Abstract

LEO satellite networks are going to play an indispensable role in the development of ubiquitous broadband multimedia systems because of their some attracting characteristics such as low power dissipation, low propagation delay and more efficient spectrum allocation due to frequency reuse between satellites and spotbeams. So they are considered to be the
replacement of terrestrial wireless networks. But as the speed of LEO satellites is high relative to the terrestrial mobile networks which moves at lower speed but at more random directions. As a result the number of handover occurrence is very frequent in LEO networks. To overcome these problems a suitable bandwidth allocation strategy along with connection admission control technique must have to be followed. Scientists have proposed many strategies but none can fulfil all the requirements. Here we have proposed a new channel borrowing database algorithm for the channel borrowing strategy. Simulation results shows that our proposed method has less call dropping probability and a better fairness index.

References

- Debabrata Sarddar, Dipsikha Ganguly, Soumya Das, Suman Kumar Sikdar, Sougata
- HUANG Fei, XU Hui, WU shiqi, &quot;Fairness based channel borrowing strategy in multimedia LEO satellite communications&quot;, Higher education press and spinger-verlag 2007.

Index Terms

Computer Science

Wireless

Keywords
Handover Latency Spot Beams Leo Mobile Node (mn) Broadband Multimedia Systems