ABSTRAK

ANALISIS *MOBILE FORENSICS* EKSTRAKSI *FILE* PADA APLIKASI *WHATSAPP* YANG TELAH TERHAPUS MENGGUNAKAN *FRAMEWORK NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY* (NIST)

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Pemanfaatan teknologi di era digital yang berkembang pesat menjadikan aplikasi pesan instan seperti *Whatsapp* sebagai bagian integral dari kehidupan sehari-hari, tetapi juga berpotensi disalahgunakan untuk tindak kejahatan siber. Penelitian ini bertujuan untuk menganalisis dan mengekstraksi data yang telah terhapus pada aplikasi *Whatsapp* menggunakan *framework National Institute of Standards and Technology* (NIST). Studi ini dilakukan dengan menggunakan *smartphone* Oppo A37f dan iPhone 7 Plus serta berbagai alat forensik seperti *Android Debug Bridge* (ADB), *Mobile*dit *Forensics*, dan FTK Imager. Hasil penelitian menunjukkan bahwa pada perangkat *Android*, seluruh bukti berhasil ditemukan melalui metode akuisisi menggunakan ADB dan analisis lebih lanjut dengan *Tools Autopsy*, sementara pada perangkat iPhone, akuisisi data hanya mampu menemukan data logis tanpa data yang telah dihapus sepenuhnya karena keterbatasan *Tools* yang digunakan. Penelitian ini menyoroti pentingnya pemilihan alat dan metode yang tepat dalam proses ekstraksi data forensik, terutama mengingat perbedaan keamanan antara sistem operasi *Android* dan iOS, dan menyimpulkan bahwa *framework* NIST efektif untuk analisis forensik pada perangkat *Android*, namun memerlukan pendekatan berbeda untuk perangkat iOS.

Kata kunci *:* *Mobile Forensics*, NIST *Framework*, Forensik aplikasi *Whatsapp*, *Recovery Deleted Messages*

ABSTRACT

MOBILE FORENSICS ANALYSIS OF FILE EXTRACTION ON DELETED WHATSAPP APPLICATIONS USING THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST) FRAMEWORK

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The use of technology in the rapidly developing digital era makes instant messaging applications such as Whatsapp an integral part of everyday life, but also has the potential to be misused for cybercrime. This study aims to analyze and extract deleted data on the Whatsapp application using the National Institute of Standards and Technology (NIST) framework. This study was conducted using Oppo A37f and iPhone 7 Plus smartphones and various forensic tools such as Android Debug Bridge (ADB), Mobiledit Forensics, and FTK Imager. The results of the study show that on Android devices, all evidence was successfully found through the acquisition method using ADB and further analysis with Autopsy Tools, while on iPhone devices, data acquisition was only able to find logical data without data that had been completely deleted due to the limitations of the Tools used. This study highlights the importance of choosing the right tools and methods in the forensic data extraction process, especially considering the security differences between the Android and iOS operating systems, and concludes that the NIST framework is effective for forensic analysis on Android devices, but requires a different approach for iOS devices.

Keywords: Mobile Forensics, NIST Framework, Whatsapp application forensics, Recovery Deleted Messages