

论文

## OBS网络中的多BHP延迟调度算法

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摘要

光突发交换 (Optical Burst Switching, OBS) 是下一代光网络中的有效核心交换技术之一。在OBS网络中,核心节点的调度方案是影响网络交换性能的重要因素。如何有效地对突发分组 (Burst) 进行合理调度,以减少丢包率正是关键问题所在。该文提出了一种多控制分组 (Burst Header Packet, BHP) 延迟调度算法,对于一个收集周期内到达的多个BHP所对应的突发数据,按照一定的方式对它们进行集中调度,实现对已预约资源的更改,使调度结果得到了优化。该算法根据不同的网络应用,可细分为4种具体的算法实现,以适用于不同的应用场景。仿真结果表明,该文提出的调度算法和已有算法相比,能够优化对突发分组的调度,提高对信道资源的有效使用,从而降低交换网络的丢包率。

关键词 [光突发交换](#) [多BHP延迟调度](#) [可行实例](#) [偏移时间](#)

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## Multiple BHPs Delayed Scheduling Algorithm in Optical Burst Switching Network

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Abstract

Optical Burst Switching (OBS) is considered as one of core technologies for next generation optical switching networks. In OBS network, the scheduling algorithm for core router is important for the performance of switching network. And how to schedule bursts efficiently and reduce the lost probability of bursts are the key issue. This paper proposes a new multiple BHPs (Burst Header Packets) delayed scheduling algorithm. With this algorithm, data bursts of all BHPs collected in one collection period are scheduled collectively to a policy. And resources has been arranged before for the former BHP can be altered and rearranged by the latter one, and the scheduling result is optimized. In the light of different network application, this algorithm is divided into four realities. Through simulation and comparing the results with now existing algorithms, it is showed that the algorithm can optimize the scheduling of bursts, improve the channel utilization and decrease the loss possibility of bursts.

Key words [Optical Burst Switching \(OBS\)](#) [Multiple BHPs delayed scheduling](#) [Feasible instance](#) [Offset](#)

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