

A HYPERVISOR-BASED IPC PROTECTION SYSTEM AND METHOD FOR ANDROID PLATFORM

ABSTRACT

A system and method for monitoring an inter-process communication (IPC) privilege control from a first application to a second application in an operating system having an application framework layer having a user space and a kernel space. The operating system is provided with a hypervisor in a hypervisor space to perform the method. The method comprises monitoring a request received in a kernel space wherein the request is being transmitted from the first application to the second application via the kernel space. An event from the request is determined and intercepted accordingly. The data prepared by the second application according to the determined event is encrypted. The method then monitors for a page fault from the first application and retrieves an access control policy in response to receiving a page fault from the first application. Subsequently, the method determines if the first application has privilege to access data from the second application based on the access control policy. If the first application has privilege to access data from the second application, the method decrypts the data.

FIGURE 2