

基于隐藏分区的安全优盘系统设计

何 为, 于 洋, 晁志超

(重庆通信学院 通信指挥系, 重庆 40035)

摘 要: 针对优盘遗失、被窃取等情况, 提出结合隐藏分区和数据加密的保护方法, 利用 USB Composite (USB 组合设备) 结构模型, 建立了一个隐藏加密分区和一个普通分区, 当优盘插入计算机时普通分区可供用户使用; 利用上位机软件与优盘动态认证身份, 认证成功后可动态挂载隐藏分区, 隐藏分区数据通过上位机过滤驱动程序加解密. 经过实际测试, 安全优盘操作使用简单、隐密性好、加解密速度快, 实用有效, 达到了预期目标.

关键词: USB 组合设备; 身份认证; 动态挂载; 过滤驱动

Design of Security USB Flash Disk Based on Hidden Partitions

HE Wei, YU Yang, CHAO Zhi-chao

(College of Communication Command, Chongqing Communication College of PLA, Chongqing 400035, China)

Abstract: For lost and stolen USB disk, put forward combining the hidden partition and data encryption protection method, using USB composite (USB composite device) structure model, established a hidden encrypted partition and a regular partition, when USB disk into the computer the ordinary partitions can be for users to use; the use of PC software and USB dynamic identity authentication, the authentication is successful can be dynamic mount hidden partition, the hidden partition data is filtered through the PC driver program encryption and decryption. After the actual test, security USB disk operation using simple, confidentiality good, fast speed of encryption and decryption, practical and effective, to achieve the expected goal.

Key words: USB composite; identity authentication; dynamic mount; filter driver

作者简介:

何 为 男, (1977-), 硕士, 讲师. 研究方向为模式识别、信息安全. E-mail: cqchhw@126.com.

于 洋 女, (1991-), 学士. 研究方向为信息安全、无线通信.

晁志超 男, (1982-), 博士, 讲师. 研究方向为图形处理、信息安全.