Chapter 7
Cyber Forensic Lab Setup and Its Requirement

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ABSTRACT
The year 1978 was the year when the first computer-related crime took place; it was alteration or deletion of data. The day-by-day level and intensity of cybercrime has strengthened and is getting stronger in nature in the current era. So, to achieve accuracy during the investigation, an intensive investigation environment or lab is needed. This will help the investigation team in various ways. More advanced techniques and tools are used in a current age lab setup, and solutions to forensically examine a variety of digital devices apart from computers are made.

INTRODUCTION
Lab setup will be the strong motivating behind the elaboration of the investigation of evidence related to digital forensics. To set up a cybercrime investigation related lab, studying the case study of new generation cybercrime plays a key role (Guo, H., Jin, B., & Huang, D. 2010). Many levels of analysis are required in the advanced level of cyber-attack. With your own Cyber Lab setup, precisely investigating an entire range of digital forensic cases is possible under one roof. Starting from Computer
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Best rated software and set of related hardware are required for setting up a cyber-forensic lab; additionally, we need related services, data transmission facilities and accessories, and devices that are forensically equipped for specialized digital forensics. These essential set of components will enhance your analytical skills towards the forensic investigation of digital data evidence available at different places like hard disks drives, different categories of flash drives, Random Access Memory, circuits, or even cloud-based storage. While most of the equipment is designed to help in a different type of analysis such as evidence-based analysis, etc. and also provide support to preserve and prevent evidence tampering (Baryamureeba, V2004).

forensics, Mobile forensics, Network forensics, to even the latest; Cloud forensics; all cases can be undertaken and investigated with the help of a fully equipped Cyber Lab.

CYBER FORENSIC LAB SETUP

This figure 1 shows the general lab setup view in a modelled approach where commuters are well equipped with different basic components as discussed above (Hardware, Software, other forensics-related components)

Equipment Required

These are the most essential list for the setup of; these are very basic in nature:

- Hardware Devices
- Software Applications
- Specialized Accessories

Figure 1. Example of Cyber Forensics equipment