

TipSoft SMS Security and Anonymity Overview

Today the vast majority of mobile phones offer a feature called Short Message Service (SMS) to send and receive short text messages. The popularity of text messaging, especially among younger generations, has created a significant opportunity for Crime Stoppers. SMS offers two-way communication and the ability to reach an audience through the mobile phone they carry with them every day.

People provide anonymous information to Crime Stoppers programs to help police solve crimes. They do so knowing that their identity will never be revealed because the Crime Stoppers program does not know who they are. As Crime Stoppers programs embrace new technology, it is essential that these strong anonymity protections remain in place.

In developing the TipSoft SMS system for Crime Stoppers, Anderson Software, LLC worked closely with Eric Jacksch, a leading Canadian information security expert, to build a system capable of two-way SMS communication without revealing the mobile phone number to Crime Stoppers. To accomplish this, the system uses a double alias approach:

1. SMS messages from mobile phones are sent to a secure server located in Canada that is independently operated by Mr. Jacksch's company, where the mobile phone number is encrypted and assigned an alias.
2. The text message and alias are immediately forwarded to Anderson Software's server in the United States. The Canadian server retains only the minimum information required to facilitate replies. The text message itself is not retained.
3. Anderson Software's server assigns a second alias and then inserts the message, along with the second alias, into the TipSoft system where it becomes available to the appropriate Crime Stoppers program.
4. The Crime Stoppers program receives only the content of the text message and the second alias (Tipster ID) assigned by Anderson Software.
5. Replies from the Crime Stoppers program follow the same process in reverse. The reply is sent to the Anderson Software server, which substitutes the first alias for the second alias, sends the message to the Canadian server, which decrypts the original phone number, substitutes it for the alias, and forwards the message to the mobile telephone SMS network.

This system ensures that neither Anderson Software, LLC, nor the Crime Stoppers program have access to the mobile phone number. The contractual arrangement between Anderson Software, LLC and Mr. Jacksch's company requires that all information be held in strict confidence and that only the minimum information required to associate the encrypted alias with the mobile phone number is retained. Mr. Jacksch's company will not release mobile phone numbers to any party. This position is supported by a Supreme Court of Canada decision that upheld the legal privilege extended to those who provide anonymous information to Crime Stoppers programs.

Mr. Jacksch has provided security and privacy consulting services to governments, financial institutions, insurance firms, and other public and private sector organizations in Europe, Asia, and throughout the United States and Canada. He holds both the Certified Information Security Manager (CISM) and Certified Information Systems Security Professional (CISSP) designation. Eric also serves on the board of the National Capital Area Crime Stoppers in Ottawa, Canada, and is thoroughly familiar with the security requirements and challenges facing Crime Stoppers. Anderson Software is pleased to work with Eric to ensure that people contacting Crime Stoppers through their mobile phones receive the same level of anonymity associated with more traditional communication methods.

Anderson Software, LLC is the global leader in secure and anonymous tip management software and web applications.