Research on Secure Gateway Based on Real-time Embedded Systems

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ABSTRACT

Based on two typical modern encryption (DES algorithm and RSA algorithm), this paper proposes the encryption algorithm which combines DES algorithm and RSA algorithm and implements it with hardware, thus the whole performance of the secure gateway gets improvement, then we design the secure gateway in detail, present the hardware frame and RSA algorithm module. At last, we apply the secure gateway to VPN, and obtain good effect.

Keywords: FPGA, DES-RSA, VPN, Encrypt, Real-time Embedded Systems, Secure Gateway