

# Abstract

This diploma thesis deals with ways of using Tor anonymization network both from the point of view of the use in the positive sense and the use in the negative sense, the abuse. The aim of this work is to identify different ways of using the network and to quantify network abuse based on analyzed abuse reports. First, the basic concepts are defined and the development of the Internet and identification technologies in its environment are briefly described. Then, the concept of Onion routing, based on which the Tor network works, together with more technical details about the functioning of the network, is introduced. Last but not least, the Tor Browser is described as the most common tool for using the Tor network along with the types of users who use it. The last chapter of the theoretical part introduces the problem of network abuse. The practical part is primarily solved in the form of a quantitative analysis of abuse, due to their volume of almost 3 million. Quantitative analysis is done using the statistical language R and basic mining data, text mining and statistical methods. The analyzed data are related to several large nodes of the Tor network and contains several years of history. Although the total number of complaints increases almost exponentially over time, complaints about malicious behavior by users except those copyright related are growing very moderately, even with an increasing number of users and whole network potential.