ABSTRACT

This research will implement anonymity using the Whonix operating system. This research seeks to analyze the features of the Whonix operating system that can support anonymity and privacy profiles, anonymity and privacy profiling functions on the operating system, and operating system characteristics capable of maintaining anonymity and privacy.

Features owned by the Whonix operating system that support profiling anonymity and privacy on Whonix are aspects of applications, networks, and operating systems, as well as analyzing anonymity and privacy functions with metrics. This research produces metrics on each aspect. The application aspect obtained data encryption, metadata protection, and privacy by design metrics by analyzing profiling experiments on KeePassXC and GnuPG applications. The network aspect uses Tor compatibility, IP Address obfuscation, and logging policy metrics by analyzing profiling experiments on Wireguard and DNSLeakTest.

While the operating system aspect uses data encryption, logging and monitoring, and access control metrics by analyzing profiling experiments with fingerprinting and backup and restore scenarios. The results of this study obtained Whonix operating system profiling scores, application aspect profiling scenarios with a score of 10, network aspects with a total score of 11, and operating system aspects with a total score of 10. The aspects measured in this study have a range of scores from 1-12 very good. The score obtained based on the research proves that Whonix is better at profiling networks, compared to the other 2 aspects of applications, and operating systems.

Keywords- ***anonymity, privacy, The Onion Router (Tor), profiling, metrics***