Abstract

Low Earth Orbit satellite systems gained considerable interest towards the end of the previous
decade for its some important characteristics that are showed with such low propagation delay, low power requirements and ability to communicate with handheld terminals. So LEO networks are considered to be complementary rather than competitive to terrestrial networks. But the higher relative speed than terrestrial mobile networks is the main disadvantage of LEO satellites. As a result, the frequency of handover is more which decreases the quality of service. To overcome this problem, many solutions are given by scientists. Here we have proposed a Population Based Mobility Management (PBMM) method where we have divided the total Earth's surface into three types of area and applied different mobility management method for each of the populated areas. Through mathematical analysis simulation results shows that this method is better than the standard mobility management methods and can successfully reduce the handover costs.

References

- Debabrata Sarddar, Soumya Das, Dipsikha Ganguly, Suman Kumar Sikder, Sougata Chakraborty, Kunal Hui, Shabnam Bandyopadhyay, Kalyan Kumar Das and Mrinal Kanti Naskar. Article: Reducing the Mobile IP Binding Updates and the Packet Loss for the Repetitive
Population based Mobility Management in LEO Satellite Networks


Index Terms

Computer Science Wireless Communications

Keywords

Low Earth Orbit (leo) Terrestrial Network Population Based Mobility Management (pbmm) Mobile Node (mn).