

计算机科学

基于模糊控制的TCP拥塞避免算法

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收稿日期 2009-3-10 修回日期 2009-4-11 网络版发布日期 2009-7-7 接受日期 2009-6-2

摘要 TCP (Transmission Control Protocol) 使用基于延迟的拥塞避免算法DCA (Delay based Congestion Avoidance) 提高了网络系统的吞吐量. 但很多因素影响了DCA算法的效率. 为此提出了一种基于模糊控制的DCA算法FDCA (Fuzzy Control Based DCA), 有效降低了这些因素带来的影响. 仿真试验表明, 该算法更加及时和准确地监测到网络拥塞, 提高了网络的吞吐量.

关键词 [模糊控制](#); [TCP](#); [拥塞避免](#)

分类号 [TP391](#)

Fuzzy control based DCA algorithm

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Abstract

TCP employs delay based congestion avoidance (DCA) algorithms to improve the throughput of network system. However, there are many factors to affect the DCA algorithm efficiency. In order to solve these problems, a fuzzy control based DCA algorithms (FDCA) was proposed to reduce the influences of the factors. The simulations show that the algorithm provides more accurate and timely indication of network congestion, and increases network throughput.

Key words [fuzzy control](#) [TCP](#) [congestion avoidance](#)

DOI:

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