论文

抗毁WDM网中支持QoS的选路和波长分配算法

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摘要
该文首先探讨了抗毁WDM网中支持QoS的分层图模型,在此基础上提出一种抗毁WDM网中支持QoS的选路和波长分配算法。该算法根据上层业务不同的QoS要求,对其光路建立请求区别对待,以满足它们不同的阻塞率和恢复率要求。计算机仿真结果表明该算法既满足了上层业务不同的QoS要求,同时又充分利用了有限的网络资源,使全网的平均阻塞率降低。
关键词   分层图   服务质量   生存性   路由选择和波长分配算法
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A QoS-based routing and wavelength assignment algorithm in survivable WDM optical transport networks

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Abstract
This paper considers the survivability of WDM layer according to the client layer's QoS requirements. A novel priority-based protection strategy is presented, and a QoS-based layered graph method is developed in the WDM optical transport network to reduced the blocking probability of the connection request. Based on them, a QoS-based RWA strategy in survivable WDM networks is proposed. Simulation results of the network performance in different dynamic traffic load are given. The results show that this algorithm can not only meet the different QoS requirements of the client layer's service, but also utilize the finite networking resources efficiently with the reduced blocking probability.
Key words   Layered graph   Quality of Service（QoS）   Survivability   Routing and Wavelength Assignment（RWA） algorithm

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