Design and Implementation of an Embedded VPN Gateway Based on IPSec

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ABSTRACT

In this paper, a design solution of embedded VPN gateway based on IPSec is proposed, which works on the cooperation of double CPU processors. The MPC8250 chip of Motorola Inc. is selected as the main network process CPU. The TMS320C6202 DSP of Texas Instruments is selected as the processor to do encryption and decryption works. This solution resolves the transmission speed bottleneck of Wide Band bases on the co-operation of double CPU processors. It ensures the safety of data transmission by hardware encrytion. This paper puts emphases on the introduce of the hardware architecture of the VPN gateway, and then it analysis the function of each module.

Key words: VPN embedded system   IPSec   FPGA