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Implementing a Privacy-Friendly Secure Logging Module into the PRIME Core

Abstract

When individuals access services online they are often required to disclose excessive amounts of personally identifiable information, with little to no transparency on how the information is used[2, 1]. One of the goals of the EU research project PrimeLife is to help people regain control of their private sphere in today's networked world[1]. As part of PrimeLife a software prototype, named the PRIME Core, is being developed that contains a number of different privacy enhancing technologies. This thesis describes the implementation and integration of a privacy-friendly secure logging module into the PRIME Core. The logging module's purpose is to provide transparency logging to the PRIME Core, giving individuals access to a detailed log of how their disclosed personally identifiable information is used, in a secure and privacy friendly manner.

The thesis resulted in a privacy-friendly secure logging module being implemented into the PRIME Core. The client for the logging module still lacks features to be suitable for use by the Data Track. Further research is needed to make the implementation mitigate the risks posed by memory and disk forensics.

Bibliography

[1] Primelife - privacy and identity management in europe for life `http://www.primelife.eu/`.

[2] P. Hjärtquist & A. Lavén H. Hedbom, T. Pulls. Adding secure transparency logging to the prime core. *In Post-Proceedings of the Fifth International Summer School: Privacy and Identity Management for Life, Nice, France, 7th ? 11th September, 2009. To Appear.*