

Analysis and Design a Model for Cyber Forensic and Digital Investigation

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Abstract – Computer forensics is important. The procedures are important to follow, because doing so ensures evidence will be admitted and suspects will be more likely to face the consequences if found guilty. Following these procedures also means using the proper forensic tools to analyze data correctly. The tools used depend on what is being analyzed. Smaller companies or an individual user might not need many resources to secure their computers but perhaps a big organization might need many different types of applications to monitor hundreds of computers and dozens of sub-networks. This might require a digital evidence bag for more efficient collection of data. Also, certain technologies would benefit from a digital evidence bag such as magnetic card readers due to specific programs associated with the device to operate and process information.

This paper discussed some of the forensic software tools that CFSs use during their investigations. Four of these tools were evaluated with respect to their functionalities and effectiveness within the forensic investigation methodology. Finally, a discussion about these tools is given. The purpose of our approach is to highlight the shortcomings of current tools in order to provide suggestions for improvements. It is very important that CFSs are able to stay ahead of cyber-criminals through the use of forensic tools that allow them to reliably carry out their tasks within an investigation. We believe that if the suggested improvements to these tools are further researched, prosecutions of cyber-crimes will definitely increase.

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