Abstract

Low Earth Orbit (LEO) satellite networks will work as an important role in future global
A Time based Mobility Management Method for Leo Satellite Networks

communications as it can provide wireless connectivity to any part of the world. It has some distinct characteristics such as low propagation delay, low power requirements and more efficient spectrum allocation due to frequency reuse between satellite and spotbeams. 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 Time Based Mobility Management (TBMM) method in which we have divided the total 24 hours into two phrases: active phrase and idle phrase and apply precise location management and loose location management simultaneously. Through mathematical analysis simulation results shows that this method is better than the standard mobility management methods.

References

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**Index Terms**

Computer Science  Communications
Keywords
Satellite Networks  Handover  Global Communication  Frequency Reuse  Time Based Mobility Management