Optimizing the Performance of the Algorithms Block Data Processing in Linux

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Abstract

This paper deals with methods of increasing the speed of the block algorithms study in Linux. Under the block algorithms mean algorithms in which data are processed equal blocks of some bytes. It is known that the architecture of the Linux system contains a set of parameters through which you can optimize it for specific tasks. It is necessary to tune real-time systems for end devices (e.g. routers, firewall etc.). In this paper variant of system for servers or desktops, where multitasking is important, is considered. I.e. we considered the systems where simultaneous operation of the algorithm and a set of applications require. As methods exposure those features that provides the system were considered only, changes in the core code have not been made to. During operation, the scheme to assess the impact of a parameter on the speed of the algorithms for some system loading has been developed. A number of parameters responsible for working with operative memory, scheduling tasks and process management were investigated. The result showed that the increase in performance of algorithms is possible at low incidence of parallel processes.

Index Terms: Linux, Optimizing the performance.