Mobile forensics: Guidelines and challenges in data preservation and acquisition

Raghav, S.; Saxena, A.K.;
Univ. at Buffalo, Buffalo, NY, USA

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ABSTRACT

By the beginning of June, 2009, the GSM Association reported that there were over 3.8 biilion users of GSM networks in the world. This extraordinary development of mobile communications is a source of new security challenges. Many people use mobile phones in their daily activities, and sometimes, those activities might be criminal in nature. The remarkable advancements in the technology and increase in computing power of these devices over the last few years, has led to an increase of their functionality while keeping the size of such devices small enough to fit in a pocket. The use of mobile phones in criminal activities has led to the need of recovering the data in them. The acquisition of information derived from these devices can be used as forensic evidence which has become a prime component of crime scene investigations. In this paper we give a brief introduction to the various stages in mobile forensics and focus on the critical stages of preservation and acquisition of digital evidence from mobile phones to be used as evidence in criminal or civil cases. The paper contains a step by step guide to perform the two critical processes and discusses issues which might come up while performing them.

INDEX TERMS

REFERENCES

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