A Technology to Improve Embedded-Linux Real-time Performance

He Keyou, Hung Minfeng Department Of Computer Science, Wuhan University of Technology and Science WuHan, Hubei Province, China Email: mjohh@163.com Tel.: 027-86533613

ABSTRACT

Embedded system requires high real-time Capability. This paper analyses some key factors on interrupt-latency of Linux, and offer a technology to short cut the interrupt-latency, i.e. make use of PP to realize reenter for Linux kernel mode. The result is that real-time Capability of Linux has been improved to some extend. Some curves on off-interrupt time are also given to make the result more clear.

Keywords: Embedded system, Real-time system, Linux, Interrupt, PP