RESEARCH PAPER

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*Topic:*

**Operating Systems Security And Its System Calls**

*Abstract:*

The papers we are taking here are extracted from a recently completed research or monograph on “Computer security and its problems and solutions” which is intended as a technical point of view in this research within the areas of operating system security. Some evaluations and projections related to operating systems we are also representing here. Our main target is to get the attention of those people who likes to work practically and not conducting such research. We expounding the notion and close observations in terms as logging and monitoring, which gives us the concepts problems and solutions of access control. To maintain the security, operating system relies on isolation. There we are illustrating two most important types of isolation methods.

If we want to make our operating system secure we must design and implement as secure systems. The verification and authentication techniques are main aspect which is proving that the design and implementation of our operating system is examined. When our operating systems are much big and large and contains more features then we should make to secure the elements in kernel.

Also we are here describing that how we can limit the scope of arbitrary code of injection (remote code injection). So we are approaching here two main aspects.

First, the embed semantic information into executables identifying to the legal system calls, and system calls which are from other locations are treated as instructions. The modifications in system calls according to users isn’t possible which adds more security for that information which is present. And the second practice is to encoding system call traps into the Operating system kernel.

*Links:*

<https://pdfs.semanticscholar.org/7f5a/934a2048eef2711d9dc48ece5b20ab8046ca.pdf>

<https://www.usenix.org/legacy/event/sec05/tech/full_papers/linn/linn.pdf>