

Presentation title

Security vulnerability research for use in digital forensics

Presentation abstract

The increased use of consumer electronics like computers, mobile phones, smart watches, external hard drives, etc. has made digital forensics more important for law enforcement. Consumer products now contains more information about a persons life than ever before, useful in any criminal investigation. Gaining access to forensically valuable data is often crucial for a successful law enforcement investigation. At the same time, the security and complexity of these devices have increased, making successful acquisition of forensically valuable data more difficult. Successful acquisition now often requires law enforcement to understand the underlying technology and possibly bypassing security schemes protecting the user data. This project will look at different security challenges law enforcement meet when trying to Theacquire data from digital devices and services. This project aims at creating methods to aid in evaluating the security schemes used in popular COTS products with the goal of identifying security vulnerabilities, used to bypass security schemes for successful digital forensic acquisition.

The presentation will briefly introduce the concepts of using security vulnerabilities in digital forensics, with a generic example of mobile phone security and how a vulnerability can be used in digital acquisition of user data.

The goal of my presentation is to inform of my current research activities in this area and to identify potential overlap with other students and research groups.