

Claims

1. System and method for protecting the IM software, comprising:
 - a. A hardware platform with CPU/MCU, RAM, One-Time Programmable memory for bootloader
 - b. An operating system
 - c. A bunch of Operating System Services, accessible for applications
 - d. An IM software

Where:

- a. IM software is the only application (except OS and its services) executed on a hardware platform
 - b. IM software region of memory is inaccessible by instructions, executed from other processes (OS services). Any instruction accessing IM software memory should cause a hardware exception
 - c. IM software is capable of reading and writing OS services regions of memory for parameters transfer and results gaining
2. System from claim 1, where IM process is executed on a separate CPU/MCU than OS kernel and OS services, and have a separate RAM, which is physically unconnected with the CPU/MCU executing the OS kernel and OS services
3. System and method for manipulating potentially-malformed buffers, comprising:
 - a. A programmatic structure or a class, implementing a buffer, which allocates additional pages in RAM before and after the actual dataWhere an exception is generated when accessing these pages.
4. System and method for eliminating the analysis of communication protocol by analyzing unencrypted data by unifying the length of packets by adding data to the shortest and dividing longer packets

5. System and method from claim 4, also comprising:
 - a. Fake traffic generator, which, in a time-window where user has average N packets sent fake traffic generator should send from 0 to $2*N$ fake packets depending on current user activity
 - b. Fake traffic responder – a piece of hardware and software which has a network access and emulates responses to the fake traffic generator
6. System and method from claim 5, where
 - a. Fake traffic responder is implemented inside each IM client
 - b. Fake traffic generator and fake traffic responder continue generation of VoIP-like length and VoIP-like frequency packets for some time after the call
7. System and method from claim 6, where fake traffic generator and fake traffic responder create fake calls by generating VoIP-like length and VoIP-like frequency packets