0.4607	0.628
0.4	0.7430	0.4114	0.5942
0.5	0.6964	0.3728	0.5634
0.6	0.6547	0.3415	0.5348
0.7	0.6171	0.3158	0.5085
0.8	0.5829	0.2940	0.4841
0.9	0.5517	0.2753	0.4613
1.0	0.5231	0.2590	0.4401

Fig 1 and Fig2 compare the values plotted from Table 1 and Table 2

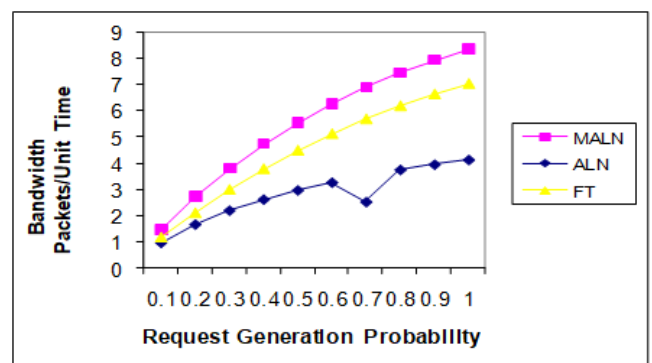


Fig 1: Comparison of Bandwidth of MALN, ALN and FT

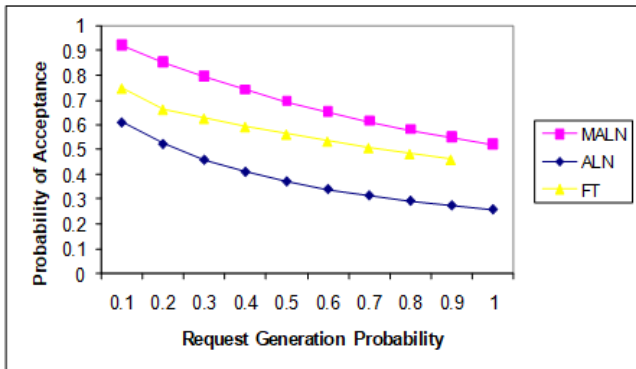


Fig 2: Comparison of Probability of Acceptance of MALN, ALN and FT

Conclusion

It is clear from Fig 1 that the Bandwidth of the proposed MALN is higher than existing ALN and FT, as available paths for packet delivery are more in MALN. Fig 2 shows that the proposed Network has higher values of Probability of Acceptance.

References

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