

网络、通信与安全

基于GEO/LEO卫星通信网的路由策略研究

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收稿日期 修回日期 网络版发布日期 2007-11-19 接受日期

摘要 从优化卫星网络管理的角度, 提出了GEO/LEO卫星通信网络体系结构, 该结构将管理子网与业务子网在物理上相互分离, 体现了与地面网络不同的集中式路由策略的优势, 同时利用卫星运行的规律性和星际链路分布的规则性, 制定了极大降低运算量的备用路由策略, 保证了GEO/LEO卫星网络体系结构的可靠性, 通过仿真验证了两种路由策略的性能。

关键词 [卫星通信](#) [路由](#) [网络管理](#)

分类号

Research on routing strategies of satellite communication networks based on GEO/LEO constellations

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Abstract

The architecture of satellite communication networks based on GEO/LEO constellations is presented considering the optimization of network management. Management subnet and service subnet are separate physically in this architecture, which makes centralized routing strategy more adapted than that in terrestrial networks. In order to strengthen the reliability of the architecture, spare routing strategy decreasing computation load is constituted making use of the characteristics of satellites' regular movement and regular array of Inter Satellite Links (ISL). At last the performances of two routing strategies are validated through simulations.

Key words [satellite communication](#) [routing](#) [network management](#)

DOI:

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