Abstract

Low Earth Orbit (LEO) satellite made a great impact to the scientists towards the end of the previous decade because of its some interesting features such as low propagation delay, low power requirements and the ability to communicate with handheld terminals. That’s why future satellite networks are now conceived as complementary rather than competitive to terrestrial networks. But as the speed of LEO satellite is higher than Mobile Nodes (MN) and earth’s speed, the no of handover occurrence is more which degrades the overall communication quality. Also the call blocking probability and forced call termination probability is more. To solve these problems, a number of handover methods have been proposed by different scientists. Here we have proposed a fast method for handover named Location
Manager Based Handover method for LEO satellite networks where we have use Location Manager (LM) for reducing the scanning time. LM is used to store all the mobility pattern of all the satellites. To know how this method works, we run a set of simulations for handover latency, handover throughput and call blocking probability for our proposed method with the standard methods. Results show that this algorithm can significantly improve the overall communication performance.

References

- Ays¸eg˘ul T¸uys¸uz and Fatih Alag¸oz, "Satellite Mobility Pattern Scheme for centrical and Seamless Handover Management in LEO Satellite Networks?, JOURNAL OF COMMUNICATIONS AND NETWORKS, VOL. 8, NO. 4, DECEMBER 2006

Index Terms

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