

The Application of Cloud Technology to The Onion Network
(Technical Report)

Facebook's Defense: Protecting Reputation Despite a Controversial Business
Model
(STS Research Paper)

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by

Brandie Young

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Preface

How can Internet practices better balance convenience and privacy? Almost as an inherent “cost” to Internet usage, users have increasingly less control over the information harvested about them. In return for access, Internet users are the sources of data that are collected and monetized.

How can the security of the TOR (“The Onion Router”) anonymity network be strengthened to better protect Internet users’ privacy and Internet freedom? The Onion Router (TOR), a free worldwide network run by volunteers, allows its users to access the Internet anonymously by obfuscating their connection. The advent of cloud computing, which has the ability to solve TOR’s shortcomings, allows for on-demand provisioning of massive computing performance and connectivity. Based on my team’s analysis of the tradeoffs of cloud computing configurations (network topology, instance purchasing options, instance family types, typical applications on TOR and their required bandwidth, and regions and availability zones) we prescribe the most optimal configuration based on target metrics (latency, throughput, monetary cost per user, usability, and of course the preservation of security from local and global network adversaries).

How does Facebook strive to protect its reputation despite its controversial business model? Facebook’s main strategies to please the widely divergent interests of its users, advertisers, government, and privacy advocates are a focus on quality initiatives, increased transparency with the user, and the deliverance of a newfound power into its users’ hands. As a for-profit company, Facebook does just enough to satisfy its userbase and keep them using the application, while behind the scenes ultimately working to achieve its business goals of maximizing both user time/engagement and data collection/monetization.

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