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## **Executive Summary**

The need for anonymity on the internet is large and shared by many individuals. Anonymous communication is necessary to preserve safety, to protect sensitive content and to give individuals the sense of satisfaction that comes with knowing one's interactions are secure. Unfortunately, the average user has a limited number of choices available when it comes to anonymity tools. Many tools exist in concept, but not in practice. Recognizing this need, our project attempts to put the concept delineated in Free Haven into practice, to provide users with an anonymous distributed file storage tool. This paper will start out by considering the advantages and repercussions of having the ability to be anyone and say anything online without having it linked to one's identity. We will take ethical and legal considerations into account as they pertain to pornography and free speech, and will discuss the extent to which an individual's online privacy should be regulated in the future. We will then explore the various tools enabling anonymous Internet access that already exist, such as re-mailers, onion routing, and Tor. This analysis will concentrate heavily on Tor, which will be fundamental to later parts of the paper. Next, we will present a brief analysis of the work that has already been done in the field of distributed file storage, and discuss the motivations behind the investigation undergone in this paper. We will then outline our implementation of the Free Haven project called Ghost Writer and present the code that makes this program run. To conclude we will explore the problems with our system, discuss potential solutions, and suggest ideas for future research that can be conducted in this area.

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