



# Traffic Light Based Multipath Routing Mechanism for Non-Geostationary Satellite IP Networks

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**Abstract:** The traffic light based multipath routing mechanism for N GEO satellite IP networks includes a set of traffic lights that indicates the status of congestion at both the current node and the next node. Based on the real time colours indicated as by the traffic lights each packet can adjust its route to another path from its pre-calculated route to the destination in order to avoid congestion. Thus each packet can obtain an approximately optimal transmission path by this real time adjustment. It can also provide a better traffic distribution in case of increased network traffic by means of multipath routing mechanism. Moreover the public waiting queue scheme reduces the packet drop rate by utilizing the free spaces of the buffer queues. This mechanism of TLR also incorporates a defence scheme to eliminate the phenomenon of endless-loop of routing.

**Keywords:** N GEO satellite network, traffic light, intelligent routing, packet drop rate, load balance.

