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过载服务器的性能研究

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Abstract

Related source code of Linux is analyzed for the performance of overloaded servers. Then, the phase of receiving packets of the kernel is analyzed by using queuing theory and several conclusions on the performance of overloaded servers are drawn. Based on these analyses, some methods to improve the performance of overloaded servers are presented and implemented on Linux. The results of the tests prove that these methods can avoid livelock effectively and improve the performance of overloaded servers greatly.

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摘要

针对服务器过载时的性能对Linux的相关源代码进行了分析.用排队论分析了内核的收包过程,得出了关于服务器在过载时性能的几个结论.基于上述分析提出并在Linux上实现了提高服务器在过载时性能的方法.实验证明这些方法能有效防止活锁现象,极大地提高服务器在高负载情况下的性能.

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